CULVERIN-1

WELL COMPLETION REPORT
BASIC DATA

VIC/P56
Gippsland Basin
Victoria

Nexus Energy Ltd

April 2006

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LOCATION:	Survey:	Volador 3D
	Line:	299
	Trace:	883
	Offset:	11.4m

PERMIT:	VIC/P56
BASIN:	Gippsland
PARTICIPANTS:	Nexus Energy (Op) 40%, KNOC 30%, SCGAU P/L 20%, Anzon Australia 10%

SURFACE LOCATION:	Latitude:	38° 24' 08.14"S
	Longitude:	148° 39' 14.92E
	Easting:	644 437.3mE
	Northing:	5 748 256.4mN
	Datum:	GDA94
	Spheroid:	GRS80
	Map Grid:	MGA
	Projection:	UTM Zone 55 (Central Meridian 147° E)

WELL DESIGNATION:	Exploration
STATUS:	Plugged and Abandoned
STRUCTURE TYPE:	Tilted fault block
RIG NAME AND TYPE:	Ocean Patriot, Semi-submersible MODU
RIG CONTRACTOR:	Diamond Offshore General Company (DOGC)

TOTAL DEPTH:	Driller:	3758.0mMD
	Logger:	3757.0mMD
ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	585.0m
	RT-ML:	606.5m
SPUD DATE:	13:30hrs	16/12/2005
REACHED TD:	24:00hrs	06/01/2006
RIG RELEASED:	15:00hrs	15/01/2006

HOLE SIZES:	914mm (36")	607 – 650m
	445mm (17½")	650 – 1525m
	311mm (12¼")	1525 – 3758m
CASING:	Size	Shoe
	762mm (30")	650.3m
	340mm (13⅜")	1511.8m
PLUGS:	No. 1	3750 – 3560m
	No. 2	2865 – 2735m
	No. 3	1550 – 1421m
	No. 4	721 – 625m

LWD LOGS

RUN NO	HOLE SIZE	TOOLS	INTERVAL	COMMENTS
1	445mm (17½")	DM-GR	650-650	POOH due to suspect battery failure.
2	445mm (17½")	DM-GR	650-1525	Drilled to section TD.
3	311mm (12¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	1525-3402	POOH due to slow ROP.
4	311mm (12¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3402-3571	POOH due to slow ROP.
5	311mm (12¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3571-3571	POOH due to Pulser failure.
6	311mm (12¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3571-3758	Lost comms with tool at 3714m.

WIRELINE LOGS

LOG TYPE	SUITE/RUN	INTERVAL mRT	BHT/TIME	COMMENTS
PEX-HALS-DSI-GR	1/1	3758 - 607	87.9°C / 22:15hrs	Main pass logged at 1800ft/hr hi res to 2775m then 3478ft/hr in standard res to 607m.
VSI(4)-GR	1/2	3690 - 607	91.0°C / 34:10hrs	Recorded VSP levels (15m spacing) to 3200m. Continued checkshots at 100m spacing to 607m.

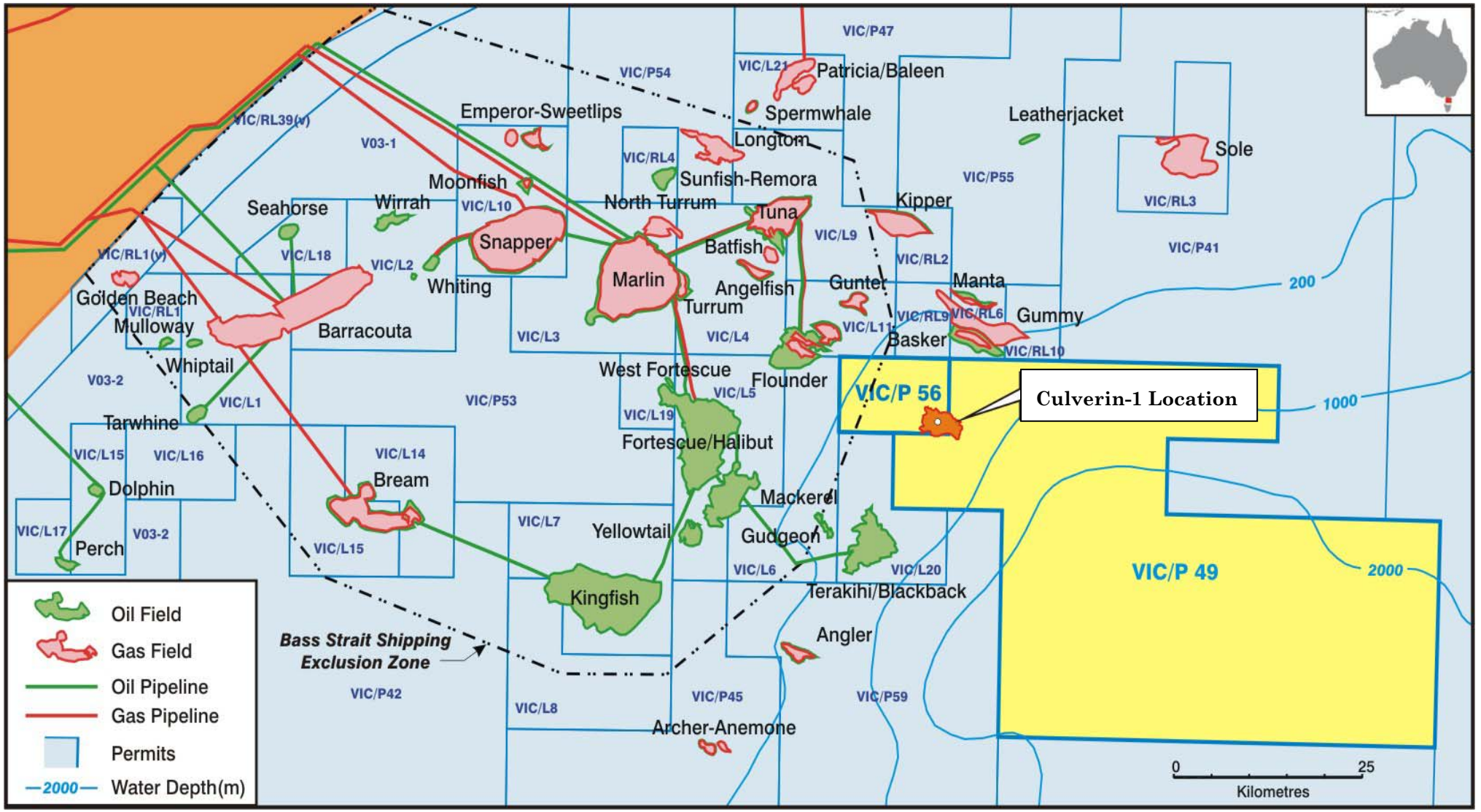


Figure 1: Culverin-1 Location Map

1 OPERATIONS SUMMARY

1.1 Move to Location / Run Anchors

The Ocean Patriot was released from Apache's Fur Seal-1 location at 18:00hrs on the 5th of November 2005 and towed to the Culverin-1 location (Figure 1) arriving at 03:00hrs on the 6th November and commenced running anchors. At 14:50hrs anchor winch No. 4 failed destroying the gear box and allowing the anchor and anchor chain to fall to the seabed. The rig was taken off hire at 15:00hrs and towed to Eden for repairs. On completion of repairs and a hull survey, the rig was towed back to location, arriving on November 14th, and recommenced running anchors. At the same time preparations were made to spud the well.

1.2 Drilling Operations

1.2.1 914mm (36") Hole / 762mm (30") Casing

The 914mm hole was drilled riser-less with returns to the seabed using a 445mm (17½") bit and 914mm (36") hole opener. The Bottom Hole Assembly (BHA) was made up and run to seafloor at 607mMD and the well spudded at 13:30hrs on 16/12/2006. The 914mm (36") hole was drilled using high viscosity sweeps for hole cleaning to the section TD at 650mMD. The hole was circulated clean and the BHA pulled out in preparation to run 762mm (30") casing.

The 762mm (30") casing and Permanent Guide Base (PGB) was made up, run in hole and landed. The guide lines were installed before the casing was cemented back to the seabed.

1.2.2 445mm (17½") Hole Section

A 445mm (17½") BHA with directional and Gamma Measurement While Drilling (MWD) tools was picked up and run in hole, but shallow tested unsuccessfully. The BHA was pulled out of the hole, the MWD internals were replaced, then tested successfully and run in the hole to the Permanent Guide Base. The guide ropes on the PGB parted while attempting to stab the BHA into the wellhead during high winds and seas. The BHA was pulled out of the hole and new ropes were installed. The BHA was re-run, successfully stabbed into the PGB, run in hole and then drilled out the cement and 672mm (30") shoe. New 445mm (17½") hole was then drilled riser-less with returns to the seabed from 560mMD to the section TD at 1525mMD. The hole was circulated clean and the BHA was pulled out in preparation to run and cement the 340mm (13⅜") casing.

1.2.3 340mm (13⅜") Casing / Running Riser and Blow Out Preventers (BOP's)

The 340mm (13⅜") casing was run and landed at 1511mMD before being cemented in place. After laying down the cement head, the riser handling equipment was

rigged up and the BOP's and riser run to the seabed. The BOP's were successfully landed and the wellhead connector tested before the diverter and surface equipment was rigged up and pressure tested.

1.2.4 311mm (12¼") Hole Section

The 311mm (12¼") BHA, including 311mm (12¼") PDC bit, motor and triple combo MWD/LWD string (Gamma-Resistivity-Density-Neutron) was made up run in the hole and drilled out the cement, shoe track and 340mm (13⅜") casing shoe, and 3m of new formation while displacing the well to KCl-NaCl-PHPA-Glycol mud. A formation leak-off test was carried out to an (Equivalent Mud Weight) EMW of 15.8ppg. The 311mm (12¼") hole was then drilled from 1544mMD to 3402mMD, where the drill string was pulled out of hole to replace the bit. A new PDC bit was run in the hole and drilling continued from 3402mMD to 3571mMD, where the drill string was pulled out to inspect for a suspected washout. At the same time the BHA was changed over to a rotary assembly (the down hole motor was taken out) and a 311mm (12¼") tri-cone bit was run back in the hole. While running in the MWD failed, so the string was pulled out and the MWD tools replaced and the BHA configuration adjusted before running back in to bottom, where drilling continued from 3571mMD to the final TD of 3758mMD, which was reached at midnight on January 6th 2006.

After circulating the hole clean, the drill string was pulled out and Schlumberger rigged up to run the following electric logs;

Run 1: PEX-HALS-DSI-GR
Run 2: VSI(4)-GR

1.3 Plug & Abandon (P&A) Operations

After evaluation of the logs a decision was made to plug and abandon the well. Four cement plugs were set over the following intervals:

Plug 1: 3750-3560mMD
Plug 2: 2865-2735mMD
Plug 3: 1550-1421mMD
Plug 4: 721-625mMD

After tagging the last plug the riser and BOP's were recovered before the 508mm (20") and 762mm (30") casing and PGB was cut and pulled. Once the guide base was recovered and BOP's were set back on the carrier, the last of the drill pipe and BHA were laid down from the derrick in preparation to de-ballast the rig and recover anchors. Anchor handling was completed and the rig was handed over to Anzon at 15:00hrs on January 15th 2006.

A total of 33.4 days was spent on the on the well (30.06 days from spud) with the last drilling report on January 15th 2006. Figure 2 shows how this compared to the pre-drill plan.

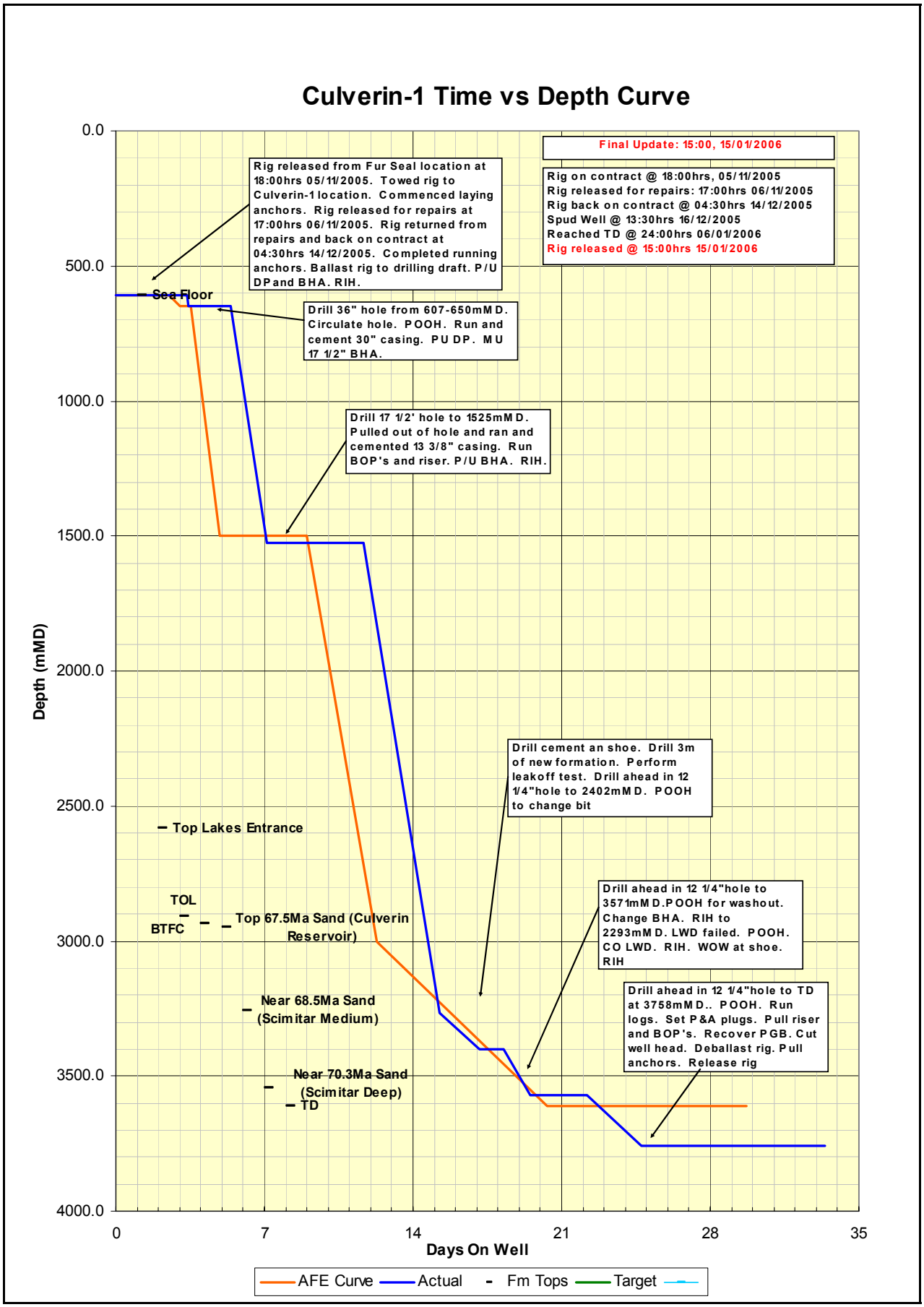


Figure 2: Culverin-1 Drilling Time/Depth Curve

2 DRILLING AND COMPLETION DATA

A drilling and engineering end of well report is contained in Appendix 1, with copies of the Daily Drilling Reports in Appendix 2. Documentation of the rig move and the final well location survey is contained in Appendix 3. A schematic diagram of the well bore after P&A is shown in Figure 3

2.1 Hole Sizes and Depths

Hole sizes and the depths to which they were drilled are as follows;

914mm / 36”	606.5	to	650mMD	
445mm / 17½”	650	to	1525mMD	
311mm / 12¼”	1525	to	3758mMD	(Total Depth)

2.2 Casing Data

Two casing strings were run in Culverin-1, as tabulated below;

TYPE	Size	Weight	Grade	Thread	Shoe Depth
Structural Casing	762mm (30”)	679/461kg/m (457/310ppf)	X-52	Lynx SA2	650.9mMD
Surface Casing	340mm (13⅜”)	101kg/m (68ppf)	L80	Buttress	1511.8mMD

2.3 Cementing Data

Cementing operations on Culverin-1 were for the two casing strings and four P&A plugs. A detailed cementing report is contained in Appendix 4.

2.4 Surveys

Directional surveying of the well path was conducted by Sperry Drilling Services using their Measurement While Drilling (MWD) equipment. The measure points from this surveying are contained in the table below and a full report is contained in Appendix 5.

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)		Departure (metres)		Vertical Section (metres)	Dogleg (deg/30m)
681.95	1.26	227	681.9	5.1	S	5.47	W	-5.1	TIE-IN
767.68	0.81	263.55	767.61	5.81	S	6.76	W	-8.73	0.27
825.04	0.93	254.57	824.97	5.98	S	7.62	W	-9.38	0.09
911.19	1.09	257.49	911.1	6.34	S	9.09	W	-10.57	0.06
1027.78	0.85	252.6	1027.68	6.84	S	11	W	-12.13	0.06
1056.46	0.79	254.04	1056.35	6.96	S	11.39	W	-12.46	0.07
1085.16	0.77	260.55	1085.05	7.05	S	11.77	W	-12.76	0.09
1113.81	0.62	255.11	1113.7	7.12	S	12.11	W	-13.02	0.18
1142.54	0.51	257.73	1142.43	7.19	S	12.38	W	-13.24	0.11
1171.11	0.43	257.64	1171	7.24	S	12.61	W	-13.42	0.08
1228.35	0.22	250.9	1228.23	7.32	S	12.93	W	-13.68	0.12

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)		Departure (metres)		Vertical Section (metres)	Dogleg (deg/30m)
1257.08	0.17	244.39	1256.96	7.35	S	13.02	W	-13.76	0.05
1342.79	0.06	257.65	1342.67	7.42	S	13.18	W	-13.92	0.04
1371.46	0.03	247.14	1371.34	7.43	S	13.2	W	-13.93	0.03
1428.75	0.11	336.43	1428.63	7.38	S	13.24	W	-13.92	0.06
1486.03	0.16	21.18	1485.91	7.26	S	13.23	W	-13.82	0.06
1509.77	0.09	0.7	1509.65	7.21	S	13.22	W	-13.77	0.1
1525	0.09	0.7	1524.88	7.17	S	13.22	W	-13.74	0.24
1540.46	0.33	354.58	1540.34	7.1	S	13.23	W	-13.69	0.24
1569.11	0.36	350.12	1568.99	6.93	S	13.25	W	-13.57	0.04
1597.73	0.5	2.93	1597.61	6.71	S	13.26	W	-13.4	0.18
1626.44	0.63	1.96	1626.32	6.43	S	13.25	W	-13.17	0.14
1655.17	0.86	9.39	1655.05	6.06	S	13.21	W	-12.85	0.26
1683.81	1.15	21.61	1683.68	5.58	S	13.07	W	-12.39	0.38
1712.56	1.54	24.62	1712.43	4.96	S	12.8	W	-11.74	0.42
1741.12	1.85	23.41	1740.97	4.19	S	12.46	W	-10.91	0.33
1769.9	2.12	24.21	1769.74	3.28	S	12.05	W	-9.94	0.28
1798.49	2.39	23.17	1798.3	2.25	S	11.6	W	-8.85	0.28
1827.17	2.73	24.42	1826.96	1.08	S	11.09	W	-7.61	0.36
1855.78	2.98	24.43	1855.53	0.22	N	10.5	W	-6.22	0.27
1884.43	3.09	24.8	1884.14	1.6	N	9.87	W	-4.74	0.12
1913.08	3.07	24.58	1912.75	3	N	9.22	W	-3.24	0.02
1941.89	3.12	23.61	1941.52	4.42	N	8.59	W	-1.73	0.08
1970.98	3.18	24.11	1970.56	5.88	N	7.94	W	-0.17	0.07
1999.06	3.22	24.85	1998.6	7.31	N	7.29	W	1.36	0.06
2027.82	3.27	25.23	2027.31	8.79	N	6.6	W	2.95	0.06
2056.65	3.24	27.04	2056.09	10.26	N	5.88	W	4.56	0.11
2085.12	3.33	26.59	2084.52	11.72	N	5.14	W	6.16	0.1
2113.64	3.4	27.83	2112.99	13.21	N	4.37	W	7.81	0.1
2142.04	3.46	29.61	2141.34	14.7	N	3.56	W	9.49	0.13
2170.63	3.6	30.3	2169.87	16.22	N	2.68	W	11.23	0.15
2199.17	3.77	30.65	2198.35	17.8	N	1.75	W	13.05	0.18
2227.87	3.85	36.05	2226.99	19.39	N	0.7	W	14.95	0.38
2256.54	3.99	35.43	2255.59	20.98	N	0.44	E	16.91	0.16
2285.35	4.14	37.21	2284.33	22.63	N	1.65	E	18.95	0.2
2314.02	4.15	34.69	2312.93	24.31	N	2.87	E	21.02	0.19
2342.6	4.24	35.48	2341.43	26.02	N	4.07	E	23.11	0.11
2371.3	4.2	37.23	2370.05	27.72	N	5.32	E	25.22	0.14
2399.91	4.28	37.96	2398.58	29.39	N	6.61	E	27.34	0.1
2428.46	4.3	38.32	2427.05	31.07	N	7.93	E	29.47	0.04
2457.14	4.3	37.54	2455.65	32.77	N	9.25	E	31.62	0.06
2514.65	4.09	38.4	2513.01	36.09	N	11.84	E	35.83	0.11
2543.24	4.05	40.48	2541.53	37.66	N	13.13	E	37.86	0.16
2572	4.01	40.97	2570.22	39.19	N	14.45	E	39.88	0.05
2600.65	3.91	40.54	2598.8	40.69	N	15.74	E	41.85	0.11
2629.39	3.86	40.58	2627.47	42.17	N	17.01	E	43.8	0.05
2658.02	3.89	41.3	2656.04	43.63	N	18.28	E	45.73	0.06
2686.6	3.77	41.46	2684.55	45.06	N	19.54	E	47.63	0.12
2715.15	3.77	40.42	2713.04	46.48	N	20.77	E	49.51	0.07
2743.83	3.8	42.1	2741.66	47.9	N	22.02	E	51.4	0.12
2772.65	3.83	43.73	2770.41	49.3	N	23.32	E	53.31	0.12
2801.66	3.84	42.76	2799.36	50.72	N	24.65	E	55.24	0.07
2830.44	3.89	43.81	2828.07	52.13	N	25.98	E	57.17	0.09
2859.14	3.95	44.31	2856.71	53.54	N	27.35	E	59.12	0.08
2887.7	3.86	45.65	2885.2	54.92	N	28.72	E	61.05	0.14

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)		Departure (metres)		Vertical Section (metres)	Dogleg (deg/30m)
2916.43	3.87	45.26	2913.86	56.27	N	30.1	E	62.96	0.03
2944.96	3.83	45.79	2942.33	57.61	N	31.47	E	64.86	0.06
2973.53	3.73	46.71	2970.84	58.92	N	32.83	E	66.72	0.12
3002.19	3.72	46.75	2999.44	60.19	N	34.18	E	68.56	0.01
3059.49	3.72	46.57	3056.62	62.74	N	36.89	E	72.23	0.01
3088.21	3.81	46.46	3085.28	64.04	N	38.25	E	74.09	0.1
3116.08	3.75	45.37	3113.08	65.32	N	39.57	E	75.91	0.1
3145.07	3.74	48.33	3142.01	66.61	N	40.95	E	77.77	0.2
3173.79	3.67	49.59	3170.67	67.83	N	42.35	E	79.59	0.11
3202.65	3.71	48.97	3199.47	69.04	N	43.76	E	81.41	0.06
3231.77	3.53	48.2	3228.54	70.26	N	45.14	E	83.22	0.2
3260.37	3.66	49.86	3257.08	71.43	N	46.49	E	84.97	0.17
3317.48	3.72	47.74	3314.07	73.86	N	49.26	E	88.58	0.08
3346.36	3.65	50.41	3342.89	75.07	N	50.66	E	90.4	0.19
3375.03	3.69	54.03	3371.5	76.2	N	52.11	E	92.17	0.25
3404.4	3.54	54.9	3400.81	77.27	N	53.62	E	93.95	0.17
3432.8	3.59	51.96	3429.16	78.33	N	55.04	E	95.64	0.2
3461.32	3.48	51.53	3457.62	79.41	N	56.42	E	97.35	0.12
3490.24	3.38	50.31	3486.49	80.5	N	57.76	E	99.03	0.13
3519.26	3.32	50.11	3515.46	81.59	N	59.06	E	100.68	0.06
3547.59	3.32	49.95	3543.75	82.64	N	60.32	E	102.29	0.01
3555.34	3.36	53.74	3551.48	82.92	N	60.68	E	102.72	0.87
3583.83	3	50.85	3579.93	83.89	N	61.93	E	104.25	0.41
3641.38	2.98	50.16	3637.4	85.8	N	64.24	E	107.18	0.02
3758	2.98	50.16	3753.86	89.68	N	68.9	E	113.09	0

2.5 Bit Record

Four bits were used to drill Culverin-1, one in the 17.5" hole section and three in the 12¼" hole section. The bit record is included in Appendix 6.

2.6 Mud Data

M-I Australia Pty Ltd provided the drilling mud for Culverin-1. A summary table and a full report of drilling fluids, physical mud properties and chemicals used are provided in Appendix 7.

2.7 Testing

No formation testing was carried out on Culverin-1.

3 FORMATION EVALUATION

3.1 Mudlogging

3.1.1 Mudlogging

Geoservices Overseas S.A provided monitoring of basic drilling parameters from spud. Full mudlogging services, including cuttings gas monitoring, was provided

from first returns at 1525mMD to total depth using a Reserval gas chromatograph with an FID chromatograph running in tandem as backup. The mudlog, gas log, drill log and pressure logs recording lithology, penetration rate, mud gas, drilling and other data were prepared and are contained in Enclosures 1 to 4 of this report. The Geoservices Final Well Report is contained in Appendix 8.

3.1.2 Ditch Cutting Samples

Cuttings were collected and described from 1525m (first returns) to TD at 3758m. The sampling intervals were 30m from 1525m to 2820m, 10m from 2820m to 3150m and 5 m from 3150m to 3758mMD (TD). The numbers of cuttings samples sets were;

Sample Type	No. of Sets
Washed & Dried	5
Samplex Trays	1

The wellsite daily geological reports are provided in Appendix 9 and geologists' cuttings descriptions in Appendix 10.

3.2 Coring

3.2.1 Coring

No conventional cores were taken in Culverin-1.

3.2.2 Sidewall Cores

No sidewall cores were taken in Culverin-1.

3.3 MWD/LWD Logging

A real-time MWD Gamma Ray (GR) log was obtained during drilling of the 17½" hole section and a real-time suite comprising LWD GR-resistivity-neutron-density-sonic-caliper was obtained in the 12¼" hole section, as summarized in the following table;

Run No.	Hole Size	Tools	Interval	Comments
1	445mm (17 ½")	DM-GR	650-650	POOH due to suspect battery failure.
2	445mm (17 ½")	DM-GR	650-1525	Drilled to section TD.
3	311mm (12 ¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	1525-3402	POOH due to slow ROP.
4	311mm (12 ¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3402-3571	POOH due to slow ROP.
5	311mm (12 ¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3571-3571	POOH due to Pulser failure.
6	311mm (12 ¼")	DM-DGR-EWR-P4-SLD-CTN-ACAL	3571-3758	Lost comms with tool at 3714m.

The Sperry LWD End of Well Report is contained in Appendix 11 (and Directional Drilling EOWR in Appendix 5).

3.4 Wireline Logging

The following wire line logs were acquired by Schlumberger at TD;

Log Type	Suite/Run	Interval mRT	BHT/Time	Comments
PEX-HALS-DSI-GR	1/1	3758 – 607	87.9°C / 22:15hrs	Main pass logged at 1800ft/hr hi res to 2775m then 3478ft/hr in standard res to 607m.
VSI(4)-GR	1/2	3690 - 607	91.0°C / 34:10hrs	Recorded VSP levels (15m spacing) to 3200m. Continued check shots at 100m spacing to 607m.

3.5 Temperature Surveys

Wireline logs recorded the following maximum temperatures;

PEX-HALS-DSI-GR 87.8°C, 88.9°C and 88.9°C @ 3755m, 22.25hrs after circulation stopped.

VSI(4)-GR (ZVSP) 91.0°C, 91.0°C and 91.0°C @ 3750m, 34.17hrs after circulation stopped.

As shown in Figure 4, this data was used in a Horner-type plot to derive an extrapolated bottom hole temperature of 96.2°C for Culverin-1.

3.6 Velocity Survey

A partial VSP / check shot survey was conducted using Schlumberger's VSI (4) tool. Schlumberger's Q-Borehole Survey Report is contained in Appendix 12.

4 POST WELL ANALYSIS

4.1 Palynology

Palynological age dating was carried out on 16 washed and dried cuttings samples by Roger Morgan. The basic range chart is contained in Enclosure 5.

4.2 Vitrinite Reflectance Studies

Vitrinite reflectance measurement analysis was carried out on 6 cuttings samples by Keiraville Konsultants. Detailed analysis, including means, range and number of observations, exinite (liptinite) abundance and fluorescence characteristics, together with brief notes on rock, coal and organic matter type, coal and organic matter abundance factors are contained in Appendix 13.

4.3 TOC, Rock Eval and Extract GC Analysis

Six samples were sent for TOC and Rock Eval analysis and two samples for extract GC analysis by Geotech. The results of these analyses are contained in Appendix 14.

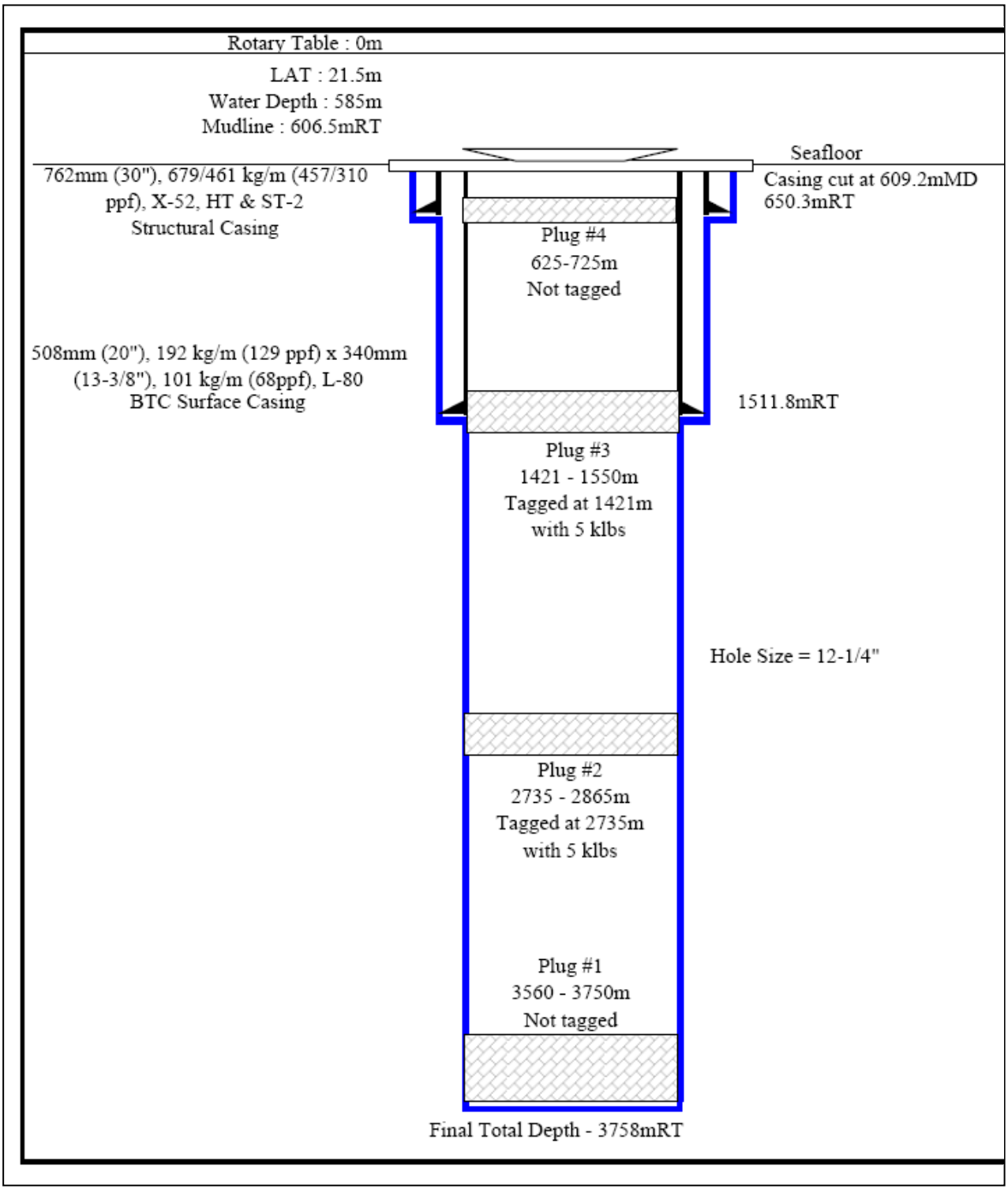


Figure 3: Culverin-1 P&A Diagram

Run No.	TYPE OF LOG	Time Since Last Circ / BHT
1	PEX-HALS-DSI	22 hours 15mins/87.8C
1	PEX-HALS-DSI	22 hours 15mins/88.9C
2	VSI(4)	34hours 10mins/91C

	T	tL	log(tc+tL)/tL
Run 1	87.8	22.25	0.03594664
Run 1	88.9	22.25	0.03594664
Run 2	91	34.17	0.0237419

Note: Time circulated on bottom = 1.92 hours

T = measured temp
t_L = time since circ stopped
Tt_c = time circulated on bottom

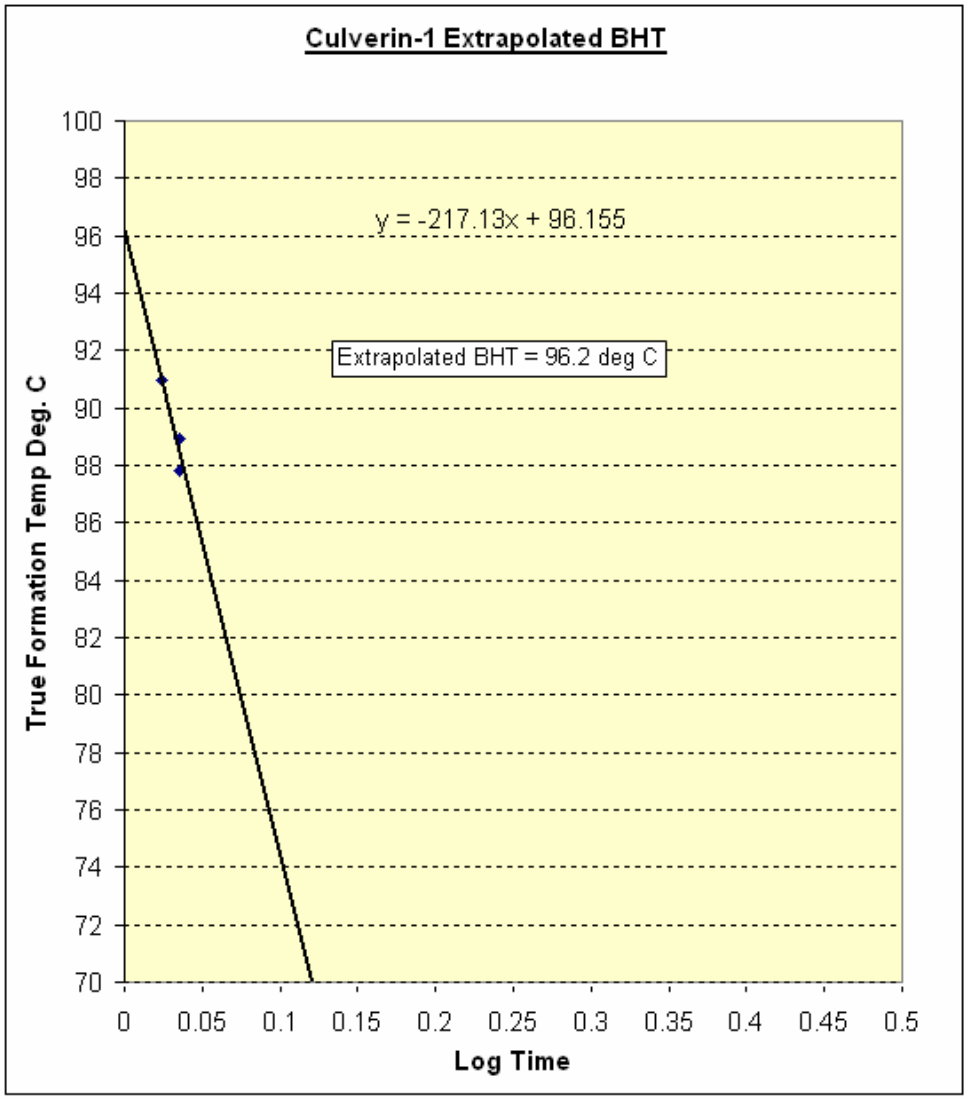


Figure 4: Culverin-1 BHT Horner Plot

APPENDIX 1

DRILLING END OF WELL REPORT

Culverin 1

Field - Gippsland Basin

FINAL WELL REPORT

Nexus Australia

Part 1 : Summary Data

- General Well Details
- HSE Performance

General Well Details

Well Objective :

1. To evaluate the hydrocarbon potential of the coastalbarrier sandstones at the 67.5Ma level (upper part of the Latrobe Group) and costal plain sandstones occurring at the 68.5 to 70.3 Ma level (Intra-Latrobe Group)
2. Acquire suitable log data to adequately characterise the reservior sands and correlate to nearby wells in a cost effective manner.
3. Should hydrocarbons be encountered, approval may be sought to deepen the well to penetrate the 74 Ma marker (3,827mRT)

Country :	Australia
Licence :	Vic P56
Field :	Gippsland Basin
Well :	Culverin 1
Well Type :	Exploration
Status :	Plugged and Abandoned
Operating Company :	Nexus Energy Services Pty Ltd
Rig :	DOGC - OCEAN PATRIOT

Latitude :	38 Deg 24 Min 8.14 Sec
Longitude :	148 Deg 39 Min 14.92 Sec
Spheroid :	Australian National
Datum :	GDA 94
Projection :	55 Zone
Seismic Line :	Volador 3D Line 299
Shotpoint :	883
UTM North :	5748256.4
UTM East :	644437.3
RT - MSL :	21.5m
Water Depth :	585.0m
Planned TD :	3590.0m MDBRT
Driller's TD :	3758.0m MDBRT

Rig Move In Date / Time :	06 Nov 2005 / 03:00
Spud Date / Time :	16 Dec 2005 / 13:30
TD Reached Date / Time :	06 Jan 2006 / 24:00
Rig Released Date / Time :	15 Jan 2006 / 15:00
Total Days Spud :	29.44
Total Days on Operations :	33.4
Total Days Budgeted :	

AFE Well Cost :	$22,699,889
Actual Well Cost :	$22,178,059

HSE Summary

Well Name: Culverin 1

HSE Events	Number
Abandon Drill	7
Environental Issue	4
Fire Drill	5
JSA	484
Lost Workday Case	3
Man Overboard Drill	1
Safety Meeting	18
STOP Card	NaN
Trip / Kick Drill	2

HSE Performance

Well Name: Culverin 1				
Event (# of)	**Date**	**Time**	**Short Description**	**Extended Description**
Abandon Drill(1)	18 Dec 2005	1030	Held weekly abandon rig drill	Load life boats 1 and 2 with 10 people and discuss life boat equipment and launching procedures.
Abandon Drill(1)	18 Dec 2005	1030	Held weekly abandon rig drill	
Abandon Drill(1)	18 Dec 2005	1030	Held weekly abandon rig drill	
Abandon Drill(1)	26 Dec 2005	1030	Held weekly abandon rig drill	
Abandon Drill(1)	01 Jan 2006	10:30	Held weekly abandon rig drill	
Abandon Drill(1)	08 Jan 2006	10:30	Held weekly abandon rig drill	
Abandon Drill(1)	15 Jan 2006	10:30	Held weekly abandon rig drill	
Environental Issue(1)	24 Dec 2005		Enviromental drill	Simulated chemical spill on rig.
Environental Issue(1)	24 Dec 2005		Enviromental drill	
Environental Issue(1)	29 Dec 2005		Environmental Audit	Carry out environmental audit by Nexus shorebase personnel.
Environental Issue(1)	29 Dec 2005		Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill(1)	18 Dec 2005		Held weekly fire drill	
Fire Drill(1)	26 Dec 2005		Held weekly fire drill	
Fire Drill(1)	01 Jan 2006	10:30	Held weekly fire drill	
Fire Drill(1)	08 Jan 2006	10:30	Held weekly fire drill	
Fire Drill(1)	15 Jan 2006	10:30	Held weekly fire drill	
JSA(13)	15 Dec 2005		Deck = 10, Mech = 2, Drill = 1	
JSA(18)	16 Dec 2005		Deck = 12, Mech = 1, Drill = 3, Sub Sea =2	
JSA(23)	17 Dec 2005		Deck = 10, Mech = 3, Drill = 7, Sub Sea =3	
JSA(17)	18 Dec 2005		Deck = 6, Mech = 3, Drill = 6, Sub Sea =2	
JSA(10)	19 Dec 2005		Deck = 4, Mech = 0, Drill = 1, Sub Sea =5	
JSA(21)	20 Dec 2005		Deck = 12, Mech = 1, Drill = 7, Sub Sea =0, marine =1	
JSA(17)	21 Dec 2005		Deck = 7, Mech = 2, Drill = 5, Welder = 2, Marine = 2,	
JSA(11)	23 Dec 2005		Deck = 2, Mech = 1, Drill = 3, Sub Sea =5	
JSA(13)	24 Dec 2005		Deck = 6, Mech = 0, Drill = 7, Sub Sea =0	
JSA(14)	25 Dec 2005		Deck = 8, Mech = 2, Drill = 2, Sub Sea =0	
JSA(19)	26 Dec 2005		Deck = 7, Mech = 5, Drill = 2, Sub Sea =2,Welder = 2, Marine = 1	
JSA(19)	27 Dec 2005		Deck = 6, Mech = 3, Drill = 7,Welder = 2, Marine = 1	
JSA(14)	28 Dec 2005		Deck = 9, Drill = 3,Welder = 2,	
JSA(12)	29 Dec 2005		Deck = 5, Mech = 3, Drill = 2,Welder = 2,	
JSA(19)	29 Dec 2005		Deck = 6, Mech = 3, Drill = 7,Welder = 2, Marine = 1	
JSA(18)	31 Dec 2005		Deck = 8, Drill = 7,Welding = 2, Marine = 1	
JSA(15)	01 Jan 2006		Deck = 6, Drill = 6, Welder = 2, Mech = 1	
JSA(17)	02 Jan 2006		Deck = 7, Mech = 4, Drill = 4,Welder = 2	
JSA(17)	03 Jan 2006		Deck = 3, Mech = 2, Drill = 10,Welder = 2	
JSA(10)	04 Jan 2006		Deck = 6, Drill = 4	
JSA(10)	05 Jan 2006		Deck = 6, Mech = 2, Drill = 2	
JSA(16)	07 Jan 2006		Deck = 5, Mech = 2, Drill = 7, Welder = 1, Sub Sea = 1	
JSA(12)	08 Jan 2006		Deck = 4, Mech = 3, Drill = 2, Welder = 3	

Well Name: Culverin 1				
Event (# of)	**Date**	**Time**	**Short Description**	**Extended Description**
JSA(21)	09 Jan 2006		Deck = 6, Mech = 3, Drill = 10, Welder = 2	
JSA(19)	10 Jan 2006		Deck = 7, Mech = 3, Drill = 8, Welder = 1	
JSA(16)	11 Jan 2006		Deck = 6, Mech = 3, Drill = 5, Welder = 2	
JSA(20)	12 Jan 2006		Deck = 7, Subsea = 2, Drill = 9, Welder = 2	
JSA(19)	13 Jan 2006		Deck = 7, Subsea = 2, Drill = 6, Welder = 2, mech = 2	
JSA(18)	13 Jan 2006		Deck = 6, Marine = 1, Drill = 7, Welder = 3, Subsea = 1	
JSA(16)	15 Jan 2006		Deck = 6, Mech = 2, Drill = 5, Welder = 2, Subsea = 2	
Man Overboard Drill(1)	30 Dec 2005		Held Man Over Board Drill	
Safety Meeting(3)	18 Dec 2005		Weekly safety meetings with all crew members.	Discussion on man riding operations. Recent 3rd party finger amputation and basic amputation first aid discussed. GEMS work basket policies. Fire and abandonment drills
Safety Meeting(3)	18 Dec 2005		Weekly safety meetings with all crew members.	
Safety Meeting(3)	26 Dec 2005		Weekly safety meetings with all crew members.	
Safety Meeting(3)	01 Jan 2006		Weekly safety meetings with all crew members.	
Safety Meeting(3)	08 Jan 2006		Weekly safety meetings with all crew members.	
Safety Meeting(3)	15 Jan 2006		Weekly safety meetings with all crew members.	
STOP Card(3)	15 Dec 2005		Safe = 1, Un-safe = 2	
STOP Card(11)	16 Dec 2005		Safe = 6, Un-safe = 5	
STOP Card(7)	17 Dec 2005		Safe = 4, Un-safe = 3	
STOP Card(2)	18 Dec 2005		Safe = 0, Un-safe = 2	
STOP Card()	19 Dec 2005		Safe = 4, Un-safe = 1	
STOP Card(4)	20 Dec 2005		Safe = 1, Un-safe = 3	
STOP Card(5)	21 Dec 2005		Safe = 1, Un-safe = 4	
STOP Card(5)	23 Dec 2005		Safe = 5, Un-safe =	
STOP Card(8)	24 Dec 2005		Safe = 1, Un-safe = 7	
STOP Card(9)	25 Dec 2005		Safe = 6, Un-safe = 3	
STOP Card(17)	26 Dec 2005		Safe = 3, Un-safe = 14	
STOP Card(7)	27 Dec 2005		Safe = 2, Un-safe = 5	
STOP Card(9)	28 Dec 2005		Safe = 5, Un-safe = 4	
STOP Card(8)	29 Dec 2005		Safe = 2, Un-safe = 8	
STOP Card(5)	29 Dec 2005		Safe = 5	
STOP Card(7)	29 Dec 2005		Safe = 2, Un-safe = 5	
STOP Card(8)	31 Dec 2005		Safe = 4, Un-safe = 4	
STOP Card(9)	01 Jan 2006		Safe = 7, Un-safe = 2	
STOP Card(16)	02 Jan 2006		Safe = 6, Un-safe = 10	
STOP Card(9)	03 Jan 2006		Safe = 5, Un-safe = 4	
STOP Card(12)	04 Jan 2006		Safe = 3, Un-safe = 9	
STOP Card(8)	05 Jan 2006		Safe = 4, Un-safe = 4	
STOP Card(13)	07 Jan 2006		Safe = 7, Un-safe = 6	
STOP Card(10)	08 Jan 2006		Safe = 7, Un-safe = 3	
STOP Card(4)	09 Jan 2006		Safe = 3, Un-safe = 1	
STOP Card(5)	10 Jan 2006		Safe = 2, Un-safe = 3	
STOP Card(8)	11 Jan 2006		Safe = 2, Un-safe = 6	
STOP Card(8)	12 Jan 2006		Safe = 6, Un-safe = 2	
STOP Card(2)	12 Jan 2006		Safe = 2, Un-safe = 2	
STOP Card(4)	13 Jan 2006		Safe = 3, Un-safe = 1	
STOP Card(2)	15 Jan 2006		Safe = 1, Un-safe = 1	
Trip / Kick Drill(2)	03 Jan 2006		Held Trip drill with each crew while RIH	

Part 2 : Drilling Engineering

- Well History
- Phase History
- Survey Data

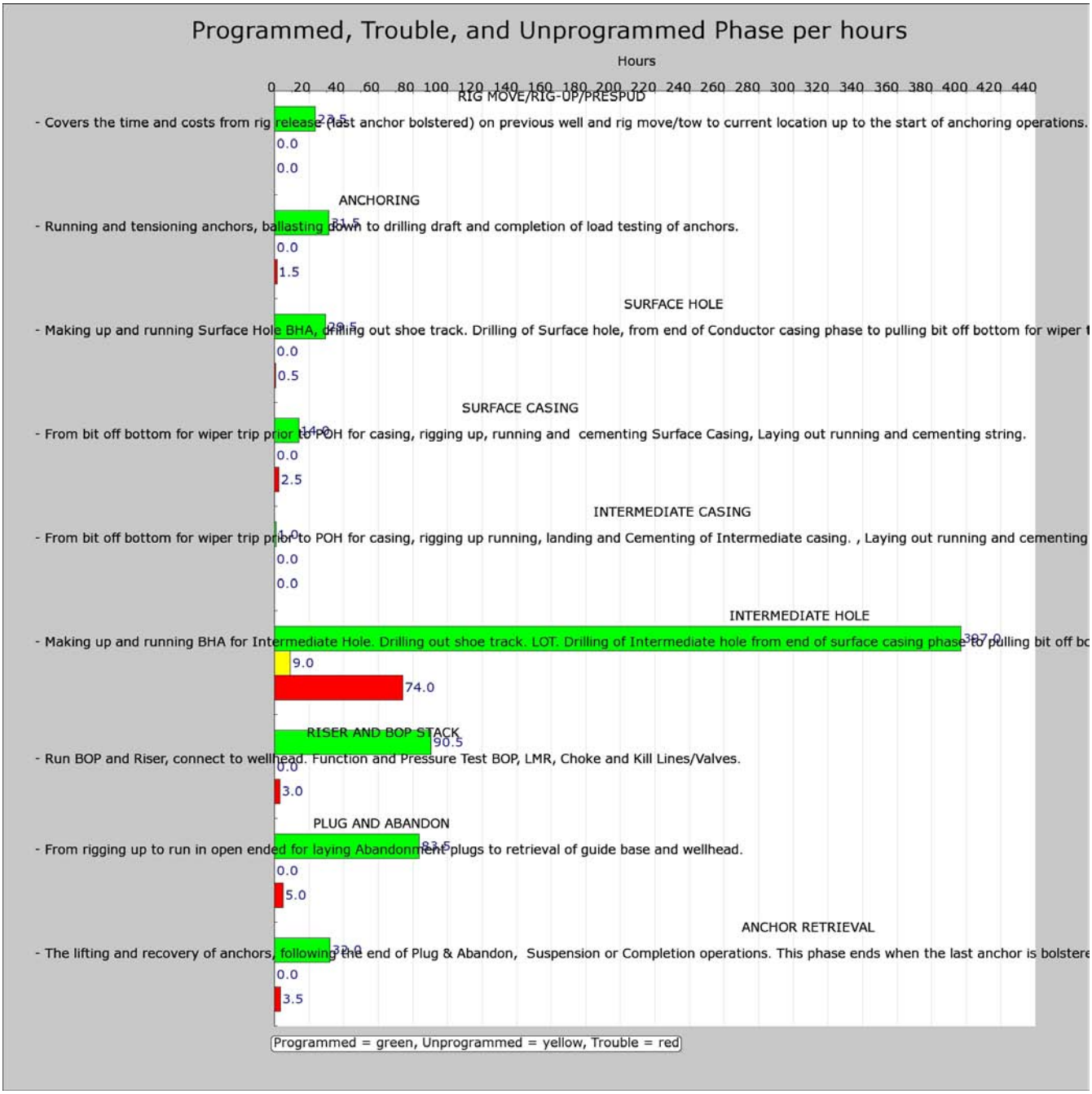
Well History

Well: Culverin 1

#	Date	Depth	24 Hour Summary
1	05 Nov 2005		
2	06 Nov 2005	0.0m	Tow to Culvering Location. Run & set anchor #4. While running anchor #8 anchor winch#4 failed destroying the gear box allowing the anchor & anchor chain to fall to the sea bed. Bolster anchor # 8. Rig off hire at 15:00 hrs. On tow to Two Fold Bay for repair.
3	14 Dec 2005	0.0m	Run Anchors
4	15 Dec 2005	0.0m	Complete running of anchors.
5	16 Dec 2005	650.0m	Pick up 93 jnts of 5"dp. Make up 30" C.A.R.T. make up 36" BHA and RIH to 607m. Spud well and drill 36" hole from 607m to 650m. Circulate hole clean and displace. Drop Totco survey(0.5deg @ 643m). POOH. Rig up and ran 30" casing/PGB. Install guide lines.
6	17 Dec 2005	650.9m	Ran and cemented 30" casing. Waited on cement samples to harden 4.5hrs. POOH, picked up 1172m of dp(extra pipe picked up while waiting on MWD equipment preperation), made up and racked 18 3/4" CART, Dowell cement express head. Layed out 36" BHA and picked up 17 1/2" BHA and Sperry Sun equipment. Prepare rig deck areas for riser.
7	18 Dec 2005	650.0m	Make up 17 1/2" BHA, RIH and shallow test MWD, tool failure. POOH to surface and change out tool internals for back up unit. RIH to PGB, unable top stab. Soft line guide ropes parted, attempts to move rig were restricted by high anchor tensions and rough weather. POOH and install new ropes. RIH and stab in ok. Drill cmt and shoe. Drill 17 1/2" hole from 650m to 1006m using SW and hi vis sweeps. Surveys every 3 stands.
8	19 Dec 2005	1436.0m	Drilled 17 1/2" hole from 1006m to 1436m. 24hr average ROP 17.9m/hr.
9	20 Dec 2005	1525.0m	Drilled 445 mm (17 1/2") hole to 1525.0 mMDRT. Pulled out of hole to rig up and run 340 mm (13 3/8") casing. Commenced running casing.
10	21 Dec 2005	1525.0m	Landed 340 mm (13 3/8") casing and cemented in place at 1511.14 mMDRT. Laid down cement head and rigged up riser handling equipment. Commenced running BOPs and riser.
11	22 Dec 2005	1525.0m	Completed running BOPs and riser. Commenced making up slip-joint and landing joint to riser.
12	23 Dec 2005	1525.0m	Landed out BOPs and tested wellhead connector. Pull-tested connections. Stroked out the slip-joint and nippled up the surface equipment. Rigged up the diverter. Completed pressure tests. Rigged down riser handling equipment. Slipped and cut drilling line. Laid down 445 mm (17 ½") BHA. Commenced making up new 311 mm (12 ¼") BHA.
13	24 Dec 2005	1544.0m	Completed making up 311 mm (12 ¼") BHA. RIH and picked up drillpipe on the way in hole. Drilled out the shoetrack. Displaced the well to mud. Drilled ahead 3 m of new formation. Conducted LOT to 1.89 sg EMW at 1528.0 mMDRT. Drilled ahead to 1544.0 mMDRT.
14	25 Dec 2005	2131.0m	Drilled ahead from 1544.0 - 2131.0 mMDRT.
15	26 Dec 2005	2641.0m	Drilled ahead 311 mm (12 1/4") hole from 2131.0 mMDRT to 2641.0 mMDRT.
16	27 Dec 2005	3115.0m	Drilled ahead from 2641.0 mMDRT to 3115.0 mMDRT. Top of the Latrobe Formation picked from LWD logs and cuttings at 2824.0 mMDRT.
17	28 Dec 2005	3277.0m	Drilled ahead from 3115.0 mMDRT to 3277.0 mMDRT.
18	29 Dec 2005	3385.0m	Drilled ahead from 3277.0 mMDRT to 3385.0 mMDRT.
19	30 Dec 2005	3402.0m	Drilled ahead from 3385.0 mMDRT to 3402.0 mMDRT. POOH for bit trip. Downloaded LWD memory. Made up new PDC bit and new motor. Started to RIH.
20	31 Dec 2005	3473.0m	RIH to 3330.0 mMDRT. Logged down over sandstone from 3335.0 mMDRT to 3343m MDRT . Reamed down to bottom. Commenced drilling ahead from 3402.0 mMDRT to 3473m MDRT
21	01 Jan 2006	3571.0m	Drilled ahead from 3473.0 mMDRT to 3571.0 mMDRT. POOH for suspected washout.
22	02 Jan 2006	3571.0m	POOH to surface. Changed out BHA to a rotary assembly (removed down-hole motor) and a Smith rock-bit. Completed making up new BHA with additional drill-collars and commenced RIH. BHA held up at 2100.0 mMDRT. Washed and reamed down to 2540.0 mMDRT. MWD failed at 2540.0 mMDRT. Commenced pulling out of hole to replace MWD tools and adjust BHA configuration. Pulling out at 2020.0 mMDRT at midnight.
23	03 Jan 2006	3571.0m	Continued pulling out of hole to replace LWD tools (pulser found to be damaged) and adjusted BHA configuration. Re-calibrated pressure sensors on rig floor using cementing unit. Tested new LWD toolstring and commenced RIH. Slipped & Cut drill-line at the casing shoe. Waited on Weather
24	04 Jan 2006	3619.0m	RIH to bottom and began drilling ahead 311 mm (12 ¼") hole from 3571.0 mMDRT. Drilling ahead at 3619.0
'			

			mMDRT at midnight.
25	05 Jan 2006	3697.0m	Drilled ahead from 3619.0 mMDRT to 3697.0 mMDRT at midnight.
26	06 Jan 2006	3758.0m	Drilled ahead from 3697.0 mMDRT to 3758.0 mMDRT at midnight. TD well at 3758.0 mMDRT. Commenced POOH to log.
27	07 Jan 2006	3758.0m	POOH, laid down LWD tools. Rigged up to run wireline.
28	08 Jan 2006	3758.0m	Completed PEX run. Rigged up seismic tools and completed seismic survey. Rigged down wireline tools and wireline. Commenced P & A program.
29	09 Jan 2006	3758.0m	Set abandonment plugs #1, 2 & 3
30	10 Jan 2006	3758.0m	Laid out drillpipe, tagged abandonment plug #3, set abandonment plug #4, displaced riser and C & K lines to seawater, retrieved wearbushing, jetted wellhead and BOP's, rigged up to recover riser and BOP's
31	11 Jan 2006	3758.0m	Unlatched BOP from wellhead and pulled marine riser and BOP's
32	12 Jan 2006	3758.0m	Pulled and landed BOP's on carrier. Cut and pulled 20" casing. Cut and pulled 30" casing with PGB
33	13 Jan 2006	3758.0m	POOH and recovered guidebase. Racked BOP's on carrier. RIH and laid out BHA and 5" drillpipe from Derrick
34	14 Jan 2006	3758.0m	Completed laying down 5" DP from derrick. De-ballast rig and recover anchors # 6, #2, #3, 7, #1 and #5
35	15 Jan 2006	3758.0m	Completed recovering anchors.
			Ocean Patriot on tight tow @ 15:00hrs, Jan 15, 2006. Rig handed over to Anzon Australia Limited
			Statement of Facts obtained from vessels

Time Breakdown by Phase



Total Time on Operations : 801.5 hrs

Total Productive Time : 702.5 hrs

Total Lost Time : 90 hrs

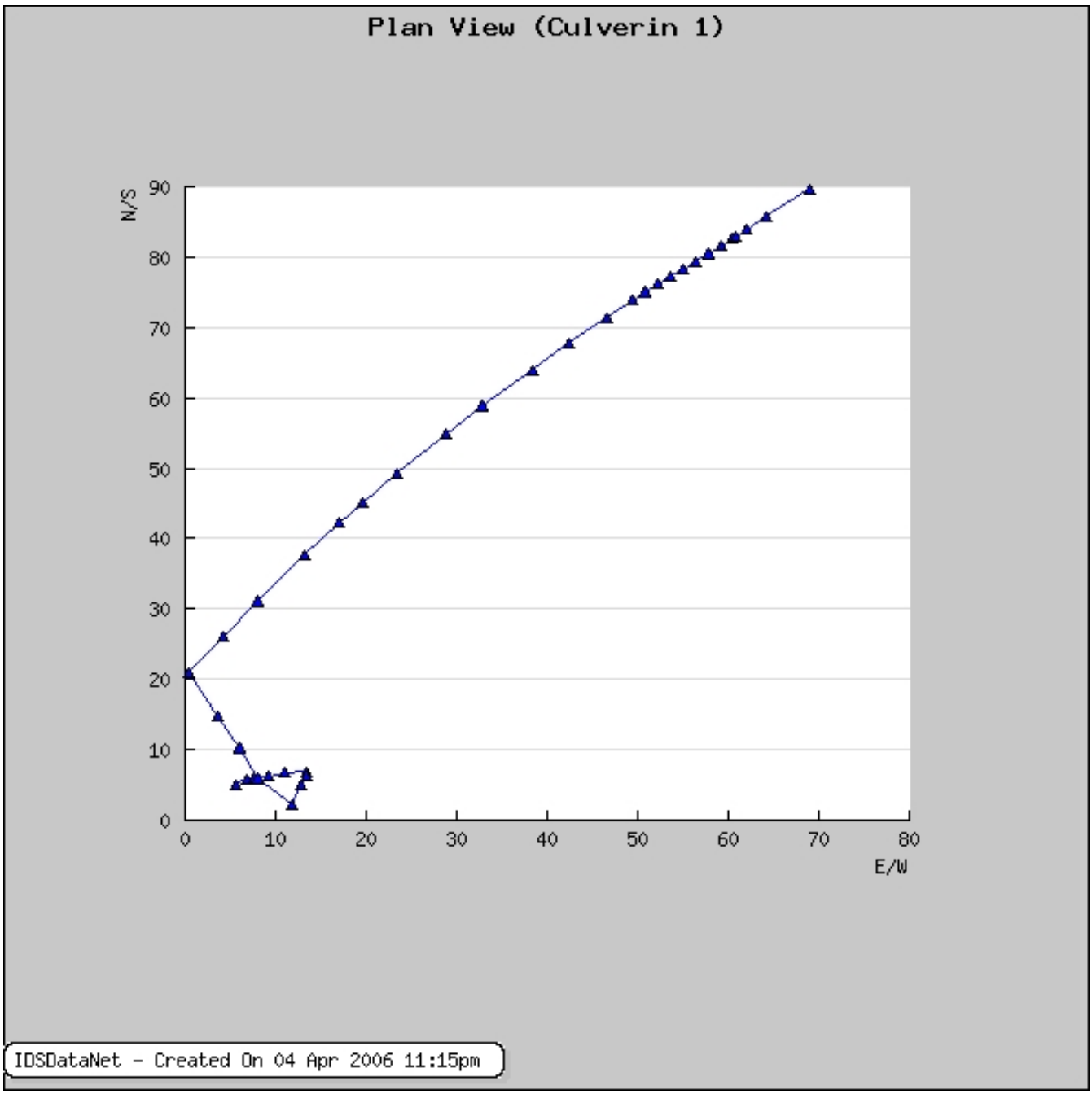
Total Unprogrammed Time : 9 hrs

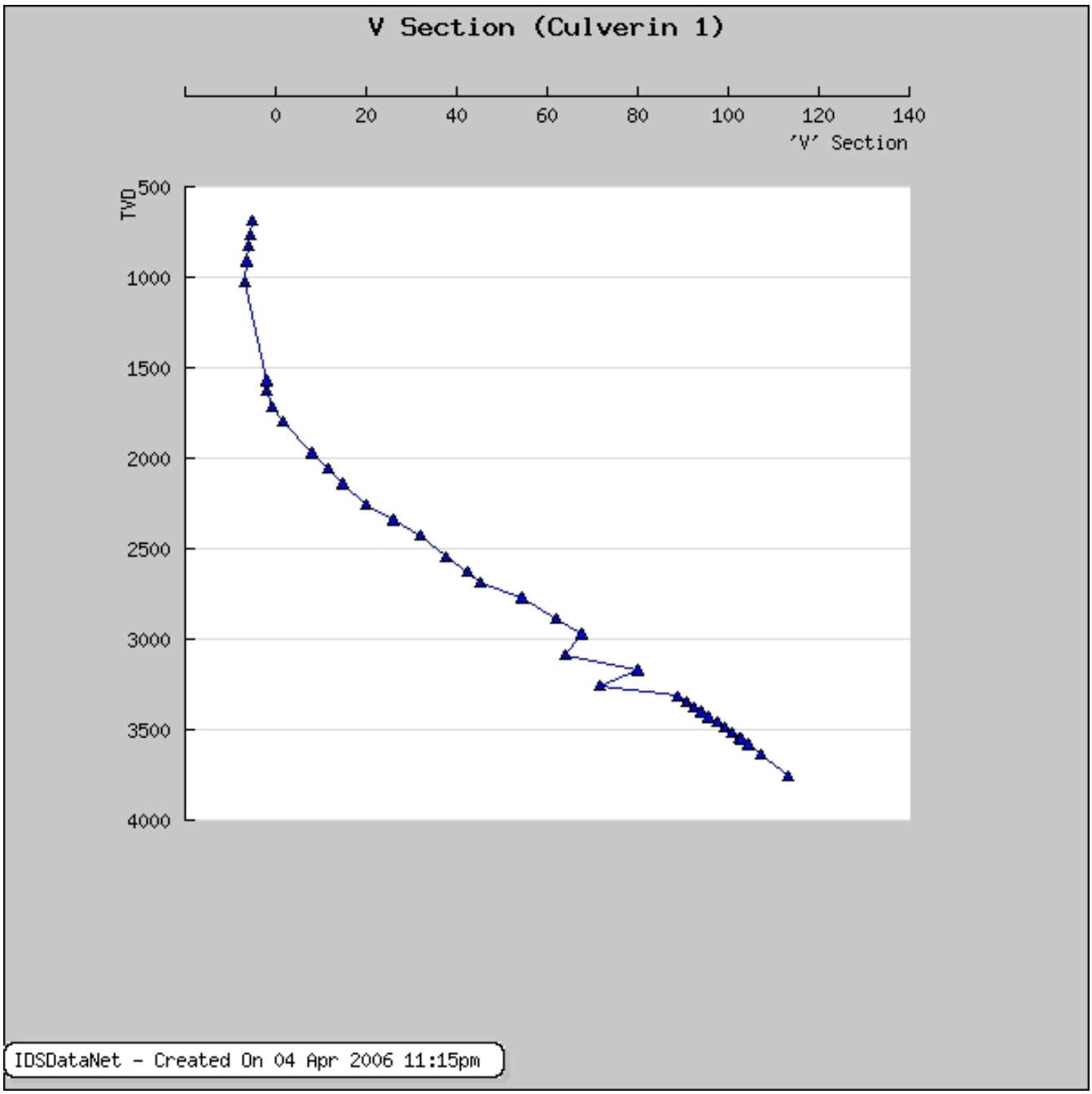
Survey Data

Well: Culverin 1

						Mag Dec:		Sidetrack # 0
MD m	TVD m	INCL deg	CORR. AZ deg	DOGLEG deg/30m	'V' SECT deg	N/S m	E/W m	TOOLTYPE
681.95	681.89	1.3	227.0	0.1	-5.1	5.1	5.5	MWD
767.68	767.61	0.8	263.6	0.3	-5.8	5.8	6.8	MWD
825.04	824.97	0.9	254.6	0.1	-6.0	6.0	7.6	MWD
911.19	911.10	1.1	257.5	0.1	-6.3	6.3	9.1	MWD
1027.78	1027.67	0.9	252.6	0.1	-6.8	6.8	11.0	MWD
1056.00		0.8	254.0					MWD
1085.00		0.8	257.0					MWD
1113.00		0.6	252.0					MWD
1142.00		0.5	254.0					MWD
1171.00		0.4	260.0					MWD
1228.00		0.2	255.0					MWD
1257.00		0.2	257.0					MWD
1342.00		0.1	250.0					MWD
1371.00		0.0	247.0					MWD
1428.00		0.1	336.0					MWD
1486.00		0.2	21.2					MWD
1509.00		0.1	0.7					MWD
1525.00		0.1	0.7					MWD
1569.11	1568.99	0.4	350.1	0.0	-2.2	6.9	13.3	MWD
1626.44	1626.32	0.6	2.0	0.1	-1.9	6.4	13.3	MWD
1712.56	1712.43	1.5	24.6	0.4	-0.7	5.0	12.8	MWD
1798.49	1798.30	2.4	23.2	0.3	1.5	2.2	11.7	MWD
1970.98	1970.56	3.2	24.1	0.1	8.1	5.9	7.9	MWD
2056.65	2056.09	3.2	27.0	0.1	11.6	10.3	5.9	MWD
2142.04	2141.34	3.5	29.6	0.1	14.7	14.7	3.6	MWD
2256.54	2255.59	4.0	35.4	0.2	20.1	21.0	0.4	MWD
2342.60	2341.43	4.2	35.5	0.1	26.0	26.0	4.1	MWD
2428.46	2427.05	4.3	38.3	0.0	32.0	31.1	7.9	MWD
2543.24	2541.53	4.1	40.5	0.2	37.7	37.7	13.1	MWD
2629.39	2627.47	3.9	40.6	0.1	42.2	42.2	17.0	MWD
2686.60	2684.55	3.8	41.5	0.1	45.1	45.1	19.5	MWD
2772.65	2770.41	3.8	43.7	0.1	54.4	49.3	23.3	MWD
2887.70	2885.20	3.9	45.7	0.1	62.0	54.9	28.7	MWD
2973.53	2970.84	3.7	46.7	0.1	67.4	58.9	32.8	MWD
3088.21	3085.28	3.8	46.5	0.1	64.0	64.0	38.3	MWD
3173.79	3170.67	3.7	49.6	0.1	80.0	67.8	42.4	MWD
3260.37	3257.07	3.7	49.9	0.2	71.4	71.4	46.5	MWD
3317.48	3314.07	3.7	47.7	0.1	88.8	73.9	49.3	MWD
3346.36	3342.89	3.7	50.4	0.2	90.6	75.1	50.7	MWD
3375.00	3371.50	3.7	54.0	0.2	92.3	76.2	52.1	MWD
3404.40	3400.80	3.5	54.9	0.2	94.1	77.3	53.6	MWD
3432.80	3429.16	3.6	52.0	0.2	95.7	78.3	55.0	MWD
3461.32	3457.63	3.5	52.0	0.1	97.4	79.4	56.4	MWD
3490.24	3486.49	3.4	50.3	0.1	99.1	80.5	57.8	MWD
3519.26	3515.46	3.3	50.1	0.1	100.7	81.6	59.1	MWD
3547.59	3543.75	3.3	50.0	0.0	102.3	82.6	60.3	MWD
3555.34	3551.48	3.4	53.7	0.9	102.8	82.9	60.7	MWD
3583.83	3579.93	3.0	50.9	0.4	104.3	83.9	61.9	MWD
3641.38	3637.40	3.0	50.2	0.0	107.2	85.8	64.2	MWD
3758.00	3753.86	3.0	50.2	0.0	113.1	89.7	68.9	MWD

3758.00	3753.86	3.0	50.2	0.0	113.1	89.7	68.9	Extrapolation to FTD





Part 3 : Time Analysis Data

- Daily Activity
- Time Analysis
- Trouble Time Analysis

Activity Report For Culverin 1

Date : 05 Nov 2005						**Daily Cost : $ 4339992**	**Report Number : 1**
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	RM	P	RM		6	Apache released Ocean Patriot to Nexus at Fur Seal Loction. Tow to Culverin Location. Pacific Wrangler on tow bridle. Far Grip following 24:00 hrs Position: 38deg 5.7min S, 148deg 343.1min E.	

Date : 06 Nov 2005						**Daily Cost : $ 334792**	**Report Number : 2**
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	RM	P	RM		3	Tow to Culverin location. .	
0.0	RM	P	RM		14	Pass #4 Anchor PCC to Far Grip. Anchor #4 on bottom at 09:00 hrs. PCC at rig 11:44 hrs. Pass #8 Anchor PCC to Far Grip at 11:46 hrs. Run anchor #8. At 14:50 hrs Anchor winch failed & winch gear box was serverly damaged. #4 anchor chain dropped to the sea bed. Rig off hire at 17:00 hrs and Statement Of Fact taken. Haul in #8 anchor which was bolstered at 117:00 hrs. PCC on rig at 17:05 hrs. Statement of Fact taken at 17:00 hrs.	

Activity Report For Culverin 1

Date : 14 Dec 2005						Daily Cost : $ 1161836	Report Number : 3
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	RM	P	RM		0.5	Back on Contract with Nexus after Rig Repair	
0.0	A	P	AH		1.5	#8 Anchor on bottom @ 0500hrs and heave in to 95t pull. Wrangler strip back #8 and pass PCC to rig @ 0620hrs. Pass #5 PCC to Wrangler @ 0635hrs, unable to pay out on windlass.	
0.0	A	TU	AH	RE	1	Troubleshoot electrical fault on # 5 windlass.	
0.0	A	P	AH		4.5	Run #5 Anchor @ 0732hrs, on bottom @ 0942hrs. Wrangler strip back #5 and pass PCC to rig @ 1139hrs.	
0.0	A	P	AH		12	Pass #1 PCC to Wrangler @ 1208hrs, on bottom @ 1413hrs. Tension #4 & #8 Anchors, Re-deploy #1 @ 1555hrs on bottom @ 1648hrs. Wrangler strip back #1 and pass PCC to rig @ 1740hrs (Wrangler to stand-by) Release Far Grip from tow wire @ 1750hrs. Pass #3 PCC to Far Grip @ 1857hrs, on bottom @ 2045hrs. Far Grip strip back #3 and pass PCC to rig @ 2235hrs. Pass #7 PCC to Far Grip @ 2250hrs, commence to run anchor.	

Date : 15 Dec 2005						Daily Cost : $ 427492	Report Number : 4
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	A	P	AH		5	#7 Anchor on bottom @ 0109hrs. Far Grip strip back, passed #7 PCC to rig @ 0253hrs. Passed #2 PCC to Wrangler @ 0030hrs,Anchor on bottom @ 0249hrs. Wrangler strip back, passed #2 PCC to rig @ 0438hrs. Passed #6 PCC to Far Grip @ 0305hrs, Anchor on bottom @ 0514hrs.	
0.0	A	TU	AH	RE	0.5	Troubleshoot electrical fault on # 6 windlass.	
0.0	A	P	AH		2	Far Grip strip back, passed #6 PCC to rig @ 0725hrs.	
0.0	A	P	AH		1.5	Cross tension all anchors.	
0.0	A	P	AH		5	Ballast rig to drilling draft.	
0.0	SH	P	PUP		1.5	Pick up 201m of 5" DP.	
0.0	SH	P	PUP		0.5	Pull back and rack 201m DP in derrick.	
0.0	SH	TU	RR	RE	0.5	Repair Hydraulic fitting on racking arm.	
0.0	SH	P	PUP		5	P/U 1 stand 9" DC with jetting sub and trip in picking up 550m DP.	
0.0	SH	P	PUP		0.5	Run in with DP from derrick and tag mudline @ 585m L.A.T. Water depth, (607.5m R/T- Mudline L.A.T.)	
0.0	SH	P	OA		2	Pull out and rack DP in derrick.	

Date : 16 Dec 2005						Daily Cost : $ 585930	Report Number : 5
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	SH	P	PUP		3	Pick up 20 stands DP. 580m.	
0.0	SH	P	OA		1	Rack back 20 stands DP.	
0.0	SH	P	PUP		2	Pick up DP. 920m.	
0.0	SH	P	HBHA		1.5	Picked up 18 jnts of HWDP and racked in derrick.	
0.0	SH	P	HT		2	Made up and racked in derrick, 30" C.A.R.T. BOP hang off tool, 30" cementing stand.	
0.0	SH	P	HBHA		2.5	Make up 36" drilling BHA and ran in hole to 192m.	
0.0	SH	P	TI		1.5	Ran BHA in hole on DP to 607mRT.	
650.0	SH	P	DA		2.5	Spud well and drill 36" hole from 607m to 650m. Pumped 75bbl sweep at mid stand and stand down, spotted 100bbls of hi-vis around BHA prior to connection.Anderdrift tool not working.	
650.0	SH	P	CHC		0.5	Displaced hole with 170bbls of pre-hydrated Bentonite. Dropped Totco single shot survey.	
650.0	SH	P	TO		1	Pulled out of hole from 650m to 193m. No hole problems or overpull observed.	

Date : 16 Dec 2005						Daily Cost : $ 585930	Report Number : 5
650.0	SH	P	HBHA		1	Pulled out of hole BHA from 193m to surface racking all BHA in derrick. Recover survey ½º.	
650.0	SC	P	RRC		0.5	Held Pre-casing JSA and rigged up for 30" casing.	
650.0	SC	P	CRN		2	Ran 30" x 20" csg x/o joint, 2 x intermediate joints and housing joint.	
650.0	SC	P	CRN		2	Ran 3 x dp stinger, made up 30" C.A.R.T to 30" housing joint and landed out in PGB. Install guide lines.	
650.0	SC	TP	RO	VE	1	Had rig welder manufacture 2 x "C" plates due to #1 & #2 guide line spears releasing and not latching correctly.	

Date : 17 Dec 2005						Daily Cost : $ 487963	Report Number : 6
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
650.0	SC	P	CRN		2	Ran 30" casing & PGB on drill pipe.	
650.0	SC	TP	SKR	OTH	1.5	Stabbed casing in open hole with ROV assistance and by moving the rig 4m stbd aft.	
650.0	SC	P	CRN		0.5	Landed out casing with 5klbs of wt down. Circulate to ensure no fill. 2.1m stick up, 2 x zero bullseye readings. Heading 273 deg. Circulate casing volume while holding JSA for cement job.	
650.0	SC	P	CMC		1.5	Pumped 20bbls of S/W-Dye, mix and pump 200bbls of 15.8ppg cement slurry, displace with 64bbls of S/W. Check floats holding-ok.	
650.0	SC	P	WOC		4.5	Waiting on surface cement samples to harden.	
650.0	SC	P	CRN		1	Release 30" CART tool. Check bullseye indicators<¼º. POOH & L/d 30" CART.	
650.0	IC	P	CRN		1	P/u 18¾" CART and stand in derrick. Make up 2nd 18 3/4" CART for handling well head on deck.	
650.0	IH	P	PUP		6	P/u 722m of dp and rack in derrick.(Prepare Sperry Sun BHA on deck while picking up dp)	
650.0	SH	P	HT		1.5	Break down TIW valves and side entry sub from 30" cement stand racked in derrick. Lay out 36" BHA.	
650.0	IH	P	PUP		1.5	Pick up 143m of dp and rack in derrick while [preparing Sperry Sun BHA components.	
650.0	IH	P	HT		0.5	Make up Dowell cement express head and rack in derrick on drifted HWDP.	
650.0	IH	P	PUP		2	Pick up 257m of dp and rack in derrick while preparing Sperry Sun BHA components. Total 5" dp picked up 2723m	
650.0	IH	P	HBHA		0.5	Make up 17 1/2" BHA.	

Date : 18 Dec 2005						Daily Cost : $ 454106	Report Number : 7
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
650.0	IH	P	HBHA		3.5	Made up 17 1/2" Sperry Sun BHA, drill collars etc. Made up Top Drive for shallow test of down hole equipment on 1st stand of hwdp.	
650.0	IH	TP	HBHA	DTF	1.5	Attempt to test MWD tools. Failure to produce survey information. Gamma ok. Change out stand pipe sensor after discussing with Sperry Sun in Perth. Re-test down hole tools, still not transmitting survey data	
650.0	IH	TP	HBHA	DTF	3.5	POOH and Rack back BHA from 103m to access MWD internals at rotary table. Remove faulty unit and install back up unit. Run in hole to 103m. Shallow test OK. Battery module is the suspected faulty item.	
650.0	IH	P	TI		1	Cont to RIH from 103m to PGB at 604m, guide ropes attached to guide lines	
650.0	IH	TP	TI	OTH	1	Move rig to assist with stabbing drill string in 30" housing.Initialy guide ropes ok but due to excess current and movement 2 broke then the remaining 2. Skid rig to assist with stabbing, due to 5-6m seas and 42knot winds the winch tension was excessive before sea bed movement was achieved.	
650.0	IH	TP	TI	OTH	3.5	POOH from 604m to surface, install new soft line guide ropes to assist in stabbing. RIH to PGB at 605m, stab and continue RIh to top of cement at 644m.	
650.0	IH	P	DFS		0.5	Establish parameters and drill cement and shoe equipment from 644m to 650m, work through and clean out shoe. 600 gpm, 900psi, 3-4000ftlbs, 90rpm,	
1006.0	IH	P	DA		9.5	Drill 17 1/2" hole from 650m to 1006m. Take surveys every 3rd stand. 600-1100 gpm, 2500psi, 3-4000 ftlbs tq, 120-150rpm, String wt 220klbs, 5-20klbs WOB. Sweep hole 75 to 85bbls per stand.	

Date : 18 Dec 2005	Daily Cost : $ 454106	Report Number : 7

Date : 19 Dec 2005					Daily Cost : $ 678903	Report Number : 8
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1436.0	IH	P	DA		24	Drill 17 1/2" hole from 1006m to 1436m Take surveys every 3rd stand. @1428.75m, 0.11deg, 336.43azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 20-35klbs WOB. Sweep hole 85bbls per stand-35 Guar-50 PHG. No hole problems to report. 24hr ROP 17.9m/hr Section ROP 23.46m/hr

Date : 20 Dec 2005					Daily Cost : $ 570223	Report Number : 9
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1525.0	IH	P	DA		8.5	Drill 17 1/2" hole from 1436m to 1525m Take surveys every 3rd stand. @1509m 0.09deg, 0.70 azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 30-35klbs WOB. Sweep hole 85bbls per stand.
1525.0	IH	P	DIS		2	Take TD survey.@1525m 0.09deg, 0.70 azimuth, Pump 150bbls of Guar Gum hi-vis sweep. Pump 100bbls of Sea Water Pump 840bbls of PHG hi-vis displacement mud, un-weighted. Displace PHG to bottom of drill pipe
1525.0	IH	P	TO		2.5	POOH from 1525m to 242m. No hole problems observed. Jet 30" housing on way out of hole. Pipe strap on trip out +0.17m
1525.0	IH	P	HBHA		2	POOH BHA and rack in derrick. Remove MWD probe and break off bit.
1525.0	IH	P	RRC		1	Hold JSA for casing operatuions with all crews and rig up equipment
1525.0	IH	P	CRN		1.5	Make up 13 3/8" shoe track and check floats. Baker lock connections. Attach guide ropes
1525.0	IH	P	CRN		5.5	Ran 13 3/8" casing to 885m. No hole problems to report.
1525.0	IH	P	CRN		1	Rig down Tam packer, make up 18 3/4" well head to casing string,rig down FMS and all casing equipment.

Date : 21 Dec 2005					Daily Cost : $ 636457	Report Number : 10
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1525.0	IH	P	CRN		1	Complete making up 18 3/4 well head and Dowell Deep Sea express plug baskets.
1525.0	IH	P	CRN		1.5	Ran 13 3/8" casing string on 5" dp to 30" housing. ROV observe landing and latching of Well Head in housing. String weight 350klbs, verify latch with 50k over pull, 400klbs ok. Slack off to landing string weight.
1525.0	IH	P	CIC		1.5	Circulate 1.5 x casing volume with sea water. Complete cement job JSA and equipment prep while circulating.
1525.0	IH	P	CMC		2.5	Cement casing: 25bbls S/W-dye, Lead 300bbls 12.5ppg, Tail 209bbls 15.8ppg.
1525.0	IH	P	CMC		1	Displace cement with 416bbls of sea water. Bump plugs 3.3bbls early, pressure up and test casing to 1500psi, ok. Bleed off and check floats holding ok.
1525.0	IH	P	CRN		0.5	Rig down surface cement lines and back out Cameron 18 3/4" C.A.R.T. PGB Bullseye readings: Fwd 1deg Stbd, Aft 1deg Stbd Aft.
1525.0	IH	P	CRN		1	Pull out of hole landing string.
1525.0	IH	P	CRN		1	Lay out 18 3/4" C.A.R.T from string, pick up and break out #2 18 3/4" handling tool. Break down Dowell express cement head and double of HWDP.
1525.0	BOP	P	RR1		2	Hold JSA and rig up to run BOP's and marine riser. Skid rig 15m to Port

Date : 21 Dec 2005					Daily Cost : $ 636457	Report Number : 10
1525.0	BOP	P	RR1	2.5	Make up double of Riser and Termination spool.	
1525.0	BOP	P	RR1	3.5	Skid BOP to well center on Normar transporter. Make up double and spool. Install guide lines.	
1525.0	BOP	P	RR1	3.5	Pick up BOPs from carrier(550klbs) and skid clear. un BOP to above splash zone and install Pod line clamps. Land riser in spider, BOP's wet 530klbs. Test Choke and Kill lines 250/7500psi 5/10mins.	
1525.0	BOP	P	RR1	2.5	Run Bop's on Marine riser	

Date : 22 Dec 2005					Daily Cost : $ 532613	Report Number : 11
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1525.0	BOP	P	RR1		6	Continue to run BOP's on marine riser @271m (890')
1525.0	BOP	P	RR1		1	Pressure test choke and kill lines 250/7500psi, 5/10mins ok
1525.0	BOP	P	RR1		6	Continue to run Riser @393m (1290')
1525.0	BOP	P	RR1		1	Pressure test choke and kill lines 250/7500psi, 5/10mins ok
1525.0	BOP	P	RR1		7.5	Continue to run Riser @515m (1690')
1525.0	BOP	P	RR1		1	Pressure test choke and kill lines 250/7500psi 5/10mins ok
1525.0	BOP	P	RR1		1.5	Pick up slip joint and make up to string. Total riser run: 35 x 50' Bouyed joints, 1 x 50' bare joint,1 x 25' Bare pup joint,

Date : 23 Dec 2005					Daily Cost : $ 498764	Report Number : 12
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1525.0	BOP	P	RR1		1	Completed making up landing joint to slip joint.
1525.0	BOP	TP	RR1	OTH	1	ROV camera system problems while on bottom monitoring BOP/PGB. Camera's were cutting out and all visibility was lost. Topside black and white camera still working. Recover ROV and move top side black and white camera to front pan tilt for landing bops'. Water had ingressed into camera electrics cannister. Gain use of 2 cameras and dive ROV
1525.0	BOP	P	BOP		2	Lowered slip joint while monitoring with ROV Installed Choke and kill and boost lines to slip joint.
1525.0	BOP	P	BOP		1	Pressure tested choke and kill gooseneck seals 250/7500psi 5/10mins. Ok. This test required by GEMS.
1525.0	BOP	P	BOP		0.5	Latched SDL ring to slip joint. Skidded rig and over well head with ROV assistance
1525.0	BOP	P	BOP		1.5	Re-establish #2 guide line, Monitor MRT's as lowering BOP to PGB post tops. Installed storm saddles and service hoses to slip joint. BOP landing weight prior to MRT's 685klbs.
1525.0	BOP	P	BOP		1	Landed and latch BOP, visual confirmation by ROV. Complete 50klbs overpull test on yellow pod. Bulls eye readings: PGB Fwd B/E 3/4deg stbd Aft B/E 3/4deg stbd fwd LMRP #1 B/E 1/2deg Port fwd, LMRP #2 B/E 1/2deg Port fwd BOP B/E 1deg stbd fwd.
1525.0	BOP	P	BOP		1	Secure pod hoses. Make up RBQ plates and put BOP on line.
1525.0	BOP	P	BOP		1	Break circulation with Dowell down choke and kill lines. Close shear rams and test well head VX gasket to 250/2500psi 5/10mins on yellow pod. OK. Complete 500psi pressure test on blue pod, 2nd pod test is a GEMS requirement.
1525.0	BOP	P	BOP		1	Unlock slip joint and stroke open. Layed down landing joint.
1525.0	BOP	P	BOP		1	Made up divertor to slip joint inner barrel. Land and latch in divertor housing. Connect hydraulics and lock support and lock down dogs.
1525.0	BOP	P	BOP		1.5	Rigged down riser spider, divertor running tool, install master bushings.
1525.0	BOP	P	BOP		2.5	Clear rig floor of all riser and bop handling equipment. Install iron roughneck tracks. Change elevators and bails
1525.0	IH	P	SC		2	Hung off blocks and slipped and cut 27.43m (90') of drilling line. Removed hang off lines and set crown-o-matic.
1525.0	IH	P	HBHA		3.5	Ran 445mm (17 1/2") BHA in hole and laid out same.

Date : 23 Dec 2005					Daily Cost : $ 498764	Report Number : 12
1525.0	IH	P	HBHA	2.5	Commenced making up 311mm (12 1/4") BHA.	

Date : 24 Dec 2005					Daily Cost : $ 465794	Report Number : 13
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
1525.0	IH	P	HBHA		3	Complete making up 311mm (12 1/4") BHA. Up-link MWD, install Radio-active source. Run BHA from derrick to 1st joint of HWDP. Shallow test Down hole motor and tools ok. 800gpm 650psi.
1525.0	IH	P	HBHA		0.5	Picked up 55m(180') of HWDP.
1525.0	IH	P	PUP		5.5	Picked up 745m (2444') of 127mm (5")dp. Functioned divertor insert packer ok.
1525.0	IH	P	BOP		0.5	Function tested BOP's on yellow pod ok.
1525.0	IH	TP	BOP	BORC	2	Attempt function test on blue pod, Run-away observed on open function for upper annular. Function several times and uncontroled flow stopped. Change back to yellow pod and upper annular functions ok. Proceed with operations after discussing equipment failure. Signs made for all BOP panels stating not to operate upper annular on blue pod. Currently drilling on Yellow pod.
1525.0	IH	P	TI		2	Ran in hole from 1014m to 1478m, Washed down to top of cement @1478m
1528.0	IH	P	DFS		5.5	Drilled cement, plugs, shoe track. Displaced well to 9.5ppg mud while drilling out cmt and making 3m of new hole to 1528m
1528.0	IH	P	CHC		1	Circulated hole clean and ensured 9.5ppg in/out for Leak off test.
1528.0	IH	P	LOT		1	Performed LOT against lower annular. 9.5ppg test mud weight, 1511.77m TVD, 1625psi, EMW 15.8ppg.1.89sg,
1544.0	IH	P	DA		3	Take SCR's, CLFL. Drilled 311mm (12 1/4") hole from 1528m to 1544m. Reduced parameters until stabilizers are out of casing(1558m) String wt 240klbs, Tq 2-4000ftlbs, 50-60 rpm surface, 150rpm DH, WOB 5-10klbs, 1800psi, 790gpm.

Date : 25 Dec 2005					Daily Cost : $ 460984	Report Number : 14
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2131.0	IH	P	DA		24	Drilled 311mm (12 1/4") hole from 1544m to 2131m String wt 275klbs, Tq 4-8000ftlbs, 150 rpm surface, 252rpm DH, WOB 15-18klbs, 2900psi, 900gpm. Boost riser while drilling. Max gas for 24hr period 1.2%. ROP average 24.45m/hr (including connections) Survey results @2113.64m 3.4deg, 29.61 azimuth, 2112.98m TVD

Date : 26 Dec 2005					Daily Cost : $ 510764	Report Number : 15
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2641.0	IH	P	DA		24	Drilled 311mm (12 1/4") hole from 2131m to 2641mMDRT String wt 310klbs, Tq 4-8000ftlbs, 150 rpm surface, 260rpm DH, WOB 12-15klbs, 3300psi, 900gpm. Boost riser while drilling. Max gas for 24hr period 0.82%. Increase mud weight from 1.14sg to 1.2sg (9.5ppg - 10ppg) ROP average 21.25m/hr (including connections) Survey results @2629.39m, 3.86deg, 40.58azimuth

Date : 27 Dec 2005					Daily Cost : $ 472057	Report Number : 16
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
2787.0	IH	P	DA		8.5	Drilled 311mm (12 1/4") hole from 2641m to 2787m MDRT String wt 310klbs, Tq 4-8000ftlbs, 150 rpm surface, 259rpm DH, WOB 12-20klbs, 3300psi, 900gpm. Boost riser while drilling. ROP average 17.17m/hr (including connections) Survey results @2772.65m, 3.83deg, 43.73azimuth
2787.0	IH	TP	DA	RE	0.5	Backed out saver sub on Top Drive during routine connection. Layed out single, installed new saver sub on Top Drive and picked up a replacement single of 127mm (5")dp.

Date : 27 Dec 2005						Daily Cost : $ 472057	Report Number : 16
2991.0	IH	P	DA		9	Drilled 311mm (12 1/4") hole from 2787m to 2991m MDRT String wt 330klbs, Tq 5-10000ftlbs, 150 rpm surface, 259rpm DH, WOB 5-10klbs, 3300psi, 900gpm. Boost riser while drilling. ROP average 22.6m/hr (including connections) Survey results @2973.53m, 3.73deg, 46.71azimuth
2991.0	IH	TP	DA	RE	0.5	Top Drive pipe handler failed to break out drill pipe during routine connection, change out front carrier die while circulating down string.
3115.0	IH	P	DA		5.5	Drilled 311mm (12 1/4") hole from 2991m to 3115m MDRT String wt 340klbs, Tq 6-8000ftlbs, 150 rpm surface, 259rpm DH, WOB 10-12klbs, 3300psi, 900gpm. Boost riser while drilling.Max gas for 24hr period 0.276%. ROP average 22.5m/hr (including connections) Survey results @3088.21m, 3.81deg, 46.46azimuth

Date : 28 Dec 2005						Daily Cost : $ 503334	Report Number : 17
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3226.0	IH	P	DA		10.5	Drilled 311mm (12 1/4") hole from 3115m to 3226m MDRT String wt 340klbs, Tq 6-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-20klbs, 3900psi, 875gpm. Boost riser while drilling. ROP average10.57m/hr (including connections) Survey results @3202.65m, 3.71deg, 48.97 azimuth
3266.0	IH	TP	DA	WOW	1.5	Drilling operations suspended due to riser flex joint bullseye reading exceeding "GEM's" guidelines. Circulate while trying to maneouver rig with anchor winches. Wind 35-40 knots, Seas 1.5m WSW, Swell 1.5m NE
3277.0	IH	P	DA		12	Drilled 311mm (12 1/4") hole from 3226m to 3277m MDRT String wt 340klbs, Tq 6-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-25klbs, 4100psi, 860gpm. Boost riser while drilling. ROP average 4.25m/hr (including connections) Survey results @3202.65m, 3.71deg, 48.97 azimuth

Date : 29 Dec 2005						Daily Cost : $ 462947	Report Number : 18
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3356.0	IH	P	DA		15.5	Drilled 311mm (12 1/4") hole from 3277m to 3356m MDRT String wt 350klbs, Tq 4-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 3800-4100psi, 840-900gpm. Boost riser while drilling. ROP average 5.16m/hr (including connections) Survey results @3317m, 3.72deg, 47.74 azimuth
3356.0	IH	TP	DA	RE	1	Change out piston on #3 mud pump. fault find and repair blower motor fault.
3385.0	IH	P	DA		7.5	Drilled 311mm (12 1/4") hole from 3356m to 3385m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Max gas for 24hr period 0.306% Survey results @3346m, 3.65deg, 50.41 azimuth

Date : 30 Dec 2005						Daily Cost : $ 593639	Report Number : 19
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
0.0	IH	P	DA		2	Drilled 311mm (12 1/4") hole from 3385m to 3397m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Survey results @3375m, 3.7deg, 76.2 azimuth
3390.0	IH	TP	DA	RE	0.5	Elmagco auxillary brake problems. Fault find and make repairs. Continue with 50% power available to Elmagco
3402.0	IH	P	DA		6	Drilled 311mm (12 1/4") hole from 3390m to 3402m MDRT String wt 355klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 18-25klbs, 3900-4300psi, 875gpm. Boost riser while drilling. Average ROP = 2m/hr POH to change bit.

Date : 30 Dec 2005					Daily Cost : $ 593639	Report Number : 19
3402.0	IH	P	TO	1	Flow checked and POOH from 3402m to 2867m, pulled tight @ 55klbs overpull	
3402.0	IH	P	REA	0.5	Made up top drive and back ream from 2867m to 2819m	
3402.0	IH	P	TO	6.5	Continued to POOH from 2819m to 268m, flow checked @ casing shoe. Calibrated MWD caliper @ 1475m	
3402.0	IH	P	TO	2	POOH with 311mm (12 1/4") BHA, remove radioactive source from LWD, broke off bit (4-6-WT-S-X-1-RO-PR) and laid out mud motor	
3402.0	IH	P	TO	2	Picked up LWD from derrick and download data. Racked back same in derrick	
3402.0	IH	P	RS	0.5	Serviced top drive and pipe handler. Checked compensator chains	
3402.0	IH	P	TI	2	Picked up new motor (Sperrydrill 6/7 5 stage w/ 0 degree bend), made up new bit (Reed RSX616M) and RIH with 311mm (12 1/4") BHA	
3402.0	IH	P	TI	1	Loaded radio active source into LWD and initiate tools	

Date : 31 Dec 2005					Daily Cost : $ 431238	Report Number : 20
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3402.0	IH	P	TI		1.5	Continued to RIH with 12 1/4" BHA. Shallow pulse test MWD with 750 GPM and 750 psi, good test
3402.0	IH	P	TI		1.5	Picked up 27 joints 5" DP from catwalk
3402.0	IH	P	TI		6	Continued to RIH with 12 1/4" BHA and 5" DP from Derrick to 3330m MDRT
3402.0	IH	P	RW		3	Reamed and washed from 3330m MDRT to 3380m MDRT. Performed confirmation pass with LWD tools across interval
3402.0	IH	P	RW		0.5	Washed and reamed last single to bottom
3473.0	IH	P	DA		11.5	Drilled ahead 311mm (12 1/4") hole from 3402m MDRT to 3473m MDRT, Average ROP = 6.2m/hr, Flow rate = 875 GPM, WOB = 17 - 24 klbs, Rotary RPM = 80 - 110, Bit RPM = 190 - 220, Tq = 5000 - 9500 ft/lbs,

Activity Report For Culverin 1

Date : 01 Jan 2006						Daily Cost : $ 466881	Report Number : 21
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3571.0	IH	P	DA		18.5	Continued to drill 311mm (12 1/4") hole from 3473m MDRT to 3571m MDRT Average ROP = 5.3m/hr, WOB = 20-24 klbs, Rotary RPM = 110, DH RPM = 228, Tq = 6000-8000 ftlb, Flow = 872 GPM Encountered drilling break at 3481m MDRT to 3487m MDRT, flow checked well (76m/hr, Gas = 45 units) Max Gas = 186 units @ 3543.5m MDRT	
3571.0	IH	TU	WSH	WO	5.5	Conducted 15 minute flow check, good. POOH wet, checking for washout. Pulled 2 stands and made up top drive, circulated to confirm continued pressure loss. POOH 10 stands, flow checked 10 minutes, good. Continued POOH checking for washout. Visually inspected tool joint seal faces of each stand for wear.	

Date : 02 Jan 2006						Daily Cost : $ 508563	Report Number : 22
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3571.0	IH	TP	WSH	WO	6.5	Continued POOH checking for washout. Visually inspect tool joint seal faces of each stand for wear. Flow checked at casing shoe and at HWDP. Downloaded sources from LWD tools. POOH and inspected BHA for washout. Broke off bit and laid out motor	
3571.0	IH	TP	TI	WO	2	Made up 12 1/4" rotary BHA with Smith GF30BOVCPS (c/w 3 X 18 nozzles), install new HOC	
3571.0	IH	TP	TI	WO	2	Initailized MWD and install sources in tool	
3571.0	IH	TP	TI	WO	6.5	Picked up additional 8" DC's & RIH with 12 1/4" BHA, changed out drilling jar, continued RIH. Shallow pulse tested MWD with 850 GPM @ 2000psi, OK. RIH with 5" DP from derrick to 2134m MDRT, filled drillstring each 20 stands	
3571.0	IH	P	TIT		5	Washed and reamed from 2134m MDRT to 2593m MDRT with 700 - 850 GPM, 2500 -3900 psi, 120 -145 RPM. MWD tools stopped communicating to surface. 200 psi pressure loss noted during reaming (3900psi @ 850 gpm to 3700psi @ 900gpm).	
3571.0	IH	TP	TO	VE	2	Flow checked 15 minutes, good. POOH for LWD failure and potential washout from 2593m MDRT to 2020m MDRT. 60klbs overpull @ 2326m MDRT, worked drill string free	

Date : 03 Jan 2006						Daily Cost : $ 439094	Report Number : 23
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3571.0	IH	TP	TO	VE	1.5	Continued POOH for LWD failure (also POH wet looking for washout) from 2020m MDRT to 1510m MDRT	
3571.0	IH	TP	TO	WO	1	Installed top drive and pump through drill string at 1510m MDRT to verify pump pressure loss. 220 SPM, 940 GPM, 3600 psi, no pressure loss noted. Presure test Pumps #1, #2 & #3 10 minutes each to 3800 psi against standpipe manifold to verify mud pump and mudline integrity. Observed average pressure loss of 91psi over 10 minutes	
3571.0	IH	TP	TO	VE	2.5	Continued POOH for LWD failure (also POH wet looking for washout) from 1510m MDRT to 271m MDRT	
3571.0	IH	TP	TO	VE	4	POOH with 12 1/4" BHA. Removed sources from LWD tools. Laid out LWD string. Downloaded data and diagnostics information (Pulser falure)	
3571.0	IH	TP	TI	WO	3	Lined up Dowel cementing unit and pressure tested mud pumps and surface mud lines to 4200 psi. Calibrated gauges between rig floor, mud loggers, MWD, and Dowell. Picked up new 12 1/4" rotary BHA while pressure testing	
3571.0	IH	TP	TI	VE	4	Continued to pick up 12 1/4" BHA. Initialized LWD and installed sources. RIH and shallow pulse tested LWD with 850 GPM @ 200 SPM and 1700 psi, good	
3571.0	IH	TP	TI	VE	2.5	RIH with 5" DP and filled drillstring each 20 stands to 1510m MDRT	
3571.0	IH	P	SC		1.5	Held Pre job safety meeting. Hung off blocks and slipped and cut 100 ft drilling line.	
3571.0	IH	P	RS		0.5	Serviced top drive	
3571.0	IH	TP	WOW	WOW	3.5	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 40-45knts WSW Seas; 3m Swells; 4m	

Date : 03 Jan 2006						Daily Cost : $ 439094	Report Number : 23
						Pitch 0.7 - 0.9 Roll; 0.8 - 0.9 Perform General rig maintenance and PM's	

Date : 04 Jan 2006						Daily Cost : $ 447637	Report Number : 24
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3571.0	IH	TP	WOW	WOW	3.5	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 30-22knts WSW Seas; 2.5m - 1.5m Swells; 4m - 3m Pitch 0.6 Roll; 0.8 Perform General rig maintenance and PM's	
3571.0	IH	TP	WOW	WOW	1	Repositioned rig to bring flex joint angle to < 1 degree	
3571.0	IH	TP	TI	WO	4.5	Continued to RIH with 5" DP from 1510m MDRT to 3487m MDRT	
3571.0	IH	TP	RW	WO	1	Washed and reamed from 3487m MDRT to 3571m MDRT	
3619.0	IH	P	DA		14	Drilled ahead 31mm (12 1/4") hole from 3571m MDRT to 3619m MDRT. WOB = 25 - 34 klbs, RPM = 100- 150, SPM = 188 = 805 GPM, 4000 psi, Tq = 4500 - 6700 ftlb. Average ROP = 3.4m/hr	

Date : 05 Jan 2006						Daily Cost : $ 464894	Report Number : 25
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3697.0	IH	P	DA		24	Drilled ahead 311mm (12 1/4") hole from 3619m MDRT to 3697m MDRT. WOB = 30 - 41 klbs, RPM = 80- 120, SPM = 187 = 800 GPM, 4050 psi, Tq = 5500 - 7500 ftlb. Average ROP = 3.55m/hr Max Gas today = 103 units @ 3695m MDRT	

Date : 06 Jan 2006						Daily Cost : $ 556712	Report Number : 26
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3697.0	IH	P	DA		4	Drilled ahead 311mm (12 1/4") hole from 3697m MDRT to 3714m MDRT. WOB = 30 - 35 klbs, RPM = 80- 120, SPM = 187 = 800 GPM, 4050 psi, Tq = 5500 - 7500 ftlb. Average ROP = 4.3 m/hr LWD tools stopped pulsing	
3714.0	IH	TU	RR		0.5	Backed out IBOP on connection. Re aligned top drive and screwed back into IBOP. Torqued same to 78000 ftlbs. Comfirmed alignment of breakout/Make up system	
3758.0	IH	P	DA		19.5	Troubleshooted LWD tools. No sucess. Drilled Ahead 311mm (12 1/4") hole from 3714m MDRT to 3758m MDRT WOB = 30 - 35, RPM = 100 - 130, SPM = 188 = 800 GPM = 4050 psi, Tq = 7000 - 8500 ftlb, Average ROP = 2.3 m/hr	

Date : 07 Jan 2006						Daily Cost : $ 604571	Report Number : 27
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3758.0	IH	P	CS		2	Circulated bottoms up sample at 188 spm (800 GPM) from 3758m MDRT	
3758.0	IH	P	TO		1	Flow checked 15 minuted, good. POOH from 3758m MDRT to 3668m MDRT	
3758.0	IH	P	LOG		4.5	Logged up with LWD for confirmation data from 3668m MDRT to 3582m MDRT at 30m/hr and 20 - 25 RPM	
3758.0	IH	P	TO		0.5	Pumped 25 bbl slug and POOH from 3582m MDRT to 3506m MDRT	

Date : 07 Jan 2006						Daily Cost : $ 604571	Report Number : 27
3758.0	IH	TP	RR	RE	1	Repaired hose on racking arm	
3758.0	IH	P	TO		8	Continued POOH from 3506m MDRT to 36m MDRT. Flow checked at casing shoe and prior to BHA entering BOP	
3758.0	IH	P	RR	RE	0.5	Removed sources from LWD tools. Plugged in and attempted to power down tools with no success	
3758.0	IH	P	TO		1.5	Laid out LWD tools and BHA	
3758.0	IH	P	LOG		1	Held JSA and rigged up to run Schlumberger wireline tools	
3758.0	IH	U	LOG		1.5	Made up wireline tools for run #1, installed radioactive sources	
3758.0	IH	U	LOG		2.5	RIH with log #1, GR/PEX/HALS/DSI. Performed repeat pass from 3675m MDRT to 3575m MDRT (23:30 hrs)	

Date : 08 Jan 2006						Daily Cost : $ 495998	Report Number : 28
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3758.0	IH	U	LOG		5	RIH with log #1, PEX combo GR/PEX/HALS/DSI. Performed repeat pass from 3675m MDRT to 3575m MDRT (23:30 hrs). Perform main Log (from 00:10) GR: TD to Seafloor, PEX Hi Res: TD to 2775m MDRT, HALS: TD to 1511m MDRT, DSI: P&S and Upper Dipole mode from 3758m MDRT to 2775m MDRT, P&S Mode from 2775m MDRT to 1511m MDRT	
3758.0	IH	P	LOG		3	Rigged down Run #1 Wireline tools. Made up Run #2; VSP	
3758.0	IH	P	LOG		6	RIH and perform VSP. Checkshots at 1559m, 2541m and 3509m MDRT Main pass from 3750m to 3200m MDRT at 15m spacing and 3200m to sea floor at 100m spacing	
3758.0	IH	TP	LOG	OTH	0.5	Troubleshot network cabling problem with computer hardware in logging unit	
3758.0	IH	P	LOG		3.5	Continued with VSP main pass from 3750m to 3200m MDRT at 15m spacing and 3200m to sea floor at 100m spacing	
3758.0	IH	P	LOG		1.5	Wireline at surface. Laid down VSP toolstring. Rigged out wireline running equipment	
3758.0	PA	P	TI		4.5	Picked up side entry sub and 2 X TIW valves, made up cementing stand and racked back same. Picked up 5" mule shoe and RIH with 5" DP to 2293m MDRT	

Date : 09 Jan 2006						Daily Cost : $ 535925	Report Number : 29
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity	
3758.0	PA	P	TI		3	Continued to RIH with 5" DP from 2293m MDRT to 3750m MDRT	
3758.0	PA	P	CMD		0.5	Circulated bottoms up at 210 SPM = 900 GPM = 3200 psi. Rotate DP at 40 - 50 RPM	
3758.0	PA	TP	RR	RE	0.5	Worked on mud pump SCRs. Rotated and reciprocated drillstring during repairs	
3758.0	PA	P	CHC		1	Continued to circulate bottoms up at 210 SPM = 900 GPM = 3200 psi	
3758.0	PA	P	CMP		1.5	Held pre job safety meeting. Rigged up Dowell cementing line and pressure tested to 1000 psi. Mixed and pumped abandonment plug # 1; 102 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 195 bbls drilling fluid at 10.1 ppg Plug #1 set from 3750m MDRT to 3560m MDRT.	
3758.0	PA	P	TO		1	POOH from cement plug # 1 from 3750m MDRT to 3420m MDRT slowly	
3758.0	PA	P	CHC		1.5	Circulated bottoms up to clear drillpipe	
3758.0	PA	P	TO		1	POOH From 3420m MDRT to 2965m MDRT	
3758.0	PA	P	CMD		0.5	Circulated and spotted 60 bbl high visc pill	
3758.0	PA	P	TO		0.5	POOH from 2965m MDRT to 2865m MDRT	
3758.0	PA	P	CMP		1	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 2; 64.3 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 149 bbls drilling fluid at 10.1 ppg Plug #2 set from 2865m MDRT to 2745m MDRT.	

Date : 09 Jan 2006					Daily Cost : $ 535925	Report Number : 29
3758.0	PA	P	TO	0.5	POOH from plug #2 from 2865m MDRT to 2575m MDRT	
3758.0	PA	P	CHC	1.5	Circulated bottoms up	
3758.0	PA	P	WOC	3.5	WOC. Laid down 54 jts 5" DP	
3758.0	PA	P	TI	1	RIH and tagged TOC plug #2 with 5 klbs at 2735m MDRT	
3758.0	PA	P	TO	2	POOH from 2735m MDRT to 1650m MDRT	
3758.0	PA	P	CMD	0.5	Circulated and spotted 60 bbls high visc pill at 1650m MDRT	
3758.0	PA	P	TO	0.5	POOH from 1650m MDRT to 1550m MDRT. Rigged up cementing hose	
3758.0	PA	P	CMP	1	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 3; 70.4 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 74 bbls drilling fluid at 10.1 ppg Plug #3 set from 1550m MDRT to 1430m MDRT.	
3758.0	PA	P	TO	0.5	Rigged down cementing hose. POOH from cement plug #3	
3758.0	PA	P	CMD	1	Circualted bottoms up. Spotted 260 bbls inhibited mud in casing.	

Date : 10 Jan 2006					Daily Cost : $ 474060	Report Number : 30
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	PA	P	PLD		3	Pumped slug. POOH and laid down 60 jts of 5" drillpipe from 1262m MDRT to 688m MDRT
3758.0	PA	P	TI		1	RIH from 688m MDRT to 1204m MDRT to tag cement plug #3. Cement samples not firm.
3758.0	PA	P	PLD		1.5	Laid down drill pipe from 1204m MDRT to 917m MDRT.
3758.0	PA	P	TI		2	RIH from 917m MDRT and tag TOC plug #3 at 1421m MDRT with 5 klbs
3758.0	PA	P	TO		1	POOH from 1421m MDRT to 825m MDRT
3758.0	PA	P	CMD		0.5	Circulated and spotted 60 bbls high visc pill at 825m MDRT
3758.0	PA	P	TO		0.5	POOH from 825m MDRT to 721m MDRT. Rigged up cementing hose
3758.0	PA	P	CMP		1	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 4; 49.7 bbl 15.8 ppg, G cement + additives (see report). Displaced with 30 bbls drilling fluid at 10.1 ppg Plug #4 set from 721m MDRT to 625m MDRT.
3758.0	PA	P	TO		0.5	POOH from cement plug #4 from 721m MDRT to 625m MDRT
3758.0	PA	P	CHC		3	Closed annular preventer, reverse circulated 2 X DP volumes (80 bbls). Displaced choke and kill lines to seawater. Displaced riser and booster line to seawater
3758.0	PA	P	TO		2.5	Held JSA. POOH from 625m MDRT and laid out mule shoe. Cleaned cement from last 8 stands of drillpipe
3758.0	PA	P	CHC		1.5	Held JSA. Made up jet sub and wear bushing retrieval tool. RIH and jetted stack and wellhead areas.
3758.0	PA	P	WH		2.5	Engaged wear bushing with retrieval tool and POOH. 35 klbs overpull to recover noted. Laid out retrieval tool and jetting sub
3758.0	PA	P	CMP		1	Held JSA. Rigged up Dowell and high pressure test pump. Pressure tested choke and kill lines as per DOGD requirements to 250 psi low and 14,000 psi high for 10 minutes each
3758.0	BOP	P	RR2		1	Rigged down 350t elevators and picked up 500t elevators
3758.0	BOP	P	RR2		1.5	Held JSA. Rig up floor to recover riser and BOP

Date : 11 Jan 2006					Daily Cost : $ 483017	Report Number : 31
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	BOP	P	RR2		1	Continued to rig up riser handling equipment
3758.0	BOP	P	RR2		1	Picked up and installed diverter running tool. Verified tool lock with 10 klbs overpull
3758.0	BOP	P	RR2		1	Removed and laid out diverter
3758.0	BOP	P	RR2		1.5	Picked up landing joint and made up to slip joint. Scoped in slip joint

Date : 11 Jan 2006					Daily Cost : $ 483017	Report Number : 31
3758.0	BOP	P	RR2		0.5	Unlatched BOP's from wellhead
3758.0	BOP	P	RR2		1.5	Removed storm saddles. Latch in SDL ring
3758.0	BOP	P	RR2		3	Lowered slip joint. Removed choke and kill goosenecks and booster line. Picked up and laid out landing joint. Moved rig 24 meters off location
3758.0	BOP	P	RR2		14.5	Pulled BOP's and laid out marine riser. Back loaded 26 joints to the Pacific Wrangler for shipment to Eden

Date : 12 Jan 2006					Daily Cost : $ 460184	Report Number : 32
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	BOP	P	RR2		3.5	Continued to pull BOP's and lay out marine riser.
3758.0	BOP	P	RR2		1	Pulled riser double and landed out BOP's on carrier
3758.0	BOP	P	RR2		5	Removed guidelines from BOP's. Removed clamps from pod hoses. Broke riser double and 5 ft termination spool from BOP's. Skidded BOP's to starboard side and laid down riser double and termination spool
3758.0	BOP	P	RR2		1.5	Rigged down riser handling equipment, rigged up 5" DP handling equipment and moved rig back over location
3758.0	PA	P	TI		3.5	Held JSA, Picked up 20" X 30" casing cutter assembly. RIH with 5" DP
3758.0	PA	P	TI		0.5	Moved rig starboard forward to stab casing cutter assembly into wellhead
3758.0	PA	P	CCT		0.5	Engaged cutter asembly and tested with 40 klbs over pull. Commenced cutting casing. Cut 20" casing free
3758.0	PA	TP	TO	VE	2	POOH with wellhead and 20" casing stub. Laid out same
3758.0	BOP	TP	HBHA	VE	2	Held JSA. Changed out casing cutters blades, grapple, spacer sub and centralizer on casing cutter assembly
3758.0	PA	TP	TI	VE	2	RIH with casing cutter to 30" housing
3758.0	PA	P	CCT		1	Engaged casing cutter assembly into housing and test with 40 klbs overpull. Commenced cutting 30" casing. Cut 30" casing
3758.0	PA	P	TO		1.5	POOH with guide base and 30" housing

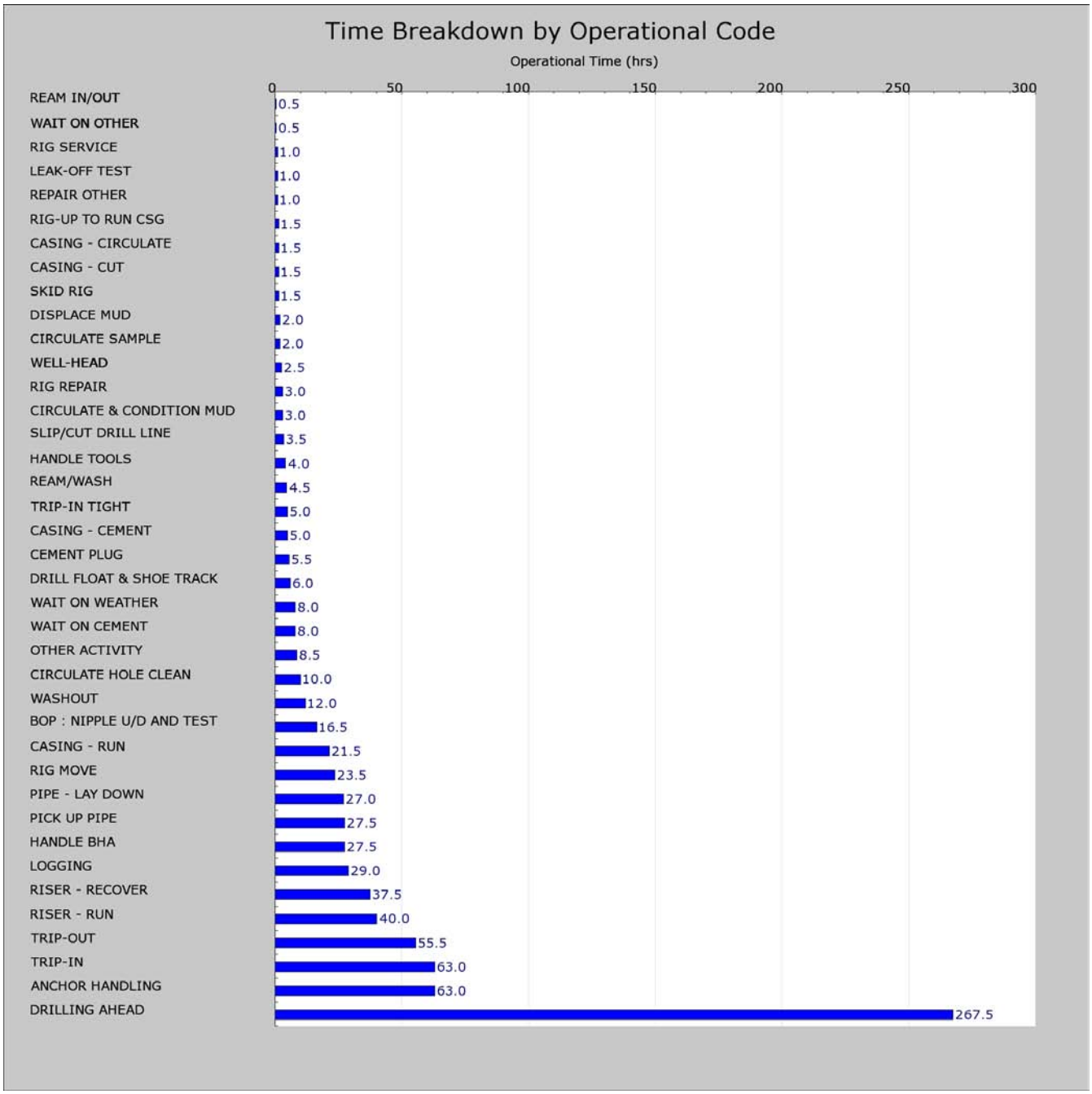
Date : 13 Jan 2006					Daily Cost : $ 461375	Report Number : 33
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	PA	P	TO		1	Continued POOH with guide base and 30" housing
3758.0	PA	P	TO		0.5	Landed out and secured guide base on trolley. Backed out cap screws on guidebase to 30" housing. Conducted 100m radius seabed survey with ROV after pulling PGB. Fugro documentation and DVD to follow.
3758.0	PA	P	TO		1.5	Picked up 30" housing and 30" casing cut off to rig floor. Unlatched spear and laid out 30" housing. Broke down and laid out 30" spear and casing cutting BHA
3758.0	PA	P	TO		1.5	Removed guidelines from guidebase. Moved guidebase on trolley to starboard side of moonpool
3758.0	PA	P	PLD		5.5	RIH with 8" DC's and 5" HWDP from derrick. Laid out same
3758.0	PA	P	PLD		4	RIH with 20 stands 5" DP and laid down same
3758.0	PA	P	PLD		3.5	RIH with 20 stands 5" DP and laid out same
3758.0	PA	P	PLD		4.5	RIH with 20 stands 5" DP and laid out same. Used rig tongs to break out over-torqued pipe
3758.0	PA	P	PLD		2	RIH with 20 stands 5" DP and laid out 10 singles

Date : 14 Jan 2006					Daily Cost : $ 489283	Report Number : 34
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	PA	TP	WO	OTH	0.5	Waited on Medivac helicopter to depart to re-commence crane operations for laying out drillpipe. (Medivac required due to sick person - no injury or safety incident occured)

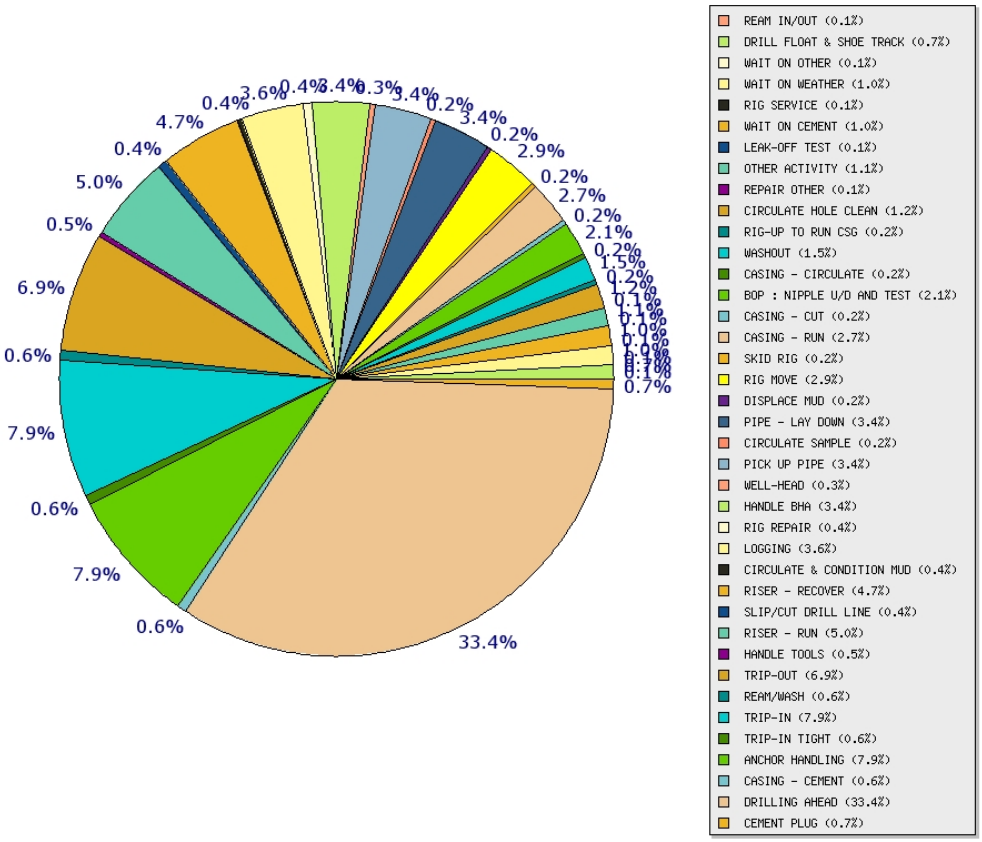
Date : 14 Jan 2006					Daily Cost : $ 489283	Report Number : 34
3758.0	PA	P	PLD	3	Continued to lay down 5" DP	
3758.0	AR	P	OA	5.5	De-ballast rig. Work on Elmago brake while de-ballasting rig.	
3758.0	AR	P	AH	15	De-ballasting completed at 09:15 Commenced Pulling anchors as follows: Boat-------Anchor--- PCC to Boat---Off Bottom----Anchor Racked-----PCC to Rig Grip---------#6----------06:45----------07:35----------10:40----------10:47 Wrangler---#2----------08:11----------10:00----------13:06----------13:21 Grip---------#3----------11:09----------11:48----------13:42----------14:03 Wrangler---#7----------13:35----------14:30----------16:22----------16:31 Grip---------#1----------14:21----------19:30---------- 21:38----------21:58 Grip---------#5----------22:16----------23:05 Wrangler on put on tow bridle @ 18:20 hrs	

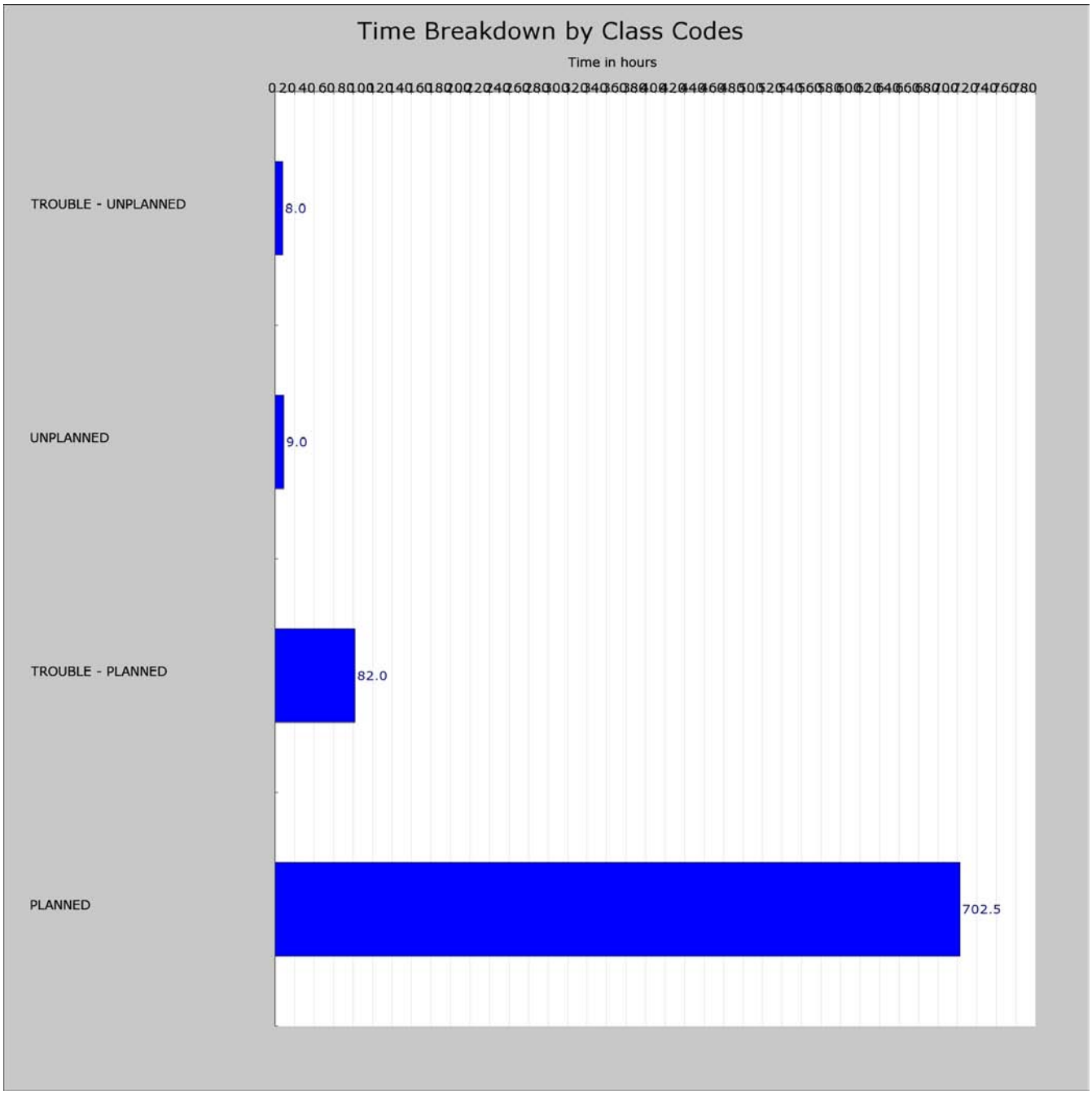
Date : 15 Jan 2006					Daily Cost : $ 680037	Report Number : 35
Depth (m)	Phase	Cls	Op	R.C.	Hrs	Activity
3758.0	AR	P	AH		2.5	Far Grip pulling bight of chain back to rig to release tension @ 0020hrs. Tension dropping on #5 anchor, commence to heave in @ 0050hrs. Anchor #5 @ 1350m chain out, tension dropping @ 0130hrs. Far Grip reports work wire inadvertently paid out 700m @ 0215hrs
3758.0	AR	TP	AH	OTH	3.5	Trouble shooted Far grip winch problems. Far Grip reported damage to low gear and only able to work with high gear. Prepared to move vessel to acertain tonnage available in high gear
3758.0	AR	P	AH		9	Pulling anchors as follows: Boat-------Anchor--- PCC to Boat---Off Bottom----Anchor Racked-----PCC to Rig Grip---------#5----------08:18----------08:41 Grip---------#8----------08:52----------09:25----------11:25----------11:40 Grip---------#4----------11:57----------12:50----------14:53----------N/A Wrangler put on tow bridle @ 18:20 hrs Jan 14, 2006 Ocean Patriot on tight tow @ 15:00 Jan 15, 2006 Ocean Patriot handed over to Anzon Australia Limited @ 15:00 Jan 15, 2006 Statement of facts obtained from Ocean Patriot, Wrangler and Far Grip

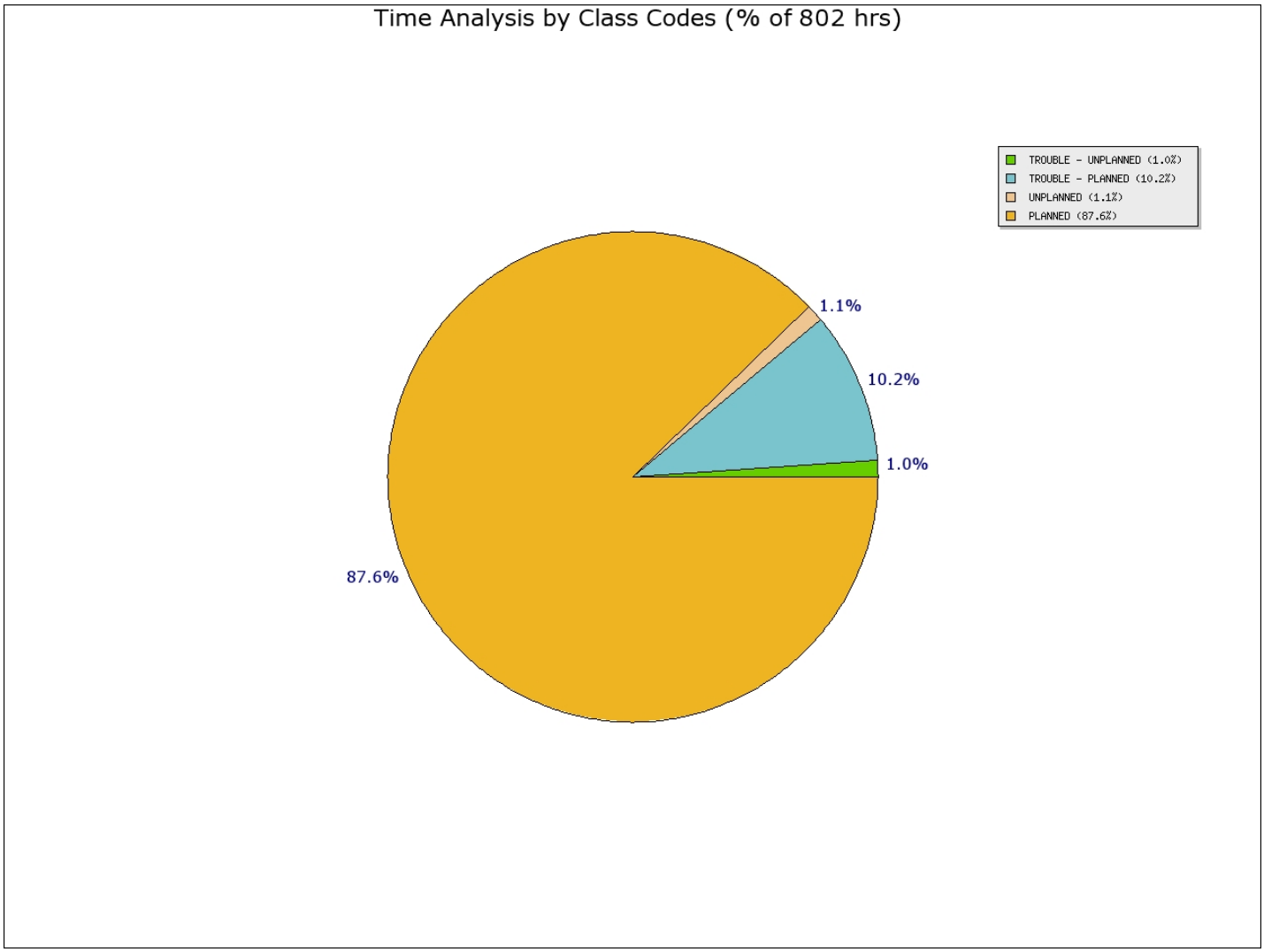
Time Analysis



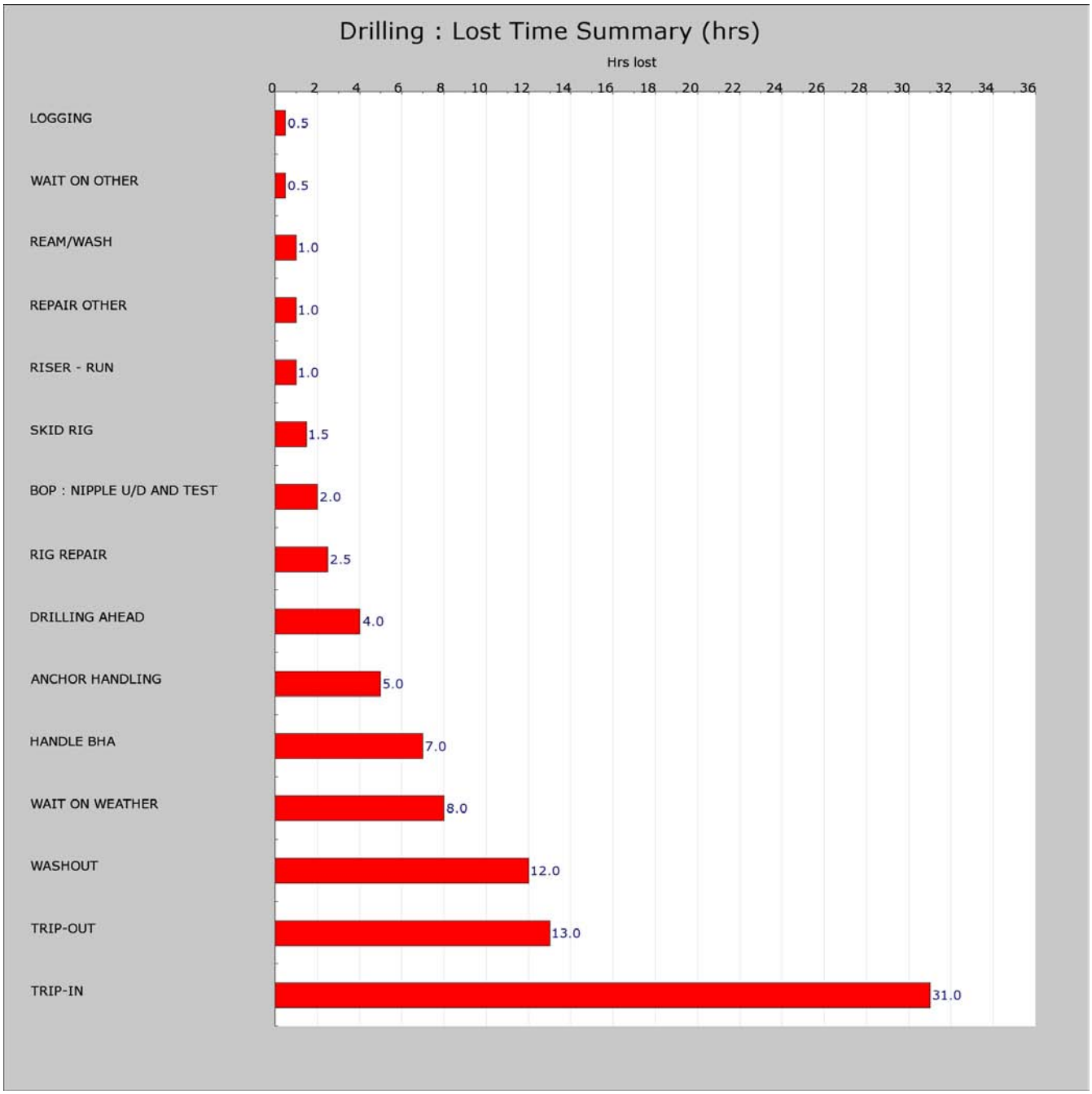
Time Analysis by Operational Code (% of 802 hrs)

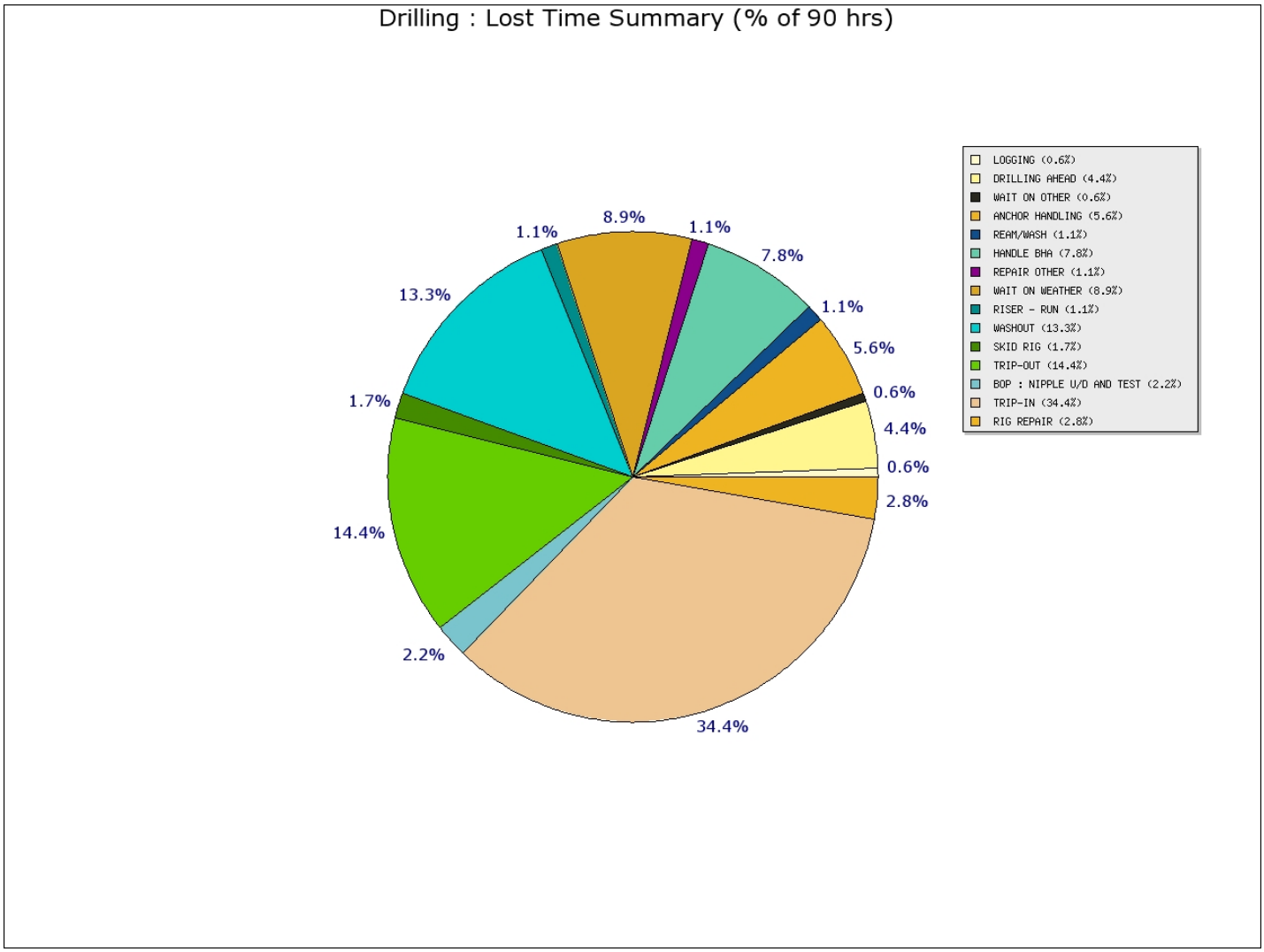


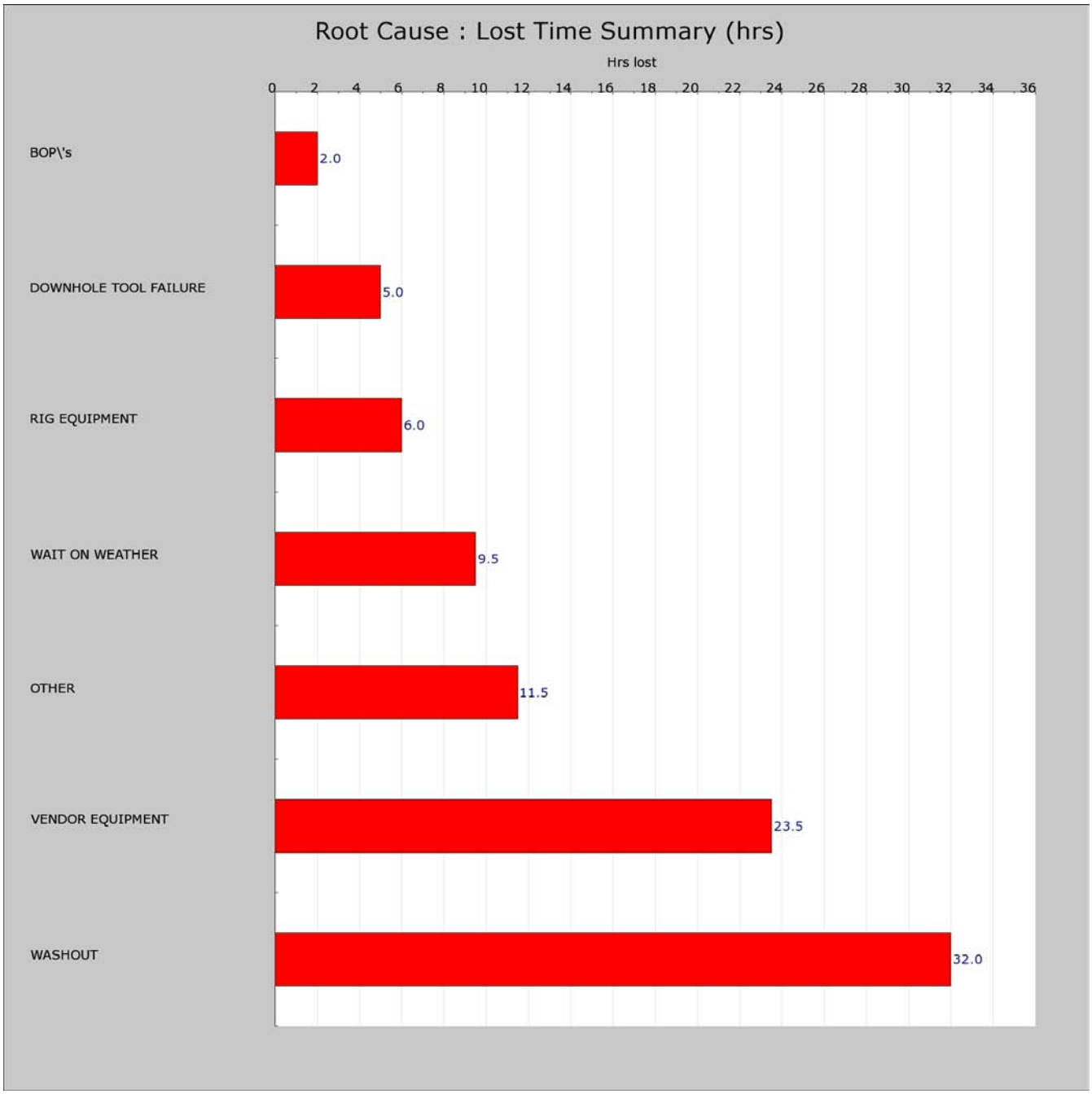


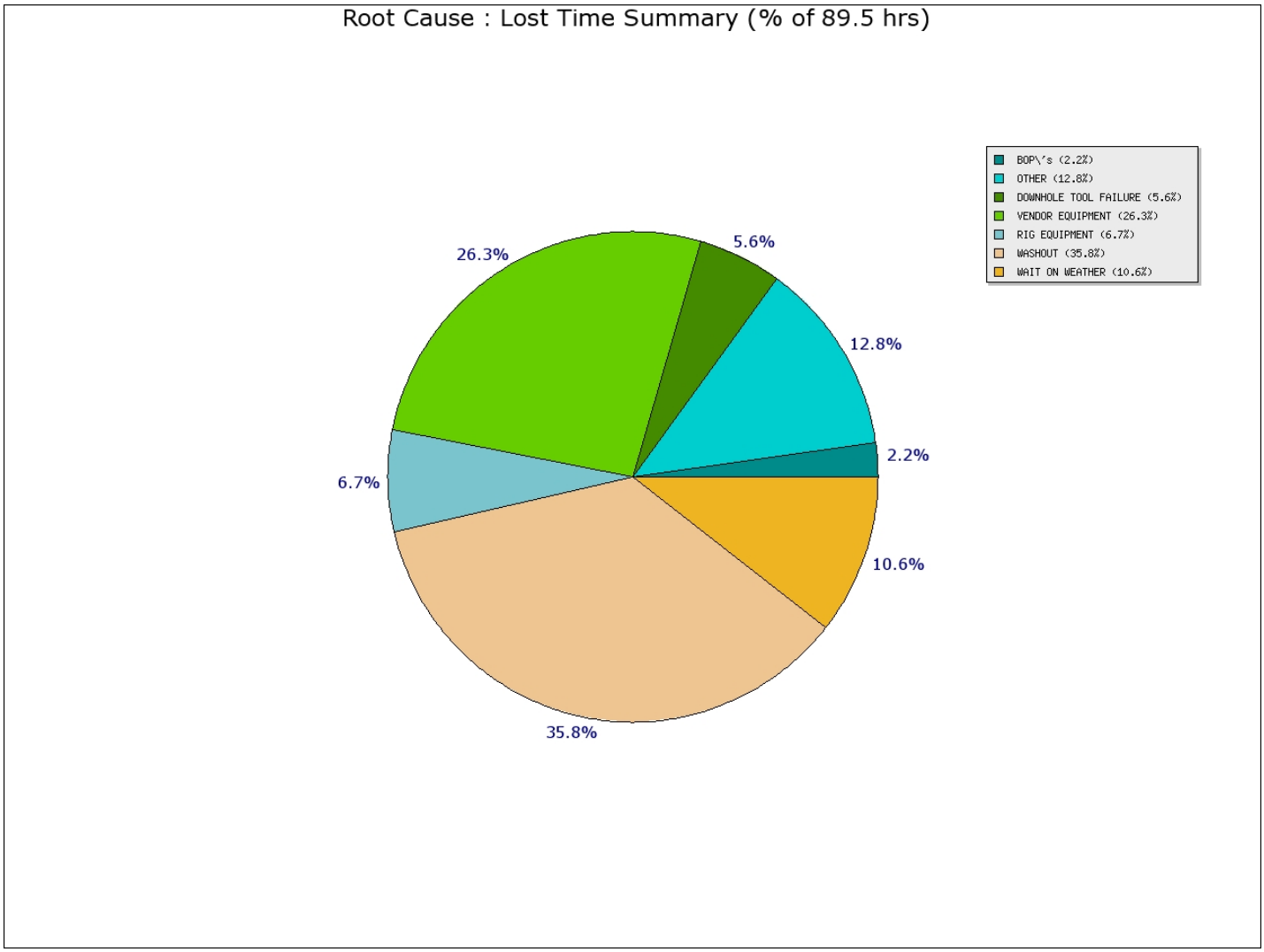


Trouble Time Analysis









NPT During Programmed Time

Date	PHS	Operation	NPT	Depth	Description of Programmed Trouble Time
16 Dec 2005	SC	REPAIR OTHER	1	650.0	Had rig welder manufacture 2 x "C" plates due to #1 & #2 guide line spears releasing and not latching correctly.
17 Dec 2005	SC	SKID RIG	1.5	650.0	Stabbed casing in open hole with ROV assistance and by moving the rig 4m stbd aft.
18 Dec 2005	IH	HANDLE BHA	1.5	650.0	Attempt to test MWD tools. Failure to produce survey information. Gamma ok. Change out stand pipe sensor after discussing with Sperry Sun in Perth. Re-test down hole tools, still not transmitting survey data
18 Dec 2005	IH	HANDLE BHA	3.5	650.0	POOH and Rack back BHA from 103m to access MWD internals at rotary table. Remove faulty unit and install back up unit. Run in hole to 103m. Shallow test OK. Battery module is the suspected faulty item.
18 Dec 2005	IH	TRIP-IN	1	650.0	Move rig to assist with stabbing drill string in 30" housing. Initialy guide ropes ok but due to excess current and movement 2 broke then the remaining 2. Skid rig to assist with stabbing, due to 5-6m seas and 42knot winds the winch tension was excessive before sea bed movement was achieved.
18 Dec 2005	IH	TRIP-IN	3.5	650.0	POOH from 604m to surface, install new soft line guide ropes to assist in stabbing. RIH to PGB at 605m, stab and continue RIh to top of cement at 644m.
23 Dec 2005	BOP	RISER - RUN	1	1525.0	ROV camera system problems while on bottom monitoring BOP/PGB. Camera's were cutting out and all visibility was lost. Topside black and white camera still working. Recover ROV and move top side black and white camera to front pan tilt for landing bops'. Water had ingressed into camera electrics cannister. Gain use of 2 cameras and dive ROV
24 Dec 2005	IH	BOP : NIPPLE U/D AND TEST	2	1525.0	Attempt function test on blue pod, Run-away observed on open function for upper annular. Function several times and uncontroled flow stopped. Change back to yellow pod and upper annular functions ok. Proceed with operations after discussing equipment failure. Signs made for all BOP panels stating not to operate upper annular on blue pod. Currently drilling on Yellow pod.
27 Dec 2005	IH	DRILLING AHEAD	0.5	2787.0	Backed out saver sub on Top Drive during routine connection. Layed out single, installed new saver sub on Top Drive and picked up a replacement single of 127mm (5") dp.
27 Dec 2005	IH	DRILLING AHEAD	0.5	2991.0	Top Drive pipe handler failed to break out drill pipe during routine connection, change out front carrier die while circulating down string.
28 Dec 2005	IH	DRILLING AHEAD	1.5	3266.0	Drilling operations suspended due to riser flex joint bullseye reading exceeding "GEM's" guidelines. Circulate while trying to maneouver rig with anchor winches. Wind 35-40 knots, Seas 1.5m WSW, Swell 1.5m NE
29 Dec 2005	IH	DRILLING AHEAD	1	3356.0	Change out piston on #3 mud pump. fault find and repair blower motor fault.
30 Dec 2005	IH	DRILLING AHEAD	0.5	3390.0	Elmagco auxillary brake problems. fault find and make repairs. Continue with 50% power available to Elmagco
02 Jan 2006	IH	WASHOUT	6.5	3571.0	Continued POOH checking for washout. Visually inspect tool joint seal faces of each stand for wear. Flow checked at casing shoe and at HWDP. Downloaded sources from LWD tools. POOH and inspected BHA for washout. Broke off bit and laid out motor
02 Jan 2006	IH	TRIP-IN	2	3571.0	Made up 12 1/4" rotary BHA with Smith GF30BOVCPS (c/w 3 X 18 nozzles), install new HOC.
02 Jan 2006	IH	TRIP-IN	2	3571.0	Initailized MWD and install sources in tool.
02 Jan 2006	IH	TRIP-IN	6.5	3571.0	Picked up additional 8" DC's & RIH with 12 1/4" BHA, changed out drilling jar, continued RIH. Shallow pulse tested MWD with 850 GPM @ 2000psi, OK. RIH with 5" DP from derrick to 2134m MDRT, filled drillstring each 20 stands
02 Jan 2006	IH	TRIP-OUT	2	3571.0	Flow checked 15 minutes, good. POOH for LWD failure and potential washout from 2593m MDRT to 2020m MDRT. 60klbs overpull @ 2326m MDRT, worked drill string free
03 Jan 2006	IH	TRIP-OUT	1.5	3571.0	Continued POOH for LWD failure (also POH wet looking for washout) from 2020m MDRT to 1510m MDRT

NPT During Programmed Time

Date	PHS	Operation	NPT	Depth	Description of Programmed Trouble Time
03 Jan 2006	IH	TRIP-OUT	1	3571.0	Installed top drive and pump through drill string at 1510m MDRT to verify pump pressure loss. 220 SPM, 940 GPM, 3600 psi, no pressure loss noted. Presure test Pumps #1, #2 & #3 10 minutes each to 3800 psi against standpipe manifold to verify mud pump and mudline integrity. Observed average pressure loss of 91psi over 10 minutes
03 Jan 2006	IH	TRIP-OUT	2.5	3571.0	Continued POOH for LWD failure (also POOH wet looking for washout) from 1510m MDRT to 271m MDRT
03 Jan 2006	IH	TRIP-OUT	4	3571.0	POOH with 12 1/4" BHA. Removed sources from LWD tools. Laid out LWD string. Downloaded data and diagnostics information (Pulser falure).
03 Jan 2006	IH	TRIP-IN	3	3571.0	Lined up Dowel cementing unit and pressure tested mud pumps and surface mud lines to 4200 psi. Calibrated gauges between rig floor, mud loggers, MWD, and Dowell. Picked up new 12 1/4" rotary BHA while pressure testing
03 Jan 2006	IH	TRIP-IN	4	3571.0	Continued to pick up 12 1/4" BHA. Initialized LWD and installed sources. RIH and shallow pulse tested LWD with 850 GPM @ 200 SPM and 1700 psi, good
03 Jan 2006	IH	TRIP-IN	2.5	3571.0	RIH with 5" DP and filled drillstring each 20 stands to 1510m MDRT
03 Jan 2006	IH	WAIT ON WEATHER	3.5	3571.0	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 40-45knts WSW Seas; 3m Swells; 4m Pitch 0.7 - 0.9 Roll; 0.8 - 0.9 Perform General rig maintenance and PM's
04 Jan 2006	IH	WAIT ON WEATHER	3.5	3571.0	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 30-22knts WSW Seas; 2.5m - 1.5m Swells; 4m - 3m Pitch 0.6 Roll; 0.8 Perform General rig maintenance and PM's
04 Jan 2006	IH	WAIT ON WEATHER	1	3571.0	Repositioned rig to bring flex joint angle to < 1 degree
04 Jan 2006	IH	TRIP-IN	4.5	3571.0	Continued to RIH with 5" DP from 1510m MDRT to 3487m MDRT
04 Jan 2006	IH	REAM/WASH	1	3571.0	Washed and reamed from 3487m MDRT to 3571m MDRT
07 Jan 2006	IH	RIG REPAIR	1	3758.0	Repaired hose on racking arm
08 Jan 2006	IH	LOGGING	0.5	3758.0	Troubleshot network cabling problem with computer hardware in logging unit
09 Jan 2006	PA	RIG REPAIR	0.5	3758.0	Worked on mud pump SCRs. Rotated and reciprocated drillstring during repairs
12 Jan 2006	PA	TRIP-OUT	2	3758.0	POOH with wellhead and 20" casing stub. Laid out same
12 Jan 2006	BOP	HANDLE BHA	2	3758.0	Held JSA. Changed out casing cutters blades, grapple, spacer sub and centralizer on casing cutter assembly
12 Jan 2006	PA	TRIP-IN	2	3758.0	RIH with casing cutter to 30" housing
14 Jan 2006	PA	WAIT ON OTHER	0.5	3758.0	Waited on Medivac helicopter to depart to re-commence crane operations for laying out drillpipe. (Medivac required due to sick person - no injury or safety incident occured)
15 Jan 2006	AR	ANCHOR HANDLING	3.5	3758.0	Trouble shooted Far grip winch problems. Far Grip reported damage to low gear and only able to work with high gear. Prepared to move vessel to acertain tonnage available in high gear

APPENDIX 2

DAILY DRILLING REPORTS

05 Nov 2005 **From:** **To:**

DRILLING MORNING REPORT # 1
Culverin 1

Well Data

Country	Australia	MDBRT	0.0m	Cur. Hole Size		AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	0.0m	Last Casing OD		AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT		Daily Cost	$ 4339992
Rig	OCEAN PATRIOT	Days from spud	0.00	Shoe MDBRT		Cum Cost	$ 4339992
Wtr Dpth(MSL)	585.0m	Days on well	0.25	FIT/LOT:	/	Days Since Last LTI	
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600

Planned Op

Summary of Period 0000 to 2400 Hrs

Operations For Period 0000 Hrs to 2400 Hrs on 05 Nov 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	RM	1800	2400	6.00	0.0m	Apache released Ocean Patriot to Nexus at Fur Seal Loction. Tow to Culverin Location. Pacific Wrangler on tow bridle. Far Grip following 24:00 hrs Position: 38deg 5.7min S, 148deg 343.1min E.

Operations For Period 0000 Hrs to 0600 Hrs on 06 Nov 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	RM	0000	0300	3.00	0.0m	Tow to Culverin location. .
RM	P	RM	0300	0600	3.00	0.0m	(IN PROGRESS) Pass #4 Anchor PCC to Far Grip. Anchor #4 on bottom at 09:00 hrs. PCC at rig 11:44 hrs. Pass #8 Anchor PCC to Far Grip at 11:46 hrs. Run anchor #8. At 14:50 hrs Anchor winch failed & winch gear box was serverly damaged. #4 anchor chain dropped to the sea bed. Rig off hire at 17:00 hrs and Statement Of Fact taken. Haul in #8 anchor which was bolstered at 117:00 hrs. PCC on rig at 17:05 hrs. Statement of Fact taken at 17:00 hrs.

Phase Data to 2400hrs, 05 Nov 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	6	05 Nov 2005	05 Nov 2005	6.00	0.250	0.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	43	
DOGC	8	
ESS	8	
DOGC	2	
NEXUS	2	
FUGRO SURVEY LTD (ROV)	4	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	

Printed on 21 Dec 2005

Personnel On Board

DOGC	3	
FUGRO SURVEY LTD (RIG POSITIONING)	2	
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Workday Case	17 Aug 2005	80 Days	sgkjfkagk akghhahfhjkhakjhkh	hghdfgfgfggfjgfgfggfgajfgggfgfgg

06 Nov 2005 **From:** **To:**

DRILLING MORNING REPORT # 2
Culverin 1

Well Data

Country	Australia	MDBRT	0.0m	Cur. Hole Size		AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	0.0m	Last Casing OD		AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT		Daily Cost	$ 334792
Rig	OCEAN PATRIOT	Days from spud	0.00	Shoe MDBRT		Cum Cost	$ 4674784
Wtr Dpth(MSL)	585.0m	Days on well	1.05	FIT/LOT:	/	Days Since Last LTI	
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600

Planned Op

Summary of Period 0000 to 2400 Hrs

Tow to Culvering Location. Run & set anchor #4. While running anchor #8 anchor winch#4 failed destroying the gear box allowing the anchor & anchor chain to fall to the sea bed. Bolster anchor # 8.
Rig off hire at 15:00 hrs. On tow to Two Fold Bay for repair.

Operations For Period 0000 Hrs to 2400 Hrs on 06 Nov 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	RM	0000	0300	3.00	0.0m	Tow to Culverin location. .
RM	P	RM	0300	1700	14.00	0.0m	Pass #4 Anchor PCC to Far Grip. Anchor #4 on bottom at 09:00 hrs. PCC at rig 11:44 hrs. Pass #8 Anchor PCC to Far Grip at 11:46 hrs. Run anchor #8. At 14:50 hrs Anchor winch failed & winch gear box was serverly damaged. #4 anchor chain dropped to the sea bed. Rig off hire at 17:00 hrs and Statement Of Fact taken. Haul in #8 anchor which was bolstered at 117:00 hrs. PCC on rig at 17:05 hrs. Statement of Fact taken at 17:00 hrs.
RM	TP (RE)	RM	1445	1700	2.25	0.0m	At 14:45 hrs, while paying out on anchor #8, anchor winch #4 failed & winch gear box and motor was serverly damaged. #4 anchor chain dropped to the sea bed. Haul in #8 anchor which was bolstered at 17:00 hrs. PCC on rig at 17:05 hrs. Pacific Wrangler still on tow bridle. Statement of Fact taken at 17:00 hrs. Rig off contract at 17:00 hrs Nov 6, 2005.

Phase Data to 2400hrs, 06 Nov 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.25	05 Nov 2005	06 Nov 2005	25.25	1.052	0.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	43	
DOGC	8	
ESS	8	
DOGC	2	
NEXUS	2	
FUGRO SURVEY LTD (ROV)	4	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	

Printed on 21 Dec 2005

Personnel On Board

DOGC	3	
FUGRO SURVEY LTD (RIG POSITIONING)	2	
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Lost Workday Case	17 Aug 2005	81 Days	sgkjfkagk akghhahfhjkhakjhkh	hghdfgfgfggfjgfgfggfgajfgggfgfgg

14 Dec 2005 **From:** **To:**

DRILLING MORNING REPORT # 3
Culverin 1

Well Data

Country	Australia	MDBRT	0.0m	Cur. Hole Size		AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	0.0m	Last Casing OD		AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT		Daily Cost	$ 1161836
Drill Co.	DOGC	Days from spud	0.00	Shoe MDBRT		Cum Cost	$ 5836620
Rig	OCEAN PATRIOT	Days on well	2.21	FIT/LOT:	/	Days Since Last LTI	
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Running last anchor.
Planned Op	Complete running anchors and de-ballast rig, pick up drillpipe.

Summary of Period 0000 to 2400 Hrs

Run Anchors

Operations For Period 0000 Hrs to 2400 Hrs on 14 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
RM	P	RM	0430	0500	0.50	0.0m	Back on Contract with Nexus after Rig Repair
A	P	AH	0500	0630	1.50	0.0m	#8 Anchor on bottom @ 0500hrs and heave in to 95t pull. Wrangler strip back #8 and pass PCC to rig @ 0620hrs. Pass #5 PCC to Wrangler @ 0635hrs, unable to pay out on windlass.
A	TU (RE)	AH	0630	0730	1.00	0.0m	Troubleshoot electrical fault on # 5 windlass.
A	P	AH	0730	1200	4.50	0.0m	Run #5 Anchor @ 0732hrs, on bottom @ 0942hrs. Wrangler strip back #5 and pass PCC to rig @ 1139hrs.
A	P	AH	1200	2400	12.00	0.0m	Pass #1 PCC to Wrangler @ 1208hrs, on bottom @ 1413hrs. Tension #4 & #8 Anchors, Re-deploy #1 @ 1555hrs on bottom @ 1648hrs. Wrangler strip back #1 and pass PCC to rig @ 1740hrs (Wrangler to stand-by) Release Far Grip from tow wire @ 1750hrs. Pass #3 PCC to Far Grip @ 1857hrs, on bottom @ 2045hrs. Far Grip strip back #3 and pass PCC to rig @ 2235hrs. Pass #7 PCC to Far Grip @ 2250hrs, commence to run anchor.
A	P	AH	1545	1745	2.00	0.0m	Re-deploy #1 anchor. On bottom @ 1648hrs. Meanwhile Electricians reset tension gauges. Wrangler strip back #1 and pass PCC to rig @ 1740hrs . Wrangler crew out of work hours - stopped work and on stand-by to allow crew to rest)
A	P	AH	1745	2400	6.25	0.0m	Release Far Grip from tow wire @ 1750hrs. Pass #3 PCC to Far Grip @ 1857hrs, on bottom @ 2045hrs. Far Grip strip back #3 and pass PCC to rig @ 2235hrs. Pass #7 PCC to Far Grip @ 2250hrs, commence to run anchor.

Operations For Period 0000 Hrs to 0600 Hrs on 15 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
A	P	AH	0000	0500	5.00	0.0m	#7 Anchor on bottom @ 0109hrs. Far Grip strip back, passed #7 PCC to rig @ 0253hrs. Passed #2 PCC to Wrangler @ 0030hrs,Anchor on bottom @ 0249hrs. Wrangler strip back, passed #2 PCC to rig @ 0438hrs. Passed #6 PCC to Far Grip @ 0305hrs, Anchor on bottom @ 0514hrs.
A	TU (RE)	AH	0500	0530	0.50	0.0m	Troubleshoot electrical fault on # 6 windlass.
A	P	AH	0530	0600	0.50	0.0m	(IN PROGRESS) Tension #6 anchor to 120T and strip back; passed #6 PCC to rig at 07:19hrs. Meanwhile, commence cross tensioning anchors: #4 (205T) & #8 (200T) #1 (210T) & #5 (210T) #2 (210T) & #6 (200T) #3 (200T) & #7 (200T) All held O.K.
A	P	AH	0530	0600	0.50	0.0m	(IN PROGRESS) Far Grip strip back, passed #6 PCC to rig @ 0725hrs.

Printed on 21 Dec 2005

Phase Data to 2400hrs, 14 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	27.25	14 Dec 2005	14 Dec 2005	53.00	2.208	0.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT			11.8	11.8
Bentonite Bulk	MT			47	47.0
Diesel	m3			108.3	108.3
Fresh Water	m3			145.8	145.8
Drill Water	m3			103.5	103.5
Cement G	MT			72.61	72.6
Cement HT (Silica)	MT			1.83	1.8

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	8	
DOGC	7	other
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	
FUGRO SURVEY LTD (RIG POSITIONING)	2	
GEOSERVICES OVERSEAS S.A.	2	
Total	82	

Marine

Weather on 14 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	5kn	270.0deg	1,018.0mbar	19C°	0.2m	270.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		1,801.00klb	1.0m	270.0deg	6s	

Comments

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			Run Anchors	

Item	Unit	Used	Quantity
Diesel	CuMtr		277
Fresh Water	CuMtr		322
Drill Water	CuMtr		501
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		173

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			Run Anchors	

Item	Unit	Used	Quantity
Diesel	CuMtr		325.2
Fresh Water	CuMtr		127
Drill Water	CuMtr		583
Cement G	Mt		71.5
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		80
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	1534 / 1547	3 / 12	

15 Dec 2005

From: Westman/Rodda
To: J.Ah-Cann

DRILLING MORNING REPORT # 4
Culverin 1

Well Data

Country	Australia	MDBRT	0.0m	Cur. Hole Size		AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	0.0m	Last Casing OD		AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT		Daily Cost	$ 427492
Drill Co.	DOGC	Days from spud	0.00	Shoe MDBRT		Cum Cost	$ 6264112
Rig	OCEAN PATRIOT	Days on well	3.35	FIT/LOT:	/	Days Since Last LTI	933
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Picking up DP, mixing spud mud. Offload and backload Pacific Wrangler.
Planned Op	Spud well and run 30" casing.

Summary of Period 0000 to 2400 Hrs

Complete running of anchors.

Operations For Period 0000 Hrs to 2400 Hrs on 15 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
A	P	AH	0000	0500	5.00	0.0m	#7 Anchor on bottom @ 0109hrs. Far Grip strip back, passed #7 PCC to rig @ 0253hrs. Passed #2 PCC to Wrangler @ 0030hrs,Anchor on bottom @ 0249hrs. Wrangler strip back, passed #2 PCC to rig @ 0438hrs. Passed #6 PCC to Far Grip @ 0305hrs, Anchor on bottom @ 0514hrs.
A	TU (RE)	AH	0500	0530	0.50	0.0m	Troubleshoot electrical fault on # 6 windlass.
A	P	AH	0530	0900	3.50	0.0m	Tension #6 anchor to 120T and strip back; passed #6 PCC to rig at 07:19hrs. Meanwhile, commence cross tensioning anchors: #4 (205T) & #8 (200T) #1 (210T) & #5 (210T) #2 (210T) & #6 (200T) #3 (200T) & #7 (200T) All held O.K.
A	P	AH	0530	0730	2.00	0.0m	Far Grip strip back, passed #6 PCC to rig @ 0725hrs.
A	P	AH	0730	0900	1.50	0.0m	Cross tension all anchors.
A	P	AH	0900	1400	5.00	0.0m	Ballast rig to drilling draft.
SH	P	PUP	1400	1530	1.50	0.0m	Pick up 201m of 5" DP.
SH	P	PUP	1530	1600	0.50	0.0m	Pull back and rack 201m DP in derrick.
SH	TU (RE)	RR	1600	1630	0.50	0.0m	Repair Hydraulic fitting on racking arm.
SH	P	PUP	1630	2130	5.00	0.0m	P/U 1 stand 9" DC with jetting sub and trip in picking up 550m DP.
SH	P	PUP	2130	2200	0.50	0.0m	Run in with DP from derrick and tag mudline @ 585m L.A.T. Water depth, (607.5m R/T-Mudline L.A.T.)
SH	P	OA	2200	2400	2.00	0.0m	Pull out and rack DP in derrick.

Operations For Period 0000 Hrs to 0600 Hrs on 16 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	PUP	0000	0300	3.00	0.0m	Pick up 20 stands DP. 580m.
SH	P	OA	0300	0400	1.00	0.0m	Rack back 20 stands DP.
SH	P	PUP	0400	0600	2.00	0.0m	Pick up DP. 920m.

Phase Data to 2400hrs, 15 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	10	15 Dec 2005	15 Dec 2005	80.50	3.354	0.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT			0	11.8
Bentonite Bulk	MT			0	47.0
Diesel	m3	129.9	5.5	0	232.7
Fresh Water	m3	35	33.4	0	147.4
Drill Water	m3		17.6	0	85.9
Cement G	MT			0	72.6
Cement HT (Silica)	MT			0	1.8

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	7	
DOGC	4	other
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	2	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	
FUGRO SURVEY LTD (RIG POSITIONING)	2	
GEOSERVICES OVERSEAS S.A.	2	
Total	78	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
JSA	15 Dec 2005	0 Days	Deck = 10, Mech = 2, Drill = 1	
STOP Card	15 Dec 2005	0 Days	Safe = 1, Un-safe = 2	

Marine

Weather on 15 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	23kn	45.0deg	1,014.0mbar	21C°	1.0m	45.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		1,871.00klb	1.5m	45.0deg	7s	

Comments

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			on standby	

Item	Unit	Used	Quantity
Diesel	CuMtr		267
Fresh Water	CuMtr		318
Drill Water	CuMtr		501
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		173

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			backloading	

Item	Unit	Used	Quantity
Diesel	CuMtr		183
Fresh Water	CuMtr		122
Drill Water	CuMtr		583
Cement G	Mt		0
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		0

Printed on 21 Dec 2005

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0941 / 1006	3 / 7	

Printed on 21 Dec 2005

16 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 5
Culverin 1

Well Data

Country	Australia	MDBRT	650.0m	Cur. Hole Size	36.000in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	650.0m	Last Casing OD		AFE No.	3433-1001
		Progress	43.0m	Shoe TVDBRT		Daily Cost	$ 585930
Drill Co.	DOGC	Days from spud	0.44	Shoe MDBRT		Cum Cost	$ 6850042
Rig	OCEAN PATRIOT	Days on well	4.35	FIT/LOT:	/	Days Since Last LTI	934
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Waiting on 30" cement surface samples to set. PGB heading 273deg, 2 x PGB bullseyes reading zero. Cement in place at 0530hrs, floats holding good.
Planned Op	Run and Cement 30" casing, POOH. Lay out 36" BHA. Make up 18 3/4" C.A.R.T, Pick up required Drill pipe, pick up 17 1/2" section BHA.

Summary of Period 0000 to 2400 Hrs

Pick up 93 jnts of 5"dp. Make up 30" C.A.R.T. make up 36" BHA and RIH to 607m. Spud well and drill 36" hole from 607m to 650m. Circulate hole clean and displace. Drop Totco survey(0.5deg @ 643m). POOH. Rig up and ran 30" casing/PGB. Install guide lines.

Operations For Period 0000 Hrs to 2400 Hrs on 16 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SH	P	PUP	0000	0300	3.00	0.0m	Pick up 20 stands DP. 580m.
SH	P	OA	0300	0400	1.00	0.0m	Rack back 20 stands DP.
SH	P	PUP	0400	0600	2.00	0.0m	Pick up DP. 920m.
SH	P	HBHA	0600	0730	1.50	0.0m	Picked up 18 jnts of HWDP and racked in derrick.
SH	P	HT	0730	0930	2.00	0.0m	Made up and racked in derrick, 30" C.A.R.T. BOP hang off tool, 30" cementing stand.
SH	P	HBHA	0930	1200	2.50	0.0m	Make up 36" drilling BHA and ran in hole to 192m.
SH	P	TI	1200	1330	1.50	0.0m	Ran BHA in hole on DP to 607mRT.
SH	P	DA	1330	1600	2.50	650.0m	Spud well and drill 36" hole from 607m to 650m. Pumped 75bbl sweep at mid stand and stand down, spotted 100bbls of hi-vis around BHA prior to connection.Anderdrift tool not working.
SH	P	CHC	1600	1630	0.50	650.0m	Displaced hole with 170bbls of pre-hydrated Bentonite. Dropped Totco single shot survey.
SH	P	TO	1630	1730	1.00	650.0m	Pulled out of hole from 650m to 193m. No hole problems or overpull observed.
SH	P	HBHA	1730	1830	1.00	650.0m	Pulled out of hole BHA from 193m to surface racking all BHA in derrick. Recover survey ½º.
SC	P	RRC	1830	1900	0.50	650.0m	Held Pre-casing JSA and rigged up for 30" casing.
SC	P	CRN	1900	2100	2.00	650.0m	Ran 30" x 20" csg x/o joint, 2 x intermediate joints and housing joint.
SC	P	CRN	2100	2300	2.00	650.0m	Ran 3 x dp stinger, made up 30" C.A.R.T to 30" housing joint and landed out in PGB. Install guide lines.
SC	TP (VE)	RO	2300	2400	1.00	650.0m	Had rig welder manufacture 2 x "C" plates due to #1 & #2 guide line spears releasing and not latching correctly.

Operations For Period 0000 Hrs to 0600 Hrs on 17 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	CRN	0000	0200	2.00	650.0m	Ran 30"casing & PGB on drill pipe.
SC	TP (OTH)	SKR	0200	0330	1.50	650.0m	Stabbed casing in open hole with ROV assistance and by moving the rig 4m stbd aft.
SC	P	CRN	0330	0400	0.50	650.0m	Landed out casing with 5klbs of wt down. Circulate to ensure no fill. 2.1m stcik up, 2 x zero bullseye readings. Heading 273 deg. Circulate casing volume while holding JSA for cement job.
SC	P	CMC	0400	0530	1.50	650.0m	Pumped 20bbls of S/W-Dye, mix and pump 200bbls of 15.8ppg cement slurry, displace with 64bbls of S/W. Check floats holding-ok.
SC	P	WOC	0530	0600	0.50	650.0m	(IN PROGRESS) Waiting on surface cement samples to harden.

Phase Data to 2400hrs, 16 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	28.5	15 Dec 2005	16 Dec 2005	99.00	4.125	650.0m
SURFACE CASING(SC)	5.5	16 Dec 2005	16 Dec 2005	104.50	4.354	650.0m

WBM Data

Cost Today $ 7964

Mud Type:	PHB spud	API FL:	Cl:	Solids(%vol):	Viscosity	120sec/qt
Sample-From:	Active pit	Filter-Cake:	K+C*1000:	H2O:	PV	
Time:	1600	HTHP-FL:	Hard/Ca:	Oil(%):	YP	
Weight:	8.80ppg	HTHP-cake:	MBT:	Sand:	Gels 10s	
Temp:			PM:	pH:	Gels 10m	
			PF:	PHPA:	Fann 003	
					Fann 006	
					Fann 100	
					Fann 200	
					Fann 300	
					Fann 600	

Comment

Bit # 1

Wear	I	O1	D	L	B	G	O2	R
	0	0	NO	A	0	I	NO	TD

Bitwear Comments: Bit has no signs of wear or damage.

Size ("):	17.500in	IADC#	117	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)	3.80klb	No.	Size	Progress	43.0m	Cum. Progress	43.0m
Type:	Rock	RPM(avg)	110	1	16/32nd"	On Bottom Hrs	1.5h	Cum. On Btm Hrs	1.5h
Serial No.:	B73369	F.Rate	10.30bpm	3	22/32nd"	IADC Drill Hrs	2.5h	Cum IADC Drill Hrs	2.5h
Bit Model	Titan T-11C	SPP	1888psi			Total Revs		Cum Total Revs	0
Depth In	607.0m	HSI				ROP(avg)	28.67 m/hr	ROP(avg)	28.67 m/hr
Depth Out	650.0m	TFA	1.31						

Bit Comment

BHA # 1

Weight(Wet)	Length 192.6m	Torque(max)	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	String	Torque(Off.Btm)	D.C. (2) Ann Velocity
	Pick-Up	Torque(On.Btm)	H.W.D.P. Ann Velocity
	Slack-Off		D.P. Ann Velocity

BHA Run Description

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.60m	17.500in		B73369	
Hole Opener	2.42m	36.000in	3.062in	710163	
Float Sub	0.92m	9.435in	3.062in	186-0029	
Anderdrift	3.09m	9.500in	3.000in	ADB 996	
9.5in DC	27.18m	9.500in	3.000in		
X/O	1.16m	9.500in	2.812in	MSO 193-01	
8in DC	17.74m	8.000in	2.812in		
X/O	1.16m	8.500in	2.812in	MSO 1930-2	
5in HWDP	138.36m	5.000in	3.000in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
643.00	0.5							

Printed on 21 Dec 2005

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	80.63		74.99	167.4
Bentonite Bulk	MT		22.89	35.43	59.5
Diesel	m3	0	10.8	0	221.9
Fresh Water	m3	31	24.9	0	153.5
Drill Water	m3	583	350.1	17.7	336.5
Cement G	MT	63.7		-10.74	125.6
Cement HT (Silica)	MT		1.83	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	A1700PT	6.500	8.70	97	100	1800	11.90
3	A1700PT	6.500	8.70	97	100	1800	11.90

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	45	
DOGC	3	extra
ESS	8	
DOGC	1	other
NEXUS	3	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	
FUGRO SURVEY LTD (RIG POSITIONING)	2	
GEOSERVICES OVERSEAS S.A.	2	
Total	76	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
JSA	16 Dec 2005	0 Days	Deck = 12, Mech = 1, Drill = 3, Sub Sea =2	
STOP Card	16 Dec 2005	0 Days	Safe = 6, Un-safe = 5	

Marine

Weather on 16 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	4kn	225.0deg	1,012.0mbar	19C°	0.1m	225.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,862.00klb	2.0m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	243.0
2	273.0
3	216.0
4	295.0
5	331.0
6	331.0
7	337.0
8	317.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			on standby

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		254
Fresh Water	CuMtr		313
Drill Water	CuMtr		40

Printed on 21 Dec 2005

				Item	Unit	Used	Quantity
				Cement G	Mt		80
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89
Pacific Wrangler			En-route to town, ETA 0630 17/12/05	Item	Unit	Used	Quantity
				Diesel	CuMtr		178.7
				Fresh Water	CuMtr		116
				Drill Water	CuMtr		
				Cement G	Mt		
				Cement HT (Silica)	Mt		
				Barite Bulk	Mt		
				Bentonite Bulk	Mt		

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	1313 / 1328	8 / 10	First chopper had mechanical problems and had to turn back. Loan chopper from woodside completed crew change.

17 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 6
Culverin 1

Well Data

Country	Australia	MDBRT	650.9m	Cur. Hole Size	36.000in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	650.9m	Last Casing OD	30.000in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	356.0m	Shoe TVDBRT		Daily Cost	$ 487963
Rig	OCEAN PATRIOT	Days from spud	1.44	Shoe MDBRT	650.9m	Cum Cost	$ 7338005
Wtr Dpth(MSL)	585.0m	Days on well	5.35	FIT/LOT:	/	Days Since Last LTI	942
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Trouble shoot Sperry Sun down hole tools. Swapping out internals of MWD with back up equipment.
Planned Op	Drill out 20" casing shoe, commence drilling 17 1/2" hole to proposed TD of 1500m with sea water and hi-vis sweeps. Survey hole with Sperry Sun.

Summary of Period 0000 to 2400 Hrs

Ran and cemented 30" casing. Waited on cement samples to harden 4.5hrs. POOH, picked up 1172m of dp(extra pipe picked up while waiting on MWD equipment preperation), made up and racked 18 3/4" CART, Dowell cement express head. Layed out 36" BHA and picked up 17 1/2" BHA and Sperry Sun equipment.
Prepare rig deck areas for riser.

Operations For Period 0000 Hrs to 2400 Hrs on 17 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
SC	P	CRN	0000	0200	2.00	650.0m	Ran 30"casing & PGB on drill pipe.
SC	TP (OTH)	SKR	0200	0330	1.50	650.0m	Stabbed casing in open hole with ROV assistance and by moving the rig 4m stbd aft.
SC	P	CRN	0330	0400	0.50	650.0m	Landed out casing with 5klbs of wt down. Circulate to ensure no fill. 2.1m stcik up, 2 x zero bullseye readings. Heading 273 deg. Circulate casing volume while holding JSA for cement job.
SC	P	CMC	0400	0530	1.50	650.0m	Pumped 20bbls of S/W-Dye, mix and pump 200bbls of 15.8ppg cement slurry, displace with 64bbls of S/W. Check floats holding-ok.
SC	P	WOC	0530	1000	4.50	650.0m	Waiting on surface cement samples to harden.
SC	P	CRN	1000	1100	1.00	650.0m	Release 30" CART tool. Check bullseye indicators<¼º. POOH & L/d 30" CART.
IC	P	CRN	1100	1200	1.00	650.0m	P/u 18¾" CART and stand in derrick. Make up 2nd 18 3/4" CART for handling well head on deck.
IH	P	PUP	1200	1800	6.00	650.0m	P/u 722m of dp and rack in derrick.(Prepare Sperry Sun BHA on deck while picking up dp)
SH	P	HT	1800	1930	1.50	650.0m	Break down TIW valves and side entry sub from 30" cement stand racked in derrick. Lay out 36" BHA.
IH	P	PUP	1930	2100	1.50	650.0m	Pick up 143m of dp and rack in derrick while [preparing Sperry Sun BHA components.
IH	P	HT	2100	2130	0.50	650.0m	Make up Dowell cement express head and rack in derrick on drifted HWDP.
IH	P	PUP	2130	2330	2.00	650.0m	Pick up 257m of dp and rack in derrick while preparing Sperry Sun BHA components. Total 5" dp picked up 2723m
IH	P	HBHA	2330	2400	0.50	650.0m	Make up 17 1/2" BHA.

Operations For Period 0000 Hrs to 0600 Hrs on 18 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HBHA	0000	0330	3.50	650.0m	Made up 17 1/2" Sperry Sun BHA, drill collars etc. Made up Top Drive for shallow test of down hole equipment on 1st stand of hwdp.
IH	TP (DTF)	HBHA	0330	0500	1.50	650.0m	Attempt to test MWD tools. Failure to produce survey information. Gamma ok. Change out stand pipe sensor after discussing with Sperry Sun in Perth. Re-test down hole tools, still not transmitting survey data
IH	TP (DTF)	HBHA	0500	0600	1.00	650.0m	(IN PROGRESS) POOH and Rack back BHA from 103m to access MWD internals at rotary table. Remove faulty unit and install back up unit. Run in hole to 103m. Shallow test OK. Battery module is the suspected faulty item.

Phase Data to 2400hrs, 17 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	10.5	17 Dec 2005	17 Dec 2005	128.50	5.354	650.0m

WBM Data

Cost Today $ 3057

Mud Type:	PHG Hi-Vis	API FL:		Cl:		Solids(%vol):	
Sample-From:	Pits	Filter-Cake:		K+C*1000:		H2O:	
Time:	2300	HTHP-FL:		Hard/Ca:		Oil(%):	
Weight:	8.70ppg	HTHP-cake:		MBT:		Sand:	
Temp:				PM:		pH:	
				PF:		PHPA:	

Viscosity	120sec/qt
PV	
YP	
Gels 10s	
Gels 10m	
Fann 003	
Fann 006	
Fann 100	
Fann 200	
Fann 300	
Fann 600	

Comment

Bit # 2

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	17.500in	IADC#	117	No.	Size	Progress	356.0m	Cum. Progress	356.0m
Mfr:	REED HYCALOG	WOB(avg)	10.20klb	1	16/32nd"	On Bottom Hrs	6.1h	Cum. On Btm Hrs	6.1h
Type:	Rock	RPM(avg)	145	3	22/32nd"	IADC Drill Hrs		Cum IADC Drill Hrs	0.0h
Serial No.:	B73369	F.Rate	981.00bpm			Total Revs	53	Cum Total Revs	53
Bit Model	Titan T-11	SPP	830psi			ROP(avg)	58.36 m/hr	ROP(avg)	58.36 m/hr
Depth In	650.9m	HSI							
Depth Out		TFA	1.31						

Bit Comment

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT		3.29	0	56.2
Diesel	m3	0	10.8	0	211.1
Fresh Water	m3	30	26.4	0	157.1
Drill Water	m3	461	192.6	0	604.9
Cement G	MT	0	37.4	0	88.2
Cement HT (Silica)	MT		0	0	0.0

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	46	
DOGC	3	extra
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	

Personnel On Board

GEOSERVICES OVERSEAS S.A.	2	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	2	Sperry Sun
WEATHERFORD AUSTRALIA PTY LTD	4	
Total	80	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
JSA	17 Dec 2005	0 Days	Deck = 10, Mech = 3, Drill = 7, Sub Sea =3	
STOP Card	17 Dec 2005	0 Days	Safe = 4, Un-safe = 3	

Marine

Weather on 17 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	30kn	225.0deg	1,009.0mbar	19C°	2.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,598.00klb	1.0m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	254.0
2	278.0
3	220.0
4	291.0
5	328.0
6	335.0
7	340.0
8	313.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			on standby

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		244
Fresh Water	CuMtr		310
Drill Water	CuMtr		40
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler			In town loading riser

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		178.7
Fresh Water	CuMtr		116
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	1400 / 1410	7 / 3	

18 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 7
Culverin 1

Well Data

Country	Australia	MDBRT	650.0m	Cur. Hole Size	36.000in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,006.0m	Last Casing OD	30.000in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	356.0m	Shoe TVDBRT		Daily Cost	$ 454106
Rig	OCEAN PATRIOT	Days from spud	2.44	Shoe MDBRT	650.9m	Cum Cost	$ 7792111
Wtr Dpth(MSL)	585.0m	Days on well	6.35	FIT/LOT:	/	Days Since Last LTI	943
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 17 1/2" hole @1144m
Planned Op	Drill ahead to TD of, circulate and condition hole for casing. Displace hole to PHG, trip to 20" shoe. If ok trip out for casing, if problems encountered then wipe back to btm and repeat above. POOH and run 13 3/8" casing.

Summary of Period 0000 to 2400 Hrs

make up 17 1/2" BHA, RIH and shallow test MWD, tool failure. POOH to surface and change out tool internals for back up unit. RIH to PGB, unable top stab. Soft line guide ropes parted, attempts to move rig were restricted by high anchor tensions and rough weather. POOH and install new ropes. RIH and stab in ok. Drill cmt and shoe. Drill 17 1/2" hole from 650m to 1006m using SW and hi vis sweeps. Surveys every 3 stands.

Operations For Period 0000 Hrs to 2400 Hrs on 18 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HBHA	0000	0330	3.50	650.0m	Made up 17 1/2" Sperry Sun BHA, drill collars etc. Made up Top Drive for shallow test of down hole equipment on 1st stand of hwdp.
IH	TP (DTF)	HBHA	0330	0500	1.50	650.0m	Attempt to test MWD tools. Failure to produce survey information. Gamma ok. Change out stand pipe sensor after discussing with Sperry Sun in Perth. Re-test down hole tools, still not transmitting survey data
IH	TP (DTF)	HBHA	0500	0830	3.50	650.0m	POOH and Rack back BHA from 103m to access MWD internals at rotary table. Remove faulty unit and install back up unit. Run in hole to 103m. Shallow test OK. Battery module is the suspected faulty item.
IH	P	TI	0830	0930	1.00	650.0m	Cont to RIH from 103m to PGB at 604m, guide ropes attached to guide lines
IH	TP (OTH)	TI	0930	1030	1.00	650.0m	Move rig to assist with stabbing drill string in 30" housing.Initialy guide ropes ok but due to excess current and movement 2 broke then the remaining 2. Skid rig to assist with stabbing, due to 5-6m seas and 42knot winds the winch tension was excessive before sea bed movement was achieved.
IH	TP (OTH)	TI	1030	1400	3.50	650.0m	POOH from 604m to surface, install new soft line guide ropes to assist in stabbing. RIH to PGB at 605m, stab and continue RIh to top of cement at 644m.
IH	P	DFS	1400	1430	0.50	650.0m	Establish parameters and drill cement and shoe equipment from 644m to 650m, work through and clean out shoe. 600 gpm, 900psi, 3-4000ftlbs, 90rpm,
IH	P	DA	1430	2400	9.50	1,006.0m	Drill 17 1/2" hole from 650m to 1006m. Take surveys every 3rd stand. 600-1100 gpm, 2500psi, 3-4000 ftlbs tq, 120-150rpm, String wt 220klbs, 5-20klbs WOB. Sweep hole 75 to 85bbls per stand.

Operations For Period 0000 Hrs to 0600 Hrs on 19 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	1,436.0m	(IN PROGRESS) Drill 17 1/2" hole from 1006m to 1436m Take surveys every 3rd stand. @1428.75m, 0.11deg, 336.43azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 20-35klbs WOB. Sweep hole 85bbls per stand-35 Guar-50 PHG. No hole problems to report. 24hr ROP 17.9m/hr Section ROP 23.46m/hr

Phase Data to 2400hrs, 18 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m

Printed on 21 Dec 2005

Phase Data to 2400hrs, 18 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	34.5	17 Dec 2005	18 Dec 2005	152.50	6.354	1,006.0m

WBM Data — Cost Today $ 6209

Mud Type:	PHG Hi-Vis	API FL:	18.0cc/30min	Cl:	2200mg/l	Solids(%vol):	
Sample-From:	Pits	Filter-Cake:	1/32nd"	K+C*1000:		H2O:	
Time:	1920	HTHP-FL:		Hard/Ca:	80mg/l	Oil(%):	
Weight:	8.60ppg	HTHP-cake:		MBT:	18	Sand:	
Temp:	20C°			PM:		pH:	9
				PF:	0.08	PHPA:	

Viscosity	100sec/qt
PV	9cp
YP	22lb/100ft²
Gels 10s	18
Gels 10m	18
Fann 003	16
Fann 006	17
Fann 100	24
Fann 200	29
Fann 300	31
Fann 600	40

Comment

Bit # 2

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	17.500in	IADC#	117	No.	Size	Progress	356.0m	Cum. Progress	712.0m
Mfr:	REED HYCALOG	WOB(avg)	10.20klb	1	16/32nd"	On Bottom Hrs	6.1h	Cum. On Btm Hrs	12.2h
Type:	Rock	RPM(avg)	145	3	22/32nd"	IADC Drill Hrs	9.5h	Cum IADC Drill Hrs	9.5h
Serial No.:	B73369	F.Rate	981.00bpm			Total Revs	53	Cum Total Revs	106
Bit Model	Titan T-11	SPP	830psi			ROP(avg)	58.36 m/hr	ROP(avg)	58.36 m/hr
Depth In	650.9m	HSI							
Depth Out		TFA	1.31						

Bit Comment

BHA # 2

Weight(Wet)	65.00klb	Length	242.6m	Torque(max)	4000ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	48.00klb	String	220.00klb	Torque(Off.Btm)	1000ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	220.00klb	Torque(On.Btm)	3000ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	220.00klb			D.P. Ann Velocity	

BHA Run Description: Stabilized rotary assembly. MWD.

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.60m	17.500in		B73369	Bit#1, re-run 1
Near Bit Stab	2.65m	17.500in	3.000in	SBD2376	
Pony DC	3.06m	9.625in	3.000in	177-472	
Stab	2.51m	17.250in	3.000in	SBD2380	
MWD Tools	9.87m	9.500in	2.375in	209351	
Stab	2.51m	17.250in	3.000in	SBD2379	
9.5in DC	27.18m	9.500in	3.000in		
X/O	1.16m	9.500in	3.000in	MSO1930-0	
8in DC	26.63m	8.000in	3.000in		
Drilling Jars	9.31m	8.000in	3.062in	11150D	
8in DC	17.71m	8.000in	3.000in		
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	3.000in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Bentonite Bulk	MT		7.86	0	48.4
Diesel	m3	0	10.8	0	200.3
Fresh Water	m3	30	29.8	0	157.3
Drill Water	m3		118	0	486.9
Cement G	MT	0	0	0	88.2
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	12P160	6.500	8.60	97	100	2450	12.00
2	12P160	6.500	8.60	97	100	2450	12.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	46	
DOGC	3	extra
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	
GEOSERVICES OVERSEAS S.A.	2	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	2	Sperry Sun
WEATHERFORD AUSTRALIA PTY LTD	4	
Total	80	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	0 Days	Held weekly abandon rig drill	Load life boats 1 and 2 with 10 people and discuss life boat equipment and launching procedures.
Fire Drill	18 Dec 2005	0 Days	Held weekly fire drill	
JSA	18 Dec 2005	0 Days	Deck = 6, Mech = 3, Drill = 6, Sub Sea =2	
Safety Meeting	18 Dec 2005	0 Days	Weekly safety meetings with all crew members.	Discussion on man riding operations. Recent 3rd party finger amputation and basic amputation first aid discussed. GEMS work basket policies. Fire and abandonment drills
STOP Card	18 Dec 2005	0 Days	Safe = 0, Un-safe = 2	

Shakers, Volumes and Losses Data

Available	**1,911bbl**	**Losses**	**1,020bbl**
Reserve	1,911bbl	Sweeps	1,020bbl

Marine

Weather on 18 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.0nm	45kn	225.0deg	1,011.0mbar	16C°	3.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,632.00klb	3.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	291.0
2	265.0
3	220.0
4	254.0
5	287.0
6	317.0
7	390.0
8	331.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			on standby	

Item	Unit	Used	Quantity
Diesel	CuMtr		236
Fresh Water	CuMtr		307
Drill Water	CuMtr		40
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			In town waiting on weather to improve prior.	

Item	Unit	Used	Quantity
Diesel	CuMtr		
Fresh Water	CuMtr		
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		

19 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 8
Culverin 1

Well Data

Country	Australia	MDBRT	1,436.0m	Cur. Hole Size	36.000in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,436.0m	Last Casing OD	30.000in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	430.0m	Shoe TVDBRT	650.9m	Daily Cost	$ 678903
Rig	OCEAN PATRIOT	Days from spud	3.44	Shoe MDBRT	650.9m	Cum Cost	$ 8471014
Wtr Dpth(MSL)	585.0m	Days on well	7.35	FIT/LOT:	/	Days Since Last LTI	944
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drill 17 1/2" hole from 1436m to 1499m ROP 10.5m/hr
Planned Op	TD 17 1/2" section to 1525m. Circulate and condition hole for Casing. Displace and trip out of hole to 20" shoe. Wiper trip if required, Cont to POOH. Rig up and run 13 3/8" casing.

Summary of Period 0000 to 2400 Hrs

Drilled 17 1/2" hole from 1006m to 1436m.
24hr average ROP 17.9m/hr.

Operations For Period 0000 Hrs to 2400 Hrs on 19 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	2400	24.00	1,436.0m	Drill 17 1/2" hole from 1006m to 1436m Take surveys every 3rd stand. @1428.75m, 0.11deg, 336.43azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 20-35klbs WOB. Sweep hole 85bbls per stand-35 Guar-50 PHG. No hole problems to report. 24hr ROP 17.9m/hr Section ROP 23.46m/hr

Operations For Period 0000 Hrs to 0600 Hrs on 20 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	1,525.0m	(IN PROGRESS) Drill 17 1/2" hole from 1436m to 1525m Take surveys every 3rd stand. @1509m 0.09deg, 0.70 azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 30-35klbs WOB. Sweep hole 85bbls per stand.

Phase Data to 2400hrs, 19 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	58.5	17 Dec 2005	19 Dec 2005	176.50	7.354	1,436.0m

WBM Data — Cost Today $ 5570

Mud Type:	PHG Hi-Vis	API FL:	14.0cc/30min	Cl:	2200mg/l	Solids(%vol):	
Sample-From:	Pits	Filter-Cake:	1/32nd"	K+C*1000:		H2O:	
Time:	1945	HTHP-FL:		Hard/Ca:	20mg/l	Oil(%):	
Weight:	8.70ppg	HTHP-cake:		MBT:	20	Sand:	
Temp:	20C°			PM:		pH:	9.2
				PF:	0.18	PHPA:	

Viscosity	110sec/qt
PV	14cp
YP	26lb/100ft²
Gels 10s	22
Gels 10m	28
Fann 003	20
Fann 006	21
Fann 100	28
Fann 200	35
Fann 300	40
Fann 600	54

Comment	1318bbls of Hi vis pumped during 24hr drilling period

Printed on 21 Dec 2005

Bit # 2

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size (''):	17.500in	IADC#	117	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)	23.00klb	No.	Size	Progress	430.0m	Cum. Progress	1,142.0m
Type:	Rock	RPM(avg)	152	1	16/32nd''	On Bottom Hrs	21.9h	Cum. On Btm Hrs	34.1h
Serial No.:	B73369	F.Rate	1,046.00bpm	3	22/32nd''	IADC Drill Hrs	24.0h	Cum IADC Drill Hrs	33.5h
Bit Model	Titan T-11	SPP	2743psi			Total Revs	227	Cum Total Revs	333
Depth In	650.9m	HSI				ROP(avg)	19.63 m/hr	ROP(avg)	33.49 m/hr
Depth Out		TFA	1.31						

Bit Comment

BHA # 2

Weight(Wet)	65.00klb	Length	242.6m	Torque(max)	8000ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	48.00klb	String	240.00klb	Torque(Off.Btm)	1000ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	240.00klb	Torque(On.Btm)	4000ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	240.00klb			D.P. Ann Velocity	

BHA Run Description: Stabilized rotary assembly. MWD.

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.60m	17.500in		B73369	Bit#1, re-run 1
Near Bit Stab	2.65m	17.500in	3.000in	SBD2376	
Pony DC	3.06m	9.625in	3.000in	177-472	
Stab	2.51m	17.250in	3.000in	SBD2380	
MWD Tools	9.87m	9.500in	2.375in	209351	
Stab	2.51m	17.250in	3.000in	SBD2379	
9.5in DC	27.18m	9.500in	3.000in		
X/O	1.16m	9.500in	3.000in	MSO1930-0	
8in DC	26.63m	8.000in	3.000in		
Drilling Jars	9.31m	8.000in	3.062in	11150D	
8in DC	17.71m	8.000in	3.000in		
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	3.000in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
1056.00	0.8	254.0						
1085.00	0.8	257.0						
1113.00	0.6	252.0						
1142.00	0.5	254.0						
1171.00	0.4	260.0						
1228.00	0.2	255.0						
1257.00	0.2	257.0						
1342.00	0.1	250.0						
1371.00	0.0	247.0						
1428.00	0.1	336.0						

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT		9.07	0	39.3
Diesel	m3	0	21.7	0	178.6
Fresh Water	m3	33	34.3	0	156.0
Drill Water	m3		144.4	0	342.5

Printed on 21 Dec 2005

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Cement G	MT	0	0	0	88.2
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	12P160	6.500	8.70	97	112	3400	13.30
2	12P160	6.500	8.70	97	112	3400	13.30

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.90	650.90		650.90	

Personnel On Board

Company	Pax	Comment
DOGC	46	
DOGC	3	extra
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	2	
GEOSERVICES OVERSEAS S.A.	2	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	2	Sperry Sun
WEATHERFORD AUSTRALIA PTY LTD	4	
Total	80	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	1 Day	Held weekly abandon rig drill	Load life boats 1 and 2 with 10 people and discuss life boat equipment and launching procedures.
Fire Drill	18 Dec 2005	1 Day	Held weekly fire drill	
JSA	19 Dec 2005	0 Days	Deck = 4, Mech = 0, Drill = 1, Sub Sea =5	
Safety Meeting	18 Dec 2005	1 Day	Weekly safety meetings with all crew members.	Discussion on man riding operations. Recent 3rd party finger amputation and basic amputation first aid discussed. GEMS work basket policies. Fire and abandonment drills
STOP Card	19 Dec 2005	0 Days	Safe = 4, Un-safe = 1	

Shakers, Volumes and Losses Data

Available	**1,881bbl**	**Losses**	**1,318bbl**
Reserve	1,881bbl	Sweeps	1,318bbl

Marine

Weather on 19 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	35kn	225.0deg	1,015.0mbar	15C°	2.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,612.00klb	3.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	287.0
2	243.0
3	220.0
4	289.0
5	322.0
6	317.0
7	370.0
8	317.0

Vessel Name	Arrived (Date/Time)	Departed	Status	Bulks

Printed on 21 Dec 2005

(Date/Time)							
Far Grip			En-route to Town	**Item**	**Unit**	**Used**	**Quantity**
				Diesel	CuMtr		230
				Fresh Water	CuMtr		307
				Drill Water	CuMtr		40
				Cement G	Mt		80
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89
Pacific Wrangler			On location with Riser and fuel.	**Item**	**Unit**	**Used**	**Quantity**
				Diesel	CuMtr		675.3
				Fresh Water	CuMtr		165
				Drill Water	CuMtr		
				Cement G	Mt		
				Cement HT (Silica)	Mt		
				Barite Bulk	Mt		
				Bentonite Bulk	Mt		5

20 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 9
Culverin 1

Well Data

Country	Australia	MDBRT	1,525.0m	Cur. Hole Size	17.500in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,525.0m	Last Casing OD	30.000in	AFE No.	3433-1001
		Progress	89.0m	Shoe TVDBRT	650.9m	Daily Cost	$ 570223
Drill Co.	DOGC	Days from spud	4.44	Shoe MDBRT	650.9m	Cum Cost	$ 9041237
Rig	OCEAN PATRIOT	Days on well	8.35	FIT/LOT:	/	Days Since Last LTI	945
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	340mm casing ran to 1511m. Pumping cement for 340mm casing cement.
Planned Op	Run and cement 340 mm (13 3/8") casing. Run Riser and BOP's.

Summary of Period 0000 to 2400 Hrs

Drilled 445 mm (17 1/2") hole to 1525.0 mMDRT. Pulled out of hole to rig up and run 340 mm (13 3/8") casing. Commenced running casing.

Operations For Period 0000 Hrs to 2400 Hrs on 20 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0830	8.50	1,525.0m	Drill 17 1/2" hole from 1436m to 1525m Take surveys every 3rd stand. @1509m 0.09deg, 0.70 azimuth, 1000-1100 gpm, 3400psi, 4-6000 ftlbs tq, 150-160rpm, String wt 240klbs, 30-35klbs WOB. Sweep hole 85bbls per stand.
IH	P	DIS	0830	1030	2.00	1,525.0m	Take TD survey.@1525m 0.09deg, 0.70 azimuth, Pump 150bbls of Guar Gum hi-vis sweep. Pump 100bbls of Sea Water Pump 840bbls of PHG hi-vis displacement mud, un-weighted. Displace PHG to bottom of drill pipe
IH	P	TO	1030	1300	2.50	1,525.0m	POOH from 1525m to 242m. No hole problems observed. Jet 30" housing on way out of hole. Pipe strap on trip out +0.17m
IH	P	HBHA	1300	1500	2.00	1,525.0m	POOH BHA and rack in derrick. Remove MWD probe and break off bit.
IH	P	RRC	1500	1600	1.00	1,525.0m	Hold JSA for casing operatuions with all crews and rig up equipment
IH	P	CRN	1600	1730	1.50	1,525.0m	Make up 13 3/8" shoe track and check floats. Baker lock connections. Attach guide ropes
IH	P	CRN	1730	2300	5.50	1,525.0m	Ran 13 3/8" casing to 885m. No hole problems to report.
IH	P	CRN	2300	2400	1.00	1,525.0m	Rig down Tam packer, make up 18 3/4" well head to casing string,rig down FMS and all casing equipment.

Operations For Period 0000 Hrs to 0600 Hrs on 21 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	CRN	0000	0100	1.00	1,525.0m	Complete making up 18 3/4 well head andDowell Deep Sea express plug baskets.
IH	P	CRN	0100	0230	1.50	1,525.0m	Ran 13 3/8" casing string on 5" dp to 30" housing. ROV observe landing and latching of Well Head in housing. String weight 350klbs, verify latch with 50k over pull, 400klbs ok. Slack off to landing string weight.
IH	P	CIC	0230	0400	1.50	1,525.0m	Circulate 1.5 x casing volume with sea water. Complete cement job JSA and equipment prep while circulating.
IH	P	CMC	0400	0600	2.00	1,525.0m	(IN PROGRESS) Cement casing:25bbls S/W-dye, Lead 300bbls 12.5ppg, Tail 209bbls 15.8ppg.

Phase Data to 2400hrs, 20 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m

Printed on 22 Dec 2005

Phase Data to 2400hrs, 20 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
INTERMEDIATE HOLE(IH)	82.5	17 Dec 2005	20 Dec 2005	200.50	8.354	1,525.0m

WBM Data

Cost Today $ 1529

Mud Type:	PHG Hi-Vis	API FL:	14.0cc/30min	Cl:	600mg/l	Solids(%vol):	2%	Viscosity	105sec/qt
Sample-From:	Pits	Filter-Cake:	1/32nd"	K+C*1000:		H2O:		PV	14cp
Time:	2200	HTHP-FL:		Hard/Ca:	40mg/l	Oil(%):		YP	30lb/100ft²
Weight:	8.70ppg	HTHP-cake:		MBT:	20	Sand:		Gels 10s	22
Temp:	20C°			PM:		pH:	9	Gels 10m	27
				PF:	0.1	PHPA:		Fann 003	20
								Fann 006	21
								Fann 100	28
								Fann 200	35
								Fann 300	40
								Fann 600	54

Comment: Completed drilling pumping 80bbls of Hi-vis per stand drilled. At TD sweept hole with 150bbls of guar gum and displaced with 840bbls of PHG(un-weighted)

Bit # 2

Wear	I	O1	D	L	B	G	O2	R
	1	2	ER	A	0	I	NO	TD

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	17.500in	IADC#	117	No.	Size	Progress	89.0m	Cum. Progress	1,231.0m
Mfr:	REED HYCALOG	WOB(avg)	30.00klb	1	16/32nd"	On Bottom Hrs	7.5h	Cum. On Btm Hrs	41.6h
Type:	Rock	RPM(avg)	156	3	22/32nd"	IADC Drill Hrs	8.5h	Cum IADC Drill Hrs	42.0h
Serial No.:	B73369	F.Rate	26.00bpm			Total Revs	227	Cum Total Revs	560
Bit Model	Titan T-11	SPP	3124psi			ROP(avg)	11.87 m/hr	ROP(avg)	29.59 m/hr
Depth In	650.9m	HSI							
Depth Out	1,525.0m	TFA	1.31						

Bit Comment

BHA # 2

Weight(Wet)	65.00klb	Length	242.6m	Torque(max)	8000ft-lbs	D.C. (1) Ann Velocity	
Wt Below Jar(Wet)	48.00klb	String	240.00klb	Torque(Off.Btm)	1000ft-lbs	D.C. (2) Ann Velocity	
		Pick-Up	240.00klb	Torque(On.Btm)	4000ft-lbs	H.W.D.P. Ann Velocity	
		Slack-Off	240.00klb			D.P. Ann Velocity	

BHA Run Description: Stabilized rotary assembly. MWD.

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.60m	17.500in		B73369	Bit#1, re-run 1
Near Bit Stab	2.65m	17.500in	3.000in	SBD2376	
Pony DC	3.06m	9.625in	3.000in	177-472	
Stab	2.51m	17.250in	3.000in	SBD2380	
MWD Tools	9.87m	9.500in	2.375in	209351	
Stab	2.51m	17.250in	3.000in	SBD2379	
9.5in DC	27.18m	9.500in	3.000in		
X/O	1.16m	9.500in	3.000in	MSO1930-0	
8in DC	26.63m	8.000in	3.000in		
Drilling Jars	9.31m	8.000in	3.062in	11150D	
8in DC	17.71m	8.000in	3.000in		
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	3.000in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
1486.00	0.2	21.2						
1509.00	0.1	0.7						
1525.00	0.1	0.7						

Printed on 22 Dec 2005

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT		3.99	0	35.3
Diesel	m3	300	17.5	0	461.1
Fresh Water	m3	29	21.3	0	163.7
Drill Water	m3		114.3	0	228.2
Cement G	MT	0	0	0	88.2
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	12P160	6.500	8.60	97	100	2450	12.00
2	12P160	6.500	8.60	97	100	2450	12.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.00	650.00		650.00	
13 3/8"	1511.14	1511.14	604.00		

Personnel On Board

Company	Pax	Comment
DOGC	45	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	5	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	2	Sperry Sun
WEATHERFORD AUSTRALIA PTY LTD	4	
Total	85	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	2 Days	Held weekly abandon rig drill	Load life boats 1 and 2 with 10 people and discuss life boat equipment and launching procedures.
Fire Drill	18 Dec 2005	2 Days	Held weekly fire drill	
JSA	20 Dec 2005	0 Days	Deck = 12, Mech = 1, Drill = 7, Sub Sea =0, marine =1	
Safety Meeting	18 Dec 2005	2 Days	Weekly safety meetings with all crew members.	Discussion on man riding operations. Recent 3rd party finger amputation and basic amputation first aid discussed. GEMS work basket policies. Fire and abandonment drills
STOP Card	20 Dec 2005	0 Days	Safe = 1, Un-safe = 3	

Shakers, Volumes and Losses Data

Available	**597bbl**	**Losses**	**1,769bbl**
Reserve	597bbl	Sweeps	1,769bbl

Marine

Weather on 20 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	12kn	225.0deg	1,016.0mbar	17C°	0.5m	225.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,778.00klb	3.0m	225.0deg	7s	

Comments

Rig Support

Anchors	Tension (klb)
1	287.0
2	238.0
3	216.0
4	256.0
5	291.0
6	322.0
7	362.0
8	315.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			Town	

Item	Unit	Used	Quantity
Diesel	CuMtr		230
Fresh Water	CuMtr		307
Drill Water	CuMtr		40
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			On location with Riser and fuel.	

Item	Unit	Used	Quantity
Diesel	CuMtr		363.6
Fresh Water	CuMtr		160
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		5

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0925 / 0933	11 / 6	

21 Dec 2005

From: Westman/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 10
Culverin 1

Well Data

Country	Australia	MDBRT	1,525.0m	Cur. Hole Size	17.500in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,525.0m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT	1,511.1m	Daily Cost	$ 636457
Drill Co.	DOGC	Days from spud	5.44	Shoe MDBRT	1,511.1m	Cum Cost	$ 9677694
Rig	OCEAN PATRIOT	Days on well	9.35	FIT/LOT:	/	Days Since Last LTI	946
Wtr Dpth(MSL)	585.0m	Planned TD MD	3,612.0m				
RT-ASL(MSL)	21.5m	Planned TD TVDRT	3,612.0m				
RT-ML	606.5m						

Current Op @ 0600	Running riser @257m (845').
Planned Op	Continue running BOPs and riser.

Summary of Period 0000 to 2400 Hrs

Landed 340 mm (13 3/8") casing and cemented in place at 1511.14 mMDRT. Laid down cement head and rigged up riser handling equipment. Commenced running BOPs and riser.

Operations For Period 0000 Hrs to 2400 Hrs on 21 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	CRN	0000	0100	1.00	1,525.0m	Complete making up 18 3/4 well head andDowell Deep Sea express plug baskets.
IH	P	CRN	0100	0230	1.50	1,525.0m	Ran 13 3/8" casing string on 5" dp to 30" housing. ROV observe landing and latching of Well Head in housing. String weight 350klbs, verify latch with 50k over pull, 400klbs ok. Slack off to landing string weight.
IH	P	CIC	0230	0400	1.50	1,525.0m	Circulate 1.5 x casing volume with sea water. Complete cement job JSA and equipment prep while circulating.
IH	P	CMC	0400	0630	2.50	1,525.0m	Cement casing:25bbls S/W-dye, Lead 300bbls 12.5ppg, Tail 209bbls 15.8ppg.
IH	P	CMC	0630	0730	1.00	1,525.0m	Displace cement with 416bbls of sea water. Bump plugs 3.3bbls early, pressure up and test casing to 1500psi, ok. Bleed off and check floats holding ok.
IH	P	CRN	0730	0800	0.50	1,525.0m	Rig down surface cement lines and back out Cameron 18 3/4" C.A.R.T. PGB Bullseye readings: Fwd 1deg Stbd, Aft 1deg Stbd Aft.
IH	P	CRN	0800	0900	1.00	1,525.0m	Pull out of hole landing string.
IH	P	CRN	0900	1000	1.00	1,525.0m	Lay out 18 3/4" C.A.R.T from string, pick up and break out #2 18 3/4" handling tool. Break down Dowell express cement head and double of HWDP.
BOP	P	RR1	1000	1200	2.00	1,525.0m	Hold JSA and rig up to run BOP's and marine riser. Skid rig 15m to Port
BOP	P	RR1	1200	1430	2.50	1,525.0m	Make up double of Riser and Termination spool.
BOP	P	RR1	1430	1800	3.50	1,525.0m	Skid BOP to well center on Normar transporter. make up double and spool. Install guide lines.
BOP	P	RR1	1800	2130	3.50	1,525.0m	Pick up BOPs from carrier(550klbs) and skid clear, Run BOP to above splash zone and install Pod line clamps. Land riser in spider, BOP's wet 530klbs. Test Choke and Kill lines 250/7500psi 5/10mins.
BOP	P	RR1	2130	2400	2.50	1,525.0m	Run Bop's on Marine riser

Operations For Period 0000 Hrs to 0600 Hrs on 22 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR1	0000	0600	6.00	1,525.0m	Continue to run BOP's on marine riser @271m (890')

Phase Data to 2400hrs, 21 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	92.5	17 Dec 2005	21 Dec 2005	210.50	8.771	1,525.0m

Printed on 23 Dec 2005

Phase Data to 2400hrs, 21 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RISER AND BOP STACK(BOP)	14	21 Dec 2005	21 Dec 2005	224.50	9.354	1,525.0m

WBM Data

Cost Today $ 5570

Mud Type:	PHG Hi-Vis	API FL:	13.0cc/30min	Cl:	600mg/l	Solids(%vol):		Viscosity	100sec/qt
Sample-From:	Pits	Filter-Cake:	1/32nd"	K+C*1000:		H2O:		PV	10cp
Time:	0900	HTHP-FL:		Hard/Ca:	40mg/l	Oil(%):		YP	35lb/100ft²
Weight:	8.70ppg	HTHP-cake:		MBT:	18	Sand:		Gels 10s	24
Temp:	20C°			PM:		pH:	9	Gels 10m	26
				PF:	0.1	PHPA:		Fann 003	21
								Fann 006	24
								Fann 100	32
								Fann 200	35
								Fann 300	45
								Fann 600	55

Comment: Cleaned pits in prep for mixing new mud.

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT		0	0	35.3
Diesel	m3	0	0	0	461.1
Fresh Water	m3	0	0	0	163.7
Drill Water	m3		0	0	228.2
Cement G	MT	0	0	0	88.2
Cement HT (Silica)	MT		0	0	0.0

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.00	650.00		650.00	
13 3/8"	1511.14	1511.14	604.00		

Personnel On Board

Company	Pax	Comment
DOGC	45	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	5	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	2	Sperry Sun
WEATHERFORD AUSTRALIA PTY LTD	4	
Total	85	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	3 Days	Held weekly abandon rig drill	
Fire Drill	18 Dec 2005	3 Days	Held weekly fire drill	
JSA	21 Dec 2005	0 Days	Deck = 7, Mech = 2, Drill = 5, Welder = 2, Marine = 2,	
Safety Meeting	18 Dec 2005	3 Days	Weekly safety meetings with all crew members.	
STOP Card	21 Dec 2005	0 Days	Safe = 1, Un-safe = 4	

Shakers, Volumes and Losses Data

Available	**210bbl**	**Losses**	**0bbl**
Reserve	210bbl		

Comment: 210bbls of hi-vis sweep kept for drilling out 13 3/8 shoe track etc.

Marine

Weather on 21 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
8.0nm	35kn	225.0deg	1,014.0mbar	23C°	2.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,240.00klb	2.5m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	265.0
2	238.0
3	216.0
4	278.0
5	324.0
6	331.0
7	357.0
8	304.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			Town

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		230
Fresh Water	CuMtr		307
Drill Water	CuMtr		40
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler			On location with Riser and fuel.

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		352.9
Fresh Water	CuMtr		155
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		5

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	1231 / 1240	0 / 0	Freight chopper en-route to Crystal ocean

22 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 11
Culverin 1

Well Data

Country	Australia	MDBRT	1,525.0m	Cur. Hole Size	17.500in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,525.0m	Last Casing OD	30.000in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	650.9m	Daily Cost	$ 532613
Rig	OCEAN PATRIOT	Days from spud	6.44	Shoe MDBRT	650.9m	Cum Cost	$ 10210307
Wtr Dpth(MSL)	585.0m	Days on well	10.35	FIT/LOT:	/	Days Since Last LTI	948
RT-ASL(MSL)	21.5m	Planned TD MD	3,612.0m				
RT-ML	606.5m	Planned TD TVDRT	3,612.0m				

Current Op @ 0600	Preparing to land BOP's.
Planned Op	Land out BOPs and test wellhead connector. Pull-test connections. Stroke out the slip-joint and nipple up the surface equipment. Rig up the diverter. Complete pressure tests. Prepare to pick up BHA.

Summary of Period 0000 to 2400 Hrs

Completed running BOPs and riser. Commenced making up slip-joint and landing joint to riser.

Operations For Period 0000 Hrs to 2400 Hrs on 22 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR1	0000	0600	6.00	1,525.0m	Continue to run BOP's on marine riser @271m (890')
BOP	P	RR1	0600	0700	1.00	1,525.0m	Pressure test choke and kill lines 250/7500psi, 5/10mins ok
BOP	P	RR1	0700	1300	6.00	1,525.0m	Continue to run Riser @393m (1290')
BOP	P	RR1	1300	1400	1.00	1,525.0m	Pressure test choke and kill lines 250/7500psi, 5/10mins ok
BOP	P	RR1	1400	2130	7.50	1,525.0m	Continue to run Riser @515m (1690')
BOP	P	RR1	2130	2230	1.00	1,525.0m	Pressure test choke and kill lines 250/7500psi 5/10mins ok
BOP	P	RR1	2230	2400	1.50	1,525.0m	Pick up slip joint and make up to string. Total riser run: 35 x 50' Bouyed joints, 1 x 50' bare joint,1 x 25' Bare pup joint,

Operations For Period 0000 Hrs to 0600 Hrs on 23 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR1	0000	0100	1.00	1,525.0m	Completed making up landing joint to slip joint.
BOP	TP (OTH)	RR1	0100	0200	1.00	1,525.0m	ROV camera system problems while on bottom monitoring BOP/PGB. Camera's were cutting out and all visibility was lost. Topside black and white camera still working. Recover ROV and move top side black and white camera to front pan tilt for landing bops'. Water had ingressed into camera electrics cannister. Gain use of 2 cameras and dive ROV
BOP	P	RR1	0200	0400	2.00	1,525.0m	Lower slip joint while monitoring with ROV Install Choke and kill and boost lines to slip joint.
BOP	P	RR1	0400	0430	0.50	1,525.0m	Pressure test choke and kill gooseneck seals 250/7500psi 5/10mins. ok
BOP	P	RR1	0430	0530	1.00	1,525.0m	Skid rig and over well head with ROV assistance
BOP	P	RR1	0530	0600	0.50	1,525.0m	Re-establish #2 guide line, Monitor MRT's as lowering to PGB post tops. BOP landing weight prior to MRT's 685klbs. Prepare to land BOP's

Phase Data to 2400hrs, 22 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	92.5	17 Dec 2005	21 Dec 2005	210.50	8.771	1,525.0m
RISER AND BOP STACK(BOP)	38	21 Dec 2005	22 Dec 2005	248.50	10.354	1,525.0m

WBM Data

Cost Today $ 5570

Mud Type:	PHG Hi-Vis	API FL:	14.0cc/30min	Cl:	2200mg/l	Solids(%vol):	
Sample-From:	Pits	Filter-Cake:	1/32nd"	K+C*1000:		H2O:	
Time:	1945	HTHP-FL:		Hard/Ca:	20mg/l	Oil(%):	
Weight:	8.70ppg	HTHP-cake:		MBT:	20	Sand:	
Temp:	20C°			PM:		pH:	9.2
				PF:	0.18	PHPA:	

Viscosity	110sec/qt
PV	14cp
YP	26lb/100ft²
Gels 10s	22
Gels 10m	28
Fann 003	20
Fann 006	21
Fann 100	28
Fann 200	35
Fann 300	40
Fann 600	54

Comment: 1318bbls of Hi vis pumped during 24hr drilling period

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT		0	0	35.3
Diesel	m3	0	10.7	0	450.4
Fresh Water	m3	27	31	0	159.7
Drill Water	m3		11.5	0	216.7
Cement G	MT	0	80.5	0	7.7
Cement HT (Silica)	MT		0	0	0.0

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.00	650.00		650.00	
13 3/8"	1511.14	1511.14	604.00		

Personnel On Board

Company	Pax	Comment
DOGC	46	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	3	
CAMERON AUSTRALIA PTY LTD	1	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	Sperry Sun
Total	85	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	4 Days	Held weekly abandon rig drill	Load life boats 1 and 2 with 10 people and discuss life boat equipment and launching procedures.
Fire Drill	18 Dec 2005	4 Days	Held weekly fire drill	
JSA	18 Dec 2005	4 Days	Deck = 6, Mech = 3, Drill = 6, Sub Sea =2	
Safety Meeting	18 Dec 2005	4 Days	Weekly safety meetings with all crew members.	Discussion on man riding operations. Recent 3rd party finger amputation and basic amputation first aid discussed. GEMS work basket policies. Fire and abandonment drills
STOP Card	18 Dec 2005	4 Days	Safe = 0, Un-safe = 2	

Shakers, Volumes and Losses Data

Available	**1,881bbl**	**Losses**	**1,318bbl**
Reserve	1,881bbl	Sweeps	1,318bbl

Marine

Weather on 22 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	15kn	225.0deg	1,016.0mbar	16C°	1.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4,158.00klb	2.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	265.0
2	238.0
3	216.0
4	278.0
5	324.0
6	331.0
7	357.0
8	304.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			On Location waiting to off load deck cargo and drill water	

Item	Unit	Used	Quantity
Diesel	CuMtr		571
Fresh Water	CuMtr		429
Drill Water	CuMtr		660
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			On location wating for back load	

Item	Unit	Used	Quantity
Diesel	CuMtr		190.8
Fresh Water	CuMtr		150
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		5

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0922 / 0935	15 / 15	

DRILLING MORNING REPORT # 12

Culverin 1

23 Dec 2005 **From:** Ron King/ Webby
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	1,525.0m	Cur. Hole Size	17.500in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,525.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1,511.8m	Daily Cost	$ 0
Rig	OCEAN PATRIOT	Days from spud	7.44	Shoe MDBRT	1,511.8m	Cum Cost	$ 10210307
Wtr Dpth(MSL)	585.0m	Days on well	11.35	FIT/LOT:	/	Days Since Last LTI	948
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Making up drill pipe while RIH to drill out shoetrack. 0600hrs depth 565m.
Planned Op	RIH and drill out shoetrack. Function test BOP's Displace well to mud. Drill ahead 3m of new formation. Conduct LOT. Drill ahead.

Summary of Period 0000 to 2400 Hrs

Landed out BOPs and tested wellhead connector. Pull-tested connections. Stroked out the slip-joint and nippled up the surface equipment. Rigged up the diverter. Completed pressure tests. Rigged down riser handling equipment. Slipped and cut drilling line. Laid down 445 mm (17 ½") BHA. Commenced making up new 311 mm (12 ¼") BHA.

Operations For Period 0000 Hrs to 2400 Hrs on 23 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR1	0000	0100	1.00	1,525.0m	Completed making up landing joint to slip joint.
BOP	TP (OTH)	RR1	0100	0200	1.00	1,525.0m	ROV camera system problems while on bottom monitoring BOP/PGB. Camera's were cutting out and all visibility was lost. Topside black and white camera still working. Recover ROV and move top side black and white camera to front pan tilt for landing bops'. Water had ingressed into camera electrics cannister. Gain use of 2 cameras and dive ROV
BOP	P	BOP	0200	0400	2.00	1,525.0m	Lowered slip joint while monitoring with ROV Installed Choke and kill and boost lines to slip joint.
BOP	P	BOP	0400	0500	1.00	1,525.0m	Pressure tested choke and kill gooseneck seals 250/7500psi 5/10mins. ok. This test required by GEMS.
BOP	P	BOP	0500	0530	0.50	1,525.0m	Latched SDL ring to slip joint. Skidded rig and over well head with ROV assistance
BOP	P	BOP	0530	0700	1.50	1,525.0m	Re-establish #2 guide line, Monitor MRT's as lowering BOP to PGB post tops. Installed storm saddles and service hoses to slip joint. BOP landing weight prior to MRT's 685klbs.
BOP	P	BOP	0700	0800	1.00	1,525.0m	Landed and latch BOP, visual confirmation by ROV. Complete 50klbs overpull test on yellow pod. Bulls eye readings: PGB Fwd B/E 3/4deg stbd Aft B/E 3/4deg stbd fwd LMRP #1 B/E 1/2deg Port fwd, LMRP #2 B/E 1/2deg Port fwd BOP B/E 1deg stbd fwd.
BOP	P	BOP	0800	0900	1.00	1,525.0m	Secure pod hoses. Make up RBQ plates and put BOP on line.
BOP	P	BOP	0900	1000	1.00	1,525.0m	Break circulation with Dowell down choke and kill lines. Close shear rams and test well head VX gasket to 250/2500psi 5/10mins on yellow pod. OK. Complete 500psi pressure test on blue pod, 2nd pod test is a GEMS requirement.
BOP	P	BOP	1000	1100	1.00	1,525.0m	Unlock slip joint and stroke open. Layed down landing joint.
BOP	P	BOP	1100	1200	1.00	1,525.0m	Made up divertor to slip joint inner barrel. Land and latch in divertor housing. Connect hydraulics and lock support and lock down dogs.
BOP	P	BOP	1200	1330	1.50	1,525.0m	Rigged down riser spider, divertor running tool, install master bushings.
BOP	P	BOP	1330	1600	2.50	1,525.0m	Clear rig floor of all riser and bop handling equipment. Install iron roughneck tracks. Change elevators and bails
IH	P	SC	1600	1800	2.00	1,525.0m	Hung off blocks and slipped and cut 27.43m (90') of drilling line. Removed hang off lines and set crown-o-matic.
IH	P	HBHA	1800	2130	3.50	1,525.0m	Ran 445mm (17 1/2") BHA in hole and laid out same.
IH	P	HBHA	2130	2400	2.50	1,525.0m	Commenced making up 311mm (12 1/4") BHA.

Operations For Period 0000 Hrs to 0600 Hrs on 24 Dec 2005

Printed on 23 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HBHA	0000	0300	3.00	1,525.0m	Complete making up 311mm (12 1/4") BHA. Up-link MWD, install Radio-active source. Run BHA from derrick to 1st joint of HWDP. Shallow test Down hole motor and tools ok. 800gpm 650psi.
IH	P	HBHA	0300	0330	0.50	1,525.0m	Picked up 55m(180') of HWDP.
IH	P	PUP	0330	0600	2.50	1,525.0m	Picked up 297.6m (976.3') of 127mm (5")dp. Bit depth @0600hrs 565m

Phase Data to 2400hrs, 23 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
INTERMEDIATE HOLE(IH)	100.5	17 Dec 2005	23 Dec 2005	218.50	9.104	1,525.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	272.50	11.354	1,525.0m

WBM Data

Cost Today $ 20167

Mud Type:	KCL-NaCl-Polymer	API FL:	6.8cc/30min	Cl:	35500mg/l	Solids(%vol):	6%
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	3%	H2O:	94%
Time:	2310	HTHP-FL:		Hard/Ca:	80mg/l	Oil(%):	0%
Weight:	9.50ppg	HTHP-cake:	1/32nd"	MBT:		Sand:	0
Temp:				PM:		pH:	9.5
				PF:	0.15	PHPA:	0ppb

Viscosity	50sec/qt
PV	9cp
YP	12lb/100ft²
Gels 10s	3
Gels 10m	3
Fann 003	3
Fann 006	4
Fann 100	13
Fann 200	18
Fann 300	21
Fann 600	30

Comment: Started mixing mud after Bops landed. Mixed 1000bbls of 3% KCL/NaCl/Polymer mud weighted to 9.5ppg and filled sandtraps, further mixing is in progress

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size ("):	12.250in	IADC#	M422	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)		No.	Size	Progress		Cum. Progress	0.0m
Type:	PDC	RPM(avg)		2	28/32nd"	On Bottom Hrs		Cum. On Btm Hrs	0.0h
Serial No.:	211010	F.Rate		4	18/32nd"	IADC Drill Hrs		Cum IADC Drill Hrs	0.0h
Bit Model	RSX 616	SPP				Total Revs		Cum Total Revs	0
Depth In	1,525.0m	HSI				ROP(avg)	N/A	ROP(avg)	0.00 m/hr
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		

Equipment	Length	OD	ID	Serial #	Comment
					DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0		0	167.4
Bentonite Bulk	MT	5	2.23	0	38.1
Diesel	m3	0	4.7	-17.3	428.4
Fresh Water	m3	25	12.3	0	172.4
Drill Water	m3	100	170.8	0	145.9
Cement G	MT	0	0	0	7.7
Cement HT (Silica)	MT		0	0	0.0

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.30	650.30	604.40	604.40	
13 3/8"	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	Sperry Sun
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	5 Days	Held weekly abandon rig drill	L
Fire Drill	18 Dec 2005	5 Days	Held weekly fire drill	
JSA	23 Dec 2005	0 Days	Deck = 2, Mech = 1, Drill = 3, Sub Sea =5	
Safety Meeting	18 Dec 2005	5 Days	Weekly safety meetings with all crew members.	
STOP Card	23 Dec 2005	0 Days	Safe = 5, Un-safe =	

Shakers, Volumes and Losses Data

Available	**1,000bbl**	**Losses**	**0bbl**
Reserve	1,000bbl		

Marine

Weather on 23 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	25kn	225.0deg	1,010.0mbar	15C°	0.5m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	408.00klb	4,428.00klb	1.5m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	269.0
2	236.0
3	220.0
4	280.0
5	324.0
6	328.0
7	357.0
8	306.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			On Location off loading cargo.	

Item	Unit	Used	Quantity
Diesel	CuMtr		556
Fresh Water	CuMtr		426
Drill Water	CuMtr		660
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			On location wating for back load	

Item	Unit	Used	Quantity
Diesel	CuMtr		190.8
Fresh Water	CuMtr		50
Drill Water	CuMtr		
Cement G	Mt		
Cement HT (Silica)	Mt		
Barite Bulk	Mt		
Bentonite Bulk	Mt		

Recieved 100m3 of Potable water/ 5mt Bentonite

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0945 / 0958	8 / 14	

24 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 13
Culverin 1

Well Data

Country	Australia	MDBRT	1,544.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	1,544.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	19.0m	Shoe TVDBRT	1,511.8m	Daily Cost	$ 465794
Rig	OCEAN PATRIOT	Days from spud	8.44	Shoe MDBRT	1,511.8m	Cum Cost	$ 11174865
Wtr Dpth(MSL)	585.0m	Days on well	12.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	949
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling 311mm (12 1/4") hole @1670m
Planned Op	Drill ahead 311 mm (12 1/4") hole.

Summary of Period 0000 to 2400 Hrs

Completed making up 311 mm (12 ¼") BHA. RIH and picked up drillpipe on the way in hole. Drilled out the shoetrack. Displaced the well to mud. Drilled ahead 3 m of new formation. Conducted LOT to 1.89 sg EMW at 1528.0 mMDRT. Drilled ahead to 1544.0 mMDRT.

Operations For Period 0000 Hrs to 2400 Hrs on 24 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	HBHA	0000	0300	3.00	1,525.0m	Complete making up 311mm (12 1/4") BHA. Up-link MWD, install Radio-active source. Run BHA from derrick to 1st joint of HWDP. Shallow test Down hole motor and tools ok. 800gpm 650psi.
IH	P	HBHA	0300	0330	0.50	1,525.0m	Picked up 55m(180') of HWDP.
IH	P	PUP	0330	0900	5.50	1,525.0m	Picked up 745m (2444') of 127mm (5")dp. Functioned divertor insert packer ok.
IH	P	BOP	0900	0930	0.50	1,525.0m	Function tested BOP's on yellow pod ok.
IH	TP (BORC)	BOP	0930	1130	2.00	1,525.0m	Attempt function test on blue pod, Run-away observed on open function for upper annular. Function several times and uncontroled flow stopped. Change back to yellow pod and upper annular functions ok. Proceed with operations after discussing equipment failure. Signs made for all BOP panels stating not to operate upper annular on blue pod. Currently drilling on Blue pod.
IH	P	TI	1130	1330	2.00	1,525.0m	Ran in hole from 1014m to 1478m, Washed down to top of cement @1478m
IH	P	DFS	1330	1900	5.50	1,528.0m	Drilled cement, plugs, shoe track. Displaced well to 9.5ppg mud while drilling out cmt and making 3m of new hole to 1528m
IH	P	CHC	1900	2000	1.00	1,528.0m	Circulated hole clean and ensured 9.5ppg in/out for Leak off test.
IH	P	LOT	2000	2100	1.00	1,528.0m	Performed LOT against lower annular. 9.5ppg test mud weight, 1511.77m TVD, 1625psi, EMW 15.8ppg.1.89sg,
IH	P	DA	2100	2400	3.00	1,544.0m	Take SCR's, CLFL. Drilled 311mm (12 1/4") hole from 1528m to 1544m. Reduced parameters until stabilizers are out of casing(1558m) String wt 240klbs, Tq 2-4000ftlbs, 50-60 rpm surface, 150rpm DH, WOB 5-10klbs, 1800psi, 790gpm.

Operations For Period 0000 Hrs to 0600 Hrs on 25 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	1,670.0m	Drilled 311mm 12 1/4" hole from 1544m to 1670m String wt 240klbs, Tq 2-4000ftlbs, 100 rpm surface, 210rpm DH, WOB 15-20klbs, 1800psi, 850gpm.

Phase Data to 2400hrs, 24 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1,525.0m

Phase Data to 2400hrs, 24 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
INTERMEDIATE HOLE(IH)	124.5	17 Dec 2005	24 Dec 2005	296.50	12.354	1,544.0m

WBM Data — Cost Today $ 27976

Mud Type:	KCL-NaCl-Polymer	API FL:	6.6cc/30min	Cl:	36000mg/l	Solids(%vol):	5%	Viscosity	48sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	3%	H2O:	95%	PV	10cp
Time:	2100	HTHP-FL:		Hard/Ca:	240mg/l	Oil(%):	0%	YP	13lb/100ft²
Weight:	9.50ppg	HTHP-cake:	1/32nd"	MBT:	1	Sand:	0	Gels 10s	4
Temp:	20C°			PM:		pH:	9.5	Gels 10m	6
				PF:	0.35	PHPA:	0ppb	Fann 003	3
								Fann 006	4
								Fann 100	14
								Fann 200	19
								Fann 300	23
								Fann 600	33

Comment

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	19.0m	Cum. Progress	19.0m
Mfr:	REED HYCALOG	WOB(avg)	10.00klb	2	28/32nd"	On Bottom Hrs	3.2h	Cum. On Btm Hrs	3.2h
Type:	PDC	RPM(avg)	50	4	18/32nd"	IADC Drill Hrs	3.0h	Cum IADC Drill Hrs	3.0h
Serial No.:	211010	F.Rate	14.00bpm			Total Revs	34	Cum Total Revs	34
Bit Model	RSX 616	SPP	1750psi			ROP(avg)	5.94 m/hr	ROP(avg)	5.94 m/hr
Depth In	1,525.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	10000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	240.00klb	Torque(Off.Btm)	2000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	240.00klb	Torque(On.Btm)	4000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	240.00klb			D.P. Ann Velocity	176fpm

BHA Run Description — Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	35.44	0	132.0
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	11.2	0	417.2

Printed on 24 Dec 2005

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fresh Water	m3	21	55.4	0	138.0
Drill Water	m3	480	107.9	-42.1	475.9
Cement G	MT	0	0	0	7.7
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	9.50	97	93	1800	9.50
3	12P160	6.000	9.50	97	93	1800	9.50

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
1528.0	20	125	2.00	30	150	3.00	40	190	4.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.30	650.30	604.40	604.40	
13 3/8"	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	Sperry Sun
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	6 Days	Held weekly abandon rig drill	
Environental Issue	24 Dec 2005	0 Days	Enviromental drill	Simulated chemical spill on rig.
Fire Drill	18 Dec 2005	6 Days	Held weekly fire drill	
JSA	24 Dec 2005	0 Days	Deck = 6, Mech = 0, Drill = 7, Sub Sea =0	
Safety Meeting	18 Dec 2005	6 Days	Weekly safety meetings with all crew members.	
STOP Card	24 Dec 2005	0 Days	Safe = 1, Un-safe = 7	

Shakers, Volumes and Losses Data

Available	**2,098bbl**
Active	433.1bbl
Hole	1,164.9bbl
Reserve	500bbl

Losses	**173bbl**
Equipment	108bbl
Dumped	65bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 84
Shaker2	VSM 100	4 x 84
Shaker3	VSM 100	4 x 52
Shaker4	BEM650	4 x 120

Marine

Weather on 24 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	35kn	248.0deg	1,009.0mbar	15C°	3.0m	248.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	396.00klb	4,548.00klb	3.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	287.0
2	265.0
3	225.0
4	282.0
5	309.0
6	320.0
7	353.0
8	309.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			On Location waiting to off load deck cargo and drill water	

Item	Unit	Used	Quantity
Diesel	CuMtr		536
Fresh Water	CuMtr		423
Drill Water	CuMtr		180
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Transfered 480m3 of drill water to rig. Plan was to take 660m3 but transfer pump failed. Will resume once weather calms and pump is repaired.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			On location wating for back load	

Item	Unit	Used	Quantity
Diesel	CuMtr		169.4
Fresh Water	CuMtr		45
Drill Water	CuMtr		0
Cement G	Mt		0
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		0

25 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 14
Culverin 1

Well Data

Country	Australia	MDBRT	2,131.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	2,130.3m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	587.0m	Shoe TVDBRT	1,511.8m	Daily Cost	$ 460984
Rig	OCEAN PATRIOT	Days from spud	9.44	Shoe MDBRT	1,511.8m	Cum Cost	$ 11635849
Wtr Dpth(MSL)	585.0m	Days on well	13.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	950
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 311 mm (12 1/4") hole at 2257m mMDRT
Planned Op	Drill ahead.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 1544.0 - 2131.0 mMDRT.

Operations For Period 0000 Hrs to 2400 Hrs on 25 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	2400	24.00	2,131.0m	Drilled 311mm (12 1/4") hole from 1544m to 2131m String wt 275klbs, Tq 4-8000ftlbs, 150 rpm surface, 252rpm DH, WOB 15-18klbs, 2900psi, 900gpm. Boost riser while drilling. Max gas for 24hr period 1.2%. ROP average 24.45m/hr (including connections) Survey results @2113.64m 3.4deg, 29.61 azimuth, 2112.98m TVD

Operations For Period 0000 Hrs to 0600 Hrs on 26 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	2,257.0m	Drilled 311mm (12 1/4") hole from 2131m to 2257mMDRT String wt 2800klbs, Tq 4-8000ftlbs, 150 rpm surface, 252rpm DH, WOB 12-15klbs, 3000psi, 900gpm. Boost riser while drilling. Max gas for 6hr period 0.6% from 2163m. ROP average 21m/hr (including connections) Survey results @2227.87m, 3.85deg, 36.05 azimuth

Phase Data to 2400hrs, 25 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1,525.0m
INTERMEDIATE HOLE(IH)	148.5	17 Dec 2005	25 Dec 2005	320.50	13.354	2,131.0m

WBM Data

Cost Today $ 23715

Mud Type:	KCL-NaCl-Polymer	API FL:	6.0cc/30min	Cl:	36500mg/l	Solids(%vol):	6%	Viscosity	56sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	3%	H2O:	94%	PV	15cp
Time:	2100	HTHP-FL:		Hard/Ca:	200mg/l	Oil(%):	0%	YP	20lb/100ft²
Weight:	9.60ppg	HTHP-cake:	1/32nd"	MBT:	1	Sand:	1	Gels 10s	4
Temp:	20C°			PM:		pH:	9	Gels 10m	5
				PF:	0.1	PHPA:	1ppb	Fann 003	4
								Fann 006	6
								Fann 100	21
								Fann 200	29
								Fann 300	35
								Fann 600	50

Comment

Printed on 26 Dec 2005

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size ("):	12.250in	IADC#	M422	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)	15.00klb	No.	Size	Progress	587.0m	Cum. Progress	606.0m
Type:	PDC	RPM(avg)	140	2	28/32nd"	On Bottom Hrs	18.4h	Cum. On Btm Hrs	21.6h
Serial No.:	211010	F.Rate	21.00bpm	4	18/32nd"	IADC Drill Hrs	24.0h	Cum IADC Drill Hrs	27.0h
Bit Model	RSX 616	SPP	2450psi			Total Revs	297	Cum Total Revs	331
Depth In	1,525.0m	HSI				ROP(avg)	31.90 m/hr	ROP(avg)	28.06 m/hr
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	10000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	275.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	280.00klb	Torque(On.Btm)	6000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	280.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
1569.11	0.4	350.1	1568.99	-2.2	6.9	13.3	0.0	MWD
1626.44	0.6	2.0	1626.32	-1.9	6.4	13.3	0.1	MWD
1712.56	1.5	24.6	1712.43	-0.7	5.0	12.8	0.4	MWD
1798.49	2.4	23.2	1798.30	1.5	2.2	11.7	0.3	MWD
1970.98	3.2	24.1	1970.56	8.1	5.9	7.9	0.1	MWD
2056.65	3.2	27.0	2056.09	11.6	10.3	5.9	0.1	MWD
2142.04	3.5	29.6	2141.34	14.7	14.7	3.6	0.1	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	8.89	0	123.1
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	11.2	0	406.0
Fresh Water	m3	29	11.2	0	155.8
Drill Water	m3	0	253.2	0	222.7
Cement G	MT	0	0	0	7.7
Cement HT (Silica)	MT		0	0	0.0

Printed on 26 Dec 2005

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	9.50	97	105	2900	10.69
3	12P160	6.000	9.50	97	105	2900	10.69

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2128.0	30	250	3.00	40	300	4.00	50	350	5.00
2128.0	30	250	3.00	40	300	4.00	50	350	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.30	650.30	604.40	604.40	
13 3/8"	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	Sperry Sun
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	18 Dec 2005	7 Days	Held weekly abandon rig drill	
Environental Issue	24 Dec 2005	1 Day	Enviromental drill	
Fire Drill	18 Dec 2005	7 Days	Held weekly fire drill	
JSA	25 Dec 2005	0 Days	Deck = 8, Mech = 2, Drill = 2, Sub Sea =0	
Safety Meeting	18 Dec 2005	7 Days	Weekly safety meetings with all crew members.	
STOP Card	25 Dec 2005	0 Days	Safe = 6, Un-safe = 3	

Shakers, Volumes and Losses Data

Available	**2,512bbl**	**Losses**	**329bbl**
Active	399.9bbl	Equipment	329bbl
Hole	1,433.1bbl		
Reserve	679bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 145
Shaker2	VSM 100	4 x 84
Shaker3	VSM 100	4 x 84
Shaker4	BEM650	4 x 120

Shakers, Volumes and Losses Data

Available	**1,881bbl**	**Losses**	**1,318bbl**
Reserve	1,881bbl	Sweeps	1,318bbl

Marine

Weather on 25 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	20kn	292.0deg	1,012.0mbar	12C°	3.0m	292.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	396.00klb	4,484.00klb	4.0m	247.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	317.0
2	265.0
3	216.0
4	245.0
5	273.0
6	342.0
7	397.0
8	359.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks

Far Grip

At rig on stand by.

Item	Unit	Used	Quantity
Diesel	CuMtr		521
Fresh Water	CuMtr		420
Drill Water	CuMtr		180
Cement G	Mt		80
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Pacific Wrangler

Departed location ETA Melbourne 0800hrs 26th

Item	Unit	Used	Quantity
Diesel	CuMtr		162.4
Fresh Water	CuMtr		43
Drill Water	CuMtr		0
Cement G	Mt		0
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		0

26 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 15
Culverin 1

Well Data

Country	Australia	MDBRT	2,641.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	2,639.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	510.0m	Shoe TVDBRT	1,511.8m	Daily Cost	$ 510764
Rig	OCEAN PATRIOT	Days from spud	10.44	Shoe MDBRT	1,511.8m	Cum Cost	$ 12146613
Wtr Dpth(MSL)	585.0m	Days on well	14.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	951
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 311 mm (12 1/4") hole in Lakes Entrance formation at 2758.0 mMDRT.
Planned Op	Drill ahead 311 mm (12 1/4") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead 311 mm (12 1/4") hole from 2131.0 mMDRT to 2641.0 mMDRT. Top of Lakes Entrance Formation picked at 2508.0 mMDRT.

Operations For Period 0000 Hrs to 2400 Hrs on 26 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	2400	24.00	2,641.0m	Drilled 311mm (12 1/4") hole from 2131m to 2641mMDRT String wt 310klbs, Tq 4-8000ftlbs, 150 rpm surface, 260rpm DH, WOB 12-15klbs, 3300psi, 900gpm. Boost riser while drilling. Max gas for 24hr period 0.82%. Increase mud weight from 1.14sg to 1.2sg (9.5ppg - 10ppg) ROP average 21.25m/hr (including connections) Survey results @2629.39m, 3.86deg, 40.58azimuth

Operations For Period 0000 Hrs to 0600 Hrs on 27 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	2,758.0m	Drilled 311mm (12 1/4") hole from 2641m to 2758m MDRT String wt 310klbs, Tq 4-8000ftlbs, 150 rpm surface, 259rpm DH, WOB 12-20klbs, 3300psi, 900gpm. Boost riser while drilling. Max gas for 6hr period 0.02%. ROP average 19.5m/hr (including connections) Survey results @2715.15m, 3.77deg, 40.42azimuth

Phase Data to 2400hrs, 26 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1,525.0m
INTERMEDIATE HOLE(IH)	172.5	17 Dec 2005	26 Dec 2005	344.50	14.354	2,641.0m

WBM Data

Cost Today $ 57591

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	65000mg/l	Solids(%vol):	10%	Viscosity	55sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	6%	H2O:	90%	PV	16cp
Time:	2300	HTHP-FL:	13.6cc/30min	Hard/Ca:	240mg/l	Oil(%):	0%	YP	25lb/100ft²
Weight:	10.00ppg	HTHP-cake:	1/32nd"	MBT:	5	Sand:	0.8	Gels 10s	6
Temp:	22C°			PM:		pH:	5	Gels 10m	9
				PF:	0.04	PHPA:	1ppb	Fann 003	5
								Fann 006	7
								Fann 100	25
								Fann 200	34
								Fann 300	41
								Fann 600	57

Comment	NaCl 6%.

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size ("):	12.250in	IADC#	M422	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)	13.00klb	No.	Size	Progress	510.0m	Cum. Progress	1,116.0m
Type:	PDC	RPM(avg)	150	2	28/32nd"	On Bottom Hrs	17.1h	Cum. On Btm Hrs	38.7h
Serial No.:	211010	F.Rate	21.09bpm	4	18/32nd"	IADC Drill Hrs	24.0h	Cum IADC Drill Hrs	51.0h
Bit Model	RSX 616	SPP	2950psi			Total Revs	271	Cum Total Revs	602
Depth In	1,525.0m	HSI				ROP(avg)	29.82 m/hr	ROP(avg)	28.84 m/hr
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	12000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	310.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	300.00klb	Torque(On.Btm)	7000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	310.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
2256.54	4.0	35.4	2255.59	20.1	21.0	0.4	0.2	MWD
2342.60	4.2	35.5	2341.43	26.0	26.0	4.1	0.1	MWD
2428.46	4.3	38.3	2427.05	32.0	31.1	7.9	0.0	MWD
2543.24	4.1	40.5	2541.53	37.7	37.7	13.1	0.2	MWD
2629.39	3.9	40.6	2627.47	42.2	42.2	17.0	0.1	MWD
2686.60	3.8	41.5	2684.55	45.1	45.1	19.5	0.1	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	123.1
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	14	0	392.0
Fresh Water	m3	31	37.9	0	148.9
Drill Water	m3	474	141.5	0	555.2
Cement G	MT	0	7.7	0	-0.0
Cement HT (Silica)	MT		0	0	0.0

Printed on 26 Dec 2005

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	9.50	97	104	3360	10.54
3	12P160	6.000	9.50	97	104	3360	10.54

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2500.0	30	275	3.00	40	350	4.00	50	410	5.00
2500.0	30	275	3.00	40	350	4.00	50	400	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
30 "	650.30	650.30	604.40	604.40	
13 3/8"	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	44	
DOGC	3	extra
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	Sperry Sun
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	0 Days	Held weekly abandon rig drill	
Fire Drill	26 Dec 2005	0 Days	Held weekly fire drill	
JSA	26 Dec 2005	0 Days	Deck = 7, Mech = 5, Drill = 2, Sub Sea =2,Welder = 2, Marine = 1	
Safety Meeting	26 Dec 2005	0 Days	Weekly safety meetings with all crew members.	
STOP Card	26 Dec 2005	0 Days	Safe = 3, Un-safe = 14	

Shakers, Volumes and Losses Data

Available	**2,491bbl**	**Losses**	**376bbl**
Active	434.9bbl	Equipment	376bbl
Hole	1,666.1bbl		
Reserve	390bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 120
Shaker2	VSM 100	4 x 120
Shaker3	VSM 100	4 x 84
Shaker4	BEM650	4 x 120

Marine

Weather on 26 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	18kn	225.0deg	1,017.0mbar	15C°	1.0m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	420.00klb	4,438.00klb	2.5m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	320.0
2	269.0
3	216.0
4	251.0
5	273.0
6	342.0
7	397.0
8	359.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			At rig on stand by.

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		502

Printed on 26 Dec 2005

				Item	Unit	Used	Quantity
				Fresh Water	CuMtr		76
				Drill Water	CuMtr		50
				Cement G	Mt		80
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89
Recieved 474m3 of drill water/Potable water							
Pacific Wrangler			Melbourne loading Cargo	Item	Unit	Used	Quantity
				Diesel	CuMtr		
				Fresh Water	CuMtr		
				Drill Water	CuMtr		0
				Cement G	Mt		0
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		0

27 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 16
Culverin 1

Well Data

Country	Australia	MDBRT	3115.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3112.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	474.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 472057
Rig	OCEAN PATRIOT	Days from spud	11.44	Shoe MDBRT	1511.8m	Cum Cost	$ 12618670
Wtr Dpth(MSL)	585.0m	Days on well	15.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	952
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 311mm (12 1/4") @3195mMDRT
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 2641.0 mMDRT to 3115.0 mMDRT. Top of the Latrobe Formation picked from LWD logs and cuttings at 2824.0 mMDRT.

FORMATION

Name	Top
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	
Near 70.3 Ma Sand	
TD	
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 27 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0830	8.50	2787.0m	Drilled 311mm (12 1/4") hole from 2641m to 2787m MDRT String wt 310klbs, Tq 4-8000ftlbs, 150 rpm surface, 259rpm DH, WOB 12-20klbs, 3300psi, 900gpm. Boost riser while drilling. ROP average 17.17m/hr (including connections) Survey results @2772.65m, 3.83deg, 43.73azimuth
IH	TP (RE)	DA	0830	0900	0.50	2787.0m	Backed out saver sub on Top Drive during routine connection. Layed out single, installed new saver sub on Top Drive and picked up a replacement single of 127mm (5")dp.
IH	P	DA	0900	1800	9.00	2991.0m	Drilled 311mm (12 1/4") hole from 2787m to 2991m MDRT String wt 330klbs, Tq 5-10000ftlbs, 150 rpm surface, 259rpm DH, WOB 5-10klbs, 3300psi, 900gpm. Boost riser while drilling. ROP average 22.6m/hr (including connections) Survey results @2973.53m, 3.73deg, 46.71azimuth
IH	TP (RE)	DA	1800	1830	0.50	2991.0m	Top Drive pipe handler failed to break out drill pipe during routine connection, change out front carrier die while circulating down string.
IH	P	DA	1830	2400	5.50	3115.0m	Drilled 311mm (12 1/4") hole from 2991m to 3115m MDRT String wt 340klbs, Tq 6-8000ftlbs, 150 rpm surface, 259rpm DH, WOB 10-12klbs, 3300psi, 900gpm. Boost riser while drilling.Max gas for 24hr period 0.276%. ROP average 22.5m/hr (including connections) Survey results @3088.21m, 3.81deg, 46.46azimuth

Operations For Period 0000 Hrs to 0600 Hrs on 28 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	3195.0m	Drilled 311mm (12 1/4") hole from 3115m to 3195m MDRT String wt 340klbs, Tq 6-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-20klbs, 3900psi, 875gpm. Boost riser while drilling. Max gas for 24hr period 0.112%. ROP average 13.3m/hr (including connections) Survey results @3173.79m, 3.67deg, 49.59 azimuth

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 27 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1525.0m
INTERMEDIATE HOLE(IH)	196.5	17 Dec 2005	27 Dec 2005	368.50	15.354	3115.0m

WBM Data — Cost Today $ 20507

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	75000mg/l	Solids(%vol):	10%	Viscosity	57sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	6%	H2O:	90%	PV	17cp
Time:	2100	HTHP-FL:	12.8cc/30min	Hard/Ca:	260mg/l	Oil(%):	0%	YP	26lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	6	Sand:	1.25	Gels 10s	7
Temp:	25C°			PM:		pH:	9	Gels 10m	9
				PF:	0.05	PHPA:	1ppb	Fann 003	5
								Fann 006	7
								Fann 100	26
								Fann 200	36
								Fann 300	43
								Fann 600	60

Comment: NaCl 8%.

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size ("):	12.250in	IADC#	M422	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)	11.90klb	No.	Size	Progress	474.0m	Cum. Progress	1590.0m
Type:	PDC	RPM(avg)	150	2	28/32nd"	On Bottom Hrs	16.2h	Cum. On Btm Hrs	54.9h
Serial No.:	211010	F.Rate	20.90bpm	4	18/32nd"	IADC Drill Hrs	0.0h	Cum IADC Drill Hrs	51.0h
Bit Model	RSX 616	SPP	3420psi			Total Revs	255	Cum Total Revs	857
Depth In	1525.0m	HSI				ROP(avg)	29.26 m/hr	ROP(avg)	28.96 m/hr
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	14400ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	340.00klb	Torque(Off.Btm)	4100ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	330.00klb	Torque(On.Btm)	7700ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	340.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	

Printed on 27 Dec 2005

Equipment	Length	OD	ID	Serial #	Comment
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
2772.65	3.8	43.7	2770.41	54.4	49.3	23.3	0.1	MWD
2887.70	3.9	45.7	2885.20	62.0	54.9	28.7	0.1	MWD
2973.53	3.7	46.7	2970.84	67.4	58.9	32.8	0.1	MWD
3088.21	3.8	46.5	3085.28	64.0	64.0	38.3	0.1	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	123.1
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	16.8	0	375.2
Fresh Water	m3	30	28.8	0	150.1
Drill Water	m3	0	151.5	0	403.7
Cement G	MT	79.93	0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2	12P160	6.000	10.20	97	103	3740	10.48	3074.0	30	340	3.00	40	400	4.00	50	490	5.00
3	12P160	6.000	10.20	97	103	3740	10.48	3074.0	30	340	3.00	40	400	4.00	50	490	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	43	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	1 Day	Held weekly abandon rig drill	
Fire Drill	26 Dec 2005	1 Day	Held weekly fire drill	
JSA	27 Dec 2005	0 Days	Deck = 6, Mech = 3, Drill = 7,Welder = 2, Marine = 1	
Safety Meeting	26 Dec 2005	1 Day	Weekly safety meetings with all crew members.	
STOP Card	27 Dec 2005	0 Days	Safe = 2, Un-safe = 5	

Printed on 27 Dec 2005

Shakers, Volumes and Losses Data

Available	2,540bbl	Losses	335bbl
Active	386.3bbl	Equipment	335bbl
Hole	1,882.7bbl		
Reserve	271bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165
Shaker2	VSM 100	4 x 120
Shaker3	VSM 100	4 x 120
Shaker4	BEM650	4 x 165

Marine

Weather on 27 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	12kn	45.0deg	1020.0mbar	18C°	0.2m	45.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	432.00klb	4444.20klb	1.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	320.0
2	269.0
3	216.0
4	251.0
5	273.0
6	342.0
7	397.0
8	359.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip			At rig recieving Crystal Ocean's cargo which was offloaded from the Pacific Wrangler at 2330hrs	

Item	Unit	Used	Quantity
Diesel	CuMtr		488
Fresh Water	CuMtr		73
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

On completion of recieving 9 lifts she will travel to the Crystal Ocean and wait for first light to transfer fuel and cargo.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			Arrived at rig 2315hrs, off loaded 9 lifts for Crystal Ocean.	

Item	Unit	Used	Quantity
Diesel	CuMtr		621.3
Fresh Water	CuMtr		195
Drill Water	CuMtr		620
Cement G	Mt		0
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Once Far Grip has completed her cargo transfer she will off load deck cargo.

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0925 / 0940	12 / 12	

28 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 17
Culverin 1

Well Data

Country	Australia	MDBRT	3277.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3274.0m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	162.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 503334
Drill Co.	DOGC	Days from spud	12.44	Shoe MDBRT	1511.8m	Cum Cost	$ 13122004
Rig	OCEAN PATRIOT	Days on well	16.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	953
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Drilling ahead at 3308.0 mMDRT in the Latrobe Group.
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3115.0 mMDRT to 3277.0 mMDRT.

FORMATION

Name	Top
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	
Near 70.3 Ma Sand	
TD	
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 28 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	1030	10.50	3226.0m	Drilled 311mm (12 1/4") hole from 3115m to 3226m MDRT String wt 340klbs, Tq 6-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-20klbs, 3900psi, 875gpm. Boost riser while drilling. ROP average10.57m/hr (including connections) Survey results @3202.65m, 3.71deg, 48.97 azimuth
IH	TU (RE)	DA	1030	1200	1.50	3266.0m	Drilling operations suspended due to riser flex joint bullseye reading exceeding "GEM's" guidelines. Circulate while trying to maneouver rig with anchor winches. Wind 35-40 knots, Seas 1.5m WSW, Swell 1.5m NE
IH	P	DA	1200	2400	12.00	3277.0m	Drilled 311mm (12 1/4") hole from 3226m to 3277m MDRT String wt 340klbs, Tq 6-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-25klbs, 4100psi, 860gpm. Boost riser while drilling. ROP average 4.25m/hr (including connections) Survey results @3202.65m, 3.71deg, 48.97 azimuth

Operations For Period 0000 Hrs to 0600 Hrs on 29 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	3308.0m	Drilled 311mm (12 1/4") hole from 3277m to 3308m MDRT String wt 350klbs, Tq 4-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 5-20klbs, 3800-4100psi, 860gpm. Boost riser while drilling. ROP average 5.16m/hr (including connections) Survey results @3260m, 3.66deg, 49.86 azimuth

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 28 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.938	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.188	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1525.0m

Printed on 28 Dec 2005

Phase Data to 2400hrs, 28 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
INTERMEDIATE HOLE(IH)	220.5	17 Dec 2005	28 Dec 2005	392.50	16.354	3277.0m

WBM Data

Cost Today $ 49325

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	81500mg/l	Solids(%vol):	10%	Viscosity	57sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	90%	PV	17cp
Time:	2100	HTHP-FL:	12.0cc/30min	Hard/Ca:	260mg/l	Oil(%):	0%	YP	26lb/100ft²
Weight:	10.30ppg	HTHP-cake:	1/32nd"	MBT:	6	Sand:	1.25	Gels 10s	6
Temp:	32C°			PM:		pH:	9	Gels 10m	9
				PF:	0.05	PHPA:	1ppb	Fann 003	5
								Fann 006	7
								Fann 100	26
								Fann 200	36
								Fann 300	43
								Fann 600	60

Comment: NaCl 8%. Ditch magnet metal recovery 60 grams

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	162.0m	Cum. Progress	1752.0m
Mfr:	REED HYCALOG	WOB(avg)	13.20klb	2	28/32nd"	On Bottom Hrs	17.5h	Cum. On Btm Hrs	72.4h
Type:	PDC	RPM(avg)	140	4	18/32nd"	IADC Drill Hrs	22.5h	Cum IADC Drill Hrs	73.5h
Serial No.:	211010	F.Rate	20.47bpm			Total Revs	275	Cum Total Revs	1132
Bit Model	RSX 616	SPP	3800psi			ROP(avg)	9.26 m/hr	ROP(avg)	24.20 m/hr
Depth In	1525.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	14000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	350.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	350.00klb	Torque(On.Btm)	8000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	360.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3173.79	3.7	49.6	3170.67	80.0	67.8	42.4	0.1	MWD
3260.37	3.7	49.9	3257.07	71.4	71.4	46.5	0.2	MWD

Printed on 28 Dec 2005

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	5.85	0	117.2
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	23.3	0	351.9
Fresh Water	m3	31	35.3	0	145.8
Drill Water	m3	300	108.5	0	595.2
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	10.30	97	101	4100	10.24
3	12P160	6.000	10.30	97	101	4100	10.24

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30 1511.77	650.30 1511.77	604.40 603.50	604.40 603.50	

Personnel On Board

Company	Pax	Comment
DOGC	43	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	3	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	79	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	2 Days	Held weekly abandon rig drill	
Fire Drill	26 Dec 2005	2 Days	Held weekly fire drill	
JSA	28 Dec 2005	0 Days	Deck = 9, Drill = 3,Welder = 2,	
Safety Meeting	26 Dec 2005	2 Days	Weekly safety meetings with all crew members.	
STOP Card	28 Dec 2005	0 Days	Safe = 5, Un-safe = 4	

Shakers, Volumes and Losses Data

Available	**3,140bbl**
Active	498.3bbl
Hole	1,956.7bbl
Reserve	685bbl

Losses	**341bbl**
Equipment	341bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165
Shaker2	VSM 100	4 x 165
Shaker3	VSM 100	4 x 120
Shaker4	BEM650	4 x 165

Marine

Printed on 28 Dec 2005

Weather on 28 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	10kn	225.0deg	1011.0mbar	20C°	1.0m	247.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	444.00klb	4656.20klb	2.0m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	247.0
2	269.0
3	176.0
4	256.0
5	265.0
6	333.0
7	298.0
8	282.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip		0100	Currently at Crystal Ocean servicing her fuel and cargo requirements	

Item	Unit	Used	Quantity
Diesel	CuMtr		488
Fresh Water	CuMtr		73
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

SOF's at Departure from Patriot. Fuel 488m3, Drill water 50m3, potable water 73m3, Barite 89mt, Sil Cement 54mt.
Deprature time 0100hrs

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler			At rig	

Item	Unit	Used	Quantity
Diesel	CuMtr		607.7
Fresh Water	CuMtr		190
Drill Water	CuMtr		320
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Passed 300m3 of drill water to rig.

29 Dec 2005

From: Ron King/ Webby
To: J Ah-Cann

DRILLING MORNING REPORT # 18
Culverin 1

Well Data

Country	Australia	MDBRT	3385.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3381.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	108.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 462947
Rig	OCEAN PATRIOT	Days from spud	13.44	Shoe MDBRT	1511.8m	Cum Cost	$ 13584951
Wtr Dpth(MSL)	585.0m	Days on well	17.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	954
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead at XXXX.0 mMDRT in the Latrobe Group.
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3277.0 mMDRT to 3385.0 mMDRT.

FORMATION

Name	Top
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	
Near 70.3 Ma Sand	3335.00m
TD	
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 29 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	1530	15.50	3356.0m	Drilled 311mm (12 1/4") hole from 3277m to 3356m MDRT String wt 350klbs, Tq 4-14000ftlbs, 80-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 3800-4100psi, 840-900gpm. Boost riser while drilling. ROP average 5.16m/hr (including connections) Survey results @3317m, 3.72deg, 47.74 azimuth
IH	TP (RE)	DA	1530	1630	1.00	3356.0m	Change out piston on #3 mud pump. fault find and repair blower motor fault.
IH	P	DA	1630	2400	7.50	3385.0m	Drilled 311mm (12 1/4") hole from 3356m to 3385m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Max gas for 24hr period 0.306% Survey results @3346m, 3.65deg, 50.41 azimuth

Operations For Period 0000 Hrs to 0600 Hrs on 30 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	0.0m	Drilled 311mm (12 1/4") hole from 3385m to 3397m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Survey results @m, deg, azimuth

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 29 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.937	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.187	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1525.0m

Printed on 29 Dec 2005

Phase Data to 2400hrs, 29 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
INTERMEDIATE HOLE(IH)	244.5	17 Dec 2005	29 Dec 2005	416.50	17.354	3385.0m

WBM Data — Cost Today $ 2468

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	82000mg/l	Solids(%vol):	10%	Viscosity	57sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	17cp
Time:	2100	HTHP-FL:	12.0cc/30min	Hard/Ca:	320mg/l	Oil(%):	0%	YP	30lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	6	Sand:	1.25	Gels 10s	7
Temp:	33C°			PM:		pH:	9	Gels 10m	9
				PF:	0.05	PHPA:	1ppb	Fann 003	6
								Fann 006	8
								Fann 100	28
								Fann 200	40
								Fann 300	47
								Fann 600	64

Comment: NaCl 8%. Ditch magnet metal recovery 52grams

Bit # 3

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	108.0m	Cum. Progress	1860.0m
Mfr:	REED HYCALOG	WOB(avg)	13.20klb	2	28/32nd"	On Bottom Hrs	18.3h	Cum. On Btm Hrs	90.7h
Type:	PDC	RPM(avg)	100	4	18/32nd"	IADC Drill Hrs	0.0h	Cum IADC Drill Hrs	73.5h
Serial No.:	211010	F.Rate	20.26bpm			Total Revs	275	Cum Total Revs	1407
Bit Model	RSX 616	SPP	3800psi			ROP(avg)	5.90 m/hr	ROP(avg)	20.51 m/hr
Depth In	1525.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	14000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	350.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	350.00klb	Torque(On.Btm)	6000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	360.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3317.48	3.7	47.7	3314.07	88.8	73.9	49.3	0.1	MWD
3346.36	3.7	50.4	3342.89	90.6	75.1	50.7	0.2	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	117.2
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	18.7	0	333.2
Fresh Water	m3	29	15.4	0	159.4
Drill Water	m3	0	113	0	482.2
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	10.20	97	101	4200	10.24
3	12P160	6.000	10.20	97	101	4200	10.24

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	41	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	7	Michele Zaunbrecher, Julie Ang
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	78	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	3 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	0 Days	Environmental Audit	Carry out environmental audit by Nexus shorebase personnel.
Fire Drill	26 Dec 2005	3 Days	Held weekly fire drill	
JSA	29 Dec 2005	0 Days	Deck = 5, Mech = 3, Drill = 2,Welder = 2,	
Safety Meeting	26 Dec 2005	3 Days	Weekly safety meetings with all crew members.	
STOP Card	29 Dec 2005	0 Days	Safe = 2, Un-safe = 8	

Shakers, Volumes and Losses Data

Available	**2,907bbl**
Active	496bbl
Hole	2,006bbl
Reserve	405bbl

Losses	**235bbl**
Equipment	235bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165
Shaker2	VSM 100	2 x 120 / 2 x 165
Shaker3	VSM 100	2 x 120 / 2 x 165
Shaker4	BEM650	2 x 120 / 2 x 165

Marine

Weather on 29 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	5kn	270.0deg	1014.0mbar	17C°	2.0m	270.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	2.0m	248.0deg	7s	

Comments

Rig Support

Anchors	Tension (klb)
1	245.0
2	269.0
3	209.0
4	269.0
5	373.0
6	353.0
7	304.0
8	278.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		357
Fresh Water	CuMtr		67
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

SOF's:
Fuel 362m3, Potable water 70m3, Drill water 50m3, silica cmt 54t, barite 89t.
Fuel usage by Crystal Ocean 126m3.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler			At rig

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		607.7
Fresh Water	CuMtr		190
Drill Water	CuMtr		320
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Passed 300m3 of drill water to rig.

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0920 / 0925	9 / 10	

DRILLING MORNING REPORT # 19

30 Dec 2005 **From:** Ron King/ Geoff Webster
To: J Ah-Cann

Culverin 1

Well Data

Country	Australia	MDBRT	3402.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3398.5m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	17.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 593639
Drill Co.	DOGC	Days from spud	14.44	Shoe MDBRT	1511.8m	Cum Cost	$ 14178590
Rig	OCEAN PATRIOT	Days on well	18.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	955
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	RIH with 5" DP to mMDRT.
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3385.0 mMDRT to 3402.0 mMDRT. POOH for bit trip. Downloaded LWD memory. Made up new PDC bit and new motor. Started to RIH.

FORMATION

Name	Top
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	
Near 70.3 Ma Sand	
TD	
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 30 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0200	2.00	0.0m	Drilled 311mm (12 1/4") hole from 3385m to 3397m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Survey results @3375m, 3.7deg, 76.2 azimuth
IH	TP (RE)	DA	0200	0230	0.50	3390.0m	Elmagco auxillary brake problems. fault find and make repairs. Continue with 50% power available to Elmagco
IH	P	DA	0230	0830	6.00	3402.0m	Drilled 311mm (12 1/4") hole from 3390m to 3402m MDRT String wt 355klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 18-25klbs, 3900-4300psi, 875gpm. Boost riser while drilling. Average ROP = 2m/hr
IH	P	TO	0830	0930	1.00	3402.0m	Flow checked and POOH from 3402m to 2867m, pulled tight @ 55klbs overpull
IH	P	REA	0930	1000	0.50	3402.0m	Made up top drive and back ream from 2867m to 2819m
IH	P	TO	1000	1630	6.50	3402.0m	Continued to POOH from 2819m to 268m, flow checked @ casing shoe. Calibrated MWD caliper @ 1475m
IH	P	TO	1630	1830	2.00	3402.0m	POOH with 311mm (12 1/4") BHA, remove radioactive source from LWD, broke off bit (4-6-WT-S-X-1-RO-PR) and laid out mud motor
IH	P	TO	1830	2030	2.00	3402.0m	Picked up LWD from derrick and download data. Racked back same in derrick
IH	P	RS	2030	2100	0.50	3402.0m	Serviced top drive and pipe handler. Checked compensator chains
IH	P	TI	2100	2300	2.00	3402.0m	Picked up new motor (Sperrydrill 6/7 5 stage w/ 0 degree bend), made up new bit (Reed RSX616M) and RIH with 311mm (12 1/4") BHA
IH	P	TI	2300	2400	1.00	3402.0m	Loaded radio active source into LWD and initiate tools

Operations For Period 0000 Hrs to 0600 Hrs on 31 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	TI	0000	0130	1.50	3402.0m	Continued to RIH with 12 1/4" BHA. Shallow pulse test MWD with 750 GPM and 750 psi, good test
IH	P	TI	0130	0300	1.50	3402.0m	Picked up 27 joints 5" DP from catwalk
IH	P	TI	0300	0600	3.00	3402.0m	Continued to RIH with 12 1/4" BHA and 5" DP from Derrick

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 30 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.937	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.187	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1525.0m
INTERMEDIATE HOLE(IH)	268.5	17 Dec 2005	30 Dec 2005	440.50	18.354	3402.0m

WBM Data

Cost Today $ 21860

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	82500mg/l	Solids(%vol):	10%
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%
Time:	2100	HTHP-FL:	11.8cc/30min	Hard/Ca:	260mg/l	Oil(%):	0%
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	7	Sand:	1
Temp:	32C°			PM:		pH:	7
				PF:	0.04	PHPA:	1ppb

Viscosity	60sec/qt
PV	16cp
YP	28lb/100ft²
Gels 10s	7
Gels 10m	9
Fann 003	5
Fann 006	7
Fann 100	27
Fann 200	37
Fann 300	44
Fann 600	60

Comment: NaCl 8%.

Bit # 3

Wear	I	O1	D	L	B	G	O2	R
	4	6	WT	S	X	2	RO	PR

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	17.0m	Cum. Progress	1877.0m
Mfr:	REED HYCALOG	WOB(avg)	13.20klb	2	28/32nd"	On Bottom Hrs	6.0h	Cum. On Btm Hrs	96.7h
Type:	PDC	RPM(avg)	100	4	18/32nd"	IADC Drill Hrs	8.0h	Cum IADC Drill Hrs	81.5h
Serial No.:	211010	F.Rate	20.26bpm			Total Revs	1463	Cum Total Revs	2870
Bit Model	RSX 616	SPP	3800psi			ROP(avg)	2.83 m/hr	ROP(avg)	19.41 m/hr
Depth In	1525.0m	HSI							
Depth Out	3402.0m	TFA	2.197						

Bit Comment

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
							NO	

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress		Cum. Progress	0.0m
Mfr:	REED HYCALOG	WOB(avg)		2	28/32nd"	On Bottom Hrs		Cum. On Btm Hrs	0.0h
Type:	PDC	RPM(avg)		4	18/32nd"	IADC Drill Hrs		Cum IADC Drill Hrs	0.0h
Serial No.:	211406	F.Rate				Total Revs		Cum Total Revs	0
Bit Model	RSX 616	SPP				ROP(avg)	N/A	ROP(avg)	0.00 m/hr
Depth In	3402.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	14000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	350.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	350.00klb	Torque(On.Btm)	6000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	360.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3375.00	3.7	54.0	3371.50	92.3	76.2	52.1	0.2	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	3.42	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	100	27.1	0	406.1
Fresh Water	m3	26	25.1	0.5	160.8
Drill Water	m3	0	78.3	-0.4	403.5
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner	MW	Eff (%)	SPM	SPP	Flow

Slow Pump Data

Depth	SPM1	SPP1	Flow1	SPM2	SPP2	Flow2	SPM3	SPP3	Flow3

Printed on 30 Dec 2005

Pumps

Pump Data - Last 24 Hrs								Slow Pump Data									
		(in)	(ppg)		(SPM)	(psi)	(bpm)	(m)	(SPM)	(psi)	(bpm)	(SPM)	(psi)	(bpm)	(SPM)	(psi)	(bpm)
2	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	40	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	4 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	1 Day	Environmental Audit	Carry out environmental audit by Nexus shorebase personnel.
Fire Drill	26 Dec 2005	4 Days	Held weekly fire drill	
JSA	29 Dec 2005	1 Day	Deck = 6, Mech = 3, Drill = 7,Welder = 2, Marine = 1	
Safety Meeting	26 Dec 2005	4 Days	Weekly safety meetings with all crew members.	
STOP Card	29 Dec 2005	1 Day	Safe = 2	

Shakers, Volumes and Losses Data

Available	**3,204bbl**
Active	360.1bbl
Hole	2,103.9bbl
Reserve	740bbl

Losses	**0bbl**

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165
Shaker2	VSM 100	4 x 165
Shaker3	VSM 100	4 x 120
Shaker4	BEM650	4 x 165

Marine

Weather on 30 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	15kn	0.0deg	1014.0mbar	18C°	0.5m	0.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	1.0m	270.0deg	7s	

Comments

Rig Support

Anchors	Tension (klb)
1	247.0
2	269.0
3	198.0
4	262.0
5	366.0
6	359.0
7	298.0
8	284.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip			Standby Ocean Patriot

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		347

Printed on 30 Dec 2005

				Item	Unit	Used	Quantity
				Fresh Water	CuMtr		67
				Drill Water	CuMtr		50
				Cement G	Mt		0
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89
Depart Ocean Patriot 07:00 for Crystal Ocean, (Fuel on board = 355m3) Arrive Ocean Patriot 15:43 from Crystal Ocean (Fuel on board = 347m3) Fuel hose caught in Prop.							
Pacific Wrangler		18:30	Enroute to Eden	**Item**	**Unit**	**Used**	**Quantity**
				Diesel	CuMtr		484
				Fresh Water	CuMtr		185
				Drill Water	CuMtr		320
				Cement G	Mt		132
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		42
Depart for Crystal Ocean @ 16:50 from Ocean Patriot. Fuel on board = 487.2m3). Unable to transfer fuel to Crystal Ocean, Depart for Eden @ 18:30 (Fuel on board = 484m3)							

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0910 / 0933	9 / 12	

DRILLING MORNING REPORT # 20

Culverin 1

31 Dec 2005

From: Ron King/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3473.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3469.3m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	71.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 0
Drill Co.	DOGC	Days from spud	15.44	Shoe MDBRT	1511.8m	Cum Cost	$ 11635849
Rig	OCEAN PATRIOT	Days on well	18.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	956
Wtr Dpth(MSL)	585.0m	Planned TD MD					
RT-ASL(MSL)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Drilling ahead 311 mm (12 1/4") hole at 3524.0 mMDRT.
Planned Op	Drill ahead 311 mm (12 1/4") hole

Summary of Period 0000 to 2400 Hrs

RIH to 3330.0 mMDRT. Logged down over sandstone from 3335.0 mMDRT to 3343m MDRT . Reamed down to bottom. Commenced drilling ahead from 3402.0 mMDRT to 3473m MDRT

FORMATION

Name	Top
Latrobe	2824.00m
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 31 Dec 2005

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	TI	0000	0130	1.50	3402.0m	Continued to RIH with 12 1/4" BHA. Shallow pulse test MWD with 750 GPM and 750 psi, good test
IH	P	TI	0130	0300	1.50	3402.0m	Picked up 27 joints 5" DP from catwalk
IH	P	TI	0300	0900	6.00	3402.0m	Continued to RIH with 12 1/4" BHA and 5" DP from Derrick to 3330m MDRT
IH	P	RW	0900	1200	3.00	3402.0m	Reamed and washed from 3330m MDRT to 3380m MDRT. Performed confirmation pass with LWD tools across interval
IH	P	RW	1200	1230	0.50	3402.0m	Washed and reamed last single to bottom
IH	P	DA	1230	2400	11.50	3473.0m	Drilled ahead 311mm (12 1/4") hole from 3402m MDRT to 3473m MDRT, Average ROP = 6.2m/hr, Flow rate = 875 GPM, WOB = 17 - 24 klbs, Rotary RPM = 80 - 110, Bit RPM = 190 - 220, Tq = 5000 - 9500 ft/lbs,

Operations For Period 0000 Hrs to 0600 Hrs on 01 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	3524.0m	Continued to drill 311mm (12 1/4") hole from 3473m MDRT to 3524m MDRT Average ROP = 8.5m/hr, WOB = 20-24 klbs, Rotary RPM = 110, DH RPM = 228, Tq = 4500-8000 ftlb, Flow = 872 GPM Encountered drilling break at 3481m MDRT to 3487m MDRT, flow checked well (76m/hr, Gas = 45 units) Max Gas = 92 units @ 3500m MDRT

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 31 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m

Printed on 31 Dec 2005

Phase Data to 2400hrs, 31 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	292.5	17 Dec 2005	31 Dec 2005	450.50	18.771	3473.0m

WBM Data

Cost Today $ 302

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	84000mg/l	Solids(%vol):	10%	Viscosity	62sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	17cp
Time:	20:30	HTHP-FL:	12.0cc/30min	Hard/Ca:	200mg/l	Oil(%):	0%	YP	33lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	6	Sand:	1.5	Gels 10s	8
Temp:	29C°			PM:	0.1	pH:	9	Gels 10m	11
				PF:	0.05	PHPA:	1ppb	Fann 003	7
								Fann 006	9
								Fann 100	30
								Fann 200	42
								Fann 300	50
								Fann 600	67

Comment: NaCl 8%.
Ditch magnet recovery = 142 grams

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
							NO	

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	71.0m	Cum. Progress	71.0m
Mfr:	REED HYCALOG	WOB(avg)	22.00klb	2	28/32nd"	On Bottom Hrs	11.8h	Cum. On Btm Hrs	11.8h
Type:	PDC	RPM(avg)	110	4	18/32nd"	IADC Drill Hrs	11.5h	Cum IADC Drill Hrs	11.5h
Serial No.:	211406	F.Rate	875.00bpm			Total Revs		Cum Total Revs	0
Bit Model	RSX 616	SPP	4000psi			ROP(avg)	6.02 m/hr	ROP(avg)	6.02 m/hr
Depth In	3402.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)	9500ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	365.00klb	Torque(Off.Btm)	4000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	355.00klb	Torque(On.Btm)	7000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	365.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3404.40	3.5	54.9	3400.80	94.1	77.3	53.6	0.2	

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3432.80	3.6	52.0	3429.16	95.7	78.3	55.0	0.2	
3461.32	3.5	52.0	3457.63	97.4	79.4	56.4	0.1	
3490.24	3.4	50.3	3486.49	99.1	80.5	57.8	0.1	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	15.8	0	390.3
Fresh Water	m3	29	26.6	0	163.2
Drill Water	m3	0	24	0.1	379.6
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2	12P160	6.000	10.20	97	102	4200	10.38	3440.0	30	350	3.00	40	440	4.00	50	525	5.00
3	12P160	6.000	10.20	97	102	4200	10.38	3440.0	30	350	3.00	40	440	4.00	50	525	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	40	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	5 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	2 Days	Environmental Audit	Carry out environmental audit by Nexus shorebase personnel.
Fire Drill	26 Dec 2005	5 Days	Held weekly fire drill	
JSA	31 Dec 2005	0 Days	Deck = 8, Drill = 7,Welding = 2, Marine = 1	
Man Overboard Drill	30 Dec 2005	1 Day	Held Man Over Board Drill	
Safety Meeting	26 Dec 2005	5 Days	Weekly safety meetings with all crew members.	
STOP Card	31 Dec 2005	0 Days	Safe = 4, Un-safe = 4	

Shakers, Volumes and Losses Data

Available	**2,956bbl**	**Losses**	**100bbl**
Active	409.8bbl	Equipment	100bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165

Shakers, Volumes and Losses Data

Hole	2,046.2bbl
Reserve	500bbl

Equip.	Descr.	Mesh Size
Shaker2	VSM 100	4 x 165
Shaker3	VSM 100	1 x 120, 3 X 165
Shaker4	BEM650	1 X 120, 3 x 165

Marine

Weather on 31 Dec 2005

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	15kn	45.0deg	1015.0mbar	20C°	0.5m	45.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	1.0m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	247.0
2	269.0
3	198.0
4	262.0
5	366.0
6	359.0
7	298.0
8	284.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip		20:30	Off Location

Item	Unit	Used	Quantity
Diesel	CuMtr		340
Fresh Water	CuMtr		61
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Depart Ocean Patriot ETA Melbourne 2 Jan 2006 @ 02:00
SOF's:
Fuel 340m3, Potable water 61m3, Drill water 50m3, silica cmt 54t, barite 89t.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	20:30		Standby Ocean Patriot

Item	Unit	Used	Quantity
Diesel	CuMtr		467.4
Fresh Water	CuMtr		175
Drill Water	CuMtr		320
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Loaded electric line logging tools in Eden, sail to Ocean Patriot

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today

01 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 21
Culverin 1

Well Data

Country	Australia	MDBRT	3571.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3567.1m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	98.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 466881
Rig	OCEAN PATRIOT	Days from spud	16.44	Shoe MDBRT	1511.8m	Cum Cost	$ 15076709
Wtr Dpth(MSL)	585.0m	Days on well	19.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	957
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	POOH from 85m MDRT and inspected BHA for washout
Planned Op	Drill ahead 311 mm (12 1/4") hole to TD.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3473.0 mMDRT to 3571.0 mMDRT. POOH for suspected washout.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 01 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	1830	18.50	3571.0m	Continued to drill 311mm (12 1/4") hole from 3473m MDRT to 3571m MDRT Average ROP = 5.3m/hr, WOB = 20-24 klbs, Rotary RPM = 110, DH RPM = 228, Tq = 6000-8000 ftlb, Flow = 872 GPM Encountered drilling break at 3481m MDRT to 3487m MDRT, flow checked well (76m/hr, Gas = 45 units) Max Gas = 186 units @ 3543.5m MDRT
IH	P	WSH	1830	2400	5.50	3571.0m	Conducted 15 minute flow check, good. POOH wet, checking for washout. Pulled 2 stands and made up top drive, circulated to confirm continued pressure loss. POOH 10 stands, flow checked 10 minutes, good. Continued POOH checking for washout. Visually inspected tool joint seal faces of each stand for wear.

Operations For Period 0000 Hrs to 0600 Hrs on 02 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	WSH	0000	0600	6.00	3571.0m	Continued POOH checking for washout. Visually inspect tool joint seal faces of each stand for wear. Flow checked at casing shoe and at HWDP. Downloaded sources from LWD tools. POOH and inspected BHA for washout. Broke off bit and laid out motor

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 01 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	316.5	17 Dec 2005	01 Jan 2006	474.50	19.771	3571.0m

Printed on 01 Jan 2006

WBM Data

Cost Today $ 20199

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	82000mg/l	Solids(%vol):	10%	Viscosity	62sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	18cp
Time:	19:00	HTHP-FL:	12.0cc/30min	Hard/Ca:	260mg/l	Oil(%):	0%	YP	27lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	6	Sand:	1.25	Gels 10s	7
Temp:	33C°			PM:	0.2	pH:	9	Gels 10m	9
				PF:	0.04	PHPA:	1ppb	Fann 003	6
								Fann 006	8
								Fann 100	27
								Fann 200	37
								Fann 300	45
								Fann 600	64

Comment: NaCl 8%.
Ditch magnet recovery = 220 grams

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
							NO	

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	M422	No.	Size	Progress	98.0m	Cum. Progress	169.0m
Mfr:	REED HYCALOG	WOB(avg)	24.30klb	2	28/32nd"	On Bottom Hrs	15.2h	Cum. On Btm Hrs	27.0h
Type:	PDC	RPM(avg)		4	18/32nd"	IADC Drill Hrs	18.5h	Cum IADC Drill Hrs	30.0h
Serial No.:	211406	F.Rate	18.90bpm			Total Revs		Cum Total Revs	0
Bit Model	RSX 616	SPP	3737psi			ROP(avg)	6.45 m/hr	ROP(avg)	6.26 m/hr
Depth In	3402.0m	HSI							
Depth Out		TFA	2.197						

Bit Comment

BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)	14ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	365.00klb	Torque(Off.Btm)	5ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	355.00klb	Torque(On.Btm)	8ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	365.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3519.26	3.3	50.1	3515.46	100.7	81.6	59.1	0.1	MWD
3547.59	3.3	50.0	3543.75	102.3	82.6	60.3	0.0	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	27.8	0	362.5
Fresh Water	m3	28	30.5	0.1	160.8
Drill Water	m3	0	108.5	-0.3	270.8
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	10.20	97	101	4100	10.24
3	12P160	6.000	10.20	97	101	4100	10.24

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	43	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	0 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	3 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	0 Days	Held weekly fire drill	
JSA	01 Jan 2006	0 Days	Deck = 6, Drill = 6, Welder = 2, Mech = 1	
Man Overboard Drill	30 Dec 2005	2 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	0 Days	Weekly safety meetings with all crew members.	
STOP Card	01 Jan 2006	0 Days	Safe = 7, Un-safe = 2	

Shakers, Volumes and Losses Data

Available	**3,276bbl**
Active	455bbl
Hole	2,091bbl
Reserve	730bbl

Losses **0bbl**

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	145, 165, 120, 165
Shaker2	VSM 100	180, 180, 84, 120
Shaker3	VSM 100	2 X 165, 2 X 120
Shaker4	BEM650	2 X 165, 2 X 120

Marine

Weather on 01 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	40kn	240.0deg	1011.0mbar	19C°	2.0m	248.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	2.0m	248.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	247.0
2	269.0
3	198.0
4	262.0
5	366.0
6	359.0
7	298.0
8	284.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip		20:30	Off Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		340
Fresh Water	CuMtr		61
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Depart Ocean Patriot ETA Melbourne 2 Jan 2006 @ 02:00
SOF's(Dec 31, 2005):
Fuel 340m3, Potable water 61m3, Drill water 50m3, silica cmt 54t, barite 89t.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	20:30		Standby Ocean Patriot

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		457.4
Fresh Water	CuMtr		175
Drill Water	CuMtr		320
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today

02 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 22
Culverin 1

Well Data

Country	Australia	MDBRT	3571.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3567.1m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 508563
Rig	OCEAN PATRIOT	Days from spud	17.44	Shoe MDBRT	1511.8m	Cum Cost	$ 15585272
Wtr Dpth(MSL)	585.0m	Days on well	20.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	958
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Tripping out of hole to change out MWD.
Planned Op	Change out MWD tools and adjust BHA and drill ahead 311 mm (12 ¼") hole to TD.

Summary of Period 0000 to 2400 Hrs

POOH to surface. Changed out BHA to a rotary assembly (removed down-hole motor) and a Smith rock-bit. Completed making up new BHA with additional drill-collars and commenced RIH. BHA held up at 2100.0 mMDRT. Washed and reamed down to 2540.0 mMDRT. MWD failed at 2540.0 mMDRT. Commenced pulling out of hole to replace MWD tools and adjust BHA configuration. Pulling out at 2020.0 mMDRT at midnight.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 02 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TU (WO)	WSH	0000	0630	6.50	3571.0m	Continued POOH checking for washout. Visually inspect tool joint seal faces of each stand for wear. Flow checked at casing shoe and at HWDP. Downloaded sources from LWD tools. POOH and inspected BHA for washout. Broke off bit and laid out motor
IH	TU (WO)	TI	0630	0830	2.00	3571.0m	Made up 12 1/4" rotary BHA with Smith GF30BOVCPS (c/w 3 X 18 nozzles), install new HOC
IH	TU (WO)	TI	0830	1030	2.00	3571.0m	Initailized MWD and install sources in tool
IH	TU (WO)	TI	1030	1700	6.50	3571.0m	Picked up additional 8" DC's & RIH with 12 1/4" BHA, changed out drilling jar, continued RIH. Shallow pulse tested MWD with 850 GPM @ 2000psi, OK. RIH with 5" DP from derrick to 2134m MDRT, filled drillstring each 20 stands
IH	TU (WO)	TIT	1700	2200	5.00	3571.0m	Washed and reamed from 2134m MDRT to 2593m MDRT with 700 - 850 GPM, 2500 -3900 psi, 120 -145 RPM. MWD tools stopped communicating to surface. 200 psi pressure loss noted during reaming (3900psi @ 850 gpm to 3700psi @ 900gpm).
IH	TU (WO)	TOT	2200	2400	2.00	3571.0m	Flow checked 15 minutes, good. POOH for LWD failure and potential washout from 2593m MDRT to 2020m MDRT. 60klbs overpull @ 2326m MDRT, worked drill string free

Operations For Period 0000 Hrs to 0600 Hrs on 03 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TU (WO)	TO	0000	0130	1.50	3571.0m	Continued POOH wet looking for washout from 2020m MDRT to 1510m MDRT
IH	TU (WO)	TO	0130	0230	1.00	3571.0m	Installed top drive and pump through drill string at 1510m MDRT to verify pump pressure loss. 220 SPM, 940 GPM, 3700 psi, no pressure loss noted. Presure test Pumps #1, #2 & #3 10 minutes each to 3800 psi against standpipe manifold to verify mud pump and mudline integrity.
IH	TU (WO)	TO	0230	0600	3.50	3571.0m	Continued POOH wet looking for washout from 1510m MDRT to 162m MDRT

Operations For Period Hrs to Hrs on

Printed on 02 Jan 2006

Phase Data to 2400hrs, 02 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	340.5	17 Dec 2005	02 Jan 2006	498.50	20.771	3571.0m

WBM Data

Cost Today $ 21860

Mud Type:	KCL-NaCl-Polymer	API FL:	4.0cc/30min	Cl:	82500mg/l	Solids(%vol):	10%	Viscosity	60sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	2100	HTHP-FL:	11.8cc/30min	Hard/Ca:	260mg/l	Oil(%):	0%	YP	28lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	7	Sand:	1	Gels 10s	7
Temp:	32C°			PM:		pH:	7	Gels 10m	9
				PF:	0.04	PHPA:	1ppb	Fann 003	5
								Fann 006	7
								Fann 100	27
								Fann 200	37
								Fann 300	44
								Fann 600	60

Comment: NaCl 8%.

Bit # 4

Wear	I	O1	D	L	B	G	O2	R
	3	5	WT	S	X	1	LT	PP

Bitwear Comments:

Size ("):	12.250in	IADC#	M422	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	REED HYCALOG	WOB(avg)		No.	Size	Progress		Cum. Progress	169.0m
Type:	PDC	RPM(avg)		2	28/32nd"	On Bottom Hrs		Cum. On Btm Hrs	27.0h
Serial No.:	211406	F.Rate		4	18/32nd"	IADC Drill Hrs		Cum IADC Drill Hrs	30.0h
Bit Model	RSX 616	SPP				Total Revs		Cum Total Revs	0
Depth In	3402.0m	HSI				ROP(avg)	N/A	ROP(avg)	6.26 m/hr
Depth Out	3571.0m	TFA	2.197						

Bit Comment

Bit # 5

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

Size ("):	12.250in	IADC#	5-3-7	**Nozzles**		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Mfr:	SMITH BITS	WOB(avg)	10.00klb	No.	Size	Progress		Cum. Progress	0.0m
Type:	Rock	RPM(avg)	140	3	18/32nd"	On Bottom Hrs		Cum. On Btm Hrs	0.0h
Serial No.:	MX1628	F.Rate	20.20bpm			IADC Drill Hrs		Cum IADC Drill Hrs	0.0h
Bit Model	GF30BOVCPS	SPP	3700psi			Total Revs		Cum Total Revs	0
Depth In	3571.0m	HSI				ROP(avg)	N/A	ROP(avg)	0.00 m/hr
Depth Out		TFA	0.7455						

Bit Comment

BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Printed on 02 Jan 2006

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

BHA # 5

Weight(Wet)	65.00klb	Length	271.2m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	50.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Near Bit Stab	2.13m	12.125in	2.812in	47604	
Drill Collar	2.96m	8.188in	2.812in	49058	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	70.95m	8.000in	2.875in		
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	22.1	0	340.4
Fresh Water	m3	25	28.8	-0.1	156.9
Drill Water	m3	320	24.5	0.1	566.4
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30 1511.77	650.30 1511.77	604.40 603.50	604.40 603.50	

Personnel On Board

Company	Pax	Comment
DOGC	43	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	75	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	1 Day	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	4 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	1 Day	Held weekly fire drill	
JSA	02 Jan 2006	0 Days	Deck = 7, Mech = 4, Drill = 4,Welder = 2	
Man Overboard Drill	30 Dec 2005	3 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	1 Day	Weekly safety meetings with all crew members.	
STOP Card	02 Jan 2006	0 Days	Safe = 6, Un-safe = 10	

Shakers, Volumes and Losses Data

Available	**3,204bbl**
Active	360.1bbl
Hole	2,103.9bbl
Reserve	740bbl

Losses	**0bbl**

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	4 x 165
Shaker2	VSM 100	4 x 165
Shaker3	VSM 100	4 x 120
Shaker4	BEM650	4 x 165

Marine

Weather on 02 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	25kn	225.0deg	1014.0mbar	18C°	2.0m	225.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	3.0m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	309.0
2	287.0
3	163.0
4	300.0
5	293.0
6	311.0
7	410.0
8	353.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip		20:30	Off Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		340
Fresh Water	CuMtr		61
Drill Water	CuMtr		50
Cement G	Mt		0
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Depart Ocean Patriot ETA Melbourne 2 Jan 2006 @ 02:00
SOF's(Dec 3, 2005):
Fuel 340m3, Potable water 61m3, Drill water 50m3, silica cmt 54t, barite 89t.

Pacific Wrangler			Standby Ocean Patriot	**Item**	**Unit**	**Used**	**Quantity**
				Diesel	CuMtr		446.7
				Fresh Water	CuMtr		165
				Drill Water	CuMtr		0
				Cement G	Mt		132
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		42
Offloaded Electric wireline tools and 320m3 drillwater							

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today

03 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 23
Culverin 1

Well Data

Country	Australia	MDBRT	3571.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3567.1m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 439094
Rig	OCEAN PATRIOT	Days from spud	18.44	Shoe MDBRT	1511.8m	Cum Cost	$ 16024366
Wtr Dpth (LAT)	585.0m	Days on well	21.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	959
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	RIH with 5" DP from 1510m MDRT to 2100m MDRT
Planned Op	RIH, Ream and clean to bottom. Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Continued pulling out of hole to replace LWD tools (pulser found to be damaged) and adjusted BHA configuration. Re-calibrated pressure sensors on rig floor using cementing unit. Tested new LWD toolstring and commenced RIH. Slipped & Cut drill-line at the casing shoe. Waited on Weather

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 03 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TP (VE)	TO	0000	0130	1.50	3571.0m	Continued POOH for LWD failure (also POH wet looking for washout) from 2020m MDRT to 1510m MDRT
IH	TP (WO)	TO	0130	0230	1.00	3571.0m	Installed top drive and pump through drill string at 1510m MDRT to verify pump pressure loss. 220 SPM, 940 GPM, 3600 psi, no pressure loss noted. Presure test Pumps #1, #2 & #3 10 minutes each to 3800 psi against standpipe manifold to verify mud pump and mudline integrity. Observed average pressure loss of 91psi over 10 minutes
IH	TP (VE)	TO	0230	0500	2.50	3571.0m	Continued POOH for LWD failure (also POH wet looking for washout) from 1510m MDRT to 271m MDRT
IH	TP (VE)	TO	0500	0900	4.00	3571.0m	POOH with 12 1/4" BHA. Removed sources from LWD tools. Laid out LWD string. Downloaded data and diagnostics information (Pulser falure)
IH	TU (WO)	TI	0900	1200	3.00	3571.0m	Lined up Dowel cementing unit and pressure tested mud pumps and surface mud lines to 4200 psi. Calibrated gauges between rig floor, mud loggers, MWD, and Dowell. Picked up new 12 1/4" rotary BHA while pressure testing
IH	TP (VE)	TI	1200	1600	4.00	3571.0m	Continued to pick up 12 1/4" BHA. Initialized LWD and installed sources. RIH and shallow pulse tested LWD with 850 GPM @ 200 SPM and 1700 psi, good
IH	TP (VE)	TI	1600	1830	2.50	3571.0m	RIH with 5" DP and filled drillstring each 20 stands to 1510m MDRT
IH	P	SC	1830	2000	1.50	3571.0m	Held Pre job safety meeting. Hung off blocks and slipped and cut 100 ft drilling line.
IH	P	RS	2000	2030	0.50	3571.0m	Serviced top drive
IH	TP (WOW)	WOW	2030	2400	3.50	3571.0m	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 40-45knts WSW Seas; 3m Swells; 4m Pitch 0.7 - 0.9 Roll; 0.8 - 0.9 Perform General rig maintenance and PM's

Operations For Period 0000 Hrs to 0600 Hrs on 04 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TP (WOW)	WOW	0000	0330	3.50	3571.0m	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 30-35knts WSW Seas; 3m Swells; 4m Pitch 0.7 - 0.9 Roll; 0.8 - 0.9 Perform General rig maintenance and PM's
IH	TP (WOW)	WOW	0330	0430	1.00	3571.0m	Repositioned rig to bring flex joint angle to < 1 degree
IH	TP (WOW)	TI	0430	0600	1.50	3571.0m	Continued to RIH with 5" DP from 1510m MDRT to 2100m MDRT

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 03 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	364.5	17 Dec 2005	03 Jan 2006	522.50	21.771	3571.0m

WBM Data — Cost Today $ 0

Mud Type:	KCL-NaCl-Polymer	API FL:	3.8cc/30min	Cl:	78000mg/l	Solids(%vol):	10%	Viscosity	57sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	21:50	HTHP-FL:	11.6cc/30min	Hard/Ca:	200mg/l	Oil(%):	0%	YP	27lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	7.5	Sand:	1	Gels 10s	6
Temp:				PM:	0.35	pH:	8.5	Gels 10m	8
				PF:	0.06	PHPA:	1ppb	Fann 003	5
Comment		NaCl 8%.						Fann 006	7
								Fann 100	27
								Fann 200	37
								Fann 300	43
								Fann 600	59

Bit # 5

Wear	I	O1	D	L	B	G	O2	R
	1	1	NO	A	0	I	NO	DTF

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	5-3-7	No.	Size	Progress		Cum. Progress	0.0m
Mfr:	SMITH BITS	WOB(avg)	6.00klb	3	18/32nd"	On Bottom Hrs		Cum. On Btm Hrs	0.0h
Type:	Rock	RPM(avg)	140			IADC Drill Hrs		Cum IADC Drill Hrs	0.0h
Serial No.:	MX1628	F.Rate	20.20bpm			Total Revs		Cum Total Revs	0
Bit Model	GF30BOVCPS	SPP	3700psi			ROP(avg)	N/A	ROP(avg)	0.00 m/hr
Depth In	3571.0m	HSI							
Depth Out	3571.0m	TFA	0.7455						

Bit Comment

Bit # 5RR

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles	Drilled over last 24 hrs	Calculated over Bit Run
Size ("):	12.250in	IADC#	5-3-7			

Mfr:	SMITH BITS	WOB(avg)		No.	Size	Progress	Cum. Progress 0.0m
Type:	Rock	RPM(avg)		3	20/32nd"	On Bottom Hrs	Cum. On Btm Hrs 0.0h
Serial No.:	MX1628	F.Rate				IADC Drill Hrs	Cum IADC Drill Hrs 0.0h
Bit Model	GF30BOVCPS	SPP				Total Revs	Cum Total Revs 0
Depth In	3571.0m	HSI				ROP(avg) N/A	ROP(avg) 0.00 m/hr
Depth Out		TFA	0.9204				

Bit Comment

BHA # 5

Weight(Wet)	65.00klb	Length	271.2m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	50.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Near Bit Stab	2.13m	12.250in	2.812in	47604	
Drill Collar	2.96m	8.188in	2.812in	49058	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	70.95m	8.000in	2.875in		
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

BHA # 6

Weight(Wet)	65.00klb	Length	276.3m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	45.00klb	String		Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off				D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Bit Sub	1.10m	8.500in		1860001	
8in DC	9.04m	7.875in	2.875in	1860001	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.41m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600011	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	70.57m	8.000in	2.875in		
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8

Printed on 03 Jan 2006

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	9.3	-0.1	331.0
Fresh Water	m3	25	16.4	0.1	165.6
Drill Water	m3	0	12	-0.1	554.3
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
2	12P160	6.000	10.20	97	101	4200	10.24
3	12P160	6.000	10.20	97	101	4200	10.24

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	45	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	One trainee
Total	76	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	2 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	5 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	2 Days	Held weekly fire drill	
JSA	03 Jan 2006	0 Days	Deck = 3, Mech = 2, Drill = 10,Welder = 2	
Man Overboard Drill	30 Dec 2005	4 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	2 Days	Weekly safety meetings with all crew members.	
STOP Card	03 Jan 2006	0 Days	Safe = 5, Un-safe = 4	
Trip / Kick Drill	03 Jan 2006	0 Days	Held Trip drill with each crew while RIH	

Shakers, Volumes and Losses Data

Available	**3,200bbl**
Active	413bbl
Hole	2,127bbl
Reserve	660bbl

Losses **0bbl**

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	145, 165, 2 X 84
Shaker2	VSM 100	2 X 180, 2 X 84
Shaker3	VSM 100	2 X 165, 2 X 84
Shaker4	BEM650	2 X 165, 2 X 120

Marine

Weather on 03 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	45kn	248.0deg	1013.0mbar	16C°	3.0m	248.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	4.0m	248.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	245.0
2	287.0
3	187.0
4	231.0
5	280.0
6	192.0
7	328.0
8	302.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	24:00 3 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		513
Fresh Water	CuMtr		610
Drill Water	CuMtr		480
Cement G	Mt		48
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

Depart South Wharf @ 22:45, 2 Jan 2006. ETA Ocean Patriot 24:00 3 Jan 2006

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler			Standby Ocean Patriot

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		435.4
Fresh Water	CuMtr		160
Drill Water	CuMtr		0
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	09:28 / 09:55	3 / 4	

04 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 24
Culverin 1

Well Data

Country	Australia	MDBRT	3619.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3613.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	48.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 447637
Rig	OCEAN PATRIOT	Days from spud	19.44	Shoe MDBRT	1511.8m	Cum Cost	$ 16472003
Wtr Dpth (LAT)	585.0m	Days on well	22.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	960
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 311 mm (12 ¼") hole at 3643.0 mDRT.
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

RIH to bottom and began drilling ahead 311 mm (12 ¼") hole from 3571.0 mMDRT. Drilling ahead at 3619.0 mMDRT at midnight.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 04 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TU (WO)	WOW	0000	0330	3.50	3571.0m	Waiting on Weather to RIH. Excessive flex joint and riser angles Winds: 30-22knts WSW Seas; 2.5m - 1.5m Swells; 4m - 3m Pitch 0.6 Roll; 0.8 Perform General rig maintenance and PM's
IH	TU (WO)	WOW	0330	0430	1.00	3571.0m	Repositioned rig to bring flex joint angle to < 1 degree
IH	TU (WO)	TI	0430	0900	4.50	3571.0m	Continued to RIH with 5" DP from 1510m MDRT to 3487m MDRT
IH	TU (WO)	RW	0900	1000	1.00	3571.0m	Washed and reamed from 3487m MDRT to 3571m MDRT
IH	P	DA	1000	2400	14.00	3619.0m	Drilled ahead 31mm (12 1/4") hole from 3571m MDRT to 3619m MDRT. WOB = 25 - 34 klbs, RPM = 100- 150, SPM = 188 = 805 GPM, 4000 psi, Tq = 4500 - 6700 ftlb. Average ROP = 3.4m/hr

Operations For Period 0000 Hrs to 0600 Hrs on 05 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	3643.0m	Drilled ahead 311mm (12 1/4") hole from 3619m MDRT to 3643m MDRT. WOB = 25 - 34 klbs, RPM = 80- 100, SPM = 187 = 800 GPM, 4000 psi, Tq = 50000 - 6000 ftlb. Average ROP = 4m/hr

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 04 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m

Printed on 04 Jan 2006

Phase Data to 2400hrs, 04 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	388.5	17 Dec 2005	04 Jan 2006	546.50	22.771	3619.0m

WBM Data — Cost Today $ 5830

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	64sec/qt
Sample-From:	Flow line	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	17cp
Time:	21:20	HTHP-FL:	11.0cc/30min	Hard/Ca:	200mg/l	Oil(%):	0%	YP	33lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	7.5	Sand:	1	Gels 10s	8
Temp:	49C°			PM:	0.4	pH:	9	Gels 10m	11
				PF:	0.08	PHPA:	1ppb	Fann 003	7
								Fann 006	9
								Fann 100	30
								Fann 200	43
								Fann 300	50
								Fann 600	67

Comment: NaCl 8%.
Ditch Magent recovery = 140 grams

Bit # 5RR

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	5-3-7	No.	Size	Progress	48.0m	Cum. Progress	48.0m
Mfr:	SMITH BITS	WOB(avg)	26.90klb	3	20/32nd"	On Bottom Hrs	12.6h	Cum. On Btm Hrs	12.6h
Type:	Rock	RPM(avg)	107			IADC Drill Hrs	14.0h	Cum IADC Drill Hrs	14.0h
Serial No.:	MX1628	F.Rate	19.10bpm			Total Revs		Cum Total Revs	0
Bit Model	GF30BOVCPS	SPP	3954psi			ROP(avg)	3.81 m/hr	ROP(avg)	3.81 m/hr
Depth In	3571.0m	HSI							
Depth Out		TFA	0.9204						

Bit Comment: Krevs this 24 hrs = 81
Krevs this bitrun = 81

BHA # 6

Weight(Wet)	65.00klb	Length	276.3m	Torque(max)	6700ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	45.00klb	String	385.00klb	Torque(Off.Btm)	2500ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	375.00klb	Torque(On.Btm)	4000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	385.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Bit Sub	1.10m	8.500in		1860001	
8in DC	9.04m	7.875in	2.875in	1860001	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.41m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600011	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	70.57m	8.000in	2.875in		
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3555.34	3.4	53.7	3551.48	102.8	82.9	60.7	0.9	MWD
3583.83	3.0	50.9	3579.93	104.3	83.9	61.9	0.4	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	11.2	0.1	319.9
Fresh Water	m3	27	22.3	0	170.3
Drill Water	m3	0	24.1	0	530.2
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97	94	4000	9.58
2	12P160	6.000	10.20	97	94	4000	9.58
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	45	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	One trainee
Total	76	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	3 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	6 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	3 Days	Held weekly fire drill	
JSA	04 Jan 2006	0 Days	Deck = 6, Drill = 4	
Man Overboard Drill	30 Dec 2005	5 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	3 Days	Weekly safety meetings with all crew members.	
STOP Card	04 Jan 2006	0 Days	Safe = 3, Un-safe = 9	

Shakers, Volumes and Losses Data

Available	**3,085bbl**	**Losses**	**131bbl**
Active	410.1bbl	Equipment	131bbl
Hole	2,104.9bbl		
Reserve	570bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	3 X 165, 1 X 145
Shaker2	VSM 100	2 X 145, 165, 120
Shaker3	VSM 100	2 X 145, 2 X 120

Shakers, Volumes and Losses Data

		Equip.	Descr.	Mesh Size
		Shaker4	BEM650	2 X 165, 2 X 120

Marine

Weather on 04 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	12kn	225.0deg	1016.0mbar	18C°	1.0m	225.0deg	2s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	456.00klb	4578.40klb	3.0m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	240.0
2	276.0
3	198.0
4	234.0
5	324.0
6	185.0
7	322.0
8	337.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	24:00 3 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		334
Fresh Water	CuMtr		600
Drill Water	CuMtr		480
Cement G	Mt		48
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89

18:00 Travel to Crystal Ocean (Fuel on bard = 476m3) offload fuel to Crystal Ocean and return to Standby Ocean Patriot @ 22:15 hrs (Fuel on board = 336m3)

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler		22:15 4 Jan 2006	Enroute Melbourne, ETA 02:00 6 Jan 2006

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		223.9
Fresh Water	CuMtr		155
Drill Water	CuMtr		0
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

10:30; Travel to Crystal Ocean (Fuel on board = 428.7m3), offload Fuel to Crystal Ocean, return to Standby Ocean Patriot @ 17:30 hrs (Fuel on board = 224.7m3)

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today

05 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 25
Culverin 1

Well Data

Country	Australia	MDBRT	3697.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3693.0m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	78.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 464894
Rig	OCEAN PATRIOT	Days from spud	20.44	Shoe MDBRT	1511.8m	Cum Cost	$ 16936897
Wtr Dpth (LAT)	585.0m	Days on well	23.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	961
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Drilling ahead 311 mm (12 ¼") hole at 3718.0 mMDRT.
Planned Op	Drill ahead 311 mm (12 ¼") hole.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3619.0 mMDRT to 3697.0 mMDRT at midnight.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 05 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	2400	24.00	3697.0m	Drilled ahead 311mm (12 1/4") hole from 3619m MDRT to 3697m MDRT. WOB = 30 - 41 klbs, RPM = 80- 120, SPM = 187 = 800 GPM, 4050 psi, Tq = 5500 - 7500 ftlb. Average ROP = 3.55m/hr Max Gas today = 103 units @ 3695m MDRT

Operations For Period 0000 Hrs to 0600 Hrs on 06 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0400	4.00	3697.0m	Drilled ahead 311mm (12 1/4") hole from 3697m MDRT to 3714m MDRT. WOB = 30 - 35 klbs, RPM = 80- 120, SPM = 187 = 800 GPM, 4050 psi, Tq = 5500 - 7500 ftlb. Average ROP = 4.3 m/hr LWD tools stopped pulsing
IH	U	RR	0400	0430	0.50	3714.0m	Backed out IBOP on connection. Re aligned top drive and screwed back into IBOP. Torqued same to 78000 ftlbs. Comfirmed alignment of breakout/Make up system
IH	P	DA	0430	0600	1.50	3718.0m	Troubleshooted LWD tools. No sucess. Drilled Ahead 311mm (12 1/4") hole from 3714m MDRT to 3718m MDRT

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 05 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	412.5	17 Dec 2005	05 Jan 2006	570.50	23.771	3697.0m

WBM Data

Cost Today $ 0

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	61sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	22:30	HTHP-FL:	11.0cc/30min	Hard/Ca:	200mg/l	Oil(%):	0%	YP	30lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	7.5	Sand:	.8	Gels 10s	8
Temp:	49C°			PM:	0.3	pH:	9	Gels 10m	12
				PF:	0.06	PHPA:	1ppb	Fann 003	6
								Fann 006	9
								Fann 100	28
								Fann 200	39
								Fann 300	46
								Fann 600	62

Comment: NaCl 8%.
Ditch Magent recovery = 186 grams

Bit # 5RR

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	12.250in	IADC#	5-3-7	No.	Size	Progress	78.0m	Cum. Progress	126.0m
Mfr:	SMITH BITS	WOB(avg)	34.00klb	3	20/32nd"	On Bottom Hrs	22.0h	Cum. On Btm Hrs	34.6h
Type:	Rock	RPM(avg)	101			IADC Drill Hrs	24.0h	Cum IADC Drill Hrs	38.0h
Serial No.:	MX1628	F.Rate	19.00bpm			Total Revs	139	Cum Total Revs	139
Bit Model	GF30BOVCPS	SPP	4014psi			ROP(avg)	3.55 m/hr	ROP(avg)	3.64 m/hr
Depth In	3571.0m	HSI							
Depth Out		TFA	0.9204						

Bit Comment

BHA # 6

Weight(Wet)	65.00klb	Length	276.3m	Torque(max)	7700ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	45.00klb	String	385.00klb	Torque(Off.Btm)	2500ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	375.00klb	Torque(On.Btm)	6400ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	385.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Bit Sub	1.10m	8.500in		1860001	
8in DC	9.04m	7.875in	2.875in	1860001	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.41m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600011	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	70.57m	8.000in	2.875in		
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3641.38	3.0	50.2	3637.40	107.2	85.8	64.2	0.0	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT	0	0	0	38.1
Diesel	m3	0	26.8	-0.1	293.0

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fresh Water	m3	35	34.6	0	170.7
Drill Water	m3	0	55.3	0	474.9
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
1	A1700	6.000	10.20	97	94	4000	9.58	3600.0	30	380	3.00	40	475	4.00	50	580	5.00
2	12P160	6.000	10.20	97	94	4000	9.58	3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3	12P160	6.000	10.20	97	0	0	0.00	3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	48	extra Crane operator, dogman, welder
ESS	9	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	One trainee
Total	80	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	4 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	7 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	4 Days	Held weekly fire drill	
JSA	05 Jan 2006	0 Days	Deck = 6, Mech = 2, Drill = 2	
Man Overboard Drill	30 Dec 2005	6 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	4 Days	Weekly safety meetings with all crew members.	
STOP Card	05 Jan 2006	0 Days	Safe = 4, Un-safe = 4	

Shakers, Volumes and Losses Data

Available	**2,945bbl**	**Losses**	**90bbl**
Active	434.5bbl	Equipment	90bbl
Hole	2,140.5bbl	Desilter	50bbl
Reserve	370bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	2 X 230, 2 X 165
Shaker2	VSM 100	3 X 230, 165
Shaker3	VSM 100	4 X 120
Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 05 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	35kn	70.0deg	1020.0mbar	21C°	2.0m	70.0deg	5s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	552.00klb	4411.40klb	2.5m	70.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	236.0
2	276.0
3	196.0
4	366.0
5	260.0
6	203.0
7	267.0
8	260.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	24:00 3 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		320
Fresh Water	CuMtr		595
Drill Water	CuMtr		480
Cement G	Mt		48
Cement HT (Silica)	Mt		54
Barite Bulk	Mt		89
	Mt		42

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler		22:15 4 Jan 2006	Enroute Melbourne, ETA 02:00 6 Jan 2006

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		223.9
Fresh Water	CuMtr		155
Drill Water	CuMtr		0
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	09:55 / 10:25	11 / 7	

06 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 26
Culverin 1

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	61.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 556712
Drill Co.	DOGC	Days from spud	21.44	Shoe MDBRT	1511.8m	Cum Cost	$ 17493609
Rig	OCEAN PATRIOT	Days on well	24.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	962
Wtr Dpth (LAT)	585.0m	Planned TD MD					
RT-ASL (LAT)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Recording LWD Wipe from 3575.0 - 3630.0 mMDRT.
Planned Op	Drill ahead 311 mm (12 ¼") hole to TD, POOH, run wireline logs.

Summary of Period 0000 to 2400 Hrs

Drilled ahead from 3697.0 mMDRT to 3758.0 mMDRT at midnight. TD well at 3758.0 mMDRT. Commenced POOH to log.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 06 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0400	4.00	3697.0m	Drilled ahead 311mm (12 1/4") hole from 3697m MDRT to 3714m MDRT. WOB = 30 - 35 klbs, RPM = 80- 120, SPM = 187 = 800 GPM, 4050 psi, Tq = 5500 - 7500 ftlb. Average ROP = 4.3 m/hr LWD tools stopped pulsing
IH	U	RR	0400	0430	0.50	3714.0m	Backed out IBOP on connection. Re aligned top drive and screwed back into IBOP. Torqued same to 78000 ftlbs. Comfirmed alignment of breakout/Make up system
IH	P	DA	0430	2400	19.50	3758.0m	Troubleshooted LWD tools. No sucess. Drilled Ahead 311mm (12 1/4") hole from 3714m MDRT to 3758m MDRT WOB = 30 - 35, RPM = 100 - 130, SPM = 188 = 800 GPM = 4050 psi, Tq = 7000 - 8500 ftlb, Average ROP = 2.3 m/hr

Operations For Period 0000 Hrs to 0600 Hrs on 07 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	CS	0000	0200	2.00	3758.0m	Circulated bottoms up sample at 188 spm (800 GPM) from 3758m MDRT
IH	P	TO	0200	0300	1.00	3758.0m	Flow checked 15 minuted, good. POOH from 3758m MDRT to 3668m MDRT
IH	U	LOG	0300	0600	3.00	3758.0m	(IN PROGRESS) Logged up with LWD for confirmation data from 3668m MDRT to 3582m MDRT at 30m/hr and 20 - 25 RPM

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 06 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	436.5	17 Dec 2005	06 Jan 2006	594.50	24.771	3758.0m

Printed on 08 Jan 2006

WBM Data

Cost Today $ 302

Mud Type:	KCL-NaCl-Polymer	API FL:	3.8cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	59sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	15cp
Time:	21:30	HTHP-FL:	11.0cc/30min	Hard/Ca:	240mg/l	Oil(%):	0%	YP	30lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	5	Sand:	.7	Gels 10s	7
Temp:	49C°			PM:	0.3	pH:	9	Gels 10m	11
				PF:	0.06	PHPA:	1ppb	Fann 003	6
								Fann 006	9
								Fann 100	28
								Fann 200	39
								Fann 300	45
								Fann 600	60

Comment: NaCl 8%.
Ditch Magent recovery = 92 grams

Bit # 5RR

Wear	I	O1	D	L	B	G	O2	R

Bitwear Comments:

				Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Size ("):	12.250in	IADC#	5-3-7	No.	Size	Progress	61.0m	Cum. Progress	187.0m
Mfr:	SMITH BITS	WOB(avg)	37.00klb	3	20/32nd"	On Bottom Hrs	21.3h	Cum. On Btm Hrs	55.9h
Type:	Rock	RPM(avg)	115			IADC Drill Hrs	23.5h	Cum IADC Drill Hrs	61.5h
Serial No.:	MX1628	F.Rate	19.00bpm			Total Revs	154	Cum Total Revs	293
Bit Model	GF30BOVCPS	SPP	4045psi			ROP(avg)	2.86 m/hr	ROP(avg)	3.35 m/hr
Depth In	3571.0m	HSI							
Depth Out		TFA	0.9204						

Bit Comment

BHA # 6

Weight(Wet)	65.00klb	Length	276.3m	Torque(max)	8700ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	45.00klb	String	385.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	375.00klb	Torque(On.Btm)	7200ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	385.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Bit Sub	1.10m	8.500in		1860001	
8in DC	9.04m	7.875in	2.875in	1860001	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.41m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600011	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	70.57m	8.000in	2.875in		
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3758.00	3.0	50.2	3753.86	113.1	89.7	68.9	0.0	MWD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	-78.44	35.4
Bentonite Bulk	MT	0	0	-15.9	22.2
Diesel	m3	0	32.1	0	260.9

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Fresh Water	m3	33	30.2	0	173.5
Drill Water	m3	0	96.3	0	378.6
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT	54	0	0	54.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97	94	4000	9.58
2	12P160	6.000	10.20	97	94	4000	9.58
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	One trainee
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	7	
Total	88	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	5 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	8 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	5 Days	Held weekly fire drill	
JSA	05 Jan 2006	1 Day	Deck = 6, Mech = 2, Drill = 2	
Man Overboard Drill	30 Dec 2005	7 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	5 Days	Weekly safety meetings with all crew members.	
STOP Card	05 Jan 2006	1 Day	Safe = 4, Un-safe = 4	

Shakers, Volumes and Losses Data

Available	**2,748bbl**
Active	469.6bbl
Hole	2,168.4bbl
Reserve	110bbl

Losses	**134bbl**
Equipment	134bbl
Desilter	63bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	230, 2 X 165, 120
Shaker2	VSM 100	2 X 230, 2 X 200
Shaker3	VSM 100	4 X 120
Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 06 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	16kn	110.0deg	1020.0mbar	20C°	0.5m	110.0deg	-1s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	552.00klb	4279.00klb	1.5m	80.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	243.0
2	276.0
3	231.0
4	366.0
5	265.0
6	201.0
7	326.0
8	245.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	24:00 3 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		308
Fresh Water	CuMtr		590
Drill Water	CuMtr		480
Cement G	Mt		48
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		154
	Mt		68

Transferred 54 mt HTB cement to Ocean Patriot. Transferred 16 mt Bentonite and 78 mt Barite from Ocean Patriot to Far Grip. Transferring G blend cement from Ocean Patriot to Far Grip.

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler		22:15 4 Jan 2006	Enroute Melbourne, ETA 02:00 6 Jan 2006

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		223.9
Fresh Water	CuMtr		155
Drill Water	CuMtr		0
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	10:18 / 10:35	13 / 5	

07 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 27
Culverin 1

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$ 22699889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$ 604571
Drill Co.	DOGC	Days from spud	22.44	Shoe MDBRT	1511.8m	Cum Cost	$ 18098180
Rig	OCEAN PATRIOT	Days on well	25.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	963
Wtr Dpth (LAT)	585.0m	Planned TD MD					
RT-ASL (LAT)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Wireline Logging.
Planned Op	Run wireline logs.

Summary of Period 0000 to 2400 Hrs

POOH, laid down LWD tools. Rigged up to run wireline.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 07 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	CS	0000	0200	2.00	3758.0m	Circulated bottoms up sample at 188 spm (800 GPM) from 3758m MDRT
IH	P	TO	0200	0300	1.00	3758.0m	Flow checked 15 minuted, good. POOH from 3758m MDRT to 3668m MDRT
IH	U	LOG	0300	0730	4.50	3758.0m	Logged up with LWD for confirmation data from 3668m MDRT to 3582m MDRT at 30m/hr and 20 - 25 RPM
IH	P	TO	0730	0800	0.50	3758.0m	Pumped 25 bbl slug and POOH from 3582m MDRT to 3506m MDRT
IH	TU (RE)	RR	0800	0900	1.00	3758.0m	Repaired hose on racking arm
IH	P	TO	0900	1700	8.00	3758.0m	Continued POOH from 3506m MDRT to 36m MDRT. Flow checked at casing shoe and prior to BHA entering BOP
IH	TU (RE)	RR	1700	1730	0.50	3758.0m	Removed sources from LWD tools. Plugged in and attempted to power down tools with no success
IH	P	TO	1730	1900	1.50	3758.0m	Laid out LWD tools and BHA
IH	P	LOG	1900	2000	1.00	3758.0m	Held JSA and rigged up to run Schlumberger wireline tools
IH	P	LOG	2000	2130	1.50	3758.0m	Made up wireline tools for run #1, installed radioactive sources
IH	P	LOG	2130	2400	2.50	3758.0m	RIH with log #1, GR/PEX/HALS/DSI. Performed repeat pass from 3675m MDRT to 3575m MDRT (23:30 hrs)

Operations For Period 0000 Hrs to 0600 Hrs on 08 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	LOG	0000	0500	5.00	3758.0m	RIH with log #1, PEX combo GR/PEX/HALS/DSI. Performed repeat pass from 3675m MDRT to 3575m MDRT (23:30 hrs). Perform main Log (from 00:10) GR: TD to Seafloor, PEX Hi Res: TD to 2775m MDRT, HALS: TD to 1511m MDRT, DSI: P&S and Upper Dipole mode from 3758m MDRT to 2775m MDRT, P&S Mode from 2775m MDRT to 1511m MDRT
IH	P	LOG	0500	0600	1.00	3758.0m	Rigged down Run #1 Wireline tools

Operations For Period Hrs to Hrs on

Printed on 08 Jan 2006

Phase Data to 2400hrs, 07 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	460.5	17 Dec 2005	07 Jan 2006	618.50	25.771	3758.0m

WBM Data

Cost Today $ 0

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	59sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	20:00	HTHP-FL:	11.0cc/30min	Hard/Ca:	240mg/l	Oil(%):	0%	YP	28lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	5	Sand:	.7	Gels 10s	7
Temp:	49C°			PM:	0.35	pH:	9	Gels 10m	10
				PF:	0.04	PHPA:	1ppb	Fann 003	6
								Fann 006	8
								Fann 100	28
								Fann 200	38
								Fann 300	44
								Fann 600	60

Comment: NaCl 8%.
Ditch Magent recovery = N/A

Bit # 5RR

Wear	I	O1	D	L	B	G	O2	R
	3	3	WT	A	E	I	CT	TD

Bitwear Comments:

				Nozzles		**Drilled over last 24 hrs**		**Calculated over Bit Run**	
Size ("):	12.250in	IADC#	5-3-7	No.	Size	Progress	0.0m	Cum. Progress	187.0m
Mfr:	SMITH BITS	WOB(avg)	37.00klb	3	20/32nd"	On Bottom Hrs	0.0h	Cum. On Btm Hrs	55.9h
Type:	Rock	RPM(avg)	115			IADC Drill Hrs	0.0h	Cum IADC Drill Hrs	61.5h
Serial No.:	MX1628	F.Rate	19.00bpm			Total Revs		Cum Total Revs	293
Bit Model	GF30BOVCPS	SPP	4045psi			ROP(avg)	N/A	ROP(avg)	3.35 m/hr
Depth In	3571.0m	HSI							
Depth Out	3758.0m	TFA	0.9204						

Bit Comment

BHA # 6

Weight(Wet)	65.00klb	Length	276.3m	Torque(max)		D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	45.00klb	String	385.00klb	Torque(Off.Btm)		D.C. (2) Ann Velocity	384fpm
		Pick-Up	375.00klb	Torque(On.Btm)		H.W.D.P. Ann Velocity	176fpm
		Slack-Off	385.00klb			D.P. Ann Velocity	176fpm

BHA Run Description: Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Bit Sub	1.10m	8.500in		1860001	
8in DC	9.04m	7.875in	2.875in	1860001	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.41m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600011	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	70.57m	8.000in	2.875in		
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3758.00	3.0	50.2	3753.86	113.1	89.7	68.9	0.0	Extrapolation to FTD

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	35.4
Bentonite Bulk	MT	0	0	0	22.2
Diesel	m3	0	29.9	0	231.0
Fresh Water	m3	23	22.7	0	173.8
Drill Water	m3	0	24.1	0	354.5
Cement G	MT		0	-61.9	18.0
Cement HT (Silica)	MT	0	0	0	54.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97	94	4000	9.58
2	12P160	6.000	10.20	97	94	4000	9.58
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	4	One trainee
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	7	
Total	88	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	01 Jan 2006	6 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	9 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	01 Jan 2006	6 Days	Held weekly fire drill	
JSA	07 Jan 2006	0 Days	Deck = 5, Mech = 2, Drill = 7, Welder = 1, Sub Sea = 1	
Man Overboard Drill	30 Dec 2005	8 Days	Held Man Over Board Drill	
Safety Meeting	01 Jan 2006	6 Days	Weekly safety meetings with all crew members.	
STOP Card	07 Jan 2006	0 Days	Safe = 7, Un-safe = 6	

Shakers, Volumes and Losses Data

Available	**2,748bbl**
Active	363.9bbl
Hole	2,274.1bbl

Losses	**0bbl**

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	230, 2 X 165, 120
Shaker2	VSM 100	2 X 230, 2 X 200
Shaker3	VSM 100	4 X 120

Printed on 08 Jan 2006

Shakers, Volumes and Losses Data

Reserve	110bbl		Equip.	Descr.	Mesh Size
			Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 07 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	0kn	0.0deg	1020.0mbar	22C°	0.3m	0.0deg	0s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	528.00klb	4147.00klb	1.0m	90.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	306.0
2	287.0
3	223.0
4	359.0
5	256.0
6	205.0
7	322.0
8	254.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip	24:00 3 Jan 2006		On Location	

Item	Unit	Used	Quantity
Diesel	CuMtr		299
Fresh Water	CuMtr		585
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Transferred 61 mt G cement from Ocean Patriot

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler		22:15 4 Jan 2006	Enroute Ocean Patriot, ETA 06:00 8 Jan 2006	

Item	Unit	Used	Quantity
Diesel	CuMtr		223.9
Fresh Water	CuMtr		155
Drill Water	CuMtr		0
Cement G	Mt		132
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No flight today

Last BOP Test:

DRILLING MORNING REPORT # 28
Culverin 1

08 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$495,998
Drill Co.	DOGC	Days from spud	23.44	Shoe MDBRT	1511.8m	Cum Cost	$18,594,178
Rig	OCEAN PATRIOT	Days on well	26.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	964
Wtr Dpth (LAT)	585.0m	Planned TD MD					
RT-ASL (LAT)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	Pumping plug #1 to P & A well.
Planned Op	Complete P & A program.

Summary of Period 0000 to 2400 Hrs

Completed PEX run. Rigged up seismic tools and completed seismic survey. Rigged down wireline tools and wireline. Commenced P & A program.

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 08 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	LOG	0000	0500	5.00	3758.0m	RIH with log #1, PEX combo GR/PEX/HALS/DSI. Performed repeat pass from 3675m MDRT to 3575m MDRT (23:30 hrs). Perform main Log (from 00:10) GR: TD to Seafloor, PEX Hi Res: TD to 2775m MDRT, HALS: TD to 1511m MDRT, DSI: P&S and Upper Dipole mode from 3758m MDRT to 2775m MDRT, P&S Mode from 2775m MDRT to 1511m MDRT
IH	P	LOG	0500	0800	3.00	3758.0m	Rigged down Run #1 Wireline tools. Made up Run #2; VSP
IH	P	LOG	0800	1400	6.00	3758.0m	RIH and perform VSP. Checkshots at 1559m, 2541m and 3509m MDRT Main pass from 3750m to 3200m MDRT at 15m spacing and 3200m to sea floor at 100m spacing
IH	TP (OTH)	LOG	1400	1430	0.50	3758.0m	Troubleshot network cabling problem with computer hardware in logging unit
IH	P	LOG	1430	1800	3.50	3758.0m	Continued with VSP main pass from 3750m to 3200m MDRT at 15m spacing and 3200m to sea floor at 100m spacing
IH	P	LOG	1800	1930	1.50	3758.0m	Wireline at surface. Laid down VSP toolstring. Rigged out wireline running equipment
PA	P	TI	1930	2400	4.50	3758.0m	Picked up side entry sub and 2 X TIW valves, made up cementing stand and racked back same. Picked up 5" mule shoe and RIH with 5" DP to 2293m MDRT

Operations For Period 0000 Hrs to 0600 Hrs on 09 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TI	0000	0300	3.00	3758.0m	Continued to RIH with 5" DP from 2293m MDRT to 3750m MDRT
PA	P	CMD	0300	0330	0.50	3758.0m	Circulated bottoms up at 210 SPM = 900 GPM = 3200 psi. Rotate DP at 40 - 50 RPM
PA	TP (RE)	RR	0330	0400	0.50	3758.0m	Worked on mud pump SCRs. Rotated and reciprocated drillstring during repairs
PA	P	CMD	0400	0500	1.00	3758.0m	Continued to circulate bottoms up at 210 SPM = 900 GPM = 3200 psi
PA	P	CMP	0500	0600	1.00	3758.0m	Mixed and pumped abandonment plug # 1; 102 bbl 15.8 ppg, HTB blend + additives.

Operations For Period Hrs to Hrs on

Printed on 09 Jan 2006

Phase Data to 2400hrs, 08 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	638.00	26.583	3758.0m
PLUG AND ABANDON(PA)	4.5	08 Jan 2006	08 Jan 2006	642.50	26.771	3758.0m

WBM Data

Cost Today $ 0

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	59sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	20:00	HTHP-FL:	11.0cc/30min	Hard/Ca:	240mg/l	Oil(%):	0%	YP	28lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	5	Sand:	.7	Gels 10s	7
Temp:	49C°			PM:	0.35	pH:	9	Gels 10m	10
				PF:	0.04	PHPA:	1ppb	Fann 003	6
								Fann 006	8
								Fann 100	28
								Fann 200	38
								Fann 300	44
								Fann 600	60

Comment: NaCl 8%.
Ditch Magent recovery = N/A

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	-0.1	35.3
Bentonite Bulk	MT	0	0	0	22.2
Diesel	m3	0	9.9	0	221.1
Fresh Water	m3	25	22	0	176.8
Drill Water	m3	0	12	0	342.5
Cement G	MT		0	0	18.0
Cement HT (Silica)	MT	0	0	0	54.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30 1511.77	650.30 1511.77	604.40 603.50	604.40 603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	6	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	7	
CAMERON AUSTRALIA PTY LTD	1	
Total	88	

Printed on 09 Jan 2006

Last BOP Test:

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	0 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	10 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	0 Days	Held weekly fire drill	
JSA	08 Jan 2006	0 Days	Deck = 4, Mech = 3, Drill = 2, Welder = 3	
Man Overboard Drill	30 Dec 2005	9 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	0 Days	Weekly safety meetings with all crew members.	
STOP Card	08 Jan 2006	0 Days	Safe = 7, Un-safe = 3	

Shakers, Volumes and Losses Data

Available	**2,748bbl**	**Losses**	**0bbl**
Active	363.9bbl		
Hole	2,274.1bbl		
Reserve	110bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	230, 2 X 165, 120
Shaker2	VSM 100	2 X 230, 2 X 200
Shaker3	VSM 100	4 X 120
Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 08 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	21kn	90.0deg	1019.0mbar	22C°	0.5m	90.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	528.00klb	4331.00klb	1.5m	135.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	298.0
2	287.0
3	223.0
4	240.0
5	265.0
6	198.0
7	320.0
8	247.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Far Grip		23:10 8 Jan 2006	Enroute Eden, ETA 09:00 hrs 9 Jan 2006	

Item	Unit	Used	Quantity
Diesel	CuMtr		287
Fresh Water	CuMtr		580
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks
Pacific Wrangler	04:40 08 Jan, 2006		On Location	

Item	Unit	Used	Quantity
Diesel	CuMtr		366.4
Fresh Water	CuMtr		201
Drill Water	CuMtr		650
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		0
Bentonite Bulk	Mt		42

Depart Ocean Patriot for Crystal Ocean 08:00 (Fuel on board = 623.85 m3). Return Ocena PAtriot (Fuel on Board = 370.68 m3) @ 13:00

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	09:27 / 09:55	7 / 7	

Last BOP Test:

DRILLING MORNING REPORT # 29
Culverin 1

09 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$535,925
Drill Co.	DOGC	Days from spud	24.44	Shoe MDBRT	1511.8m	Cum Cost	$19,130,103
Rig	OCEAN PATRIOT	Days on well	27.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	965
Wtr Dpth (LAT)	585.0m	Planned TD MD					
RT-ASL (LAT)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	RIH to tag Abandonment plug # 3
Planned Op	Tag plug #3, POOH and set abandonment plug #4, POOH, recover wear bushing. Recover BOP's and riser

Summary of Period 0000 to 2400 Hrs

Set abandonment plugs #1, 2 & 3

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 09 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TI	0000	0300	3.00	3758.0m	Continued to RIH with 5" DP from 2293m MDRT to 3750m MDRT
PA	P	CMD	0300	0330	0.50	3758.0m	Circulated bottoms up at 210 SPM = 900 GPM = 3200 psi. Rotate DP at 40 - 50 RPM
PA	TP (RE)	RR	0330	0400	0.50	3758.0m	Worked on mud pump SCRs. Rotated and reciprocated drillstring during repairs
PA	P	CHC	0400	0500	1.00	3758.0m	Continued to circulate bottoms up at 210 SPM = 900 GPM = 3200 psi
PA	P	CMP	0500	0630	1.50	3758.0m	Held pre job safety meeting. Rigged up Dowell cemnting line and pressure tested to 1000 psi. Mixed and pumped abandonment plug # 1; 102 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 195 bbls drilling fluid at 10.1 ppg Plug #1 set from 3750m MDRT to 3560m MDRT.
PA	P	TO	0630	0730	1.00	3758.0m	POOH from cement plug # 1 from 3750m MDRT to 3420m MDRT slowly
PA	P	CHC	0730	0900	1.50	3758.0m	Circulated bottoms up to clear drillpipe
PA	P	TO	0900	1000	1.00	3758.0m	POOH From 3420m MDRT to 2965m MDRT
PA	P	CMD	1000	1030	0.50	3758.0m	Circulated and spotted 60 bbl high visc pill
PA	P	TO	1030	1100	0.50	3758.0m	POOH from 2965m MDRT to 2865m MDRT
PA	P	CMP	1100	1200	1.00	3758.0m	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 2; 64.3 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 149 bbls drilling fluid at 10.1 ppg Plug #2 set from 2865m MDRT to 2745m MDRT.
PA	P	TO	1200	1230	0.50	3758.0m	POOH from plug #2 from 2865m MDRT to 2575m MDRT
PA	P	CHC	1230	1400	1.50	3758.0m	Circulated bottoms up
PA	P	WOC	1400	1730	3.50	3758.0m	WOC. Laid down 54 jts 5" DP
PA	P	TI	1730	1830	1.00	3758.0m	RIH and tagged TOC plug #2 with 5 klbs at 2735m MDRT
PA	P	TO	1830	2030	2.00	3758.0m	POOH from 2735m MDRT to 1650m MDRT
PA	P	CMD	2030	2100	0.50	3758.0m	Circulated and spotted 60 bbls high visc pill at 1650m MDRT
PA	P	TO	2100	2130	0.50	3758.0m	POOH from 1650m MDRT to 1550m MDRT. Rigged up cementing hose
PA	P	CMP	2130	2230	1.00	3758.0m	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 3; 70.4 bbl 15.8 ppg, HTB blend + additives (see report). Displaced with 74 bbls drilling fluid at 10.1 ppg

Printed on 10 Jan 2006

Last BOP Test:

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
							Plug #3 set from 1550m MDRT to 1430m MDRT.
PA	P	TO	2230	2300	0.50	3758.0m	Rigged down cementing hose. POOH from cement plug #3
PA	P	CMD	2300	2400	1.00	3758.0m	Circualted bottoms up. Spotted 260 bbls inhibited mud in casing.

Operations For Period 0000 Hrs to 0600 Hrs on 10 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0000	0300	3.00	3758.0m	Pumped slug. POOH and laid down 60 jts of 5" drillpipe from 1262m MDRT to 688m MDRT
PA	P	TI	0300	0400	1.00	3758.0m	RIH from 688m MDRT to 1204m MDRT to tag cement plug #3. Cement samples not firm.
PA	P	TO	0400	0530	1.50	3758.0m	Laid down drill pipe from 1204m MDRT to 917m MDRT.
PA	P	TI	0530	0600	0.50	3758.0m	RIH from 917m MDRT to 975m MDRT to tag cement plug #3

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 09 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	638.00	26.583	3758.0m
PLUG AND ABANDON(PA)	28.5	08 Jan 2006	09 Jan 2006	666.50	27.771	3758.0m

WBM Data — Cost Today $ 0

Mud Type:	KCL-NaCl-Polymer	API FL:	3.6cc/30min	Cl:	79000mg/l	Solids(%vol):	10%	Viscosity	59sec/qt
Sample-From:	Active Pit	Filter-Cake:	1/32nd"	K+C*1000:	7%	H2O:	90%	PV	16cp
Time:	20:00	HTHP-FL:	11.0cc/30min	Hard/Ca:	240mg/l	Oil(%):	0%	YP	28lb/100ft²
Weight:	10.20ppg	HTHP-cake:	1/32nd"	MBT:	5	Sand:	.7	Gels 10s	7
Temp:	49C°			PM:	0.35	pH:	9	Gels 10m	10
				PF:	0.04	PHPA:	1ppb	Fann 003	6
Comment		NaCl 8%. Ditch Magent recovery = N/A						Fann 006	8
								Fann 100	28
								Fann 200	38
								Fann 300	44
								Fann 600	60

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	8.2	0	27.1
Bentonite Bulk	MT	0	0	0	22.2
Diesel	m3	0	12.7	0	208.4
Fresh Water	m3	26	21.8	0.1	181.1
Drill Water	m3	0	36.1	0	306.4
Cement G	MT		0	0	18.0
Cement HT (Silica)	MT	0	54	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Last BOP Test:

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30 1511.77	650.30 1511.77	604.40 603.50	604.40 603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	3	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	2	
SMITH BITS	1	
Total	83	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	1 Day	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	11 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	1 Day	Held weekly fire drill	
JSA	09 Jan 2006	0 Days	Deck = 6, Mech = 3, Drill = 10, Welder = 2	
Man Overboard Drill	30 Dec 2005	10 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	1 Day	Weekly safety meetings with all crew members.	
STOP Card	09 Jan 2006	0 Days	Safe = 3, Un-safe = 1	

Shakers, Volumes and Losses Data

Available	**2,748bbl**	**Losses**	**0bbl**
Active	363.9bbl		
Hole	2,274.1bbl		
Reserve	110bbl		

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	230, 2 X 165, 120
Shaker2	VSM 100	2 X 230, 2 X 200
Shaker3	VSM 100	4 X 120
Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 09 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	12kn	0.0deg	1015.0mbar	24C°	0.5m	0.0deg	-1s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	528.00klb	4331.00klb	1.5m	70.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	302.0
2	287.0
3	223.0
4	251.0
5	267.0
6	198.0
7	289.0
8	251.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip		23:10 8 Jan 2006	Eden

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		287
Fresh Water	CuMtr		580
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Printed on 10 Jan 2006

Pacific Wrangler	04:40 08 Jan, 2006		On Location	**Item**	**Unit**	**Used**	**Quantity**
				Diesel	CuMtr		355.3
				Fresh Water	CuMtr		196
				Drill Water	CuMtr		650
				Cement G	Mt		137
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		8.26
				Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	09:45 / 10:00	5 / 10	

Last BOP Test:

DRILLING MORNING REPORT # 30
Culverin 1

10 Jan 2006

From: Simon Rodda/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$474,060
Rig	OCEAN PATRIOT	Days from spud	25.44	Shoe MDBRT	1511.8m	Cum Cost	$19,604,163
Wtr Dpth (LAT)	585.0m	Days on well	28.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	966
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Pulling riser and BOP's
Planned Op	Recover riser and BOP's

Summary of Period 0000 to 2400 Hrs

Laid out drillpipe, tagged abandonment plug #3, set abandonment plug #4, displaced riser and C & K lines to seawater, retrieved wearbushing, jetted wellhead and BOP's, rigged up to recover riser and BOP's

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 10 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	PLD	0000	0300	3.00	3758.0m	Pumped slug. POOH and laid down 60 jts of 5" drillpipe from 1262m MDRT to 688m MDRT
PA	P	TI	0300	0400	1.00	3758.0m	RIH from 688m MDRT to 1204m MDRT to tag cement plug #3. Cement samples not firm.
PA	P	PLD	0400	0530	1.50	3758.0m	Laid down drill pipe from 1204m MDRT to 917m MDRT.
PA	P	TI	0530	0730	2.00	3758.0m	RIH from 917m MDRT and tag TOC plug #3 at 1421m MDRT with 5 klbs
PA	P	TO	0730	0830	1.00	3758.0m	POOH from 1421m MDRT to 825m MDRT
PA	P	CMD	0830	0900	0.50	3758.0m	Circulated and spotted 60 bbls high visc pill at 825m MDRT
PA	P	TO	0900	0930	0.50	3758.0m	POOH from 825m MDRT to 721m MDRT. Rigged up cementing hose
PA	P	CMP	0930	1030	1.00	3758.0m	Held pre job safety meeting. Pressure tested cementing line to 1000 psi. Mixed and pumped abandonment plug # 4; 49.7 bbl 15.8 ppg, G cement + additives (see report). Displaced with 30 bbls drilling fluid at 10.1 ppg Plug #4 set from 721m MDRT to 625m MDRT.
PA	P	TO	1030	1100	0.50	3758.0m	POOH from cement plug #4 from 721m MDRT to 625m MDRT
PA	P	CHC	1100	1400	3.00	3758.0m	Closed annular preventer, reverse circulated 2 X DP volumes (80 bbls). Displaced choke and kill lines to seawater. Displaced riser and booster line to seawater
PA	P	TO	1400	1630	2.50	3758.0m	Held JSA. POOH from 625m MDRT and laid out mule shoe. Cleaned cement from last 8 stands of drillpipe
PA	P	CHC	1630	1800	1.50	3758.0m	Held JSA. Made up jet sub and wear bushing retrieval tool. RIH and jetted stack and wellhead areas.
PA	P	WH	1800	2030	2.50	3758.0m	Engaged wear bushing with retrieval tool and POOH. 35 klbs overpull to recover noted. Laid out retrieval tool and jetting sub
PA	P	CMP	2030	2130	1.00	3758.0m	Held JSA. Rigged up Dowell and high pressure test pump. Pressure tested choke and kill lines as per DOGD requirements to 250 psi low and 14,000 psi high for 10 minutes each
BOP	P	RR2	2130	2230	1.00	3758.0m	Rigged down 350t elevators and picked up 500t elevators
BOP	P	RR2	2230	2400	1.50	3758.0m	Held JSA. Rig up floor to recover riser and BOP

Operations For Period 0000 Hrs to 0600 Hrs on 11 Jan 2006

Printed on 10 Jan 2006

Last BOP Test:

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR2	0000	0100	1.00	3758.0m	Continued to rig up riser handling equipment
BOP	P	RR2	0100	0200	1.00	3758.0m	Picked up and installed diverter running tool. Verified tool lock with 10 klbs overpull
BOP	P	RR2	0200	0300	1.00	3758.0m	Removed and laid out diverter
BOP	P	RR2	0300	0430	1.50	3758.0m	Picked up landing joint and made up to slip joint. Scoped in slip joint
BOP	P	RR2	0430	0500	0.50	3758.0m	Unlatched BOP's from wellhead
BOP	P	RR2	0500	0600	1.00	3758.0m	Removed storm saddles. Latch in SDL ring

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 10 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
RISER AND BOP STACK(BOP)	56.5	21 Dec 2005	10 Jan 2006	640.50	26.688	3758.0m
PLUG AND ABANDON(PA)	50	08 Jan 2006	10 Jan 2006	690.50	28.771	3758.0m

WBM Data

Cost Today $ 0

Mud Type:	Seawater	API FL:		Cl:	Solids(%vol):	Viscosity	
Sample-From:	Active Pit	Filter-Cake:		K+C*1000:	H2O:	PV	
Time:		HTHP-FL:		Hard/Ca:	Oil(%):	YP	
Weight:		HTHP-cake:	1/32nd"	MBT:	Sand:	Gels 10s	
Temp:				PM:	pH:	Gels 10m	
				PF:	PHPA:	Fann 003	
						Fann 006	
						Fann 100	
						Fann 200	
						Fann 300	
						Fann 600	

Comment: Final mud cost from report # 26 = $ 277 778

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	27.1
Bentonite Bulk	MT	0	0	0	22.2
Diesel	m3	0	17.4	-0.1	190.9
Fresh Water	m3	25	24.3	0	181.8
Drill Water	m3	150	65.8	0	390.6
Cement G	MT		10	0	8.0
Cement HT (Silica)	MT	0	0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	

Printed on 10 Jan 2006

Last BOP Test:

Personnel On Board

ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	2	
GEOSERVICES OVERSEAS S.A.	3	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	2	
SMITH BITS	1	
Trident Offshore Ltd	2	
Total	84	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	2 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	12 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	2 Days	Held weekly fire drill	
JSA	10 Jan 2006	0 Days	Deck = 7, Mech = 3, Drill = 8, Welder = 1	
Man Overboard Drill	30 Dec 2005	11 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	2 Days	Weekly safety meetings with all crew members.	
STOP Card	10 Jan 2006	0 Days	Safe = 2, Un-safe = 3	

Shakers, Volumes and Losses Data

Available	**0bbl**	**Losses**	**2,743bbl**
		Down-hole	1,515bbl
		Dumped	1,228bbl

Equip.	Descr.	Mesh Size
Shaker1	VSM 100	230, 2 X 165, 120
Shaker2	VSM 100	2 X 230, 2 X 200
Shaker3	VSM 100	4 X 120
Shaker4	BEM650	2 X 200, 2 X 165

Marine

Weather on 10 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	36kn	180.0deg	1010.0mbar	23C°	1.5m	180.0deg	4s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg	528.00klb	4273.70klb	1.0m	70.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	298.0
2	287.0
3	218.0
4	247.0
5	267.0
6	196.0
7	293.0
8	249.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	23:00 10 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		265
Fresh Water	CuMtr		570
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	04:40 08 Jan, 2006		On Location

Item	Unit	Used	Quantity
Diesel	CuMtr		344.7
Fresh Water	CuMtr		191
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

Printed on 10 Jan 2006

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	10:56 / 11:06	15 / 14	

Last BOP Test:

DRILLING MORNING REPORT # 31
Culverin 1

11 Jan 2006

From: Simon Rodda/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$483,017
Rig	OCEAN PATRIOT	Days from spud	26.44	Shoe MDBRT	1511.8m	Cum Cost	$20,087,180
Wtr Dpth (LAT)	585.0m	Days on well	29.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	967
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Removing riser double from BOP's
Planned Op	Cut and retrieve PGB and wellhead. Prepare to pull anchors

Summary of Period 0000 to 2400 Hrs

Unlatched BOP from wellhead and pulled marine riser and BOP's

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 11 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR2	0000	0100	1.00	3758.0m	Continued to rig up riser handling equipment
BOP	P	RR2	0100	0200	1.00	3758.0m	Picked up and installed diverter running tool. Verified tool lock with 10 klbs overpull
BOP	P	RR2	0200	0300	1.00	3758.0m	Removed and laid out diverter
BOP	P	RR2	0300	0430	1.50	3758.0m	Picked up landing joint and made up to slip joint. Scoped in slip joint
BOP	P	RR2	0430	0500	0.50	3758.0m	Unlatched BOP's from wellhead
BOP	P	RR2	0500	0630	1.50	3758.0m	Removed storm saddles. Latch in SDL ring
BOP	P	RR2	0630	0930	3.00	3758.0m	Lowered slip joint. Removed choke and kill goosenecks and booster line. Picked up and laid out landing joint. Moved rig 24 meters off lolcation
BOP	P	RR2	0930	2400	14.50	3758.0m	Pulled BOP's and laid out marine riser. Back loaded 26 joints to the Pacific Wrangler for shipment to Eden

Operations For Period 0000 Hrs to 0600 Hrs on 12 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR2	0000	0330	3.50	3758.0m	Continued to pull BOP's and lay out marine riser.
BOP	P	RR2	0330	0430	1.00	3758.0m	Pulled riser double and landed out BOP's on carrier
BOP	P	RR2	0430	0600	1.50	3758.0m	Removed guidelines from BOP's. Removed riser double from BOP's

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 11 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
PLUG AND ABANDON(PA)	50	08 Jan 2006	10 Jan 2006	634.00	26.417	3758.0m

Printed on 11 Jan 2006

Last BOP Test:

Phase Data to 2400hrs, 11 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RISER AND BOP STACK(BOP)	80.5	21 Dec 2005	11 Jan 2006	714.50	29.771	3758.0m

WBM Data — Cost Today $ 17078

Mud Type:	Seawater	API FL:		Cl:		Solids(%vol):	
Sample-From:	Active Pit	Filter-Cake:		K+C*1000:		H2O:	
Time:		HTHP-FL:		Hard/Ca:		Oil(%):	
Weight:		HTHP-cake:	1/32nd"	MBT:		Sand:	
Temp:				PM:		pH:	
				PF:		PHPA:	

Viscosity	
PV	
YP	
Gels 10s	
Gels 10m	
Fann 003	
Fann 006	
Fann 100	
Fann 200	
Fann 300	
Fann 600	

Comment: Final mud cost from report # 27 = $ 294, 885.24

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	27.1	0	-0.0
Bentonite Bulk	MT	0	22.2	0	0.0
Diesel	m3	0	11.9	0	179.0
Fresh Water	m3	26	31.5	0	176.3
Drill Water	m3	0	36.1	0	354.5
Cement G	MT		21.4	0	-13.4
Cement HT (Silica)	MT	0	0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	50	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	3	
SCHLUMBERGER OILFIELD AUSTRALIA PTY LTD	2	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	2	
SMITH BITS	1	
Total	83	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	3 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	13 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.

Last BOP Test:

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Fire Drill	08 Jan 2006	3 Days	Held weekly fire drill	
JSA	11 Jan 2006	0 Days	Deck = 6, Mech = 3, Drill = 5, Welder = 2	
Man Overboard Drill	30 Dec 2005	12 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	3 Days	Weekly safety meetings with all crew members.	
STOP Card	11 Jan 2006	0 Days	Safe = 2, Un-safe = 6	

Marine

Weather on 11 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
3.0nm	19kn	130.0deg	1010.0mbar	18C°	1.0m	130.0deg	4s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4273.70klb	1.0m	190.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	291.0
2	287.0
3	212.0
4	302.0
5	269.0
6	203.0
7	289.0
8	280.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	23:00 10 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		253
Fresh Water	CuMtr		565
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	04:40 08 Jan, 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		332.3
Fresh Water	CuMtr		186
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

Currently backloading 26 jts riser and containers. Estimated time of departure for Eden; 00:30 12 Jan 2006

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No flight today

Last BOP Test:

DRILLING MORNING REPORT # 32

12 Jan 2006 **From:** Simon Rodda/ Geoff Webster
To: J Ah-Cann

Culverin 1

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
		Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$460,184
Drill Co.	DOGC	Days from spud	27.44	Shoe MDBRT	1511.8m	Cum Cost	$20,547,364
Rig	OCEAN PATRIOT	Days on well	30.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	968
Wtr Dpth (LAT)	585.0m	Planned TD MD					
RT-ASL (LAT)	21.5m	Planned TD TVDRT					
RT-ML	606.5m						

Current Op @ 0600	RIH to lay down tubulars remaining in derrick
Planned Op	RIH and lay out tubulars in Derrrick. Cemmence retrieving anchors

Summary of Period 0000 to 2400 Hrs

Pulled and landed BOP's on carrier. Cut and pulled 20" casing. Cut and pulled 30" casing with PGB

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 12 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
BOP	P	RR2	0000	0330	3.50	3758.0m	Continued to pull BOP's and lay out marine riser.
BOP	P	RR2	0330	0430	1.00	3758.0m	Pulled riser double and landed out BOP's on carrier
BOP	P	RR2	0430	0930	5.00	3758.0m	Removed guidelines from BOP's. Removed clamps from pod hoses. Broke riser double and 5 ft termination spool from BOP's. Skidded BOP's to starboard side and laid down riser double and termination spool
BOP	P	RR2	0930	1100	1.50	3758.0m	Rigged down riser handling equipment, rigged up 5" DP handling equipment and moved rig back over location
PA	P	TI	1100	1430	3.50	3758.0m	Held JSA, Picked up 20" X 30" casing cutter assembly. RIH with 5" DP
PA	P	TI	1430	1500	0.50	3758.0m	Moved rig starboard forward to stab casing cutter assembly into wellhead
PA	P	CCT	1500	1530	0.50	3758.0m	Engaged cutter asembly and tested with 40 klbs over pull. Commenced cutting casing. Cut 20" casing free
PA	P	TO	1530	1730	2.00	3758.0m	POOH with wellhead and 20" casing stub. Laid out same
BOP	P	HBHA	1730	1930	2.00	3758.0m	Held JSA. Changed out casing cutters blades, grapple, spacer sub and centralizer on casing cutter assembly
PA	P	TI	1930	2130	2.00	3758.0m	RIH with casing cutter to 30" housing
PA	P	CCT	2130	2230	1.00	3758.0m	Engaged casing cutter assembly into housing and test with 40 klbs overpull. Commenced cutting 30" casing. Cut 30" casing
PA	P	TO	2230	2400	1.50	3758.0m	POOH with guide base and 30" housing

Operations For Period 0000 Hrs to 0600 Hrs on 13 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0000	0100	1.00	3758.0m	Continued POOH with guide bsae and 30" housing
PA	P	TO	0100	0130	0.50	3758.0m	Landed out and secured guide base on trolley. backed out cap screws on guidebase to 30" housing. Conducted 100m radius seabed survey with ROV after pulling PGB. Furgro documentation and DVD to follow
PA	P	TO	0130	0300	1.50	3758.0m	Picked up 30" housing and 30" casing cut off to rig floor. Unlatched spear and laid out 30" housing. Broke down and laid out 30" spear and casing cutting BHA
PA	P	TO	0300	0430	1.50	3758.0m	Removed guidelines from guidebase. Moved guidebase on trolley to starboard side of

Last BOP Test:

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	PLD	0430	0600	1.50	3758.0m	moonpool RIH with 8" DC's from derrick. Laid out 8" DC's

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 12 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
RISER AND BOP STACK(BOP)	93.5	21 Dec 2005	12 Jan 2006	677.50	28.229	3758.0m
PLUG AND ABANDON(PA)	61	08 Jan 2006	12 Jan 2006	738.50	30.771	3758.0m

WBM Data — Cost Today $ 0

Mud Type:	Seawater	API FL:		Cl:	Solids(%vol):	Viscosity	
Sample-From:	Active Pit	Filter-Cake:		K+C*1000:	H2O:	PV	
Time:		HTHP-FL:		Hard/Ca:	Oil(%):	YP	
Weight:		HTHP-cake:	1/32nd"	MBT:	Sand:	Gels 10s	
Temp:				PM:	pH:	Gels 10m	
				PF:	PHPA:	Fann 003	
						Fann 006	
						Fann 100	
						Fann 200	
						Fann 300	
						Fann 600	

Comment: Final mud cost from report # 28 =A$ 294,855

BHA # 7

Weight(Wet)		Length	146.2m	Torque(max)		D.C. (1) Ann Velocity	
Wt Below Jar(Wet)		String		Torque(Off.Btm)		D.C. (2) Ann Velocity	
Drilling Jar Hours		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	
		Slack-Off				D.P. Ann Velocity	

BHA Run Description

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bullnose	0.39m	7.940in	2.940in	38897D	
Stab	0.79m	17.500in	2.813in	SG15	
Pipe cutter	3.01m	12.250in	3.000in	D36242	44" knives positioned 4.44m below wellhead to cut at 609.20m MDRT
Spacer sub	1.00m	8.000in	2.813in	38886D	
Rotating spear	2.84m	18.375in	3.250in	C76094	
Drill Collar	26.45m	8.000in			
X/O	1.16m	8.000in			
HWDP	110.57m				

BHA # 8

Weight(Wet)		Length	145.5m	Torque(max)		D.C. (1) Ann Velocity	
Wt Below Jar(Wet)		String		Torque(Off.Btm)		D.C. (2) Ann Velocity	
Drilling Jar Hours		Pick-Up		Torque(On.Btm)		H.W.D.P. Ann Velocity	
		Slack-Off				D.P. Ann Velocity	

BHA Run Description

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bullnose	0.39m	7.940in	2.940in	38897D	
Stab	0.79m	17.500in	2.813in	SG15	

Last BOP Test:

Equipment	Length	OD	ID	Serial #	Comment
Pipe cutter	3.01m	12.250in	3.000in	D36242	52" knives positioned 4.57m below wellhead to cut at 609.20m MDRT
Spacer sub	0.31m	8.000in	2.813in	38886D	
Rotating spear	2.84m	18.375in	3.250in	C76094	
Drill Collar	26.45m	8.000in			
X/O	1.16m	8.000in			
HWDP	110.57m				

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	-0.0
Bentonite Bulk	MT	0	0	0	0.0
Diesel	m3	50	7.7	0	221.3
Fresh Water	m3	27	31.2	0	172.1
Drill Water	m3	0	12	0	342.5
Cement G	MT		0	0	-13.4
Cement HT (Silica)	MT	0	0	0	0.0

Pumps

Pump Data - Last 24 Hrs

Slow Pump Data

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
1	A1700	6.000	10.20	97				3600.0	30	380	3.00	40	475	4.00	50	580	5.00
2	12P160	6.000	10.20	97				3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3	12P160	6.000	10.20	97	0	0	0.00	3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	54	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	3	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	3	
SMITH BITS	1	
Total	86	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	4 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	14 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	4 Days	Held weekly fire drill	
JSA	12 Jan 2006	0 Days	Deck = 7, Subsea = 2, Drill = 9, Welder = 2	
Man Overboard Drill	30 Dec 2005	13 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	4 Days	Weekly safety meetings with all crew members.	
STOP Card	12 Jan 2006	0 Days	Safe = 6, Un-safe = 2	

Last BOP Test:

Marine

Weather on 12 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	20kn	225.0deg	1020.0mbar	20C°	1.0m	225.0deg	4s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4387.00klb	1.5m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	284.0
2	276.0
3	181.0
4	231.0
5	265.0
6	198.0
7	328.0
8	289.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	23:00 10 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		191
Fresh Water	CuMtr		560
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler		00:22 12 Jan 2006	On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		332.3
Fresh Water	CuMtr		186
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

Enroute Ocean Patriot from Eden ETA 04:00 -06:00 13 Jan 2006

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	15:45 / 16:55	7 / 5	

Printed on 12 Jan 2006

Last BOP Test:

DRILLING MORNING REPORT # 33
Culverin 1

13 Jan 2006

From: Simon Rodda/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$461,375
Rig	OCEAN PATRIOT	Days from spud	28.44	Shoe MDBRT	1511.8m	Cum Cost	$21,008,739
Wtr Dpth (LAT)	585.0m	Days on well	31.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	969
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	De-ballasting rig. Working on Elmago brake
Planned Op	De-ballast rig and commence recovering anchors

Summary of Period 0000 to 2400 Hrs

POOH and recovered guidebase. Racked BOP's on carrier. RIH and laid out BHA and 5" drillpipe from Derrick

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 13 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	P	TO	0000	0100	1.00	3758.0m	Continued POOH with guide base and 30" housing
PA	P	TO	0100	0130	0.50	3758.0m	Landed out and secured guide base on trolley. backed out cap screws on guidebase to 30" housing. Conducted 100m radius seabed survey with ROV after pulling PGB. Furgro documentation and DVD to follow
PA	P	TO	0130	0300	1.50	3758.0m	Picked up 30" housing and 30" casing cut off to rig floor. Unlatched spear and laid out 30" housing. Broke down and laid out 30" spear and casing cutting BHA
PA	P	TO	0300	0430	1.50	3758.0m	Removed guidelines from guidebase. Moved guidebase on trolley to starboard side of moonpool
PA	P	PLD	0430	1000	5.50	3758.0m	RIH with 8" DC's and 5" HWDP from derrick. Laid out same
PA	P	PLD	1000	1400	4.00	3758.0m	RIH with 20 stands 5" DP and laid down same
PA	P	PLD	1400	1730	3.50	3758.0m	RIH with 20 stands 5" DP and laid out same
PA	P	PLD	1730	2200	4.50	3758.0m	RIH with 20 stands 5" DP and laid out same. Used rig tongs to break out over torqued pipe
PA	P	PLD	2200	2400	2.00	3758.0m	RIH with 20 stands 5" DP and laid out 10 singles

Operations For Period 0000 Hrs to 0600 Hrs on 14 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	TP (OTH)	WO	0000	0030	0.50	3758.0m	Waited on Medivac helicopter to depart to re-commence crane operations for laying out drillpipe
PA	P	PLD	0030	0330	3.00	3758.0m	Continued to lay down 5" DP
PA	P	PLD	0330	0600	2.50	3758.0m	De-ballast rig. Work on Elmago brake

Phase Data to 2400hrs, 13 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m

Printed on 13 Jan 2006

Last BOP Test:

Phase Data to 2400hrs, 13 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
RISER AND BOP STACK(BOP)	93.5	21 Dec 2005	12 Jan 2006	677.50	28.229	3758.0m
PLUG AND ABANDON(PA)	85	08 Jan 2006	13 Jan 2006	762.50	31.771	3758.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	-0.0
Bentonite Bulk	MT	0	0	0	0.0
Diesel	m3	0	15.2	0	206.1
Fresh Water	m3	25	30.2	-0.3	166.6
Drill Water	m3	0	36.1	0	306.4
Cement G	MT		0	0	-13.4
Cement HT (Silica)	MT	0	0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	54	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	3	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	3	
SMITH BITS	1	
Total	86	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	5 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	15 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	5 Days	Held weekly fire drill	
JSA	13 Jan 2006	0 Days	Deck = 7, Subsea = 2, Drill = 6, Welder = 2, mech = 2	
Man Overboard Drill	30 Dec 2005	14 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	5 Days	Weekly safety meetings with all crew members.	

Last BOP Test:

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
STOP Card	12 Jan 2006	1 Day	Safe = 2, Un-safe = 2	

Marine

Weather on 13 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	2kn	0.0deg	1022.0mbar	22C°	1.0m	0.0deg	-1s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4077.00klb	1.5m	225.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	216.0
2	243.0
3	187.0
4	234.0
5	271.0
6	205.0
7	271.0
8	271.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	23:00 10 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		180
Fresh Water	CuMtr		555
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	04:10 13 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		299.7
Fresh Water	CuMtr		176
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	15:45 / 16:55	7 / 5	

Last BOP Test:

DRILLING MORNING REPORT # 34
Culverin 1

14 Jan 2006

From: Simon Rodda/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$489,283
Rig	OCEAN PATRIOT	Days from spud	29.44	Shoe MDBRT	1511.8m	Cum Cost	$21,498,022
Wtr Dpth (LAT)	585.0m	Days on well	32.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	970
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600	Recovering anchor # 5
Planned Op	Complete anchor recovery and release rig to Anzon Australia Limited

Summary of Period 0000 to 2400 Hrs

Completed laying down 5" DP from derrick. De-ballast rig and recover anchors # 6, #2, #3, 7, #1 and #5

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 14 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PA	TP (OTH)	WO	0000	0030	0.50	3758.0m	Waited on Medivac helicopter to depart to re-commence crane operations for laying out drillpipe
PA	P	PLD	0030	0330	3.00	3758.0m	Continued to lay down 5" DP
AR	P	OA	0330	0900	5.50	3758.0m	De-ballast rig. Work on Elmago brake
AR	P	AH	0900	2400	15.00	3758.0m	De-ballasting completed at 09:15 Commenced Pulling anchors as follows: Boat-------Anchor--- PCC to Boat---Off Bottom----Anchor Racked-----PCC to Rig Grip---------#6----------06:45----------07:35----------10:40----------10:47 Wrangler---#2----------08:11----------10:00----------13:06----------13:21 Grip---------#3----------11:09----------11:48----------13:42----------14:03 Wrangler---#7----------13:35----------14:30----------16:22----------16:31 Grip---------#1----------14:21----------19:30---------- 21:38----------21:58 Grip---------#5----------22:16----------23:05 Wrangler on put on tow bridle @ 18:20 hrs

Operations For Period 0000 Hrs to 0600 Hrs on 15 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
AR	P	AH	0000	0230	2.50	3758.0m	Far Grip pulling bight of chain back to rig to release tension @ 0020hrs. Tension dropping on #5 anchor, commence to heave in @ 0050hrs. Anchor #5 @ 1350m chain out, tension dropping @ 0130hrs. Far Grip reports work wire inadvertently paid out 700m @ 0215hrs
AR	TP (OTH)	AH	0230	0600	3.50	3758.0m	Trouble shooted Far grip winch problems. Far Grip reported damage to low gear and only able to work with high gear. Prepared to move vessel to acertain tonnage available in high gear

Phase Data to 2400hrs, 14 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m

Printed on 15 Jan 2006

Last BOP Test:

Phase Data to 2400hrs, 14 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
RISER AND BOP STACK(BOP)	93.5	21 Dec 2005	12 Jan 2006	677.50	28.229	3758.0m
PLUG AND ABANDON(PA)	88.5	08 Jan 2006	14 Jan 2006	766.00	31.917	3758.0m
ANCHOR RETRIEVAL(AR)	20.5	14 Jan 2006	14 Jan 2006	786.50	32.771	3758.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	-0.0
Bentonite Bulk	MT	0	0	0	0.0
Diesel	m3	0	11.9	0	194.2
Fresh Water	m3	29	22.1	0	173.5
Drill Water	m3	0	0	0	306.4
Cement G	MT		0	0	-13.4
Cement HT (Silica)	MT	0	0	0	0.0

Pumps

Pump Data - Last 24 Hrs

No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)
1	A1700	6.000	10.20	97			
2	12P160	6.000	10.20	97			
3	12P160	6.000	10.20	97	0	0	0.00

Slow Pump Data

Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
3600.0	30	380	3.00	40	475	4.00	50	580	5.00
3600.0	30	390	3.00	40	480	4.00	50	580	5.00
3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	56	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	2	
GEOSERVICES OVERSEAS S.A.	3	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	3	
SMITH BITS	1	
Total	87	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	08 Jan 2006	6 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	16 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	08 Jan 2006	6 Days	Held weekly fire drill	
JSA	13 Jan 2006	1 Day	Deck = 6, Marine = 1, Drill = 7, Welder = 3, Subsea = 1	
Man Overboard Drill	30 Dec 2005	15 Days	Held Man Over Board Drill	
Safety Meeting	08 Jan 2006	6 Days	Weekly safety meetings with	

Printed on 15 Jan 2006

Last BOP Test:

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
STOP Card	13 Jan 2006	1 Day	all crew members. Safe = 3, Un-safe = 1	

Marine

Weather on 14 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	25kn	220.0deg	1017.0mbar	21C°	1.5m	220.0deg	4s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
272.0deg		4062.00klb	2.0m	220.0deg	8s	

Comments

Rig Support

Anchors	Tension (klb)
1	0.0
2	0.0
3	0.0
4	0.0
5	0.0
6	0.0
7	0.0
8	0.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Far Grip	23:00 10 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		162
Fresh Water	CuMtr		550
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Anchor handling

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status
Pacific Wrangler	04:10 13 Jan 2006		On Location

Bulks

Item	Unit	Used	Quantity
Diesel	CuMtr		284.7
Fresh Water	CuMtr		171
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

Anchor handling

Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
2	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	09:50 / 09:58	1 / 0	
1	VICTORIA AIR AMBULANCE	23:58 / 00:34	0 / 1	

Last BOP Test:

DRILLING MORNING REPORT # 35
Culverin 1

15 Jan 2006

From: Simon Rodda/ Geoff Webster
To: J Ah-Cann

Well Data

Country	Australia	MDBRT	3758.0m	Cur. Hole Size	12.250in	AFE Cost	$22,699,889
Field	Gippsland Basin	TVDBRT	3753.8m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	$680,037
Rig	OCEAN PATRIOT	Days from spud	30.06	Shoe MDBRT	1511.8m	Cum Cost	$22,178,059
Wtr Dpth (LAT)	585.0m	Days on well	33.40	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	971
RT-ASL (LAT)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					

Current Op @ 0600

Planned Op

Summary of Period 0000 to 2400 Hrs

Completed recovering anchors.

Ocean Patriot on tight tow @ 15:00hrs, Jan 15, 2006. Rig handed over to Anzon Australia Limited

Statement of Facts obtained from vessels

FORMATION

Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 15 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
AR	P	AH	0000	0230	2.50	3758.0m	Far Grip pulling bight of chain back to rig to release tension @ 0020hrs. Tension dropping on #5 anchor, commence to heave in @ 0050hrs. Anchor #5 @ 1350m chain out, tension dropping @ 0130hrs. Far Grip reports work wire inadvertently paid out 700m @ 0215hrs
AR	TP (OTH)	AH	0230	0600	3.50	3758.0m	Trouble shooted Far grip winch problems. Far Grip reported damage to low gear and only able to work with high gear. Prepared to move vessel to acertain tonnage available in high gear
AR	P	AH	0600	1500	9.00	3758.0m	Pulling anchors as follows: Boat-------Anchor--- PCC to Boat---Off Bottom----Anchor Racked-----PCC to Rig Grip---------#5----------08:18----------08:41 Grip---------#8----------08:52----------09:25----------11:25----------11:40 Grip---------#4----------11:57----------12:50----------14:53----------N/A Wrangler put on tow bridle @ 18:20 hrs Jan 14, 2006 Ocean Patriot on tight tow @ 15:00 Jan 15, 2006 Ocean Patriot handed over to Anzon Australia Limited @ 15:00 Jan 15, 2006 Statement of facts obtained from Ocean Patriot, Wrangler and Far Grip

Phase Data to 2400hrs, 15 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m

Printed on 15 Jan 2006

Last BOP Test:

Phase Data to 2400hrs, 15 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
INTERMEDIATE HOLE(IH)	480	17 Dec 2005	08 Jan 2006	584.00	24.333	3758.0m
RISER AND BOP STACK(BOP)	93.5	21 Dec 2005	12 Jan 2006	677.50	28.229	3758.0m
PLUG AND ABANDON(PA)	88.5	08 Jan 2006	14 Jan 2006	766.00	31.917	3758.0m
ANCHOR RETRIEVAL(AR)	35.5	14 Jan 2006	15 Jan 2006	801.50	33.396	3758.0m

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	-0.0
Bentonite Bulk	MT	0	0	0	0.0
Diesel	m3	0	9.8	0	184.4
Fresh Water	m3	0	0	0	173.5
Drill Water	m3	0	12.1	0	294.3
Cement G	MT		0	0	-13.4
Cement HT (Silica)	MT	0	0	0	0.0

Casing

OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board

Company	Pax	Comment
DOGC	58	
ESS	8	
NEXUS	3	
FUGRO SURVEY LTD (ROV)	8	6 X ROV, 2 X Surveyors
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	2	
GEOSERVICES OVERSEAS S.A.	2	
CAMERON AUSTRALIA PTY LTD	1	
MO47 CREW	3	
Total	87	

HSE Summary

Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	15 Jan 2006	0 Days	Held weekly abandon rig drill	
Environental Issue	29 Dec 2005	17 Days	Environmental Audit	Environmental audit by Nexus shorebase personnel.
Fire Drill	15 Jan 2006	0 Days	Held weekly fire drill	
JSA	15 Jan 2006	0 Days	Deck = 6, Mech = 2, Drill = 5, Welder = 2, Subsea = 2	
Man Overboard Drill	30 Dec 2005	16 Days	Held Man Over Board Drill	
Safety Meeting	15 Jan 2006	0 Days	Weekly safety meetings with all crew members.	
STOP Card	15 Jan 2006	0 Days	Safe = 1, Un-safe = 1	

Marine

Weather on 15 Jan 2006

Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
10.0nm	15kn	225.0deg	1020.0mbar	21C°	0.5m	225.0deg	3s

Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments
		4062.00klb	1.5m	225.0deg	6s	

Comments

Rig Support

Anchors	Tension (klb)
1	0.0
2	0.0
3	0.0
4	0.0
5	0.0
6	0.0
7	0.0
8	0.0

Last BOP Test:

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks

Far Grip | 23:00 10 Jan 2006 | | On Location

Item	Unit	Used	Quantity
Diesel	CuMtr		150
Fresh Water	CuMtr		545
Drill Water	CuMtr		480
Cement G	mt		105
Cement HT (Silica)	mt		
Barite Bulk	mt		154
Bentonite Bulk	mt		68

Anchor handling

Bulk Stock on Board as per Statement of facts Jan 15, 2006

Pacific Wrangler | 04:10 13 Jan 2006 | | On Location

Item	Unit	Used	Quantity
Diesel	CuMtr		271.4
Fresh Water	CuMtr		168
Drill Water	CuMtr		500
Cement G	Mt		137
Cement HT (Silica)	Mt		0
Barite Bulk	Mt		8.3
Bentonite Bulk	Mt		42

On tow Bridle

Bulk Stock on Board as per Statement of facts Jan 15, 2006

APPENDIX 3

WELL LOCATION SURVEY

REPORT FOR THE OCEAN PATRIOT RIG MOVE TO CULVERIN-1 LOCATION

FUGRO SURVEY JOB NO. - P0373

Client : Upstream Petroleum Pty Ltd
342 Flinders Street
Melbourne
Victoria 3000

Date of Survey : 03 November – 07 November 2005
09 December – 17 December 2005

0	Final			28 December 2005
Rev	Description	Checked	Approved	Date

CONTENTS

FIGURES

TABLES

APPENDICES

ABSTRACT

Between 03 and 07 November 2005, and 09 and 17 December 2005, Fugro Survey Pty Ltd (Fugro) provided equipment and personnel for the semi-submersible Mobile Offshore Drilling Unit Ocean Patriot rig move from Fur Seal-1 to Culverin-1 location in Permit VIC/P56 in Bass Strait, Victoria.

Surface positioning was provided by Fugro's Multiple Reference Differential Global Positioning System (MRDGPS) and Starfix Seis Navigation Software.

The final position for the drill stem derived from DGPS observations at Culverin-1 location is:

Location Name:	**Culverin-1**
Easting (m):	644437.3
Northing (m):	5748256.4
Latitude:	38° 24' 08.14" S
Longitude:	148° 39' 14.92" E
Rig Heading:	272.54° (True)

This position is 7.0m on a bearing of 337.0° (Grid) from the proposed Culverin-1 location.

All coordinates in this report are referenced to the Geocentric Datum of Australia 1994 (GDA94) and projected onto the Map Grid of Australia 1994 (MGA94) Zone 55 (CM 147° E), unless otherwise stated.

All times in this report are quoted in Australian Eastern Daylight-Saving Time (EDST) unless otherwise stated.

1.0 INTRODUCTION

Fugro Survey Pty Ltd (Fugro) was contracted by Upstream Petroleum Pty Ltd (Upstream) to provide navigation and positioning survey services on board the semi-submersible Mobile Offshore Drilling Unit (MODU) *Ocean Patriot*, during the rig move to Culverin-1 location in Permit VIC/P56 in Bass Strait, Victoria.

A general location diagram is shown as Figure 1-1.

This report details the equipment used, survey parameters adopted, procedures employed and the results achieved. A section on safety is included in Section 3.0 of this report.

1.1 Scope of Work

Personnel and equipment were provided on a 24 hour per day basis for:

- Calibration and function testing of the survey equipment on board the rig and the two Anchor Handling Vessels (AHVs).
- Surface navigation for the *Ocean Patriot*, using Fugro's MRDGPS (Multi Reference DGPS) and Starfix Spot DGPS services.
- Surface navigation for AHVs during anchoring operations, using Starfix Spot DGPS.
- Final rig surface positioning for the Culverin-1 location using DGPS observations.
- Final reporting of the positioning results.

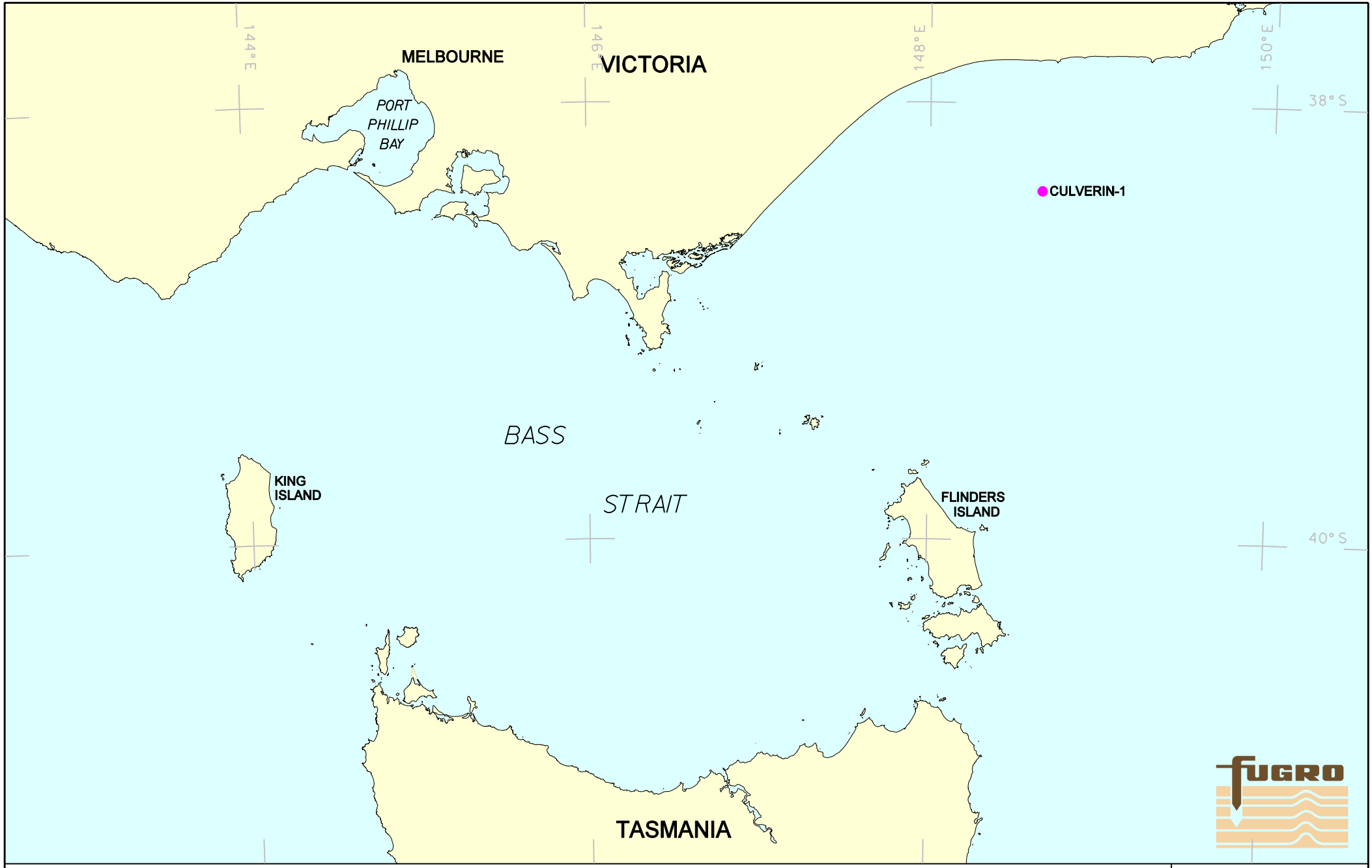
1.2 Sequence of Events

On 03 November 2005, J. Cohen and S. Bradley departed Perth for the *Ocean Patriot*. After equipment calibrations, the anchors were recovered at Fur Seal-1 location on 05 November 2005, and the rig tow to Culverin-1 commenced. However, #4 anchor winch malfunctioned during anchor deployment at Culverin-1. The rig was towed to Eden Bay, NSW, for repairs and Fugro personnel returned to Perth.

On 10 December 2005, R. Risah joined the rig while the rig was anchored at Eden Bay. Anchors were recovered at Eden Bay anchorage and the rig was towed to Culverin-1 on 12 December 2005. M. Karklin joined the rig whist undertow to Culverin-1 location.

Between 13 and 15 December 2005, the rig was positioned on location at Culverin-1. Fugro personnel departed the rig on 17 December 2005.

Further details of Fugro's involvement in the rig move are presented in the Daily Operations Reports included in Appendix A.



GENERAL LOCATION DIAGRAM

FIGURE 1–1

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2.0 RESULTS

2.1 Final Position

The final position of the *Ocean Patriot* drill stem was established by calculating the mean position from two hours of DGPS data logged between 17:00hr and 19:00hr on 16 December 2005. During this period, calculated drill stem coordinates from the primary and secondary positioning systems were logged at a five second interval in Starfix Seis. Data from the primary positioning system were used for the final position calculation.

Differential GPS corrections were derived using a multi-reference solution with base station data from Melbourne, Bathurst and Cobar.

GDA94 geographical positions for the Culverin-1 location are shown in Table 2-1.

GDA94			
Position	**Method**	**Latitude**	**Longitude**
Drill Stem at Surface	MRDGPS	38° 24' 08.14" S	148° 39' 14.92" E
Proposed Location	-	38° 24' 08.35" S	148° 39' 15.04" E

TABLE 2-1 : GEOGRAPHICAL POSITIONS FOR CULVERIN-1

GDA94 grid coordinates (CM 147° E) for Culverin-1 location are shown in Table 2-2.

GDA94, MGA, CM147°E			
Position	**Method**	**Easting (m)**	**Northing (m)**
Drill Stem at Surface	MRDGPS	644437.3	5748256.4
Proposed Location	-	644440.0	5748250.0

TABLE 2-2 : GRID COORDINATES FOR CULVERIN-1

This position is 7.0m at a bearing of 337.0° (Grid) from the design location.

A copy of the original rig position field report is contained in Appendix B.

2.2 Rig Heading

The heading of the *Ocean Patriot* was established by calculating the average heading during two hours of corrected gyro compass readings logged between 17:00hr and 19:00hr on 16 December 2005. During this period, gyro readings were logged at a five second interval in Starfix Seis.

The *Ocean Patriot's* heading is shown in Table 2-3.

Description	Method	True	Grid
Rig Heading	Gyro	272.54°	273.57°
Proposed Heading	-	270.00°	271.03°

TABLE 2-3 : RIG HEADING

2.3 Anchor Positions

The approximate locations of the *Ocean Patriot's* anchors are shown in Table 2-4.

GDA94, MGA, CM147°E				
Anchor	**Easting (m)**	**Northing (m)**	**Azimuth**	**Deployed By**
1	643461	5748853	299.9°	*Pacific Wrangler*
2	643944	5749115	330.0°	*Pacific Wrangler*
3	644964	5749099	30.7°	*Far Grip*
4	645480	5748869	59.2°	*Pacific Wrangler*
5	645467	5747566	122.1°	*Pacific Wrangler*
6	645023	5747233	149.3°	*Far Grip*
7	643852	5747274	208.8°	*Far Grip*
8	643454	5747792	244.2°	*Pacific Wrangler*

TABLE 2-4 : ANCHOR POSITIONS

The approximate coordinates of the *Ocean Patriot*'s anchors were calculated from:

- The azimuth from the fairlead position to the AHVs stern position at the time of anchor deployment.
- The range from the fairlead position to the anchor, as obtained from the on board chain counter, corrected for catenary.

3.0 SAFETY

All work undertaken by Fugro personnel during the project was performed within the guidelines of Fugro's Safety Policy, as defined in Fugro's Safety Manual (SMS-P01) and Offshore Survey Safety Practices (SMS-SP26).

Fugro personnel worked within all project safety guidelines and plans adopted by Upstream and Diamond Offshore.

No safety incidents involving Fugro personnel were reported during the project.

Fugro personnel attended a vessel induction, pre-rig move meeting and muster drill whilst on board.

A Project Specific Safety Plan was developed for positioning services on board the *Ocean Patriot* for the Culverin-1 rig move.

4.0 SURVEY OPERATIONS

4.1 Mobilisation

After the completion of #4 anchor winch repairs, a Fugro personnel departed Perth on 09 December 2005 and arrived on board the rig on 10 December 2005, whilst it was located at Eden Bay anchorage. Following an arrival briefing, the survey equipment on board was powered up and system and function tests completed. The second Fugro personnel joined the rig on 12 December 2005 whilst the rig was undertow.

4.2 General Survey Procedures

The tow was conducted with the *Far Grip* connected to the main tow wire.

About 5 kilometres from Culverin-1 location, the *Pacific Wrangler* was connected to the #4 anchor. The *Far Grip* and *Pacific Wrangler* manoeuvred the rig onto the proposed Culverin-1 location. Once the rig was positioned over Culverin-1 location with the assistance of the *Far Grip*, #4 anchor was deployed by *the Pacific Wrangler.*

After establishing that #4 anchor was holding and the rig was maintaining its position at Culverin-1, the *Pacific Wrangler* then ran anchors #8, #5 and #1. When the primary anchors were successfully deployed, the *Far Grip* was released from the tow wire and assisted the *Pacific Wrangler* in deploying the remaining anchors.

Once all anchors were deployed, the anchors were systematically cross-tensioned to a specified tension of 200 tonnes for 10 minutes and then slackened down to working tension.

During the deployment of each anchor, the AHVs were provided with a waypoint and the corresponding run line via the Wombat telemetry system. The AHVs ran out the anchor chain along this line to the desired drop point. The anchor chain was stretched out and the anchor lowered to the seabed. After confirming that the anchor was holding, the vessel then stripped the chain chaser back to the rig.

The *Ocean Patriot* was positioned over the Culverin-1 location with all anchoring and pre-tensioning completed at 09:10hr on 15 December 2005. Final position data were logged between 17:00hr and 19:00hr on 16 December 2005. A rig positioning field report was issued to the Upstream Company Representative (see Appendix B).

4.3 Demobilisation

All navigation systems on board the *Ocean Patriot* and AHVs were switched off during demobilisation and left on board the vessels for the anchor recovery at Culverin-1.

Fugro personnel departed the rig and returned to Perth on 17 December 2005.

5.0 EQUIPMENT CALIBRATION

5.1 DGPS Navigation Integrity Check

In order to check the correct operation of the navigation systems installed on board the *Ocean Patriot* DGPS data were logged for 30 minutes on 04 November 2005, whilst the rig was located at Fur Seal-1.

A comparison of the primary and secondary DGPS was also conducted. The results from both of these tests are provided in Table 5-1.

GDA94, MGA, CM 147°E		
	Easting (m)	**Northing (m)**
Established Well Coordinates	600995.50	5779136.70
Observed Coordinates	600995.95	5779146.60
Difference	-0.45	-9.90
Primary Navigation	600995.95	5779146.60
Secondary Navigation	600996.61	5779146.16
Difference	-0.66	+0.43

TABLE 5-1 : DGPS NAVIGATION INTEGRITY CHECK

The DGPS check described above demonstrated that the navigation systems on board the *Ocean Patriot* were set up and working correctly.

A positioning check list was completed at Culverin-1 location to confirm the proposed rig position and to ensure that the correct geodetic datum, transformation and projection parameters were being used. Geodetic calculations were performed using both Starfix Seis and the off-line geodetic calculation package GEO.

Details of all positioning checks are provided in Appendix C.

5.2 Gyro Compass Calibration

The calibration of the survey gyro compass was carried out on 04 November 2005, whilst the rig was located at Fur Seal-1.

A series of observations were made to the sun from which the rig heading was calculated. The calculated values were then compared to the observed gyro compass values logged in Starfix Seis and a mean C-O value of +1.88° was determined. This correction was applied in the navigation suite.

Details of the gyro calibration are included in Appendix C.

6.0 SURVEY PARAMETERS

6.1 Geodetic Parameters

All coordinates are referenced to the Geocentric Datum of Australia 1994 (GDA94) unless otherwise noted. The Global Positioning System (GPS) operates on the World Geodetic System 1984 (WGS84) datum. Fugro's Differential GPS Reference Stations are currently defined in the International Terrestrial Reference Frame 2000 (ITRF2000 Epoch 2005.75) datum. Due to the continual refinement of the WGS84 reference frame, for all cases, the transformation parameters indicate that the WGS84 and ITRF2000 reference frames are essentially identical.

Datum	**:**	**World Geodetic System 1984 (WGS84)**
Reference Spheroid	:	World Geodetic System 1984
Semi Major Axis	:	6378137.000m
Inverse flattening	:	298.257223563

Datum	**:**	**Geocentric Datum of Australia 1994 (GDA94)**
Reference Spheroid	:	Geodetic Reference System 1980 (GRS80)
Semi Major Axis	:	6378137.000m
Inverse flattening	:	298.257222101

The following seven parameter datum transformation (Table 6-1) was used in Fugro's software, to transform WGS84 (ITRF2000 Epoch 2005.50) coordinates to GDA94 coordinates. These parameters are calculated from the 14 parameter transformation defined by Geoscience Australia. Fugro follows the Coordinate Frame Rotation convention (as defined by UKOOA) for datum transformations.

Transformation Parameters from WGS84 (ITRF2000 Epoch 2005.50) to GDA94			
dX	-0.0156m	rX	+0.01445"
dY	-0.0348m	rY	+0.013050"
dZ	-0.0513m	rZ	+0.015037"
		dS	+0.004977ppm

TABLE 6-1 : TRANSFORMATION PARAMETERS

The proposed drilling location and all project coordinates are grid coordinates on the Map Grid of Australia.

Grid	**:**	**Map Grid of Australia (MGA94)**
Projection	:	Transverse Mercator
Latitude of Origin	:	0°
Central Meridian	:	147° E (UTM Zone 55)
Central Scale Factor	:	0.9996
False Easting	:	500000m
False Northing	:	10000000m
Units	:	Metres

6.2 Differential GPS Reference Stations

Fugro's Differential GPS Reference Stations are currently defined in the ITRF2000 (Epoch 2005.50) datum and are shown in Table 6-2.

ITRF 2000, EPOCH 2005.75					
Station	**Id**	**Latitude**	**Longitude**	**Height (m)**	**Uplink**
Melbourne	385	37° 48' 29.008" S	144° 57' 48.029" E	82.06	Optus/APSat
Bathurst	336	33° 25' 46.882" S	149° 34' 01.968" E	756.66	Optus/APSat
Cobar	316	31° 29' 57.434" S	145° 50' 20.344" E	270.17	Optus/APSat

TABLE 6-2 : DGPS REFERENCE STATIONS

6.3 Project Coordinates and Tolerances

Project target coordinates and surface tolerance for Culverin-1 location were supplied by Upstream and are shown in Table 6-3. Project procedures are provided in Appendix D.

GDA94, MGA, CM 147°E			
Location	**Easting (m)**	**Northing (m)**	**Tolerances**
Culverin-1	644440.0	5748250.0	15m radius

TABLE 6-3 : PROJECT DESIGN COORDINATES

7.0 SURVEY EQUIPMENT, VESSEL AND PERSONNEL

7.1 Equipment

Survey equipment used for the positioning of the *Ocean Patriot* was as follows:

Ocean Patriot

2 x Starfix satellite DGPS (1 Optus link, 1 APSat link)
2 x Trimble 4000 series GPS receivers
2 x Pentium IV computers, running Fugro's Starfix Seis navigation software suite
3 x 17" monitors (2 Seis, 1 Helm)
2 x SG Brown gyro compass
2 x Uninterruptible power supply units (UPS)
1 x Teledesign radio/modem
1 x Theodolite, tripod and dark glass
1 x Printer

AHVs (complete system per vessel, plus one complete set of spares)

1 x Pentium III computers, running Starfix Display/Wombat
1 x Monitors
1 x Starfix VBS units
1 x Fluxgate compasses
1 x Teledesign radio/modems

All systems were provided complete with all necessary cabling, connectors, power supplies, antennae, accessories, manuals and consumables.

Refer to Figure 7-1 for an equipment flow diagram for the *Ocean Patriot* and Figure 7-2 for the equipment flow diagram for the AHVs.

7.2 Vessels

The vessels used for anchor handling and towing the *Ocean Patriot* were the *Pacific Wrangler* and the *Far Grip*. Refer to Figure 7-3, Figure 7-4 and Figure 7-5 for the vessel offset diagrams.

7.3 Personnel

Fugro personnel involved in the rig move and positioning operations were as follows:

R. Risah	Surveyor / Party Chief	09 – 17 December 2005
M. Karklin	Technician	12 – 17 December 2005
J. Cohen	Surveyor	03 – 07 November 2005
S. Bradley	Technician	03 – 07 November 2005

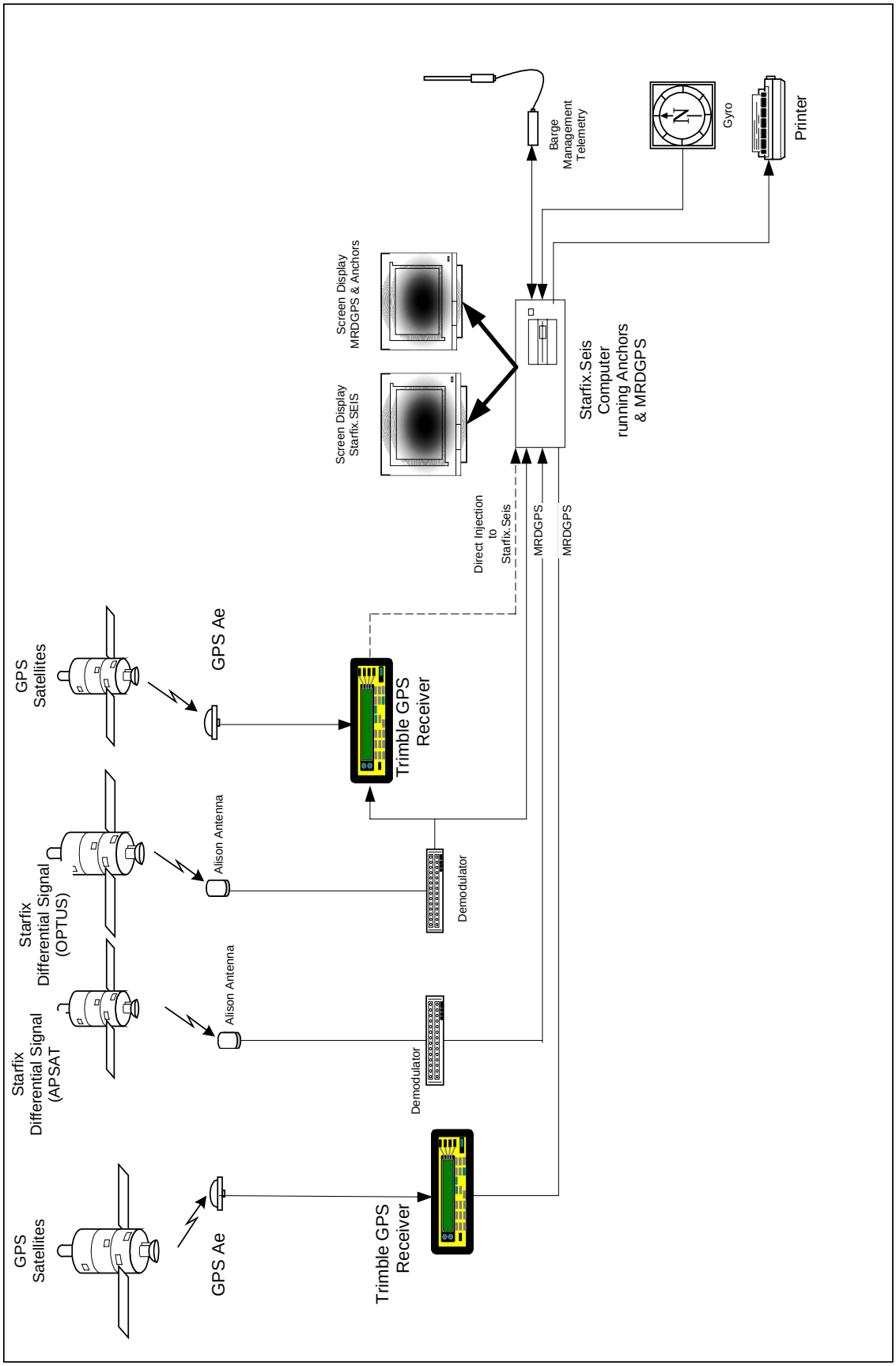


FIGURE 7-1 : EQUIPMENT FLOW DIAGRAM – MODU *OCEAN PATRIOT*

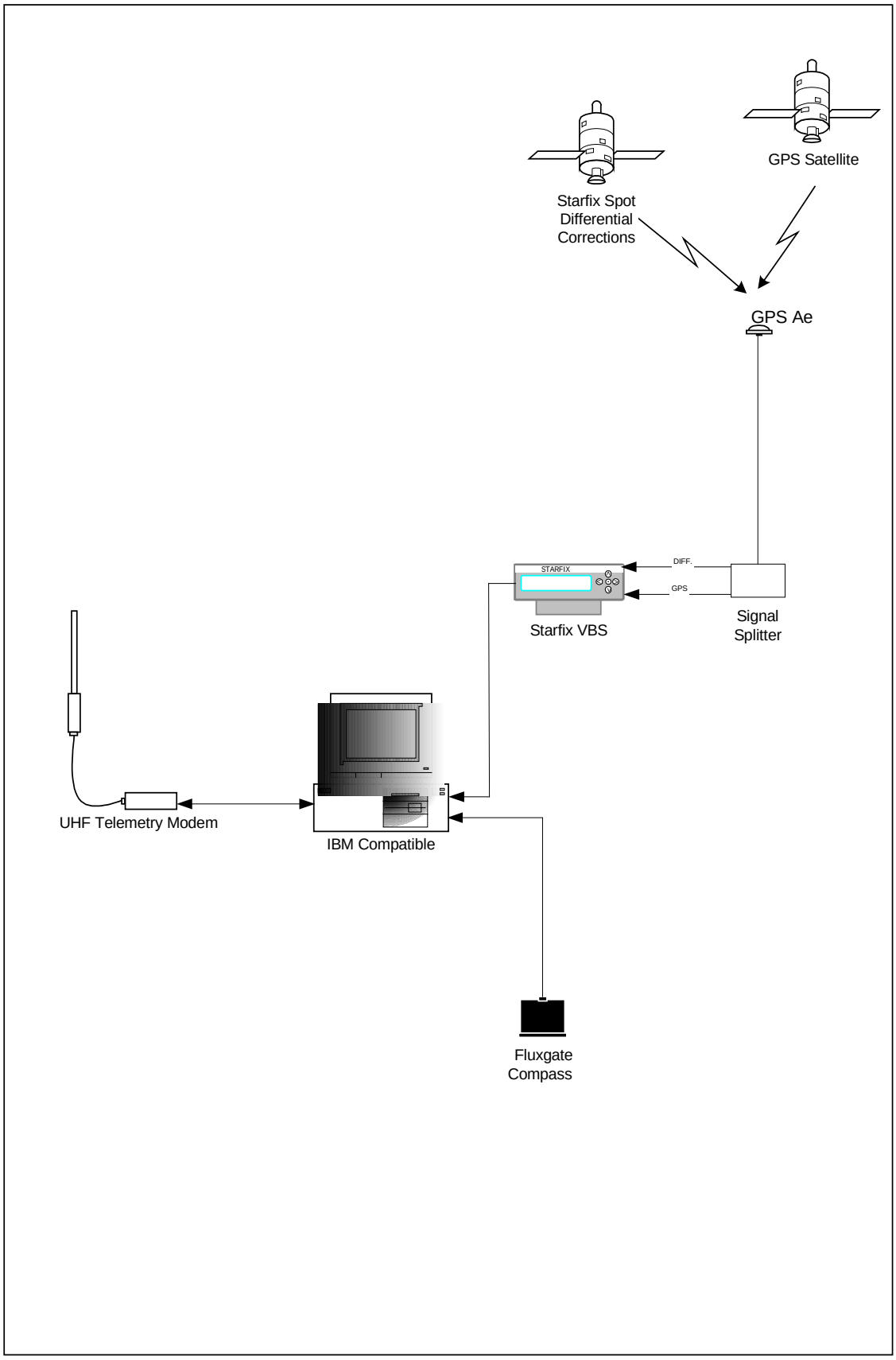
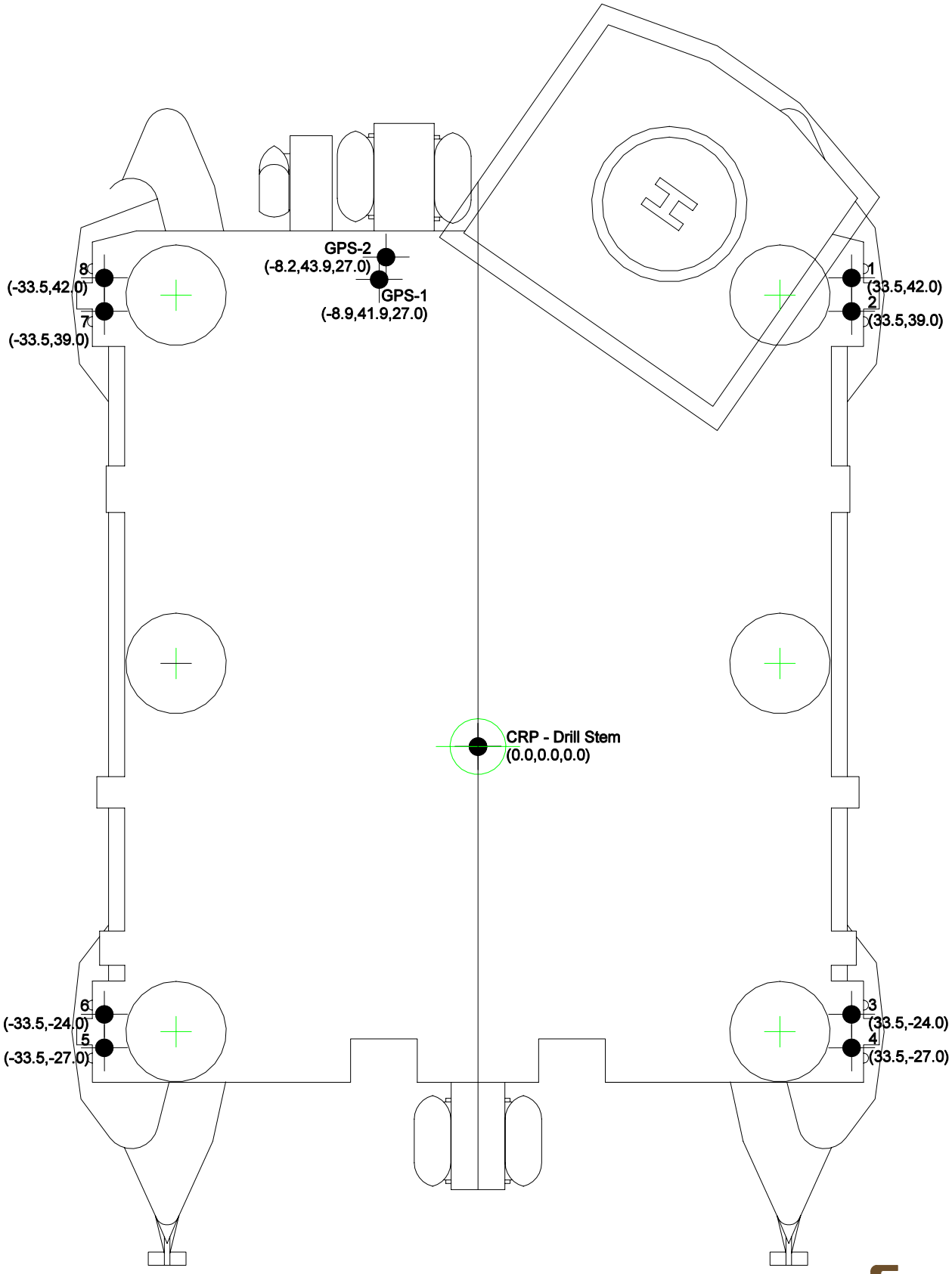


FIGURE 7-2 : EQUIPMENT FLOW DIAGRAM – AHVS



VESSEL OFFSET DIAGRAM – OCEAN PATRIOT

FIGURE 7–3

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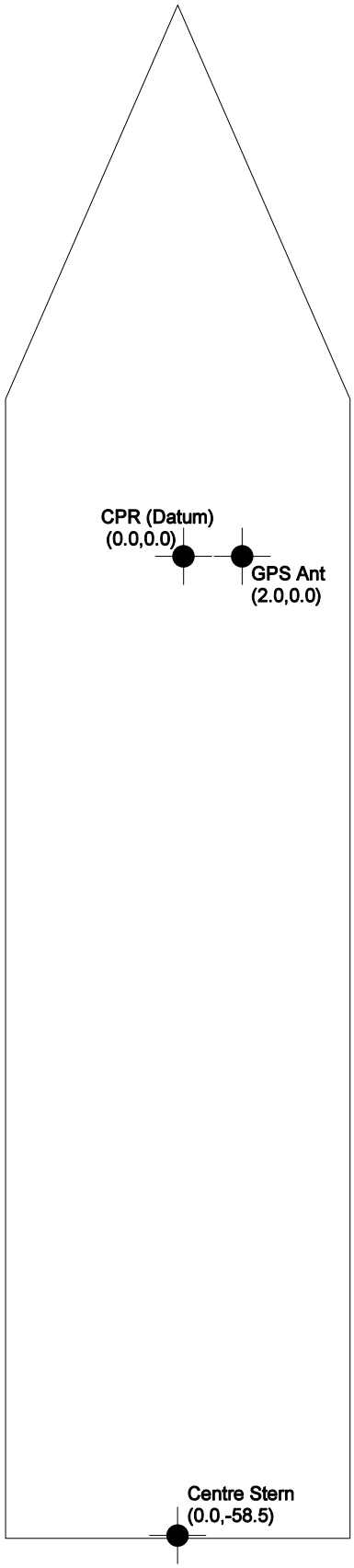

VESSEL OFFSET DIAGRAM – PACIFIC WRANGLER

FIGURE 7–4

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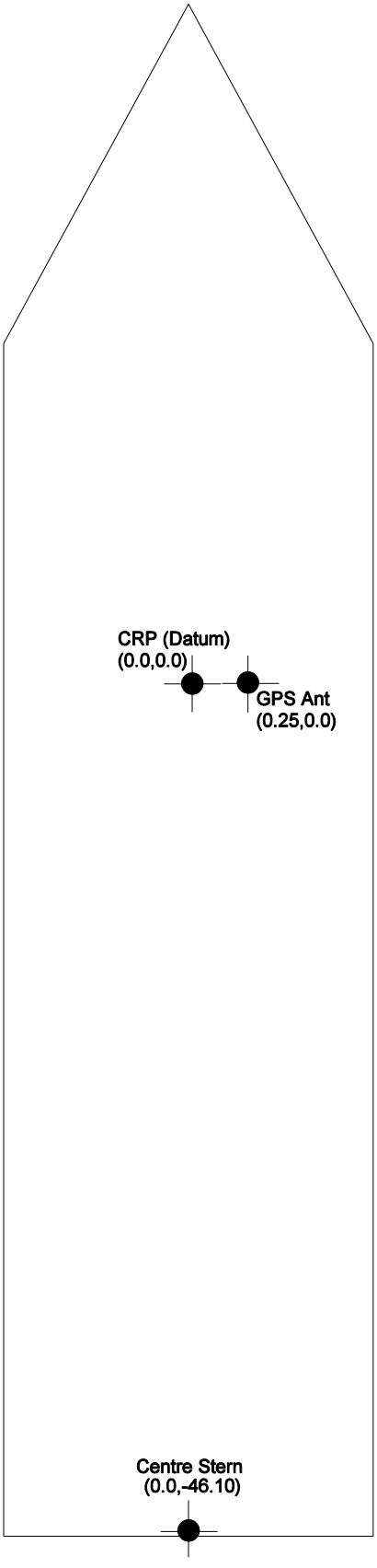

VESSEL OFFSET DIAGRAM – FAR GRIP

FIGURE 7–5

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8.0 CONCLUSIONS AND RECOMMENDATIONS

- The *Ocean Patriot* was successfully positioned during the towing and anchoring operations and at Culverin-1.
- The *Pacific Wrangler* and *Far Grip* were successfully positioned during the towing and anchoring operations.
- The surface position of the Culverin-1 well was determined.

9.0 DISTRIBUTION

Copies of this report have been distributed as follows:

Upstream Petroleum	: 3 paper copies
Attn: John Ah-Cann	: 1 electronic copy
Fugro Survey Pty Ltd	: 1 paper copy
	: 1 electronic copy

APPENDIX A
DAILY OPERATIONS REPORTS

Fugro Survey Pty Ltd
PM-F50

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM	LOCATION: CULVERIN-1	DATE: 03/11/2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
1200	1830	Travel to Melbourne
1900		Check Inn Holiday Inn Melbourne

EQUIPMENT	NO.	EQUIPMENT	NO.	PERSONNEL	TITLE
				J.Cohen	Surveyor
				S. Bradley	Engineer

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 X HOLIDAY INN MELBOURNE

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
J. Cohen		P0373-1

Fugro Survey Pty Ltd
PM-F50

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM	LOCATION: CULVERIN-1	DATE: 04/11/2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0715		Check-out Holiday Inn Melbourne
0730	800	Travel to Essendon Airport
0900	1030	Helicopter to Ocean Patriot
1230		All equipment online and operational
1300		Pre-rig move meeting
1500		#6 PCC to Pacific Wrangler, changing out #6 anchor
1822		Gyro Calibration to Snapper Platform (C-O = +1.77°)
1920		Gyro Calibration by Solar Observations (C-O = +1.88°)
1938		Gyro Calibration by Solar Observations (C-O = +1.93°)
		Mean C-0 = +1.86° (entered into SEIS)
2201	2231	DGPS Check Fix
2210		#2 PCC to Far Grip

EQUIPMENT	NO.	EQUIPMENT	NO.	PERSONNEL	TITLE
SEIS Computer	1	Laptop	1	J.Cohen	Surveyor
Gyrocompass	1	Trimble Receivers	2	S. Bradley	Engineer
Demodulators	2	Theodolite	1		
AHV x 2 (Wombat)	2	Radio Modem	1		

VEHICLES:

CONSUMABLES:

ACCOMMODATION:

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
J. Cohen		P0373-2

Fugro Survey Pty Ltd
PM-F50

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM	LOCATION: CULVERIN-1	DATE: 05/11/2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0001		#6 anchor racked
0014		#7 PCC to Pacific Wrangler
0200		#2 anchor racked
0212		#3 PCC to Far Grip
0230		#7 anchor racked
0312		Pacific Wrangler connected to tow bridle
0430		#3 anchor racked
0455		#4 PCC to Far Grip
0857		#4 anchor racked
1053		#8 PCC to FG
1236		#8 anchor racked
1310		#1 PCC to Far Grip
1555		#1 anchor racked
1614		#5 PCC to Far Grip
1800		**Rig official handover from Apache to Upstream**
1815		#5 anchor racked
1830		#5 PCC back to rig, begin transit to Culverin-1
2359		Continue transit to Culverin-1

EQUIPMENT	NO.	EQUIPMENT	NO.	PERSONNEL	TITLE
SEIS Computer	1	Laptop	1	J.Cohen	Surveyor
Gyrocompass	1	Trimble Receivers	2	S. Bradley	Engineer
Demodulators	2	Theodolite	1		
AHV x 2 (Wombat)	2	Radio Modem	1		

VEHICLES:

CONSUMABLES:

ACCOMMODATION:

AUTHORISED CONTRACT CHANGES / COMMENTS: 1800 - RIG OFFICIAL HANDOVER FROM APACHE TO UPSTREAM

Party Chief Signature:	Client Representative Signature:	D O R Number
J. Cohen		P0373-3

Fugro Survey Pty Ltd
PM-F50
DAILY OPERATIONS REPORT

CLIENT: UPSTREAM	LOCATION: CULVERIN-1	DATE: 06/11/2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0001		Continue transit to Culverin-1
0315		Pacific Wrangler turning onto final run-in to Culverin-1
0356		#4 PCC to Far Grip
0430		Rig on location
0900		#4 anchor on bottom (646024, 5749133)
1030		Abandon rig drill
1217		#8 PCC to Far Grip
1300		J. Cohen attends weekly safety meeting
1445		#4 winch failure – chain spooled off drum, heaving in #8 anchor, Static tow with
		Pacific Wrangler. #4 bitter end approx position 644438mE, 5748284mN
1654		#8 anchor racked
1704		#8 PCC back to rig, Pacific Wrangler begin tow to Eden for rig repairs
1900		S. Bradley attends weekly safety meeting

EQUIPMENT	NO.	EQUIPMENT	NO.	PERSONNEL	TITLE
SEIS Computer	1	Laptop	1	J.Cohen	Surveyor
Gyrocompass	1	Trimble Receivers	2	S. Bradley	Engineer
Demodulators	2	Theodolite	1		
AHV x 2 (Wombat)	2	Radio Modem	1		

VEHICLES:

CONSUMABLES:

ACCOMMODATION:

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
J. Cohen		P0373-4

Fugro Survey Pty Ltd
PM-F50

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM	LOCATION: CULVERIN-1	DATE: 07/11/2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
1000		All equipment powered down, remains mobilized for next rig move
1100	1330	Travel Ocean Patriot to Essendon Airport
1640	1740	Travel Melbourne to Perth

EQUIPMENT	NO.	EQUIPMENT	NO.	PERSONNEL	TITLE
SEIS Computer	1	Laptop	1	J.Cohen	Surveyor
Gyrocompass	1	Trimble Receivers	2	S. Bradley	Engineer
Demodulators	2	Theodolite	1		
AHV x 2 (Wombat)	2	Radio Modem	1		
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION:					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
J. Cohen		P0373-5

Fugro Marine Division
FSHY01-1
DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 9 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
1515	2200	R. Risah travels from Perth to Sydney
2245		Check-in Mercure Inn hotel at Sydney airport

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
				R. Risah	Surveyor / PC

VEHICLES: 1x Taxi		
CONSUMABLES:		
ACCOMMODATION: 1x Mercure Inn Hotel		

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-6

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 10 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0700		Check-out of hotel
0850	1030	Travel from Sydney to Merimbula
1030	1105	Travel from Merimbula to Eden
1200		Arrive onboard rig
1400		Navigation system onboard rig power-up and operational

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3		
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION: onboard rig					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-7

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 11 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
1030	1800	Transfer on FRC to Far Grip to set-up navigation system
1600	2030	M. Karklin travels from Perth to Melbourne
1700		Navigation system onboard Far Grip operational
1830	2359	Anchor recovery at Eden anchorage
2100		M. Karklin checks-in Holiday Inn hotel at Melbourne airport

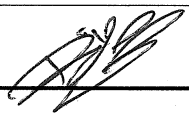
RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				

VEHICLES: 1x Taxi

CONSUMABLES:

ACCOMMODATION: 1x Holiday Inn hotel, 1x onboard rig

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-8

Fugro Marine Division
FSHY01-1
DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 12 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0000	0630	Anchor recover at Eden anchorage
0630	2359	Rig undertow to Culverin-1 location
0830	1000	M. Karklin travels (helo) from Melbourne to rig
1000	1130	M. Karklin arrives on the rig and attends arrival & safety induction
1030		Muster & fire drill
2130		P. Wrangler joins rig
2300		Navigation system onboard P. Wrangler operational

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION: 2x onboard rig					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-9

DAILY OPERATIONS REPORT

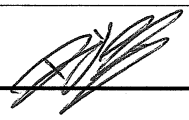
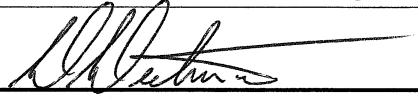
CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 13 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0000	0800	Rig undertow to Culverin-1 location
0800		Commence run-in approach to #4 anchor drop location
0830		P. Wrangler connects to #4 anchor
1000		Commence anchor deployment at Culverin-1 location
1202		#4 anchor on seabed E645674 N5748964 (P. Wrangler)
1700		#4 anchor dragging, rig moves off location
2020		#4 anchor off seabed
2020	2220	P. Wrangler recovering #4 anchor to stern roller for inspection
2220	2245	P. Wrangler turning #4 anchor to correct orientation
2245	2359	P. Wrangler re-deploying #4 anchor

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				

VEHICLES:		
CONSUMABLES:		
ACCOMMODATION: 2x onboard rig		

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-10

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 14 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS			
0000	0110	Re-deployment of #4 anchor			
0110		#4 anchor on seabed	E645980	N5749156	(P. Wrangler)
0456		#8 anchor on seabed	E643054	N5747606	(P. Wrangler)
0942		#5 anchor on seabed	E645843	N5747319	(P. Wrangler)
1416		#1 anchor on seabed	E643342	N5748969	(P. Wrangler)
1604		#1 anchor off seabed, re-deploying anchor			
1648		#1 anchor on seabed	E642986	N5749135	(P. Wrangler)
2045		#3 anchor on seabed	E645351	N5749728	(Far Grip)
	2359	Anchor deployment ops at Culverin-1 location			

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2x onboard rig

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-11

Note – To ensure that this is the latest version check the Electronic Master File

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 15 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS			
0000		Anchor deployment ops at Culverin-1 location in progress			
0110		#7 anchor on seabed	E643652	N5746922	(Far Grip)
0250		#2 anchor on seabed	E643593	N5749745	(P. Wrangler)
0514		#6 anchor on seabed	E645271	N5746798	(Far Grip)
	0600	Complete anchor deployment at Culverin-1 location			
0635	0645	Cross tensioning anchors #4 and #8			
0710	0720	Cross tensioning anchors #1 and #5			
0755	0805	Cross tensioning anchors #2 and #6			
0847	0857	Cross tensioning anchors #3 and #7			
0910		Rig on position at Culverin-1			
0930	1400	Rig ballasting down to drilling draft to 23.5m			

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION: 2x onboard rig					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-12

DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 16 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
0000	1700	Standby to conduct final position observation upon completion of spudding ops
1515	1700	Spudding operations
1700	1900	Logging final surface position (drill stem) at Culverin-1
		Culverin-1
		Easting: 644437.3m Northing: 5748256.4m
		Latitude: 38° 24' 08.35" S Longitude: 148° 39' 14.92" E
		Rig Heading: 272.5° (T)
		7.0m @ 337° from design location

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2x onboard rig

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-13

Fugro Marine Division
FSHY01-1
DAILY OPERATIONS REPORT

CLIENT: UPSTREAM PETROLEUM	LOCATION: CULVERIN-1	DATE: 17 DEC 2005
PROJECT: RIG MOVE	VESSEL: OCEAN PATRIOT	JOB NO: P0373

FROM	TO	SUMMARY OF OPERATIONS
1200		Shut down navigation system onboard rig
1400	1530	Fugro personnel depart rig for Melbourne
1810	2205	Fugro personnel return from Melbourne to Perth

RIG EQUIPMENT	NO.	AHV EQUIPMENT	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Seis (remote)	3	R. Risah	Surveyor / PC
Starfix.Spot DGPS	2	Fluxgate compass	3	M. Karklin	Engineer
Gyro Compass	2	Radio Modem	3		
Radio Modem	2	UPS	3		
UPS	2				
Theodolite	1				
Printer	1				

VEHICLES:		
CONSUMABLES:		
ACCOMMODATION:		

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		P0373-14

APPENDIX B
FINAL POSITIONING DATA

RIG POSITION FIELD REPORT

Culverin-1

Client :	**Upstream Petroleum**	**Job Number :**	**P0373**
Rig :	**Ocean Patriot**	**Date:**	**16-Dec-05**
Project :	**Rig Move to Culverin-1, Permit VIC/P56**		
Company Man :	**W. Westman**		

The surface location of the drill stem on the Ocean Patriot was derived from two hours of observations of the Primary Differential GPS Data, between 17:00hrs and 19:00hrs on completion of anchor pre-tensioning, ballasting and spudding operations.

The results of the observations are as follows:

Geographical Coordinates			Grid Coordinates	
Latitude (ϕ)	**-038° 24' 8.14"**	**South**	**Easting**	**644437.3**
Longitude (λ)	**148° 39' 14.92"**	**East**	**Northing**	**5748256.4**

The drill stem position is **7.0 m** at a bearing of **337.0°** Grid from the design location.

The Client supplied design location Culverin-1 .

Geographical Coordinates			Grid Coordinates	
Latitude (ϕ)	**-038° 24' 8.35"**	**South**	**Easting**	**644440.0**
Longitude (λ)	**148° 39' 15.04"**	**East**	**Northing**	**5748250.0**

The heading of the Rig, Ocean Patriot was derived from the mean of 2hrs of the Gyro heading is:

272.54° TRUE 273.57° Grid

All coordinates in this field report are quoted in the following coordinate system:

Datum :	GDA94_Australia_ICSM-ITRF2005.50	Projection :	Transverse Mercator (UTM)
Spheroid :	GRS80	Zone (Central Meridian) :	55 147° East

The approximate positions of the rig anchors corrected for catenary are as follows:

Anchor	Easting	Northing	Azimuth(°) - True
1	643461	5748853	299.9°
2	643944	5749115	330.0°
3	644964	5749099	30.7°
4	645480	5748869	59.2°
5	645467	5747566	122.1°
6	645023	5747233	149.3°
7	643852	5747274	208.8°
8	643454	5747792	244.2°

Party Chief/Surveyor: R. Risah

Company Man : W. Westman

APPENDIX C
DGPS AND GYRO CHECKS

RIG POSITIONING
GEODESY AND COORDINATE CHECK LIST

Client :	**Upstream Petroleum**	**Job Number :**	**P0373**
Rig :	**Ocean Patriot**	**Date:**	**December 16, 2005**
Project :	**Rig Move to Culverin-1, Permit VIC/P56**		

1. CONFIRMATION OF PROPOSED RIG COORDINATES and HEADING.

Well Name	**Culverin-1**		Ensure agreement with Client onsite prior to any positioning
Well Location – Latitude(ϕ)	-038° 24' 8.35"	S	Operations. OK (?)(Y) N.
Well Location – Longitude(λ)	148° 39' 15.04"	E	
Rig Heading (True)	270° T		

2. GEODETIC PARAMETERS (WGS84 to LOCAL DATUM)

DATUM:	Dx	-0.01560 m	Ensure agreement with Client onsite prior to positioning operations.
GRS80	Dy	-0.03490 m	OK (?)(Y) N.
	Dz	-0.05130 m	
	Rx	0.01445 "	
Projection:	Ry	0.01305 "	
	Rz	0.01504 "	
Transverse Mercator (UTM)	Ds	0.00498 ppm	
UTM Zone		55	
Central Meridian		147° East	

3. CHECK TRANSFORMATION OF SITE COORDINATES.

Well Location – Easting	644440.0	Ensure agreement with Starfix.Seis. OK (?)(Y) N
Well Location – Northing	5748250.0	If not, CHECK and RECALC.
Convergence at Location	1.03 °	
Rig Heading (° Grid)	271.03°	

4. MEAS. ANT. OFFSETS from ANT. TO D/STEM (Rel. to Datum) (Measure two (2) separate directions, verifying closure.)	**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Delta X(m)	-8.86 m	-8.24 m
Delta Y(m)	41.86 m	43.86 m
Angle between Rig Centreline and Antenna(s) (Grid)	348.05°	349.4°
Distance between Drill Stem and Antenna (m)	42.79 m	44.63 m

5. MANUAL COORDINATE VERIFICATION FOR ANTENNAS		**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Proposed Drill Stem Position	Easting	644440.0	644440.0
	Northing	5748250.0	5748250.0
Drill Stem to Antenna	Proposed Hdg (G)	271.028°	271.028°
Brg (G) = Prop. Hdg. + Angle btwn centreline and antenna		259.077°	260.388°
	Distance (m)	42.79 m	44.63 m
Calculated Antenna	Easting	644397.99	644396.00
Coordinates (Local Datum)	Northing	5748241.89	5748242.55
	Latitude (ϕ)	-038° 24' 8.63" S	-038° 24' 8.61" S
	Longitude (λ)	148° 39' 13.31" E	148° 39' 13.23" E
Calculated Proposed Antenna Coords (WGS 84)	Latitude (ϕ)	-038° 24' 8.61" S	-038° 24' 8.59" S
	Longitude (λ)	148° 39' 13.32" E	148° 39' 13.24" E

6. POST RIG MOVE - OBSERVED ANTENNA COORD

Observed GPS Receiver Antenna Position in	Latitude (ϕ)	-38 ° 24' 8.63 S	-38 ° 24' 8.62 S
WGS84.	Longitude (λ)	148 ° 39' 12.81 E	148 ° 39' 12.77 E

Ensure agreement between calculated and observed coordinates. If **NO**, check calcs., antenna offsets. OK(?)(Y) N

Surveyor : R. Risah

Date : 16-DEC-2005

RIG POSITIONING
DGPS CHECK LIST (PRE RIG MOVE)

Client : **Upstream** **Job Number :** **P0373**

Rig : **Ocean Patriot** **Date:** **4-Nov-05**

Project : **Rig Move to Culverin-1, Bass Strait**
from **Fur Seal 1** **to** **Culverin-1**

1) ESTABLISHED WELL COORDINATES
Horizontal Datum: GRS80
Observe 30 minutes of DGPS data, logging both Primary and Secondary systems.
Establish a mean drill stem position from the primary navigation system and compare against the established well coordinates.

	Easting	Northing
Established Well Coordinates	600995.50	5779136.70
Observed Coordinates	600995.95	5779146.60
Differences	-0.45	-9.90

Note: Prior to logging DGPS data for the check fix, the Ocean Patriot had commenced anchor recovery and had moved off location.

Ensure agreement OK(?) Y / N
If No, Check and ensure that rig has not moved off location.

2) PRIMARY/SECONDARY NAV SYSTEMS
From the data logged above, compare the observed coordinates for both Primary and Secondary navigation systems.

	Easting	Northing
Primary Navigation	600995.95	5779146.60
Secondary Navigation	600996.61	5779146.16
Differences	-0.66	0.43

Ensure agreement OK(?) (Y) / N
If No, Check antenna offsets and gyro calibration.

Party Chief/Surveyor: J. Cohen J. Cohen Client Representative : R. King

GYRO COMPASS CALIBRATION BY SUN AZIMUTH - CALCULATION SUMMARY

Fugro Job Number:	P0373	**Vessel:**	Ocean Patriot
Job Description:	Rig Move to Culverin-1, Bass Strait	**Instrument**	Wild T2
Client:	Upstream	**Serial No.**	130532
Surveyor:	J. Cohen	**Date:**	04-Nov-05
		Time Zone :	11hrs

Vessel Details

	D	M	S
Enter correction from RO to vessel centreline	180°	00 '	00 "

Enter approximate WGS84 position of instrument :

	D	M	S
Latitude (ϕ)	-38 °	07 '	48 "
Longitude (λ)	148 °	09 '	07 "

Observations

Obs. No.	Date	UTC	Instrument Position		Calculated Sun Azimuth at UTC		Observed Direction to Sun				Calc'd Vessel Hdg	Obs'd Vessel Hdg	Sun Semi Diameter	(C-O) Degrees
			Latitude (ϕ) DMS	Longitude (λ) DMS	DMS	Dec. Deg	Deg	Min	Sec	Dec. Deg				
1	4-Nov-05	8:20:07	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	253.406 °	181°	02'	38	181.044	252.362 °	250.50 °	0.2692	1.86 °
2	4-Nov-05	8:20:51	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	253.296 °	181°	08'	02	181.134	252.162 °	250.30 °	0.2692	1.86 °
3	4-Nov-05	8:21:18	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	253.228 °	180°	54'	28	180.908	252.320 °	250.30 °	0.2692	2.02 °
4	4-Nov-05	8:21:47	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	253.155 °	181°	08'	56	181.149	252.006 °	250.20 °	0.2692	1.81 °
5	4-Nov-05	8:22:54	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	252.986 °	180°	26'	23	180.440	252.546 °	250.70 °	0.2692	1.85 °
6	4-Nov-05	8:23:16	-038° 07' 48.00"	148° 09' 7.00"	253° 24' 22.38"	252.931 °	180°	49'	37	180.827	252.104 °	250.20 °	0.2692	1.90 °

Mean	**1.88 °**
Std. Deviation	**0.07**
Maximum	**2.02 °**
Minimum	**1.81 °**
Range	**0.21**

Signature J. Cohen

SURVEYOR / PARTY CHIEF

APPENDIX D
CLIENT SUPPLIED INFORMATION

1 MANAGEMENT SUMMARY

Culverin-1 is an exploration well to evaluate the Intra-Latrobe reservoirs. This evaluation will include mud logging, logging-while-drilling and electric line logging.

Culverin-1 well operations will be conducted by the semi-submersible *Ocean Patriot*. Water depth at the wellhead location will be approximately 585m. The Location Map in section 12 shows the location of Culverin-1 relative to existing Gippsland Basin Fields.

1.1 Well Information Summary

Well Name & Number:	Culverin-1
Designation:	Exploration
Permit:	VIC/P56
Permit Holder:	Nexus Energy Limited
Project Manager:	Upstream Petroleum Pty Ltd
Project Manager's Representative:	Duncan Nuttall (Upstream)
Operator (per NOPSA):	Diamond Offshore General Company (DOGC)
Operator's Representative:	Steve Ramsey (DOGC)
Anticipated Spud Date:	Nov 2005
Rig Name & Type:	*Ocean Patriot* Semi Submersible
Drilling Contractor:	Diamond Offshore
Water Depth at LAT:	**585m**
RT above LAT:	**22m**
Surface Location	
• **Datum, Spheroid, Map Grid and Projection Information::**	GDA94, GRS80, MGA, UTM Zone 55 (Central Meridian 147°E)
• **Latitude:**	Lat: 38° 24' 8.35" South
• **Longitude:**	Long: 148° 39' 15.04" East
• **Easting:**	644 440 mE
• **Northing:**	5 748 250 mN
• **Surface Location Tolerance:**	15m radius circle at surface

APPENDIX 4

CEMENTING FINAL REPORT

Schlumberger

Cementing End Of Well Report

Culverin-1

Rig	:	Ocean Patriot
Well Type	:	Exploration
Customer	:	Nexus
Prepared by	:	Pam Kosarek

e-mail pkosarek@perth.oilfield.slb.com
Tel (61) - 8 – 9420 4639
Fax (61) - 8 – 9322 3110

Date	:	10 March 2006

Contents

Well Summary

Client Representative		
No	**Name**	**Position**
1	W. Westman	Drilling Supervisor
2	B. Webb	Drilling Supervisor
3	R. King	Drilling Supervisor
4	S. Rodda	Drilling Supervisor

Dowell Supervisor		
No	**Name**	**Position**
1	R. Beresford	Field Specialist
2	P. Kosarek	Field Engineer
3	N. Macatangay	Cementing Assistant
4	E. Llagas	Field Specialist

Cement Job Summary

Date	Job Type	Material/Fluid Used			Cement Slurry		Displacement		Spacer		Cement Head	Plugs	
		Material	Con.	Quantity	Density	Volume	Fluid	Volume	Type	Volume		Top	Bottom
17-Dec-05	30" Casing	G Cement D047 S001 Dye	- 0.01 gal/sk 1.0% BWOC -	944 sx 15 gal 887 lb 2kg	15.8 ppg	200 bbl	SW	64 bbl	SW	20 bbl			
21-Dec-05	13.375" Casing	G Cement Dye D047 D075 D047	- - 0.01 gal/sk 0.42 gal/sk 0.01 gal/sk	1900 sx 3kg 10 gal 328 gal 10 gal	12.5 ppg 15.8 ppg	398 bbl 208 bbl	SW Rig	40 bbl 418 bbl	SW	40 bbl	DSE	1	1
9-Jan-06	Plug 1	HTB Cement D047 D110 D145A D193	- 0.01 gal/sk 0.01 gal/sk 0.095 gal/sk 0.75 gal/sk	375 sx 4 gal 4 gal 35 gal 290 gal	15.8 ppg	102 bbl	DW Rig	1.5 bbl 195 bbl	DW	10 bbl			
9-Jan-06	Plug 2	HTB Cement D047 D145A D193	- 0.01 gal/sk 0.095 gal/sk 0.50 gal/sk	236 sx 2 gal 22 gal 134 gal	15.8 ppg	65 bbl	DW Mud	1.5 bbl 149 bbl	DW	10 bbl			
9-Jan-06	Plug 3	HTB Cement D047	- 0.01 gal/sk	256 sx 3 gal	15.8 ppg	71 bbl	DW Mud	1.5 bbl 74 bbl	DW	10 bbl			
10-Jan-06	Plug 4	G Cement D047	- 0.01 gal/sk	238 sx 3 gal	15.8 ppg	50 bbl	DW Mud	1.5 bbl 30 bbl	DW	10 bbl			

Miscellaneous Pumping and Pressure Testing

Job	Job Started Date	Type of Fluid	Pressure Max, Psi	Job Finished Date
BOP Test	22/12/2006	SW	7500	23/12/2006
Leak Off Test	24/12/2006	MUD	1662	24/12/2006

END WELL REPORT
Culverin-1
JOB DESIGN & EXECUTION SUMMARY

36" HOLE / 30" X 20" CASING

1.1 Drilling/Casing:

The 36" hole was drilled to a total depth of 650 m with seawater and Hi-vis sweeps. 30" Casing was run and set at 650 m with a 5" DP inner string.

1.2 Design

A single 15.8 ppg tail slurry was planned to provide strong cement at the 20" shoe:

Tail Slurry
G Cement: 944 sacks
Seawater: 5.313 gal/sk
D047 (antifoam): 0.01 gal/sk
S001 (accelerator): 1.0 % BWOC
Density – 15.8 ppg
Yield – 1.19 cuft/sk
Slurry Volume – 200 bbls
TOC - Seabed
Open Hole Excess – 200%

1.3 Execution

While circulating with seawater after the casing was landed, a Job Hazard Analysis with the Rig Crews and Barge Captain was performed to inform them of their job role and the potential hazards that may occur during execution.

Job Procedure:

1) Pump 5 bbl sea water with dye.
2) Pressure test surface lines to 2000psi.
3) Pump 15 bbl sea water with dye
4) Mix & pump 200 bbl of tail slurry @ 15.8ppg
5) Displace with 64 bbl seawater.
6) Bleed off pressure and check floats.

1.4 Evaluation

Job executed according to procedure.

17 1/2" HOLE / 13 3/8" CASING

2.1 Drilling/Casing:

The 17 1/2" hole was drilled to a total depth of 1525 m with seawater and Hi-vis sweeps. 13 3/8" casing was run and set at 1511 m. A DeepSea EXPRES* cement head was used for top and bottom plug release.

2.2 Design:

Lead Slurry	Tail Slurry
G Cement	G Cement
Sea water: 12.718 gal/sk	Sea water: 5.324 gal/sk
D047 (antifoam): 0.01 gal/sk	D047 (antifoam): 0.01 gal/sk
D075 (extender): 0.42 gal/sk	
Density – 12.5 ppg	Density – 15.8 ppg
Yield – 2.23 cuft/sk	Yield – 1.18 cuft/sk
Slurry Volume – 398 bbl	Slurry Volume – 208 bbl

2.3 Execution:

After the casing was landed and cement line rigged up, a Job Hazard Analysis with the Rig Crews and Barge Captain was performed to inform them of their job role and the potential hazards that may occur during execution.

Job Procedure:

1) Rig up DeepSea Express Surface Dart Launcher and Subsea Tool to landing string
2) Rig up cement lines
3) Conduct Job Hazard Analysis
4) Pump 5 bbl sea water ahead
5) Pressure test lines to 2000 psi
6) Pump 15 bbl sea water ahead
7) Pump 20 bbl sea water with dye
8) Release bottom dart
9) Mix & pump 398 bbl lead slurry @ 12.5 ppg
10) Mix & pump 208 bbl tail slurry @ 15.8 ppg
11) Release top dart
12) Displace with 40 bbl sea water to release top plug
13) Switch to rig pumps for final 418 bbl mud displacement
14) Bump plug and pressure test casing
15) Bleed off pressure and check floats ok.

2.4 Evaluation:

Job executed according to procedure.

12 1/4" HOLE / WELL ABANDONMENT

3.1 Well Abandonment

After completion of the 12 ¼" hole section and formation evaluation, the well was abandoned using cement plugs.

3.2 Design:

Plug 1	Plug 2	Plug 3	Plug 4
HTB Cement	HTB Cement	HTB Cement	G Cement
Drill water: 5.549 gal/sk	Drill water: 5.810 gal/sk	Sea water: 6.629 gal/sk	Sea water: 5.324 gal/sk
D047 (antifoam): 0.01 gal/sk	D047 (antifoam): 0.01 gal/sk	D047 (antifoam): 0.01 gal/sk	D047 (antifoam): 0.01 gal/sk
D145A (dispersant): 0.1 gal/sk	D145A (dispersant): 0.095 gal/sk	--	--
D110 (retrarder): 0.01 gal/sk	--	--	--
D193 (fluid loss): 0.75 gal/sk	D193 (fluid loss): 0.5 gal/sk	--	--
Density – 15.8 ppg	Density – 15.8 ppg	Density – 15.8 ppg	Density – 15.8 ppg
Yield – 1.53 cuft/sk	Yield – 1.53 cuft/sk	Yield – 1.56 cuft/sk	Yield – 1.18 cuft/sk
Slurry Volume – 102 bbl	Slurry Volume – 65 bbl	Slurry Volume – 71 bbl	Slurry Volume – 50 bbl

3.3 Execution:

Before each job a Job Hazard Analysis with the Rig Crews and Barge Captain was performed to inform them of their job role and the potential hazards that may occur during execution.

Job Procedure - Plug 1:

1) Pump 5 bbl drill water
2) Pressure test lines to 1000 psi
3) Pump 5 bbl drill water
4) Mix & Pump 102 bbl slurry @ 15.8 ppg
5) Pump 1.5 bbl drill water
6) Displace with 195 bbl mud

Job Procedure - Plug 2:

1) Pump 5 bbl drill water
2) Pressure test lines to 1000 psi
3) Pump 5 bbl drill water
4) Mix & Pump 65 bbl slurry @ 15.8 ppg
5) Pump 1.5 bbl drill water
6) Displace with 149 bbl mud

Job Procedure - Plug 3:

1) Pump 5 bbl sea water.
2) Pressure test lines to 1000 psi
3) Pump 5 bbl sea water
4) Mix & Pump 71 bbl slurry @ 15.8 ppg
5) Pump 1.5 bbl drill water
6) Displace with 74 bbl mud

Job Procedure - Plug 4:

1) Pump 5 bbl sea water.
2) Pressure test lines to 1000 psi
3) Pump 5 bbl sea water
4) Mix & Pump 50 bbl slurry @ 15.8 ppg
5) Pump 1.5 bbl sea water
6) Displace with 30 bbl mud

3.4 Evaluation

The jobs were performed as per design and procedure.

Schlumberger

Laboratory Cement Test Report- Culverin-1 30” Conductor

						Signatures
Fluid No	**: AUPT 790001**	Client	: Nexus	Location / Rig	: Ocean Patriot	
Date	: Dec-03-2005	Well Name	: Culverin 1	Field	: Portland	Brenton

Job Type	Conductor	Depth	607.0 m	TVD	607.0 m
BHST	8 degC	BHCT	20 degC	BHP	1196 psi
Starting Temp.	27 degC	Time to Temp.	00:16 hr:mn	Heating Rate	0.56 degF/min
Starting Pressure	300 psi	Time to Pressure	00:16 hr:mn	Schedule	9.3-3

Composition

Density	**15.80 lb/gal**	**Yield**	**1.20 ft3/sk**	**Mix Fluid**	**5.313 gal/sk**
Porosity	59.3 %	Solid Fraction	40.7 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
G		94 lb of BLEND	Blend	199.77 lb/ft3	Rig
Sea water	5.303 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
S001	2.000 %BWOC %95-%97		accelerator		Lab

Rheology (Average readings)

(rpm)	(deg)
300	190.0
200	169.0
100	128.0
60	111.0
30	95.0
6	34.0
3	24.0

10 sec Gel	24
10 min Gel	34

Temperature	20 degC

P_V : 108.391 cP
T_Y : 88.69 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	03:00 hr:mn
70 Bc	04:02 hr:mn
100 Bc	04:40 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

1.5 mL/250mL	in 2 hrs
At 27 degC and 0 deg incl.	
Sedimentation	None

Water Analysis

Chloride	Calcium	Magnesium
>3000.00 mg/L	(lb/bbl)	(lb/bbl)

Comments

General Comment : S001 is prehydrated
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report-Culverin-1 1338 Lead Slurry

						Signatures
Fluid No	**: AUPT 792001**	Client	: Nexus	Location / Rig	: Ocean Patriot	
Date	: Nov-06-2005	Well Name	: Culverin 1	Field	: Portland	Brenton

Job Type	cond	Depth	1500.0 m	TVD	1500.0 m
BHST	33 degC	BHCT	24 degC	BHP	2500
Starting Temp.	27 degC	Time to Temp.	(00:20)	Heating Rate	(degF/min)
Starting Pressure	396	Time to Pressure	(00:20)	Schedule	( )

Composition

Density	**12.50 lb/gal**	**Yield**	**2.23 ft3/sk**	**Mix Fluid**	**13.148 gal/sk**
Porosity	78.9 %	Solid Fraction	21.1 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cmt	199.77 lb/ft3	Rig
Sea water	12.718 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
D075	0.420 gal/sk		extender		Lab

Rheology (Average readings)

(rpm)	(deg)
300	30.0
200	24.0
100	21.0
60	18.0
30	16.0
6	12.0
3	10.0

10 sec Gel	9
10 min Gel	15
Temperature	27 degC

Pv : 15.227 cP
Ty : 14.82 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	08:20 hr:mn
70 Bc	11:00 hr:mn
100 Bc	16:40 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

2.5 mL/250mL	in 2 hrs
At 27 degC and 0 deg incl.	
Sedimentation	None

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report-Culverin-1 1338Tail_Without CaCl2

						Signatures
Fluid No	**: AUPT 792003**	Client	: Nexus	Location / Rig	: Ocean Patriot	
Date	: Nov-07-2005	Well Name	: Culverin-1	Field	: Casing	Paul

Job Type	Casing	Depth	1500.0 m	TVD	1500.0 m
BHST	33 degC	BHCT	24 degC	BHP	(2500psi)
Starting Temp.	(23degC)	Time to Temp.	00:20	Heating Rate	(degF/min)
Starting Pressure	(396psi)	Time to Pressure	00:20	Schedule	( )

Composition

Density	**15.80 lb/gal**	**Yield**	**1.18 ft3/sk**	**Mix Fluid**	**5.334 gal/sk**
Porosity	60.2 %	Solid Fraction	39.8 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Absolute Density	Lot Number
G		94 lb of Class G Cmt	Class G Cmt	199.77 lb/ft3	Rig
Sea water	5.324 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	108.0	
200	89.5	
100	79.0	
60	67.0	
30	54.5	
6	24.5	
3	18.5	
10 sec Gel	19	
10 min Gel	25	
Temperature	27 degC	(degC)
	k : 1.42E-1 lbf.s^n/ft2 n : 0.325 T_y : 1.40 lbf/100ft2	k : (lbf.s^n/ft2) n : ( ) T_y : (lbf/100ft2)

Thickening Time

Consistency	Time
40 Bc	03:52 hr:mn
70 Bc	04:19 hr:mn
100 Bc	04:46 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

mL/250mL At (degC) and (deg) incl. Sedimentation	in 2 hrs

Water Analysis

Chloride (lb/bbl)	Calcium (lb/bbl)	Magnesium (lb/bbl)

Fluid Loss

API Fluid Loss mL in	30 min	at (degC)	mL and (psi)

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report-Culverin-1 HTB Plug 1 @ 3750m
(Database Lab Test from Basker-2)

Fluid No	**: AUPT 756001**	Client	: Nexus	Location / Rig	: Ocean Patriot
Date	: Aug-25-2005	Well Name	: Culverin-1	Field	:

Signatures

Brenton

Job Type	Plug	Depth	3750.0 m	TVD	3750.0 m
BHST	99 degC	BHCT	68 degC	BHP	6190 psi
Starting Temp.	27 degC	Time to Temp.	00:49 hr:mn	Heating Rate	0.84 degC/min
Starting Pressure	642 psi	Time to Pressure	00:49 hr:mn	Schedule	9.7-3

Composition

Density	**15.80 lb/gal**	**Yield**	**1.53 ft3/sk**	**Mix Fluid**	**6.419 gal/sk**
Porosity	56.2 %	Solid Fraction	43.8 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
G		94 lb of BLEND	Blend	199.77 lb/ft3	
Fresh water	5.549 gal/sk		Base Fluid		
D066	35.000 %BWOC		silica		Rig
D193	0.750 gal/sk		fluid loss		Lab
D145A	0.100 gal/sk		dispersant		Lab
D110	0.010 gal/sk		retarder		Lab
D047	0.010 gal/sk		antifoam		Lab

Rheology (Average readings)

(rpm)	(deg)
300	63.0
200	43.5
100	27.5
60	22.5
30	17.0
6	10.5
3	9.5

10 sec Gel	9
10 min Gel	15
Temperature	68 degC

P_v : 50.460 cP
T_y : 11.43 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	04:06 hr:mn
70 Bc	04:30 hr:mn
100 Bc	04:45 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

1.0 mL/250mL	in 2 hrs
At 27 degC and 0 deg incl.	
Sedimentation	None

Water Analysis

Chloride	Calcium	Magnesium
0.11 lb/bbl	(lb/bbl)	(lb/bbl)

Fluid Loss

API Fluid Loss			56	mL
28 mL in	30 min	at 68 degC		and 1000 psi

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report-Culverin-1 HTB Plug 2

Fluid No	**: AUPT 803003**	Client	: Nexus	Location / Rig	: Ocean Patriot
Date	: Jan-04-2006	Well Name	: Culverin-1	Field	: Portland

Signatures

Paul

Job Type	Plug	Depth	2900.0 m	TVD	2900.0 m
BHST	75 degC	BHCT	53 degC	BHP	5715 psi
Starting Temp.	27 degC	Time to Temp.	00:22 hr:mn	Heating Rate	2.77 degF/min
Starting Pressure	1227 psi	Time to Pressure	00:22 hr:mn	Schedule	( )

Composition

Density	**15.80 lb/gal**	**Yield**	**1.53 ft3/sk**	**Mix Fluid**	**6.415 gal/sk**
Porosity	56.2 %	Solid Fraction	43.8 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
G		94 lb of BLEND	Blend	199.77 lb/ft3	Rig
Fresh water	5.810 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
D066	35.000 %BWOC		silica		Lab
D193	0.500 gal/sk		fluid loss		Lab
D145A	0.095 gal/sk		dispersant		Lab

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	68.0	60.0
200	46.5	44.0
100	26.0	27.0
60	16.0	20.0
30	9.5	15.0
6	4.0	4.5
3	2.0	2.0
10 sec Gel	3	2
10 min Gel	20	9
Temperature	27 degC	53 degC
	P_v : 65.250 cP T_y : 3.10 lbf/100ft2	P_v : 50.148 cP T_y : 10.14 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	02:42 hr:mn
70 Bc	02:56 hr:mn
100 Bc	03:11 hr:mn
Remark : Thickening time do not include batch time	

Fluid Loss

API Fluid Loss		56	mL
28 mL in	30 min	at 53 degC	and 1000 psi

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report-Culverin-1 HTB Plug 3

						Signatures
Fluid No	**: AUPT 798001**	Client	: Nexus	Location / Rig	: Ocean Patriot	
Date	: Jan-04-2006	Well Name	: Culverin-1	Field	: Portland	Brenton

Job Type	Plug	Depth	1585.0 m	TVD	1585.0 m
BHST	35 degC	BHCT	24 degC	BHP	1100 psi
Starting Temp.	(degC)	Time to Temp.	00:18	Heating Rate	(degF/min)
Starting Pressure	(psi)	Time to Pressure	00:18	Schedule	( )

Composition

Density	**15.80 lb/gal**	**Yield**	**1.56 ft3/sk**	**Mix Fluid**	**6.639 gal/sk**
Porosity	57.0 %	Solid Fraction	43.0 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
G		94 lb of BLEND	Blend	199.77 lb/ft3	Rig
Sea water	6.629 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
D066	35.000 %BWOC		silica		Rig

Rheology (Average readings)

(rpm)	(deg)	(deg)
300	159.0	
200	148.0	
100	123.5	
60	100.5	
30	83.5	
6	24.5	
3	19.0	
10 sec Gel	21	
10 min Gel	24	
Temperature	27 degC	(degC)

P_V : 74.790 cP T_Y : 91.41 lbf/100ft2	k : (lbf.s^n/ft2) n : ( ) T_Y : (lbf/100ft2)

Thickening Time

Consistency	Time
40 Bc	03:30 hr:mn
70 Bc	04:45 hr:mn
100 Bc	06:40 hr:mn
Remark : Thickening time do not include batch time	

Free Fluid

1.2 mL/250mL	in 2 hrs
At 27 degC and 0 deg incl.	
Sedimentation	None

Water Analysis

Chloride	Calcium	Magnesium
>3000.00 mg/L	(lb/bbl)	(lb/bbl)

Comments

General Comment :
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

Schlumberger

Laboratory Cement Test Report- Culverin-1 Plug 4

Fluid No	**: AUPT 790001**	Client	: Nexus	Location / Rig	: Ocean Patriot
Date	: Dec-03-2005	Well Name	: Culverin 1	Field	: Portland

Signatures

Brenton

Job Type	Plug	Depth	750.0 m	TVD	750.0 m
BHST	10 degC	BHCT	20 degC	BHP	1196 psi
Starting Temp.	27 degC	Time to Temp.	00:16 hr:mn	Heating Rate	0.56 degF/min
Starting Pressure	300 psi	Time to Pressure	00:16 hr:mn	Schedule	9.3-3

Composition

Density	**15.80 lb/gal**	**Yield**	**1.20 ft3/sk**	**Mix Fluid**	**5.313 gal/sk**
Porosity	59.3 %	Solid Fraction	40.7 %	Slurry type	**Conventional**

Code	Concentration	Sack Reference	Component	Blend Density	Lot Number
G		94 lb of BLEND	Blend	199.77 lb/ft3	Rig
Sea water	5.303 gal/sk		Base Fluid		Rig
D047	0.010 gal/sk		antifoam		Lab
S001	2.000 %BWOC %95-%97		accelerator		Lab

Rheology (Average readings)

(rpm)	(deg)
300	190.0
200	169.0
100	128.0
60	111.0
30	95.0
6	34.0
3	24.0

10 sec Gel	24
10 min Gel	34
Temperature	20 degC

P_V : 108.391 cP
T_Y : 88.69 lbf/100ft2

Thickening Time

Consistency	Time
40 Bc	03:00 hr:mn
70 Bc	04:02 hr:mn
100 Bc	04:40 hr:mn

Remark : Thickening time do not include batch time

Free Fluid

1.5 mL/250mL	in 2 hrs
At 27 degC and 0 deg incl.	
Sedimentation	None

Water Analysis

Chloride	Calcium	Magnesium
>3000.00 mg/L	(lb/bbl)	(lb/bbl)

Comments

General Comment : S001 is prehydrated
Fann Reading Comment :
Thickening Time Comment :
Other test Comment : ; ; ; ;

DISTRICT	STATION	TYPE SERVICE	COMPANY	Schlumberger
APG		30" Casing Job	Nexus Energy	

RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
Ocean Patriot	Exploration	Gippsland Basin	Culverin #1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
04:00am 17/12/05	650m	36"				

TIME & DATE JOB COMPLETED	DRILL FLUID Type	DRILL FLUID Wt.	DRILL FLUID Vis	FORMATION	SIR NUMBER
05:35am 17/12/05	SW + HI.VIS Pill	8.6			

Casing Size	Casing Depth	Casing Type	Casing Wt.	Volume	Allowable Press.	Collar at	Previous Casing TOP	Previous Casing Bottom	Previous Casing Size
30" x 20"	650m	X-52 x X-56	310 x 202						

Completion Size	Completion Depth	Completion Type	Completion Wt.	Packer @	top	Shoe Depth	BRIDGE PLUG Type	BRIDGE PLUG Depth	TAIL PIPE Type	TAIL PIPE Depth

CASING EQUIPMENT USED SHOE (Float Stab)	COLLAR (Float Stab)	PLUGS Top	PLUGS Bottom	CENT. Qty.	CENT. Type	CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB Time - Min.	Vol. BBLS	Press - PSI

WASH Wt.	WASH Vol. BBLS	WASH Fill	SPACER Wt.	SPACER Vol. BBLS	SPACER Fill					15.8ppg Wt.	200 Vol.	120bbls Mix Water	Fill
8.5ppg	20bbls					Wt.	Vol.	Mix Water	Fill				

EQUIPMENT							DURING JOB WAS PIPE	PARAMETERS RECORDED: ON:					MUD RETURNS
	LAS	X	Pump		Batch	Compressor	Rotated	X Press	X Rate	X Vol	X Dty	Prism	LOST DURING JOB
X	LPJ		Unit		Mixer	RCM	Reciprocated					Recorder	BBLS

Pump Unit S/No.

LEAD SLURRY	TAIL SLURRY	MATERIALS USED
	Class"G"neat + 0.01gps D47 + 1% BWOC CaCl2 + Sea Water @ 15.8ppg w/ 1.19cf/sk yield	400MT Cement 15gal D47 Flourescene dye

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT MIN	RECORD OF SERVICE
04:00						Hold Safety meeting
04:10			5	3		Pump 5bbls of Seawater with Flourescene dye as spacer
04:15		2,000				Pressure Test lines to 2000psi
04:28			15	5		Pump 15bbls of Seawater with Flourescene dye as spacer
04:32			200	5		Mix and Pump 200 bbls of Slurry @ 15.8ppg (120 bbls mix water)
05:15			64	7		Displace with 64bbls of sea water
05:30						Bleed off and check returns: ok
05:35						End of Job

No. OF DS PERSONNEL ON JOB						STEM1 DONE?	TOTAL LOST TIME	TOTAL OPERATING TIME
SUP		S.S	1			YES X NO	H	1.5 H
MECH		F.E.	1	HEL	1			

CUSTOMER COMMENTS

DS REPRESENTATIVE

Reece Beresford/ Pam Kosarek

QUALITY OF SERVICE GOOD ✓ SATISFACTORY ☐ POOR ☐

CUSTOMER REPRESENTATIVE

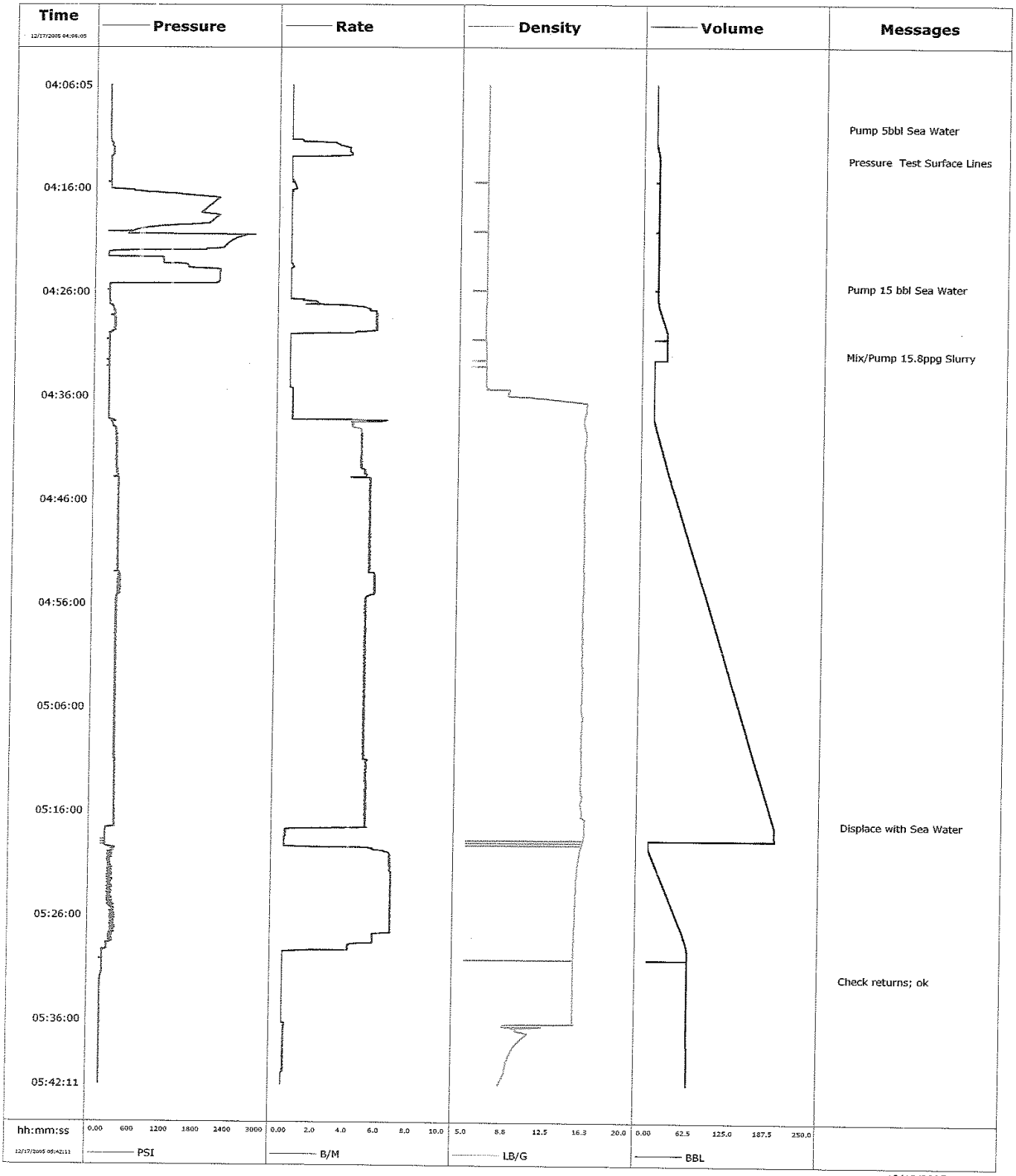
Wally Westman

Schlumberger

Cementing Job Report

CemCAT v1.0

Well	Culverin 1	**Client**	Nexus
Field	Gippsland Basin	**SIR No.**	
Engineer	Reece Beresford	**Job Type**	30" Conductor
Country	Australia	**Job Date**	12-18-2005



12/18/2005 08:09:25

DISTRICT	STATION	TYPE SERVICE	COMPANY	Schlumberger
APG		13 3/8" Casing Job	Nexus Energy	

RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
Ocean Patriot	Exploration	Gippsland Basin	Culverin #1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
00:15PM 21/12/05	1525m	17.5"		33 deg	25 deg	

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
	SW + Hi-Vis	8.6ppg			
7:35AM 21/12/2005	Type	Wt.	Vis	Gippsland Limestone	

Casing							Previous Casing		
13 3/8"	1511m	X52	72#			1486m	Sea Bed	650m	30x20"
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar at	TOP	Bottom	Size

Completion							BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Packer @	top	Shoe Depth	Type	Depth	Type	Depth

CASING EQUIPMENT USED					CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE	COLLAR	PLUGS 1	1	CENT.				
Float Stab	Float Stab	Top	Bottom	Qty. Type	Deep Sea Express*	Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER											
			8.5ppg	40bbls		12.5ppg	398bbl	303bbl		15.8ppg	208bbl	126bbl		
Wt.	Vol. BBLS	Fill	Wt.	Vol. BBLS	Fill	Wt.	Vol.	Mix Water	Fill	Wt.	Vol.	Mix Water	Fill	

EQUIPMENT							DURING JOB WAS PIPE	PARAMETERS RECORDED: ON:					MUD RETURNS
X	LAS	X	Pump		Batch		Compressor	Rotated	X	X	X	X		LOST DURING JOB
	LPJ		Unit		Mixer	X	RCM	Reciprocated	Press	Rate	Vol	Dty	Recorder	BBLS

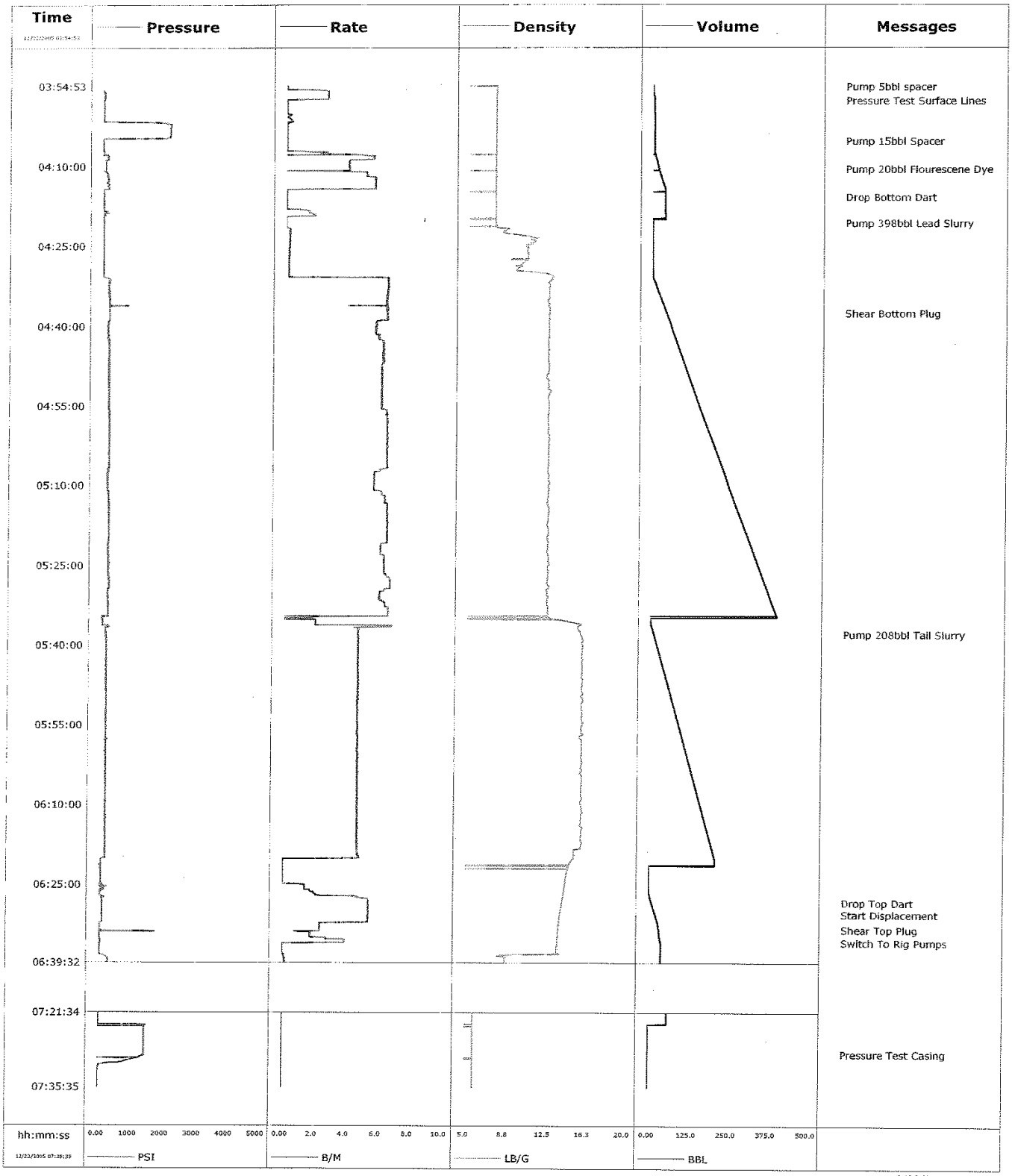
LEAD SLURRY	TAIL SLURRY	MATERIALS USED	
Class"G" neat + 0.42gps D75 + 0.01gps D47 + Sea water @ 12.5ppg w/ 2.23cf/sk yield	Class"G"neat + 0.01gps D47 + Sea water @ 15.8ppg w/ 1.18cf/sk yield	81MT Cement 328 gal D75 20 gal D47 Flourescene Dye	1 - 13 3/8" DSE Top Plug 1 - 13 3/8" DSE Bottom Plug

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT MIN	RECORD OF SERVICE
00:15						Rig up Sub Sea Tool to running tool
02:40						Hold Safety meeting
02:45						Rig up hydraulic lines and Cement hose to SDL
03:53			5	3		Pump 5 bbl spacer
03:55		2,000				Pessure test lines to 2000 psi
04:05			15	6		pump 15bbl spacer
04:10			20	6		Pump 20bbl spacer with flourescene dye.
04:15		1,700				Release bottom dart. Shear bottom plug at 37bbl
04:20			395	6		Mix and pump 398bbl of Lead Slurry @ 12.5ppg
05:30						Mix and pump 208bbl of Tail Slurry @ 15.8ppg
06:20		1,800				Release Top Dart. Shear top plug at 35bbl
06:25						Displace Slurry with 40bbl of seawater
06:35						Switch to Rig Pumps and displace 418bbl
07:25		1,474				Bump Plug. Pressure test Casing to 1474psi
07:30						Bleed Off Check returns; ok

No. OF DS PERSONNEL ON JOB					STEM1 DONE? YES X NO	TOTAL LOST TIME H	TOTAL OPERATING TIME 7 1/4 H
SUP		S.S	1		CUSTOMER COMMENTS		DS REPRESENTATIVE
MECH		F.E.	1	HEL 1			R. Beresford/ P. Kosarek
QUALITY OF SERVICE	GOOD ✓	SATISFACTORY	POOR				CUSTOMER REPRESENTATIVE
							B. Webb/ W. Westman

Schlumberger Cementing Job Report

Well	Culverin 1	**Client**	Nexus
Field	Gippsland Basin	**SIR No.**	
Engineer	Reece Beresford	**Job Type**	13 3/8" Casing
Country	Australia	**Job Date**	12-22-2005



12/22/2005 20:05:00

DISTRICT	STATION	TYPE SERVICE	COMPANY	Schlumberger
APG		Leak Off Test (LOT)	Nexus Energy	
RIG		TYPE OF WELL	FIELD	WELL No.
Ocean Patriot		Exploration	Gippsland Basin	Culverin-1

SERVICE REPORT

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
24/12/2005 19:45 hrs	1528m	12 1/4				

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
	WBM Type	10.0 ppg Wt.	Vis	Gippsland Limestone	
24/12/2005 20:45 hrs					

Casing							Previous Casing		
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar at	Seabed TOP	1525m Bottom	13 3/8" Size

Completion							BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Packer @	top	Shoe Depth	Type	Depth	Type	Depth

CASING EQUIPMENT USED					CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE Float Stab	COLLAR Float Stab	PLUGS Top	Bottom	CENT. Qty	Type		Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER												
Wt.	Vol. BBLS	Fill	Wt.	Vol. BBLS	Fill	Wt.	Vol.	Mix Water	Fill	Wt.	Vol.	Mix Water	Fill

EQUIPMENT							DURING JOB WAS PIPE	PARAMETERS RECORDED: ON:					MUD RETURNS	
	LAS / LPJ	X	Pump Unit		Batch Mixer	Compressor RCM	Pump Unit S/No.	Rotated / Reciprocated	Press	Rate	Vol	Dty	Prism Recorder	LOST DURING JOB BBLS	No
								Reciprocated	X	X	X	X			

MATERIALS USED
WBM

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT MIN	RECORD OF SERVICE
19:45			3.3	1.5		Pump 10.0 ppg WBM mud ahead to break circulation
19:54		1662	3.6	6.22		Start LeakOff Test (LOT)
20:35						Bleed off. Check returns - full returns
20:45						End of LOT

No. OF DS PERSONNEL ON JOB					STEM1 DONE?	TOTAL LOST TIME	TOTAL OPERATING TIME
SUP		S.S	1		YES X NO	H	1 H
MECH		F.E	1	HEL			

CUSTOMER COMMENTS

EXCELLENT JOB CONDUCTED IN A SAFE MANNER

DS REPRESENTATIVE

R. Betesford / P. Kosarek

CUSTOMER REPRESENTATIVE

R. King / B. Webb

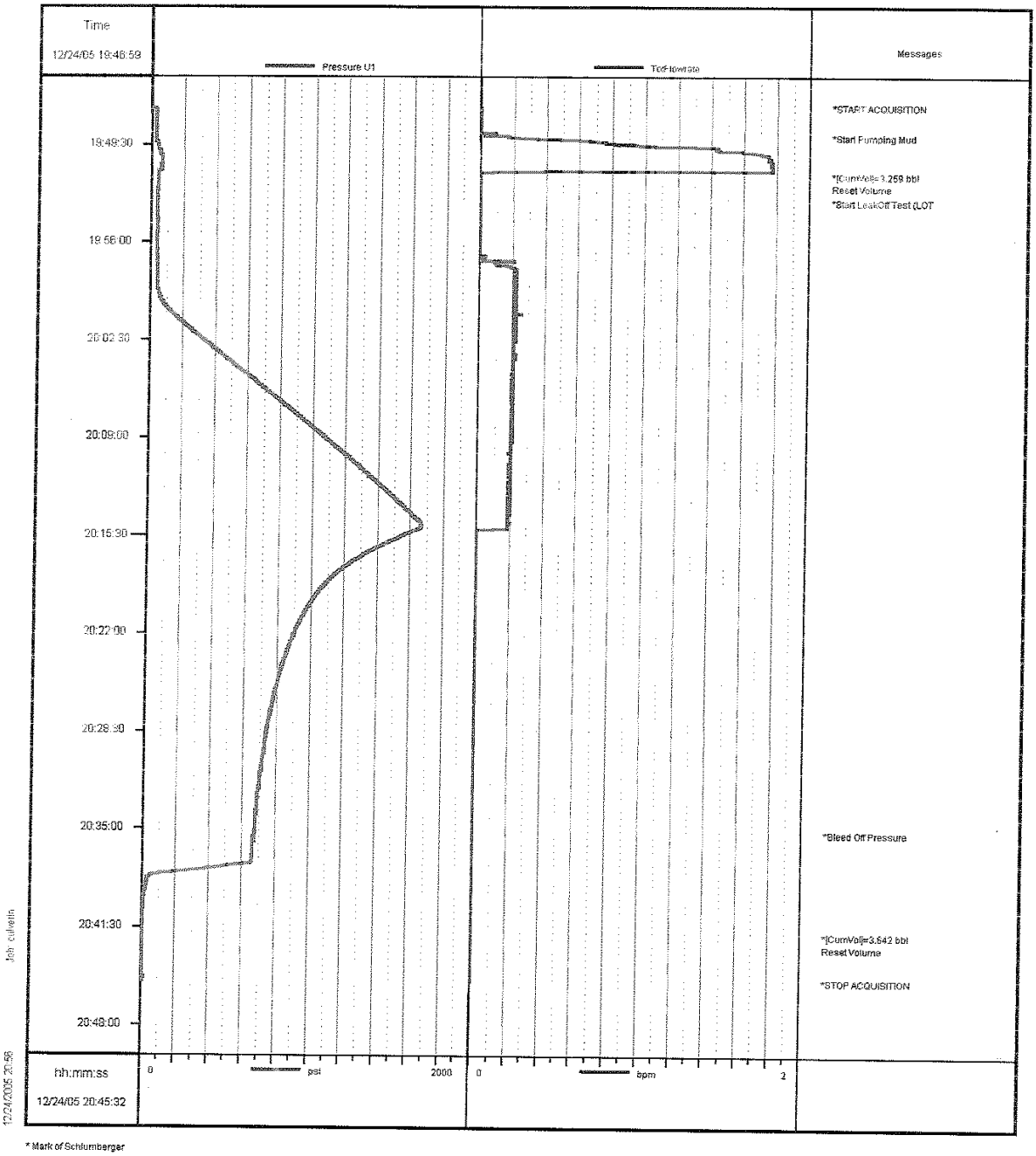
QUALITY OF SERVICE GOOD [✓] SATISFACTORY [ ] POOR [ ]

Schlumberger
Dowell

Cementing Job Report

PRISM* V2.22

Well Culverin1	**Client** Nexus Exploration
Field	**SIR No.**
Country Australia	**Job Date** 24/12/2005 19:46:59



* Mark of Schlumberger

DISTRICT	STATION	TYPE SERVICE	COMPANY	Schlumberger
APG		Plug and Abandon 1,2	Nexus Energy	
RIG	TYPE OF WELL	FIELD	WELL No.	SERVICE REPORT
Ocean Patriot	Exploration	Gippsland Basin	Culverin-1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
09/01/2006 05:16 hrs		12 1/4				

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
09/01/2006 11:41 hrs	WBM Type	10.0 ppg Wt.	Vis	Gippsland Limestone	

Casing							
Size	Depth	Type	Wt	Volume	Allowable Press	Collar at	Previous Casing

Previous Casing		
Seabed TOP	1525m Bottom	13 3/8" Size

Completion						
Size	Depth	Type	Wt	Packer @	top	Shoe Depth

BRIDGE PLUG		TAIL PIPE	
Type	Depth	Type	Depth

CASING EQUIPMENT USED					CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE Float Shoe	COLLAR Float Collar	PLUGS Top	Bottom	CENT. Qty.	Type	Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER											
Wt	Vol BBLS	Fld	Wt.	Vol. BBLS	Fld	Wt.	Vol.	Mix Water	Fld	Wt.	Vol.	Mix Water	Fld

EQUIPMENT						DURING JOB WAS PIPE	PARAMETERS RECORDED ON:					MUD RETURNS
LAS / LPJ	3 Pump Unit	Batch Mixer	Compressor RCM	Pump Unit S/No		Rotated Reciprocated	Press	Rate	Vol	Qty	Print Recorder	LOST DURING JOB NO BBLS

Plug # 1

HTB + 0.01gps D047 + 0.095gps D145A + 0.50gps D193 + 0.01 gps D110 + 5.81gps Drill water @ 15.8ppg w/ 1.53cf/sk yield

Plug # 2

HTB + 0.01gps D047 + 0.095gps D145A + 0.50gps D193 + 5.81gps Drill water @ 15.8ppg w/ 1.53 cf/sk yield

MATERIALS USED

D047 Antifoam = 6 gals
D145A Dispersant = 57 gls
D193 Fluid Loss = 424 gals
D110 Retarder = 4 gals

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT MIN	RECORD OF SERVICE
05:16			5	3		Plug # 1 @ 3750m - 3560m
05:20		1,000				Pump 5bbls of water ahead
05:26			5	3		Pressure test line to 1000psi
05:30			102	4.7		Pump 5bbls of water ahead
05:56			1.5	3		Mix and pump 102bbls of cement slurry @ 15.8ppg (57bbls of mix fluid)
05:57			195	7		Pump 1.5bbls of water behind
06:28						Displace with 195bbls of mud
06:28						Bleed off and check return
						CIP. End of job
						Plug # 2 @ 2865m - 2745m
10:49			5			Pump 5bbls of water
10:53		1000				Pressure test line to 1000psi
10:56			5			Pump 5bbls of water
10:59			64.3			Mix and pump 64.3bbls of cement slurry @ 15.8ppg (36bbls of mix fluid)
11:17			1.5			Pump 1.5bbls of water behind
11:18			75			Displace with 75bbls of mud
11:39						Bleed off and check return
11:41						CIP. End of job

No. OF DS PERSONNEL ON JOB

SUP [ ] S.S [ ]
MECH [ ] F.E [ ] HEL [1]

STEM1 DONE? YES X NO | TOTAL LOST TIME H | TOTAL OPERATING TIME 2 H

CUSTOMER COMMENTS

DS REPRESENTATIVE

Edgar Llagas / Nory Macatangay

QUALITY OF SERVICE GOOD [ ] SATISFACTORY [ ] POOR [ ]

CUSTOMER REPRESENTATIVE

Ron King

Simon Hodda

DISTRICT	STATION	TYPE SERVICE	COMPANY	Schlumberger
APG		Plug and Abandon # 3,4	Nexus Energy	
RIG		TYPE OF WELL	FIELD	WELL No	SERVICE REPORT
Ocean Patriot		Exploration	Gippsland Basin	Culverin-1	

TIME AND DATE JOB STARTED	TOTAL DEPTH	SIZE HOLE	DEVIATION	BHST	BHCT	INVOICE NUMBER
09/01/2006 21:27 hrs		12 1/4				

TIME & DATE JOB COMPLETED	DRILL FLUID			FORMATION	SIR NUMBER
	WBM Type	10.0 ppg Wt.	Vis	Gippsland Limestone	

Casing							Previous Casing		
Size	Depth	Type	Wt.	Volume	Allowable Press.	Collar @	Seabed TOP	1525m Bottom	13 3/8 Size

Completion							BRIDGE PLUG		TAIL PIPE	
Size	Depth	Type	Wt.	Packer @	Top	Shoe Depth	Type	Depth	Type	Depth

CASING EQUIPMENT USED					CEMENT HEAD	MUD CIRCULATION PRIOR TO JOB		
SHOE Float Stab	COLLAR Float Stab	PLUGS Top	Bottom	CENT Qty.	Type		Time - Min.	Vol. BBLS	Press - PSI

WASH			SPACER										
Wt.	Vol. BBLS	Fill	Wt.	Vol. BBLS	Fill	Wt.	Vol.	Mix Water	Fill	Wt.	Vol.	Mix Water	Fill

EQUIPMENT							DURING JOB WAS PIPE	PARAMETERS RECORDED:	ON:		MUD RETURNS	
LAS	X	Pump	Batch	Compressor			Rotated				LOST DURING JOB	NO
LPU	Unit	Mixer	RCM		Pump Unit S/No.		Reciprocated	Press	Rate Vol	Qty	Recorder	BBLS

Plug # 3

HTB + 0.01gps D047 + 6.62gps Seawater @ 15.8ppg w/ 1.56cf/sk yield

Plug # 2

Class"G"+ 0.01gps D047 + 5.32gps Seawater @ 15.8ppg w/ 1.18cf/sk yield

MATERIALS USED

D047 Antifoam = 5 gals

TIME	PRESSURE Low	PRESSURE High	VOLUME BBL	VOLUME BPM	LT MIN	RECORD OF SERVICE
						Plug # 3 1550m - 1430m
21:27			5			Pump 5bbls of water
21:31		1000				Pressure test line to 1000psi
21:38			5			Pump 5bbls of water
21:40			70.4			Mix and pump 70.4 bbls of cement slurry @ 15.8ppg (30bbls of mix fluid)
22:00			1.5			Pump 1.5 bbls of water behind
22:01			74			Displace with 74 bbls of mud
22:13						Bleed off and check return
22:14						CIP. End of job
						Plug # 4 @ 725m - 625m
09:44			5			Pump 5bbls of water
09:45		100				Pressure test line to 1000psi
09:53			5			Pump 5bbls of water
09:55			49.7			Mix and pump 49.7 bbls of cement slurry @ 15.8ppg (30bbls of mix fluid)
10:11			1.5			Pump 1.5 bbls of water behind
10:13			30			Displace with 30 bbls of mud
10:19						Bleed off and check return
10:20						CIP. End of job

No. OF DS PERSONNEL ON JOB	STEM1 DONE? YES X NO	TOTAL LOST TIME H	TOTAL OPERATING TIME 2 H
SUP 1 SS 1	CUSTOMER COMMENTS		
TECH 1 FE. HEL 1			

DS REPRESENTATIVE

Edgar Llagas / Noel Macalunggay

CUSTOMER REPRESENTATIVE

Ron King

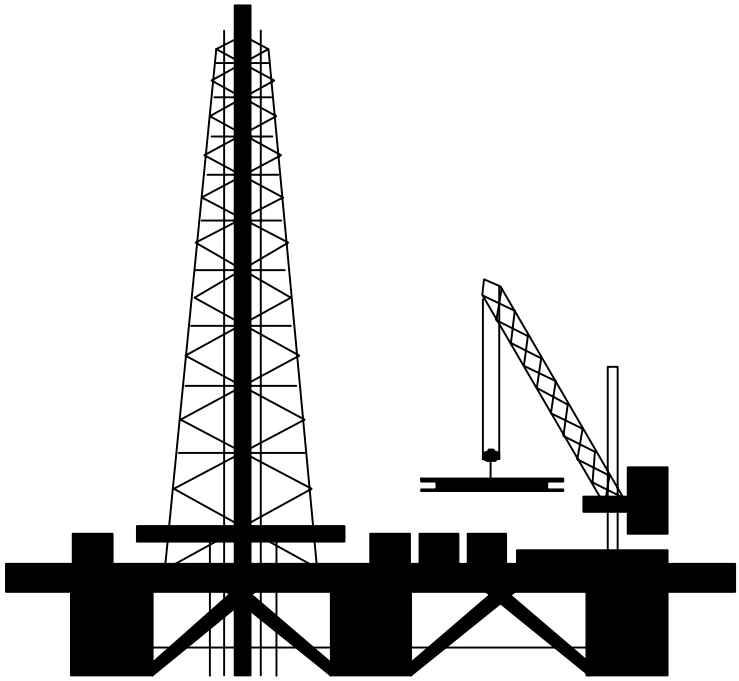
QUALITY OF SERVICE GOOD ☐ SATISFACTORY ☐ POOR ☐

TOTAL P.02

APPENDIX 5

DIRECTIONAL DRILLING END OF WELL REPORT

Nexus Energy Ltd.



Directional Drilling End of Well Report

Well : Culverin #1

Date: December 2005 – January 2006

HALLIBURTON

Table of Contents

Customer : Nexus Energy Limited

Well : Culverin #1

Job Objectives:

The objective is to drill a 12.25" hole vertically to FTD at 3612 mMDRT, intersecting three targets:
Target #1 (Primary) top 67.5 Ma Sand (Culverin reservoir) at 2947mMDRT
Target #2, which was 68.5 Ma sand (Scimitar medium reservoir), at 3257 mMDRT
Target #3, the 70.3Ma sand (Scimitar deep reservoir) at 3542 mMDRT.

The 12.25" hole will drill the Gippsland Limestone, Lakes Entrance and Latrobe sections. The Gippsland is a soft sticky dispersive marl interspersed with calcarenite. The Lakes Entrance (top @ 2582m) is calcilutite/calcisiltite with minor calcarenite. The Latrobe (top @2970m) is interbedded sandstone, siltstone and claystone with minor coal. High ROP's are expected in the Gippsland and Lakes Entrance but these will decline in the Latrobe section. Hard stringers are expected. The hole will be drilled with a straight 9 5/8" 6:7 lobe 5.0 stage motor with a Hycalog PDC RSX616M bit. MWD includes a DM, HCIM-EWR-DGR, CTN-ACAL-SLD and HOC.

Summary of Results:

BHA 1 commencend drilling on the 24th Dec 2005 at 1525mMDRT in the Gippsland Formation. Initially the Gippsland Formation was drilled with 110 rpm 850gpm and a WOB of 15-20klbs. The SPP was 2400psi and the differential pressure was 200psi. These parameters yielded build rates of 0.25 - 0.42°deg/30m. The drilling parameters were modified in an attempt to reduce the build rate. The surface rpm were increased gradually to 140rpm and the WOB reduced to 10 - 15klbs at a flow rate of 900gpm. This reduced the build rate to generally less than 0.1°/30m. This building tendancy was also noted on offset wells. The BHA performed well through the rest of the Gippsland Formation with the ROP averaging 50 m/hr.

The Lakes Entrance Formation came in at 2824 mMDRT. A hard bed was encountered between 2685 - 2760m which reduced ROP to 5-15 mph. The primary target (Culverin reservoir) was encountered at a depth of 2837 mMDRT. The motor torqued up slightly in this section and stalled out several times. The SPP was 3700 - 3800psi with a 200 - 300psi differential pressure. The weight was limited to 12 klbs. The ROP was averaged 25m/h, but increased to 90m/h in places. The second geological target, the near 68.5Ma, sand came in 156m high at 3103 mMDRT. The inclination held steady through this section. There was a tendancy to walk to the right.

Drilling slowed down due to hard formation beginning at 3147 mMDRT, with ROP's of 10 m/hr. The inclination remained steady, and the bit was still walking slightly to the right. The bit torqued up through this section and the motor stalled at times. At 3402 mMDRT the rate of penetration dropped to virtually nothing at the bit was pulled. The same assembly was run for the next run.

BHA 2 began drilling at 4202 mMDRT. It was tested on the way in the hole and recorded 750 psi at 720gpm. The initial ROP was 5 - 20 m/hr with 15 - 20klbs on the bit. The pump rate was 4200 psi at 890gpm, with 200psi differential. Hard stringers were encountered interbedded within softer formations. Coal interbeds were also present. The ROP in the hard stringers dropped as low as 1m/hr and increased to 20 - 30 m/hr in the softer beds. The assembly dropped from 3.54 degrees to 3.32 degrees. The final target (70.3Ma - Scimitar deep reservoir) was drilled at 3520.5 mMDRT.

The SPP dropped by 500psi, steadily over several hours and after checking surface equipment it was decided to POOH at 3571 mMDRT. A washout was suspected, however after reaching surface no washout was found. The motor was not tested on the trip out, as there was concern it could cause a potential washout in a connection to let go. The fluid in the motor drained ok. It was decided to run back in with a rotary assembly.

Discussion:

BHA #	Bit #	Motor Run #	Hole Size (in)	MD In (m)	MD Out (m)	TVD In (m)	TVD Out (m)	Inc In (deg)	Inc Out (deg)	Azi In (deg)	Azi Out (deg)	Drlg hrs	Circ hrs
1	1	1	12.350	1511	3402	1511	3398	0.1	3.6	360	55	126	1
2	2	2	12.250	3402	3571	3398	3567	3.6	3.2	55	52	30	4

Table 1 - BHA Summary

Motor Run Summary:

The motor for BHA 1 was a 9 5/8" 6/7 Lobe, 5.0 stage SperryDrill (S/N: 963006) with a 12 1/8" (S/N: CP490670) stabiliser sleeve and a bottleneck crossover (S/N: A639) bored for a float. This motor performed well, drilling 1877m (from 1525 - 3402 mMDRT) in 94.92 hrs (on bottom time), there were 127.83 circulating hrs during the first run and the motor was below the rotary table for 162.5 hrs. The

differential for this motor was 100 - 400 psi throughout the run. The motor stalled out at times when the bit torqued up at 2845 mMDRT and between 3128 - 3288 mMDRT due to formation. The flow rate was 850 - 900gpm for most of the run.

The motor for BHA 2 was also a 9 5/8" 6/7 Lobe, 5.0 stage SperryDrill (S/N: 963271) with at 12 1/8" (S/N: CP075589) stabiliser sleeve and a bottleneck crossover (S/N: S18819-11) bored for a float. The motor drilled 169m (3402 - 3571 mMDRT). There were 32.66 circulating hours and 25.00 on bottom hours on this motor. The motor was below the rotary table for 56.0 hrs. A loss of pump pressure was the reason for POOH. A piece of rubber came over the shakers at that time, however it appeared to be a piece of the casing shoe. This motor experienced no stalling. The differential pressure was 100 - 200psi. This reduced to less than 50 psi at times in hard formations. The differential was also low when the pump pressure declined.

Motor Run #	Manufacturer	Type	Lobe	OD (in)	Gauge (in)	Bend (deg)	Adj	DLS (Ori) (°/100')	ROP (Ori) (m/hr)	ROP (Rot) (m/hr)
1	SSDS	SperryDrill	6/7	9.625	12.125	0.00	Y		0	15
2	SSDS	SperryDrill	6/7	9.625	12.125	0.00	N		0	6

Table 2 - Motor Run Summary

Bit Run Summary:

The first two bit runs (rig bit run 3 and 4) were both drilled with a new Reed Hycalog PDC RSX616M bit, with an IADC code of 422M. The bits were both dressed with 4 x 18's and 2 x 28's (giving a TFA of 2.197sqin).

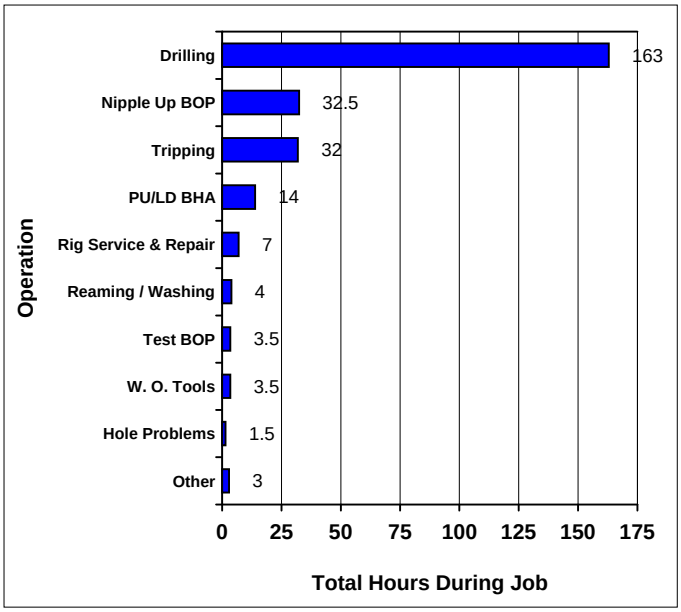
The first bit drilled 1877m (from 1525 - 3402 mMDRT) in 94.92 hrs (on bottom time). The average surface rotation was 150 rpm, with an additional 110 - 120 rpm from the motor. Harder interbeds were drilled with 70 - 90 rpm. The WOB for this bit ranged from 10 to 25 klbs. This bit performed well until it was pulled due to slow ROP's. The grading for the bit was 4-6-WT-S-X-1/8-RO-ROP.

The second bit drilled 169m (from 3402 - 3571mMDRT) in 25.0 hrs (on bottom time). The average surface rotation was 100 rpm, with an additional 110 - 120 rpm from the motor. Harder interbeds were drilled with 65 - 70 rpm. The WOB for this bit was 20 - 25 klbs. This run encountered very slow drilling. The bit grade when pulled was 3-5-WT-S-X-IN-DL-PP.

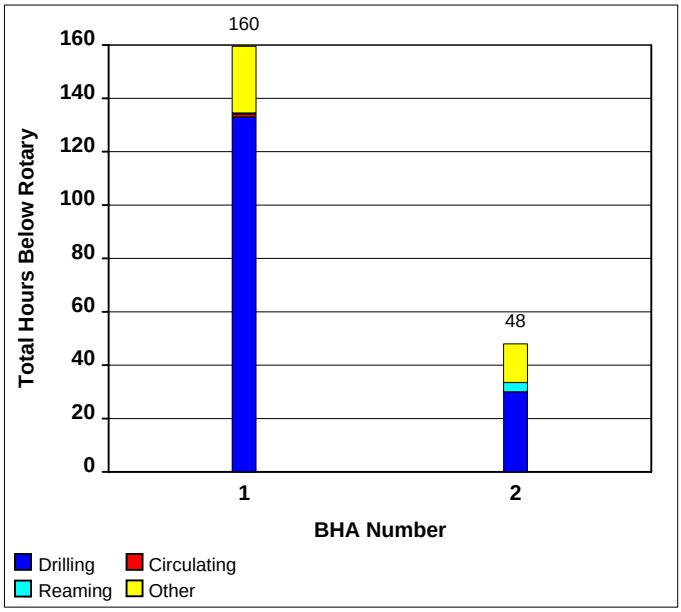
Bit #	Manufacturer	Style	OD (in)	Gge Len (in)	Nozzles (/32's)	TFA (in²)	Dull Grades I O D L B G O R	Ftge (m)	Drlg hrs	ROP (m/hr)
1	Hycalog	RSX-616M	12.250	0.240	4x18, 2x28	2.197	4-6-WT-S -X-8-RO-ROP	1891	126.35	15
2	Hycalog	RSX-616M	12.250	0.240	4x18, 2x28	2.197	3-5-WT-SX-I-N-DL-PP	169	30.00	6

Table 3 - Bit Run Summary

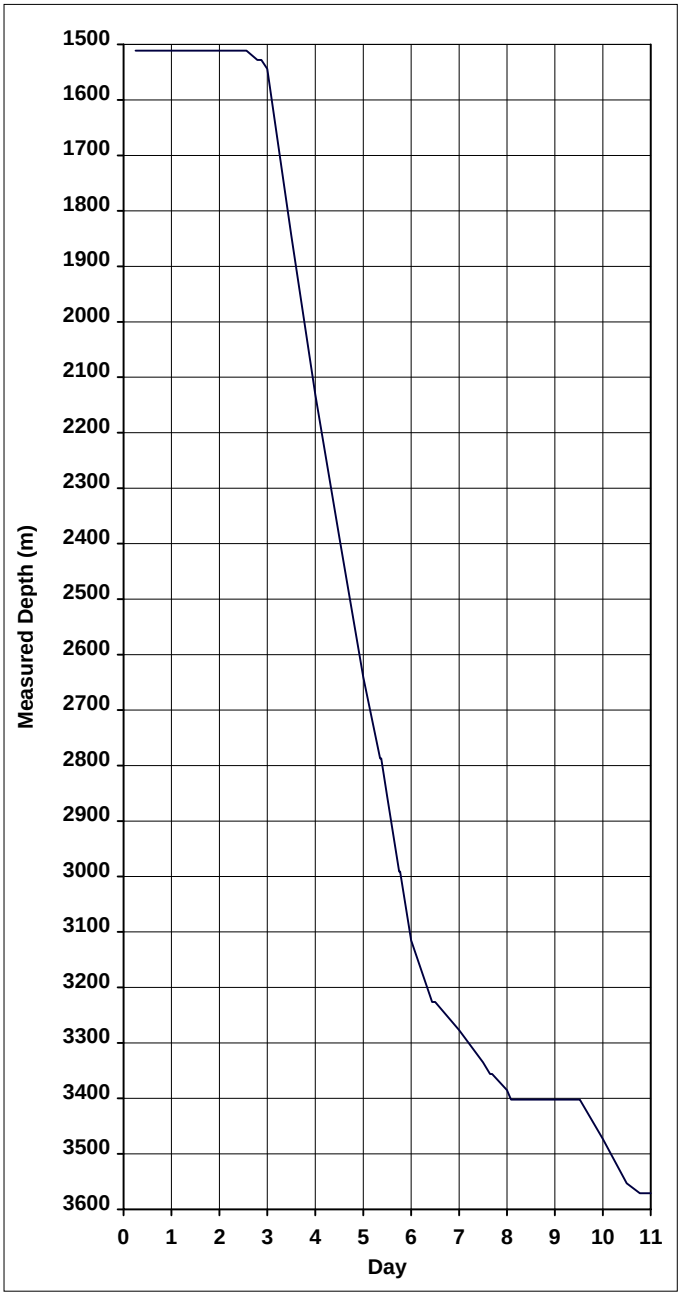
Hours by Operation Summary



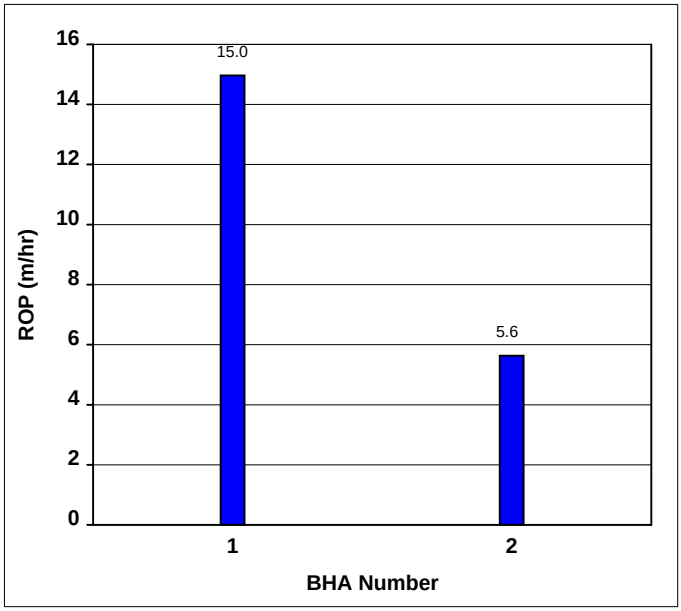
Hours per BHA Breakdown



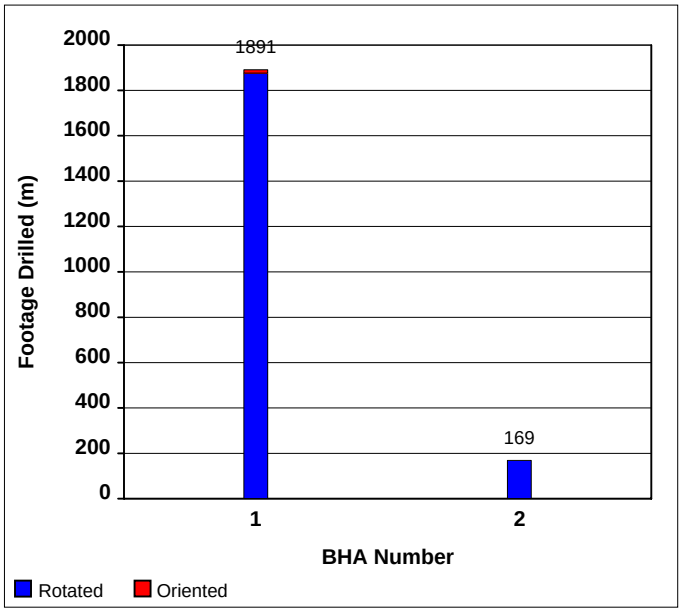
Days vs. Depth



Average Rate of Penetration per BHA



Footage per BHA



HALLIBURTON

Sperry Drilling Services

Nexus Energy Ltd.

Culverin
Culverin
Culverin #1
Culverin #1

Design: Culverin #1

Standard Survey Report

14 March, 2006

Company:	Nexus Energy Ltd.	**Local Co-ordinate Reference:**	Well Culverin #1
Project:	Culverin	**TVD Reference:**	WELL @ 21.50m (Original Well Elev)
Site:	Culverin	**MD Reference:**	WELL @ 21.50m (Original Well Elev)
Well:	Culverin #1	**North Reference:**	Grid
Wellbore:	Culverin #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Culverin #1	**Database:**	Perth Office Database

Project Culverin

Map System:	Universal Transverse Mercator	**System Datum:**	Mean Sea Level
Geo Datum:	GDA94		
Map Zone:	Zone 55S (144 E to 150 E)		

Site Culverin

Site Position:		**Northing:**	5,748,256.39 m	**Latitude:**	38° 24' 08.140" S
From:	Map	**Easting:**	644,437.30 m	**Longitude:**	148° 39' 14.924" E
Position Uncertainty:	0.00 m	**Slot Radius:**	in	**Grid Convergence:**	-1.028 °

Well Culverin #1

Well Position	**+N/-S**	0.00 m	**Northing:**	5,748,256.39 m	**Latitude:**	38° 24' 08.140" S
	+E/-W	0.00 m	**Easting:**	644,437.30 m	**Longitude:**	148° 39' 14.924" E
Position Uncertainty		0.00 m	**Wellhead Elevation:**	m	**Water Depth:**	585.50 m

Wellbore Culverin #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2005	3/02/2006	13.402	-68.821	59,967

Design Culverin #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	

Vertical Section:	Depth From (TVD) (m)	+N/-S (m)	+E/-W (m)	Direction (°)
	0.00	0.00	0.00	38.062

Survey Program **Date** 14/03/2006

From (m)	To (m)	Survey (Wellbore)	Tool Name	Description
607.00	3,758.00	MWD Survey (Culverin #1)		

Survey

Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)	Build Rate (°/30m)	Turn Rate (°/30m)
0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.000	0.00	0.00
585.50	0.000	0.000	585.50	0.00	0.00	0.00	0.000	0.00	0.00
30"									
607.00	0.000	0.000	607.00	0.00	0.00	0.00	0.000	0.00	0.00
681.95	1.260	227.000	681.94	-0.56	-0.60	-0.81	0.504	0.50	0.00
767.68	0.810	263.550	767.66	-1.27	-1.89	-2.17	0.272	-0.16	12.79
825.04	0.930	254.570	825.01	-1.44	-2.75	-2.83	0.095	0.06	-4.70
911.19	1.090	257.490	911.15	-1.81	-4.22	-4.02	0.059	0.06	1.02
1,027.78	0.850	252.600	1,027.72	-2.30	-6.13	-5.59	0.065	-0.06	-1.26
1,056.46	0.790	254.040	1,056.40	-2.42	-6.52	-5.93	0.066	-0.06	1.51
1,085.16	0.770	260.550	1,085.10	-2.51	-6.90	-6.23	0.095	-0.02	6.80
1,113.81	0.620	255.110	1,113.75	-2.58	-7.24	-6.50	0.171	-0.16	-5.70
1,142.54	0.510	257.730	1,142.47	-2.65	-7.52	-6.72	0.118	-0.11	2.74

Company:	Nexus Energy Ltd.	**Local Co-ordinate Reference:**	Well Culverin #1
Project:	Culverin	**TVD Reference:**	WELL @ 21.50m (Original Well Elev)
Site:	Culverin	**MD Reference:**	WELL @ 21.50m (Original Well Elev)
Well:	Culverin #1	**North Reference:**	Grid
Wellbore:	Culverin #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Culverin #1	**Database:**	Perth Office Database

Survey

Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)	Build Rate (°/30m)	Turn Rate (°/30m)
1,171.11	0.430	257.640	1,171.04	-2.70	-7.74	-6.90	0.084	-0.08	-0.09
1,228.35	0.220	250.900	1,228.28	-2.78	-8.06	-7.16	0.112	-0.11	-3.53
1,257.08	0.170	244.390	1,257.01	-2.82	-8.15	-7.24	0.057	-0.05	-6.80
1,342.79	0.060	257.650	1,342.72	-2.88	-8.31	-7.39	0.039	-0.04	4.64
1,371.46	0.030	247.140	1,371.39	-2.89	-8.33	-7.41	0.032	-0.03	-11.00
1,428.75	0.110	336.430	1,428.68	-2.84	-8.37	-7.39	0.060	0.04	46.76
1,486.03	0.160	21.180	1,485.96	-2.72	-8.36	-7.29	0.059	0.03	23.44
1,509.77	0.090	0.700	1,509.70	-2.67	-8.35	-7.25	0.104	-0.09	-25.88
1,511.08	0.100	359.841	1,511.01	-2.67	-8.35	-7.24	0.235	0.23	-19.67
13 3/8"									
1,540.46	0.330	354.580	1,540.39	-2.56	-8.35	-7.16	0.235	0.23	-5.37
1,569.11	0.360	350.120	1,569.04	-2.38	-8.38	-7.04	0.042	0.03	-4.67
1,597.73	0.500	2.930	1,597.66	-2.17	-8.39	-6.88	0.177	0.15	13.43
1,626.44	0.630	1.960	1,626.37	-1.89	-8.37	-6.65	0.136	0.14	-1.01
1,655.17	0.860	9.390	1,655.10	-1.52	-8.33	-6.33	0.260	0.24	7.76
1,683.81	1.150	21.610	1,683.73	-1.04	-8.19	-5.87	0.376	0.30	12.80
1,712.56	1.540	24.620	1,712.47	-0.42	-7.93	-5.22	0.413	0.41	3.14
1,741.12	1.850	23.410	1,741.02	0.35	-7.58	-4.40	0.328	0.33	-1.27
1,769.90	2.120	24.210	1,769.78	1.26	-7.18	-3.43	0.283	0.28	0.83
1,798.49	2.390	23.170	1,798.35	2.30	-6.73	-2.34	0.287	0.28	-1.09
1,827.17	2.730	24.420	1,827.00	3.47	-6.21	-1.10	0.360	0.36	1.31
1,855.78	2.980	24.430	1,855.58	4.76	-5.62	0.29	0.262	0.26	0.01
1,884.43	3.090	24.800	1,884.19	6.14	-4.99	1.76	0.117	0.12	0.39
1,913.08	3.070	24.580	1,912.80	7.54	-4.35	3.26	0.024	-0.02	-0.23
1,941.89	3.120	23.610	1,941.56	8.96	-3.71	4.77	0.075	0.05	-1.01
1,970.98	3.180	24.110	1,970.61	10.42	-3.07	6.32	0.068	0.06	0.52
1,999.06	3.220	24.850	1,998.65	11.85	-2.42	7.84	0.061	0.04	0.79
2,027.82	3.270	25.230	2,027.36	13.33	-1.73	9.43	0.057	0.05	0.40
2,056.65	3.240	27.040	2,056.14	14.79	-1.01	11.03	0.111	-0.03	1.88
2,085.12	3.330	26.590	2,084.57	16.25	-0.27	12.63	0.099	0.09	-0.47
2,113.64	3.400	27.830	2,113.04	17.74	0.50	14.27	0.106	0.07	1.30
2,142.04	3.460	29.610	2,141.39	19.23	1.31	15.95	0.129	0.06	1.88
2,170.63	3.600	30.300	2,169.92	20.75	2.19	17.69	0.154	0.15	0.72
2,199.17	3.770	30.650	2,198.40	22.33	3.12	19.51	0.180	0.18	0.37
2,227.87	3.850	36.050	2,227.04	23.93	4.17	21.41	0.384	0.08	5.64
2,256.54	3.990	35.430	2,255.64	25.52	5.31	23.37	0.153	0.15	-0.65
2,285.35	4.140	37.210	2,284.38	27.16	6.52	25.41	0.204	0.16	1.85
2,314.02	4.150	34.690	2,312.98	28.84	7.74	27.48	0.191	0.01	-2.64
2,342.60	4.240	35.480	2,341.48	30.55	8.94	29.57	0.112	0.09	0.83
2,371.30	4.200	37.230	2,370.10	32.25	10.19	31.68	0.141	-0.04	1.83
2,399.91	4.280	37.960	2,398.63	33.93	11.48	33.79	0.101	0.08	0.77
2,428.46	4.300	38.320	2,427.10	35.61	12.80	35.93	0.035	0.02	0.38
2,457.14	4.300	37.540	2,455.70	37.30	14.13	38.08	0.061	0.00	-0.82
2,514.65	4.090	38.400	2,513.06	40.62	16.71	42.29	0.114	-0.11	0.45
2,543.24	4.050	40.480	2,541.58	42.19	18.00	44.31	0.160	-0.04	2.18
2,572.00	4.010	40.970	2,570.27	43.72	19.32	46.33	0.055	-0.04	0.51
2,600.65	3.910	40.540	2,598.85	45.22	20.61	48.31	0.109	-0.10	-0.45
2,629.39	3.860	40.580	2,627.52	46.70	21.88	50.25	0.052	-0.05	0.04
2,658.02	3.890	41.300	2,656.09	48.16	23.15	52.19	0.060	0.03	0.75
2,686.60	3.770	41.460	2,684.60	49.59	24.41	54.09	0.126	-0.13	0.17
2,715.15	3.770	40.420	2,713.09	51.01	25.64	55.97	0.072	0.00	-1.09
2,743.83	3.800	42.100	2,741.71	52.43	26.89	57.86	0.120	0.03	1.76
2,772.65	3.830	43.730	2,770.46	53.83	28.19	59.77	0.117	0.03	1.70
2,801.66	3.840	42.760	2,799.41	55.25	29.52	61.70	0.068	0.01	-1.00

Sperry Drilling Services
Survey Report

Company:	Nexus Energy Ltd.	**Local Co-ordinate Reference:**	Well Culverin #1
Project:	Culverin	**TVD Reference:**	WELL @ 21.50m (Original Well Elev)
Site:	Culverin	**MD Reference:**	WELL @ 21.50m (Original Well Elev)
Well:	Culverin #1	**North Reference:**	Grid
Wellbore:	Culverin #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Culverin #1	**Database:**	Perth Office Database

Survey

Measured Depth (m)	Inclination (°)	Azimuth (°)	Vertical Depth (m)	+N/-S (m)	+E/-W (m)	Vertical Section (m)	Dogleg Rate (°/30m)	Build Rate (°/30m)	Turn Rate (°/30m)
2,830.44	3.890	43.810	2,828.12	56.66	30.85	63.63	0.090	0.05	1.09
2,859.14	3.950	44.310	2,856.76	58.07	32.22	65.58	0.072	0.06	0.52
2,887.70	3.860	45.650	2,885.25	59.45	33.59	67.51	0.135	-0.09	1.41
2,916.43	3.870	45.260	2,913.91	60.80	34.97	69.43	0.029	0.01	-0.41
2,944.96	3.830	45.790	2,942.38	62.15	36.34	71.33	0.056	-0.04	0.56
2,973.53	3.730	46.710	2,970.89	63.45	37.70	73.20	0.123	-0.11	0.97
3,002.19	3.720	46.750	2,999.49	64.73	39.05	75.04	0.011	-0.01	0.04
3,059.49	3.720	46.570	3,056.67	67.28	41.76	78.71	0.006	0.00	-0.09
3,088.21	3.810	46.460	3,085.32	68.57	43.13	80.58	0.094	0.09	-0.11
3,116.08	3.750	45.370	3,113.13	69.85	44.45	82.40	0.101	-0.06	-1.17
3,145.07	3.740	48.330	3,142.06	71.15	45.83	84.27	0.200	-0.01	3.06
3,173.79	3.670	49.590	3,170.72	72.37	47.23	86.09	0.112	-0.07	1.32
3,202.65	3.710	48.970	3,199.52	73.58	48.63	87.91	0.059	0.04	-0.64
3,231.77	3.530	48.200	3,228.58	74.79	50.01	89.72	0.192	-0.19	-0.79
3,260.37	3.660	49.860	3,257.13	75.97	51.37	91.48	0.175	0.14	1.74
3,317.48	3.720	47.740	3,314.12	78.39	54.13	95.09	0.078	0.03	-1.11
3,346.36	3.650	50.410	3,342.94	79.61	55.53	96.91	0.192	-0.07	2.77
3,375.03	3.690	54.030	3,371.55	80.73	56.98	98.69	0.246	0.04	3.79
3,404.40	3.540	54.900	3,400.86	81.81	58.49	100.47	0.163	-0.15	0.89
3,432.80	3.590	51.960	3,429.21	82.86	59.91	102.17	0.200	0.05	-3.11
3,461.32	3.480	51.530	3,457.67	83.95	61.29	103.88	0.119	-0.12	-0.45
3,490.24	3.380	50.310	3,486.54	85.04	62.63	105.57	0.128	-0.10	-1.27
3,519.26	3.320	50.110	3,515.51	86.12	63.94	107.22	0.063	-0.06	-0.21
3,547.59	3.320	49.950	3,543.79	87.18	65.19	108.83	0.010	0.00	-0.17
3,555.34	3.360	53.740	3,551.53	87.45	65.55	109.27	0.868	0.15	14.67
3,583.83	3.000	50.850	3,579.98	88.42	66.80	110.80	0.415	-0.38	-3.04
3,641.38	2.980	50.160	3,637.45	90.33	69.12	113.73	0.021	-0.01	-0.36
3,758.00	2.980	50.160	3,753.91	94.21	73.77	119.66	0.000	0.00	0.00

Casing Points

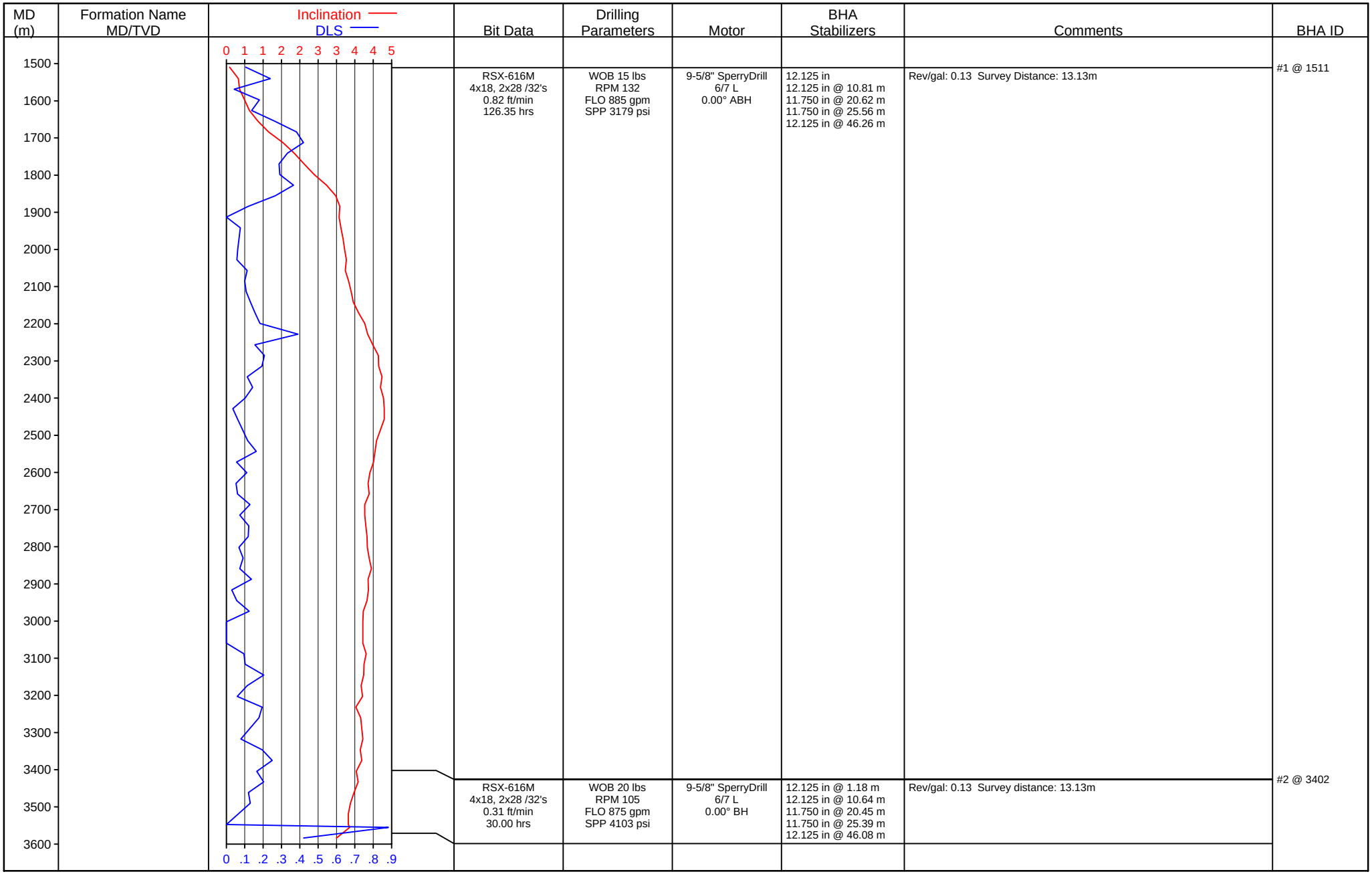
Measured Depth (m)	Vertical Depth (m)	Name	Casing Diameter (in)	Hole Diameter (in)
585.50	585.50	30"	30.00	36.00
1,511.08	1,511.01	13 3/8"	13.37	17.50

Checked By: _____ Approved By: _____ Date: _____

Sperry-Sun Drilling Services

Nexus Energy Limited
Culverin #1
Ocean Patriot

Culverin
VIC/P56
AU-DD-0003951414



sperry-sun DRILLING SERVICES

Survey and Drilling Parameters

Customer : Nexus Energy Limited
Well : Culverin #1
Rig : Ocean Patriot

Field : Culverin
Lease : VIC/P56
Job # : AU-DD-0003951414

North Ref : Grid **Declination :** 13.40° **VS Dir :** 38.06° (from Wellhead)

WELLBORE SURVEY										DRILLING PARAMETERS									
Measured Depth (m)	Incl Angle (deg)	Azi Dir (deg)	Vertical Depth (m)	Vertical Section (m)	Coordinates N/S (m)	Coordinates E/W (m)	DLS (°/100')	Build Rate (°/100')	Turn Rate (°/100')	WOB (lbs)	RPM	Flow Rate (gpm)	Stand Pipe (psi)	Orientation From (m)	Orientation To (m)	Tool Face (deg)	ROP (m/hr)	BHA No. (#)	Comment
0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00										Tieon
607.00	0.00	0.00	607.0	0.0	0.0	0.0	0.00	0.00	0.00										
681.95	1.26	227.00	681.9	-0.8	-0.6	-0.6	0.51	0.51	0.00										
767.68	0.81	263.55	767.7	-2.2	-1.3	-1.9	0.28	-0.16	0.00										
825.04	0.93	254.57	825.0	-2.8	-1.4	-2.7	0.10	0.06	0.00										
911.19	1.09	257.49	911.2	-4.0	-1.8	-4.2	0.06	0.06	0.00										
1027.78	0.85	252.60	1027.7	-5.6	-2.3	-6.1	0.07	-0.06	0.00										
1056.46	0.79	254.04	1056.4	-5.9	-2.4	-6.5	0.07	-0.06	0.00										
1085.16	0.77	260.55	1085.1	-6.2	-2.5	-6.9	0.10	-0.02	0.00										
1113.81	0.62	255.11	1113.7	-6.5	-2.6	-7.2	0.17	-0.16	0.00										
1142.54	0.51	257.73	1142.5	-6.7	-2.6	-7.5	0.12	-0.12	0.00										
1171.11	0.43	257.64	1171.0	-6.9	-2.7	-7.7	0.09	-0.09	0.00										
1228.35	0.22	250.90	1228.3	-7.2	-2.8	-8.1	0.11	-0.11	0.00										
1257.08	0.17	244.39	1257.0	-7.2	-2.8	-8.1	0.06	-0.05	0.00										
1342.79	0.06	257.65	1342.7	-7.4	-2.9	-8.3	0.04	-0.04	0.00										
1371.46	0.03	247.14	1371.4	-7.4	-2.9	-8.3	0.03	-0.03	0.00										
1428.75	0.11	336.43	1428.7	-7.4	-2.8	-8.4	0.06	0.04	0.00										
1486.03	0.16	21.18	1486.0	-7.3	-2.7	-8.4	0.06	0.03	0.00										
1509.77	0.09	0.70	1509.7	-7.2	-2.7	-8.3	0.11	-0.09	0.00										
1540.46	0.33	354.58	1540.4	-7.2	-2.6	-8.4	0.24	0.24	0.00	15	80	800	1800				20	1	
1569.11	0.36	350.12	1569.0	-7.0	-2.4	-8.4	0.04	0.03	0.00	15	80	800	1800				20	1	
1597.73	0.50	2.93	1597.7	-6.9	-2.2	-8.4	0.18	0.15	0.00	15	80	800	1800				20	1	
1626.44	0.63	1.96	1626.4	-6.6	-1.9	-8.4	0.14	0.14	0.00	18	110	900	2450				45	1	
1655.17	0.86	9.39	1655.1	-6.3	-1.5	-8.3	0.26	0.24	0.00	18	110	900	2450				45	1	
1683.81	1.15	21.61	1683.7	-5.9	-1.0	-8.2	0.38	0.31	0.00	18	110	900	2450				45	1	
1712.56	1.54	24.62	1712.5	-5.2	-0.4	-7.9	0.42	0.41	3.19	20	110	900	2500				50	1	
1741.12	1.85	23.41	1741.0	-4.4	0.4	-7.6	0.33	0.33	-1.29	15	110	900	2500				50	1	
1769.90	2.12	24.21	1769.8	-3.4	1.3	-7.2	0.29	0.29	0.85	20	110	900	2600				55	1	
1798.49	2.39	23.17	1798.4	-2.3	2.3	-6.7	0.29	0.29	-1.11	18	120	890	2600				50	1	
1827.17	2.73	24.42	1827.0	-1.1	3.5	-6.2	0.37	0.36	1.33	18	120	890	2800				30	1	

sperry-sun DRILLING SERVICES

Survey and Drilling Parameters

Customer : Nexus Energy Limited
Well : Culverin #1
Rig : Ocean Patriot

Field : Culverin
Lease : VIC/P56
Job # : AU-DD-0003951414

North Ref : Grid **Declination :** 13.40° **VS Dir :** 38.06° (from Wellhead)

WELLBORE SURVEY										DRILLING PARAMETERS									
Measured Depth (m)	Incl Angle (deg)	Azi Dir (deg)	Vertical Depth (m)	Vertical Section (m)	Coordinates N/S (m)	Coordinates E/W (m)	DLS (°/100')	Build Rate (°/100')	Turn Rate (°/100')	WOB (lbs)	RPM	Flow Rate (gpm)	Stand Pipe (psi)	Orientation From (m)	Orientation To (m)	Tool Face (deg)	ROP (m/hr)	BHA No. (#)	Comment
1855.78	2.98	24.43	1855.6	0.3	4.8	-5.6	0.27	0.27	0.01	12	130	890	2700				38	1	
1884.43	3.09	24.80	1884.2	1.8	6.1	-5.0	0.12	0.12	0.39	12	130	890	2700				38	1	
1913.08	3.07	24.58	1912.8	3.3	7.5	-4.3	0.00	-0.02	-0.23	12	130	890	2700				38	1	
1941.89	3.12	23.61	1941.6	4.8	9.0	-3.7	0.08	0.05	-1.03	12	130	890	2700				38	1	
1970.98	3.18	24.11	1970.6	6.3	10.4	-3.1	0.07	0.06	0.52	12	130	890	2700				38	1	
1999.06	3.22	24.85	1998.6	7.8	11.9	-2.4	0.06	0.04	0.80	12	140	890	2700				35	1	
2027.82	3.27	25.23	2027.4	9.4	13.3	-1.7	0.06	0.05	0.40	12	140	890	2700				35	1	
2056.65	3.24	27.04	2056.1	11.0	14.8	-1.0	0.11	-0.03	1.91	12	140	890	2700				35	1	
2085.12	3.33	26.59	2084.6	12.6	16.3	-0.3	0.10	0.10	-0.48	12	140	890	2700				35	1	
2113.64	3.40	27.83	2113.0	14.3	17.7	0.5	0.11	0.07	1.33	12	140	890	2700				35	1	
2142.04	3.46	29.61	2141.4	15.9	19.2	1.3	0.13	0.06	1.91	12	150	900	2900				35	1	
2170.63	3.60	30.30	2169.9	17.7	20.8	2.2	0.16	0.15	0.74	12	150	900	2900				35	1	
2199.17	3.77	30.65	2198.4	19.5	22.3	3.1	0.18	0.18	0.37	12	150	900	2900				35	1	
2227.87	3.85	36.05	2227.0	21.4	23.9	4.2	0.39	0.08	5.73	12	150	900	3000				35	1	
2256.54	3.99	35.43	2255.6	23.4	25.5	5.3	0.16	0.15	-0.66	12	150	900	3000				35	1	
2285.35	4.14	37.21	2284.4	25.4	27.2	6.5	0.21	0.16	1.88	15	150	900	3000				40	1	
2314.02	4.15	34.69	2313.0	27.5	28.8	7.7	0.19	0.01	-2.68	15	150	900	3000				40	1	
2342.60	4.24	35.48	2341.5	29.6	30.5	8.9	0.11	0.10	0.84	15	150	900	3000				40	1	
2371.30	4.20	37.23	2370.1	31.7	32.3	10.2	0.14	-0.04	1.86									1	
2399.91	4.28	37.96	2398.6	33.8	33.9	11.5	0.10	0.09	0.78	15	150	900	3100				35	1	
2428.46	4.30	38.32	2427.1	35.9	35.6	12.8	0.04	0.02	0.38	15	150	900	3100				35	1	
2457.14	4.30	37.54	2455.7	38.1	37.3	14.1	0.06	0.00	-0.83	18	150	900	3200				25	1	
2514.65	4.09	38.40	2513.1	42.3	40.6	16.7	0.12	-0.11	0.46	18	150	900	3200				25	1	
2543.24	4.05	40.48	2541.6	44.3	42.2	18.0	0.16	-0.04	2.22	18	150	900	3200				25	1	
2572.00	4.01	40.97	2570.3	46.3	43.7	19.3	0.06	-0.04	0.52	18	150	900	3450				25	1	
2600.65	3.91	40.54	2598.8	48.3	45.2	20.6	0.11	-0.11	-0.46	18	150	900	3450				25	1	
2629.39	3.86	40.58	2627.5	50.3	46.7	21.9	0.05	-0.05	0.04	18	150	900	3450				25	1	
2658.02	3.89	41.30	2656.1	52.2	48.2	23.1	0.06	0.03	0.77	13	150	900	3600				55	1	
2686.60	3.77	41.46	2684.6	54.1	49.6	24.4	0.13	-0.13	0.17	18	150	900	3600				45	1	
2715.15	3.77	40.42	2713.1	56.0	51.0	25.6	0.07	0.00	-1.11	18	150	900	3600				45	1	
2743.83	3.80	42.10	2741.7	57.9	52.4	26.9	0.12	0.03	1.79	15	100	900	3450				10	1	

sperry-sun DRILLING SERVICES

Survey and Drilling Parameters

Customer : Nexus Energy Limited
Well : Culverin #1
Rig : Ocean Patriot

Field : Culverin
Lease : VIC/P56
Job # : AU-DD-0003951414

North Ref : Grid **Declination :** 13.40° **VS Dir :** 38.06° (from Wellhead)

WELLBORE SURVEY										DRILLING PARAMETERS									
Measured Depth (m)	Incl Angle (deg)	Azi Dir (deg)	Vertical Depth (m)	Vertical Section (m)	Coordinates N/S (m)	Coordinates E/W (m)	DLS (°/100')	Build Rate (°/100')	Turn Rate (°/100')	WOB (lbs)	RPM	Flow Rate (gpm)	Stand Pipe (psi)	Orientation From (m)	Orientation To (m)	Tool Face (deg)	ROP (m/hr)	BHA No. (#)	Comment
2772.65	3.83	43.73	2770.5	59.8	53.8	28.2	0.12	0.03	1.72	18	140	900	3500				24	1	
2801.66	3.84	42.76	2799.4	61.7	55.2	29.5	0.07	0.01	-1.02	16	100	900	3600				20	1	
2830.44	3.89	43.81	2828.1	63.6	56.7	30.9	0.09	0.05	1.11	10	150	890	3650				35	1	
2859.14	3.95	44.31	2856.8	65.6	58.1	32.2	0.07	0.06	0.53	10	150	890	3800				20	1	
2887.70	3.86	45.65	2885.2	67.5	59.4	33.6	0.14	-0.10	1.43	12	150	890	3700				50	1	
2916.43	3.87	45.26	2913.9	69.4	60.8	35.0	0.03	0.01	-0.41	12	150	890	3700				50	1	
2944.96	3.83	45.79	2942.4	71.3	62.1	36.3	0.06	-0.04	0.57	12	150	890	3700				50	1	
2973.53	3.73	46.71	2970.9	73.2	63.4	37.7	0.12	-0.11	0.98	12	150	890	3750				40	1	
3002.19	3.72	46.75	2999.5	75.0	64.7	39.1	0.00	-0.01	0.04	5	150	890	3800				25	1	
3059.49	3.72	46.57	3056.7	78.7	67.3	41.8	0.00	0.00	-0.10	12	150	875	3700				60	1	
3088.21	3.81	46.46	3085.3	80.6	68.6	43.1	0.10	0.10	-0.12	10	150	880	3800				40	1	
3116.08	3.75	45.37	3113.1	82.4	69.9	44.4	0.10	-0.07	-1.19	10	95	890	4000				20	1	
3145.07	3.74	48.33	3142.1	84.3	71.1	45.8	0.20	-0.01	3.11	12	150	890	4000				40	1	
3173.79	3.67	49.59	3170.7	86.1	72.4	47.2	0.11	-0.07	1.34	12	150	890	4000				20	1	
3202.65	3.71	48.97	3199.5	87.9	73.6	48.6	0.06	0.04	-0.65	10	90	860	3700				30	1	
3231.77	3.53	48.20	3228.6	89.7	74.8	50.0	0.20	-0.19	-0.81	15	150	900	4050				8	1	
3260.37	3.66	49.86	3257.1	91.5	76.0	51.4	0.18	0.14	1.77	20	150	900	4050				8	1	
3317.48	3.72	47.74	3314.1	95.1	78.4	54.1	0.08	0.03	-1.13	15	90	850	3700				4	1	
3346.36	3.65	50.41	3342.9	96.9	79.6	55.5	0.20	-0.07	2.82	20	150	835	3700				10	1	
3375.03	3.69	54.03	3371.6	98.7	80.7	57.0	0.25	0.04	3.85	22	70	800	4000				5	1	
3404.40	3.54	54.90	3400.9	100.5	81.8	58.5	0.17	-0.16	0.90	15	120	895	4200				30	2	
3432.80	3.59	51.96	3429.2	102.2	82.9	59.9	0.20	0.05	-3.16	15	100	870	4100				20	2	
3461.32	3.48	51.53	3457.7	103.9	83.9	61.3	0.12	-0.12	-0.46	22	125	885	4100				4	2	
3490.24	3.38	50.31	3486.5	105.6	85.0	62.6	0.13	-0.11	-1.29	20	100	875	4200				12	2	
3519.26	3.32	50.11	3515.5	107.2	86.1	63.9	0.06	-0.06	-0.21	20	100	875	4200				12	2	
3547.59	3.32	49.95	3543.8	108.8	87.2	65.2	0.00	0.00	-0.17	22	150	850	4150				30	2	
3555.34	3.36	53.74	3551.5	109.3	87.5	65.5	0.88	0.16	14.91	22	65	850	3850				1	2	
3583.83	3.00	50.85	3580.0	110.8	88.4	66.8	0.42	-0.39	-3.09	25	65	850	3800				1	2	
3641.38	2.98	50.16	3637.4	113.7	90.3	69.1	0.02	-0.01	-0.37	25	65	850	3800				1	2	

sperry-sun
DRILLING SERVICES

BHA Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414 **BHA# 1**

BHA# 1 : **Date In** :23/12/200 **MD In (m) :** 1511 **TVD In (m) :** 1511 **Date Out** 30/12/200 **MD Out (m):** 3402 **TVD Out (m):** 3398

BIT DATA

Bit #	OD (in)	MFR	Style	Serial#	Nozzles (/32's)	TFA (in²)	Dull Condition
1	12.250	Hycalog	RSX-616M	211010	4x18, 2x28	2.197	4-6-WT-S -X-8-RO-ROP

MOTOR DATA

Run #	OD (in)	MFR	Model	Serial#	Bend	Nzl (/32's)	Avg Dif (psi)	Cum Circ Hrs
1	9.625	SSDS	SperryDrill	963006	0.00°		265	127.78

COMPONENT DATA

Item #	Description	Serial #	OD (in)	ID (in)	Gauge (in)	Weight (lbs/ft)	Top Con	Length (m)	Bit - Center Blade (m)
1	Hycalog PDC RSX616M	211010	12.250	2.875	12.250	379.54	P 6-5/8" Reg	0.25	
2	9-5/8" SperryDrill Lobe 6/7 - 5.0 stg	963006	9.625	6.135	12.125	147.21	B 7-5/8" Reg	8.58	
3	Bottleneck XO w\float	A639	9.438	2.875	9.438	216.30	B 6-5/8" Reg	1.22	
4	NM Integral Blade Stabilizer	694776	7.938	2.875	12.125	146.54	B 6-5/8" Reg	1.81	10.81
5	DIR	18603354	8.000	1.920		161.44	B 6-5/8" Reg	2.81	
6	HCIM-EWR-DGR	90089208	8.000	1.920	11.750	161.44	B 6-5/8" Reg	6.99	
7	CTN-SLD-ACAL	90089209	8.000	1.920	11.750	161.44	B 6-5/8" Reg	11.48	
8	HOC	10645027	8.000	1.920		161.44	B 6-5/8" Reg	3.11	
9	1x Drill collar	18600035	7.875	2.875		143.87	B 6-5/8" Reg	9.06	
10	Integral Blade Stabilizer	47607	8.250	2.875	12.125	160.05	B 6-5/8" Reg	2.10	46.26
11	1x 1 joint Drill collar	18600026	7.875	2.875		143.87	B 6-5/8" Reg	8.68	
12	Drilling Jar	11150D	8.188	3.063		154.34	B 6-5/8" Reg	9.31	
13	1x 1 joint Drill collar	18600031	7.875	2.875		143.87	B 6-5/8" Reg	8.81	
14	Cross Over Sub	MSO1930-2	8.500	2.875		171.26	B 4-1/2" IF	1.16	
15	21 joints HWDP		5.000	2.875		44.79	B 4-1/2" IF	192.98	
								268.35	

Parameter	Min	Max	Ave
WOB (lbs) :	5	25	15
RPM (rpm) :	50	150	132
Flow (gpm) :	650	900	885
SPP (psi) :	1600	4050	3179

Activity	Hrs
Drilling :	126.35
Reaming :	0.47
Circ-Other :	0.95
Total :	127.78

BHA Weight	(lb)
in Air (Total) :	66469
in Mud (Total) :	56237
in Air (Bel Jars) :	28586
in Mud (Bel Jars) :	24185

Drill String	OD(in)	Len (m)

PERFORMANCE

	In	Out
Inclination (deg)	0.10	3.55
Azimuth (deg)	359.89	54.83

	Distance (m)	ROP (m/hr)	Build (°/100')	Turn (°/100')	DLS (°/100')
Oriented :	15.00	0			
Rotated :	1876.00	15	0.25	0.80	
Total :	1891.00	15	0.06	0.00	0.06

COMMENTS

Rev/gal: 0.13
Survey Distance: 13.13m

OBJECTIVES:

The objective of BHA 1 is to drill vertically to FTD in one bit run. FTD is planned at 3612m. There are three targets:
Target #1 (Primary) top 67.5Ma Sand (Culverin reservoir) is expected at 2947mMDRT.
Target #2 is the 68.5MA sand (Scimitar medium reservoir), it is expected at 3257 mMDRT.
The final traget, Target #3 is the 70.3Ma sand (Scimitar deep reservoir) at 3542 mMDRT.

The 12.25" hole will drill the Gippsland Limestone, Lakes Entrance and Latrobe sections. The Gippsland is a soft sticky dispersive marl interspersed with calcarenite. The Lakes Entrance (top @ 2582m) is calcilutite/calcisiltite with minor calcarenite. The Latrobe (top @2970m) is interbedded sandstone, siltstone and claystone with minor coal. High ROP's are expected in the Gippsland and Lakes Entrance but these will decline in the Latrobe section. Hard stringers are expected. The hole will be drilled with a straight 9 5/8" 6:7 lobe 5.0 stage motor with a Hycalog PDC RSX616M bit. MWD includes a DM, HCIM-EWR-DGR, CTN-ACAL-SLD and HOC.

RESULTS:

BHA 1 commencend drilling on the 24th Dec 2005 at 1525mMDRT in the Gippsland Formation. Initially the Gippsland Formation was drilled with 110 rpm 850gpm and a WOB of 15-20klbs. The SPP was 2400psi and the differential pressure was 200psi. These parameters yielded build rates of 0.25 - 0.42°deg/30m. The drilling parameters were modified in an attempt to reduce the build rate. The surface rpm were increased gradually to 140rpm and the WOB reduced to 10 - 15klbs at a flow rate of 900gpm. This reduced the build rate to generally less than 0.1°/30m. This building tendancy was also noted on offset wells. The BHA performed well through the rest of the Gippsland Formation with the ROP averaging 50 m/hr.

The Lakes Entrance Formation came in at 2824 mMDRT. A hard bed was encountered between 2685 - 2760m which reduced ROP to 5-15 mph. The primary target (Culverin reservoir) was encountered at a depth of 2837 mMDRT. The motor torqued up slightly in this section and stalled out several times. The SPP was 3700 - 3800psi with a 200 - 300psi differential pressure. The weight was limited to 12 klbs. The ROP was averaged 25m/h, but increased to 90m/h in places. The second geological target, the near 68.5Ma, sand came in 156m high at 3103 mMDRT. The inclination held steady through this section. There was a tendancy to walk to the right.

Drilling slowed down due to hard formation beginning at 3147 mMDRT, with ROP's of 10 m/hr. The inclination remained steady, and the bit was still walking slightly to the right. The bit torqued up through this section and the motor stalled at times. At 3402 mMDRT the rate of penetration dropped to virtually nothing at the bit was pulled. The same assembly was run for the next run.

sperry-sun
DRILLING SERVICES

BHA Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414 **BHA# 2**

BHA# 2 : **Date In** :31/12/200 **MD In (m) :** 3402 **TVD In (m) :** 3398 **Date Cur**: 1/01/2006 **MD Cur (m):** 3571 **TVD Cur (m):** 3567

BIT DATA

Bit #	OD (in)	MFR	Style	Serial#	Nozzles (/32's)	TFA (in²)	Dull Condition
2	12.250	Hycalog	RSX-616M	211406	4x18, 2x28	2.197	3-5-WT-SX-I-N-DL-PP

MOTOR DATA

Run #	OD (in)	MFR	Model	Serial#	Bend	Nzl (/32's)	Avg Dif (psi)	Cum Circ Hrs
2	9.625	SSDS	SperryDrill	963271	0.00°		154	33.50

COMPONENT DATA

Item #	Description	Serial #	OD (in)	ID (in)	Gauge (in)	Weight (lbs/ft)	Top Con	Length (m)	Bit - Center Blade (m)
1	Hycalog PDC RSX616M	211406	12.250	2.875	12.250	379.54	P 6-5/8" Reg	0.24	
2	9-5/8" SperryDrill Lobe 6/7 - 5.0 stage	963271	9.625	6.135	12.125	147.21	B 7-5/8" Reg	8.54	1.18
3	Bottleneck XO w\float	S18819-11	9.438	2.875	9.438	216.30	B 6-5/8" Reg	1.10	
4	NM Integral Blade Stabilizer	694776	7.938	2.875	12.125	146.54	B 6-5/8" Reg	1.81	10.64
5	DIR	18603354	8.000	1.920		161.44	B 6-5/8" Reg	2.81	
6	HCIM-EWR-DGR	90089208	8.000	1.920	11.750	161.44	B 6-5/8" Reg	6.99	
7	CTN-SLD-ACAL	90089209	8.000	1.920	11.750	161.44	B 6-5/8" Reg	11.48	
8	HOC	10562336	8.000	1.920		161.44	B 6-5/8" Reg	3.10	
9	1x Drill collar	18600035	7.875	2.875		143.87	B 6-5/8" Reg	9.06	
10	Integral Blade Stabilizer	47607	8.250	2.875	12.125	160.05	B 6-5/8" Reg	2.10	46.08
11	1x 1 joint Drill collar	18600026	7.875	2.875		143.87	B 6-5/8" Reg	8.68	
12	Drilling Jar	11150D	8.188	3.063		154.34	B 6-5/8" Reg	9.31	
13	1x 1 joint Drill collar	18600031	7.875	2.875		143.87	B 6-5/8" Reg	8.81	
14	Cross Over Sub	MSO1930-2	8.500	2.875		171.26	B 4-1/2" IF	1.16	
15	21x 21 x joints HWDP		5.000	2.875		44.79	B 4-1/2" IF	192.98	
								268.17	

Parameter	Min	Max	Ave
WOB (lbs) :	15	25	20
RPM (rpm) :	65	150	105
Flow (gpm) :	850	895	875
SPP (psi) :	3800	4200	4103

Activity	Hrs
Drilling :	30.00
Reaming :	3.50
Circ-Other :	0.00
Total :	33.50

BHA Weight	(lb)
in Air (Total) :	66347
in Mud (Total) :	56032
in Air (Bel Jars) :	28463
in Mud (Bel Jars) :	24038

Drill String	OD(in)	Len (m)

PERFORMANCE

	In	Out
Inclination (deg)	3.55	3.16
Azimuth (deg)	54.83	52.23

	Distance (m)	ROP (m/hr)	Build (°/100')	Turn (°/100')	DLS (°/100')
Oriented :	0.00	0			
Rotated :	169.00	6			
Total :	169.00	6	-0.07	-0.47	0.08

COMMENTS

Rev/gal: 0.13
Survey distance: 13.13m

OBJECTIVES:

BHA 2 was RIH after BHA 1 was pulled for a bit trip. The objective of this BHA is to drill beyond the third and final target, (the 70.3Ma sand - Scimitar deep reservoir) at 3542 mMDRT to reach a final TD of 3900 mMDRT. Hard stringers and slow drilling are expected. The hole will be drilled with a straight 9 5/8" 6:7 lobe 5.0 stage motor with a Hycalog PDC RSX616M bit. MWD includes a DM, HCIM-EWR-DGR, CTN-ACAL-SLD and HOC.

RESULTS:

BHA 2 began drilling at 4202 mMDRT. It was tested on the way in the hole and recorded 750 psi at 720gpm. The initial ROP was 5 - 20 m/hr with 15 - 20klbs on the bit. The pump rate was 4200 psi at 890gpm, with 200psi differential. Hard stringers were encountered interbedded within softer formations. Coal interbeds were also present. The ROP in the hard stringers dropped as low as 1m/hr and increased to 20 - 30 m/hr in the softer beds. The assembly dropped from 3.54 degrees to 3.32 degrees. The final target (70.3Ma - Scimitar deep reservoir) was drilled at 3520.5 mMDRT.

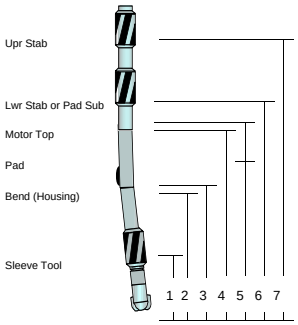
The SPP dropped by 500psi, steadily over several hours and after checking surface equipment it was decided to POOH at 3571 mMDRT. A washout was suspected, however after reaching surface no washout was found. The motor was not tested on the trip out, as there was concern it could cause a potential washout in a connection to let go. The fluid in the motor drained ok. It was decided to run back in with a rotary assembly.

MOTOR PERFORMANCE REPORT

M-AU-DD-0003951414-1

Motor Serial # : 963006 | **Job #** : AU-DD-0003951414
Directional Driller(s) : B. Rowland | **Customer** : Nexus Energy Limited
Location : VIC/P56 | **Rig** : Ocean Patriot
Well : Culverin #1 | **Bit Run #** : 1 | **BHA #** : 1 | **Motor Run #** : 1
Depth In/Out : 1511 / 3402 *m* | **Date In/Out** : 23/12/2005 / 30/12/2005 | **Hole Size** : 12.350 *in*
Application Details : Performance Drilling

MOTOR CONFIGURATION



	From Bit *(m)*	Component		Type	Diam In/Out *(in)*
1		Sleeve Stab/Pad	Yes	Stab: 4 I 0°	12.125 12.125
2		Bent Housing	Yes	Adjustable: 0.00° bend	
3		Housing Tool Used	No		
4	8.83	Stator Elastomer	Nitrile	Stator: Standard	
5		Bent Sub / 2nd Bent Hsg	No		
6	10.81	Lower String Stab	Yes	Stab: 3 I 270°	12.125 12.125
7	46.26	Upper String Stab	Yes	Stab: 3 I 270°	12.125 12.125

Additional Features :
Flex Collar : No | **Short Brg Pack** : No | **Rtr Noz / Size** : */32's*
Brg Cfg (Off/On) : | **Lobe Cfg** : 6/7 | **BHA OD/ID** : 9.438 / 2.875 *in*

	Arr	Ret
Pick Up Sub	No	No
Bit Box Protr	No	No

MOTOR RUN DATA

Max Dogleg While Rotating : 0.42 *°/100'* | **RPM** : 150 | **Motor Stalled** : Yes | **Prev Job/Well Hrs** : 0.00
Max Dogleg Overpulled In : *°/100'* | **Force** : *lbf* | **Float Valve** : Yes | **Drilling Hrs** : 126.35
Max Dogleg Pushed Through : *°/100'* | **Force** : *lbf* | **DP Filter** : No | **Circ Hrs** : 0.95
Hole Azimuth Start / End : 359.89° / 54.83° | **Inc Start / End** : 0.10° / 3.55° | **Reaming Hrs** : 0.47
Interval Oriented / Rot. : 15 / 1876 *m* | **Directional Perf Ori / Rot** : / 0.25 *°/100'* | **Total Hrs This Run** : 127.78
Jarring Occured : No | **New Cumulative Hrs** : 127.77

	Diff Press *(psi)*	Str RPM	Rotn Torque *(ft-lbs)*	Drag Up/Dn *(lbf)*	WOB *(lbs)*	ROP Oriented *(m/hr)*	ROP Rotated *(m/hr)*
Avg	265	132	6333	/	15	0	15
Max	600	150	8000	/	25		84

PRE-RUN TESTS

Motor Tested Pre-Run : Yes | **with** : 0 Collars, Bit, MWD
Dump Sub Operating : Yes | **Brg Play** : *mm*
Flow 1 : 705 *gpm* | **Pressure 1** : 650 *psi*
Flow 2 : *gpm* | **Pressure 2** : *psi*
Driveshaft Rotation Observed : Yes
Bearing Leakage Observed : No

POST-RUN TESTS

Motor Tested Post-Run : No | **with** : 2 Collars
Dump Sub Operating : Yes | **Brg Play** : 5.0 *mm*
Flow 1 : *gpm* | **Pressure 1** : *psi*
Flow 2 : *gpm* | **Pressure 2** : *psi*
Driveshaft Rotation Observed : Yes
Bearing Leakage Observed : No
Driveshaft Rotated to Drain Mud : Yes
Fluid Flushed : No | **Fluid Used** :

MUD DATA

Base : Water | **Additives** : | **Mud Wt** : 10.1 *ppg* | **SPP Start/End** : 1600 / 3900 *psi*
% Oil/Water : / | **% Solids** : 10.00 | **% Sand** : | **PV** : 16 *cp* | **YP** : 27.0 *lbf/100ft²* | **pH** : 9.0
DH Temp Avg/Max : 37.6 / 48.0 | **FlowRate Avg/Max** : 885 / 900 *gpm* | **Chloride Content** : 83000 *ppm*
Principle Formation Name(s) : | **Lithology** :

BIT DATA

Make : Hycalog | **Type** : RSX-616M | **Serial #** : 211010
Pre Existing Hours From Other Wells: 0
Prev Drilling Hrs : 0.00 | **Prev Reaming Hrs** : 0.00 | **No of Runs This Bit** : 1
Jet Sizes */32's)* : 4x18, 2x28 | **TFA** : 2.197 *in²* | **Gage Length** : 0.240 *in*

Dull Grade	1	2	3	4	5	6	7	8
In								
Out	4	6	WT	S	X	8	RO	ROP

PERFORMANCE COMMENTS

Problem Perceived : No | **Problem Date** : | **Service Interrupt** : No | **Service Interrupt Hrs** :
Performance Motor : Yes | **Tandem Motor** : No | **LIH** : No | **PPR Ref #** :

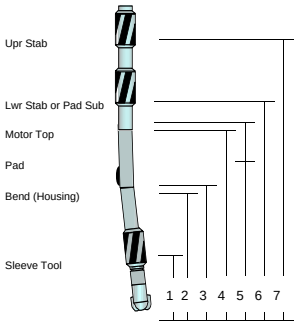
Customer Representative's Signature (optional) : ..... **Date:** .....

MOTOR PERFORMANCE REPORT

M-AU-DD-0003951414-2

Motor Serial # : 963271 | **Job #** : AU-DD-0003951414
Directional Driller(s) : B. Rowland | **Customer** : Nexus Energy Limited
Location : VIC/P56 | **Rig** : Ocean Patriot
Well : Culverin #1 | **Bit Run #** : 2 | **BHA #** : 2 | **Motor Run #** : 2
Depth In/Out : 3402 / 3571 *m* | **Date In/Out** : 31/12/2005 / 1/01/2006 | **Hole Size** : 12.250 *in*
Application Details : Performance Drilling

MOTOR CONFIGURATION



	From Bit *(m)*	Component		Type	Diam In/Out *(in)*	
1	1.18	Sleeve Stab/Pad	Yes	Stab: 4 I 0°	12.125	12.125
2	2.50	Bent Housing	Yes	Non-Adjustable: 0.00° bend		
3		Housing Tool Used	No			
4	8.78	Stator Elastomer				
5		Bent Sub / 2nd Bent Hsg	No			
6	10.64	Lower String Stab	Yes	Stab: 3 I 270°	12.125	12.125
7	46.08	Upper String Stab	Yes	Stab: 3 I 270°	12.125	12.125

Additional Features :
Flex Collar : No | **Short Brg Pack** : No | **Rtr Noz / Size** : */32's*
Brg Cfg (Off/On) : | **Lobe Cfg** : 6/7 | **BHA OD/ID** : 9.438 / 2.875 *in*

	Arr	Ret
Pick Up Sub	No	No
Bit Box Protr	No	No

MOTOR RUN DATA

Max Dogleg While Rotating : *°/100'* | **RPM** : | **Motor Stalled** : No | **Prev Job/Well Hrs** : 0.00
Max Dogleg Overpulled In : *°/100'* | **Force** : *lbf* | **Float Valve** : No | **Drilling Hrs** : 30.00
Max Dogleg Pushed Through : *°/100'* | **Force** : *lbf* | **DP Filter** : No | **Circ Hrs** : 0.00
Hole Azimuth Start / End : 54.83° / 52.23° | **Inc Start / End** : 3.55° / 3.16° | **Reaming Hrs** : 3.50
Interval Oriented / Rot. : 0 / 169 *m* | **Directional Perf Ori / Rot** : / *°/100'* | **Total Hrs This Run** : 33.50
Jarring Occured : No | **New Cumulative Hrs** : 33.50

	Diff Press *(psi)*	Str RPM	Rotn Torque *(ft-lbs)*	Drag Up/Dn *(lbf)*	WOB *(lbs)*	ROP Oriented *(m/hr)*	ROP Rotated *(m/hr)*
Avg	154	105	6000	/	20	0	6
Max	200	150	7000	/	25		75

PRE-RUN TESTS

Motor Tested Pre-Run : Yes | **with** : 2 Collars, Bit, MWD
Dump Sub Operating : Yes | **Brg Play** : 3.0 *mm*
Flow 1 : 720 *gpm* | **Pressure 1** : 750 *psi*
Flow 2 : *gpm* | **Pressure 2** : *psi*
Driveshaft Rotation Observed : Yes
Bearing Leakage Observed : No

POST-RUN TESTS

Motor Tested Post-Run : No | **with** :
Dump Sub Operating : N/A | **Brg Play** : 3.0 *mm*
Flow 1 : *gpm* | **Pressure 1** : *psi*
Flow 2 : *gpm* | **Pressure 2** : *psi*
Driveshaft Rotation Observed : Yes
Bearing Leakage Observed : No
Driveshaft Rotated to Drain Mud : Yes
Fluid Flushed : No | **Fluid Used** :

MUD DATA

Base : Water | **Additives** : | **Mud Wt** : 10.2 *ppg* | **SPP Start/End** : 4200 / 3800 *psi*
% Oil/Water : / | **% Solids** : 10.50 | **% Sand** : | **PV** : 17 *cp* | **YP** : 30.0 *lbf/100ft²* | **pH** : 8.5
DH Temp Avg/Max : 48.5 / 50.0 | **FlowRate Avg/Max** : 875 / 895 *gpm* | **Chloride Content** : 82000 *ppm*
Principle Formation Name(s) : | **Lithology** :

BIT DATA

Make : Hycalog | **Type** : RSX-616M | **Serial #** : 211406
Pre Existing Hours From Other Wells: 0
Prev Drilling Hrs : 0.00 | **Prev Reaming Hrs** : 0.00 | **No of Runs This Bit** : 1
Jet Sizes */32's)* : 4x18, 2x28 | **TFA** : 2.197 *in²* | **Gage Length** : 0.240 *in*

Dull Grade	1	2	3	4	5	6	7	8
In								
Out	3	5	WT	SX	I	N	DL	PP

PERFORMANCE COMMENTS

Problem Perceived : Yes | **Problem Date** : | **Service Interrupt** : No | **Service Interrupt Hrs** :
Performance Motor : No | **Tandem Motor** : No | **LIH** : No | **PPR Ref #** :

Pressure loss of 500 psi while drilling. Request was made to test motor post run, but was denied due to concern over potential washouts. Motor experienced no stalling whilst drilling. Uncertain if the motor was the cause of the pressure loss.

Customer Representative's Signature (optional) : ..... **Date:** .....

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS **Report #** 1 22/12/2005

Total Depth	**(m)**	:	1511	**Casing Depth**	**(m)** :	585.50	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	0	**Casing Diameter**	**(in)** :	30.000	**SSDS Reps** : B. Rowland (1)
Hole Size	**(in)**	:		**Casing ID**	**(in)** :	19.500	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
1509.77	0.09	0.70	1509.70	8.76	S72.28W

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
					/					

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	06:00	6.00	1511.00		Running marine riser and BOP's
06:00	07:00	1.00	1511.00		Secure test caps in marine riser, connect lines, test c&k lines.
07:00	13:00	6.00	1511.00		Continue running marine riser and BOP's
13:00	14:00	1.00	1511.00		Secure test caps in marine riser, connect lines, test c&k lines.
14:00	21:30	7.50	1511.00		Continue running marine riser and BOP's
21:30	22:30	1.00	1511.00		Secure test caps in marine riser, connect lines, test
22:30	00:00	1.50	1511.00		P/U slip joint.

COMMENTS

Tools arrived at 16:00hrs, on board at 21:00hrs.

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS **Report #** 2 23/12/2005

Total Depth	**(m)**	:	1511	**Casing Depth**	**(m)** :	585.50	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	0	**Casing Diameter**	**(in)** :	30.000	**SSDS Reps** : B. Rowland (2)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	19.500	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
1509.77	0.09	0.70	1509.70	8.76	S72.28W

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (5.22 hrs), PDM #1 (5.22 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
					/					

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	01:00	1.00	1511.00		M/U slip joint and landing joint.
01:00	02:00	1.00	1511.00		ROV making repairs to camera.
02:00	04:00	2.00	1511.00		Nipple up choke, kill and booster goosenecks.
04:00	05:00	1.00	1511.00		Break circ w/ dowell. Test choke and kill lines, commence move rig.
05:00	05:30	0.50	1511.00		Latch SDL ring to slip joint complete rig move.
05:30	07:00	1.50	1511.00		Bleed down tensioners and secure storm saddles to guidelines.
07:00	08:00	1.00	1511.00		land and latch BOP's.
08:00	09:00	1.00	1511.00		Secure pod hoses in storm saddles
09:00	10:00	1.00	1511.00		Break circ w/ dowell. Test choke and kill lines,
10:00	11:00	1.00	1511.00		Unlock slip joint and scope out.
11:00	12:00	1.00	1511.00		MU divertor to slip joint
12:00	12:30	0.50	1511.00		Connect power block to divertor
12:30	13:30	1.00	1511.00		rig down riser spider diverter running tool and install master bushings.
13:30	16:00	2.50	1511.00		clear rig floor of marine riser equip, install iron roughneck tracks
16:00	18:00	2.00	1511.00		Cut Drill Line
18:00	21:30	3.50	1511.00		RIH 17.5" BHA and lay down same
21:30	00:00	2.50	1511.00	1	PU 12.25" BHA and download BHA

COMMENTS

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 3 24/12/2005

Total Depth	**(m)**	:	1544	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	33	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (3)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
1540.46	0.33	354.58	1540.39	8.74	S72.99W

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (8.07 hrs), PDM #1 (9.02 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	9.5	48	10	13.0	4.0 / 6.0	7	9.5	5.35		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	03:00	3.00	1511.00	1	MU 12.25" BHA, load radioactive sourcces, shallow pulse test.
03:00	03:30	0.50	1511.00	1	PU 55m HWDP
03:30	09:00	5.50	1511.00	1	PU 745m 5: DP, function diverter.
09:00	09:30	0.50	1511.00	1	Function test BOP.
09:30	11:30	2.00	1511.00	1	Troubleshoot BOP's (blue pod).
11:30	13:30	2.00	1511.00	1	RIH to 1450m, wash to TOC at 1478m.
13:30	19:00	5.50	1528.00	1	Drill cmt plugs, shoe track and shoe, displace to 9.5 ppg mud, drill 3m new hole
19:00	20:00	1.00	1528.00	1	Circ BU, condition mud.
20:00	21:00	1.00	1528.00	1	Leak-off Test at 1511m w/ 9.5 ppg mud, 1625psi equivalent 15.8 ppg.
21:00	00:00	3.00	1544.00	1	Drill to 1544m, flush c&k, perform SCR's.

COMMENTS

Problems encountered with flooding of the shakers, leading to slow flow rates and ROP's while drilling cement. Control drilll until the stabilisers out of the casing.

circ hrs: 9 hrs

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 4 25/12/2005

Total Depth	**(m)**	:	2131	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	587	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (4)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
2113.64	3.40	27.83	2113.04	17.75	N01.60E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (30.88 hrs), PDM #1 (31.82 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	9.7	56	15	20.0	4.0 / 5.0	6	9.0	6.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	12:00	12.00	1844.00	1	Drill ahead to 1844m.
12:00	00:00	12.00	2131.00	1	Drill ahead to 2131m.

COMMENTS

Backloading 17.5in stabilisers and pony collars.

circ hrs: 22

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS **Report #** 5 26/12/2005

Total Depth	**(m)**	:	2641	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	510	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (5)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
2629.39	3.86	40.58	2627.52	51.57	N25.10E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (53.68 hrs), PDM #1 (54.63 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.0	55	16	25.0	6.0 / 9.0	4	8.7	10.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	12:00	12.00	2388.00	1	Drill ahead to 2388m.
12:00	00:00	12.00	2641.00	1	Drill ahead to 2641m.

COMMENTS

Slow ROP due to formation from 2760 to 2771m.

circ hrs: 22hrs

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 6 27/12/2005

Total Depth	**(m)**	:	3115	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	474	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (6)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3088.21	3.81	46.46	3085.32	81.01	N32.17E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (75.53 hrs), PDM #1 (76.47 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	9.9	56	15	25.0	7.0 / 11.0	5	9.5	10.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	08:30	8.50	2787.00	1	Drill ahead to 2787m.
08:30	09:00	0.50	2787.00	1	c/o saver sub.
09:00	12:00	3.00	2857.00	1	Drill ahead to 2857m.
12:00	18:00	6.00	2991.00	1	Drill ahead to 2991m.
18:00	18:30	0.50	2991.00	1	c/o front die in pipehandler.
18:30	00:00	5.50	3115.00	1	Drill ahead to 3115m.

COMMENTS

Trq and motor stall at 2845 mMDRT due to formation.
Torguing up and motor stalling at 3128m MDRT. Pyrite encountered at 3146 mMDRT.

circ hrs: 21hrs

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 7 28/12/2005

Total Depth	**(m)**	:	3277	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	162	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (7)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3260.37	3.66	49.86	3257.13	91.71	N34.07E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (96.9 hrs), PDM #1 (97.85 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.2	58	15	27.0	6.0 / 8.0	4	9.0	10.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	10:30	10.50	3226.00	1	Drill ahead to 3226m.
10:30	12:00	1.50	3226.00	1	Suspend drilling ops due to angle of flex joint, POOH to 3220, circ BU.
12:00	00:00	12.00	3277.00	1	Drill ahead to 3277m.

COMMENTS

Slow ROP's of 0.5 - 9mph due to hard formation.

circ hrs: 23 hrs

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 8 29/12/2005

Total Depth	**(m)**	:	3385	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, B.Webb
Drilled last 24 hrs	**(m)**	:	108	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (8)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3375.03	3.69	54.03	3371.55	98.81	N35.22E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (118.75 hrs), PDM #1 (119.7 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.2	60	16	26.0	6.0 / 9.0	4	8.8	10.50		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	12:00	12.00	3335.00	1	Drill ahead to 3335m.
12:00	15:30	3.50	3356.00	1	Drill ahead to 3356m
15:30	16:30	1.00	3356.00	1	c/o swab on mud pump, troubleshoot blower motor.
16:30	00:00	7.50	3385.00	1	Drill ahead to 3385m.

COMMENTS

circ hrs: 24

sperry-sun
DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS **Report #** 9 30/12/2005

Total Depth	**(m)**	:	3402	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, G. Webster
Drilled last 24 hrs	**(m)**	:	17	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (9)
Hole Size	**(in)**	:	12.350	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3375.03	3.69	54.03	3371.55	98.81	N35.22E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 1: 268.35 m; Bit #1 (126.82 hrs), PDM #1 (127.77 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.1	60	16	27.0	6.0 / 9.0	4	9.0	10.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	02:00	2.00	3402.00	1	Drill ahead to 3390m.
02:00	02:30	0.50	3402.00	1	Troubleshoot Elmago brake system.
02:30	08:30	6.00	3402.00	1	Drill ahead to 3402m.
08:30	09:30	1.00	3402.00	1	POOH to 2867m.
09:30	10:00	0.50	3402.00	1	Backream to 2819 due to 50k overpull
10:00	12:00	2.00	3402.00	1	POOH to 2300m.
12:00	16:30	4.50	3402.00	1	POOH to 1475m. Recalibrate MWD caliper tool.
16:30	18:30	2.00	3402.00	1	POOH 12.25" BHA. Remove radioactive sources, break bit, LD Motor.
18:30	20:30	2.00	3402.00	1	PU MWD from derrick and download
20:30	21:00	0.50	3402.00	1	Grease TDS, change dies pipe handler, check compensator.
21:00	23:00	2.00	3402.00	1	PU new motor, MU bit, RIH with 12.25" BHA.
23:00	00:00	1.00	3402.00	1	Initiate MWD and load radioactive sources.

COMMENTS

POOH for bit

circ hrs 9 hrs

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DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 10 31/12/2005

Total Depth	**(m)**	:	3473	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, G. Webster
Drilled last 24 hrs	**(m)**	:	71	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (10)
Hole Size	**(in)**	:	12.250	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3461.32	3.48	51.53	3457.67	103.94	N36.13E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 2: 268.17 m; Bit #2 (15. hrs), PDM #1 (15. hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, 21x HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.2	62	16	27.0	6.0 / 9.0	4	9.0	9.00		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	01:30	1.50	3402.00	2	RIH, shallow pulse test.
01:30	03:00	1.50	3402.00	2	P/U 257m DP.
03:00	09:00	6.00	3402.00	2	RIH to 3330m.
09:00	12:30	3.50	3402.00	2	Ream and log to 3402m
12:30	00:00	11.50	3473.00	2	Drill ahead to 3473m.

COMMENTS

Shallow pulse test 750 psi @ 720gpm

circ hrs 15 hrs

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DRILLING SERVICES

Daily Drilling Report

Customer : Nexus Energy Limited
Well : Culverin #1
Field : Culverin
Lease : VIC/P56
Rig : Ocean Patriot
Job # : AU-DD-0003951414

CURRENT STATUS Report # 11 1/01/2006

Total Depth	**(m)**	:	3571	**Casing Depth**	**(m)** :	1511.08	**Operator Reps** : R. King, G. Webster
Drilled last 24 hrs	**(m)**	:	98	**Casing Diameter**	**(in)** :	13.625	**SSDS Reps** : B. Rowland (11)
Hole Size	**(in)**	:	12.250	**Casing ID**	**(in)** :	12.347	

LAST SURVEY

Depth (m)	Inclination	Azimuth	TVD (m)	Displ (m)	Direction
3641.38	2.98	50.16	3637.45	113.74	N37.42E

LAST FORMATION TOP

Formation Name	MD Top (m)	TVD Top (m)

BHA SUMMARY

BHA 2: 268.17 m; Bit #2 (33.5 hrs), PDM #1 (33.5 hrs), Sub, Stab, MWD, MWD, MWD, MWD, 1x DC, Stab, 1x DC, Jar, 1x DC, Sub, 21x HWDP

MUD DATA

Type	Weight (ppg)	FV (sec)	PV (cp)	YP (lbf/100ft²)	Gels	Fluid Loss	pH	Solids (%)	Sand (%)	Oil (%)
KCl/Polymer	10.2	65	17	30.0	7.0 / 10.0	4	8.5	10.50		

TIME BREAKDOWN

From	To	Hours	TMD (m)	BHA #	Activity
00:00	12:00	12.00	3553.00	2	Drill ahead to 3553m.
12:00	18:30	6.50	3571.00	2	Drill ahead to 3571m
18:30	00:00	5.50	3571.00	2	Flow check, POOH wet checking for washout.

COMMENTS

Observed pressure loss of 400 psi over 30 min at 18:00hrs.

Circ hrs 18.5hrs

APPENDIX 6

BIT RECORD

Bit Records for Culverin 1

Rig : OCEAN PATRIOT | Spud : 16 Dec 2005 / 13:30 | Rig Release : 15 Jan 2006 / 15:00

Bit Record

Bit#	Date In/Out	IADC	Size	Serial No.	Make	Type	Jets	In (m)	Out (m)	Mtrge (m)	Hrs O/B	SPP (psi)	Flow (bpm)	WOB (klb)	RPM	RPM (DH)	TFA	MW (ppg)	ROP (m/ h)	Bitwear I-O1-D-L-B-G-O2-R
1	16 Dec 2005 / 16 Dec 2005	117	17.500	B73369	REED HYCALOG	Titan T-11C	1 x 16 3 x 22	607.0	650.0	43	2	1888	10.3	4	110	110	1.31	8.8	28.67	0 - 0 - NO - A - 0 - I - NO - TD
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment: Bit has no signs of wear or damage.					
1RR	18 Dec 2005 / 20 Dec 2005	117	17.500	B73369	REED HYCALOG	Titan T-11	1 x 16 3 x 22	650.9	1525.0	874.1	42	2251	843.04	18	150.67	150.67	1.31	8.67	21.01	1 - 2 - ER - A - 0 - I - NO - TD
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment:					
2	24 Dec 2005 / 30 Dec 2005	M422	12.250	211010	REED HYCALOG	RSX 616	2 x 28 4 x 18	1525.0	3402.0	1877	NaN	3261	20.49	NaN	130.41	242.41	2.197	10	19.41	4 - 6 - WT - S - X - 2 - RO - PR
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment:					
3	30 Dec 2005 / 02 Jan 2006	M422	12.250	211406	REED HYCALOG	RSX 616	4 x 18 2 x 28	3402.0	3571.0	169	NaN	3852	393.05	NaN	48.07	218.31	2.197	10.2	6.26	3 - 5 - WT - S - X - 1 - LT - PP
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment:					
4	02 Jan 2006 / 03 Jan 2006	5-3-7	12.250	MX1628	SMITH BITS	GF30BOVCPS	3 x 18	3571.0	3571.0	0	NaN	NaN	NaN	8	NaN	NaN	0.746	10.2	NaN	1 - 1 - NO - A - 0 - I - NO - DTF
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment:					
4RR	03 Jan 2006 / 07 Jan 2006	5-3-7	12.250	MX1628	SMITH BITS	GF30BOVCPS	3 x 20	3571.0	3758.0	187	NaN	4012	19.02	NaN	107.69	107.69	0.92	10.2	3.35	3 - 3 - WT - A - E - I - CT - TD
	Bit Run Comment:							Bit Daily Comment							Bit Wear Comment:					

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APPENDIX 7

DRILLING FLUIDS SUMMARY

Mud Records for Culverin 1

Rig : OCEAN PATRIOT | Spud : 16 Dec 2005 / 13:30 | Rig Release : 15 Jan 2006 / 15:00

Water Based Mud

Day	Chk	Date - Time	Type	Depth (m)	Oil Type	TMP (C°)	MW (ppg)	VIS (sec/qt)	PV (cp)	YP (lb/100ft²)	Gel10s / 10m (lb/100ft²)	ECD (ppg)	Cake (/32nd")	Sol (%)	Wtr (%)	LGS (%)	Sand	Oil (%)	Oil on Cut (%)	PV Temp (C°)	Loss HTHP (cc/30min)	Cl (mg/l)	Hard Cal (mg/l)	Excs Lime (ppb)	Elec Stab (mV)	Daily Cost ($)
	15	2100	KCL-NaCl-Polymer	3402.0		32	10.20	60	16	28	7 / 9		1	10	90		1	0			11.8	82500	260			21860
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%.																			
5	1	1600	PHB spud	650.0			8.80	120			/															7964
		Mud Description: PHB spud					Comment:																			
6	2	2300	PHG Hi-Vis				8.70	120			/															3057
		Mud Description: PHG Hi-Vis					Comment:																			
7	3	1920	PHG Hi-Vis	840.0		20	8.60	100	9	22	18 / 18											2200	80			6209
		Mud Description: PHG Hi-Vis					Comment:																			
8	4	1945	PHG Hi-Vis	1390.0		20	8.70	110	14	26	22 / 28											2200	20			5570
		Mud Description: PHG Hi-Vis					Comment: 1318bbls of Hi vis pumped during 24hr drilling period																			
9	5	2200	PHG Hi-Vis	1525.0		20	8.70	105	14	30	22 / 27			2								600	40			1529
		Mud Description: PHG Hi-Vis					Comment: Completed drilling pumping 80bbls of Hi-vis per stand drilled. At TD sweept hole with 150bbls of guar gum and displaced with 840bbls of PHG(un-weighted)																			
12	8	2310	KCL-NaCl-Polymer	1525.0			9.50	50	9	12	3 / 3		1	6	94		0	0				35500	80			20167
		Mud Description: KCL-NaCl-Polymer					Comment: Started mixing mud after Bops landed. Mixed 1000bbls of 3% KCL/NaCl/Polymer mud weighted to 9.5ppg and filled sandtraps, further mixing is in progress																			
13	9	2100	KCL-NaCl-Polymer	1527.0		20	9.50	48	10	13	4 / 6		1	5	95		0	0				36000	240			27976
		Mud Description: KCL-NaCl-Polymer					Comment: Ditch magnet metal recovery 150 grams.																			
14	10	2100	KCL-NaCl-Polymer	2070.0		20	9.60	56	15	20	4 / 5		1	6	94		1	0				36500	200			23715
		Mud Description: KCL-NaCl-Polymer					Comment: Ditch magnet metal recovery 70 grams																			
15	11	2300	KCL-NaCl-Polymer	2600.0		22	10.00	55	16	25	6 / 9		1	10	90		0.8	0			13.6	65000	240			57591
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 6%. Ditch magnet metal recovery 60 grams																			
16	12	2100	KCL-NaCl-Polymer	3052.0		25	10.20	57	17	26	7 / 9		1	10	90		1.25	0			12.8	75000	260			20507
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch magnet metal recovery 50 grams																			
17	13	2100	KCL-NaCl-Polymer	3260.0		32	10.30	57	17	26	6 / 9		1	10	90		1.25	0			12.0	81500	260			49325
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch magnet metal recovery 60 grams																			
18	14	2100	KCL-NaCl-Polymer	3380.0		33	10.20	57	17	30	7 / 9		1	10	90		1.25	0			12.0	82000	320			2468
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch magnet metal recovery 52grams																			
19	15	2100	KCL-NaCl-Polymer	3402.0		32	10.20	60	16	28	7 / 9		1	10	90		1	0			11.8	82500	260			21860
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%.																			
20	16	20:30	KCL-NaCl-Polymer	3448.0		29	10.20	62	17	33	8 / 11		1	10	90		1.5	0			12.0	84000	200			302
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch magnet recovery = 142 grams																			
21	17	19:00	KCL-NaCl-Polymer	3571.0		33	10.20	62	18	27	7 / 9		1	10	90		1.25	0			12.0	82000	260			20199
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch magnet recovery = 220 grams																			

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Mud Records for Culverin 1

Rig : OCEAN PATRIOT | Spud : 16 Dec 2005 / 13:30 | Rig Release : 15 Jan 2006 / 15:00

Water Based Mud

Day	Chk	Date - Time	Type	Depth (m)	Oil Type	TMP (C°)	MW (ppg)	VIS (sec/qt)	PV (cp)	YP (lb/100ft²)	Gel10s / 10m (lb/100ft²)	ECD (ppg)	Cake (/32nd")	Sol (%)	Wtr (%)	LGS (%)	Sand	Oil (%)	Oil on Cut (%)	PV Temp (C°)	Loss HTHP (cc/30min)	Cl (mg/l)	Hard Cal (mg/l)	Excs Lime (ppb)	Elec Stab (mV)	Daily Cost ($)
22	15	2100	KCL-NaCl-Polymer	3402.0		32	10.20	60	16	28	7 / 9		1	10	90		1	0			11.8	82500	260			21860
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%.																			
23	19	21:50	KCL-NaCl-Polymer	3571.0			10.20	57	16	27	6 / 8		1	10	90		1	0			11.6	78000	200			0
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%.																			
24	20	21:20	KCL-NaCl-Polymer	3576.0		49	10.20	64	17	33	8 / 11		1	10	90		1	0			11.0	79000	200			5830
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = 140 grams																			
25	21	22:30	KCL-NaCl-Polymer	3661.0		49	10.20	61	16	30	8 / 12		1	10	90		.8	0			11.0	79000	200			0
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = 186 grams																			
26	22	21:30	KCL-NaCl-Polymer	3752.0		49	10.20	59	15	30	7 / 11		1	10	90		.7	0			11.0	79000	240			302
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = 92 grams																			
27	23	20:00	KCL-NaCl-Polymer	3758.0		49	10.20	59	16	28	7 / 10		1	10	90		.7	0			11.0	79000	240			0
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = N/A																			
28	23	20:00	KCL-NaCl-Polymer	3758.0		49	10.20	59	16	28	7 / 10		1	10	90		.7	0			11.0	79000	240			0
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = N/A																			
29	23	20:00	KCL-NaCl-Polymer	3758.0		49	10.20	59	16	28	7 / 10		1	10	90		.7	0			11.0	79000	240			0
		Mud Description: KCL-NaCl-Polymer					Comment: NaCl 8%. Ditch Magent recovery = N/A																			
30	26		Seawater								/		1													0
		Mud Description: Seawater					Comment: Final mud cost from report # 26 = $277 778																			
31	27		Seawater								/		1													17078
		Mud Description: Seawater					Comment: Final mud cost from report # 27 = $294, 885.24																			
32	27		Seawater								/		1													0
		Mud Description: Seawater					Comment: Final mud cost from report # 28 =A$294,855																			

Oil Based Mud

Day	Chk	Date - Time	Type	Depth (m)	Oil Type	TMP (C°)	MW (ppg)	VIS (sec/qt)	PV (cp)	YP (lb/100ft²)	Gel10s (lb/100ft²) / 10m (lb/100ft²)	ECD (ppg)	Cake (/32nd")	Sol (%)	Wtr (%)	LGS (%)	Sand	Oil (%)	Oil on Cut (%)	PV Temp (C°)	Loss HTHP (cc/30min)	Cl (mg/l)	Hard Cal (mg/l)	Excs Lime (ppb)	Elec Stab (mV)	Daily Cost ($)

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Mud Records for Culverin 1

Rig : OCEAN PATRIOT | Spud : 16 Dec 2005 / 13:30 | Rig Release : 15 Jan 2006 / 15:00

Synthetic Based Mud

Day	Chk	Date - Time	Type	Depth (m)	Oil Type	TMP (C°)	MW (ppg)	VIS (sec/qt)	PV (cp)	YP (lb/100ft²)	Gel10s (lb/100ft²) / 10m (lb/100ft²)	ECD (ppg)	Cake (/32nd")	Sol (%)	Wtr (%)	LGS (%)	Sand	Oil (%)	Oil on Cut (%)	PV Temp (C°)	Loss HTHP (cc/30min)	Cl (mg/l)	Hard Cal (mg/l)	Excs Lime (ppb)	Elec Stab (mV)	Daily Cost ($)

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Fluids Recap

Nexus Energy

Culverin-1
VIC/P-56
Vertical Exploration
Gippsland Basin

Prepared by: **Steve Jones**

MI SWACO

M-I *L.L.C.*

ONE-TRAX

DRILLING FLUID DATA MANAGEMENT SYSTEM

Operator:	Nexus Energy	**Spud Date:**	16/12/2005
Well Name:	Culverin-1	**TD Date:**	06/01/2006
Field/Area:	VIC/P-56	**Location Code:**	7001
Description:	Vertical Exploration	**Project Engineer:**	Steve Jones
Location:	Gippsland Basin	**Sales Engineer:**	Melendez/Singh
Warehouse:	Melbourne	**Sales Engineer:**	Sharpe/Leong
Contractor:	Diamond Offshore	**M-I Well No.**	31415

Comments:

Type	Size in	Depth m	TVD m	Hole in	Max MW lb/gal	Fluid 1	Fluid2	Drilling Problem	Days	Cost A$
Casing	30	650	650	36	8.8	Spud Mud		None	3	7964.33
Casing	13.375	1511	1511	17.5	8.7	Spud Mud	Spud Mud	None	5	16365.54
Open Hole	.	3758	3754	12.25	10.3	GLYDRIL	GLYDRIL	None	25	270525.37

Total Depth: 3758 m | TVD: 3754 m | Water Depth: 585 m | Drilling Days: 31 | Total Cost: 294,855.24

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

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DRILLING FLUIDS RECAP FOR NEXUS ENERGY CULVERIN-1

INTRODUCTION

Nexus Energy was the operator of vertical exploration well Culverin-1 drilled in Vic/P56, Bass Strait, Australia using the Diamond Offshore semi-submersible rig, Ocean Patriot. The rig was moved to location on 6 November 2005 after finishing Apache's Furseal-1. Culverin-1 was spudded on 16 December 2005 at 15:00 hrs. The water depth was 585m and air gap of 21.5m.

The 36" hole was drilled to the interval TD, 650 metres RKB using seawater with PHG sweeps to ensure good hole cleaning. At the interval TD, the hole was filled with PHG, (2 times the actual hole volume was pumped) before POOH to run the 30"casing.

The 17½" section was drilled to 1525m using seawater and PHG/Guar Gum sweeps. The 13⅜" casing was set at 1511m and BOP stack was lowered. The 12¼" bit was run in hole and cement top was tagged at 1478 m. The cement and shoe track/plugs were drilled using seawater and PHG sweeps. The well was displaced with 3% KCl/NaCl polymer mud weighted to 9.5 ppg with Barite. The 3 metres of formation was drilled while displacement and a LOT of 15.8 ppg was obtained.

The KCl and NaCl concentrations were increased to 6% by weight at 2500m and 3% by volume of Glydrill LC was introduced into the system. The NaCl concentration was further increased to 8% by 2700m and the KCl concentration was enhanced to 8% by 3200m.

A bit trip was made at 3402m due to poor rate of penetration. The hole condition was reported to be good except from 2867m to 2819m which required backreaming for 30 minutes. A new bit was run in hole with motor without any trouble and drilling resumed. The drilling continued at less than 10m per hour to 3571m when, due to pressure drop, it was decided to pull out of hole to check for wash out. As no apparent wash out was found in the string, the drilling jars were changed and the motor removed from the BHA and run in hole. Drilling continued with low ROP 2.5m/hr from 3571m to 3758m when it was called final depth. The hole was circulated clean and the string pulled out of the hole to run wireline logging. Schlumberger wireline tools were rigged up and log well as per program. After hole evaluation it was decided to P&A.

The rig was released on the 15 January 2006 and towed to Manta-2 well.

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FORMATION TOPS

Formation	Prognosed		Actual	
	(mSS)	(mRT)	MDRT	TVDSS
Datum	0	22	0	21.5
Sea Floor	585	607	607.5	607.5
Top Lakes Entrance	2560	2582	2508	2484.9
Top Latrobe	2885	2907	2824	2800.0
Base Tuna Flounder Channel	2915	2937	2835	2811.0
Top 67.5Ma Sand	2925	2947	2836	2812.0
Near 68.5Ma Sand	3235	3257	3103	3078.5
Near 70.3Ma Sand	3520	3542	3478	3452.8
TD	**3590**	**3612**	**3758**	**3742.0**

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Interval 1	607 – 650 metres	914 mm (36″) Hole Interval	762 mm (30″) Casing Set at 650m

MUD TYPE : SEAWATER / PRE HYDRATED GEL

HOLE PROBLEMS : None

MUD PROPERTIES :

Mud Weight	:	8.8 ppg
YP	:	120 lb/100ft2
API FL	:	N.C
Funnel Vis		> 120 sec/qt
Hardness		40 mg/l
MBT		>26 ppb

OPERATIONS

Culverin-1 was spudded on 16 December 2005 at 14:00 hrs using 17½″ bit with a 36″ hole opener pumping seawater add Hi-Vis PHG sweeps. This section was drilled to 650m in 2 hrs without any problems.

MUD

In preparation of spudding 1615 bbls of 27 ppb Gel was mixed in the pits and allowed to hydrate. The hole was drilled using seawater and 75 bbl sweeps mid-stand and 100 bbl gel sweeps were pumped every connection. The hole was swept with 100 bbls at TD and hole displaced with 150 bbls of unflocculated Gel mud prior to pull out to run casing.

A total of 735 bbls of Pre Hydrated Gel was used for this section. The remaining 880 bbls of Pre-hydrated Gel was carried over for the next section.

160 bbls of seawater with 11 sacks of Calcium Chloride were mixed for cementing.

SOLIDS CONTROL

None used as returns were directed to seabed.

OBSERVATIONS AND RECOMMENDATIONS

No changes are proposed.

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Interval II	650 – 1525 metres	444 mm (17½″) Hole Interval	340 mm (13⅜″) Casing Set at 1511m

MUD TYPE : SEAWATER / PRE HYDRATED GEL/ GUAR GUM

HOLE PROBLEMS : None

MUD PROPERTIES :

Mud Weight	:	8.8 ppg
YP	:	30 lb/100ft^2
API FL	:	15
Funnel Vis		> 100 sec/qt
PV	:	10 cp
MBT		>20 ppb

OPERATIONS

The 17½" drilling assembly was made up and drilling commenced using seawater with PHG sweeps. The sweep regime consisted of 35 bbls Guar Gum midstand and 50 bbls PHG on connections. No problems were encountered as drilling progressed. At TD of 1525m the hole was swept with 150 bbls PHG and displaced with 840 bbls PHG. The 13⅜" casing was run to 1511m and was filled with PHG and cemented with no problems.

MUD

880 bbls of PHG mud from the previous section was carried over to this section. 1100 bbls of Guar Gum was used at 3.5 ppb to supplement the PHG as there was limited drill water. As drilling progressed a further 2759 bbls of PHG was built to provide mud volume for the sweeps, filling the casing as it was run and drilling out the casing shoe.

A total of 3639 bbls of PHG and 1100 bbls of Guar Gum were used for this section. 210 bbls of PHG were saved for the next section to be used as sweeps when drilling cement before displacement to the KCl / NaCl / polymer mud.

SOLIDS CONTROL

No solids control was used as returns were to seabed.

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OBSERVATIONS AND RECOMMENDATIONS

No changes are recommended as the Pre Hydrated Gel sweep system is the most cost effective way to drill this interval.

Key Parameters Analysis

	Actual	Planned	Variance
Caustic Soda, lbs	441	716	-38.4%
M-I Gel Bulk, lbs	105840	136710	-22.5%
Volume Built, bbl	4374	4624	-5.4%
Guar Gum, lbs	3859	0	100%
Volume Built, bbl	1100	0	100%
Total Volume Built, bbl	5474	4624	18.3%
Cost per bbl, $	$ 4.41	$ 5.26	-16.1%
Cost per M, $	$ 26.32	$ 26.48	-0.6%
Bbl/m	5.9	5.0	18%
Cost, $	$24,161.24	$ 24,314.00	-0.6%
M-I Gel Concentration, ppb	24.19	29.56	-18.1%
Other (CaCl2 for cmt job)	$168.63		

The riserless section was completed using a greater volume than planned at the programmed cost. This was achieved using 24.19 ppb PHG instead of the planned 29.56 ppb. The reduction was made as there was a limited bulk stock of Bentonite on board.

The Guar Gum was used as supply of drill water was limited. The cost difference between a barrel of Guar Gum and a barrel of PHG is negligible. Guar Gum was mixed at 4 ppb in seawater and proved effective in good hole cleaning.

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Interval III	1525 – 3758 metres	311 mm (12¼") Hole Interval	Open Hole

MUD TYPE : KCL/NACL/POLYMER/GLYCOL

HOLE PROBLEMS : None

MUD PROPERTIES :

Mud Weight	:	9.5 – 10.2 ppg
YP	:	12-33 lb/100 ft^2
API FL	:	6.8 – 3.9
KCl		7-8 %
PV	:	9 – 17 CP
MBT	:	<7.5 ppb
HPHT	:	11.5-13.6
PHPA	:	0.4-1.0 ppb
Drill Solids	:	<5 %
PH	:	8.5 – 9.5
6 rpm	:	4 - 9
Gels (10 sec)	:	3-11 lb/100 ft^2
Gels (10 min)	:	3-15 lb/100 ft^2

OPERATIONS

The 12½" bit and BHA were run in hole to tag the cement at 1478m. The cement was drilled out using seawater and PHG sweeps to clean the hole. All returns were dumped at the shakers. After drilling the shoe and while drilling 3m of new hole, the well was displaced to 9.5 ppg 3% KCl / 3% NaCl /Polymer mud. Once the new mud returned at the shakers the system was closed in to maintain the active system while filling the sandtraps and returning mud to the active pit. The mud was circulated with the bit pulled back into the casing. There were considerable losses over the shakers (100 bbls) when the first cold unsheared mud returned. A leak off test was performed which indicated an equivalent mud weight of 15.8 ppg.

The interval was drilled to 3402m when a bit trip was performed due to poor rate of drilling. The interval from 2867m to 2819m was back reamed while trip out due to 50Klbs overpull for 30 minutes. The rest of the open hole section was reported as trouble free. The second PDC bit was made up with a motor and run in hole with no troubles to bottom and drilling continued to 3571m with an average rate of less than 10m per hour. The string was pulled out of hole at 3571m due to gradual pressure drop of 500 psi over 3 hrs but no apparent wash out was found in the drill string.

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The motor was removed from the BHA and jar changed prior to running into the hole with the Smith bit. Drilling continued with low ROP 2.5m/hr to final depth 3758m and the hole circulated clean prior to pull out to run wireline logging.

MUD

The permission to dump and clean pits was given by the Barge Engineer only after all the riser was run in and BOP stack latched on to the well head due to ship stability considerations. The pits were then cleaned and 1770 bbls of 3% KCl, 3% NaCl polymer mud weighted to 9.5 ppg was mixed quickly while the 12¼ BHA was picked.

The well was displaced to new mud using a 100 bbl PHG sweep and 100 bbl seawater spacer. On return at shakers 65 bbls were dumped until clear returns observed. The shakers were not able to handle 800 gpm flow rate as the mud was very cold and unsheared resulting in losing 100 bbls overboard. The pump discharge was reduced to 650 gpm while circulating prior to conducting the LOT. In one complete circulation the shakers were able to handle the flow rate of 800 gpm.

The PHPA concentration was gradually increased in the active system from 0.4 ppb to 0.7 ppb keeping the whole mud losses over the shakers under control as the mud returns were less than 70^0 F. The header box was also jetted regularly to keep it free of cuttings and allow streamlined flow over all the shakers.

The rheology was also enhanced using Duovis addition to the active system and 6 rpm reading increased from 4 rpm to 8 rpm at 120^0 F.

The mud properties were further changed from 3% KCl/NaCl to 6% KCl/NaCl while drilling from 2450m to 2530m. The 3% Glydrill LC was also introduced prior to entering into the Lakes Entrance formation and the cuttings appearance at the shakers changed considerably. The bit cutter marks were seen on the cuttings showing good inhibition and encapsulation. The addition of mix salt increased the mud weight from 9.6 ppg to 9.9 ppg. A further 2% addition of KCl/NaCl was carried out at 2750 m to give complete hydrate suppression properties prior to drilling into any hydrocarbon bearing formations. The NaCl concentration was further increased to 8% by 2700m and the KCl concentration was enhanced to 8% by 3200m.

The hardness was maintained below 400 mg/l using Soda Ash and the sulphite excess was kept at 25-50 mg/l using dry OS-1. The drilled solids were maintained using close monitoring of shakers screens and occasional use of desilter. The volumes and mud properties were maintained by using unweighted premixes. The

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PHPA concentration was kept around 1 ppb through premixes and the low end rheology was maintained in the range of 7 - 9 dial readings due to low ROP via Duovis additions to the active system.

SOLIDS CONTROL

The shakers were dressed initially with (4 x 120), (4 x 52), (4 x 84), (4 x 84) mesh used screens with 10 mesh scalping screens. The shaker screens were upgraded to 120 mesh by 2700m and then further to 165 mesh gradually as dictated by the shaker handling capacity with a pump discharge rate of 800 - 900 gallons per minute and riser booster pump rate of 350 gpm. At 3650m the screens were updated to combination of 230, 200 and 165 mesh sizes.

The desilter was run selectively only when the mud showed tendencies to go above 10.2 ppg and the volume lost at the rate of 15-20 bbl per hour was replaced by premixes to reduce density below 10.2 ppg. The desilter was then run continuously to control and reduce LGS sand build up.

DOWNHOLE LOSSES

No downhole losses were observed while drilling the section.

OBSERVATIONS AND RECOMMENDATIONS

The mud properties were changed initially with consultation with the operator's representative considering the logistical issues of getting chemicals in time due to Christmas holiday period. The initial salt concentration was cut from 8% to 3% and Glycol was introduced at 2530 m. The Gippsland formation drilled from casing shoe to 2500m did not require higher KCl levels and Glycol for cuttings inhibition. These properties were enhanced to programmed properties by 2800m. The fluid loss remained less than 5 cc per 30 minutes and the HPHT fluid loss at 250^0F below 13 cc. The total hardness was treated below 400 mg/l to prevent any scaling tendencies.

The desilter and desander performance with respect to removing solids is questionable but due to the absence of centrifuge, they should be run continuously to control LGS build up. The inclusion of centrifuge to the SCE would have been perfect to remove fine solids and some colloidal size particles. Despite non availability of Centrifuge the mud weights were kept below 10.2 ppg via dilution.

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The new BEM 650 shaker installed out performed the Thule shakers in removing cuttings uninterrupted and less screen consumption. Damaged screens from this shaker were never catastrophic (full hole through filter mesh and wire support layers) and allowed them to be patched and reused frequently. The versatility of changing deck angle helped in operating the shaker at optimum levels. Also the addition of this shale shaker contributed to lower costs because it allowed drilling with programmed flow parameters and not having to reduce it to avoid losses over the shakers.

Post TD Operations

The 12¼" section was logged for 21 hours without incident. The following Schlumberger logs were run:

1. PEX(HALS)-DSI-GR
2. VSI-4-GR

Once logging operations were completed Plug and Abandonment operations proceeded. A total of 180 bbls Hi-Vis mud was mixed with 100+ sec viscosity and the cement plugs were set as follows:

Cement plug No 1:	3750m to 3560m
Cement plug No 2:	2865m to 2745m
Cement plug No 3:	1550m to 1430m

The 300 bbls of mud left in Pit3 was inhibited with Glute Biocide and Safecor corrosion inhibitor and displaced inside the casing. Total cost for this operation was $3,608.56.

The riser and BOP stack were then retrieved, the 20" casing cut and well head recovered and the 18⅜" and 30" housing retrieved.

The bulk 22.2MTGel and 24MTbarite remaining were dumped.

Once all DP lay out was completed the anchors were pulled out. The rig was released on 15 of January 2006 and towed to the next well Manta-2.

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Key Parameters Analysis

PRODUCTS	Actual	Planned	Variance
Barite Bulk, MT	55	50	10.0%
KOH, 25kg bag	42	23	82.6%
Polypac UL, 25kg bag	96	181	-46.9%
Polyplus, 25kg bag	112	136	-17.6%
Duo-Vis, 25 kg bag	127	132	-3.7%
Glute 25, 25lt can	13	4	225%
KCl Bulk, 1MT	71	66	7.5%
NaCl Bulk, 1MT	54	66	-18.1%
OS-1, 25kg bag	64	32	100%
Soda Ash, 25kg bag	22	23	-4.3%
Glydril LC, 55 Gal Drums	108	175	-38.2%
Drispac, 25kg bag	20	0	100%
Flowzan, 25kg bag	25	0	100%
Volume Built, bbl	5599	5000	11.9%
Cost per bbl, $	$ 44.62	$ 59.98	-25.6%
Cost per M, $	$ 110.25	$142.00	-22.3%
Bbl/m	2.47	2.36	4.6%
Interval Cost, $	$249,839.20	$ 299,915	-16.7%
P & A	$3,608.56		
Other (Gel and Bar Dump)	$17,077.61		

The above table does not consider the decision made to drill to a deeper depth of 3758m than the programmed 3612m, but still the overall interval cost was 16.9% lower than programmed.

The main contributors to lower costs were due to less consumption of PAC-UL and Glydrill-LC to programmed properties and because the Glydrill LC was incorporated from 2530m onward through the Lakes Entrance reactive formation.

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DAILY DISCUSSION
REPORT

MI SWACO			Daily Discussion
Operator : Nexus Energy	**Field/Area :** VIC/P-56		
Well Name : Culverin-1	**Description :** Vertical Exploration		M-I Well : **31415**
Contractor : Diamond Offshore	**Location :** Gippsland Basin		

16/12/2005	TD = 650 m	Day 1

Pick up drill string. Spud well and drilled to 650 m MDRT with PHG sweeps. TD. Displaced hole to PHG. POOH. Run conductor casing.
Mixed 1615 bbl of 27 ppb Gel. Used 735 bbl for sweeps/displacement. Also mixed 160 bbl CaCl2 mix for cementing.

17/12/2005	TD = 650 m	Day 2

Lowered casing to bottom. Circulated and cemented. WOC. Pick up drill string.
Mixed more PHG to fill pits.

18/12/2005	TD = 1006 m	Day 3

RIH. MWD tool failure. POOH.RIH.Unable to stab in . POOH. Run back in. Drilled to 1006 m.
Pumping 50 bbl PHG on connections and 35 bbl Guar Gum mid stand. Mixing on the run.

19/12/2005	TD = 1436 m	Day 4

Drilled to 1436 m.
Continued mixing PHG and Guar Gum for sweeps. Pumped 35 bbl Guar Gum and 50 bbl PHG sweeps.

20/12/2005	TD = 1525 m	Day 5

Drilled ahead to TD 1525m pumping 50 bbls PHG on connections and 30 bbls Guar gum mid stand. At TD swept hole clean with 150 bbl PHG sweep then displaced open hole to 840 bbls PHG. POOH. Run casing.
Continued mixing PHG as required. Pumped 50 bbl PHG & 35 bbl Guar Gum every stand. Dumped 35 bbls Guar Gum to create room for more PHG for final displacement. Filled casing with PHG.

21/12/2005	TD = 1525 m	Day 6

Landed 13 3/8" casing, circulated clean with seawater then cemented as per program. WOC. Running BOP stack on new riser.
Dumped and cleaned pits for mixing new mud. Waiting to run riser to reduce deck load prior to start mixing mud. Chemicals required for mixing expected to arrive tomorrow night on Far Grip. 210 bbl PHG saved for sweeps to drill cement.

22/12/2005	TD = 1525 m	Day 7

Continued running marine riser.
Cleaned pits when all riser joints made up.

23/12/2005	TD = 1525 m	Day 8

Test choke and kill lines. Land and latch BOPs. Lay down 17 1/2" BHA and pick up 12 1/4" BHA.
Started mixing mud. Mixed 1000 bbl of 3% KCl/3%NaCl/Polymer mud weighted to 9.5 ppg and filled sandtraps. Further mixing is in progress.

24/12/2005	TD = 1544 m	Day 9

RIH with 12 1/4 BHA, drilled cement plugs, track and shoe, displaced to KCl/NaCl/Polymer mud and drilled 3 m of new hole. Circlated BU, performed LOT at 1511 m EMW 15.8 ppg. Continued to drill 12 1/4" hole to 1544 m.
Displaced hole with mud at 1510 m and dumped 65 bbl of contaminated returns. Lost 108 bbl over shakers due to unsheared mud.

25/12/2005	TD = 2131 m	Day 10

Continued to drill 12 1/4" hole to 2131 m.
Added 0.1 ppb Duovis and PHPA to active to boost 6 rpm and PHPA concentation. Lost 110 bbls over the shakers as mud was too cold. Changed shaker 3 to 4 x 84 new screens @ 1855m & Shaker 1 to 145 @ 2100m. Added 12 Duovis to active gradually limited by shakers. Cuttings well inhibited/encapsulated. Corrected Glycol inventory by 16 drums quoted twice on Manifest.

26/12/2005	TD = 2641 m	Day 11

Contined to drill 12 1/4" hole to 2641 m.
Used new 8 x 120 screens. Added 10 Soda Ash & 8 OS-1. Increased KCl/NaCl conc to 6% & introduced 3% Glydrill LC into system from 2400-2550 m. Cuttings with good integrity and bit cutter marks observed. Losses at shakers when jetting cuttings box.

27/12/2005	TD = 3115 m	Day 12

Continued to drill 12 1/4" hole to 3115 m.
Changed shaker 3 to new 4 x 120 mesh & increased NaCl to 8 % in active system @ 2750. Maintaining active volume and properties with premix. Upgraded shakers to 165 mesh @ 2900 m. Used 4 x 165 BEM & 16 x 165XR new. Changed shakers 2&3 back to 120 mesh @ 22:00 hrs to handle flow.

28/12/2005	TD = 3277 m	Day 13

Added 8 bags KCl to active once boat arrived and maintained programmed properties. Screened up shaker 2 & 3 to 165 mesh using old screens. Changed 2 screens on BEM 650 to new 165 mesh. Used 6 x 165XR new screens. Later screened back shaker 3 to 120 mesh to cope with flow surges due to weather.

29/12/2005	TD = 3385 m	Day 14

Drilled ahead to 3385m.
Added unweighted premixe & ran desilter (discharging 20 bbl/hr, 10.4 ppg) to control mud wt 10.1-10.2 ppg. Used 2x165 and 2x120 mesh new screens. Took 8 x 165 screens from diamond stock.

30/12/2005	TD = 3402 m	Day 15

Drilled ahead to 3402 m. POH for bit change. Back reamed from 2867 m to 2819 m. Made up new motor and bit and RIH.
Ran desilter to maintain mud weight (20 bbl/hr 10.4ppg). Added unweighted premix to maintain volume. Changed out damaged shaker screens with good used screens.

31/12/2005	TD = 3473 m	Day 16

RIH to 3330 m. Reamed and logged to 3350 m. Washed down to bottom and drilled ahead to 3473 m. BHT=56 C
Screened down front screens on all shakers to 84 and 120 mesh for start of circulation.Lost 100 bbl initially over shakers. Took 8 new 165 mesh screens from Diamond stock. Added unweighted premix to maintain volume and mud weight. No fill observed on bottom. Cuttings showing good inhibition and integrity.

1/01/2006	TD = 3571 m	Day 17

Drilled ahead to 3571 m. Pressure drop indicated washout in drill string. Pulling out of hole to investugate.
Maintained volume and programmed properties by adding unweighted premix. Replaced damaged shaker screens with patched screens.

2/01/2006	TD = 3571 m	Day 18

RIH to 2134m. Reamed down to 2593m. POH dt MWD tool failure.
Screened down front screens on shakers 1,2,3 to 84 mesh for start up with cold mud. Maintained programmed properties and active volume with unweighted premix. Took 8 x 145 new screens from diamond.

3/01/2006	TD = 3571 m	Day 19

Pulled out to casing shoe. Pressure tested pump manifold to 4200 psi. Continued pulling out of hole. Made up new BHA, RIH to casing shoe, slip and cut drillline and WOW.
Changed front screens on shakers 1,2,3 to 84 mesh for startup circulation to minimize mud losses due to cold mud.

Pooh due to pressure loss and MWD failure. M/u new BHA, rih to shoe and WOW.

4/01/2006	TD = 3619 m	Day 20

Continued WOW. RIH and drilled ahead to 3619 m.
Bled new premix into active to maintain active volume. Added Duovis and Caustic Potash to the active to adjust flow properties and PH respectively. Once mud temperature increased upgraded shaker screens to finer mesh old 120 and 165 to minimize solids build up.

Continued to WOW. Rih and drill ahead to 3619 m.

5/01/2006	TD = 3697 m	Day 21

Continued to drill to 3697 m at report time.
Added unweighted premix to maintain active volume. Used 4 x 120 new mesh screens from MI stock on shaker 3. Upgraded shaker 1,2&4 to 200 and 230 screens to minimize LGS build up. Also run Desilter continuously to control LGS.

6/01/2006	TD = 3758 m	Day 22

Drilled to TD 3758 m and at present circulating hole prior to Pooh.
Ran desilter continuously to minimise LGS build up. Used 4 new 200 mesh screens from Diamond stock. Backloaded 78T Bayrite and 16T Bentonite.

Continued to dill to TD 3758 m and circulate hole.

7/01/2006	TD = 3758 m	Day 23

Circulated hole clean, Pooh to 3668 m, re-logged interval to 3582 m (mwd tool 22 m above bit), repaired broken hose and POOH. R/u Wireline tools and run logs as per programm.
Bled premix to the active as required for pit levels.

Circulated hole and Pooh to 3668m and re-logged interval to 3582m. R/u wireline logging tools and run as per program.

8/01/2006	TD = 3758 m	Day 24

Continued to log well (first run PEX-HALS-DSI-GR, second run vsi-4-gr). RIH with open end pipe to conduct P&A operation.
Mixed 70bbls hi-vis mud for P&A. Installed coarse shaker screens on the front of all shakers to prevent cold mud losses. Recieved chemicals on board from the Far Grip and will be recheck qty when able to open containers.

Log well as per program.

9/01/2006	TD = 3758 m	Day 25

RIH to 3750 m. Circulated bottoms up. Cemented with 102 bbl slurry from 3750 m to 3560 m. Pulled up to 2965 m and spot 60 bbl hi vis pill. Set second cement plug at 2865 m to 2745 m. Pulled out to 1650 m and spot 60 bbl hi vis pill. Set third cement plug at 1550 m to 1430 m. Circulated casing clean, filling with inhibited mud.
Made up and pumped another batych of 60 bbl hi vis pill. Displaced casing with Inhibited mud with Glute 25, Conqor 303, OS1 and KOH after setting third cement plug. Made up and pumped 50 bbl slug.

Rih to 3750m and P&A hole as per program

10/01/2006	TD = 3758 m	Day 26

Continued with P&A operation, set cmt plug4 from 725m to 625m as per program. At present pulling out BOP as per DOGC procedures.
Mixed a batch of hi-vis mud and spotted prior to set cmt Plug4. After cmt plugs, dump and clean sand traps and pits.

Continued to P&A operation.

11/01/2006	TD = 3758 m	Day 27

Continued to pull out Riser-BOP.
No mud treatment today. Dumped bulk materials: 22.2MT Gel Bulk and 24MT Barite in preparation for rig move.

Pull out Riser-BOP

12/01/2006	TD = 3758 m	Day 28

Continued to pull Riser-BOP. Cut 20" casing and recover welhead. Pepare to retrieve 18 3/4" and 30" housing at report time.
No mud treatment today.

Continued to retrieve BOP. Cut 20" casing and recovered well head.

13/01/2006	TD = 3758 m	Day 29

Retrieve 18 3/4"-30" housing. Lay down DP and DC. Prepare to pull the Anchors at rpt time.

Cut and retrieve 18 3/4" - 30" hosing

14/01/2006	TD = 0 m	Day 30

At present pull anchors to move rig.
Clean pits in preparation for the next well.

Pull anchors

15/01/2006	TD = 0 m	Day 31

Completed pulling anchors. Rig released at 15:00 hrs. Moved off location.

Completed pulling anchors and rig released at 15:00hrs

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

COST
BY
INTERVAL

MI SWACO

PRODUCT SUMMARY

Operator : Nexus Energy
Well Name : Culverin-1
Contractor : Diamond Offshore
Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin

SUMMARY OF PRODUCT USAGE FOR 914 mm INTERVAL 16/12/2005 - 16/12/2005, 607 - 650 m

WATER-BASED MUD	SIZE	AMOUNT	UNIT COST (A$)	PROD COST (A$)
1 - CALCIUM CHLORIDE Sacks	25 KG BG	11	15.33	168.63
2 - CAUSTIC SODA	25 KG DM	5	30.46	152.30
3 - MI Gel (Bulk)	1 MT BG	20	382.17	7643.40
SUB TOTAL:				7964.33
TAX:				0.00
WATER-BASED MUD TOTAL COST:				7964.33

TOTAL MUD COST FOR INTERVAL: 7964.33

PRODUCT SUMMARY

Operator : Nexus Energy
Well Name : Culverin-1
Contractor : Diamond Offshore
Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin

SUMMARY OF PRODUCT USAGE FOR 444 mm INTERVAL 17/12/2005 - 21/12/2005, 650 - 1525 m

WATER-BASED MUD	SIZE	AMOUNT	UNIT COST (A$)	PROD COST (A$)
1 - CAUSTIC SODA	25 KG DM	3	30.46	91.38
2 - GUAR GUM	25 KG BG	70	79.62	5573.40
3 - MI Gel (Bulk)	1 MT BG	28	382.17	10700.76
SUB TOTAL:				16365.54
TAX:				0.00
WATER-BASED MUD TOTAL COST:				16365.54
TOTAL MUD COST FOR INTERVAL:				16365.54

MI SWACO

PRODUCT SUMMARY

Operator : Nexus Energy
Well Name : Culverin-1
Contractor : Diamond Offshore
Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin

SUMMARY OF PRODUCT USAGE FOR 311 mm INTERVAL 22/12/2005 - 15/01/2006, 1525 - 3758 m

WATER-BASED MUD	SIZE	AMOUNT	UNIT COST (A$)	PROD COST (A$)
1 - DEFOAM A	5 GA CN	13	92.24	1199.12
2 - DUO-VIS	25 KG BG	133	302.03	40169.99
3 - GLUTE 25	25 LT CN	14	121.35	1698.90
4 - OS-1	25 KG BG	65	50.29	3268.85
5 - POLYPAC UL	25 KG BG	96	126.76	12168.96
6 - SODA ASH	25 KG BG	22	17.19	378.18
7 - POTASSIUM HYDROXIDE	25 KG CN	43	45.13	1940.59
8 - KCl BB	1 MT BG	71	669.89	47562.19
9 - MI BAR (Bulk)	1 MT BG	82	358.06	29360.92
10 - MI Gel (Bulk)	1 MT BG	24	382.17	9248.51
11 - POLY PLUS DRY	25 KG BG	112	140.00	15680.00
12 - CONQOR 303A	55 GA DM	1	505.43	505.43
13 - GLYDRIL LC	55 GA DM	108	774.13	83606.04
14 - SALT	1.2 MT BG	54	252.81	13651.74
15 - FLOWZAN	25 KG BG	25	302.03	7550.75
16 - DRISPAC	50 LB BG	20	126.76	2535.20

SUB TOTAL:	270525.37
TAX:	0.00
WATER-BASED MUD TOTAL COST:	270525.37

TOTAL MUD COST FOR INTERVAL: 270525.37

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

DAILY VOLUME
SUMMARY SHEET

Nexus Energy

Culverin-1

Daily Volume Summary

30" Interval - Seawater/Gel Sweeps

		Mud Volume (m3)					Volume Built m3								Volume Lost m3							
Date	Depth	Hole	Surf	Premix	Reserve	Total	Drill	Mud	Synthetic	Brine	Chemical	Barite	Daily	Cum	Displace	Centri-	Desilter	Dump	Hole	Sweeps	Daily	Cummul
		Active	Active			Vol	Water	Received	Added	Added	Volume	Volume	Built	Built	ment	fuge			Displ		Lost	Lost
16-Dec-05	650			880		**880**	1566				49		1615	1615						735	735	735
						0							0								0	0

17.5" Interval - Seawater / Hi Vis Sweeps

		Mud Volume (m3)					Volume Built m3								Volume Lost m3							
Date	Depth	Hole	Surf	Premix	Reserve	Total	Drill	Mud	Synthetic	Brine	Chemical	Barite	Daily	Cum	Displace	Centri-	Transfer	Dump	Fill	Sweeps	Daily	Cummul
		Active	Active			Vol	Water	Received	Added	Added	Volume	Volume	Built	Built	ment	fuge	Next Sec		Casing		Lost	Lost
17-Dec-05	650			1635		**1635**	736	880			19		**1635**	**1635**							**0**	**0**
18-Dec-05	1006			1911		**1911**	1275				21		**1296**	**2931**						1020	**1020**	**1020**
19-Dec-05	1436			1881		**1881**	1260				28		**1288**	**4219**						1318	**1318**	**2338**
20-Dec-05	1525			597		**597**	510				10		**520**	**4739**	840			35		929	**1804**	**4142**
21-Dec-05	1525					**0**												597			**597**	**4739**

12.25" Interval - KCl/NaCl/PHPA/Glydrill

		Mud Volume (bbl)					Volume Built bbl								Volume Lost bbl							
Date	Depth	Hole	Surf	Premix	Reserve	Total	Drill	Mud	Synthetic	Brine	Chemical	Barite	Daily	Cum	Shakers	Sweeps	Desilter	Dump	Hole	Other	Daily	Cummul
		Active	Active		(Brine)	Vol	Water	Received	Added	Added	Volume	Volume	Built	Built							Lost	Lost
22-Dec-05	1525					**0**							**0**	**0**							**0**	**0**
23-Dec-05	1525			1000		**1000**	941				59		**1000**	**1000**							**0**	**0**
24-Dec-05	1544	1165	433	500		**2098**	1201				70		**1271**	**2271**	108			65			**173**	**173**
25-Dec-05	2131	1433	400	679		**2512**	683				60		**743**	**3014**	329						**329**	**502**
26-Dec-05	2641	1666	435	390		**2491**	205				150		**355**	**3369**	376						**376**	**878**
27-Dec-05	3115	1883	387	271		**2541**	309				76		**385**	**3754**	335						**335**	**1213**
28-Dec-05	3277	1957	499	685		**3141**	804				137		**941**	**4695**	341						**341**	**1554**
29-Dec-05	3385	2006	496	405		**2907**					1		**1**	**4696**	74		161				**235**	**1789**
30-Dec-05	3402	2104	360	740		**3204**	365				56		**421**	**5117**	69		40	15			**124**	**1913**
31-Dec-05	3473	2046	410	500		**2956**							**0**	**5117**	248						**248**	**2161**
01-Jan-06	3571	2091	455	730		**3276**	405				55		**460**	**5577**	140						**140**	**2301**
02-Jan-06	3571	2114	375	730		**3219**							**0**	**5577**	57						**57**	**2358**

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

TOTAL
MATERIAL
COST

PRODUCT SUMMARY

Operator : Nexus Energy
Well Name : Culverin-1
Contractor : Diamond Offshore
Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin

SUMMARY OF PRODUCT USAGE FOR INTERVAL 16/12/2005 - 15/01/2006, 0 - 3758 m

WATER-BASED MUD	SIZE	AMOUNT	UNIT COST (A$)	PROD COST (A$)
1 - CALCIUM CHLORIDE Sacks	25 KG BG	11	15.33	168.63
2 - CAUSTIC SODA	25 KG DM	8	30.46	243.68
3 - DEFOAM A	5 GA CN	13	92.24	1199.12
4 - DUO-VIS	25 KG BG	133	302.03	40169.99
5 - GLUTE 25	25 LT CN	14	121.35	1698.90
6 - GUAR GUM	25 KG BG	70	79.62	5573.40
7 - OS-1	25 KG BG	65	50.29	3268.85
8 - POLYPAC UL	25 KG BG	96	126.76	12168.96
9 - SODA ASH	25 KG BG	22	17.19	378.18
10 - POTASSIUM HYDROXIDE	25 KG CN	43	45.13	1940.59
11 - KCl BB	1 MT BG	71	669.89	47562.19
12 - MI BAR (Bulk)	1 MT BG	82	358.06	29360.92
13 - MI Gel (Bulk)	1 MT BG	72	382.17	27592.67
14 - POLY PLUS DRY	25 KG BG	112	140.00	15680.00
15 - CONQOR 303A	55 GA DM	1	505.43	505.43
16 - GLYDRIL LC	55 GA DM	108	774.13	83606.04
17 - SALT	1.2 MT BG	54	252.81	13651.74
18 - FLOWZAN	25 KG BG	25	302.03	7550.75
19 - DRISPAC	50 LB BG	20	126.76	2535.20

SUB TOTAL:	294855.24
TAX:	0.00
WATER-BASED MUD TOTAL COST:	294855.24

TOTAL MUD COST FOR INTERVAL: 294855.24

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

DRILLING
FLUIDS
SUMMARY

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		16/12/2005	17/12/2005	18/12/2005	19/12/2005	20/12/2005	21/12/2005
Depth/TVD	m	650/650	650/ 650	840/840	1390/1390	1525/1525	1525/1525
Activity		Run Conductor	P/U Drill Pipe	rilling 17.5" Hol	Drill 17.5"	Run 13 3/8	Run BOP
Mud Type		SW/PHG	SW/PHG	SW/PHG	SW/PHG	SW/PHG	SW/PHG
Hole Size	in	36	17.5	17.5	17.5	17.5	17.5
Circ Volume	bbl						
Flow Rate	gal/min	0	0	752	1129	1129	0
Circ Pressure	psi	0	0	2400	3300	3300	0
Avg ROP	m/hr	0	0	0	25	25	0
Sample From		Pit	Pit	Pit	Pit	Pit	Pit
Flow Line Temp	°C						
Mud Weight	lb/gal	8.8@ °C	8.7 @ °C	8.6@20 °C	8.7@20 °C	8.6@20 °C	8.6@20 °C
Funnel Viscosity	s/qt	> 120	> 120	100	110	105	100
PV	cP			9	14	14	10
YP	lb/100ft²			22	26	30	35
R600/R300/R200		/ /	/ /	40/31/29	54/40/35	58/44/40	55/45/35
R100/R6/R3		/ /	/ /	24/17/16	28/21/20	33/23/22	32/25/24
10s/10m/30m Gel	lb/100ft²	//	//	18/18/20	22/28/35	22/27/35	24/26/30
API Fluid Loss	cc/30 min			18	14	14	13
HTHP Fluid Loss	cc/30 min						
Cake API/HT	1/32"	/	/	1/	1/	1/	1/
Solids	%Vol			3	2	2.5	2
Oil/Water	%Vol	/	/	/97	/98	/97.5	/98
Sand	%Vol						
MBT	lb/bbl			18	20	20	18
pH				9	9.2	9	9
Alkal Mud (Pm)				0	0.35	0.3	0.4
Pf/Mf		/	/	0.08/1.6	0.18/0.3	0.1/0.2	0.1/0.2
Chlorides	mg/l			2200	600	600	600
Hardness Ca				80	20	40	40
KCl	% wt						
PHPA	ppb						
Glycol	% Vol						
Sulphite	ppm						
Daily Mud Cost	A$	7964.33	3057.36	6208.93	5570.57	1528.68	0.00
Cuml Mud Cost	A$	7964.33	11021.69	17230.62	22801.19	24329.87	24329.87
Sales Engineer		Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep
Products Used		CaCl2 / 11	BulkGel / 8	NaOH / 1	NaOH / 2	BulkGel / 4	
		NaOH / 5		Guar / 44	Guar / 26		
		BulkGel / 20		BulkGel / 7	BulkGel / 9		

REMARKS

16/12/2005:
17/12/2005:
18/12/2005:
19/12/2005:
20/12/2005:
21/12/2005:

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		22/12/2005	23/12/2005	24/12/2005	25/12/2005	25/12/2005	25/12/2005
Depth/TVD	m	/	1525/1525	1527/1527	2070/2070	1756/1756	1610/1610
Activity		Run BOP	Pick up BHA	Drill 12.25"	Drill 12.25"	Drill 12.25"	Drill 12.25"
Mud Type		KCl-NaCl-Po	KCl-NaCl-Po	KCl-NaCl-Po	KCl-NaCl-Po	KCl-NaCl-Po	KCl-NaCl-Po
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl			1598	1833	1833	1833
Flow Rate	gal/min	0	0	769	898	898	898
Circ Pressure	psi	0	0	1750	2750	2750	2750
Avg ROP	m/hr	0	0	6	25	25	25
Sample From			Pit	Pit	Pit	F/L	F/L
Flow Line Temp	°C			20	20	16	16
Mud Weight	lb/gal	@ °C	9.5@20 °C	9.5@20 °C	9.65@20 °C	9.5@16 °C	9.5@16 °C
Funnel Viscosity	s/qt		50	48	56	50	56
PV	cP		9	10	15	10	10
YP	lb/100ft²		12	13	20	14	14
R600/R300/R200		/ /	30/21/18	33/23/19	50/35/29	34/24/20	34/24/20
R100/R6/R3		/ /	13/4/3	14/4/3	21/6/4	14/4/2	14/4/3
10s/10m/30m Gel	lb/100ft²	//	3/3/3	4/6/12	4/5/6	4/5/5	3/5/5
API Fluid Loss	cc/30 min		6.8	6.6	6	6.2	6.2
HTHP Fluid Loss	cc/30 min						
Cake API/HT	1/32"	/	1/	1/	1/	1/	1/
Solids	%Vol		5.5	5.35	6	6	6
Oil/Water	%Vol	/	/94.5	/94.65	/94	/94	/94
Sand	%Vol			-	1	0	0
MBT	lb/bbl		0	1	1	0	0
pH			9.5	9.5	9	9.5	10
Alkal Mud (Pm)			0.28	0.5	0.2	0.5	0.5
Pf/Mf		/	0.15/0.32	0.35/0.55	0.1/0.3	0.2/0.7	0.2/0.7
Chlorides	mg/l		35500	36000	36500	35000	35000
Hardness Ca			80	240	200	240	240
KCl	% wt		3	3	3	2.5	3
PHPA	ppb		0.4	0.47	0.8	0.65	0.5
Glycol	% Vol		0	-	0	0	0
Sulphite	ppm		0	60	60	200	250
Daily Mud Cost	A$	0.00	20167.48	27976.14	23714.78		
Cuml Mud Cost	A$	24329.87	44497.35	72473.49	96188.27		
Sales Engineer		Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep
Products Used			DFOAM / 2	DFOAM / 3	DFOAM / 5		
			Duovis / 4	Duovis / 11	Duovis / 27		
			PacUL / 24	Glut / 6	Glut / 1		
			KOH / 4	OS-1 / 8	OS-1 / 8		
			KClBB / 6	PacUL / 8	PacUL / 18		
			BulkBar / 14	KOH / 7	KOH / 4		
			BulkGel / 2	KClBB / 6	KClBB / 8		
			Poly+ / 8	BulkBar / 22	BulkBar / 9		
			Salt / 4	Poly+ / 20	Poly+ / 18		
			Flowzan / 12	Salt / 3	Salt / 4		
				Flowzan / 13			
				Drispac / 20			

REMARKS

22/12/2005:
23/12/2005:
24/12/2005:
25/12/2005:

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		26/12/2005	26/12/2005	26/12/2005	27/12/2005	27/12/2005	28/12/2005
Depth/TVD	m	2600/2600	2320/2320	2199/2199	3052/3052	2740/2739	3260/3260
Activity		Drill 12.25"	Drill 12.25"	Drill 12.25"	Drill 12.25"	Drill 12.25"	Drill 12.25"
Mud Type		MixSalt-Pol	MixSalt-Pol	MixSalt-Pol	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl	2101	2101	2101	2269	2269	2455
Flow Rate	gal/min	902	902	902	902	902	902
Circ Pressure	psi	3400	3400	3400	3400	3400	3400
Avg ROP	m/hr	22	22	22	50	50	50
Sample From		Pit	F/L	F/L	Pit	F/L	Pit
Flow Line Temp	°C	22	17	17	25	18	32
Mud Weight	lb/gal	10@20 °C	9.5@17 °C	9.5@17 °C	10.2 @25 °C	9.9@18 °C	10.3 @25 °C
Funnel Viscosity	s/qt	55	60	56	57	56	57
PV	cP	16	15	12	17	15	17
YP	lb/100ft²	25	25	23	26	25	26
R600/R300/R200		57/41/34	55/40/34	47/35/29	60/43/36	55/40/33	60/43/36
R100/R6/R3		25/7/5	25/7/5	20/6/4	26/7/5	24/7/5	26/7/5
10s/10m/30m Gel	lb/100ft²	6/9/12	7/9/11	5/7/9	7/9/12	7/11/12	6/9/13
API Fluid Loss	cc/30 min	4	5.4	5.6	4	4.6	4
HTHP Fluid Loss	cc/30 min	13.6			12.8	13	12
Cake API/HT	1/32"	1/1	1/	1/	1/1	1/1	1/1
Solids	%Vol	10	7	6	10	10	10.5
Oil/Water	%Vol	/90	/93	/94	/90	/90	/89.5
Sand	%Vol	0.8	1	1	1.25	1.5	1.25
MBT	lb/bbl	5	5	4	6	7.5	6
pH		8.7	9	9	9	9.5	9
Alkal Mud (Pm)		0	0.4	0.25	0	0	0
Pf/Mf		0.04/0.45	0.05/0.55	0.1/0.7	0.05/0.3	0.05/0.7	0.05/0.5
Chlorides	mg/l	65000	36000	36000	75000	68000	81500
Hardness Ca		240	360	360	260	240	260
KCl	% wt	6	2.5	2.5	6	6	8
PHPA	ppb	1	1	1	1	1	1
Glycol	% Vol	3			3	3	3
Sulphite	ppm	25	25	10	20	10	25
Daily Mud Cost	A$	57188.30			20506.64		49324.83
Cuml Mud Cost	A$	153376.57			173883.21		223208.04
Sales Engineer		Glen Sh/Jasdeep	Glen Sh/Jasdeep	Glen Sh/Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep
Products Used		Duovis / 17			Duovis / 8		Duovis / 26
		Glut / 1			Glut / 1		Glut / 2
		OS-1 / 12			PacUL / 4		OS-1 / 12
		PacUL / 5			Soda / 4		PacUL / 20
		Soda / 10			KOH / 4		KOH / 5
		KOH / 5			KClBB / 5		KClBB / 20
		KClBB / 14			Poly+ / 11		Poly+ / 24
		Poly+ / 7			GlyLC / 12		GlyLC / 24
		GlyLC / 48			Salt / 12		Salt / 10
		Salt / 11					

REMARKS

26/12/2005:

27/12/2005:

28/12/2005:

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		28/12/2005	29/12/2005	29/12/2005	30/12/2005	30/12/2005	31/12/2005
Depth/TVD	m	3155/3147	3380/3380	3299/3296	3402/3997	3390/3387	3452/3448
Activity		Drill 12.25"	Drill 12.25"	Drill 12.25"	Trip Bit change	Trip Bit change	Drill 12.25"
Mud Type		MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl	2455	2502	2502	2464	2464	2456
Flow Rate	gal/min	902	902	902	902	902	902
Circ Pressure	psi	3400	3800	3800	3800	3800	3800
Avg ROP	m/hr	50	5	5	5	5	5
Sample From		Active	Pit	Active	Pit	Active	Pits
Flow Line Temp	°C	32	33	33		32	29
Mud Weight	lb/gal	10.2@25 °C	10.2@33 °C	10.2@25 °C	10.2@30 °C	10.1@25 °C	10.2 @27 °C
Funnel Viscosity	s/qt	58	57	60	60	60	62
PV	cP	15	17	16	16	16	17
YP	lb/100ft²	27	30	26	28	27	33
R600/R300/R200		57/42/34	64/47/40	58/42/35	60/44/37	59/43/36	67/50/42
R100/R6/R3		24/7/5	28/8/6	25/7/5	27/7/5	26/7/6	30/9/7
10s/10m/30m Gel	lb/100ft²	6/8/9	7/9/11	6/9/10	7/9/11	6/9/10	8/11/13
API Fluid Loss	cc/30 min	4	4	4.1	4	4	3.6
HTHP Fluid Loss	cc/30 min	12	12	11.5	11.8	11.6	12
Cake API/HT	1/32"	1/1	1/1	1/1	1/1	1/1	1/1
Solids	%Vol	10	10.5	10.5	10.5	10	10.5
Oil/Water	%Vol	/90	/89.5	/89.5	/89.5	/90	/89.5
Sand	%Vol	0.7	1.25	1.3	1	0.8	1.5
MBT	lb/bbl	5	6	7.5	7	7.5	6
pH		9	9	8.8	9	9	9
Alkal Mud (Pm)		0	0	0.35	0	0.4	0.1
Pf/Mf		0.05/0.6	0.05/0.3	0.05/0.5	0.04/0.5	0.05/0.7	0.05/0.4
Chlorides	mg/l	74000	82000	82000	82500	83000	84000
Hardness Ca		240	320	240	260	240	200
KCl	% wt	6	7	8	7	6.9	7
PHPA	ppb	1	1	1	1	1	1
Glycol	% Vol	3	3	3	3	3	3
Sulphite	ppm	10	25	50	50	150	50
Daily Mud Cost	A$		2468.46		21860.45		301.74
Cuml Mud Cost	A$		225676.50		247536.95		247838.69
Sales Engineer		Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep
Products Used			Duovis / 6		DFOAM / 2		OS-1 / 6
			OS-1 / 6		Duovis / 14		
			PacUL / 1		PacUL / 8		
			Soda / 8		KOH / 4		
			KOH / 2		KClBB / 6		
					Poly+ / 12		
					GlyLC / 12		
					Salt / 5		

REMARKS

29/12/2005:

30/12/2005:

31/12/2005:

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		31/12/2005	1/01/2006	1/01/2006	2/01/2006	2/01/2006	3/01/2006
Depth/TVD	m	3402/3399	3571/3567	3511/3507	3571/3567	3571/3567	3571/3567
Activity		Drill 12.25"	)OH for Wash O	)OH for Wash O	/O for MWD Too	O for MWD Toc	WOW
Mud Type		MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl	2456	2546	2546	2489	2489	2540
Flow Rate	gal/min	902	902	902	727	727	727
Circ Pressure	psi	3800	3800	3800	2900	2900	2900
Avg ROP	m/hr	5	5	5	0	0	0
Sample From		Pit	Pit	Active	FL	Active	Active
Flow Line Temp	°C		33	31	30		
Mud Weight	lb/gal	10.2@25 °C	10.2 @32 °C	10.2@25 °C	10.2@30 °C	10.2@25 °C	10.15 @20 °C
Funnel Viscosity	s/qt	62	62	65	66	65	57
PV	cP	16	18	17	17	17	16
YP	lb/100ft²	27	27	30	31	27	27
R600/R300/R200		59/43/36	63/45/37	64/47/38	65/48/41	61/44/36	59/43/37
R100/R6/R3		26/7/6	27/8/6	28/8/6	30/8/6	26/7/5	27/7/5
10s/10m/30m Gel	lb/100ft²	6/9/10	7/9/11	7/10/12	7/9/11	7/9/11	6/8/12
API Fluid Loss	cc/30 min	4	3.6	3.9	3.6	3.5	3.8
HTHP Fluid Loss	cc/30 min	11.6	12	11.6	11.8	11.6	11.6
Cake API/HT	1/32"	1/1	1/1	1/1	1/1	1/1	1/1
Solids	%Vol	10.5	10.5	10.5	10.5	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5	/89.5	/89.5	/89.5	/89.5
Sand	%Vol	1	1.25	1.3	1	1	1
MBT	lb/bbl	7.5	6	5	7	7.5	7.5
pH		9	9	8.5	8.5	9	8.5
Alkal Mud (Pm)		0.4	0.2	0.3	0	0.2	0.35
Pf/Mf		0.05/0.7	0.04/0.5	0.05/0.7	0.02/0.5	0.05/0.7	0.06/0.7
Chlorides	mg/l	83000	82000	82000	82000	83000	78000
Hardness Ca		240	200	220	240	200	200
KCl	% wt	7	7	7	7	7	7
PHPA	ppb	1	1	1	1	1	1
Glycol	% Vol	3	3	3	3	3	3
Sulphite	ppm	50	25	100	25	100	25
Daily Mud Cost	A$		20198.73		0.00		0.00
Cuml Mud Cost	A$		268037.42		268037.42		268037.42
Sales Engineer		Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Jasdeep	Kelvin /Eladio
Products Used			DFOAM / 1				
			Duovis / 8				
			Glut / 2				
			PacUL / 8				
			KOH / 4				
			KClBB / 6				
			Poly+ / 12				
			GlyLC / 12				
			Salt / 5				

REMARKS

1/01/2006:

2/01/2006:

3/01/2006: Pooh due to pressure loss and MWD failure. M/u new BHA, rih to shoe and WOW.

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		3/01/2006	4/01/2006	4/01/2006	5/01/2006	5/01/2006	6/01/2006
Depth/TVD	m	3571/3567	3576/3572	3571/3567	3661/3657	3628/3624	3752/3752
Activity		WOW	Drilling	Drilling	Drilling	Drilling	Circulating
Mud Type		MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl	2540	2515	2515	2575	2575	2638
Flow Rate	gal/min	727	727	727	727	727	727
Circ Pressure	psi	2900	2900	2900	2900	2900	2900
Avg ROP	m/hr	0	0	0	0	0	0
Sample From		Active	FL	Active	Pit	Active	Pit
Flow Line Temp	°C		30		32	32	32
Mud Weight	lb/gal	10.2@25 °C	10.15 @28 °C	10.1@25 °C	10.15 @25 °C	10.2@25 °C	10.15 @25 °C
Funnel Viscosity	s/qt	66	64	59	61	64	59
PV	cP	16	17	15	16	17	15
YP	lb/100ft²	28	33	27	30	30	30
R600/R300/R200		60/44/36	67/50/43	57/42/35	62/46/39	64/47/39	60/45/39
R100/R6/R3		26/7/6	30/9/7	25/7/5	28/9/6	29/9/7	28/9/6
10s/10m/30m Gel	lb/100ft²	6/9/11	8/11/15	5/8/10	8/12/15	7/11/13	7/11/15
API Fluid Loss	cc/30 min	3.7	3.6	3.5	3.6	3.8	3.8
HTHP Fluid Loss	cc/30 min	11.6	11.0	11.5	11	11.2	11
Cake API/HT	1/32"	1/1	1/1	1/1	1/1	1/1	1/1
Solids	%Vol	10.5	10.5	10.5	10.5	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5	/89.5	/89.5	/89.5	/89.5
Sand	%Vol	1	1	1	0.8	1	0.7
MBT	lb/bbl	7.5	7.5	7.5	7.5	5	5
pH		8.5	9	8.5	9	9	9
Alkal Mud (Pm)		0.3	0.4	0.3	0.3	0.3	0.3
Pf/Mf		0.05/0.8	0.08/0.7	0.05/0.7	0.06/0.7	0.05/0.8	0.06/0.8
Chlorides	mg/l	81000	79000	80000	79000	82000	79000
Hardness Ca		200	200	200	200	200	240
KCl	% wt	7	7	7	7	7	7
PHPA	ppb	1	1	1	1	1	0.9
Glycol	% Vol	3	3	3	3	3	2.8
Sulphite	ppm	25		25		100	50
Daily Mud Cost	A$		5829.91		0.00		301.74
Cuml Mud Cost	A$		273867.33		273867.33		274169.07
Sales Engineer		Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio
Products Used			Duovis / 6				OS-1 / 6
			OS-1 / 6				
			KOH / 3				
			BulkBar / 10				

REMARKS

4/01/2006: Continued to WOW. Rih and drill ahead to 3619 m.

5/01/2006:

6/01/2006: Continued to dill to TD 3758 m and circulate hole.

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		6/01/2006	7/01/2006	7/01/2006	8/01/2006	8/01/2006	9/01/2006
Depth/TVD	m	3713/3709	3758/3754	3758/3754	3758/3754	3758/3754	3758/ 3754
Activity		Circulating	Logging	Logging	RIH	RIH	Circulating
Mud Type		MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly	MixSalt-Gly
Hole Size	in	12.25	12.25	12.25	12.25	12.25	12.25
Circ Volume	bbl	2638	2638	2638	2638	2638	2633
Flow Rate	gal/min	727	0	0	0	0	0
Circ Pressure	psi	2900	2900	2900	2900	2900	0
Avg ROP	m/hr	0	0	0	0	0	0
Sample From		Active	Pit	Active	Hi-vis	Active	Pit
Flow Line Temp	°C	31					
Mud Weight	lb/gal	10.1@25 °C	10.15 @20 °C	10.1@20 °C	10.2 @20 °C	10.1@20 °C	10.2 @ °C
Funnel Viscosity	s/qt	58	59	56	104	59	100+
PV	cP	15	16	15		15	
YP	lb/100ft²	30	28	30		30	
R600/R300/R200		60/45/37	60/44/38	60/45/37	/ /	60/45/37	/ /
R100/R6/R3		27/8/6	28/8/6	27/8/6	/ /	27/8/6	/ /
10s/10m/30m Gel	lb/100ft²	7/10/12	7/10/15	7/10/12	//	7/10/12	//
API Fluid Loss	cc/30 min	3.8	3.6	3.8		3.6	
HTHP Fluid Loss	cc/30 min	11	11	11		11	
Cake API/HT	1/32"	1/1	1/1	1/1	/	1/1	/
Solids	%Vol	10.5	10.5	10.5		10.5	
Oil/Water	%Vol	/89.5	/89.5	/89.5	/	/89.5	/
Sand	%Vol	0.75	0.7	0.5		0.5	
MBT	lb/bbl	5	5	5		5	
pH		9	9	9		9	
Alkal Mud (Pm)		0.2	0.35	0.3		0.3	
Pf/Mf		0.05/0.75	0.04/0.7	0.05/0.7	/	0.05/0.7	/
Chlorides	mg/l	80000	79000	80000		79000	
Hardness Ca		240	240	220		220	
KCl	% wt	7	6.8	6.8		6.5	
PHPA	ppb	1	1	1		1	
Glycol	% Vol	3	2.7	2.7		2.8	
Sulphite	ppm	25	75	100		50	
Daily Mud Cost	A$		0.00		604.06		3004.50
Cuml Mud Cost	A$		274169.07		274773.13		277777.63
Sales Engineer		Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio	Kelvin /Eladio
Products Used					Duovis / 2		Duovis / 4
							Glut / 1
							OS-1 / 1
							KOH / 1
							BulkBar / 3
							Con303 / 1

REMARKS

7/01/2006: Circulated hole and Pooh to 3668m and re-logged interval to 3582m. R/u wireline logging tools and run as per program.

8/01/2006: Log well as per program.

9/01/2006: Rih to 3750m and P&A hole as per program

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		9/01/2006	10/01/2006	11/01/2006	12/01/2006	13/01/2006	14/01/2006
Depth/TVD	m	3758/3754	3758/3754	/	/	/	/
Activity		Circulating	P & A	P&A	P&A	P&A	Pull Anchors
Mud Type		MixSalt-Gly	MixSalt-Gly	SW	SW	SW	
Hole Size	in	12.25	12.25	12.25	12.25	12.25	0
Circ Volume	bbl	2633					
Flow Rate	gal/min	0	0	0	0	0	0
Circ Pressure	psi	0	2900	0	0	0	0
Avg ROP	m/hr	0	0	0	0	0	0
Sample From		Active	SW				
Flow Line Temp	°C						
Mud Weight	lb/gal	10.1@20 °C	@ °C	@ °C	@ °C	@ °C	@ °C
Funnel Viscosity	s/qt	56					
PV	cP	15					
YP	lb/100ft²	30					
R600/R300/R200		60/45/37	/ /	/ /	/ /	/ /	/ /
R100/R6/R3		27/8/6	/ /	/ /	/ /	/ /	/ /
10s/10m/30m Gel	lb/100ft²	7/10/12	//	//	//	//	//
API Fluid Loss	cc/30 min	3.6					
HTHP Fluid Loss	cc/30 min	11					
Cake API/HT	1/32"	1/1	/	/	/	/	/
Solids	%Vol	10.5					
Oil/Water	%Vol	/89.5	/	/	/	/	/
Sand	%Vol	0.5					
MBT	lb/bbl	5					
pH		9					
Alkal Mud (Pm)		0.3					
Pf/Mf		0.05/0.7	/	/	/	/	/
Chlorides	mg/l	79000					
Hardness Ca		220					
KCl	% wt	6.8					
PHPA	ppb	1					
Glycol	% Vol	2.7					
Sulphite	ppm	25					
Daily Mud Cost	A$		0.00	17077.61	0.00	0.00	0.00
Cuml Mud Cost	A$		277777.63	294855.24	294855.24	294855.24	294855.24
Sales Engineer		Kelvin /Eladio	Glen Sh/Eladio	Glen Sh/Eladio	Glen Sh/Eladio	Glen Sh/Eladio	Glen Sh/Eladio
Products Used				BulkBar / 24			
				BulkGel / 22.2			

REMARKS

10/01/2006: Continued to P&A operation.
11/01/2006: Pull out Riser-BOP
12/01/2006: Continued to retrieve BOP. Cut 20" casing and recovered well head.
13/01/2006: Cut and retrieve 18 3/4" - 30" hosing
14/01/2006: Pull anchors

DRILLING FLUIDS SUMMARY

Operator : Nexus Energy
Field/Area : VIC/P-56
Well Name : Culverin-1
Description : Vertical Exploration
Contractor : Diamond Offshore
Location : Gippsland Basin

Date		15/01/2006
Depth/TVD	m	/
Activity		Pull Anchors
Mud Type		
Hole Size	in	0
Circ Volume	bbl	
Flow Rate	gal/min	0
Circ Pressure	psi	0
Avg ROP	m/hr	0
Sample From		
Flow Line Temp	°C	
Mud Weight	lb/gal	@ °C
Funnel Viscosity	s/qt	
PV	cP	
YP	lb/100ft²	
R600/R300/R200		/ /
R100/R6/R3		/ /
10s/10m/30m Gel	lb/100ft²	//
API Fluid Loss	cc/30 min	
HTHP Fluid Loss	cc/30 min	
Cake API/HT	1/32"	/
Solids	%Vol	
Oil/Water	%Vol	/
Sand	%Vol	
MBT	lb/bbl	
pH		
Alkal Mud (Pm)		
Pf/Mf		/
Chlorides	mg/l	
Hardness Ca		
KCl	% wt	
PHPA	ppb	
Glycol	% Vol	
Sulphite	ppm	
Daily Mud Cost	A$	0.00
Cuml Mud Cost	A$	294855.24
Sales Engineer		Glen Sh/Eladio
Products Used		

REMARKS

15/01/2006: Completed pulling anchors and rig released at 15:00hrs

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

PRODUCT
CONSUMPTION

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

Product Name	Product Price	Dec 16, 2005 Qty	Dec 16, 2005 Cost	Dec 17, 2005 Qty	Dec 17, 2005 Cost	Dec 18, 2005 Qty	Dec 18, 2005 Cost	Dec 19, 2005 Qty	Dec 19, 2005 Cost	Dec 20, 2005 Qty	Dec 20, 2005 Cost	Page Totals
		DATES										
CALCIUM CHLORIDE Sacks	15.33	11	168.63		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	30.46	5	152.30		0.00	1	30.46	2	60.92		0.00	243.68
CITRIC ACID	50.50		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	92.24		0.00		0.00		0.00		0.00		0.00	0.00
DUO-VIS	302.03		0.00		0.00		0.00		0.00		0.00	0.00
GLUTE 25	121.35		0.00		0.00		0.00		0.00		0.00	0.00
GUAR GUM	79.62		0.00		0.00	44	3503.28	26	2070.12		0.00	5573.40
KWIK SEAL FINE	39.14		0.00		0.00		0.00		0.00		0.00	0.00
LIME	13.81		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	50.29		0.00		0.00		0.00		0.00		0.00	0.00
PIPE-LAX W	498.27		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	126.76		0.00		0.00		0.00		0.00		0.00	0.00
SODA ASH	17.19		0.00		0.00		0.00		0.00		0.00	0.00
SODIUM BICARBONATE	14.54		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	39.14		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	36.82		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	38.86		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	45.13		0.00		0.00		0.00		0.00		0.00	0.00
KCl BB	669.89		0.00		0.00		0.00		0.00		0.00	0.00
MI BAR (Bulk)	358.06		0.00		0.00		0.00		0.00		0.00	0.00
MI Gel (Bulk)	382.17	20	7643.40	8	3057.36	7	2675.19	9	3439.53	4	1528.68	18344.16
POLY PLUS DRY	140.00		0.00		0.00		0.00		0.00		0.00	0.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	505.43		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	505.43		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL LC	774.13		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL MC	487.05		0.00		0.00		0.00		0.00		0.00	0.00
SALT	252.81		0.00		0.00		0.00		0.00		0.00	0.00
FLOWZAN	302.03		0.00		0.00		0.00		0.00		0.00	0.00
DRISPAC	126.76		0.00		0.00		0.00		0.00		0.00	0.00
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			7964.33		3057.36		6208.93		5570.57		1528.68	24329.87
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			7964.33		11021.69		17230.62		22801.19		24329.87	24329.87
Cumulative Cost			7964.33		11021.69		17230.62		22801.19		24329.87	24329.87

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Dec 21, 2005		Dec 22, 2005		Dec 23, 2005		Dec 24, 2005		Dec 25, 2005		Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	243.68		0.00		0.00		0.00		0.00		0.00	243.68
CITRIC ACID	0.00		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	0.00		0.00		0.00	2	184.48	3	276.72	5	461.20	922.40
DUO-VIS	0.00		0.00		0.00	4	1208.12	11	3322.33	27	8154.81	12685.26
GLUTE 25	0.00		0.00		0.00		0.00	6	728.10	1	121.35	849.45
GUAR GUM	5573.40		0.00		0.00		0.00		0.00		0.00	5573.40
KWIK SEAL FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
LIME	0.00		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	0.00		0.00		0.00		0.00	8	402.32	8	402.32	804.64
PIPE-LAX W	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	0.00		0.00		0.00	24	3042.24	8	1014.08	18	2281.68	6338.00
SODA ASH	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SODIUM BICARBONATE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	0.00		0.00		0.00	4	180.52	7	315.91	4	180.52	676.95
KCl BB	0.00		0.00		0.00	6	4019.34	6	4019.34	8	5359.12	13397.80
MI BAR (Bulk)	0.00		0.00		0.00	14	5012.84	22	7877.32	9	3222.54	16112.70
MI Gel (Bulk)	18344.16		0.00		0.00	2	764.34		0.00		0.00	19108.50
POLY PLUS DRY	0.00		0.00		0.00	8	1120.00	20	2800.00	18	2520.00	6440.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	0.00		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	0.00		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL LC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL MC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SALT	0.00		0.00		0.00	4	1011.24	3	758.43	4	1011.24	2780.91
FLOWZAN	0.00		0.00		0.00	12	3624.36	13	3926.39		0.00	7550.75
DRISPAC	0.00		0.00		0.00		0.00	20	2535.20		0.00	2535.20
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			0.00		0.00		20167.48		27976.14		23714.78	96188.27
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			24329.87		24329.87		44497.35		72473.49		96188.27	96188.27
Cumulative Cost			24329.87		24329.87		44497.35		72473.49		96188.27	96188.27

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Dec 26, 2005		Dec 27, 2005		Dec 28, 2005		Dec 29, 2005		Dec 30, 2005		Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	243.68		0.00		0.00		0.00		0.00		0.00	243.68
CITRIC ACID	0.00		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	922.40		0.00		0.00		0.00		0.00	2	184.48	1106.88
DUO-VIS	12685.26	17	5134.51	8	2416.24	26	7852.78	6	1812.18	14	4228.42	34129.39
GLUTE 25	849.45	1	121.35	1	121.35	2	242.70		0.00		0.00	1334.85
GUAR GUM	5573.40		0.00		0.00		0.00		0.00		0.00	5573.40
KWIK SEAL FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
LIME	0.00		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	804.64	12	603.48		0.00	12	603.48	6	301.74		0.00	2313.34
PIPE-LAX W	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	6338.00	5	633.80	4	507.04	20	2535.20	1	126.76	8	1014.08	11154.88
SODA ASH	0.00	10	171.90	4	68.76		0.00	8	137.52		0.00	378.18
SODIUM BICARBONATE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	676.95	5	225.65	4	180.52	5	225.65	2	90.26	4	180.52	1579.55
KCl BB	13397.80	14	9378.46	5	3349.45	20	13397.80		0.00	6	4019.34	43542.85
MI BAR (Bulk)	16112.70		0.00		0.00		0.00		0.00		0.00	16112.70
MI Gel (Bulk)	19108.50		0.00		0.00		0.00		0.00		0.00	19108.50
POLY PLUS DRY	6440.00	7	980.00	11	1540.00	24	3360.00		0.00	12	1680.00	14000.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	0.00		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	0.00		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL LC	0.00	48	37158.24	12	9289.56	24	18579.12		0.00	12	9289.56	74316.48
GLYDRIL MC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SALT	2780.91	11	2780.91	12	3033.72	10	2528.10		0.00	5	1264.05	12387.69
FLOWZAN	7550.75		0.00		0.00		0.00		0.00		0.00	7550.75
DRISPAC	2535.20		0.00		0.00		0.00		0.00		0.00	2535.20
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			57188.30		20506.64		49324.83		2468.46		21860.45	247536.95
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			153376.57		173883.21		223208.04		225676.50		247536.95	247536.95
Cumulative Cost			153376.57		173883.21		223208.04		225676.50		247536.95	247536.95

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Dec 31, 2005		Jan 1, 2006		Jan 2, 2006		Jan 3, 2006		Jan 4, 2006		Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	243.68		0.00		0.00		0.00		0.00		0.00	243.68
CITRIC ACID	0.00		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	1106.88		0.00	1	92.24		0.00		0.00		0.00	1199.12
DUO-VIS	34129.39		0.00	8	2416.24		0.00		0.00	6	1812.18	38357.81
GLUTE 25	1334.85		0.00	2	242.70		0.00		0.00		0.00	1577.55
GUAR GUM	5573.40		0.00		0.00		0.00		0.00		0.00	5573.40
KWIK SEAL FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
LIME	0.00		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	2313.34	6	301.74		0.00		0.00		0.00	6	301.74	2916.82
PIPE-LAX W	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	11154.88		0.00	8	1014.08		0.00		0.00		0.00	12168.96
SODA ASH	378.18		0.00		0.00		0.00		0.00		0.00	378.18
SODIUM BICARBONATE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	1579.55		0.00	4	180.52		0.00		0.00	3	135.39	1895.46
KCl BB	43542.85		0.00	6	4019.34		0.00		0.00		0.00	47562.19
MI BAR (Bulk)	16112.70		0.00		0.00		0.00		0.00	10	3580.60	19693.30
MI Gel (Bulk)	19108.50		0.00		0.00		0.00		0.00		0.00	19108.50
POLY PLUS DRY	14000.00		0.00	12	1680.00		0.00		0.00		0.00	15680.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	0.00		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	0.00		0.00		0.00		0.00		0.00		0.00	0.00
GLYDRIL LC	74316.48		0.00	12	9289.56		0.00		0.00		0.00	83606.04
GLYDRIL MC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SALT	12387.69		0.00	5	1264.05		0.00		0.00		0.00	13651.74
FLOWZAN	7550.75		0.00		0.00		0.00		0.00		0.00	7550.75
DRISPAC	2535.20		0.00		0.00		0.00		0.00		0.00	2535.20
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			301.74		20198.73		0.00		0.00		5829.91	273867.33
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			247838.69		268037.42		268037.42		268037.42		273867.33	273867.33
Cumulative Cost			247838.69		268037.42		268037.42		268037.42		273867.33	273867.33

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Jan 5, 2006		Jan 6, 2006		Jan 7, 2006		Jan 8, 2006		Jan 9, 2006		Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	243.68		0.00		0.00		0.00		0.00		0.00	243.68
CITRIC ACID	0.00		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	1199.12		0.00		0.00		0.00		0.00		0.00	1199.12
DUO-VIS	38357.81		0.00		0.00		0.00	2	604.06	4	1208.12	40169.99
GLUTE 25	1577.55		0.00		0.00		0.00		0.00	1	121.35	1698.90
GUAR GUM	5573.40		0.00		0.00		0.00		0.00		0.00	5573.40
KWIK SEAL FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
LIME	0.00		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	2916.82		0.00	6	301.74		0.00		0.00	1	50.29	3268.85
PIPE-LAX W	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	12168.96		0.00		0.00		0.00		0.00		0.00	12168.96
SODA ASH	378.18		0.00		0.00		0.00		0.00		0.00	378.18
SODIUM BICARBONATE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	1895.46		0.00		0.00		0.00		0.00	1	45.13	1940.59
KCl BB	47562.19		0.00		0.00		0.00		0.00		0.00	47562.19
MI BAR (Bulk)	19693.30		0.00		0.00		0.00		0.00	3	1074.18	20767.48
MI Gel (Bulk)	19108.50		0.00		0.00		0.00		0.00		0.00	19108.50
POLY PLUS DRY	15680.00		0.00		0.00		0.00		0.00		0.00	15680.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	0.00		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	0.00		0.00		0.00		0.00		0.00	1	505.43	505.43
GLYDRIL LC	83606.04		0.00		0.00		0.00		0.00		0.00	83606.04
GLYDRIL MC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SALT	13651.74		0.00		0.00		0.00		0.00		0.00	13651.74
FLOWZAN	7550.75		0.00		0.00		0.00		0.00		0.00	7550.75
DRISPAC	2535.20		0.00		0.00		0.00		0.00		0.00	2535.20
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			0.00		301.74		0.00		604.06		3004.50	277777.63
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			273867.33		274169.07		274169.07		274773.13		277777.63	277777.63
Cumulative Cost			273867.33		274169.07		274169.07		274773.13		277777.63	277777.63

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Jan 10, 2006		Jan 11, 2006		Jan 12, 2006		Jan 13, 2006		Jan 14, 2006		Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00		0.00		0.00		0.00		0.00	168.63
CAUSTIC SODA	243.68		0.00		0.00		0.00		0.00		0.00	243.68
CITRIC ACID	0.00		0.00		0.00		0.00		0.00		0.00	0.00
DEFOAM A	1199.12		0.00		0.00		0.00		0.00		0.00	1199.12
DUO-VIS	40169.99		0.00		0.00		0.00		0.00		0.00	40169.99
GLUTE 25	1698.90		0.00		0.00		0.00		0.00		0.00	1698.90
GUAR GUM	5573.40		0.00		0.00		0.00		0.00		0.00	5573.40
KWIK SEAL FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
LIME	0.00		0.00		0.00		0.00		0.00		0.00	0.00
OS-1	3268.85		0.00		0.00		0.00		0.00		0.00	3268.85
PIPE-LAX W	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POLYPAC UL	12168.96		0.00		0.00		0.00		0.00		0.00	12168.96
SODA ASH	378.18		0.00		0.00		0.00		0.00		0.00	378.18
SODIUM BICARBONATE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
KWIKSEAL MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II FINE	0.00		0.00		0.00		0.00		0.00		0.00	0.00
MIX II MEDIUM	0.00		0.00		0.00		0.00		0.00		0.00	0.00
POTASSIUM HYDROXIDE	1940.59		0.00		0.00		0.00		0.00		0.00	1940.59
KCl BB	47562.19		0.00		0.00		0.00		0.00		0.00	47562.19
MI BAR (Bulk)	20767.48		0.00	24	8593.44		0.00		0.00		0.00	29360.92
MI Gel (Bulk)	19108.50		0.00	22	8484.17		0.00		0.00		0.00	27592.67
POLY PLUS DRY	15680.00		0.00		0.00		0.00		0.00		0.00	15680.00
MAGNAFLOC 5250	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SAFE-COR	0.00		0.00		0.00		0.00		0.00		0.00	0.00
CONQOR 303A	505.43		0.00		0.00		0.00		0.00		0.00	505.43
GLYDRIL LC	83606.04		0.00		0.00		0.00		0.00		0.00	83606.04
GLYDRIL MC	0.00		0.00		0.00		0.00		0.00		0.00	0.00
SALT	13651.74		0.00		0.00		0.00		0.00		0.00	13651.74
FLOWZAN	7550.75		0.00		0.00		0.00		0.00		0.00	7550.75
DRISPAC	2535.20		0.00		0.00		0.00		0.00		0.00	2535.20
Cumulative Engineering			0.00		0.00		0.00		0.00		0.00	0.00
Daily Product			0.00		17077.61		0.00		0.00		0.00	294855.24
Daily Sales Tax			0		0		0		0		0	0.00
Cumulative Product			277777.63		294855.24		294855.24		294855.24		294855.24	294855.24
Cumulative Cost			277777.63		294855.24		294855.24		294855.24		294855.24	294855.24

Product Consumption

Operator : Nexus Energy
Well Name : Culverin-1
Location : Gippsland Basin
Field/Area: VIC/P-56

Contractor: Diamond Offshore
M-I Engineer: Melendez/Singh
Rig Name: Ocean Patriot
Stock Point: Melbourne

	DATES											
Product	Previous	Jan 15, 2006										Page
Name	Page	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Totals
CALCIUM CHLORIDE Sacks	168.63		0.00									168.63
CAUSTIC SODA	243.68		0.00									243.68
CITRIC ACID	0.00		0.00									0.00
DEFOAM A	1199.12		0.00									1199.12
DUO-VIS	40169.99		0.00									40169.99
GLUTE 25	1698.90		0.00									1698.90
GUAR GUM	5573.40		0.00									5573.40
KWIK SEAL FINE	0.00		0.00									0.00
LIME	0.00		0.00									0.00
OS-1	3268.85		0.00									3268.85
PIPE-LAX W	0.00		0.00									0.00
POLYPAC UL	12168.96		0.00									12168.96
SODA ASH	378.18		0.00									378.18
SODIUM BICARBONATE	0.00		0.00									0.00
KWIKSEAL MEDIUM	0.00		0.00									0.00
MIX II FINE	0.00		0.00									0.00
MIX II MEDIUM	0.00		0.00									0.00
POTASSIUM HYDROXIDE	1940.59		0.00									1940.59
KCl BB	47562.19		0.00									47562.19
MI BAR (Bulk)	29360.92		0.00									29360.92
MI Gel (Bulk)	27592.67		0.00									27592.67
POLY PLUS DRY	15680.00		0.00									15680.00
MAGNAFLOC 5250	0.00		0.00									0.00
SAFE-COR	0.00		0.00									0.00
CONQOR 303A	505.43		0.00									505.43
GLYDRIL LC	83606.04		0.00									83606.04
GLYDRIL MC	0.00		0.00									0.00
SALT	13651.74		0.00									13651.74
FLOWZAN	7550.75		0.00									7550.75
DRISPAC	2535.20		0.00									2535.20
Cumulative Engineering			0.00									0.00
Daily Product			0.00									294855.24
Daily Sales Tax			0									0.00
Cumulative Product			294855.24									294855.24
Cumulative Cost			294855.24									294855.24

DRILLING FLUIDS RECAP FOR NEXUS ENERGY
CULVERIN-1

DAILY
MUD
REPORTS

WATER-BASED MUD REPORT No. 1

Date	16/12/2005	**Depth/TVD**	650 m / 650 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	Run Conductor

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 36 in Reed T-11C		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 16 /3x22 / 1/32"			179.7	Pump Size	6.5 X 12.in	6.5 X 12.in
Drill Pipe Size in	Length m	Intermediate	Active Pits .3	Pump Cap	gal/stk	gal/stk
				Pump stk/min		
Drill Pipe Size in	Length m	Intermediate	Total Circulating Vol .3	Flow Rate	gal/min	
				Bottoms Up		
Drill Collar Size in	Length m	Production or Liner	In Storage 880	Total Circ Time		
				Circulating Pressure		

MUD PROPERTIES

Sample From		Pit@16:00	
Flow Line Temp	°C		
Depth/TVD	m	650/650	
Mud Weight	lb/gal	8.8	
Funnel Viscosity	s/qt	> 120	
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
CALCIUM CHLORIDE Sacks	25 KG BG	11.00
CAUSTIC SODA	25 KG DM	5.00
MI Gel (Bulk)	1 MT BG	20.00

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Mixed 1615 bbl of 27 ppb Gel. Used 735 bbl for sweeps/displacement. Also mixed 160 bbl CaCl2 mix for cementing.

REMARKS

Pick up drill string. Spud well and drilled to 650 m MDRT with PHG sweeps. TD. Displaced hole to PHG. POOH. Run conductor casing.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	14	Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling	3	Water Added	1566	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping	4	Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Dumped	0	Bentonite	/	Bit HHP (hhp / HSI)	
Running Casing	3	Shakers	0	Drill Solids	/	Bit Jet Vel (m/s)	
		Desilter & Desander	0	Weight Material	/	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React		Crit Vel DP (m/min)	
		Other	0	Average SG		Crit Vel DC (m/min)	
		Sweeps/Displacement	735	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 8790 Glen Sharpe			A$ 7,964.33	A$ 7,964.33

WATER-BASED MUD REPORT No. 2

Date	17/12/2005	**Depth/TVD**	650 m / 650 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	P/U Drill Pipe

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 17.5 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	108.7	Pump Size	6.5 X 12.in	6.5 X 12.in
Drill Pipe Size in	Length m	Intermediate	Active Pits .3	Pump Cap	gal/stk	gal/stk
				Pump stk/min		
Drill Pipe Size in	Length m	Intermediate	Total Circulating Vol .3	Flow Rate	gal/min	
				Bottoms Up		
Drill Collar Size in	Length m	Production or Liner	In Storage 1635	Total Circ Time		
				Circulating Pressure		

MUD PROPERTIES

Sample From		Pit	
Flow Line Temp	°C		
Depth/TVD	m	650/650	
Mud Weight	lb/gal	8.7	
Funnel Viscosity	s/qt	> 120	
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
MI Gel (Bulk)	1 MT BG	8.00

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Mixed more PHG to fill pits.

REMARKS

Lowered casing to bottom. Circulated and cemented. WOC. Pick up drill string.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	23	Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	736	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Dumped	0	Bentonite	/	Bit HHP (hhp / HSI)	
Running Casing		Shakers	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing	1	Desilter & Desander	0	Weight Material	/	Ann. Vel DP (m/min)	
Wait on Cement		Formation	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React		Crit Vel DP (m/min)	
		Other	0	Average SG		Crit Vel DC (m/min)	
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 8790 Glen Sharpe			A$ 3,057.36	A$ 11,021.69

WATER-BASED MUD REPORT No. 3

Date	18/12/2005	**Depth/TVD**	1006 m / 1006 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	Drilling 17.5" Hole

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 17.5 in Reed		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 3x22 /16 / 1/32"		30in @650m (650TVD)	460.1	Pump Size	6.5 X 12.in	6.5 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	5.016 gal/stk	5.016 gal/stk
5 in	763 m		-.1	Pump stk/min	75@97%	75@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	752	gal/min
5 in	138 m		460	Bottoms Up	22.8 min	3423 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	25.7 min	3854 stk
8 in	56 m		1911	Circulating Pressure	2400 psi	

MUD PROPERTIES

Sample From		Pit@19:20	
Flow Line Temp	°C		
Depth/TVD	m	840/840	
Mud Weight	lb/gal	8.6@20°C	
Funnel Viscosity	s/qt	100	
Rheology Temp	°C	20	
R600/R300		40/31	
R200/R100		29/24	
R6/R3		17/16	
PV	cP	9	
YP	lb/100ft²	22	
10s/10m/30m Gel	lb/100ft²	18/18/20	
API Fluid Loss	cc/30 min	18	
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	
Solids	%Vol	3	
Oil/Water	%Vol	/97	
Sand	%Vol		
MBT	lb/bbl	18	
pH		9	
Alkal Mud (Pm)		0	
Pf/Mf		0.08/1.6	
Chlorides	mg/l	2200	
Hardness Ca	mg/l	80	
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
CAUSTIC SODA	25 KG DM	1.00
GUAR GUM	25 KG BG	44.00
MI Gel (Bulk)	1 MT BG	7.00

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Pumping 50 bbl PHG on connections and 35 bbl Guar Gum mid stand. Mixing on the run.

REMARKS

RIH. MWD tool failure. POOH.RIH.Unable to stab in . POOH. Run back in. Drilled to 1006 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	10.5	Oil Added	0	NaCl	.1/ 1.2	np/na Values	0.368/0.116
Drilling	10	Water Added	1270	KCl	./ .	kp/ka (lb•s^n/100ft²)	3.339/14.137
Tripping	3.5	Mud Received	0	Low Gravity	2./ 18.1	Bit Loss (psi / %)	261 / 1
Non-Productive Tim		Dumped	0	Bentonite	2./ 18.	Bit HHP (hhp / HSI)	115 / 1
		Shakers	0	Drill Solids	./ .1	Bit Jet Vel (m/s)	56
		Desilter & Desander	0	Weight Material	NA/ NA	Ann. Vel DP (m/min)	19.97
		Formation	0	Chemical Conc	- / .	Ann. Vel DC (m/min)	23.19
		Left in Hole	0	Inert/React	.0063	Crit Vel DP (m/min)	111
		Other	0	Average SG	2.5	Crit Vel DC (m/min)	113
		Sweeps/Displacement	1020	Carb/BiCarb (m mole/L)	1.6/ 8.	ECD @ 1006 (lb/gal)	8.66

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 8790 Glen Sharpe			A$ 6,208.93	A$ 17,230.62

WATER-BASED MUD REPORT No. 4

Date	19/12/2005	**Depth/TVD**	1436 m / 1436 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	Drill 17.5"

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size 17.5 in Reed		
Nozzles 3x22 /16 / 1/32"		
Drill Pipe Size	Length	
5 in	1193 m	
Drill Pipe Size	Length	
5 in	138 m	
Drill Collar Size	Length	
8 in	56 m	

CASING

Surface	
30in @650m (650TVD)	
Intermediate	
Intermediate	
Production or Liner	

MUD VOLUME (bbl)

Hole	
870.6	
Active Pits	
-.6	
Total Circulating Vol	
870	
In Storage	
1881	

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6.5 X 12.in	6.5 X 12.in
Pump Cap	5.016 gal/stk	5.016 gal/stk
Pump stk/min	75@97%	75@97%
Flow Rate	1129	gal/min
Bottoms Up	29.5 min	6647 stk
Total Circ Time	32.4 min	7282 stk
Circulating Pressure	3300 psi	

MUD PROPERTIES

Sample From		Pit@19:45	
Flow Line Temp	°C		
Depth/TVD	m	1390/1390	
Mud Weight	lb/gal	8.7@20°C	
Funnel Viscosity	s/qt	110	
Rheology Temp	°C	20	
R600/R300		54/40	
R200/R100		35/28	
R6/R3		21/20	
PV	cP	14	
YP	lb/100ft²	26	
10s/10m/30m Gel	lb/100ft²	22/28/35	
API Fluid Loss	cc/30 min	14	
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	
Solids	%Vol	2	
Oil/Water	%Vol	/98	
Sand	%Vol		
MBT	lb/bbl	20	
pH		9.2	
Alkal Mud (Pm)		0.35	
Pf/Mf		0.18/0.3	
Chlorides	mg/l	600	
Hardness Ca	mg/l	20	
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
CAUSTIC SODA	25 KG DM	2.00
GUAR GUM	25 KG BG	26.00
MI Gel (Bulk)	1 MT BG	9.00

SOLIDS EQUIP

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Continued mixing PHG and Guar Gum for sweeps. Pumped 35 bbl Guar Gum and 50 bbl PHG sweeps.

REMARKS

Drilled to 1436 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	./ .3	np/na Values	0.433/0.096
Drilling	24	Water Added	1260	KCl	./ .	kp/ka (lb•s^n/100ft²)	2.868/18.248
Tripping		Mud Received	0	Low Gravity	2.3/ 21.	Bit Loss (psi / %)	595 / 1
Non-Productive Tim		Dumped	0	Bentonite	2.2/ 19.9	Bit HHP (hhp / HSI)	392 / 1
		Shakers	0	Drill Solids	.1/ 1.2	Bit Jet Vel (m/s)	84
		Desilter & Desander	0	Weight Material	NA/ NA	Ann. Vel DP (m/min)	29.99
		Formation	0	Chemical Conc	- / .	Ann. Vel DC (m/min)	34.82
		Left in Hole	0	Inert/React	.0523	Crit Vel DP (m/min)	121
		Other	0	Average SG	2.37	Crit Vel DC (m/min)	122
		Sweeps/Displacement	1318	Carb/BiCarb (m mole/L)	3.6/ 11.3	ECD @ 1436 (lb/gal)	8.8

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 8790			A$ 5,570.57	A$ 22,801.19
Glen Sharpe				

WATER-BASED MUD REPORT No. 5

Date	20/12/2005	**Depth/TVD**	1525 m / 1525 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	Run 13 3/8

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 17.5 in Reed		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 3x22 /16 / 1/32"		30in @650m (650TVD)	1235.3(Tot)/644.8(Bit)	Pump Size	6.5 X 12.in	6.5 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	5.016 gal/stk	5.016 gal/stk
5 in	2 m		-.3	Pump stk/min	75@97%	75@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	1129	gal/min
13.375 in	919 m		644.5	Bottoms Up	7.2 min	1620 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	24 min	5394 stk
in	m		597	Circulating Pressure	3300 psi	

MUD PROPERTIES

Sample From		Pit@10:00
Flow Line Temp	°C	
Depth/TVD	m	1525/1525
Mud Weight	lb/gal	8.6@20°C
Funnel Viscosity	s/qt	105
Rheology Temp	°C	20
R600/R300		58/44
R200/R100		40/33
R6/R3		23/22
PV	cP	14
YP	lb/100ft²	30
10s/10m/30m Gel	lb/100ft²	22/27/35
API Fluid Loss	cc/30 min	14
HTHP FL Temp	cc/30 min	
Cake API/HTHP	1/32"	1/
Solids	%Vol	2.5
Oil/Water	%Vol	/97.5
Sand	%Vol	
MBT	lb/bbl	20
pH		9
Alkal Mud (Pm)		0.3
Pf/Mf		0.1/0.2
Chlorides	mg/l	600
Hardness Ca	mg/l	40
KCl	% wt	
PHPA	ppb	
Glycol	% Vol	
Sulphite	ppm	
NaCl	% wt	

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
MI Gel (Bulk)	1 MT BG	4.00

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Continued mixing PHG as required. Pumped 50 bbl PHG & 35 bbl Guar Gum every stand. Dumped 35 bbls Guar Gum to create room for more PHG for final displacement. Filled casing with PHG.

REMARKS

Drilled ahead to TD 1525m pumping 50 bbls PHG on connections and 30 bbls Guar gum mid stand. At TD swept hole clean with 150 bbl PHG sweep then displaced open hole to 840 bbls PHG. POOH. Run casing.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	2.5	Oil Added	0	NaCl	./ .3	np/na Values	0.399/0.116
Drilling	8.5	Water Added	510	KCl	./ .	kp/ka (lb•s^n/100ft²)	3.910/19.439
Tripping	4.5	Mud Received	0	Low Gravity	2.2/ 19.9	Bit Loss (psi / %)	588 / 1
Non-Productive Tim		Dumped	35	Bentonite	2.2/ 20.	Bit HHP (hhp / HSI)	387 / 1
Running Casing	6.5	Shakers	0	Drill Solids	./ -.1	Bit Jet Vel (m/s)	84
Condition Hole	2	Desilter & Desander	0	Weight Material	NA/ NA	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- / .	Ann. Vel DC (m/min)	66.22
		Left in Hole	0	Inert/React	-.0058	Crit Vel DP (m/min)	
		Other	0	Average SG	2.45	Crit Vel DC (m/min)	141
		Sweeps/Displacement	1769	Carb/BiCarb (m mole/L)	2./ 10.	ECD @ 920 (lb/gal)	8.81

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 8790 Glen Sharpe			A$ 1,528.68	A$ 24,329.87

WATER-BASED MUD REPORT No. 6

Date	21/12/2005	**Depth/TVD**	1525 m / 1525 m
Spud Date	16/12/2005	**Mud Type**	SW/PHG
Water Depth	585	**Activity**	Run BOP

Operator : Nexus Energy
Report For : Wally Westman/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Troy Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 17.5 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	926.8(Tot)/913.1(Bit)	Pump Size	6.5 X 12.in	6.5 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	608 m		.2	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
13.375 in	904 m		913.3	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
in	m			Circulating Pressure		

MUD PROPERTIES

Sample From		Pit@09:00	
Flow Line Temp	°C		
Depth/TVD	m	1525/1525	
Mud Weight	lb/gal	8.6@20°C	
Funnel Viscosity	s/qt	100	
Rheology Temp	°C	20	
R600/R300		55/45	
R200/R100		35/32	
R6/R3		25/24	
PV	cP	10	
YP	lb/100ft²	35	
10s/10m/30m Gel	lb/100ft²	24/26/30	
API Fluid Loss	cc/30 min	13	
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	
Solids	%Vol	2	
Oil/Water	%Vol	/98	
Sand	%Vol		
MBT	lb/bbl	18	
pH		9	
Alkal Mud (Pm)		0.4	
Pf/Mf		0.1/0.2	
Chlorides	mg/l	600	
Hardness Ca	mg/l	40	
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	8.7-8.8
Viscosity	> 100
Filtrate	NC

REMARKS AND TREATMENT

Dumped and cleaned pits for mixing new mud. Waiting to run riser to reduce deck load prior to start mixing mud. Chemicals required for mixing expected to arrive tomorrow night on Far Grip. 210 bbl PHG saved for sweeps to drill cement.

REMARKS

Landed 13 3/8" casing, circulated clean with seawater then cemented as per program. WOC. Running BOP stack on new riser.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	16	Oil Added	0	NaCl	./ .3	np/na Values	0.290/0.082
Drilling		Water Added	0	KCl	./ .	kp/ka (lb•s^n/100ft²)	7.894/22.400
Tripping		Mud Received	0	Low Gravity	2./ 18.	Bit Loss (psi / %)	/ 1
Non-Productive Tim		Dumped	597	Bentonite	2./ 18.	Bit HHP (hhp / HSI)	/ 1
Running Casing	4.5	Shakers	0	Drill Solids	./ .	Bit Jet Vel (m/s)	
Cementing	3.5	Desilter & Desander	0	Weight Material	NA/ NA	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- / .	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React	.001	Crit Vel DP (m/min)	127
		Other	0	Average SG	2.6	Crit Vel DC (m/min)	137
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	2./ 10.	ECD @ 1511 (lb/gal)	8.6

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790			A$ 0.00	A$ 24,329.87
Glen Sharpe				

WATER-BASED MUD REPORT No. 7

Date	22/12/2005	**Depth/TVD**	1525 m / 1525 m
Spud Date	16/12/2005	**Mud Type**	KCl-NaCl-Polymer
Water Depth	585	**Activity**	Run BOP

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	1206.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size in	Length m	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
		13.375in @1511m (1511TVD)	-.1	Pump stk/min		
Drill Pipe Size in	Length m	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
			-.1	Bottoms Up		
Drill Collar Size in	Length m	Production or Liner	In Storage	Total Circ Time		
				Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1		0
Shaker 2		0
Shaker 3		0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Cleaned pits when all riser joints made up.

REMARKS

Continued running marine riser.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	./	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Dumped	0	Bentonite	/	Bit HHP (hhp / HSI)	
Run Riser	24	Shakers	0	Drill Solids	/	Bit Jet Vel (m/s)	
		Desilter & Desander	0	Weight Material	NA/ NA	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React		Crit Vel DP (m/min)	
		Other	0	Average SG		Crit Vel DC (m/min)	
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790			A$ 0.00	A$ 24,329.87
Glen Sharpe				

WATER-BASED MUD REPORT No. 8

Date	23/12/2005	**Depth/TVD**	1525 m / 1525 m
Spud Date	16/12/2005	**Mud Type**	KCl-NaCl-Polymer
Water Depth	585	**Activity**	Pick up BHA

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	1206.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size in	Length m	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
		13.375in @1511m (1511TVD)	-.1	Pump stk/min		
Drill Pipe Size in	Length m	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
			-.1	Bottoms Up		
Drill Collar Size in	Length m	Production or Liner	In Storage	Total Circ Time		
			1000	Circulating Pressure		

MUD PROPERTIES

Sample From		Pit@23:10	
Flow Line Temp	°C		
Depth/TVD	m	1525/1525	
Mud Weight	lb/gal	9.5@20°C	
Funnel Viscosity	s/qt	50	
Rheology Temp	°C	49	
R600/R300		30/21	
R200/R100		18/13	
R6/R3		4/3	
PV	cP	9	
YP	lb/100ft²	12	
10s/10m/30m Gel	lb/100ft²	3/3/3	
API Fluid Loss	cc/30 min	6.8	
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	
Solids	%Vol	5.5	
Oil/Water	%Vol	/94.5	
Sand	%Vol		
MBT	lb/bbl	0	
pH		9.5	
Alkal Mud (Pm)		0.28	
Pf/Mf		0.15/0.32	
Chlorides	mg/l	35500	
Hardness Ca	mg/l	80	
KCl	% wt	3	
PHPA	ppb	0.4	
Glycol	% Vol	0	
Sulphite	ppm	0	
NaCl	% wt	3	

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DEFOAM A	5 GA CN	2.00
DUO-VIS	25 KG BG	4.00
POLYPAC UL	25 KG BG	24.00
POTASSIUM HYDROXIDE	25 KG CN	4.00
KCl BB	1 MT BG	6.00
MI BAR (Bulk)	1 MT BG	14.00
MI Gel (Bulk)	1 MT BG	2.00
POLY PLUS DRY	25 KG BG	8.00
SALT	1 MT BG	4.00
FLOWZAN	25 KG BG	12.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 84	0
Shaker 2	4 x 84	0
Shaker 3	4 x 52	0
BEM650	4 x 120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Started mixing mud. Mixed 1000 bbl of 3% KCl/3%NaCl/Polymer mud weighted to 9.5 ppg and filled sandtraps. Further mixing is in progress.

REMARKS

Test choke and kill lines. Land and latch BOPs. Lay down 17 1/2" BHA and pick up 12 1/4" BHA.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	24	Oil Added	0	NaCl	1./ 11.6	np/na Values	
Drilling		Water Added	941	KCl	1.1/ 10.2	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	.6/ 5.8	Bit Loss (psi / %)	
Non-Productive Tim		Dumped	0	Bentonite	./ .	Bit HHP (hhp / HSI)	
BOP NU		Shakers	0	Drill Solids	.5/ 4.2	Bit Jet Vel (m/s)	
BOP Testing		Desilter & Desander	0	Weight Material	2.8/ 40.9	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- / 2.	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React	-	Crit Vel DP (m/min)	
		Other	0	Average SG	3.9	Crit Vel DC (m/min)	
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	3./ 4.7		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Glen Sharpe			A$ 20,167.48	A$ 44,497.35

WATER-BASED MUD REPORT No. 9

Date	24/12/2005	**Depth/TVD**	1544 m / 1544 m
Spud Date	16/12/2005	**Mud Type**	KCl-NaCl-Polymer
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Reed		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	1164.9	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	4.274 gal/stk	4.274 gal/stk
5 in	1276 m	13.375in @1511m (1511TVD)	433.1	Pump stk/min	90@97%	90@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	769	gal/min
5 in	193 m		1598	Bottoms Up	59.1 min	10646 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	87.3 min	15710 stk
8 in	75 m		500	Circulating Pressure	1750 psi	

MUD PROPERTIES

Sample From		Pit@21:00	
Flow Line Temp	°C	20	
Depth/TVD	m	1527/1527	
Mud Weight	lb/gal	9.5@20°C	
Funnel Viscosity	s/qt	48	
Rheology Temp	°C	49	
R600/R300		33/23	
R200/R100		19/14	
R6/R3		4/3	
PV	cP	10	
YP	lb/100ft²	13	
10s/10m/30m Gel	lb/100ft²	4/6/12	
API Fluid Loss	cc/30 min	6.6	
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	
Solids	%Vol	5.35	
Oil/Water	%Vol	/94.65	
Sand	%Vol	-	
MBT	lb/bbl	1	
pH		9.5	
Alkal Mud (Pm)		0.5	
Pf/Mf		0.35/0.55	
Chlorides	mg/l	36000	
Hardness Ca	mg/l	240	
KCl	% wt	3	
PHPA	ppb	0.47	
Glycol	% Vol	-	
Sulphite	ppm	60	
NaCl	% wt	3	

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DEFOAM A	5 GA CN	3.00
DUO-VIS	25 KG BG	11.00
GLUTE 25	25 LT CN	6.00
OS-1	25 KG BG	8.00
POLYPAC UL	25 KG BG	8.00
POTASSIUM HYDROXIDE	25 KG CN	7.00
KCl BB	1 MT BG	6.00
MI BAR (Bulk)	1 MT BG	22.00
POLY PLUS DRY	25 KG BG	20.00
SALT	1 MT BG	3.00
FLOWZAN	25 KG BG	13.00
DRISPAC	50 LB BG	20.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 84	8
Shaker 2	4 x 84	8
Shaker 3	4 x 52	8
BEM650	4 x 120	8
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Displaced hole with mud at 1510 m and dumped 65 bbl of contaminated returns. Lost 108 bbl over shakers due to unsheared mud.

REMARKS

RIH with 12 1/4 BHA, drilled cement plugs, track and shoe, displaced to KCl/NaCl/Polymer mud and drilled 3 m of new hole. Circlated BU, performed LOT at 1511 m EMW 15.8 ppg. Continued to drill 12 1/4" hole to 1544 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	12.5	Oil Added	0	NaCl	1./ 11.9	np/na Values	0.521/0.439
Drilling	8.5	Water Added	1201	KCl	1.1/ 10.2	kp/ka (lb•s^n/100ft²)	0.953/1.563
Tripping	2	Mud Received	0	Low Gravity	.3/ 2.9	Bit Loss (psi / %)	107 / 1
Non-Productive Tim		Dumped	65	Bentonite	.1/ 1.	Bit HHP (hhp / HSI)	48 / 1
Condition Mud	1	Shakers	108	Drill Solids	./ -.2	Bit Jet Vel (m/s)	34
		Desilter & Desander	0	Weight Material	2.9/ 42.9	Ann. Vel DP (m/min)	44.49
		Formation	0	Chemical Conc	- / 2.	Ann. Vel DC (m/min)	66.75
		Left in Hole	0	Inert/React	-.1415	Crit Vel DP (m/min)	65
		Other	0	Average SG	4.04	Crit Vel DC (m/min)	76
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	7./ 11.	ECD @ 1544 (lb/gal)	9.58

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Glen Sharpe			A$ 27,976.14	A$ 72,473.49

WATER-BASED MUD REPORT No. 10

Date	25/12/2005	**Depth/TVD**	2131 m / 2131 m
Spud Date	16/12/2005	**Mud Type**	KCl-NaCl-Polymer
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Reed		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	1433.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	4.274 gal/stk	4.274 gal/stk
5 in	1863 m	13.375in @1511m (1511TVD)	399.9	Pump stk/min	105@97%	105@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	898	gal/min
5 in	193 m		1833	Bottoms Up	61.6 min	12934 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	85.7 min	18003 stk
8 in	75 m		679	Circulating Pressure	2750 psi	

MUD PROPERTIES

Sample From		Pit@21:00	F/L@09:00
Flow Line Temp	°C	20	16
Depth/TVD	m	2070/2070	1756/1756
Mud Weight	lb/gal	9.65@20°C	9.5@16°C
Funnel Viscosity	s/qt	56	50
Rheology Temp	°C	49	49
R600/R300		50/35	34/24
R200/R100		29/21	20/14
R6/R3		6/4	4/2
PV	cP	15	10
YP	lb/100ft²	20	14
10s/10m/30m Gel	lb/100ft²	4/5/6	4/5/5
API Fluid Loss	cc/30 min	6	6.2
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	1/
Solids	%Vol	6	6
Oil/Water	%Vol	/94	/94
Sand	%Vol	1	0
MBT	lb/bbl	1	0
pH		9	9.5
Alkal Mud (Pm)		0.2	0.5
Pf/Mf		0.1/0.3	0.2/0.7
Chlorides	mg/l	36500	35000
Hardness Ca	mg/l	200	240
KCl	% wt	3	2.5
PHPA	ppb	0.8	0.65
Glycol	% Vol	0	0
Sulphite	ppm	60	200
NaCl	% wt	3	3

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DEFOAM A	5 GA CN	5.00
DUO-VIS	25 KG BG	27.00
GLUTE 25	25 LT CN	1.00
OS-1	25 KG BG	8.00
POLYPAC UL	25 KG BG	18.00
POTASSIUM HYDROXIDE	25 KG CN	4.00
KCl BB	1 MT BG	8.00
MI BAR (Bulk)	1 MT BG	9.00
POLY PLUS DRY	25 KG BG	18.00
SALT	1 MT BG	4.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 145	24
Shaker 2	4 x 84	24
Shaker 3	4 x 84	24
BEM650	4 x 120	24
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS	
Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Added 0.1 ppb Duovis and PHPA to active to boost 6 rpm and PHPA concentation. Lost 110 bbls over the shakers as mud was too cold. Changed shaker 3 to 4 x 84 new screens @ 1855m & Shaker 1 to 145 @ 2100m. Added 12 Duovis to active gradually limited by shakers. Cuttings well inhibited/encapsulated. Corrected Glycol inventory by 16 drums quoted twice on Manifest.

REMARKS

Continued to drill 12 1/4" hole to 2131 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	1./ 12.1	np/na Values	0.515/0.473
Drilling	24	Water Added	683	KCl	1.1/ 10.2	kp/ka (lb•s^n/100ft²)	1.509/1.973
Tripping		Mud Received	0	Low Gravity	.5/ 4.4	Bit Loss (psi / %)	149 / 1
Non-Productive Tim		Dumped	0	Bentonite	.1/ .6	Bit HHP (hhp / HSI)	78 / 1
Condition Mud		Shakers	329	Drill Solids	.4/ 3.8	Bit Jet Vel (m/s)	40
		Desilter & Desander	0	Weight Material	3.4/ 49.8	Ann. Vel DP (m/min)	53.64
		Formation	0	Chemical Conc	- / .	Ann. Vel DC (m/min)	77.95
		Left in Hole	0	Inert/React	3.4047	Crit Vel DP (m/min)	82
		Other	0	Average SG	4.	Crit Vel DC (m/min)	97
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	2./ 10.	ECD @ 2131 (lb/gal)	9.78

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Glen Sharpe			A$ 23,714.78	A$ 96,188.27

WATER-BASED MUD REPORT No. 11

Date	26/12/2005	**Depth/TVD**	2641 m / 2641 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Poly-Glycol
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)
Bit Size 12.25 in Reed		Surface	Hole
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	1666.1
Drill Pipe Size	Length	Intermediate	Active Pits
5 in	2373 m	13.375in @1511m (1511TVD)	434.9
Drill Pipe Size	Length	Intermediate	Total Circulating Vol
5 in	193 m		2101
Drill Collar Size	Length	Production or Liner	In Storage
8 in	75 m		390

CIRCULATION DATA		
Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902 gal/min	
Bottoms Up	70.8 min	14935 stk
Total Circ Time	97.8 min	20642 stk
Circulating Pressure	3400 psi	

MUD PROPERTIES

Sample From		Pit@23:00	F/L@09:00
Flow Line Temp	°C	22	17
Depth/TVD	m	2600/2600	2320/2320
Mud Weight	lb/gal	10@20°C	9.5@17°C
Funnel Viscosity	s/qt	55	60
Rheology Temp	°C	49	49
R600/R300		57/41	55/40
R200/R100		34/25	34/25
R6/R3		7/5	7/5
PV	cP	16	15
YP	lb/100ft²	25	25
10s/10m/30m Gel	lb/100ft²	6/9/12	7/9/11
API Fluid Loss	cc/30 min	4	5.4
HTHP FL Temp	cc/30 min	13.6@121°C	
Cake API/HTHP	1/32"	1/1	1/
Solids	%Vol	10	7
Oil/Water	%Vol	/90	/93
Sand	%Vol	0.8	1
MBT	lb/bbl	5	5
pH		8.7	9
Alkal Mud (Pm)		0	0.4
Pf/Mf		0.04/0.45	0.05/0.55
Chlorides	mg/l	65000	36000
Hardness Ca	mg/l	240	360
KCl	% wt	6	2.5
PHPA	ppb	1	1
Glycol	% Vol	3	
Sulphite	ppm	25	25
NaCl	% wt	6	3

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	17.00
GLUTE 25	25 LT CN	1.00
OS-1	25 KG BG	12.00
POLYPAC UL	25 KG BG	5.00
SODA ASH	25 KG BG	10.00
POTASSIUM HYDROXIDE	25 KG CN	5.00
KCl BB	1 MT BG	14.00
POLY PLUS DRY	25 KG BG	7.00
GLYDRIL LC	55 GA DM	48.00
SALT	1 MT BG	11.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 120	24
Shaker 2	4 x 120	24
Shaker 3	4 x 84	24
BEM650	4 x 120	24
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Used new 8 x 120 screens. Added 10 Soda Ash & 8 OS-1. Increased KCl/NaCl conc to 6% & introduced 3% Glydrill LC into system from 2400-2550 m. Cuttings with good integrity and bit cutter marks observed. Losses at shakers when jetting cuttings box.

REMARKS

Contined to drill 12 1/4" hole to 2641 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	1.7/ 18.7	np/na Values	0.475/0.459
Drilling	24	Water Added	205	KCl	2.2/ 20.1	kp/ka (lb•s^n/100ft²)	2.257/2.523
Tripping		Mud Received	0	Low Gravity	4.3/ 39.2	Bit Loss (psi / %)	155 / 1
Non-Productive Tim		Dumped	0	Bentonite	.1/ 1.3	Bit HHP (hhp / HSI)	82 / 1
Condition Mud		Shakers	376	Drill Solids	3.6/ 32.9	Bit Jet Vel (m/s)	40
		Desilter & Desander	0	Weight Material	1.8/ 27.2	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	5.841	Crit Vel DP (m/min)	91
		Other	0	Average SG	3.08	Crit Vel DC (m/min)	106
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	.8/ 7.9	ECD @ 2641 (lb/gal)	10.17

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790			A$ 57,188.30	A$ 153,376.57
Glen Sharpe				

WATER-BASED MUD REPORT No. 12

Date	27/12/2005	**Depth/TVD**	3115 m / 3112 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Reed		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	1882.7	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	4.274 gal/stk	4.274 gal/stk
5 in	2847 m	13.375in @1511m (1511TVD)	386.3	Pump stk/min	107@97%	104@97%
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	902	gal/min
5 in	193 m		2269	Bottoms Up	71.4 min	15057 stk
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time	92.9 min	19611 stk
8 in	75 m		271	Circulating Pressure	3400 psi	

MUD PROPERTIES

Sample From		Pit@21:00	F/L@04:30
Flow Line Temp	°C	25	18
Depth/TVD	m	3052/3052	2740/2739
Mud Weight	lb/gal	10.2@25°C	9.9@18°C
Funnel Viscosity	s/qt	57	56
Rheology Temp	°C	49	49
R600/R300		60/43	55/40
R200/R100		36/26	33/24
R6/R3		7/5	7/5
PV	cP	17	15
YP	lb/100ft²	26	25
10s/10m/30m Gel	lb/100ft²	7/9/12	7/11/12
API Fluid Loss	cc/30 min	4	4.6
HTHP FL Temp	cc/30 min	12.8@121°C	13@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10	10
Oil/Water	%Vol	/90	/90
Sand	%Vol	1.25	1.5
MBT	lb/bbl	6	7.5
pH		9	9.5
Alkal Mud (Pm)		0	0
Pf/Mf		0.05/0.3	0.05/0.7
Chlorides	mg/l	75000	68000
Hardness Ca	mg/l	260	240
KCl	% wt	6	6
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	20	10
NaCl	% wt	8	6

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	8.00
GLUTE 25	25 LT CN	1.00
POLYPAC UL	25 KG BG	4.00
SODA ASH	25 KG BG	4.00
POTASSIUM HYDROXIDE	25 KG CN	4.00
KCl BB	1 MT BG	5.00
POLY PLUS DRY	25 KG BG	11.00
GLYDRIL LC	55 GA DM	12.00
SALT	1 MT BG	12.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 165	0
Shaker 2	4 x 120	0
Shaker 3	4 x 120	0
BEM650	4 x 165	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Changed shaker 3 to new 4 x 120 mesh & increased NaCl to 8 % in active system @ 2750. Maintaining active volume and properties with premix. Upgraded shakers to 165 mesh @ 2900 m. Used 4 x 165 BEM & 16 x 165XR new. Changed shakers 2&3 back to 120 mesh @ 22:00 hrs to handle flow.

REMARKS

Continued to drill 12 1/4" hole to 3115 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.2/ 24.2	np/na Values	0.481/0.470
Drilling	24	Water Added	309	KCl	2.2/ 20.1	kp/ka (lb•s^n/100ft²)	2.290/2.478
Tripping		Mud Received	0	Low Gravity	2.4/ 22.2	Bit Loss (psi / %)	158 / 1
Non-Productive Tim		Dumped	0	Bentonite	.5/ 4.6	Bit HHP (hhp / HSI)	83 / 1
Condition Mud		Shakers	335	Drill Solids	1.4/ 12.6	Bit Jet Vel (m/s)	40
		Desilter & Desander	0	Weight Material	3.2/ 47.2	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	1.8622	Crit Vel DP (m/min)	91
		Other	0	Average SG	3.51	Crit Vel DC (m/min)	107
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1./ 5.	ECD @ 3115 (lb/gal)	10.37

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 20,506.64	A$ 173,883.21

WATER-BASED MUD REPORT No. 13

Date	28/12/2005	**Depth/TVD**	3277 m / 3274 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)
Bit Size 12.25 in Reed		Surface	Hole
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	1956.7
Drill Pipe Size	Length	Intermediate	Active Pits
5 in	3009 m	13.375in @1511m (1511TVD)	498.3
Drill Pipe Size	Length	Intermediate	Total Circulating Vol
5 in	193 m		2455
Drill Collar Size	Length	Production or Liner	In Storage
8 in	75 m		685

CIRCULATION DATA		
Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902 gal/min	
Bottoms Up	74.4 min	15691 stk
Total Circ Time	100.3 min	21163 stk
Circulating Pressure	3400 psi	

MUD PROPERTIES

Sample From		Pit@21:00	Active@03:00
Flow Line Temp	°C	32	32
Depth/TVD	m	3260/3260	3155/3147
Mud Weight	lb/gal	10.3@25°C	10.2@25°C
Funnel Viscosity	s/qt	57	58
Rheology Temp	°C	49	49
R600/R300		60/43	57/42
R200/R100		36/26	34/24
R6/R3		7/5	7/5
PV	cP	17	15
YP	lb/100ft²	26	27
10s/10m/30m Gel	lb/100ft²	6/9/13	6/8/9
API Fluid Loss	cc/30 min	4	4
HTHP FL Temp	cc/30 min	12@121°C	12@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10
Oil/Water	%Vol	/89.5	/90
Sand	%Vol	1.25	0.7
MBT	lb/bbl	6	5
pH		9	9
Alkal Mud (Pm)		0	0
Pf/Mf		0.05/0.5	0.05/0.6
Chlorides	mg/l	81500	74000
Hardness Ca	mg/l	260	240
KCl	% wt	8	6
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	25	10
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	26.00
GLUTE 25	25 LT CN	2.00
OS-1	25 KG BG	12.00
POLYPAC UL	25 KG BG	20.00
POTASSIUM HYDROXIDE	25 KG CN	5.00
KCl BB	1 MT BG	20.00
POLY PLUS DRY	25 KG BG	24.00
GLYDRIL LC	55 GA DM	24.00
SALT	1 MT BG	10.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 165	0
Shaker 2	4 x 165	0
Shaker 3	4 x 120	0
BEM650	4 x 165	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Added 8 bags KCl to active once boat arrived and maintained programmed properties. Screened up shaker 2 & 3 to 165 mesh using old screens. Changed 2 screens on BEM 650 to new 165 mesh. Used 6 x 165XR new screens. Later screened back shaker 3 to 120 mesh to cope with flow surges due to weather.

REMARKS

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2./ 22.9	np/na Values	0.481/0.470
Drilling	24	Water Added	804	KCl	2.8/ 25.9	kp/ka (lb•s^n/100ft²)	2.290/2.478
Tripping		Mud Received	0	Low Gravity	2.1/ 18.9	Bit Loss (psi / %)	160 / 1
Non-Productive Tim		Dumped	0	Bentonite	.6/ 5.	Bit HHP (hhp / HSI)	84 / 1
Condition Mud		Shakers	341	Drill Solids	1./ 8.9	Bit Jet Vel (m/s)	40
		Desilter & Desander	0	Weight Material	3.5/ 51.8	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	1.321	Crit Vel DP (m/min)	90
		Other	0	Average SG	3.61	Crit Vel DC (m/min)	107
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1./ 5.	ECD @ 3277 (lb/gal)	10.48

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 49,324.83	A$ 223,208.04

WATER-BASED MUD REPORT No. 14

Date	29/12/2005	**Depth/TVD**	3385 m / 3381 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Bryan Webb
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)
Bit Size 12.25 in Reed		Surface	Hole
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	2006
Drill Pipe Size	Length	Intermediate	Active Pits
5 in	3117 m	13.375in @1511m (1511TVD)	496
Drill Pipe Size	Length	Intermediate	Total Circulating Vol
5 in	193 m		2502
Drill Collar Size	Length	Production or Liner	In Storage
8 in	75 m		405

CIRCULATION DATA		
Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902	gal/min
Bottoms Up	75.4 min	15906 stk
Total Circ Time	100.8 min	21277 stk
Circulating Pressure	3800 psi	

MUD PROPERTIES

Sample From		Pit@21:00	Active@03:30
Flow Line Temp	°C	33	33
Depth/TVD	m	3380/3380	3299/3296
Mud Weight	lb/gal	10.2@33°C	10.2@25°C
Funnel Viscosity	s/qt	57	60
Rheology Temp	°C	49	49
R600/R300		64/47	58/42
R200/R100		40/28	35/25
R6/R3		8/6	7/5
PV	cP	17	16
YP	lb/100ft²	30	26
10s/10m/30m Gel	lb/100ft²	7/9/11	6/9/10
API Fluid Loss	cc/30 min	4	4.1
HTHP FL Temp	cc/30 min	12@121°C	11.5@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1.25	1.3
MBT	lb/bbl	6	7.5
pH		9	8.8
Alkal Mud (Pm)		0	0.35
Pf/Mf		0.05/0.3	0.05/0.5
Chlorides	mg/l	82000	82000
Hardness Ca	mg/l	320	240
KCl	% wt	7	8
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	25	50
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	6.00
OS-1	25 KG BG	6.00
POLYPAC UL	25 KG BG	1.00
SODA ASH	25 KG BG	8.00
POTASSIUM HYDROXIDE	25 KG CN	2.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 165	20
Shaker 2	2x165, 2x120	24
Shaker 3	2x165, 2x120	24
BEM650	2x165, 2x120	24
D-Sander		0
D-Silter		12

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Added unweighted premixe & ran desilter (discharging 20 bbl/hr, 10.4 ppg) to control mud wt 10.1-10.2 ppg. Used 2x165 and 2x120 mesh new screens. Took 8 x 165 screens from diamond stock.

REMARKS

Drilled ahead to 3385m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.2/ 25.	np/na Values	0.445/0.439
Drilling	24	Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	3.118/3.127
Tripping		Mud Received	0	Low Gravity	3./ 27.	Bit Loss (psi / %)	158 / 1
Non-Productive Tim		Dumped	0	Bentonite	.4/ 4.	Bit HHP (hhp / HSI)	83 / 1
Condition Mud		Shakers	74	Drill Solids	2./ 18.	Bit Jet Vel (m/s)	40
		Desilter & Desander	161	Weight Material	2.7/ 39.8	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	2.6597	Crit Vel DP (m/min)	98
		Other	0	Average SG	3.36	Crit Vel DC (m/min)	114
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1./ 5.	ECD @ 3385 (lb/gal)	10.4

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 2,468.46	A$ 225,676.50

WATER-BASED MUD REPORT No. 15

Date	30/12/2005	**Depth/TVD**	3402 m / 3399 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Trip Bit change

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size	12.25 in Reed
Nozzles	4x18 /2x28 / 1/32"
Drill Pipe Size in	Length m
Drill Pipe Size in	Length m
Drill Collar Size in	Length m

CASING

Surface
30in @650m (650TVD)
Intermediate
13.375in @1511m (1511TVD)
Intermediate
Production or Liner

MUD VOLUME (bbl)

Hole
2103.9
Active Pits
360.1
Total Circulating Vol
360.1
In Storage
740

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902 gal/min	
Bottoms Up	-9.8 min	-2076 stk
Total Circ Time	2.2 min	473 stk
Circulating Pressure	3800 psi	

MUD PROPERTIES

Sample From		Pit@21:00	Active@03:00
Flow Line Temp	°C		32
Depth/TVD	m	3402/3997	3390/3387
Mud Weight	lb/gal	10.2@30°C	10.1@25°C
Funnel Viscosity	s/qt	60	60
Rheology Temp	°C	49	49
R600/R300		60/44	59/43
R200/R100		37/27	36/26
R6/R3		7/5	7/6
PV	cP	16	16
YP	lb/100ft²	28	27
10s/10m/30m Gel	lb/100ft²	7/9/11	6/9/10
API Fluid Loss	cc/30 min	4	4
HTHP FL Temp	cc/30 min	11.8@121°C	11.6@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10
Oil/Water	%Vol	/89.5	/90
Sand	%Vol	1	0.8
MBT	lb/bbl	7	7.5
pH		9	9
Alkal Mud (Pm)		0	0.4
Pf/Mf		0.04/0.5	0.05/0.7
Chlorides	mg/l	82500	83000
Hardness Ca	mg/l	260	240
KCl	% wt	7	6.9
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	50	150
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DEFOAM A	5 GA CN	2.00
DUO-VIS	25 KG BG	14.00
POLYPAC UL	25 KG BG	8.00
POTASSIUM HYDROXIDE	25 KG CN	4.00
KCl BB	1 MT BG	6.00
POLY PLUS DRY	25 KG BG	12.00
GLYDRIL LC	55 GA DM	12.00
SALT	1 MT BG	5.00

SOLIDS EQUIP	Size	Hr
Shaker 1	4 x 165	6
Shaker 2	4x165	9
Shaker 3	2x165, 2x120	9
BEM650	2x165, 2x120	9
D-Sander		0
D-Silter		2

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Ran desilter to maintain mud weight (20 bbl/hr 10.4ppg). Added unweighted premix to maintain volume. Changed out damaged shaker screens with good used screens.

REMARKS

Drilled ahead to 3402 m. POH for bit change. Back reamed from 2867 m to 2819 m. Made up new motor and bit and RIH.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.3/ 25.3	np/na Values	
Drilling	9	Water Added	365	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	
Tripping	15	Mud Received	0	Low Gravity	2.9/ 26.8	Bit Loss (psi / %)	
Non-Productive Tim		Dumped	15	Bentonite	.6/ 5.2	Bit HHP (hhp / HSI)	
Condition Mud		Shakers	69	Drill Solids	1.8/ 16.6	Bit Jet Vel (m/s)	
		Desilter & Desander	40	Weight Material	2.7/ 39.7	Ann. Vel DP (m/min)	
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	
		Left in Hole	0	Inert/React	2.1112	Crit Vel DP (m/min)	
		Other	0	Average SG	3.37	Crit Vel DC (m/min)	
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	.8/ 4.		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 21,860.45	A$ 247,536.95

WATER-BASED MUD REPORT No. 16

Date	31/12/2005	**Depth/TVD**	3473 m / 3469 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drill 12.25"

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size	12.25 in Hycalog
Nozzles	4x18 /2x28 / 1/32"
Drill Pipe Size	Length
5 in	3205 m
Drill Pipe Size	Length
5 in	193 m
Drill Collar Size	Length
8 in	75 m

CASING

Surface	
30in @650m (650TVD)	
Intermediate	
13.375in @1511m (1511TVD)	
Intermediate	
Production or Liner	

MUD VOLUME (bbl)

Hole	
2046.2	
Active Pits	
409.8	
Total Circulating Vol	
2456	
In Storage	
500	

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902	gal/min
Bottoms Up	77 min	16250 stk
Total Circ Time	99.8 min	21061 stk
Circulating Pressure	3800 psi	

MUD PROPERTIES

Sample From		Pits@20:30	Pit@03:00
Flow Line Temp	°C	29	
Depth/TVD	m	3452/3448	3402/3399
Mud Weight	lb/gal	10.2@27°C	10.2@25°C
Funnel Viscosity	s/qt	62	62
Rheology Temp	°C	49	49
R600/R300		67/50	59/43
R200/R100		42/30	36/26
R6/R3		9/7	7/6
PV	cP	17	16
YP	lb/100ft²	33	27
10s/10m/30m Gel	lb/100ft²	8/11/13	6/9/10
API Fluid Loss	cc/30 min	3.6	4
HTHP FL Temp	cc/30 min	12@121°C	11.6@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1.5	1
MBT	lb/bbl	6	7.5
pH		9	9
Alkal Mud (Pm)		0.1	0.4
Pf/Mf		0.05/0.4	0.05/0.7
Chlorides	mg/l	84000	83000
Hardness Ca	mg/l	200	240
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	50	50
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
OS-1	25 KG BG	6.00

SOLIDS EQUIP

	Size	Hr
Shaker 1	4 x 165	14
Shaker 2	4x165	14
Shaker 3	3x165, 1x120	14
BEM650	3x165, 1x120	14
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Screened down front screens on all shakers to 84 and 120 mesh for start of circulation.Lost 100 bbl initially over shakers. Took 8 new 165 mesh screens from Diamond stock. Added unweighted premix to maintain volume and mud weight. No fill observed on bottom. Cuttings showing good inhibition and integrity.

REMARKS

RIH to 3330 m. Reamed and logged to 3350 m. Washed down to bottom and drilled ahead to 3473 m. BHT=56 C

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.4/ 26.1	np/na Values	0.422/0.415
Drilling	11.5	Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	3.833/3.795
Tripping	9	Mud Received	0	Low Gravity	2.9/ 26.2	Bit Loss (psi / %)	158 / 1
Non-Productive Tim		Dumped	0	Bentonite	.5/ 4.1	Bit HHP (hhp / HSI)	83 / 1
Condition Mud		Shakers	248	Drill Solids	1.9/ 17.1	Bit Jet Vel (m/s)	40
Reaming	3.5	Desilter & Desander	0	Weight Material	2.7/ 39.4	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	2.5391	Crit Vel DP (m/min)	104
		Other	0	Average SG	3.37	Crit Vel DC (m/min)	119
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1./ 5.	ECD @ 3473 (lb/gal)	10.42

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 301.74	A$ 247,838.69

WATER-BASED MUD REPORT No. 17

Date	1/01/2006	**Depth/TVD**	3571 m / 3567 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	POOH for Wash Out

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)
Bit Size 12.25 in Hycalog		Surface	Hole
Nozzles 4x18 /2x28 / 1/32"		30in @650m (650TVD)	2091
Drill Pipe Size	Length	Intermediate	Active Pits
5 in	3303 m	13.375in @1511m (1511TVD)	455
Drill Pipe Size	Length	Intermediate	Total Circulating Vol
5 in	193 m		2546
Drill Collar Size	Length	Production or Liner	In Storage
8 in	75 m		730

CIRCULATION DATA		
Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	107@97%	104@97%
Flow Rate	902	gal/min
Bottoms Up	78.8 min	16634 stk
Total Circ Time	103.4 min	21821 stk
Circulating Pressure	3800 psi	

MUD PROPERTIES

Sample From		Pit@19:00	Active@03:30
Flow Line Temp	°C	33	31
Depth/TVD	m	3571/3567	3511/3507
Mud Weight	lb/gal	10.2@32°C	10.2@25°C
Funnel Viscosity	s/qt	62	65
Rheology Temp	°C	49	49
R600/R300		63/45	64/47
R200/R100		37/27	38/28
R6/R3		8/6	8/6
PV	cP	18	17
YP	lb/100ft²	27	30
10s/10m/30m Gel	lb/100ft²	7/9/11	7/10/12
API Fluid Loss	cc/30 min	3.6	3.9
HTHP FL Temp	cc/30 min	12@121°C	11.6@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1.25	1.3
MBT	lb/bbl	6	5
pH		9	8.5
Alkal Mud (Pm)		0.2	0.3
Pf/Mf		0.04/0.5	0.05/0.7
Chlorides	mg/l	82000	82000
Hardness Ca	mg/l	200	220
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	25	100
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DEFOAM A	5 GA CN	1.00
DUO-VIS	25 KG BG	8.00
GLUTE 25	25 LT CN	2.00
POLYPAC UL	25 KG BG	8.00
POTASSIUM HYDROXIDE	25 KG CN	4.00
KCl BB	1 MT BG	6.00
POLY PLUS DRY	25 KG BG	12.00
GLYDRIL LC	55 GA DM	12.00
SALT	1 MT BG	5.00

SOLIDS EQUIP	Size	Hr
Shaker 1	145,165,120,165	20
Shaker 2	180,180,84,120	20
Shaker 3	165,165,120,120	20
BEM650	165,165,120,120	20
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Maintained volume and programmed properties by adding unweighted premix. Replaced damaged shaker screens with patched screens.

REMARKS

Drilled ahead to 3571 m. Pressure drop indicated washout in drill string. Pulling out of hole to investugate.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.2/ 25.	np/na Values	0.485/0.429
Drilling	19	Water Added	405	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	2.326/3.180
Tripping	5	Mud Received	0	Low Gravity	3./ 27.	Bit Loss (psi / %)	158 / 1
Non-Productive Tim		Dumped	0	Bentonite	.4/ 4.	Bit HHP (hhp / HSI)	83 / 1
Condition Mud		Shakers	140	Drill Solids	2./ 18.	Bit Jet Vel (m/s)	40
Reaming		Desilter & Desander	0	Weight Material	2.7/ 39.8	Ann. Vel DP (m/min)	53.88
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	78.3
		Left in Hole	0	Inert/React	2.6597	Crit Vel DP (m/min)	96
		Other	0	Average SG	3.36	Crit Vel DC (m/min)	111
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	.8/ 4.	ECD @ 3571 (lb/gal)	10.4

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790 Kelvin Leong			A$ 20,198.73	A$ 268,037.42

WATER-BASED MUD REPORT No. 18

Date	2/01/2006	**Depth/TVD**	3571 m / 3567 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	P/O for MWD Tools

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size 12.25 in Smith		
Nozzles 3x18 / 1/32"		
Drill Pipe Size	Length	
5 in	2220 m	
Drill Pipe Size	Length	
5 in	193 m	
Drill Collar Size	Length	
8 in	75 m	

CASING

Surface	
30in @650m (650TVD)	
Intermediate	
13.375in @1511m (1511TVD)	
Intermediate	
Production or Liner	

MUD VOLUME (bbl)

Hole	
2114.2(Tot)/1596.2(Bit)	
Active Pits	
374.8	
Total Circulating Vol	
1971	
In Storage	
730	

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	85@97%	85@97%
Flow Rate	727	gal/min
Bottoms Up	71 min	12073 stk
Total Circ Time	93.6 min	15904 stk
Circulating Pressure	2900 psi	

MUD PROPERTIES

Sample From		FL@20:15	Active@03:30
Flow Line Temp	°C	30	
Depth/TVD	m	3571/3567	3571/3567
Mud Weight	lb/gal	10.2@30°C	10.2@25°C
Funnel Viscosity	s/qt	66	65
Rheology Temp	°C	49	49
R600/R300		65/48	61/44
R200/R100		41/30	36/26
R6/R3		8/6	7/5
PV	cP	17	17
YP	lb/100ft²	31	27
10s/10m/30m Gel	lb/100ft²	7/9/11	7/9/11
API Fluid Loss	cc/30 min	3.6	3.5
HTHP FL Temp	cc/30 min	11.8@121°C	11.6@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1	1
MBT	lb/bbl	7	7.5
pH		8.5	9
Alkal Mud (Pm)		0	0.2
Pf/Mf		0.02/0.5	0.05/0.7
Chlorides	mg/l	82000	83000
Hardness Ca	mg/l	240	200
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	25	100
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	145,165,84,84	6
Shaker 2	180,180,84,84	6
Shaker 3	165,165,84,84	6
BEM650	165,165,120,120	6
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Screened down front screens on shakers 1,2,3 to 84 mesh for start up with cold mud. Maintained programmed properties and active volume with unweighted premix. Took 8 x 145 new screens from diamond.

REMARKS

RIH to 2134m. Reamed down to 2593m. POH dt MWD tool failure.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.2/ 25.	np/na Values	0.437/0.459
Drilling		Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	3.348/3.028
Tripping	21	Mud Received	0	Low Gravity	3./ 27.	Bit Loss (psi / %)	893 / 1
Non-Productive Tim		Dumped	0	Bentonite	.6/ 5.1	Bit HHP (hhp / HSI)	379 / 1
Condition Mud		Shakers	57	Drill Solids	1.8/ 16.8	Bit Jet Vel (m/s)	95
Reaming	3	Desilter & Desander	0	Weight Material	2.7/ 39.8	Ann. Vel DP (m/min)	43.43
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	63.11
		Left in Hole	0	Inert/React	2.1369	Crit Vel DP (m/min)	101
		Other	0	Average SG	3.36	Crit Vel DC (m/min)	118
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	.4/ 6.3	ECD @ 2488 (lb/gal)	10.38

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Jasdeep Singh 08-9302 3790			A$ 0.00	A$ 268,037.42
Kelvin Leong				

WATER-BASED MUD REPORT No. 19

Date	3/01/2006	**Depth/TVD**	3571 m / 3567 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	WOW

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size 12.25 in Smith		
Nozzles 3x18 / 1/32"		
Drill Pipe Size	Length	
5 in	1235 m	
Drill Pipe Size	Length	
5 in	138 m	
Drill Collar Size	Length	
8 in	138 m	

CASING

Surface
30in @650m (650TVD)
Intermediate
13.375in @1511m (1511TVD)
Intermediate
Production or Liner

MUD VOLUME (bbl)

Hole
2127(Tot)/1141.8(Bit)
Active Pits
413
Total Circulating Vol
1554.8
In Storage
660

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	85@97%	85@97%
Flow Rate	727 gal/min	
Bottoms Up	48.1 min	8171 stk
Total Circ Time	68.8 min	11694 stk
Circulating Pressure	2900 psi	

MUD PROPERTIES

Sample From		Active@21:50	Active@03:00
Flow Line Temp	°C		
Depth/TVD	m	3571/3567	3571/3567
Mud Weight	lb/gal	10.15@20°C	10.2@25°C
Funnel Viscosity	s/qt	57	66
Rheology Temp	°C	49	49
R600/R300		59/43	60/44
R200/R100		37/27	36/26
R6/R3		7/5	7/6
PV	cP	16	16
YP	lb/100ft²	27	28
10s/10m/30m Gel	lb/100ft²	6/8/12	6/9/11
API Fluid Loss	cc/30 min	3.8	3.7
HTHP FL Temp	cc/30 min	11.6@121°C	11.6@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1	1
MBT	lb/bbl	7.5	7.5
pH		8.5	8.5
Alkal Mud (Pm)		0.35	0.3
Pf/Mf		0.06/0.7	0.05/0.8
Chlorides	mg/l	78000	81000
Hardness Ca	mg/l	200	200
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm	25	25
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	145,165,84,84	1.5
Shaker 2	180,180,84,84	1.5
Shaker 3	165,165,84,84	1.5
BEM650	165,165,120,120	1.5
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Changed front screens on shakers 1,2,3 to 84 mesh for startup circulation to minimize mud losses due to cold mud.

REMARKS

Pulled out to casing shoe. Pressure tested pump manifold to 4200 psi. Continued pulling out of hole. Made up new BHA, RIH to casing shoe, slip and cut drillline and WOW.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	2	Oil Added	0	NaCl	2./ 22.9	np/na Values	0.456/0.481
Drilling		Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	2.664/2.435
Tripping	18.5	Mud Received	0	Low Gravity	3.5/ 31.8	Bit Loss (psi / %)	889 / 1
Non-Productive Tim		Dumped	0	Bentonite	.6/ 5.1	Bit HHP (hhp / HSI)	377 / 1
Wait on Weather	3.5	Shakers	19	Drill Solids	2.4/ 21.7	Bit Jet Vel (m/s)	95
Reaming		Desilter & Desander	0	Weight Material	2.4/ 35.1	Ann. Vel DP (m/min)	42.06
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	60.26
		Left in Hole	0	Inert/React	2.5706	Crit Vel DP (m/min)	92
		Other	0	Average SG	3.25	Crit Vel DC (m/min)	109
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1.2/ 19.	ECD @ 1511 (lb/gal)	10.3

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 0.00	A$ 268,037.42

WATER-BASED MUD REPORT No. 20

Date	4/01/2006	**Depth/TVD**	3619 m / 3616 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drilling

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size 12.25 in Smith		
Nozzles 3x18 / 1/32"		
Drill Pipe Size	Length	
5 in	3343 m	
Drill Pipe Size	Length	
5 in	138 m	
Drill Collar Size	Length	
8 in	138 m	

CASING

Surface
30in @650m (650TVD)
Intermediate
13.375in @1511m (1511TVD)
Intermediate
Production or Liner

MUD VOLUME (bbl)

Hole	2104.9
Active Pits	410.1
Total Circulating Vol	2515
In Storage	570

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	85@97%	85@97%
Flow Rate	727	gal/min
Bottoms Up	96.6 min	16423 stk
Total Circ Time	124.3 min	21133 stk
Circulating Pressure	2900 psi	

MUD PROPERTIES

Sample From		FL@21:20	Active@03:00
Flow Line Temp	°C	30	
Depth/TVD	m	3576/3572	3571/3567
Mud Weight	lb/gal	10.15@28°C	10.1@25°C
Funnel Viscosity	s/qt	64	59
Rheology Temp	°C	49	49
R600/R300		67/50	57/42
R200/R100		43/30	35/25
R6/R3		9/7	7/5
PV	cP	17	15
YP	lb/100ft²	33	27
10s/10m/30m Gel	lb/100ft²	8/11/15	5/8/10
API Fluid Loss	cc/30 min	3.6	3.5
HTHP FL Temp	cc/30 min	11.0@121°C	11.5@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	1	1
MBT	lb/bbl	7.5	7.5
pH		9	8.5
Alkal Mud (Pm)		0.4	0.3
Pf/Mf		0.08/0.7	0.05/0.7
Chlorides	mg/l	79000	80000
Hardness Ca	mg/l	200	200
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm		25
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	6.00
OS-1	25 KG BG	6.00
POTASSIUM HYDROXIDE	25 KG CN	3.00
MI BAR (Bulk)	1 MT BG	10.00

SOLIDS EQUIP

	Size	Hr
Shaker 1	165,165,165,145	15
Shaker 2	145,145,165,120	15
Shaker 3	145,145,120,120	15
BEM650	165,165,120,120	15
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Bled new premix into active to maintain active volume. Added Duovis and Caustic Potash to the active to adjust flow properties and PH respectively. Once mud temperature increased upgraded shaker screens to finer mesh old 120 and 165 to minimize solids build up.

REMARKS

Continued WOW. RIH and drilled ahead to 3619 m.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.1/ 23.4	np/na Values	0.422/0.415
Drilling	15	Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	3.833/3.795
Tripping	3	Mud Received	0	Low Gravity	3.5/ 31.4	Bit Loss (psi / %)	889 / 1
Non-Productive Tim		Dumped	0	Bentonite	.6/ 5.1	Bit HHP (hhp / HSI)	377 / 1
Wait on Weather	6	Shakers	131	Drill Solids	2.3/ 21.3	Bit Jet Vel (m/s)	95
		Desilter & Desander	0	Weight Material	2.4/ 34.9	Ann. Vel DP (m/min)	43.43
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	63.11
		Left in Hole	0	Inert/React	2.5244	Crit Vel DP (m/min)	104
		Other	0	Average SG	3.25	Crit Vel DC (m/min)	120
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1.6/ 8.	ECD @ 3619 (lb/gal)	10.36

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 5,829.91	A$ 273,867.33

WATER-BASED MUD REPORT No. 21

Date	5/01/2006	**Depth/TVD**	3697 m / 3693 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Drilling

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)
Bit Size 12.25 in Smith		Surface	Hole
Nozzles 3x18 / 1/32"		30in @650m (650TVD)	2140.5
Drill Pipe Size	Length	Intermediate	Active Pits
5 in	3421 m	13.375in @1511m (1511TVD)	434.5
Drill Pipe Size	Length	Intermediate	Total Circulating Vol
5 in	138 m		2575
Drill Collar Size	Length	Production or Liner	In Storage
8 in	138 m		370

CIRCULATION DATA		
Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	85@97%	85@97%
Flow Rate	727	gal/min
Bottoms Up	98.4 min	16729 stk
Total Circ Time	127.3 min	21645 stk
Circulating Pressure	2900 psi	

MUD PROPERTIES

Sample From		Pit@22:30	Active@03:00
Flow Line Temp	°C	32	32
Depth/TVD	m	3661/3657	3628/3624
Mud Weight	lb/gal	10.15@25°C	10.2@25°C
Funnel Viscosity	s/qt	61	64
Rheology Temp	°C	49	49
R600/R300		62/46	64/47
R200/R100		39/28	39/29
R6/R3		9/6	9/7
PV	cP	16	17
YP	lb/100ft²	30	30
10s/10m/30m Gel	lb/100ft²	8/12/15	7/11/13
API Fluid Loss	cc/30 min	3.6	3.8
HTHP FL Temp	cc/30 min	11@121°C	11.2@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	0.8	1
MBT	lb/bbl	7.5	5
pH		9	9
Alkal Mud (Pm)		0.3	0.3
Pf/Mf		0.06/0.7	0.05/0.8
Chlorides	mg/l	79000	82000
Hardness Ca	mg/l	200	200
KCl	% wt	7	7
PHPA	ppb	1	1
Glycol	% Vol	3	3
Sulphite	ppm		100
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,230,165,165	0
Shaker 2	230,230,230,165	0
Shaker 3	120,120,120,120	0
BEM650	200,200,165,165	0
D-Sander		0
D-Silter		12

MUD PROPERTY SPECIFICATIONS	
Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Added unweighted premix to maintain active volume. Used 4 x 120 new mesh screens from MI stock on shaker 3. Upgraded shaker 1,2&4 to 200 and 230 screens to minimize LGS build up. Also run Desilter continuously to control LGS.

REMARKS

Continued to drill to 3697 m at report time.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	2.1/ 23.4	np/na Values	0.431/0.439
Drilling	24	Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	3.346/3.127
Tripping		Mud Received	0	Low Gravity	3.5/ 31.4	Bit Loss (psi / %)	889 / 1
Non-Productive Tim		Dumped	0	Bentonite	.6/ 5.1	Bit HHP (hhp / HSI)	377 / 1
		Shakers	90	Drill Solids	2.3/ 21.3	Bit Jet Vel (m/s)	95
		Desilter & Desander	50	Weight Material	2.4/ 34.9	Ann. Vel DP (m/min)	43.43
		Formation	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	63.11
		Left in Hole	0	Inert/React	2.5244	Crit Vel DP (m/min)	98
		Other	0	Average SG	3.25	Crit Vel DC (m/min)	114
		Sweeps/Displacement	0	Carb/BiCarb (m mole/L)	1.2/ 6.	ECD @ 3697 (lb/gal)	10.34

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 0.00	A$ 273,867.33

WATER-BASED MUD REPORT No. 22

Date	6/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Circulating

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY

Bit Size 12.25 in Smith		
Nozzles 3x18 / 1/32"		
Drill Pipe Size	Length	
5 in	3482 m	
Drill Pipe Size	Length	
5 in	138 m	
Drill Collar Size	Length	
8 in	138 m	

CASING

Surface
30in @650m (650TVD)
Intermediate
13.375in @1511m (1511TVD)
Intermediate
Production or Liner

MUD VOLUME (bbl)

Hole
2168.4
Active Pits
469.6
Total Circulating Vol
2638
In Storage
110

CIRCULATION DATA

Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Pump Size	6 X 12.in	6 X 12.in
Pump Cap	4.274 gal/stk	4.274 gal/stk
Pump stk/min	85@97%	85@97%
Flow Rate	727	gal/min
Bottoms Up	99.8 min	16967 stk
Total Circ Time	130.3 min	22152 stk
Circulating Pressure	2900 psi	

MUD PROPERTIES

Sample From		Pit@21:30	Active@03:30
Flow Line Temp	°C	32	31
Depth/TVD	m	3752/3752	3713/3709
Mud Weight	lb/gal	10.15@25°C	10.1@25°C
Funnel Viscosity	s/qt	59	58
Rheology Temp	°C	49	49
R600/R300		60/45	60/45
R200/R100		39/28	37/27
R6/R3		9/6	8/6
PV	cP	15	15
YP	lb/100ft²	30	30
10s/10m/30m Gel	lb/100ft²	7/11/15	7/10/12
API Fluid Loss	cc/30 min	3.8	3.8
HTHP FL Temp	cc/30 min	11@121°C	11@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	0.7	0.75
MBT	lb/bbl	5	5
pH		9	9
Alkal Mud (Pm)		0.3	0.2
Pf/Mf		0.06/0.8	0.05/0.75
Chlorides	mg/l	79000	80000
Hardness Ca	mg/l	240	240
KCl	% wt	7	7
PHPA	ppb	0.9	1
Glycol	% Vol	2.8	3
Sulphite	ppm	50	25
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
OS-1	25 KG BG	6.00

SOLIDS EQUIP

	Size	Hr
Shaker 1	230,165,165,120	24
Shaker 2	230,230,200,200	24
Shaker 3	120,120,120,120	24
BEM650	200,200,165,165	24
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Ran desilter continuously to minimise LGS build up. Used 4 new 200 mesh screens from Diamond stock. Backloaded 78T Bayrite and 16T Bentonite.

REMARKS

Drilled to TD 3758 m and at present circulating hole prior to Pooh.

TIME DISTR	Last 24 Hrs
Rig Up/Service	
Drilling	24
Tripping	
Non-Productive Tim	

MUD VOL ACCTG	(bbl)
Oil Added	0
Water Added	0
Mud Received	0
Dumped	0
Shakers	134
Desilter & Desander	63
Formation	0
Left in Hole	0
Other	0
Sweeps/Displacement	0

SOLIDS ANALYSIS (%/lb/bbl)	
NaCl	2.1/ 23.4
KCl	2.6/ 23.5
Low Gravity	3.5/ 31.4
Bentonite	.3/ 2.3
Drill Solids	2.6/ 24.1
Weight Material	2.4/ 34.9
Chemical Conc	- / 5.
Inert/React	4.2866
Average SG	3.25
Carb/BiCarb (m mole/L)	1.2/ 6.

MUD RHEOLOGY & HYDRAULICS	
np/na Values	0.415/0.439
kp/ka (lb•s^n/100ft²)	3.608/3.127
Bit Loss (psi / %)	889 / 1
Bit HHP (hhp / HSI)	377 / 1
Bit Jet Vel (m/s)	95
Ann. Vel DP (m/min)	43.43
Ann. Vel DC (m/min)	63.11
Crit Vel DP (m/min)	98
Crit Vel DC (m/min)	114
ECD @ 3758 (lb/gal)	10.34

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 301.74	A$ 274,169.07

WATER-BASED MUD REPORT No. 23

Date	7/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Logging

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Smith		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 3x18 / 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	363.9	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	138 m		363.9	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	138 m		110	Circulating Pressure		

MUD PROPERTIES

Sample From		Pit@20:00	Active@09:00
Flow Line Temp	°C		
Depth/TVD	m	3758/3754	3758/3754
Mud Weight	lb/gal	10.15@20°C	10.1@20°C
Funnel Viscosity	s/qt	59	56
Rheology Temp	°C	49	49
R600/R300		60/44	60/45
R200/R100		38/28	37/27
R6/R3		8/6	8/6
PV	cP	16	15
YP	lb/100ft²	28	30
10s/10m/30m Gel	lb/100ft²	7/10/15	7/10/12
API Fluid Loss	cc/30 min	3.6	3.8
HTHP FL Temp	cc/30 min	11@121°C	11@121°C
Cake API/HTHP	1/32"	1/1	1/1
Solids	%Vol	10.5	10.5
Oil/Water	%Vol	/89.5	/89.5
Sand	%Vol	0.7	0.5
MBT	lb/bbl	5	5
pH		9	9
Alkal Mud (Pm)		0.35	0.3
Pf/Mf		0.04/0.7	0.05/0.7
Chlorides	mg/l	79000	80000
Hardness Ca	mg/l	240	220
KCl	% wt	6.8	6.8
PHPA	ppb	1	1
Glycol	% Vol	2.7	2.7
Sulphite	ppm	75	100
NaCl	% wt	8	8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,200,200	0
Shaker 3	120,120,120,120	0
BEM650	200,200,165,165	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Bled premix to the active as required for pit levels.

REMARKS

Circulated hole clean, Pooh to 3668 m, re-logged interval to 3582 m (mwd tool 22 m above bit), repaired broken hose and POOH. R/u Wireline tools and run logs as per programm.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service	1	Oil Added	0	NaCl	2.1/ 23.4	np/na Values	
Drilling		Water Added	0	KCl	2.6/ 23.5	kp/ka (lb•s^n/100ft²)	
Tripping	13	Mud Received	0	Low Gravity	3.5/ 31.4	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	.3/ 2.3	Bit HHP (hhp / HSI)	
Condition Hole	2	Sweeps/Displacement	0	Drill Solids	2.6/ 24.1	Bit Jet Vel (m/s)	
Wireline Logs	3	Dumped	0	Weight Material	2.4/ 34.9	Ann. Vel DP (m/min)	
Testing	5	Shakers	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React	4.2866	Crit Vel DP (m/min)	
		Formation	0	Average SG	3.25	Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	.8/ 4.		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 0.00	A$ 274,169.07

WATER-BASED MUD REPORT No. 24

Date	8/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	RIH

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Paul Baker/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Smith		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 3x18 / 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	363.9	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		363.9	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m		110	Circulating Pressure		

MUD PROPERTIES

Sample From		Hi-vis@18:00	Active@09:00
Flow Line Temp	°C		
Depth/TVD	m	3758/3754	3758/3754
Mud Weight	lb/gal	10.2@20°C	10.1@20°C
Funnel Viscosity	s/qt	104	59
Rheology Temp	°C		49
R600/R300			60/45
R200/R100			37/27
R6/R3			8/6
PV	cP		15
YP	lb/100ft²		30
10s/10m/30m Gel	lb/100ft²		7/10/12
API Fluid Loss	cc/30 min		3.6
HTHP FL Temp	cc/30 min		11@121°C
Cake API/HTHP	1/32"		1/1
Solids	%Vol		10.5
Oil/Water	%Vol		/89.5
Sand	%Vol		0.5
MBT	lb/bbl		5
pH			9
Alkal Mud (Pm)			0.3
Pf/Mf			0.05/0.7
Chlorides	mg/l		79000
Hardness Ca	mg/l		220
KCl	% wt		6.5
PHPA	ppb		1
Glycol	% Vol		2.8
Sulphite	ppm		50
NaCl	% wt		8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	2.00

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Mixed 70bbls hi-vis mud for P&A. Installed coarse shaker screens on the front of all shakers to prevent cold mud losses. Recieved chemicals on board from the Far Grip and will be recheck qty when able to open containers.

REMARKS

Continued to log well (first run PEX-HALS-DSI-GR, second run vsi-4-gr). RIH with open end pipe to conduct P&A operation.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/ -19.7	np/na Values	
Drilling		Water Added	0	KCl	2.9/ 26.3	kp/ka (lb•s^n/100ft²)	
Tripping	6	Mud Received	0	Low Gravity	-16.4/ -148.9	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	./ .	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	-19./ -173.2	Bit Jet Vel (m/s)	
Wireline Logs	18	Dumped	0	Weight Material	15./ 220.9	Ann. Vel DP (m/min)	
		Shakers	0	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React	-	Crit Vel DP (m/min)	
		Formation	0	Average SG	-15.4	Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	./ -.1		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 604.06	A$ 274,773.13

WATER-BASED MUD REPORT No. 25

Date	9/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	Circulating

Operator : Nexus Energy
Report For : Ron King/Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in Smith		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 3x18 / 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	358.9	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		358.9	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m		110	Circulating Pressure		

MUD PROPERTIES

Sample From		Pit	Active@09:00
Flow Line Temp	°C		
Depth/TVD	m	3758/3754	3758/3754
Mud Weight	lb/gal	10.2	10.1@20°C
Funnel Viscosity	s/qt	100+	56
Rheology Temp	°C		49
R600/R300			60/45
R200/R100			37/27
R6/R3			8/6
PV	cP		15
YP	lb/100ft²		30
10s/10m/30m Gel	lb/100ft²		7/10/12
API Fluid Loss	cc/30 min		3.6
HTHP FL Temp	cc/30 min		11@121°C
Cake API/HTHP	1/32"		1/1
Solids	%Vol		10.5
Oil/Water	%Vol		/89.5
Sand	%Vol		0.5
MBT	lb/bbl		5
pH			9
Alkal Mud (Pm)			0.3
Pf/Mf			0.05/0.7
Chlorides	mg/l		79000
Hardness Ca	mg/l		220
KCl	% wt		6.8
PHPA	ppb		1
Glycol	% Vol		2.7
Sulphite	ppm		25
NaCl	% wt		8

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
DUO-VIS	25 KG BG	4.00
GLUTE 25	25 LT CN	1.00
OS-1	25 KG BG	1.00
POTASSIUM HYDROXIDE	25 KG CN	1.00
MI BAR (Bulk)	1 MT BG	3.00
CONQOR 303A	55 GA DM	1.00

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Made up and pumped another batych of 60 bbl hi vis pill. Displaced casing with Inhibited mud with Glute 25, Conqor 303, OS1 and KOH after setting third cement plug. Made up and pumped 50 bbl slug.

REMARKS

RIH to 3750 m. Circulated bottoms up. Cemented with 102 bbl slurry from 3750 m to 3560 m. Pulled up to 2965 m and spot 60 bbl hi vis pill. Set second cement plug at 2865 m to 2745 m. Pulled out to 1650 m and spot 60 bbl hi vis pill. Set third cement plug at 1550 m to 1430 m. Circulated casing clean, filling with inhibited mud.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/ -19.7	np/na Values	
Drilling		Water Added	0	KCl	2.9/ 26.3	kp/ka (lb•s^n/100ft²)	
Tripping	14	Mud Received	0	Low Gravity	-16.4/ -148.9	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	./ .	Bit HHP (hhp / HSI)	
Condition Hole	6	Sweeps/Displacement	0	Drill Solids	-19./ -173.2	Bit Jet Vel (m/s)	
Cementing	4	Dumped	0	Weight Material	15./ 220.9	Ann. Vel DP (m/min)	
		Shakers	11	Chemical Conc	- / 5.	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React	-	Crit Vel DP (m/min)	
		Formation	0	Average SG	-15.4	Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	./ -.1		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Kelvin Leong			A$ 3,004.50	A$ 277,777.63

WATER-BASED MUD REPORT No. 26

Date	10/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	MixSalt-Glydrill
Water Depth	585	**Activity**	P & A

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	-2274.1	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		-2274.1	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From		SW	
Flow Line Temp	°C		
Depth/TVD	m	3758/3754	
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Mixed a batch of hi-vis mud and spotted prior to set cmt Plug4. After cmt plugs, dump and clean sand traps and pits.

REMARKS

Continued with P&A operation, set cmt plug4 from 725m to 625m as per program. At present pulling out BOP as per DOGC procedures.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Dumped	1228.1	Weight Material	/	Ann. Vel DP (m/min)	
P&A	24	Shakers	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React		Crit Vel DP (m/min)	
		Formation	0	Average SG		Crit Vel DC (m/min)	
		Left in Hole	1515	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Glen Sharpe			A$ 0.00	A$ 277,777.63

WATER-BASED MUD REPORT No. 27

Date	11/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	SW
Water Depth	585	**Activity**	P&A

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	-2274.1	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		-2274.1	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt
MI BAR (Bulk)	1 MT BG	24.00
MI Gel (Bulk)	1 MT BG	22.20

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

No mud treatment today. Dumped bulk materials: 22.2MT Gel Bulk and 24MT Barite in preparation for rig move.

REMARKS

Continued to pull out Riser-BOP.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Dumped	0	Weight Material	/	Ann. Vel DP (m/min)	
P&A		Shakers	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React		Crit Vel DP (m/min)	
		Formation	0	Average SG		Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Glen Sharpe			A$ 17,077.61	A$ 294,855.24

WATER-BASED MUD REPORT No. 28

Date	12/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	SW
Water Depth	585	**Activity**	P&A

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	-2274.1	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		-2274.1	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

No mud treatment today.

REMARKS

Continued to pull Riser-BOP. Cut 20" casing and recover welhead. Pepare to retrieve 18 3/4" and 30" housing at report time.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Dumped	0	Weight Material	/	Ann. Vel DP (m/min)	
P&A	24	Shakers	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React		Crit Vel DP (m/min)	
		Formation	0	Average SG		Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790			A$ 0.00	A$ 294,855.24
Glen Sharpe				

WATER-BASED MUD REPORT No. 29

Date	13/01/2006	**Depth/TVD**	3758 m / 3754 m
Spud Date	16/12/2005	**Mud Type**	SW
Water Depth	585	**Activity**	P&A

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size 12.25 in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)	2274.1	Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)	-2274.1	Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m		-2274.1	Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

REMARKS

Retrieve 18 3/4"-30" housing. Lay down DP and DC. Prepare to pull the Anchors at rpt time.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Dumped	0	Weight Material	/	Ann. Vel DP (m/min)	
P&A		Shakers	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React		Crit Vel DP (m/min)	
		Formation	0	Average SG		Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790 Glen Sharpe			A$ 0.00	A$ 294,855.24

WATER-BASED MUD REPORT No. 30

Date	14/01/2006	**Depth/TVD**	m / m
Spud Date	16/12/2005	**Mud Type**	
Water Depth	585	**Activity**	Pull Anchors

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)		Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)		Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m			Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

Clean pits in preparation for the next well.

REMARKS

At present pull anchors to move rig.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Other	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Sweeps/Displacement	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Dumped	0	Weight Material	/	Ann. Vel DP (m/min)	
P&A	24	Shakers	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Desilter & Desander	0	Inert/React		Crit Vel DP (m/min)	
		Formation	0	Average SG		Crit Vel DC (m/min)	
		Left in Hole	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790			A$ 0.00	A$ 294,855.24
Glen Sharpe				

WATER-BASED MUD REPORT No. 31

Date	15/01/2006	**Depth/TVD**	m / m
Spud Date	16/12/2005	**Mud Type**	
Water Depth	585	**Activity**	Pull Anchors

Operator : Nexus Energy
Report For : Simon Rodda /Jeff Webster
Well Name : Culverin-1
Contractor : Diamond Offshore
Report For : Ray Breaud/Ken Williams

Field/Area : VIC/P-56
Description : Vertical Exploration
Location : Gippsland Basin
M-I Well No. : 31415

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size in		Surface	Hole	Pump Make	NATIONAL 12P-160	NATIONAL 12P-160
Nozzles 1/32"		30in @650m (650TVD)		Pump Size	6 X 12.in	6 X 12.in
Drill Pipe Size	Length	Intermediate	Active Pits	Pump Cap	gal/stk	gal/stk
5 in	m	13.375in @1511m (1511TVD)		Pump stk/min		
Drill Pipe Size	Length	Intermediate	Total Circulating Vol	Flow Rate	gal/min	
5 in	m			Bottoms Up		
Drill Collar Size	Length	Production or Liner	In Storage	Total Circ Time		
8 in	m			Circulating Pressure		

MUD PROPERTIES

Sample From			
Flow Line Temp	°C		
Depth/TVD	m		
Mud Weight	lb/gal		
Funnel Viscosity	s/qt		
Rheology Temp	°C		
R600/R300			
R200/R100			
R6/R3			
PV	cP		
YP	lb/100ft²		
10s/10m/30m Gel	lb/100ft²		
API Fluid Loss	cc/30 min		
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"		
Solids	%Vol		
Oil/Water	%Vol		
Sand	%Vol		
MBT	lb/bbl		
pH			
Alkal Mud (Pm)			
Pf/Mf			
Chlorides	mg/l		
Hardness Ca	mg/l		
KCl	% wt		
PHPA	ppb		
Glycol	% Vol		
Sulphite	ppm		
NaCl	% wt		

PRODUCTS USED LAST 24 HRS

Products	Size	Amt

SOLIDS EQUIP	Size	Hr
Shaker 1	230,165,165,120	0
Shaker 2	230,230,89,89	0
Shaker 3	120,120,120,120	0
BEM650	200,200,120,120	0
D-Sander		0
D-Silter		0

MUD PROPERTY SPECIFICATIONS

Weight	9.6-10
Viscosity	40-60
Filtrate	6

REMARKS AND TREATMENT

REMARKS

Completed pulling anchors. Rig released at 15:00 hrs. Moved off location.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG	(bbl)	SOLIDS ANALYSIS (%/lb/bbl)		MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	0	NaCl	-1.5/	np/na Values	
Drilling		Water Added	0	KCl	/	kp/ka (lb•s^n/100ft²)	
Tripping		Mud Received	0	Low Gravity	/	Bit Loss (psi / %)	
Non-Productive Tim		Left in Hole	0	Bentonite	/	Bit HHP (hhp / HSI)	
Condition Hole		Other	0	Drill Solids	/	Bit Jet Vel (m/s)	
Cementing		Sweeps/Displacement	0	Weight Material	/	Ann. Vel DP (m/min)	
P&A		Dumped	0	Chemical Conc	- /	Ann. Vel DC (m/min)	
		Shakers	0	Inert/React		Crit Vel DP (m/min)	
		Desilter & Desander	0	Average SG		Crit Vel DC (m/min)	
		Formation	0	Carb/BiCarb (m mole/L)	/		

M-I ENGR / PHONE	RIG PHONE	WAREHOUSE PHONE	DAILY COST	CUMULATIVE COST
Eladio Melendez 08-9302 3790			A$ 0.00	A$ 294,855.24
Glen Sharpe				

APPENDIX 8

MUDLOGGING REPORT

Culverin 1

FINAL WELL REPORT

Prepared by

Overseas Oilfield Services S.A.

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Lonsdale, S.A. 5160
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Client Address.
Nexus Energy
17 Bennetts Lane
Melbourne, Victoria
3000, Australia

CONTENTS

1.0 WELL DATA SUMMARY

(All depths are measured depths from rotary table (MDRT) unless otherwise specified.)

Well Name	: Culverin 1
Basin	: Gippsland
Permit	: VIC/P-56
Operator	: Nexus Energy
Drilling Rig	: Ocean Patriot
Well Classification	: Exploration
Surface Location	
Latitude	: 38°24'08.14"
Longitude	: 148°39'14.92"
Easting	: 644437.3mE
Northing	: 5748256.4mN
Depth Reference	: L.A.T. (Lowest Astronomical Tide)
Water Depth	: 585 m
Rotary Table	: 21.5 m
Rotary Table to Seabed	: 606.5 m
Casing Data	: (1) 762/508 mm (30"/20") casing shoe at 650 m : (2) 340 mm (13.375") casing shoe at 1511 m
Hole Size	: (1) 445 mm (17.5") + 914 mm (36") hole opener from 606.5 m to 650 m : (2) 445 mm (17.5") hole from 650 m to 1525 m : (3) 311 mm (12.25") hole from 1525m to 3758m
Mud Type	: (1) Seawater / Pre-Hydrated Gel Sweeps : (2) Seawater / Pre-Hydrated Gel Sweeps : (3) KCl / NaCl / PHPA / Glycol
Offset Wells	: Volador 1, Bignose 1
Proposed Total Depth	: 3612 mRT MD (3590 m TVD RT)
Actual Total Depth	: 3758mRT MD (3753.9m TVD RT)
Subsea Vertical Depth	: 3732.4m TVDSS
Date Rig on Contract	: 17:00 hours, 06th November 2005
Date Spudded	: 13:30 hours, 16th December 2005
Date TD Reached	: 24:00 hours, 06th January 2006
Date Rig Released	: 15:00 hours, 15th January 2006
Well Status	: Plugged & Abandoned

2.0 GENERAL INFORMATION

2.1 Executive Summary

The Culverin 1 well was located in Permit VIC/P56 in the offshore Gippsland Basin in the eastern part of the Central Deep. The well was located approximately 80km from land in south-eastern Victoria, and was drilled by the semi-submersible rig "Ocean Patriot". This permit is flanked by oil and gas fields: Basker/Manta/Gummy to the northeast, Flounder to the northwest, Cobia/Halibut/Fortescue to the west and Blackback to the south. The water depth in this location was 585 m.

The rig initially arrived on location on the 6th of November 2005 and started deploying anchors, however due to an anchor winch failure it was decided to take the rig to Eden for repairs and a hull survey.

After the rig returned to the Culverin 1 location for a second time on 13th December 2005, the anchors were run and the initial 914 mm (36") surface hole was spudded at 13:30 hours on the 16th of December 2005. Culverin 1 was drilled in 3 sections, with the first section being drilled from the sea floor at 606.5 m to 650 m. The 762/508 mm (30"/20") surface conductor was then run and set at 650 m.

Following this the 445 mm (17.5") hole was drilled riserless from 650 m to 1525 m using one bit, with returns to the sea floor. The 340 mm (13.375") casing was then run with the shoe set at 1511 m. The BOP stack was run on the marine riser and landed out on the wellhead and pressure tested.

The 311 mm (12.25") hole section was drilled from 1525 m to 3402 m with a downhole motor and PDC bit before the drilling rate deteriorated and the bit was pulled to surface. Another 311 mm (12.25") PDC bit was run in hole and drilling proceeded, once more with downhole motor, from 3402 m to 3571 m before a slow pump pressure loss was observed, suggesting a washout in the drillstring. The bit was pulled to surface once more, however, no washout in the pipe or bottom hole assembly was found. A new tricone bit and BHA, without motor but including an extra stabilizer, was run in hole. However, testing of the MWD tools at 2500 m depth showed no communication, so this string was also pulled to surface. The stabilizer was then removed from the BHA and the same bit run back to bottom. Drilling of the 311 mm (12.25") hole section then continued from 3571 m to a final depth of 3578 mTD. A communication failure occurred with the MWD tools while drilling at 3721 m. However this did not terminate the drilling.. TD was reached at 24:00 hours on 06th January 2006. This drilling string was pulled out of hole without problem.

Schlumberger Wireline were then rigged up and the following logs were then run at TD in 2 runs:

Run 1: PEX-HALS-DSI-GR
Run 2: VSI(4)-GR (ZVSP)

Cement plugs were then run and set to abandon the well and the riser was pulled with BOPs. The rig was released at 15:00 hours on 15th January 2006. Geoservices provided a full mudlogging service from spud to TD during this well. This service included 'Reserval' gas monitoring.

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

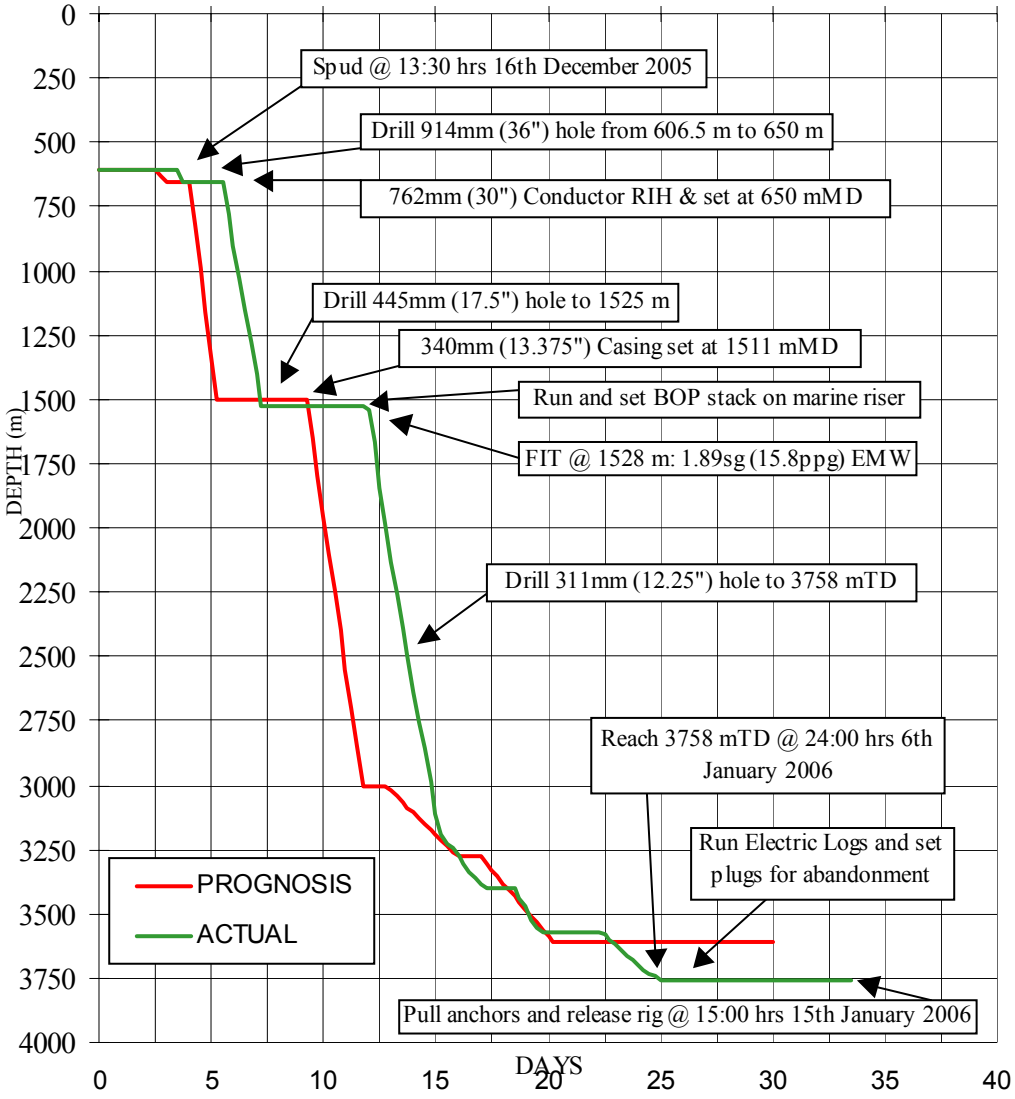
2.2 Geoservices Personnel

ALS Engineers	: Adderley, David : Dunn, Alan : Platt, Tom : Prosser, Scott
Mudloggers	: Elliott, Noel : Makhad, Farhad : Baretto, Melric
Sample Catchers	: Deeprose, Rebecca : Djukanovic, Alex : Munro, Gareth : Lowndes, Andrew

2.3 Contractor Information

Drilling	: Diamond Offshore General Company (DOGC)
Rig name	: Ocean Patriot
Rig type	: Semi-Submersible
Mudlogging	: Overseas Oilfield Services S.A.
Mud engineering	: M.I. Swaco
MWD	: Halliburton, Sperry Sun
Wireline logging	: Schlumberger
Cementing	: Dowell Schlumberger
Well head completion	: Cameron
ROV	: Fugro
Casing	: Weatherford
Work boats	: “Far Grip”, “Pacific Wrangler”
Helicopters	: Bristows
Catering	: E.S.S.

2.4 Days versus Depth Progress Chart



2.5 Sample Collection Summary

Five sets of washed and dried samples and one set of samplex trays were collected during Culverin 1, from 1525 m to TD at 3578 m.

Sample intervals: 1525 m to 2820 m, 30 m
2820 m to 3150 m, 10 m
3150 m to 3578 m, 5 m.

Sample distribution was as follows:

Recipient	Washed and Dried 200 g	Samplex Trays (box)
Nexus Energy	1	1
Geoscience Australia	1	
Victorian DPI	1	
KNOC	1	
Seoul City Gas	1	

Mud samples: 1528m, 2845m, 3758m.

3.0 GEOLOGICAL INFORMATION

3.1 Lithology and Show Summary

From spud to 1525 m returns were to the sea floor.

Interval (m)	ROP (Avg)	Lithology Description ARGILLACEOUS CALCILUTITE with trace DOLOMITE stringers
1525 – 1530	19.0	ARGILLACEOUS CALCILUTITE (100%): light to medium grey, occasionally olive grey, soft to rarely firm, amorphous to very rarely sub-blocky, trace arenaceous grains, common forams, common fossil fragments, strongly calcareous, trace pyrite, trace black carbonaceous specks. DOLOMITE (Nil-Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, trace forams visible within matrix, reacts weakly to acid when crushed.

Gas averages	T Gas : (units)	18.0	Composition (ppm)	C1	C2	C3	C4	C5
			3600	3590	10	0	0	0

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	12.6	150	5.01	771	1686

Interval (m)	ROP (Avg)	Lithology Description **Massive Argillaceous Calcilutite**						
1530-1620	24.0	ARGILLACEOUS CALCILUTITE (100%): light olive grey, light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub-blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils (forams, echinoids), gradational to very fine to fine Calcarenite.						
Gas averages	**T Gas : (units)**	18.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			3600	3590	10	0	0	0
Show Details	No Hydrocarbon Shows.							
Drilling Parameters (Avg)	**WOB (Klbs)**	**RPM**	**TRQ**	**FLOW (gpm)**	**SPP (psi)**			
	13.1	200	6.52	782	1845			

Interval (m)	ROP (Avg)	Lithology Description **Dominantly Argillaceous Calcilutite with minor Calcarenite**						
1620-1770	44.0	ARGILLACEOUS CALCILUTITE (60-100%): light olive grey to light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub-blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro-fossils (forams, echinoids). CALCARENITE (nil-40%): light olive grey, soft to firm, sub-blocky, very fine to fine grained, moderately well sorted, rounded, common to abundant calcareous argillaceous matrix, poor visual porosity.						
Gas averages	**T Gas : (units)**	17.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			3400	3360	10	0	0	0
Show Details	No Hydrocarbon Shows.							
Drilling Parameters (Avg)	**WOB (Klbs)**	**RPM**	**TRQ**	**FLOW (gpm)**	**SPP (psi)**			
	14.8	224	8.05	885	2427			

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Calcilutite with trace Dolomite**					
1770-1980	30.0	CALCILUTITE (100%): light olive-grey to light grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt and sand grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine-grained Calcarenite and Calcisiltite. DOLOMITE (Nil-Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, reacts weakly to acid when crushed.					
Gas averages	**T Gas : (units)**	18.2	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			3640	3560	20	10	0	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	12.6	240	7.95	893	2546

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Calcilutite with trace Dolomite**						
1980-2010	27.0	CALCILUTITE (100%): light olive-grey to light grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt and sand grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine-grained Calcarenite and Calcisiltite. DOLOMITE (Nil-Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, reacts weakly to acid when crushed.						
Gas averages	**T Gas : (units)**	16.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			3200	3100	30	10	0	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	10.1	256	7.81	894	2641

Interval (m)	ROP (Avg)	Lithology Description **Massive Calcilutite**						
2010-2130	31.0	CALCILUTITE (100%): light to medium greenish-grey, commonly olive grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine Calcisiltite, trace splintery light brown dolomite (?) fragments.						
Gas averages	**T Gas : (units)**	29.3	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			5860	5790	20	10	0	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	8.8	257	7.47	893	2586

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Calcilutite becoming more silty with depth**						
2130 – 2190	26.0	CALCLUTITE (100%): light olive grey, occasionally light brownish grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite associated with organic matter. Gradational in part to CALCISILTITE.						
Gas averages	**T Gas : (units)**	23.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			4600	4350	23	18	30	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	12.2	260	7.78	896	2761

Interval (m)	ROP (Avg)	Lithology Description **Dominantly Calcilutite with minor Calcisiltite**						
2190 – 2340	24.0	CALCLUTITE (80-100%): light olive grey, occasionally light brownish grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite. CALCISILTITE (Nil-20%): olive grey, brownish grey, soft to firm, friable in part, sub-blocky, trace calcareous sand, trace carbonaceous specks.						
Gas averages	**T Gas : (units)**	18.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			3600	3500	13	10	8	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	13.5	258	8.37	872	2772

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Dominantly Argillaceous Calcilutite with minor Calcisiltite and Calcarenite with rare fine glauconite grains**
2340 - 2508	29.0	ARGILLACEOUS CALCLUTITE (70-100%): light brownish grey, occasionally light grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine glauconite grains, trace very fine pyrite, 15% clay content. CALCISILTITE (Nil-20%): olive grey, brownish grey, soft to firm, friable in part, sub-blocky, trace calcareous sand, trace carbonaceous specks. CALCARENITE (Nil-30%): light brownish-grey, firm to moderately hard, sub-blocky, very fine to fine grained, moderately well sorted, angular grains, common to abundant calcareous argillaceous matrix, common fine glauconite grains, poor visual porosity.

Gas averages	T Gas : (units)	15.0	Composition (ppm)	C1	C2	C3	C4	C5
			3000	2905	10	9	10	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	16.0	259	8.04	889	2975

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Calcareous Claystone**					
2508 - 2640	50.0	CALCAREOUS CLAYSTONE (100%): light to medium grey, soft, sub-blocky to blocky, trace very fine pyritic patches, occasional medium grey silty patches, rare carbonaceous specks.					
Gas averages	**T Gas : (units)**	6.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1200	950	12	10	43	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	14.0	258	7.81	894	3236

Interval (m)	ROP (Avg)	Lithology Description **Calcareous Claystone with minor thin Calcilutite beds trace Dolomite and Sandstone at the base of the section**					
2640 – 2730	51.0	CALCAREOUS CLAYSTONE (50-90%): light grey, soft, sub-blocky to blocky, trace very fine pyritic patches, rare carbonaceous specks, trace very fine glauconite, homogenous. CALCILUTITE (10-50%): olive grey, firm, brittle in part, blocky, cryptocrystalline, trace calcareous silt and rare to common very fine calcareous sand grains, rare dark lithic grains, trace disseminated glauconite, trace very fine pyrite, gradational to CALCARENITE. DOLOMITE (Trace): orange brown, firm, brittle, blocky, common angular & splintery, cryptocrystalline, slightly argillaceous in part. SANDSTONE (Trace): clear to white, loose to soft aggregates, medium to rarely coarse, well sorted, sub-angular, high sphericity, minor white argillaceous matrix, trace glauconite, fair inferred porosity, no hydrocarbon shows.					
Gas averages	**T Gas : (units)**	7.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1400	1234	15	20	53	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	15.0	265	6.86	897	3342

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Argillaceous Calcilutite grading into Claystone**						
2730-2824	17.4	ARGILLACEOUS CALCILUTITE (Trace-100%): light olive grey, occasionally medium light grey, very soft – soft, sub-blocky, homogenous, trace glauconite, trace very fine disseminated pyrite. CLAYSTONE (Trace-100%): light olive grey, occasionally medium light grey, very soft – soft, sub-blocky, homogenous, trace calcareous silt and very fine sand in part, trace glauconite, trace very fine disseminated pyrite.						
Gas averages	**T Gas : (units)**	8.5	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1700	1358	19	21	61	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	16.5	255	5.93	894	3387

Interval (m)	ROP (Avg)	Lithology Description **Massive Siltstone**						
2824-2836	46.4	SILTSTONE (100%): light brown to brownish-grey, soft to firm, occasionally very amorphous and reddish brown, generally massive to sub-blocky, common, glauconite grains, trace mica and black carbonaceous specks, trace pyrite, grading into fine sandstone.						
Gas averages	**T Gas : (units)**	6.4	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1280	1013	45	27	17	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	9.8	265	8.37	895	3543

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description
		Massive Sandstone
2836-2844	50.0	SANDSTONE (100%): clear to translucent, loose, very fine to very coarse, very poorly sorted, sub-angular to sub-rounded grains, trace glauconite, trace pyrite, trace argillaceous matrix, very good inferred porosity, no fluorescence.

Gas averages	T Gas : (units)	8.5	Composition (ppm)	C1	C2	C3	C4	C5
			1700	1297	55	30	55	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	10.8	263	8.82	889	3516

Interval (m)	ROP (Avg)	Lithology Description
		Interbedded Sandstone and Argillaceous Siltstone and Siltstone with trace Claystone
2844-2930	33.0	SANDSTONE (10-90%): clear to translucent, loose, very fine to medium, mainly fine, very poorly sorted, sub-angular to rounded grains, very rare glauconite, common pyrite, common white amorphous argillaceous matrix inferred, poor to moderate inferred visual porosity, no fluorescence. ARGILLACEOUS SILTSTONE (0-80%): light grey to white, very soft to friable, occasionally firm, common loose grains of quartz, trace mica and black carbonaceous specks, common pyrite, grading into fine sandstone. SILTSTONE (10-40%): light grey to white, soft to friable, occasionally firm, common loose grains, trace mica and black carbonaceous specks, common argillaceous matrix, common pyrite, grading into fine sandstone. CLAYSTONE (trace): light grey, very soft to soft, trace mica & carbonaceous specks, common pyrite, grading into fine siltstone.

Gas averages	T Gas : (units)	8.5	Composition (ppm)	C1	C2	C3	C4	C5
			1700	882	64	76	111	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	10.1	260	8.06	901	3474

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Massive Claystone grading into Silty Claystone with depth**					
2930-2960	29.1	CLAYSTONE (0-100%): light grey, very soft to soft, amorphous to sub-blocky, trace mica and common black carbonaceous specks, non-calcareous, trace fine rounded-angular quartz silt, common pyrite, grading into silty claystone in part. SILTY CLAYSTONE (0-100%): light to medium grey, occasionally brown and firmer, very soft to firm in part, amorphous to dispersive, trace mica and common black carbonaceous specks, weakly calcareous in parts (may be cavings?), common pyrite, trace green glauconite grains and greenish stain on some fragments.					
Gas averages	**T Gas : (units)**	5.5	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1100	672	60	42	53	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	12.9	256	8.08	873	3452

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Silty Claystone with trace Sandstone and very rare Carbonaceous Claystone**					
2960-2975	37.5	SILTY CLAYSTONE (90-100%): light to medium grey, very soft, amorphous to dispersive, trace mica and common black carbonaceous specks, common pyrite, calcareous in part, trace light brown calcite/dolomite-cemented fragments, trace pyrite, trace glauconite. SANDSTONE (0-10%): clear to translucent, occasionally yellow, loose, very fine to medium grained, mainly fine grained, poorly sorted, sub-angular to rounded grains, common pyrite, moderate inferred porosity, common argillaceous matrix no fluorescence. CARBONACEOUS CLAYSTONE (Trace): black to medium grey, firm to moderately hard, sub-blocky to blocky, laminated into dark and light coloured layers in part, grading into silty claystone. (Thin 0.5m thick layer noted on LWD logs at 2972.5 mMDRT associated with elevated torque during drilling).					
Gas averages	**T Gas : (units)**	5.3	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1060	543	47	32	83	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	11.3	255	8.59	864	3415

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description
		Massive Sandstone with very minor Claystone interbeds
2975-3078	56.0	SANDSTONE (100%): clear to translucent, occasionally yellow and white, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, trace argillaceous matrix inferred, no fluorescence. CLAYSTONE (Trace): light to medium grey, very soft to soft, amorphous to dispersive, trace mica and black carbonaceous specks.

Gas averages	T Gas : (units)	3.7	Composition (ppm)	C1	C2	C3	C4	C5
			740	483	38	26	29	22

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	6.8	250	9.11	851	3389

Interval (m)	ROP (Avg)	Lithology Description
		Sandstone and Claystone
3078 – 3103	37.0	SANDSTONE (80%): clear to translucent, medium to very coarse, sub angular to well rounded, hi-sphericity, moderately sorted, trace pyrite cement and nodules, very good porosity, no fluorescence. CLAYSTONE (20%): light grey, brownish grey, very soft, sub-blocky to dominantly amorphous, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.

Gas averages	T Gas : (units)	4.2	Composition (ppm)	C1	C2	C3	C4	C5
			840	465	49	28	28	21

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	10.1	255	8.90	888	3643

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description
		Massive Sandstone with minor Claystone (probably cavings) at the top of the section.
3103 – 3115	34.0	SANDSTONE (90-100%): clear, rare yellow / brown grains, medium to very coarse, dominantly coarse, sub-angular to well rounded, hi-sphericity, well sorted, trace pyrite cement, trace strong siliceous cement, very good inferred porosity, no fluorescence. CLAYSTONE (0-10%): light grey, brownish grey, very soft, sub-blocky to dominantly amorphous, arenaceous in part, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.

Gas averages	T Gas : (units)		Composition (ppm)	C1	C2	C3	C4	C5
		4.4						
			880	451	40	28	43	21
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	5.8	262	8.32	893	3668

Interval (m)	ROP (Avg)	Lithology Description
		Massive Sandstone with minor Argillaceous Siltstone (Sandstone had strong pyritic cement from 3146 – 3149 mMDRT)
3115 – 3158	36.0	SANDSTONE (95-100%): clear to light grey, loose to very hard aggregates, medium to very coarse, poorly sorted, occasional very hard pyrite cement, good inferred porosity in loose component, poor visual porosity in aggregates, no fluorescence. ARGILLACEOUS SILTSTONE (0-5%): brownish grey, very soft, amorphous, trace carbonaceous specks, micro mica.

Gas averages	T Gas : (units)		Composition (ppm)	C1	C2	C3	C4	C5
		3.7						
			740	440	41	27	33	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	8.5	258	9.16	860	3542

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1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Dominantly Siltstone with Sandstone**					
3158-3185	31.0	ARGILLACEOUS SILTSTONE (30-70%): brownish grey to light brownish grey, occasionally light grey, very soft to soft, rarely friable, sub-blocky to amorphous, occasionally sub-fissile, very carbonaceous in part, carbonaceous laminae, micro-mica, trace fine pyrite. SANDSTONE (30-70%): clear to translucent, loose, fine to very coarse, poorly sorted, sub-angular to rounded, common fractured grains, trace pyrite cement, very good inferred porosity.					
Gas averages	**T Gas : (units)**	6.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1200	647	108	50	46	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	16.4	256	9.92	851	3654

Interval (m)	ROP (Avg)	Lithology Description **Dominantly massive Sandstone with minor Argillaceous Siltstone**					
3185 – 3210	14.0	SANDSTONE (40-80%): clear to translucent, medium to granular grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, commonly pyrite cemented, possible traces of weak carbonate cement (calcite/dolomite?), very good inferred porosity, no fluorescence. ARGILLACEOUS SILTSTONE (20-60%): brownish grey to light brownish grey, rarely light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Argillaceous Siltstone.					
Gas averages	**T Gas : (units)**	5.1	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1020	511	69	42	55	0
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	8.6	248	10.32	858	3602

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description Dominantly Argillaceous Siltstone, Siltstone with Interbedded Silty Claystone and Claystone and minor Sandstone
3210- 3275	7.8	ARGILLACEOUS SILTSTONE (55-95%): brownish grey to light brownish grey, light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Siltstone. SILTSTONE (0-30%): brownish grey to light brownish grey, argillaceous to arenaceous, very soft to friable, sub-fissile in part, common carbonaceous specks and laminations, occasional very fine pyrite. SILTY CLAYSTONE (5-15%): brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, hard dolomite/calcite fragments, trace pyrite, gradational to Argillaceous Siltstone. CLAYSTONE (0-90%): olive grey, light brownish grey, very soft, amorphous, slightly calcareous, trace carbonaceous grains, rare very fine disseminated pyrite. SANDSTONE (Trace-40%): clear to translucent, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, moderate inferred porosity, no fluorescence.

Gas averages	T Gas : (units)	4.7	Composition (ppm)	C1	C2	C3	C4	C5
			940	426	47	33	49	20

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	17.1	244	8.39	869	3588

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Sandstone with minor Siltstone and Claystone**
3275 - 3296	8.2	SANDSTONE (60-80%): clear to translucent, off white, loose to friable aggregates, fine to very coarse, dominantly medium to coarse, poorly sorted, sub-rounded to angular, trace to 50% white argillaceous matrix, trace chlorite, trace lithic grains, fair to good inferred porosity, no fluorescence. SILTSTONE (10-20%): light brownish grey, brownish grey, very soft to friable, sub-fissile in part, very argillaceous to arenaceous, common carbonaceous specks and flakes, gradational to Argillaceous Siltstone. CLAYSTONE (10-20%): light olive grey, light brownish grey, trace yellowish brown, very soft, amorphous, slightly calcareous, rare very fine disseminated pyrite.

Gas averages	T Gas : (units)	4.7	Composition (ppm)	C1	C2	C3	C4	C5
			940	508	72	45	53	31

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	18.8	229	9.23	844	3533

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Claystone with interbedded Siltstone and very minor Sandstone with trace Coal/Carbonaceous Claystone**
3296 – 3335	7.85	SANDSTONE (5-20%): off white, soft aggregates, occasional loose grains, very fine, moderately well sorted, sub-angular to rounded, 80% white argillaceous matrix, poor inferred porosity, no fluorescence. SILTSTONE (10-60%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part. CLAYSTONE (35-85%): light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite. COAL (Trace-5%): black to dark brown, soft to very hard and splintery, grading into carbonaceous claystone, pyrite cemented in part (3m thick coal/carbonaceous claystone at 3324.0 mMDRT based on LWD logs).

Gas averages	T Gas : (units)	5.1	Composition (ppm)	C1	C2	C3	C4	C5
			1020	409	72	49	67	12

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	15.7	217	7.70	848	3514

Interval (m)	ROP (Avg)	Lithology Description **Massive Sandstone**					
3335 – 3343	9.39	SANDSTONE (100%): clear to translucent, occasionally off white and pink, loose, occasionally cemented into small aggregates with silica cement (quartz overgrowths?), fine to very coarse, occasionally granular, mainly medium grained, very poorly sorted, sub-angular to angular, very good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence, thin (1.0 m thick) very hard/brittle cemented cap at the top of the massive sandstone at 3335.0 mMDRT identified from LWD logs.					
Gas averages	**T Gas : (units)**	6.0	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
			1200	438	100	61	62	19
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	10.0	220	8.30	841	3486

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Claystone and Siltstone with minor Sandstone and trace Coal/Carbonaceous Claystone**
3343 – 3385	6.4	SANDSTONE (5-30%): clear to translucent, loose, very fine to fine, mainly fine grained, well sorted, sub-angular to angular, white argillaceous matrix washing out in part, fair - good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence. SILTSTONE (0-70%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part. Also in 3385m sample, trace SILTSTONE dark grey, brownish black, silicified, very hard, sub blocky, occasionally completely replaced with silica, banded in part. CLAYSTONE (Trace-90%): light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite. COAL (Trace-5%): black to dark brown, soft to very hard and splintery, sub-vitreous to vitreous, grading into Carbonaceous Claystone, pyrite cemented in part (thin coals/carbonaceous claystones identified at 3344.0 and 3352.0 mMDRT from LWD logs), traces of very hard pyritised fragments in part at 3380.0 mMDRT.

Gas averages	T Gas : (units)	9.0	Composition (ppm)	C1	C2	C3	C4	C5
			1800	687	143	77	78	50

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	22.6	241	7.17	879	3803

Interval (m)	ROP (Avg)	Lithology Description **Argillaceous Sandstone with interbedded Sandy Claystone, Claystone and minor Siltstone**
3385 - 3400	3.9	ARGILLACEOUS SANDSTONE (0-80%): dominantly white to very light grey, minor clear to translucent, dominantly very soft aggregates, minor loose grains, very fine to medium, poorly sorted, sub-angular to sub-rounded, moderate to high sphericity, trace carbonaceous material, abundant white argillaceous matrix, commonly matrix supported, gradational to Sandy Claystone, poor to fair inferred porosity, no fluorescence. CLAYSTONE (0-50%): brownish grey, light brownish grey, light grey, very soft, amorphous, silty in part, trace carbonaceous specks, rare pyrite, gradational to Argillaceous Siltstone. SILTSTONE (10%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part. SANDY CLAYSTONE (0-60%): very light grey to white, very soft, amorphous, trace lithic fragments, 5-30% very fine well rounded quartz sand grains, grading to Argillaceous Sandstone.

Gas averages	T Gas : (units)	5.8	Composition (ppm)	C1	C2	C3	C4	C5
			1160	456	73	52	83	16

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	19.8	212	6.27	869	3654

Interval (m)	ROP (Avg)	Lithology Description **Siltstone with interbedded Sandy Claystone and minor Coal**					
3400 - 3410	19.9	SILTSTONE (70-90%): light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence. SANDY CLAYSTONE (10-30%): very light grey to white, occasionally greenish-white, soft to firm, amorphous to sub-blocky, trace lithics, 5-20% fine, well rounded quartz sand, grading into Argillaceous Sandstone, quite calcareous in part, no fluorescence. COAL (Trace): black to dark brown, soft to firm, dull to bright, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone, firmly pyrite cemented in part.					

Gas averages	T Gas : (units)	15.0	Composition (ppm)	C1	C2	C3	C4	C5
			3000	2028	228	53	66	24
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	14.7	213	7.80	858	3684

Interval (m)	ROP (Avg)	Lithology Description **Argillaceous Sandstone with interbedded Siltstone**
3410 – 3430	22.6	ARGILLACEOUS SANDSTONE (40-70%): white to pale grey in aggregates, mainly loose, clear to translucent when loose, friable when in rare aggregates, fine to coarse grained, mainly medium grained, poorly sorted, sub-angular to angular, abundant white argillaceous clay matrix, generally non-calcareous matrix, poor inferred visual porosity, trace pyrite, trace carbonaceous fragments and laminations, trace firm calcite cement fragments, no fluorescence. SILTSTONE (30-60%): light grey to light brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.

Gas averages	T Gas : (units)	5.9	Composition (ppm)	C1	C2	C3	C4	C5
			1180	630	77	43	56	9
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	16.1	220	8.52	811	3462

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Interval (m)	ROP (Avg)	Lithology Description **Siltstone with minor Argillaceous Sandstone and trace Coal**
3430 – 3475	11.0	ARGILLACEOUS SANDSTONE (10-30%): clear to translucent, loose, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace pyrite, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence. SILTSTONE (70-90%): light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, grading into carbonaceous siltstone, very argillaceous, disseminated pyrite in part, no fluorescence. COAL (Trace): black to dark brown, soft to firm, dull to bright lustre, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone.

Gas averages	T Gas : (units)	9.9	Composition (ppm)	C1	C2	C3	C4	C5
			1980	876	150	82	76	47
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	18.6	229	7.55	865	3824

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1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Argillaceous Sandstone, Sandstone (only at 3530m sample), Siltstone and thin Coals in an interbedded sequence.**
3475 – 3510	20.0	ARGILLACEOUS SANDSTONE (40-80%): 60% white aggregates to 40% clear translucent loose grains, fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to angular, moderate sphericity, 70% white argillaceous matrix in aggregates, fair to moderate inferred porosity, no fluorescence. (3505m) SANDSTONE (70%): 50% white aggregates 50% loose grains, dominantly fine to medium, occasionally coarse, moderately well sorted, sub-angular to rounded, high sphericity, common white argillaceous matrix, trace pyrite nodules and cement, good inferred porosity, no fluorescence. SILTSTONE (15-60): light brownish grey, brownish grey, off white / light brownish grey, very soft to rarely friable, very argillaceous, carbonaceous specks and carbonaceous laminae in part, slightly pyritic in part. Sample from 3490.0 mMDRT contained hard siliceous and pyritic Siltstone. COAL (Trace-5%): black, dull black, sub-vitreous, firm, blocky, silty in part.

Gas averages	T Gas : (units)	37.0	Composition (ppm)	C1	C2	C3	C4	C5
			7400	5572	483	153	82	12

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	22.5	225	8.85	872	3897

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Argillaceous Sandstone, Siltstone and common Coal in an interbedded sequence.** **Trace Fluorescence present at 3515.0 mMDRT (see fluorescence summary below).**
3510 – 3550	10.0	ARGILLACEOUS SANDSTONE (10-80%): white to very light grey, soft aggregates, trace loose grains, very fine to fine, occasional medium grains, moderately well sorted, sub-angular to angular, white argillaceous matrix to 80% (possibly weathered feldspars?), poor inferred porosity, no fluorescence (except trace at 3515.0 mMDRT see fluorescence summary below). SILTSTONE (20-90%): light brownish grey, brownish grey, light grey, very soft, rarely sub-firm, amorphous to sub-blocky, rarely sub-fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic, trace very hard black & white finely banded siliceous fragments. COAL (Trace-5%): dull black, sub-vitreous, firm, brittle in part, hackly fracture, very silty in part and gradational to carbonaceous siltstone. **(Based on the LWD logs the thin coals probably make up 20% of the entire section but are under-represented in the cuttings samples).**

Gas averages	T Gas : (units)	67.5	Composition (ppm)	C1	C2	C3	C4	C5
			13500	10210	904	279	132	26

Show Details 3510-3515	Trace dull yellow, trace very slow cut, trace dull cream incomplete residue ring. Fluorescence occurred in white Argillaceous Sandstone.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	25.7	227	8.34	855	3776

Interval (m)	ROP (Avg)	Lithology Description **Dominantly Siltstone with minor Argillaceous Sandstone and thin Coals.**
3550 – 3565	4.5	SILTSTONE (80-90%): light brownish grey, brownish grey, occasionally white, very soft, amorphous to dispersive, very argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments. ARGILLACEOUS SANDSTONE (10-20%): white to very light grey, loose grains, very fine to fine, occasional medium grains, well sorted, sub angular to angular, white argillaceous matrix to 80% (weathered feldspars?), poor inferred porosity, no fluorescence. COAL (Trace): dull black, sub-vitreous, firm, brittle in part, hackly fracture, very silty in part and gradational to Carbonaceous Siltstone.

Gas averages	T Gas : (units)	67.5	Composition (ppm)	C1	C2	C3	C4	C5
			13500	10210	904	279	132	26
Show Details	No Hydrocarbon Shows.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	25.1	184	7.08	799	3322

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Interval (m)	ROP (Avg)	Lithology Description **Interbedded Siltstone and Claystone with minor Argillaceous Sandstone and thin Coals**
3565 - 3590	5.6	ARGILLACEOUS SANDSTONE (5-20%): white to very light grey with carbonaceous laminations, firm to friable, very fine to fine, occasional medium grains, moderately well-sorted, sub-angular to rounded, white argillaceous matrix to 60% (weathered feldspars?), moderate inferred visual porosity, trace pyrite, abundant carbonaceous specks and laminae, glowing white residual crush cut fluorescence inferred to be from carbonaceous material, no hydrocarbon fluorescence noted from clean sand fragments. SILTSTONE (50-80%): light brownish grey to brownish grey, occasionally white, very soft to firm, amorphous to laminated, argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments, grading occasionally into brown claystone. CLAYSTONE (0-40%): very light greenish-grey, firm to moderately hard, sub-blocky to fissile, occasionally splintery shaped fragments, trace glauconite?, trace silty quartz grains, calcareous in nature. COAL (Trace-5%): black, dull black, sub-vitreous, firm, blocky, silty in part.

Gas averages	T Gas : (units)	52.6	Composition (ppm)	C1	C2	C3	C4	C5
				8183	595	229	58	19

Show Details	
	3575 – 3580m: Moderately bright, very slow, diffuse, white, crush cut fluorescence (inferred to be from carbonaceous material associated with thin fine sand stringers), thin white residual ring. No direct UV or crush-cut UV hydrocarbon fluorescence noted from clean sand fragments. **3585 – 3590m**: Trace weak pale yellowish direct UV fluorescence from carbonaceous laminations.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	25.0	130	6.2	817	3852

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1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Interbedded Sandstone and Siltstone with thin Coals**
3590 - 3620	3.7	SANDSTONE (30-40%): white to very light grey in aggregate form, very firm to firm, occasionally very well cemented with quartz overgrowths, very fine to coarse white to yellowish grains when loose, occasional granular grains, mainly medium grained, poorly sorted, sub-angular to angular, abundant white argillaceous and calcareous matrix (weathered feldspars? and calcite cement), silica cemented with quartz overgrowths in part, poor inferred visual porosity, trace pyrite, trace fractured grains, common black and dark brown carbonaceous/woody specks, pale yellow mineral fluorescence from various cements, no hydrocarbon fluorescence. SILTSTONE (60-70%): light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic. COAL (Trace): black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture, commonly pyritised.

Gas averages	T Gas : (units)	100.2	Composition (ppm)	C1	C2	C3	C4	C5
				14483	1401	655	150	45

Show Details	**3590 – 3595m**: Pale yellow direct UV fluorescence from calcite-cemented sandstone fragments, no hydrocarbon fluorescence. **3605 – 3620m**: Pale yellow direct UV fluorescence from silica and calcareous cemented sandstone fragments, no hydrocarbon fluorescence.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	28.6	100	6.0	802	3964

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Interval (m)	ROP (Avg)	Lithology Description **Interbedded Sandstone, Siltstone and Coal**
3620 - 3650	2.5	SANDSTONE (15-65%): white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to very well cemented in part, blocky to massive, very fine to medium grained, mainly fine grained, moderately sorted, sub-angular to angular, common white argillaceous matrix (weathered feldspars?), common quartz overgrowths cementing sandstone, common calcareous cement, poor inferred visual porosity, common pyrite both as cement and in nodular form, trace fractured grains, trace carbonaceous specks and laminations, common pale yellow-dull orange mineral fluorescence from calcite & silica(?) cement, no hydrocarbon fluorescence. SILTSTONE (30-80%): light brownish grey, very light brownish grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, gradational to Carbonaceous Siltstone. COAL (Trace-5%): dull black, firm, brittle in part, sub-vitreous to rarely vitreous in patches, occasionally pyritic.

Gas averages	T Gas : (units)	48.3	Composition (ppm)	C1	C2	C3	C4	C5
				6049	693	431	125	50

Show Details	
	3620 – 3625m: Trace – 5% dull yellow mineral fluorescence from the calcareous cement. **3625 – 3630m**: Trace – 10% dull yellow mineral fluorescence from the calcareous cement. **3645 – 3650m**: Common (5%) pale yellow-dull orange mineral fluorescence from calcite/silica cement, no hydrocarbon fluorescence.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	34.1	93	6.15	801	3977

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Interval (m)	ROP (Avg)	Lithology Description **Dominantly Siltstone with minor Sandstone and thin Coal**
3650 – 3667	4.1	SANDSTONE (20-30%): white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to well-cemented in part, blocky to massive, very fine to medium grained, mainly fine grained, poorly to moderately sorted, sub-angular to angular, trace white argillaceous matrix (weathered feldspars?), trace quartz overgrowths, trace calcareous cement, poor inferred visual porosity, trace carbonaceous specks and laminations, trace pale yellow-dull orange mineral fluorescence from calcite(?) cemented fragments, no hydrocarbon fluorescence. SILTSTONE (70-80%): brownish grey to very light brownish grey, occasionally dark brown, soft to very firm, argillaceous, common fine quartz grains, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, grading into Carbonaceous Siltstone. COAL (Trace): dull black, firm, brittle in part, sub-vitreous to rarely vitreous in patches, occasionally pyritic.

Gas averages	T Gas : (units)	64.2	Composition (ppm)	C1	C2	C3	C4	C5
				8216	808	426	132	52

Show Details	No Hydrocarbon Shows.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	35.8	108	6.4	795	4036

Interval (m)	ROP (Avg)	Lithology Description **Interbedded Sandstone Siltstone and Coal**						
3667 – 3697	3.0	SANDSTONE: white to very light grey, dominantly soft to friable aggregates, also loose grains, very fine to fine, occasional medium grains, sub-angular to well rounded, moderately will sorted, 5 – 80% white argillaceous matrix, occasional carbonaceous grains and siltstone lithics, poor to fair porosity, no fluorescence. SILTSTONE: light brownish grey, very soft to sub firm, amorphous to sub-blocky, occasionally sub-fissile when carbonaceous, commonly carbonaceous grains and laminae, very argillaceous, trace pyrite, intercalated with very fine sandstone. COAL: dull black, sub-vitreous, firm, brittle in part, hackly fracture, silty.						
Gas averages	**T Gas : (units)**	41.6	**Composition (ppm)**	**C1**	**C2**	**C3**	**C4**	**C5**
				4956	499	291	101	50
Show Details	**3670 – 3690m**: Trace pale yellow-dull orange calcite/silica Mineral fluorescence.							

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	34.1	106	6.5	800	4043

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1	16-Jan-06	Geoservices Unit 170	Base Mudlogging Coordinator	

Interval (m)	ROP (Avg)	Lithology Description **Interbedded Sandstone, Siltstone, Coal and minor Dolomite**
3697 - 3725	4.1	SANDSTONE (5-70%): white to light brownish grey in fragments, occasionally speckled black and white (due to abundant carbonaceous specks), translucent to white as loose grains, dominantly very fine to fine, very occasionally medium to coarse grained, sub-angular to angular, moderately well-sorted, common white argillaceous matrix in part, trace pyrite, trace calcareous cement in part, trace to common carbonaceous specks, poor inferred visual porosity, trace dull yellow-orange calcite mineral fluorescence, trace mineral(?) fluorescence giving only dull yellow crush-cut residue ring under UV light, grading into coarse brown carbonaceous siltstone. SILTSTONE (30-95%): light to dark brownish-grey, soft to firm, amorphous to fissile in parts, very argillaceous, common carbonaceous grains and laminations, very fine sand grains in part, trace pyrite, grading to fine sandstone. COAL (Trace-5%): dull black, sub-vitreous, firm, brittle in part, hackly fracture, silty. DOLOMITE (Trace-5%): dark yellowish brown, hard, blocky, sub-conchoidal fracture in part, cryptocrystalline, trace pyrite, trace dull yellow mineral fluorescence.

Gas averages	T Gas : (units)	20.8	Composition (ppm)	C1	C2	C3	C4	C5
				2325	273	191	73	39

Show Details	**3720 - 3725m**: Very Poor Show in sample - Trace dull yellow, pinpoint, no direct cut, trace crush cut, trace light green / cream broken residue ring.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	38.9	108	6.9	785	4059

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Interval (m)	ROP (Avg)	Lithology Description **Dominantly Siltstone interbedded with Sandstone and Coal**
3725 – 3758	2.3	SILTSTONE (60-80%): light to dark brownish-grey, soft to firm, amorphous to rarely sub-blocky, very argillaceous, common carbonaceous grains and laminations, trace very fine sand grains in part, trace pyrite, grading to very fine silty sandstone. SANDSTONE (10-40%): white to light grey, occasionally speckled white / black when carbonaceous, soft to very soft aggregates, very fine to fine, rarely medium, sub-angular to rounded, high sphericity, common carbonaceous grains in part, 5 – 80% white argillaceous (weathered feldspar?) matrix, poor porosity, trace dull yellow mineral fluorescence. COAL (tr-5%): dull black, sub-vitreous, firm, brittle in part, hackly fracture, silty.

Gas averages	T Gas : (units)	34.7	Composition (ppm)	C1	C2	C3	C4	C5
				4598	376	217	71	36

Show Details	
	3725 – 3730m: Trace dull yellow mineral fluorescence. **3740 – 3745m**: Trace mineral fluorescence giving only dull yellow crush-cut residue ring under UV light. **3745 – 3758m**: Yellow-white and dull orange-yellow direct UV mineral fluorescence only.

Drilling Parameters (Avg)	WOB (Klbs)	RPM	TRQ	FLOW (gpm)	SPP (psi)
	35.9	121	7.6	795	4029

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3.2 Gas Ratio Interpretation – Introduction

Gas composition and total gas in mud were principally measured using the Geoservices Reserval (a combined total gas detector and chromatograph coupled with a GZG degasser). As a backup gas detection system, a Geoservices FID Chromatograph Panel (FCP) and FID Gas Panel (FGP) were in operation, in tandem with a GZ1 degasser motor. Both gas systems use the FID technique of measuring ions released when hydrocarbons are burnt in a hydrogen flame.

The first advantage that the Reserval gas system has over the older style of auxiliary equipment being used is the type of degasser that provides the sample. In both cases gas is extracted from the mud prior to it reaching the shale shakers by the degassers, which are essentially an agitator inside a chamber through which the mud continually passes. However, the GZG degasser that the Reserval uses is specially designed to degas a constant volume of mud regardless of pump rates, so is not affected by mudflow variations unlike the older style GZ1 degasser. Also, it has the advantage of being placed within the flowline, limiting any early emissions of gas from the mud as it is circulated through the rig. The high energy to volume ratio of the GZG degasser also means that a much higher proportion of the gas is removed from the mud. These features mean that a very high quality sample is obtained for accurate analysis.

This high quality sample is then analysed by the high-speed chromatograph of the Reserval. The auxiliary gas chromatograph on the other hand, the FCP, has a typical analysis time of about four minutes compared with the Reserval, which has a fast cycle time of just 42 seconds. This short cycle time means that much better definition is possible while drilling. This combined with the much greater accuracy of the Reserval, combine to provide a much more accurate representation of the hydrocarbon gas contained within the formations of interest when compared with the older auxiliary gas detection equipment that we have in use.

The GZ1 degasser for the auxiliary equipment is located on the header box in the shaker room where it is reliant on stable mud circulation and shaker operation. The gas is then drawn back to the unit through tubing to the gas analysis equipment. Independent sensors in the unit also measure H2S and CO2.

The composition of the gas in mud from the formation is significant in determining the geochemical origin and value of a show. There are several methods that can be used to determine whether the hydrocarbon gas in mud comes from a potential gas or oil zone. Amongst these methods are the Triangle Diagram (also known as the gas composition diagram), Pixler Diagram (also known as the gas ratios method) and the gas Wetness/Balance/Character plots.

3.3 Explanation of Gas Composition Diagrams

The Triangle or Gas Composition Diagram is used to graphically represent the hydrocarbon distribution in the gas and to determine whether it corresponds to a gas or oil reservoir. The triangular diagram is obtained by tracing lines on three scales at 120° to each other, corresponding respectively to the ratios of ethane, propane and normal butane to the total gas.

The scales are arranged in such a way that if the apex of the triangle is upward, the diagram represents the analysis of gas from a gas zone, while if the apex points downwards, the diagram represents the analysis of gas from an oil zone. A large triangle diagram represents dry gas or low GOR oil, while small triangles represent wet gases or high GOR oils. The centre of the triangle should fall inside the area delineated by the dotted line, which encircles compositions that are regarded as 'normal'. If the triangle area is outside this area the gas indicates that the reservoir is not exploitable and that the heavier hydrocarbon composition is 'abnormal' i.e. hydrocarbons that are chemically altered or gases with special compositions which are not associated with oil.

The Gas Ratio Analysis Diagram is a plot of the ratio of C1 to the other gas elements. The magnitude of the methane to ethane ratio determines if the reservoir contains gas or oil or if it is non-productive. The following conclusions are possible:

Ratio C1/C2:	< 2	non-productive zone
	2 - 15	oil present
	15 - 65	gas present
	> 65	non-productive zone

The slope of the line of the ratio plot of C1/C2, C1/C3, C1/C4 and C1/C5 indicates whether the reservoir will produce hydrocarbons or hydrocarbons and water. Positive line slopes indicate production; negative line slopes indicate water-bearing formations. When using the Gas Ratio Diagram, the following points should be borne in mind:

1. Productive dry gas zones may show only C1, but abnormally high shows of C1 are usually indicative of saltwater zones.
2. If the ratio C1/C2 is low in the oil section and the ratio C1/C4 is high in the gas section, the zone is probably non-productive.
3. If any ratio (C1/C5 excepted in an oil based mud) is lower than the preceding ratio then the zone is probably non-productive.
4. The ratios may not be definitive for zones of low permeability.
5. Steep gas ratio plots may be indicative of tight zones.

3.4 Explanation of Wetness/Balance/Character Curves

Another method for evaluating gas zones plots against depth three ratios: hydrocarbon Wetness (W_h), hydrocarbon Balance (B_h) and hydrocarbon Character (C_h), where:

$$W_h = \frac{(C2 + C3 + C4 + C5)}{(C1+C2+C3+C4+C5)} \times 100\ (\%)$$

$$B_h = \frac{(C1 + C2)}{(C3 + C4 + C5)}$$

$$C_h = \frac{(C4 + C5)}{C3}$$

Wetness (W_h) is the primary zone indicator and provides a measure of the relative proportion of heavier gases in the overall gas show as follows:

$W_h < 0.5$	Light non-associated gas with low productivity potential or only geo-pressured methane.
$0.5 < W_h < 17.5$	Potentially productive gas with gas density increasing with W_h.
$17.5 < W_h < 40.0$	Potentially productive oil with gravity decreasing as W_h increases.
$W_h > 40.0$	Heavy or residual oil with low productivity potential.

As reservoir hydrocarbons become denser in the transition from gas to oil, Balance (B_h) and Wetness (W_h) values move closer together and eventually intersect. The zone guidelines for B_h combine with those for W_h to improve reliability of show evaluation as follows:

$W_h < 0.5$ and $B_h > 100$	Very light, dry gas that is almost certainly non-productive.
$0.5 < W_h < 17.5$ and $W_h < B_h < 100$	Productive gas with gas increasing in wetness and density as the two curves converge.
$0.5 < W_h < 17.5$ and $B_h < W_h$	Productive gas condensate or a high gravity gas/oil ratio.
$17.5 < W_h < 40$ and $B_h < W_h$	Productive oil with oil gravity decreasing - density increasing as the curves diverge.
$17.5 < W_h < 40$ and $B_h > W_h$	Non-productive residual oil.

Character (C_h) values serve to resolve ambiguities between oil or gas indications by defining the following:

$0.5 < W_h < 17.5$ and $B_h < W_h$ and $C_h < 0.5$	Productive wet gas or condensate.
$0.5 < W_h < 17.5$ and $B_h < W_h$ and $C_h > 0.5$	Productive high gravity and/or high GOR oil.

It is important to note that in the conclusion to each of the interpretive tools, the terms ‘productive’ and ‘non-productive’ are used in a geochemical sense. Ultimate production of a zone is dependent upon reservoir thickness and extent as well as other physical and economic factors that are not taken into account when analysing gas compositions. The methods discussed here are intended to assist the interpretive skills of the geologist or log analyst. Please refer to the Gas Ratio Log enclosure.

3.5 Gas Composition Discussion – Reserval

Gas monitoring commenced using the Geoservices Reserval from the beginning of the 311mm (12.25") phase at 1525 m through to the well's total depth of 3758 m. All of the gas equipment was calibrated prior to the commencement of drilling of the 12.25" phase and was re-checked at T.D. of the well.

No significant gas was encountered while drilling through the sediments above 3470 m in the 311mm (12.25") hole section. Background total gas levels in this section ranged from 7 to 30 Units, with the maximum gas reading of 58 Units occurring at 2008 m. The gas throughout this section was extremely dry, consisting of 96-99 % C1 (methane), with traces of C2 (ethane), C3 (propane), C4 (butane), and C5 (pentane) gas. These low gas values were partly due to mud weight being gradually increased during this interval from 9.5 to 10.2 ppg.

One gas anomaly was observed in this upper part of the 311mm (12.25") section with the persistent and unexplained presence of minor iC4 traces, recording slightly larger than the C2 and C3 gas components. The proportion of C4 recorded was largely unchanged, never more than 1% of the total gas percentage, and varied only as the total gas recorded increased or decreased. It occurred between the top of this section at 1525 m until about 2820 m, and then dropped back to a more normal proportion of the total gas. This change coincided with an abrupt change in the drilled lithology becoming more sandy and a weighting up of the drilling fluid, so it is possible that this anomaly is either artificial and due to some agent in the mud which "masked" the presence of iC4 in the gas analysis system (such as MAGNAFLOC), or it could be genuinely derived from the silty or calcareous lithology.

Below 3470 m the background total gas levels began to steadily increase, primarily due to the increased incidence of thin gas bearing sandstone layers and intercalated coals in the drilled lithology. The mud weight was consistently held between 10.15 and 10.2 ppg for the interval from 3470 m to 3758 mTD, and the rare low levels of connection gas suggested that the hydrostatic pressure provided by this mud weight was generally sufficient to counter the formation pore pressures at this depth. The background gas levels between 3470 m and 3758 mTD ranged from 20 to 45 Units, and were not so dry with C1 to C5 proportions commonly between 74-88% C1, 8-12% C2, 3-8% C3, 1-5% C4 and Trace-3% C5. The maximum gas peak encountered in this well occurred at 3608 m with 272 Units of total gas recorded and a C1 to C5 breakdown of 82/10/5/2/1. However, several other notable gas peaks relating to coal and sandstone bodies were also recorded at:

- 3533m – 148 units – C1 to C5 breakdown of 92/6/1/1/Trace
- 3544m – 186 units – C1 to C5 breakdown of 88/7/3/2/Trace
- 3582m – 155 units – C1 to C5 breakdown of 92/5/2/1/Trace
- 3595m – 248 units – C1 to C5 breakdown of 92/5/2/1/Trace
- 3613m – 161 units – C1 to C5 breakdown of 88/8/3/1/Trace

It is interesting to note that according to the hydrocarbon Wetness, Balance and Character ratio indicators, each of these gas peaks in the reservoir zone corresponds to a potentially productive gas zone (i.e. where $0.5 < W_h < 17.5$, and $B_h < W_h < 100$), except for the gas peak at 3608 mMD which has gas ratios indicative of a potentially productive oil zone (i.e. where $17.5 < W_h < 40$, and $B_h < W_h$). The interpretations of these zones are listed below and gas ratio diagrams are shown on the page that follows.

3.6 Gas Composition Discussion – Auxiliary Gas Equipment

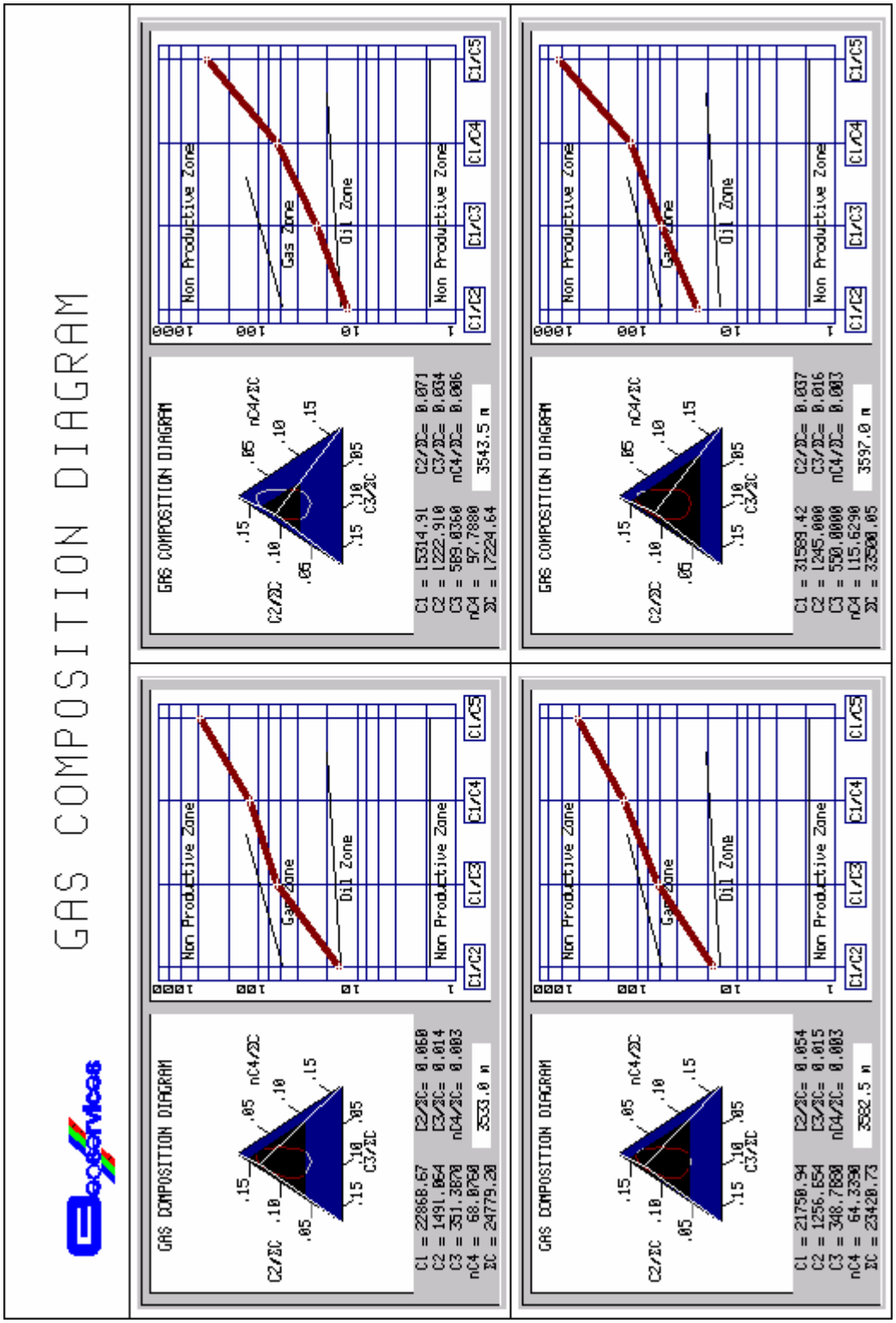
Throughout this well the gas readings recorded from the auxiliary gas equipment showed similar trends to that of the Reserval, as would be expected. The most obvious difference between the readings of the main gas equipment and the auxiliary gas equipment was the level of heavier gas components recorded, in particular C4 (butane) and C5 (pentane) levels. The Geoservices Reserval when used in combination with the GZG degasser is a much more precise instrument which, due to its advanced position in the flowline, and improved agitation of a constant volume of mud per unit time, can more accurately determine the level of these heavy hydrocarbon gas components carried in the mud before degassing occurs in the open possum belly.

Additionally, due to the fluctuating mud levels in the possum belly, particularly during connections or whenever the flow rate was changed, the auxiliary gas readings were occasionally affected, giving false increases and decreases in gas levels that were not related to the drilled lithology or ROP variation. Generally, however, the FCP / FGP system gave a reliable indication of the gas trends, and in most cases, the same conclusions can be drawn from the auxiliary equipment data as from the data provided by the Reserval.

No H2S or CO2 was recorded during the drilling of this well.

3.7 Gas Ratio Interpretation and Diagrams

Depth Interval (m)	Main / Auxiliary	Gas Peak (units)	Wetness	Balance	Character	Zone Interpretation
3531 – 3533	Main	148	8.4	40.9	0.70	Potentially productive low density gas zone
	Auxiliary	187	6.9	91.1	0.18	
3543 – 3544	Main	186	12.0	19.1	0.47	Potentially productive medium density gas zone
	Auxiliary	130	9.6	43.5	0.40	
3581 – 3583	Main	155	7.6	42.3	0.59	Potentially productive low density gas zone
	Auxiliary	121	5.8	100.0	0.28	
3594 – 3597	Main	248	8.1	38.4	0.55	Potentially productive low density gas zone
	Auxiliary	129	6.2	82.0	0.31	
3605 – 3610	Main	272	18.0	11.4	0.54	Potentially productive low gravity oil zone
	Auxiliary	169	14.0	22.4	0.27	Potentially productive high density gas zone
3611 – 3615	Main	161	12.9	20.1	0.52	Potentially productive high density gas zone
	Auxiliary	100	9.9	39.1	0.24	



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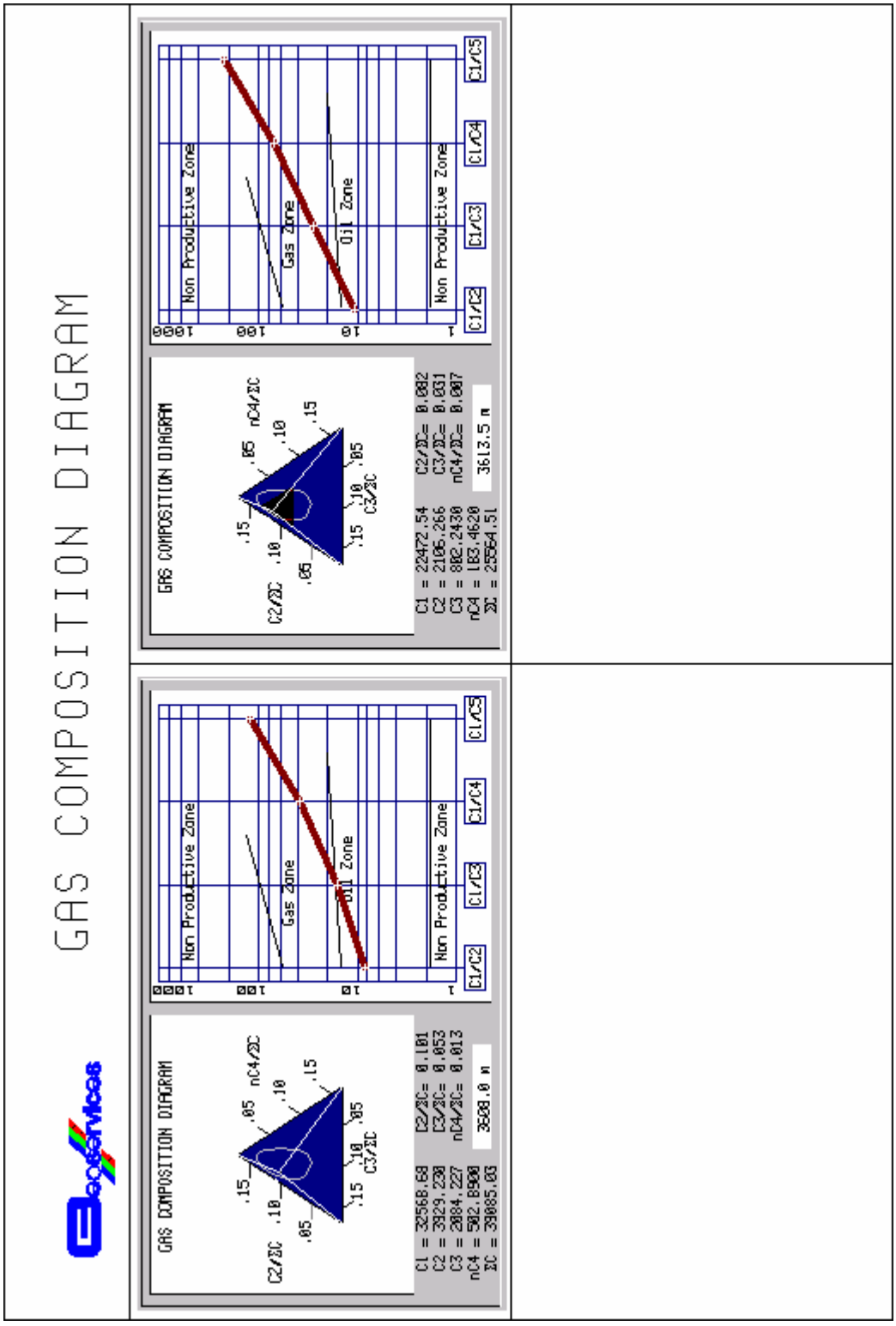

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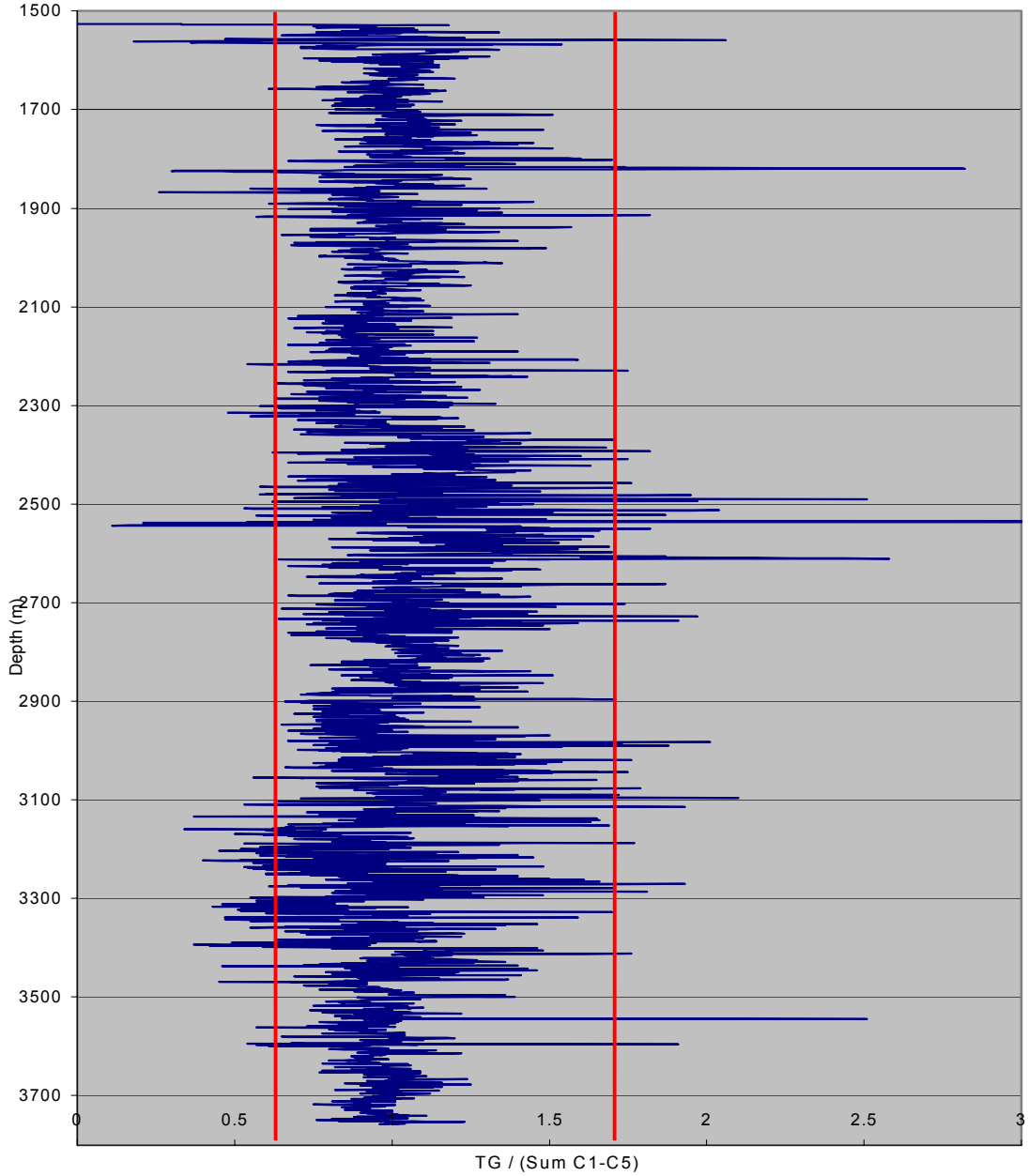
3.8 Gas Equipment Problems and Reserval Function Plot

Depth (m)	Problem Encountered	Main or Auxiliary Gas
1525	Degasser pump rubber check – Replaced rubber	Main
1525 – 1528	Insufficient mud flow while displacing	Main & Auxiliary
2533 – 2544	Poor suction of gas at gas trap – Reposition degasser head in flowline	Main

Reserval QC Plot – 311mm (12.25") Hole Section



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4.0 PRESSURE ANALYSIS

4.1 Introduction

There are several techniques available which when used in the appropriate overpressured environment, can often predict an approaching overpressured zone while drilling. Each technique may give slightly different results according to geological and drilling conditions. Geoservices currently uses the following parameters to indicate overpressured regions while drilling:

D Exponent: This is a normalized rate of penetration that takes into account mud weight, bit wear and hydraulics. It can be reliably used in shales and clean claystones; and as an indicator in siltstones, silty shales and calcareous claystones. A normal trend line is established through normally pressured shale points, representing a normal compaction trend, and any leftward deviation of subsequent shale points from this trend, representing relative undercompaction, indicates overpressure (plotted relative to depth) or increased porosity due to changes in the lithology.

Temperature: By plotting mud flowline temperature against depth a temperature gradient can be established. Theory states that a zone of low heat flow or "thermal shadow" occurs prior to the overpressured zone, which in turn is followed, by a complementary zone of abnormally high heat flow in the overpressured zone (due to its higher water content). However, the data has to be interpreted cautiously as additions of water to the active system/shakers can lower the mud temperature and mud chemicals added to the active system can cause exothermic/endothermic reactions. Bit and wiper trips cause decreases in temperature on surface.

Cuttings: Small, splintery cuttings can be used as an indicator of overpressured regions. Long propeller shaped cuttings may be an indicator of overpressure or may be the result of hydration of reactive or swelling clays.

Overpull/Torque/Fill: Overpull when making a connection or tripping can be an indicator that the hole is collapsing into the well bore, either due to clay hydration or a formation pressure that is greater than the mud weight. Similarly, excessive fill on a trip or after a connection can also indicate that the well bore is collapsing in. High torque can also be an indicator of well bore collapse, although it can also be due to formation type, bearing failure or simply the annulus becoming clogged up by cuttings due to insufficient hole cleaning in large diameter holes.

Gas *Connection gas*: During circulation the downhole pressure exerted by the mud, weight increases due to friction losses in the annulus. This is calculated as an ECD - or equivalent circulating density. Thus, when the pumps are stopped for a connection the downhole pressure exerted by the mud decreases by an amount equivalent to the difference between the ECD and mud weight. If the mud weight is close to or actually underbalanced, then gas may be fed-in to the well bore during the few minutes the pumps are turned off and register as a gas peak one lag time after the connection. The magnitude of this peak is determined by such factors as permeability, gas content of the formation, amount of swabbing as well as the relative pore pressure / mud weight.

Background gas: Background gas is not as good an indicator of formation pressure as connection gas since several factors can influence it unrelated to abnormal pressure. Increases in porosity and permeability, gas saturation, coal content of formation, etc., can cause the background to increase in addition to an underbalanced situation. Another point is that the formation pressure would have to exceed the ECD (not just the mud weight as in connection gas), in order for the formation gas to feed-in to the well bore.

Trip gas: Analogous in some ways to connection gas, trip gas is the gas registered at surface after circulating bottoms up after a round trip. However, trip gas magnitude is influenced by various other factors such as amount of swabbing and time since last circulation. The presence of trip gas is not necessarily indicative of an underbalanced situation, but the value above background can be used comparatively with other trip peaks.

4.2 Pressure Summary

Formation pressures were monitored throughout this well by recording a range of indicators, varying from direct observations of background gas and cuttings, to drilling characteristics such as torque and drag when pulling off bottom. Incorrect hole fill when tripping and mud properties such as flowline temperature are also taken into consideration. The Geoservices D'Exponent package is also used as a tool in the determination of abnormal formation pressures.

D'exponent:
Coefficients used for this well, with results plotted in Geoservices Pressure Log enclosed.

From 607 m to 3758 m

a coefficient	=	0.0000694
b coefficient	=	-0.1531207
b offset	=	-0.0320000

The D'exponent plot increased in a generally steady linear direction. The plot of the trend gave no indication at all of abnormally pressured zones. The first argillaceous section was from 1525 m down to 2836 m in which the trend was set; this consisted of argillaceous calcilutite and calcareous claystone. The sandstones that were encountered below 2836 m caused a shift to the left in the D'exponent curve as is expected; however other than this the curve followed the normal trend line quite closely.

Gas: This well was drilled with a 1.22 sg (10.2 ppg) over balanced mud system, and while there were several instances of suspected connection gas being observed, this on it's own did not indicate any abnormally pressured zones. There were several small gas peaks observed of levels up to 5% concentration and these were liberated mainly from coal seams. No trip gas of any significance was observed while drilling Culverin 1.

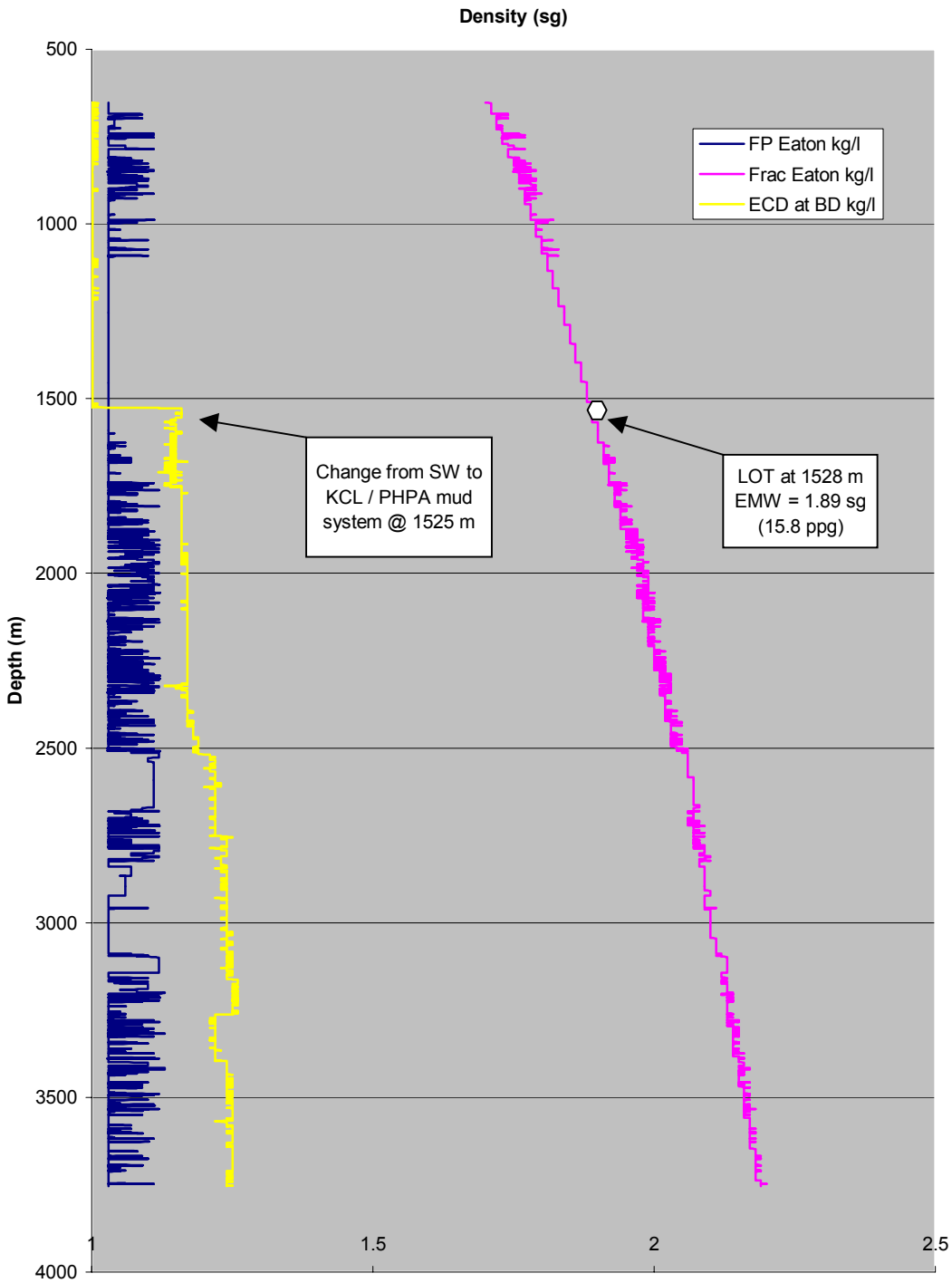
Torque & Drag: No abnormal torque or drag was observed during the drilling or tripping operations, which took place on the Culverin-1 well.

Flowline Temperature: The flowline temperature increased generally in a linear trend over the length of the well. It went from a low of 20°C at the beginning of the 12.25" section to a maximum of 41°C by T.D. The only notable points where the temperature fluctuated was when it dropped after a bit trip, and this occurred only twice where it was expected. Mud temperatures in this well were relatively low due to the cooling effect of the riser in deep water (585 m water depth).

Cuttings: There were no unusually sharp splintery cavings or large cuttings with concave cross section observed at the shakers that may have indicated an abnormally pressured zone in this well.

The majority of indicators pointed to a normally pressured environment from surface to TD while drilling Culverin 1.

4.3 Formation Pressure Plot



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5.0 DRILLING INFORMATION

5.1 Mud Record

From spud at 606.5 m to 1525 m the hole was drilled riser less with returns to the sea floor. These sections were drilled with seawater and swept with hi-vis gel mid-stand and on connections.

From 1525 m to T.D. at 3758 m the hole was drilled with a KCl/NaCl/PHPA/Glycol mud system. The properties of this mud are also listed below.

Depth m	MW ppg	FV sec/qt	PV cps	YP lb/100'	Gels Lb/100'	WL cc/ 30"	Solids %	Sand %	Chlorides mg/L	Cake /32"
1527	9.5	48	10	13	4/6/12	6.6	5.35	NC	36000	1
2070	9.65	56	15	20	4/5/6	6	6	1	36500	1
2600	10.0	55	16	25	6/9/12	4	10	0.8	65000	1
3052	10.2	57	17	26	7/9/12	4	10	1.25	75000	1
3260	10.3	57	17	26	6/9/13	4	10.5	1.25	81500	1
3380	10.2	57	17	30	7/9/11	4	10.5	1.25	82000	1
3402	10.2	60	16	28	7/9/11	4	10.5	1	82500	1
3452	10.2	62	17	33	8/11/13	3.6	10.5	1.5	84000	1
3571	10.2	62	18	27	7/9/11	3.6	10.5	1.25	82000	1
3571	10.2	66	17	31	7/9/11	3.6	10.5	1	82000	1
3571	10.15	57	16	27	6/8/12	3.8	10.5	1	78000	1
3576	10.15	64	17	33	8/11/15	3.6	10.5	1	79000	1
3661	10.15	61	16	30	8/12/15	3.6	10.5	0.8	79000	1
3752	10.15	59	15	30	7/11/15	3.8	10.5	0.7	79000	1

5.2 Bit Record

Bit #	Size (in)	Make	Type	Jets	TFA In^2	In (m)	Out (m)	Run (m)	Hrs	WOB klbs	RPM	TORQ kft*lbs	SPP psi	Flow gpm	Grading
1	17.5" / 36" H.O	Reed	T11	3x22 1x16	1.310	Spud 606.5	650	43	1.5	2-6	-	3.3-4.7	1860-2090	432	0-0-NO-A-O-1-NO-TD
2RR	17.5"	Reed	T11	3x22 1x16	1.310	650	1525	875	31.6	2-36	85-165	3.0-7.0	830-3340	430-1120	1-2-ER-A-O-1-NO-TD
3	12.25"	Reed	RSX616M	4x18 2x28	2.197	1525	3402	1877	96.7	1-29	125-315	4.0-14.4	870-4010	320-1315	4-6-WT-S-X-1-RO-ROP
4	12.25"	Reed	RSX616M	4x18 2x28	2.197	3402	3571	169	27.0	6-30	165-260	4.5-13.8	2830-4060	450-905	3-5-WT-S-X-1-LT-PP
5RR	12.25"	Smith	GF30BOVCPS	3x20	0.920	3571	3758	187	56.4	10-43	70-120	4.5-9.0	3900-4100	790-810	3-3-WT-A-E-IN-CT-TD

5.3 Hydraulic Listing

Depth (m)	Mud Weight (ppg)	ECD (ppg.)	Flow Rate (gpm)	Total Pressure Loss (psi)	Pressure Loss Across Bit (psi)	Mud Velocity Through bit (m/sec)	Bit Hydraulic Power (hp)	Mud Impact at Bit (lbf)	Total Hydraulic Power (hp)	Ratio (Bit Pwr/Total Pwr) (%)
650	8.7	8.7	750	1288	263	56	116	616	570	20.4
900	8.7	8.7	1010	2579	476	75	284	1118	1538	18.5
1400	8.7	8.7	1115	3941	580	83	382	1362	2595	14.7
1525	8.7	8.7	1110	4121	575	83	377	1350	2701	14.0
1544	9.5	9.6	765	2602	108	34	49	425	1178	4.2
2131	9.65	9.75	895	2507	149	40	79	588	1323	6.0
2641	10.0	10.1	900	2815	156	40	83	614	1492	5.5
3115	10.2	10.3	890	3140	156	40	82	613	1649	5.0
3277	10.2	10.3	850	3059	143	38	72	561	1538	4.7
3385	10.2	10.3	890	3279	156	40	82	613	1722	4.7
3402	10.2	10.3	900	3326	159	40	84	624	1763	4.8
3473	10.2	10.3	875	3479	151	39	78	595	1801	4.3
3571	10.2	10.3	870	3277	148	39	76	584	1680	4.5
3571	10.2	10.3	850	3982	1238	112	622	1654	2002	31.1
3619	10.2	10.3	800	3931	1095	105	518	1462	1858	27.8
3697	10.2	10.3	800	3766	1095	105	518	1462	1780	29.1

Revision	Date	Issued by	Approved by	Remarks
1	16-Jan -06	Geoservices Unit 170	Base Mudlogging Coordinator	

5.4 Drilling Phase Summary

5.4.1 914mm (36") Hole Section

Date	: 16th December 2005
Measured depth	: 606.5 m – 650 m
TVDSS LAT	: 585 m – 628.5 m
Number of bits used	: 1
Mud type	: Seawater, with gel sweeps

The rig initially arrived on location on the 6th of November 2005 and started deploying anchors, however due to an anchor winch failure it was decided to take the rig to Eden for repairs and a hull survey.

After the rig arrived on location for a second time on 13th December 2005 the anchors were run and a 445 mm (17.5") Reed T11 bit, with 3x22, 1x16 jets and a 914 mm (36") hole opener and associated BHA were made up. This was run in and tagged the sea floor at 606.5 m. Culverin 1 was spudded at 13:30 hours on the 16th of December 2005. This section was drilled from the sea floor at 606.5 m to 650 m without incident, at this point the hole was displaced to gel mud prior to pulling out. This bit drilled a total of 43 m in 1.5 on bottom hours at an average ROP of 28.7 m/hr and was graded 0-0-NO-A-0-1-NO-TD. 762/508 mm (30"/20") surface conductor was then run and set on bottom at 650 m.

5.4.2 445mm (17.5") Hole Section

Dates	: 18th – 20th December 2005
Measured depth	: 650 m - 1525 m
TVDSS LAT	: 628.5 m – 1503.5 m
Number of bits used	: 1
Mud type	: Seawater with gel sweeps

The next section of hole was drilled with the same 445 mm (17.5") Reed T11 bit with the same 3x22, 1x16 jets. This bit and BHA was run in hole and drilled riser less from 650 m to 1525 m using one bit, with returns to the sea floor. No problems were encountered in this phase, and this bit drilled 875 m in 31.6 on bottom hours at an average ROP of 27.7 m/hr and was graded 1-2-ER-A-0-1-NO-TD. The 340 mm (13.375") casing was then run in hole on drill pipe and the casing shoe was set at 1511 m.

The BOP stack was then run on marine riser and landed out on the wellhead, following this it was pressure tested.

5.4.3 311mm (12.25") Hole Section

Dates	: 24th December 2005 to 6th January 2006
Measured depth	: 1525 m - 3758 mTD
TVDSS LAT	: 1503.5 m – 3753.9 m
Number of bits used	: 3
Mud type	: KCl / NaCl / PHPA / Glycol

A 311 mm (12.25") Hycalog RSX-616M PDC bit was made up with 4x18, 2x28 jets. This was combined with a down hole motor and associated BHA and run in hole down to the top of cement at 1478 m. The cement, float, shoe and shoe track were drilled out and the well displaced to KCl / NaCl / PHPA / Glycol mud. The new hole was then drilled ahead from 1525 m to 1528 m at which point a leak off test was performed, this resulted in an EMW of 1.89sg (15.8ppg). Drilling then resumed from 1528 m to 3402 m before the drilling rate deteriorated and the bit was pulled to surface without problems. This bit drilled 1877 m in 96.7 on bottom hours with an average ROP of 19.4 m/hr, and was graded 4-6-WT-S-X-1-RO-ROP.

Another 311 mm (12.25") Hycalog RSX-616M PDC bit was run in hole and drilling proceeded, once more with downhole motor, from 3402 m to 3571 m before a slow pump pressure loss was observed, suggesting a washout in the drillstring. This bit was then pulled to surface and replaced, however, no washout in the pipe or bottom hole assembly was found. This bit drilled 169 m in 27.0 on bottom hours with an average ROP of 6.3 m/hr, and was graded 3-5-WT-S-X-1-LT-PP.

A new 311 mm (12.25") Smith GF30BOVCPS tricone bit was made up with 3x18 jets and this was run in hole with a BHA without motor but including an extra stabilizer. However, testing of MWD tools at 2500 m depth showed no communication, so this string was also pulled to surface. The stabilizer was then removed from the BHA and this bit was run back to bottom with 3x20 jets. Drilling of the 311 mm (12.25") hole section then continued from 3571 m to a final depth of 3578 mTD. A communication failure occurred with the MWD tools while drilling at 3721 m, however, this did not terminate the drilling and some data below this depth was captured later when the tools were downloaded at surface. This bit drilled 187 m in 56.4 on bottom hours with an average ROP of 3.3 m/hr, and was graded 3-3-WT-A-E-IN-CT-TD. Mud weight ranged from 1.21 to 1.22 sg (10.15-10.2 ppg). The final survey was 2.98° bearing 50.16°. TD was reached at 24:00 hours on 06th January 2006.

Prior to pulling out of hole a section of the hole from 3630 m to 3575 m was re-logged by MWD/FEWD tools, then the drilling string was pulled out of hole without problem. Wireline logs were then run at TD in 2 suites:

Run 1: PEX-HALS-DSI-GR
Run 2: VSI(4)-GR (ZVSP)

Cement plugs were then run and set to abandon the well and the riser was pulled with BOPs. The rig was released at 15:00 hours on 15th January 2006.

APPENDIX 9

DAILY GEOLOGICAL REPORTS

Culverin-1

Date:	20-12-2005	**Last Casing:**	762 mm (30") @ 650.9 mMDRT
Report Number:	1	**Form. Integrity Test:**	N/A
Report Period:	24hrs to 24:00	**Current hole size:**	445 mm (17 ½")
Depth @ 2400 Hrs:	1525.0 mMDRT	**Mud Weight:**	1.02 sg
Last Depth:	1525.0 mMDRT	**ECD:**	N/A
Progress:	0 m	**Mud Type:**	Seawater/Gel sweeps
TD Lithology:	N/A drilled riser-less	**Mud Chlorides:**	N/A
Water Depth:	585.0 m	**Mud Fluid Loss:**	N/A
RT Elevation:	21.5 m	**Bit Type:**	N/A

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead riserless to 1525.0 mMDRT. Pulled out of hole. Rigged up to run 340 mm (13 3/8") casing. Commenced running casing. Making up casing hanger at midnight and started running casing in on drill-pipe.
06:00 Update	340 mm (13 3/8") casing ran to 1511m. Currently pumping cement.
NEXT 24 HOURS:	Run, land and cement casing in place. Commence running riser.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No returns to surface.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	No returns to surface.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
No returns to surface							

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- **SURVEYS**

MD	ANGLE	Azi						
681.95	1.26	227.0						
767.68	0.81	263.55						
825.04	0.93	254.57						
911.19	1.09	257.49						
1027.78	0.85	252.60						
1056.46	0.79	254.04						
1085.16	0.77	260.55						
1113.81	0.62	255.11						
1142.54	0.51	257.73						
1171.11	0.43	257.64						
1228.35	0.22	250.90						
1257.08	0.17	244.39						
1342.79	0.06	257.65						
1371.46	0.03	247.14						
1428.75	0.11	336.43						
1486.03	0.16	21.18						
1509.77	0.09	0.70						
1525.00	0.09	0.70						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	SS	THICK	MDKB	SS	HI/LO	THICK	DIFF
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

Culverin-1

Date:	21-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	2	**Form. Integrity Test:**	N/A
Report Period:	24hrs to 24:00	**Current hole size:**	445 mm (17 ½")
Depth @ 2400 Hrs:	1525.0 mMDRT	**Mud Weight:**	1.03 sg
Last Depth:	1525.0 mMDRT	**ECD:**	N/A
Progress:	0 m	**Mud Type:**	Seawater/Gel sweeps
TD Lithology:	N/A drilled riser-less	**Mud Chlorides:**	600 mg/l
Water Depth:	585.0 m	**Mud Fluid Loss:**	14 cc
RT Elevation:	21.5 m	**Bit Type:**	N/A

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Ran casing in on drill-pipe. Landed 340mm casing at 1511.14 mMDRT. Cemented casing. Laid out cement head. Rigged up riser-handling equipment. Commenced running BOPs and riser.
06:00 Update	Running riser.
NEXT 24 HOURS:	Run BOPs and riser.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No returns to surface.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	No returns to surface.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
No returns to surface							

- **SURVEYS**

MD	ANGLE	Azi						
681.95	1.26	227.0						
767.68	0.81	263.55						
825.04	0.93	254.57						
911.19	1.09	257.49						
1027.78	0.85	252.60						
1056.46	0.79	254.04						
1085.16	0.77	260.55						
1113.81	0.62	255.11						
1142.54	0.51	257.73						
1171.11	0.43	257.64						
1228.35	0.22	250.90						
1257.08	0.17	244.39						
1342.79	0.06	257.65						
1371.46	0.03	247.14						
1428.75	0.11	336.43						
1486.03	0.16	21.18						
1509.77	0.09	0.70						
1525.00	0.09	0.70						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	SS	THICK	MDKB	SS	HI/LO	THICK	DIFF
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

Culverin-1

Date:	22-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	3	**Form. Integrity Test:**	N/A
Report Period:	24hrs to 24:00	**Current hole size:**	445 mm (17 ½")
Depth @ 2400 Hrs:	1525.0 mMDRT	**Mud Weight:**	1.03 sg
Last Depth:	1525.0 mMDRT	**ECD:**	N/A
Progress:	0 m	**Mud Type:**	Seawater/Gel sweeps
TD Lithology:	N/A drilled riser-less	**Mud Chlorides:**	600 mg/l
Water Depth:	585.0 m	**Mud Fluid Loss:**	14 cc
RT Elevation:	21.5 m	**Bit Type:**	N/A

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Completed running BOPs and riser. Commenced making up slip-joint to riser and pressure testing choke and kill lines prior to landing out the BOP stack.
06:00 Update	Preparing to land BOP's.
NEXT 24 HOURS:	Land out BOPs and test wellhead connector. Pull-test connections. Stroke out the slip-joint and nipple up the surface equipment. Rig up the diverter. Complete pressure tests. Prepare to pick up 311 mm (12 ¼") BHA.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No returns to surface.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	No returns to surface.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
No returns to surface							

- **SURVEYS**

MD	ANGLE	Azi						
681.95	1.26	227.0						
767.68	0.81	263.55						
825.04	0.93	254.57						
911.19	1.09	257.49						
1027.78	0.85	252.60						
1056.46	0.79	254.04						
1085.16	0.77	260.55						
1113.81	0.62	255.11						
1142.54	0.51	257.73						
1171.11	0.43	257.64						
1228.35	0.22	250.90						
1257.08	0.17	244.39						
1342.79	0.06	257.65						
1371.46	0.03	247.14						
1428.75	0.11	336.43						
1486.03	0.16	21.18						
1509.77	0.09	0.70						
1525.00	0.09	0.70						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	SS	THICK	MDKB	SS	HI/LO	THICK	DIFF
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

Culverin-1

Date:	23-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	4	**Form. Integrity Test:**	N/A
Report Period:	24hrs to 24:00	**Current hole size:**	445 mm (17 ½")
Depth @ 2400 Hrs:	1525.0 mMDRT	**Mud Weight:**	1.03 sg
Last Depth:	1525.0 mMDRT	**ECD:**	N/A
Progress:	0 m	**Mud Type:**	Seawater/Gel sweeps
TD Lithology:	N/A drilled riser-less	**Mud Chlorides:**	600 mg/l
Water Depth:	585.0 m	**Mud Fluid Loss:**	14 cc
RT Elevation:	21.5 m	**Bit Type:**	N/A

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00: Landed out the BOPs and pull-tested the wellhead connector. Stroked out the slip-joint and nippled-up the surface equipment. Rigged up the diverter. Completed all pressure tests. Rigged down the riser handling equipment. Slip and cut drilling line. Laid down the 445 mm (17 ½") BHA. Commenced making up the new 311 mm (12 ¼") BHA.

06:00 Update Making up drill pipe while RIH to drill out the shoetrack.

NEXT 24 HOURS: Complete making up 311 mm (12 ¼") BHA. RIH and pick up drillpipe on the way in hole. Drill out the shoetrack. Displace the well to mud. Drill ahead 3m of new formation. Conduct LOT. Drill ahead.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No returns to surface.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	No returns to surface.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
No returns to surface							

- **SURVEYS**

MD	ANGLE	Azi						
681.95	1.26	227.0						
767.68	0.81	263.55						
825.04	0.93	254.57						
911.19	1.09	257.49						
1027.78	0.85	252.60						
1056.46	0.79	254.04						
1085.16	0.77	260.55						
1113.81	0.62	255.11						
1142.54	0.51	257.73						
1171.11	0.43	257.64						
1228.35	0.22	250.90						
1257.08	0.17	244.39						
1342.79	0.06	257.65						
1371.46	0.03	247.14						
1428.75	0.11	336.43						
1486.03	0.16	21.18						
1509.77	0.09	0.70						
1525.00	0.09	0.70						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	SS	THICK	MDKB	SS	HI/LO	THICK	DIFF
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

Culverin-1

Date:	24-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	5	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	1544.0 mMDRT	**Mud Weight:**	1.14 sg
Last Depth:	1525.0 mMDRT	**ECD:**	1.22 sg
Progress:	19 m	**Mud Type:**	KCl-NaCl Polymer
TD Lithology:	Argillaceous Calcilutite	**Mud Chlorides:**	35,500 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	6.8 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Completed making up 311 mm (12 ¼") BHA. RIH and picked up drillpipe on the way in hole. Drilled out the shoetrack. Displaced the well to mud. Drilled ahead 3 m of new formation. Conducted LOT to 1.89 sg EMW at 1528.0 mMDRT. Drilled ahead to 1544.0 mMDRT.
06:00 Update	Drilling ahead at 1670.0 mMDRT in the Gippsland Limestone.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
1525-1530 ROP 2 – 19 m/hr Ave 2 m/hr (drilling with reduced parameters while clearing BHA from the 340mm casing shoe)	**ARGILLACEOUS CALCILUTITE with trace DOLOMITE stringers** ARGILLACEOUS CALCILUTITE (100%): light to medium grey, occasionally olive grey, soft to rarely firm, amorphous to very rarely sub-blocky, trace arenaceous grains, common forams, common fossil fragments, strongly calcareous, trace pyrite, trace black carbonaceous specks. DOLOMITE (Nil-Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, trace forams visible within matrix, reacts weakly to acid when crushed.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
1525-1530	0.03	0.03	0.0002	0.0002	0.0015	0.0001	-

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
681.95	1.26	227.0		1540.46	0.33	354.58		
767.68	0.81	263.55		1569.11	0.36	350.12		
825.04	0.93	254.57		1597.73	0.50	2.93		
911.19	1.09	257.49		1626.44	0.63	1.96		
1027.78	0.85	252.60						
1056.46	0.79	254.04						
1085.16	0.77	260.55						
1113.81	0.62	255.11						
1142.54	0.51	257.73						
1171.11	0.43	257.64						
1228.35	0.22	250.90						
1257.08	0.17	244.39						
1342.79	0.06	257.65						
1371.46	0.03	247.14						
1428.75	0.11	336.43						
1486.03	0.16	21.18						
1509.77	0.09	0.70						
1525.00	0.09	0.70						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	SS	THICK	MDKB	SS	HI/LO	THICK	DIFF
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	25-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	6	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	2131.0 mMDRT	**Mud Weight:**	1.14 sg
Last Depth:	1544.0 mMDRT	**ECD:**	1.17 sg
Progress:	587 m	**Mud Type:**	KCl-NaCl Polymer
TD Lithology:	Calcilutite	**Mud Chlorides:**	36,000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	6.6 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 1544.0 – 2131.0 mMDRT.
06:00 Update	Drilling ahead at 2257.0 mMDRT in the Gippsland Limestone.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
1530 – 1620 ROP 3 – 46 m/hr Ave 24 m/hr	**Massive Argillaceous Calcilutite** ARGILLACEOUS CALCILUTITE (100%): light olive grey, light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils (forams, echinoids), gradational to very fine to fine Calcarenite.
1620 – 1770 ROP 16 – 67 m/hr Ave 44 m/hr	**Dominantly Argillaceous Calcilutite with minor Calcarenite** ARGILLACEOUS CALCILUTITE (60-100%): light olive grey to light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub-blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro-fossils (forams, echinoids). CALCARENITE (nil-40%): light olive grey, soft to firm, sub-blocky, very fine to fine grained, moderately well sorted, rounded, common to abundant calcareous argillaceous matrix, poor visual porosity.
1770 - 1980 ROP 10 – 65 m/hr Ave 30 m/hr	**Massive Calcilutite with trace Dolomite** CALCILUTITE (100%): light olive-grey to light grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt and sand grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine-grained Calcarenite and Calcisiltite. DOLOMITE (Nil-Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, reacts weakly to acid when crushed.

1980 - 2010 ROP 15 – 56 m/hr Ave 27 m/hr	**Dominantly Calcilutite with minor Calcarenite** CALCILUTITE (70-100%): light olive grey, light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils (forams, echinoids). CALCARENITE (Nil-30%): light olive grey, soft to firm, sub blocky, very fine to fine grained, moderately well sorted, rounded, common to abundant calcareous argillaceous matrix, poor visible porosity.
2010 - 2130 ROP 15 – 60 m/hr Ave 31 m/hr	**Massive Calcilutite** CALCILUTITE (100%): light to medium greenish-grey, commonly olive grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine Calcisiltite, trace splintery light brown dolomite (?) fragments.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	IC4 (%)	NC4 (%)	C5 (%)
1530 - 1620	0.36	0.359	0.001	-	-	-	-
1620-1710	0.33	0.336	0.001	-	-	-	-
1710-1980	0.36	0.356	0.002	0.001	-	-	-
1980-2010	0.33	0.31	0.003	0.001	-	-	-
2010- 2130	0.60	0.579	0.002	0.001	-	-	-

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
681.95	1.26	227.0		1655.17	0.86	9.39		
767.68	0.81	263.55		1683.81	1.15	21.63		
825.04	0.93	254.57		1712.56	1.54	24.62		
911.19	1.09	257.49		1741.12	1.85	23.41		
1027.78	0.85	252.60		1769.90	2.12	24.21		
1056.46	0.79	254.04		1798.49	2.39	23.17		
1085.16	0.77	260.55		1827.17	2.73	24.42		
1113.81	0.62	255.11		1855.78	2.98	24.43		
1142.54	0.51	257.73		1913.08	3.07	24.58		
1171.11	0.43	257.64		1941.89	3.12	23.61		
1228.35	0.22	250.90		1970.98	3.18	24.11		
1257.08	0.17	244.39		1999.06	3.22	24.85		

1342.79	0.06	257.65		2027.82	3.27	25.23		
1371.46	0.03	247.14		2056.65	3.24	27.04		
1428.75	0.11	336.43		2085.12	3.33	26.59		
1486.03	0.16	21.18		3113.64	3.4	27.83		
1509.77	0.09	0.70		2142.04	3.46	29.61		
1525.00	0.09	0.70		2170.63	3.6	30.30		
1540.46	0.33	354.58		2199.17	3.77	30.65		
1569.11	0.36	350.12						
1597.73	0.50	2.93						
1626.44	0.63	1.96						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	**PROGNOSED DEPTHS (m)**			**ACTUAL DEPTHS (m)**				
	MDKB	**SS**	**THICK**	**MDKB**	**SS**	**HI/LO**	**THICK**	**DIFF**
Sea Floor	607	585	-	606.5	585.0	0.0	-	0.0
Lakes Entrance	2582	2560						
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	26-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	7	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	2641.0 mMDRT	**Mud Weight:**	1.20 sg
Last Depth:	2131.0 mMDRT	**ECD:**	1.21 sg
Progress:	510 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Calcareous Claystone	**Mud Chlorides:**	36,000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	5.4 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 2131.0 mMDRT to 2641.0 mMDRT. Top of the Lakes Entrance Formation picked from LWD logs and cuttings at 2508.0 mMDRT.
06:00 Update	Drilling ahead at 2758 mMDRT in the Lakes Entrance Formation.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
2130 – 2190 ROP 14 – 49 m/hr Ave 26 m/hr	**Massive Calcilutite becoming more silty with depth** CALCLUTITE (100%): light olive grey, occasionally light brownish grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite associated with organic matter. Gradational in part to CALCISILTITE.
2190 – 2340 ROP 12 – 57m/hr Ave 24 m/hr	**Dominantly Calcilutite with minor Calcsiltite** CALCLUTITE (80-100%): light olive grey, occasionally light brownish grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite. CALCISILTITE (Nil-20%): olive grey, brownish grey, soft to firm, friable in part, sub blocky, trace calcareous sand, trace carbonaceous specks.
2340 - 2508 ROP 13 – 62m/hr Ave 29 m/hr	**Dominantly Argillaceous Calcilutite with minor Calcsiltite and Calcarenite with rare fine glauconite grains** ARGILLACEOUS CALCLUTITE (70-100%): light brownish grey, occasionally light grey, rare medium grey patches, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine glauconite grains, trace very fine pyrite, 15% clay content. CALCISILTITE (Nil-20%): olive grey, brownish grey, soft to firm, friable in part,

	sub blocky, trace calcareous sand, trace carbonaceous specks. CALCARENITE (Nil-30%): light brownish-grey, firm to moderately hard, sub-blocky, very fine to fine grained, moderately well sorted, angular grains, common to abundant calcareous argillaceous matrix, common fine glauconite grains, poor visual porosity.
2508 - 2640 ROP 16 – 120m/hr Ave 50 m/hr	**Massive Calcareous Claystone** CALCAREOUS CLAYSTONE (100%): light to medium grey, soft, sub blocky to blocky, trace very fine pyritic patches, occasional medium grey silty patches, rare carbonaceous specks.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
2130 - 2190	0.44	4350	23	18	29	1	-
2190 - 2340	0.37	3500	13	10	5	3	-
2340 - 2508	0.29	2905	10	9	7	3	-
2508 - 2640	0.12	950	12	10	38	5	-

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2027.82	3.27	25.23		2629.39	3.86	40.58		
2056.65	3.24	27.04		2658.02	3.89	41.3		
2085.12	3.33	26.59		2686.60	3.77	41.46		
3113.64	3.4	27.83		2715.15	3.77	40.42		
2142.04	3.46	29.61						
2170.63	3.6	30.30						
2199.17	3.77	30.65						
2227.87	3.85	36.05						
2256.54	3.99	35.43						
2285.35	4.14	37.21						
2314.02	4.15	34.69						
2342.60	4.24	35.48						
2371.30	4.20	37.23						
2399.91	4.28	37.06						
2428.46	4.30	38.32						
2457.14	4.30	37.54						
2511.27	4.09	38.40						

2543.24	4.05	40.48						
2572.00	4.01	40.97						
2600.65	3.91	40.54						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	**PROGNOSED DEPTHS (m)**			**ACTUAL DEPTHS (m)**				
	MDKB	**SS**	**THICK**	**MDKB**	**SS**	**HI/LO**	**THICK**	**DIFF**
Sea Floor/ Gippsland Limestone	607	585	-	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582	2560		2508	2484.9	75.1H		
Latrobe	2907	2885						
Base TF Channel	2937	2915						
Top 67.5 Ma Sand	2947	2925						
Near 68.5 Ma Sand	3257	3235						
Near 70.3 Ma Sand	3542	3520						
TD	3612	3590						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	27-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	8	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3115.0 mMDRT	**Mud Weight:**	1.20 sg
Last Depth:	2641.0 mMDRT	**ECD:**	1.21 sg
Progress:	474 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	70% Sandstone 30% Siltstone	**Mud Chlorides:**	65,000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	4.0 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 2641.0 mMDRT to 3115.0 mMDRT. Top of the Latrobe Formation picked from LWD logs and cuttings at 2824.0 mMDRT. Base Tuna Flounder Channel at 2835 mMDRT picked on LWD and confirmed with the cuttings. Top 67.5Ma Sand picked at 2836 mMDRT based on LWD and confirmed with the samples. Near 68.5Ma sand at 3103m picked on LWD and samples.
06:00 Update	Drilling ahead at 3195 mMDRT in the Latrobe Group.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
2640 – 2730 ROP 10 – 100m/hr Ave 51m/hr	**Calcareous Claystone with minor thin Calcilutite beds trace Dolomite and Sandstone at the base of the section** CALCAREOUS CLAYSTONE (50-90%): light grey, soft, sub blocky to blocky, trace very fine pyritic patches, rare carbonaceous specks, trace very fine glauconite, homogenous. CALCILUTITE (10-50%): olive grey, firm, brittle in part, blocky, cryptocrystalline, trace calcareous silt and rare to common very fine calcareous sand grains, rare dark lithic grains, trace disseminated glauconite, trace very fine pyrite, gradational to CALCARENITE. DOLOMITE (Trace): orange brown, firm, brittle, blocky, commonly angular and splintery, cryptocrystalline, slightly argillaceous in part. SANDSTONE (Trace): clear to white, loose to soft aggregates, medium to rarely coarse, well sorted, sub angular, high sphericity, minor white argillaceous matrix, trace glauconite, fair inferred porosity, no hydrocarbon shows.
2730-2824 ROP 3.4 – 83.8 m/hr	**Massive Argillaceous Calcilutite grading into Claystone** ARGILLACEOUS CALCILUTITE (Trace-100%): light olive grey, occasionally

Ave 17.4 m/hr	medium light grey, very soft – soft, sub blocky, homogenous, trace glauconite, trace very fine disseminated pyrite. CLAYSTONE (Trace-100%): light olive grey, occasionally medium light grey, very soft – soft, sub blocky, homogenous, trace calcareous silt and very fine sand in part, trace glauconite, trace very fine disseminated pyrite.
2824-2836 ROP 11.3 – 98.4 m/hr Ave 46.4 m/hr	**Massive Siltstone** SILTSTONE (100%): light brown to brownish-grey, soft to firm, occasionally very amorphous and reddish brown, generally massive to sub-blocky, common, glauconite grains, trace mica and black carbonaceous specks, trace pyrite, grading into fine sandstone.
2836-2844 ROP 25.9 – 91.2 m/hr Ave 50.0 m/hr	**Massive Sandstone** SANDSTONE (100%): clear to translucent, loose, very fine to very coarse, very poorly sorted, sub-angular to sub-rounded grains, trace glauconite, trace pyrite, trace argillaceous matrix, very good inferred porosity, no fluorescence.
2844-2930 ROP 8.7 – 108.9 m/hr Ave 33.0 m/hr	**Interbedded Sandstone and Argillaceous Siltstone and Siltstone with trace Claystone** SANDSTONE (10-90%): clear to translucent, loose, very fine to medium, mainly fine, very poorly sorted, sub-angular to rounded grains, very rare glauconite, common pyrite, common white amorphous argillaceous matrix inferred, poor to moderate inferred visual porosity, no fluorescence. ARGILLACEOUS SILTSTONE (0-80%): light grey to white, very soft to friable, occasionally firm, common loose grains of quartz, trace mica and black carbonaceous specks, common pyrite, grading into fine sandstone. SILTSTONE (10-40%): light grey to white, soft to friable, occasionally firm, common loose grains, trace mica and black carbonaceous specks, common argillaceous matrix, common pyrite, grading into fine sandstone. CLAYSTONE (trace): light grey, very soft to soft, trace mica and black carbonaceous specks, common pyrite, grading into fine siltstone.
2930-2960 ROP 10.6 – 116.6 m/hr Ave 29.1 m/hr	**Massive Claystone grading into Silty Claystone with depth** CLAYSTONE (100%): light grey, very soft to soft, amorphous to sub-blocky, trace mica and common black carbonaceous specks, non-calcareous, trace fine rounded-angular quartz silt, common pyrite, grading into silty claystone in part. SILTY CLAYSTONE (100%): light to medium grey, occasionally brown and firmer, very soft to firm in part, amorphous to dispersive, trace mica and common black carbonaceous specks, weakly-calcareous in parts (may be cavings?), common pyrite, trace green glauconite grains and greenish stain on some fragments.
2960-2975 ROP 10.1 – 115.8 m/hr Ave 37.5 m/hr	**Silty Claystone with trace Sandstone and very rare Carbonaceous Claystone** SILTY CLAYSTONE (90-100%): light to medium grey, very soft, amorphous to dispersive, trace mica and common black carbonaceous specks, common pyrite, calcareous in part, trace light brown calcite/dolomite-cemented fragments, trace pyrite, trace glauconite. SANDSTONE (0-10%): clear to translucent, occasionally yellow, loose, very fine

	to medium grained, mainly fine grained, poorly sorted, sub-angular to rounded grains, common pyrite, moderate inferred porosity, common argillaceous matrix no fluorescence. CARBONACEOUS CLAYSTONE (Trace): black to medium grey, firm to moderately hard, sub-blocky to blocky, laminated into dark and light coloured layers in part, grading into silty claystone. (Thin 0.5m thick layer noted on LWD logs at 2972.5 mMDRT associated with elevated torque during drilling).
2975-3078 ROP 12 – 141 m/hr Ave 56 m/hr	**Massive Sandstone with very minor Claystone interbeds** SANDSTONE (100%): clear to translucent, occasionally yellow and white, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, trace argillaceous matrix inferred, no fluorescence. CLAYSTONE (Trace): light to medium grey, very soft to soft, amorphous to dispersive, trace mica and black carbonaceous specks.
3078 – 3103 ROP 9.7 – 75 m/hr Ave 37 m/hr	**Sandstone and Claystone** SANDSTONE (80%): clear to translucent, medium to very coarse, sub angular to well rounded, hi-sphericity, moderately sorted, trace pyrite cement and nodules, very good porosity, no fluorescence. CLAYSTONE (20%): light grey, brownish grey, very soft, sub blocky to dominantly amorphous, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.
3103 – 3115 ROP 12 – 55 m/hr Ave 34 m/hr	**Massive Sandstone with minor Claystone (probably cavings) at the top of the section.** SANDSTONE (90-100%): clear, rare yellow / brown grains, medium to very coarse, dominantly coarse, sub angular to well rounded, hi-sphericity, well sorted, trace pyrite cement, trace strong siliceous cement, very good inferred porosity, no fluorescence. CLAYSTONE (0-10%): light grey, brownish grey, very soft, sub blocky to dominantly amorphous, arenaceous in part, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
2640 - 2730	0.11	1234	15	20	30	23	-
2730 - 2824	0.15	1358	19	21	38	23	-
2824 - 2836	0.10	1013	45	27	12	5	-

2836 - 2844	0.13	1297	55	30	24	31	-
2844 - 2930	0.10	882	64	76	74	37	-
2930 - 2960	0.08	672	60	42	37	16	-
2960 -2975	0.06	543	47	32	41	42	-
2975 -3078	0.07	483	38	26	14	15	22
3078 -3103	0.08	465	49	28	14	14	21
3103-3115	0.06	451	40	28	17	26	21

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2285.35	4.14	37.21		2887.70	3.86	45.65		
2314.02	4.15	34.69		2916.43	3.87	45.26		
2342.60	4.24	35.48		2944.96	3.83	45.79		
2371.30	4.20	37.23		2973.53	3.73	46.71		
2399.91	4.28	37.06		3002.19	3.72	46.75		
2428.46	4.30	38.32		3059.49	3.72	46.57		
2457.14	4.30	37.54		3088.21	3.81	46.46		
2511.27	4.09	38.40		3116.08	3.75	45.37		
2543.24	4.05	40.48		3145.07	3.74	48.33		
2572.00	4.01	40.97						
2600.65	3.91	40.54						
2629.39	3.86	40.58						
2658.02	3.89	41.3						
2686.60	3.77	41.46						
2715.15	3.77	40.42						
2743.83	3.80	42.10						
2772.65	3.83	43.73						
2801.66	3.84	42.76						
2830.44	3.89	43.81						
2859.14	3.95	44.31						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607	585	-	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	186.0	-124.0

Near 68.5 Ma Sand	3257.0	3235.0	285.0	3103	3078.5	156.5 H		
Near 70.3 Ma Sand	3542.0	3520.0	70.0					
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	28-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	9	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3277.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3115.0 mMDRT	**ECD:**	1.22 sg
Progress:	162 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	70% Sandstone 30% Siltstone	**Mud Chlorides:**	75,000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	4.0 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3115.0 mMDRT to 3277.0 mMDRT. ROP decreased below 10 m/hr at approximately 3217.0 mMDRT and maintained this rate.
06:00 Update	Drilling ahead at 3308.0 mMDRT in the Latrobe Group.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3115 – 3158 ROP 1.7 – 102 m/hr Ave 36 m/hr	**Massive Sandstone with minor Argillaceous Siltstone (Sandstone had strong pyritic cement from 3146 – 3149 mMDRT)** SANDSTONE (95-100%): clear to light grey, loose to very hard aggregates, medium to very coarse, poorly sorted, occasional very hard pyrite cement, good inferred porosity in loose component, poor visual porosity in aggregates, no fluorescence. ARGILLACEOUS SILTSTONE (0-5%): brownish grey, very soft, amorphous, trace carbonaceous specks, micro mica.
3158 – 3185 ROP 8 – 69 m/hr Ave 31 m/hr	**Dominantly Siltstone with Sandstone** ARGILLACEOUS SILTSTONE (30-70%): brownish grey to light brownish grey, occasionally light grey, very soft to soft, rarely friable, sub-blocky to amorphous, occasionally sub-fissile, very carbonaceous in part, carbonaceous laminae, micro-mica, trace fine pyrite. SANDSTONE (30-70%): clear to translucent, loose, fine to very coarse, poorly sorted, sub-angular to rounded, common fractured grains, trace pyrite cement, very good inferred porosity.
3185 – 3210 ROP 5.2 – 57.3 m/hr Ave 14.0 m/hr	**Dominantly massive Sandstone with minor Argillaceous Siltstone** SANDSTONE (40-80%): clear to translucent, medium to granular grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, commonly pyrite cemented, possible traces of weak carbonate

	cement (calcite/dolomite?), very good inferred porosity, no fluorescence. ARGILLACEOUS SILTSTONE (20-60%): brownish grey to light brownish grey, rarely light grey, very soft to rarely firm, sub blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Argillaceous Siltstone.
3210- 3275 ROP 1 – 19 m/hr Ave 7.8 m/hr	**Dominantly Argillaceous Siltstone, Siltstone with Interbedded Silty Claystone and Claystone and minor Sandstone** ARGILLACEOUS SILTSTONE (55-95%): brownish grey to light brownish grey, light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Siltstone. SILTSTONE (0-30%): brownish grey to light brownish grey, argillaceous to arenaceous, very soft to friable, sub fissile in part, common carbonaceous specks and laminations, occasional very fine pyrite. SILTY CLAYSTONE (5-15%): brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, hard dolomite/calcite fragments, trace pyrite, gradational to Argillaceous Siltstone. CLAYSTONE (0-90%): olive grey, light brownish grey, very soft, amorphous, slightly calcareous, trace carbonaceous grains, rare very fine disseminated pyrite. SANDSTONE (Trace-40%): clear to translucent, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, moderate inferred porosity, no fluorescence.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3115 - 3158	0.031	440	41	27	16	17	-
3158 - 3185	0.063	647	108	50	21	25	-
3185 - 3210	0.052	511	69	42	31	24	-
3210 - 3275	0.069	426	47	33	24	25	20

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2285.35	4.14	37.21		2887.70	3.86	45.65		
2314.02	4.15	34.69		2916.43	3.87	45.26		
2342.60	4.24	35.48		2944.96	3.83	45.79		
2371.30	4.20	37.23		2973.53	3.73	46.71		
2399.91	4.28	37.06		3002.19	3.72	46.75		
2428.46	4.30	38.32		3059.49	3.72	46.57		
2457.14	4.30	37.54		3088.21	3.81	46.46		
2511.27	4.09	38.40		3116.08	3.75	45.37		
2543.24	4.05	40.48		3145.07	3.74	48.33		
2572.00	4.01	40.97		3173.79	3.67	49.59		
2600.65	3.91	40.54		3202.65	3.71	48.97		
2629.39	3.86	40.58		3231.77	3.53	48.2		
2658.02	3.89	41.3		3260.37	3.66	49.86		
2686.60	3.77	41.46						
2715.15	3.77	40.42						
2743.83	3.80	42.10						
2772.65	3.83	43.73						
2801.66	3.84	42.76						
2830.44	3.89	43.81						
2859.14	3.95	44.31						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607	585	-	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	186.0	-124.0
Near 68.5 Ma Sand	3257.0	3235.0	285.0	3103	3078.5	156.5 H		
Near 70.3 Ma Sand	3542.0	3520.0	70.0					
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	29-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	10	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3385.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3277.0 mMDRT	**ECD:**	1.22 sg
Progress:	108 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	80% Claystone 15% Siltstone	**Mud Chlorides:**	81,500 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	4.0 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3277.0 mMDRT to 3385.0 mMDRT. Top of 70.3 Ma Sand picked at 3335.0 mMDRT on LWD logs.
06:00 Update	Drilling ahead at 3396.0 mMDRT in the Latrobe Group below the 70.3 Ma Sand.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3275 - 3296 ROP 2.1 – 30 m/hr Ave 8.2 m/hr	**Sandstone with minor Siltstone and Claystone** SANDSTONE (60-80%): clear to translucent, off-white, loose to friable aggregates, fine to very coarse, dominantly medium to coarse, poorly sorted, sub-rounded to angular, trace to 50% white argillaceous matrix, trace chlorite, trace lithic grains, fair to good inferred porosity, no fluorescence. SILTSTONE (10-20%): light brownish grey, brownish grey, very soft to friable, sub fissile in part, very argillaceous to arenaceous, common carbonaceous specks and flakes, gradational to Argillaceous Siltstone. CLAYSTONE (10-20%): light olive grey, light brownish grey, trace yellowish brown, very soft, amorphous, slightly calcareous, rare very fine disseminated pyrite.
3296 – 3335 ROP 2.54 – 24.69 m/hr Ave 7.85 m/hr	**Claystone with interbedded Siltstone and very minor Sandstone with trace Coal/Carbonaceous Claystone** SANDSTONE (5-20%): off-white, soft aggregates, occasional loose grains, very fine, moderately well sorted, sub-angular to rounded, 80% white argillaceous matrix, poor inferred porosity, no fluorescence. SILTSTONE (10-60%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.

	CLAYSTONE (35-85%): light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite. COAL (Trace-5%): black to dark brown, soft to very hard and splintery, grading into carbonaceous claystone, pyrite cemented in part (3m thick coal/carbonaceous claystone at 3324.0 mMDRT based on LWD logs).
3335 – 3343 ROP 1.93 – 14.7 m/hr Ave 9.39 m/hr	**Massive Sandstone** SANDSTONE (100%): clear to translucent, occasionally off white and pink, loose, occasionally cemented into small aggregates with silica cement (quartz overgrowths?), fine to very-coarse, occasionally granular, mainly medium grained, very poorly sorted, sub angular to angular, very good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence, thin (1.0 m thick) very hard/brittle cemented cap at the top of the massive sandstone at 3335.0 mMDRT identified from LWD logs.
3343 – 3385 ROP 0.8 – 25 m/hr Ave 6.4 m/hr	**Claystone and Siltstone with minor Sandstone and trace Coal/Carbonaceous Claystone** SANDSTONE (5-30%): clear to translucent, loose, very fine to fine, mainly fine grained, well sorted, sub angular to angular, white argillaceous matrix washing out in part, fair - good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence. SILTSTONE (0-70%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part. Also in 3385m sample, trace SILTSTONE dark grey, brownish black, silicified, very hard, sub blocky, occasionally completely replaced with silica, banded in part. CLAYSTONE (Trace-90%): light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite. COAL (Trace-5%): black to dark brown, soft to very hard and splintery, sub vitreous to vitreous, grading into Carbonaceous Claystone, pyrite cemented in part (thin coals/carbonaceous claystones identified at 3344.0 and 3352.0 mMDRT from LWD logs), traces of very hard pyritised fragments in part at 3380.0 mMDRT.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3275 - 3296	0.09	508	72	45	28	25	31
3296 - 3335	0.05	409	72	49	32	35	12
3335 - 3343	0.05	438	100	61	31	31	19
3343 - 3385	0.16	687	143	77	32	46	50

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2285.35	4.14	37.21		2887.70	3.86	45.65		
2314.02	4.15	34.69		2916.43	3.87	45.26		
2342.60	4.24	35.48		2944.96	3.83	45.79		
2371.30	4.20	37.23		2973.53	3.73	46.71		
2399.91	4.28	37.06		3002.19	3.72	46.75		
2428.46	4.30	38.32		3059.49	3.72	46.57		
2457.14	4.30	37.54		3088.21	3.81	46.46		
2511.27	4.09	38.40		3116.08	3.75	45.37		
2543.24	4.05	40.48		3145.07	3.74	48.33		
2572.00	4.01	40.97		3173.79	3.67	49.59		
2600.65	3.91	40.54		3202.65	3.71	48.97		
2629.39	3.86	40.58		3231.77	3.53	48.2		
2658.02	3.89	41.3		3260.37	3.66	49.86		
2686.60	3.77	41.46		3346.36	3.65	50.41		
2715.15	3.77	40.42		3375.03	3.69	54.03		
2743.83	3.80	42.10						
2772.65	3.83	43.73						
2801.66	3.84	42.76						
2830.44	3.89	43.81						
2859.14	3.95	44.31						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607	585	-	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	8	

Near 68.5 Ma Sand	3257.0	3235.0	285.0	3103.0	3078.5	156.5 H	55	
Near 70.3 Ma Sand	3542.0	3520.0	70.0	3335.0	3310.0	210.0H	8	
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances:
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	30-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	11	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3402.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3385.0 mMDRT	**ECD:**	1.22 sg
Progress:	17 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Sandy Claystone	**Mud Chlorides:**	82, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	4.0 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3385.0 mMDRT to 3402.0 mMDRT. POOH for bit trip. Downloaded LWD memory data. Made up new BHA with new PDC bit (Reed RSX 616M) and new motor. Load sources into LWD and Run into hole.
06:00 Update	RIH at 1900.0 mMDRT.
NEXT 24 HOURS:	Run into hole. Ream and Log sand from 3330m – 3350m. Wash down to 3402m. Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3385 - 3400 ROP 1.0 – 8.5 m/hr Ave 3.9 m/hr	**Argillaceous Sandstone with interbedded Sandy Claystone, Claystone and minor Siltstone** ARGILLACEOUS SANDSTONE (0-80%): dominantly white to very light grey, minor clear to translucent, dominantly very soft aggregates, minor loose grains, very fine to medium, poorly sorted, sub-angular to sub-rounded, moderate to high sphericity, trace carbonaceous material, abundant white argillaceous matrix, commonly matrix supported, gradational to Sandy Claystone, poor to fair inferred porosity, no fluorescence. CLAYSTONE (0-50%): brownish grey, light brownish grey, light grey, very soft, amorphous, silty in part, trace carbonaceous specks, rare pyrite, gradational to Argillaceous Siltstone. SILTSTONE (10%): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part. SANDY CLAYSTONE (0-60%): very light grey to white, very soft, amorphous, trace lithic fragments, 5-30% very fine well rounded quartz sand grains, grading to Argillaceous Sandstone.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3385-3398	0.1	456	73	52	33	50	16

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2285.35	4.14	37.21		2887.70	3.86	45.65		
2314.02	4.15	34.69		2916.43	3.87	45.26		
2342.60	4.24	35.48		2944.96	3.83	45.79		
2371.30	4.20	37.23		2973.53	3.73	46.71		
2399.91	4.28	37.06		3002.19	3.72	46.75		
2428.46	4.30	38.32		3059.49	3.72	46.57		
2457.14	4.30	37.54		3088.21	3.81	46.46		
2511.27	4.09	38.40		3116.08	3.75	45.37		
2543.24	4.05	40.48		3145.07	3.74	48.33		
2572.00	4.01	40.97		3173.79	3.67	49.59		
2600.65	3.91	40.54		3202.65	3.71	48.97		
2629.39	3.86	40.58		3231.77	3.53	48.2		
2658.02	3.89	41.3		3260.37	3.66	49.86		
2686.60	3.77	41.46		3346.36	3.65	50.41		
2715.15	3.77	40.42		3375.03	3.69	54.03		
2743.83	3.80	42.10						
2772.65	3.83	43.73						
2801.66	3.84	42.76						
2830.44	3.89	43.81						
2859.14	3.95	44.31						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607	585	-	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	8.0	
Near 68.5 Ma Sand	3257.0	3235.0	285.0	3103.0	3078.5	156.5 H	55	
Near 70.3 Ma Sand	3542.0	3520.0	70.0					
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (same LWD toolstring run following bit trip)
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Connection Gas recorded (% above background)
3304.0 mMDRT = 0.02%
3332.0 mMDRT = 0.06%
3361.0 mMDRT = 0.02%
3391.0 mMDRT = 0.06%

Culverin-1

Date:	31-12-2005	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	12	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3473.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3402.0 mMDRT	**ECD:**	1.22 sg
Progress:	71 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Argillaceous Sandstone, Siltstone and Coal	**Mud Chlorides:**	82, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	RIH to 3330.0 mMDRT. Logged down over sandstone at 3340.0 mMDRT. Reamed down to bottom. Commenced drilling ahead from 3402.0 mMDRT. Drilling ahead at 3473.0 mMDRT at midnight.
06:00 Update	Drilling ahead at 3524.0 mMDRT.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3400 - 3410 ROP 1.56 – 44.3 m/hr Ave 19.9 m/hr	**Siltstone with interbedded Sandy Claystone and minor Coal** SILTSTONE (70-90%): light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence. SANDY CLAYSTONE (10-30%): very light grey to white, occasionally greenish-white, soft to firm, amorphous to sub-blocky, trace lithics, 5-20% fine, well rounded quartz sand, grading into Argillaceous Sandstone, quite calcareous in part, no fluorescence. COAL (Trace): black to dark brown, soft to firm, dull to bright, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone, firmly pyrite cemented in part.
3410-3430 ROP 1.1 – 65.9 m/hr Ave 22.6 m/hr	**Argillaceous Sandstone with interbedded Siltstone** ARGILLACEOUS SANDSTONE (40-70%): white to pale grey in aggregates, mainly loose, clear to translucent when loose, friable when in rare aggregates, fine to coarse grained, mainly medium grained, poorly sorted, sub-angular to angular, abundant white argillaceous clay matrix, generally non-calcareous matrix, poor inferred visual porosity, trace pyrite, trace carbonaceous fragments and laminations, trace firm calcite cement fragments, no fluorescence.

	SILTSTONE (30-60%): light grey to light brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3430-3475 ROP 1 – 40 m/hr Ave 11 m/hr	**Siltstone with minor Argillaceous Sandstone and trace Coal** ARGILLACEOUS SANDSTONE (10-30%): clear to translucent, loose, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace pyrite, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence. SILTSTONE (70-90%): light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, grading into carbonaceous siltstone, very argillaceous, disseminated pyrite in part, no fluorescence. COAL (Trace): black to dark brown, soft to firm, dull to bright lustre, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3400-3410	0.15	2028	778	53	31	35	24
3410-3430	0.12	630	77	43	26	30	9
3430-3475	0.186	876	150	82	33	43	47
3436 PEAK	0.28	1715	207	108	32	43	44
3469 PEAK	0.308	1849	261	124	54	52	44
3473 PEAK	0.324	2435	255	90	31	38	37

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2285.35	4.14	37.21		2887.70	3.86	45.65		
2314.02	4.15	34.69		2916.43	3.87	45.26		
2342.60	4.24	35.48		2944.96	3.83	45.79		
2371.30	4.20	37.23		2973.53	3.73	46.71		
2399.91	4.28	37.06		3002.19	3.72	46.75		
2428.46	4.30	38.32		3059.49	3.72	46.57		
2457.14	4.30	37.54		3088.21	3.81	46.46		
2511.27	4.09	38.40		3116.08	3.75	45.37		
2543.24	4.05	40.48		3145.07	3.74	48.33		

2572.00	4.01	40.97		3173.79	3.67	49.59		
2600.65	3.91	40.54		3202.65	3.71	48.97		
2629.39	3.86	40.58		3231.77	3.53	48.2		
2658.02	3.89	41.3		3260.37	3.66	49.86		
2686.60	3.77	41.46		3346.36	3.65	50.41		
2715.15	3.77	40.42		3375.03	3.69	54.03		
2743.83	3.80	42.10		3404.40	3.54	54.90		
2772.65	3.83	43.73		3432.80	3.59	51.96		
2801.66	3.84	42.76		3461.32	3.48	51.53		
2830.44	3.89	43.81		3490.24	3.38	50.31		
2859.14	3.95	44.31						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	**PROGNOSED DEPTHS (m)**			**ACTUAL DEPTHS (m)**				
	MDKB	**TVDSS**	**THICK**	**MDKB**	**TVDSS**	**HI/LO**	**THICK**	**DIFF**
Sea Floor/ Gippsland Limestone	607	585	1975	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (same LWD toolstring run following bit trip)
Directional = 13.13 m
Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Trip Gas recorded following bit trip at 3402 mMDRT
21 Units TG over a background of 6 Units TG @ 3400.0 mMDRT.
C1 = 2772 ppm C2 = 379 ppm C3 = 76 ppm IC4 = 43 ppm
NC4 = 45 ppm C5 = 137 ppm

Culverin-1

Date:	1-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	13	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3571.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3473.0 mMDRT	**ECD:**	1.22 sg
Progress:	98 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone, Coal and Argillaceous Sandstone	**Mud Chlorides:**	84, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	PDC (Reed-Hycalog)

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3473.0 mMDRT to 3571.0 mMDRT. POOH for suspected washout.
06:00 Update	Pull out of the hole from 85 mMDRT and inspect BHA for washouts.
NEXT 24 HOURS:	Inspect BHA for washouts. Down load LWD. RIH and drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3475 – 3510 ROP 5.2-76 m/hr Ave 20 m/hr	**Argillaceous Sandstone, Sandstone (only at 3530m sample), Siltstone and thin Coals in an interbedded sequence.** ARGILLACEOUS SANDSTONE (40-80%): 60% white aggregates to 40% clear translucent loose grains, fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to angular, moderate sphericity, 70% white argillaceous matrix in aggregates, fair to moderate inferred porosity, no fluorescence. (3505m) SANDSTONE (70%): 50% white aggregates 50% loose grains, dominantly fine to medium, occasionally coarse, moderately well sorted, sub angular to rounded, high sphericity, common white argillaceous matrix, trace pyrite nodules and cement, good inferred porosity, no fluorescence. SILTSTONE (15-60): light brownish grey, brownish grey, off white / light brownish grey, very soft to rarely friable, very argillaceous, carbonaceous specks and carbonaceous laminae in part, slightly pyritic in part. Sample from 3490.0 mMDRT contained hard siliceous and pyritic Siltstone. COAL (Trace-5%): black, dull black, sub vitreous, firm, blocky, silty in part.
3510 – 3550 ROP 0.8-30 m/hr Ave 10 m/hr	**Argillaceous Sandstone, Siltstone and common Coal in an interbedded sequence. Trace Fluorescence present at 3515.0 mMDRT (see fluorescence summary below).** ARGILLACEOUS SANDSTONE (10-80%): white to very light grey, soft

	aggregates, trace loose grains, very fine to fine, occasional medium grains, moderately well sorted, sub-angular to angular, white argillaceous matrix to 80% (possibly weathered feldspars?), poor inferred porosity, no fluorescence (except trace at 3515.0 mMDRT see fluorescence summary below). SILTSTONE (20-90%): light brownish grey, brownish grey, light grey, very soft, rarely sub-firm, amorphous to sub-blocky, rarely sub-fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic, trace very hard black & white finely banded siliceous fragments. COAL (Trace-5%): dull black, sub vitreous, firm, brittle in part, hackly fracture, very silty in part and gradational to carbonaceous siltstone. **(Based on the LWD logs the thin coals probably make up 20% of the entire section but are under-represented in the cuttings samples).**
3550 – 3565 0.7 – 10.5 m/hr Ave 4.5 m/hr	**Dominantly Siltstone with minor Argillaceous Sandstone and thin Coals.** SILTSTONE (80-90%): light brownish grey, brownish grey, occasionally white, very soft, amorphous to dispersive, very argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments. ARGILLACEOUS SANDSTONE (10-20%): white to very light grey, loose grains, very fine to fine, occasional medium grains, well sorted, sub angular to angular, white argillaceous matrix to 80% (weathered feldspars?), poor inferred porosity, no fluorescence. COAL (Trace): dull black, sub vitreous, firm, brittle in part, hackly fracture, very silty in part and gradational to Carbonaceous Siltstone.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
3510-3515	Trace dull yellow, trace very slow cut, trace dull cream incomplete residue ring. Fluorescence occurred in white Argillaceous Sandstone.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3475 – 3510	0.75	5572	483	153	36	46	12
3510-3565	1.32	10210	904	279	69	63	26
3484 PEAK	0.86	6237	655	199	35	56	54
3501 PEAK	1.68	14751	1070	289	53	48	60
3518 PEAK	2.10	16208	1318	377	79	64	41
3533 PEAK	3.01	22869	1491	351	117	68	36
3543.5 PEAK	3.72	15315	1223	589	136	98	28

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79						
2973.53	3.73	46.71						
3002.19	3.72	46.75						
3059.49	3.72	46.57						
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607	585	1975	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (same LWD toolstring run following bit trip)
Directional = 13.13 m

Gamma-Ray = 15.73 m
Resistivity = 18.04 m
Density = 25.66 m
Porosity = 30.97 m
ACAL = 29.93 m

Culverin-1

Date:	2-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	14	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3571.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3571.0 mMDRT	**ECD:**	1.22 sg
Progress:	0 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone	**Mud Chlorides:**	82, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	Smith Rock-bit

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	POOH to surface. Changed out BHA to a rotary assembly (removed down-hole motor) and a Smith rock-bit. Completed making up new BHA with additional drill-collars and commenced RIH. BHA held up at 2100.0 mMDRT. Washed and reamed down to 2540.0 mMDRT. MWD failed at 2540.0 mMDRT. Commenced pulling out of hole to replace MWD tools and adjust BHA configuration. Pulling out at 2020.0 mMDRT at midnight.
06:00 Update	Pulling out of hole (06:00hrs at the BHA) to replace MWD tools and adjust the BHA.
NEXT 24 HOURS:	Change out MWD tools, adjust BHA configuration and RIH again to drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No cuttings returned

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)

No drilling.

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79						
2973.53	3.73	46.71						
3002.19	3.72	46.75						
3059.49	3.72	46.57						
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (note new sensor offsets with new rotary BHA)
Directional = 8.50 m
Gamma-Ray = 11.11 m
Resistivity = 13.41 m
Density = 21.03 m
Porosity = 26.35 m
ACAL = 25.31 m

Culverin-1

Date:	3-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	15	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3571.0 mMDRT	**Mud Weight:**	1.22 sg
Last Depth:	3571.0 mMDRT	**ECD:**	1.22 sg
Progress:	0 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone	**Mud Chlorides:**	82, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	Smith Rock-bit

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Continued pulling out of hole to replace LWD tools (pulser found to be damaged) and adjusted BHA configuration. Re-calibrated pressure sensors on rig floor using cementing unit. Tested new LWD toolstring and commenced RIH. Serviced top drive. Slipped & Cut drill-line at the casing shoe. Waited on the weather.
06:00 Update	Running into the hole (at 2100m) with 311 mm (12 ¼").
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
	No cuttings returned

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
	Nil.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)

No drilling.

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79						
2973.53	3.73	46.71						
3002.19	3.72	46.75						
3059.49	3.72	46.57						
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (note new sensor offsets with new tools)
Gamma Ray: 16.17m
Resistivity: 18.53m
Density: 26.13m
Porosity: 31.43m
Directional : 13.55m
Caliper : 30.39m

Culverin-1

Date:	4-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	16	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3619.0 mMDRT	**Mud Weight:**	1.21 sg
Last Depth:	3571.0 mMDRT	**ECD:**	1.22 sg
Progress:	48 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Sandstone, Siltstone, Coal	**Mud Chlorides:**	78, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.8 cc
RT Elevation:	21.5 m	**Bit Type:**	Smith Rock-bit

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	RIH to bottom and began drilling ahead 311 mm (12 ¼") hole from 3571.0 mMDRT. Drilling ahead at 3619.0 mMDRT at midnight.
06:00 Update	Drilling ahead 311 mm (12 ¼") hole at 3643.0 mMDRT.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3565 - 3590 ROP 1.1 – 20.0 m/hr Ave 5.6 m/hr	**Interbedded Siltstone and Claystone with minor Argillaceous Sandstone and thin Coals** ARGILLACEOUS SANDSTONE (5-20%): white to very light grey with carbonaceous laminations, firm to friable, very fine to fine, occasional medium grains, moderately well-sorted, sub-angular to rounded, white argillaceous matrix to 60% (weathered feldspars?), moderate inferred visual porosity, trace pyrite, abundant carbonaceous specks and laminae, glowing white residual crush cut fluorescence inferred to be from carbonaceous material, no hydrocarbon fluorescence noted from clean sand fragments. SILTSTONE (50-80%): light brownish grey to brownish grey, occasionally white, very soft to firm, amorphous to laminated, argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments, grading occasionally into brown claystone. CLAYSTONE (0-40%): very light greenish-grey, firm to moderately hard, sub-blocky to fissile, occasionally splintery shaped fragments, trace glauconite?, trace silty quartz grains, calcareous in nature. COAL (Trace-5%): black, dull black, sub vitreous, firm, blocky, silty in part.
3590 - 3620	**Interbedded Sandstone and Siltstone with thin Coals**

ROP 1.2 – 19 m/hr Ave 3.7 m/hr	SANDSTONE (30-40%): white to very light grey in aggregate form, very firm to firm, occasionally very well cemented with quartz overgrowths, very fine to coarse white to yellowish grains when loose, occasional granular grains, mainly medium-grained, poorly-sorted, sub-angular to angular, abundant white argillaceous and calcareous matrix (weathered feldspars? and calcite cement), silica cemented with quartz overgrowths in part, poor inferred visual porosity, trace pyrite, trace fractured grains, common black and dark brown carbonaceous/woody specks, pale yellow mineral fluorescence from various cements, no hydrocarbon fluorescence. SILTSTONE (60-70%): light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic. COAL (Trace): black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture, commonly pyritised.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
3575 - 3580	Moderately bright, very slow, diffuse, white, crush cut fluorescence (inferred to be from carbonaceous material associated with thin fine sand stringers), thin white residual ring. No direct UV or crush-cut UV hydrocarbon fluorescence noted from clean sand fragments.
3585 - 3590	Trace weak pale yellowish direct UV fluorescence from carbonaceous laminations.
3590 - 3595	Pale yellow direct UV fluorescence from calcite-cemented sandstone fragments, no hydrocarbon fluorescence.
3605 - 3620	Pale yellow direct UV fluorescence from silica and calcareous cemented sandstone fragments, no hydrocarbon fluorescence.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3565-3590	1.0	8183	595	229	60	57	18
3590 - 3620	0.72	5086	455	202	53	60	52
3582.0 (Peak)	3.06	24035	1391	371	109	80	15
3596.5 (Peak) Coal	4.67	35647	2135	599	145	130	22
3608.0 (Peak) Coal	5.43	32568	3929	2084	344	503	124

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79		3555.34	3.36	53.74		
2973.53	3.73	46.71		3583.83	3.00	50.85		
3002.19	3.72	46.75						
3059.49	3.72	46.57						
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (<u>note new sensor offsets with new tools</u>)
Gamma Ray: 16.17m
Resistivity: 18.53m
Density: 26.13m
Porosity: 31.43m
Directional : 13.55m

Caliper : 30.39m

Culverin-1

Date:	5-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	17	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3697.0 mMDRT	**Mud Weight:**	1.21 sg
Last Depth:	3619.0 mMDRT	**ECD:**	1.22 sg
Progress:	78 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Sandstone, Siltstone, Coal	**Mud Chlorides:**	79, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	Smith Rock-bit

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3619.0 mMDRT to 3697.0 mMDRT at midnight.
06:00 Update	Drilling ahead 311 mm (12 ¼") hole at 3718.0 mMDRT. LWD has failed deepest GR recorded 3699m.
NEXT 24 HOURS:	Drill ahead 311 mm (12 ¼") hole.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3620 - 3650 ROP 1.2 – 16.8 m/hr Ave 2.5 m/hr	**Interbedded Sandstone, Siltstone and Coal** SANDSTONE (15-65%): white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to very well cemented in part, blocky to massive, very fine to medium grained, mainly fine-grained, moderately-sorted, sub-angular to angular, common white argillaceous matrix (weathered feldspars?), common quartz overgrowths cementing sandstone, common calcareous cement, poor inferred visual porosity, common pyrite both as cement and in nodular form, trace fractured grains, trace carbonaceous specks and laminations, common pale yellow-dull orange mineral fluorescence from calcite & silica(?) cement, no hydrocarbon fluorescence. SILTSTONE (30-80%): light brownish grey, very light brownish grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, gradational to Carbonaceous Siltstone. COAL (Trace-5%): dull black, firm, brittle in part, sub vitreous to rarely vitreous in patches, occasionally pyritic.
3650 – 3667 ROP 1.5 – 9.6 m/hr Ave 4.1 m/hr	**Dominantly Siltstone with minor Sandstone and thin Coal** SANDSTONE (20-30%): white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to well-cemented in part, blocky to massive, very fine to medium grained, mainly fine-grained, poorly to moderately-sorted, sub-angular to angular, trace white argillaceous matrix

	(weathered feldspars?), trace quartz overgrowths, trace calcareous cement, poor inferred visual porosity, trace carbonaceous specks and laminations, trace pale yellow-dull orange mineral fluorescence from calcite(?) cemented fragments, no hydrocarbon fluorescence. SILTSTONE (70-80%): brownish grey to very light brownish grey, occasionally dark brown, soft to very firm, argillaceous, common fine quartz grains, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, grading into Carbonaceous Siltstone. COAL (Trace): dull black, firm, brittle in part, sub vitreous to rarely vitreous in patches, occasionally pyritic.
3667 – 3697 ROP 1.1 – 14.5 m/hr Ave 3.0 m/hr	**Interbedded Sandstone Siltstone and Coal** SANDSTONE: white to very light grey, dominantly soft to friable aggregates, also loose grains, very fine to fine, occasional medium grains, sub angular to well rounded, moderately will sorted, 5 – 80% white argillaceous matrix, occasional carbonaceous grains and siltstone lithics, poor to fair porosity, no fluorescence. SILTSTONE: light brownish grey, very soft to sub firm, amorphous to sub blocky, occasionally sub fissile when carbonaceous, commonly carbonaceous grains and laminae, very argillaceous, trace pyrite, intercalated with very fine sandstone. COAL: dull black, sub vitreous, firm, brittle in part, hackly fracture, silty.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
3620 – 3625	Trace – 5% dull yellow mineral fluorescence from the calcareous cement.
3625 – 3630	Trace – 10% dull yellow mineral fluorescence from the calcareous cement.
3645 – 3650	Common (5%) pale yellow-dull orange mineral fluorescence from calcite/silica cement, no hydrocarbon fluorescence.
3670 – 3690	Trace pale yellow-dull orange calcite/silica? Mineral fluorescence.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3620 -3650	0.96	6049	693	431	99	150	43
3650- 3667	0.82	6625	637	360	91	132	99
3667 - 3697	0.44	2345	276	197	66	86	80

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		

2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79		3555.34	3.36	53.74		
2973.53	3.73	46.71		3583.83	3.00	50.85		
3002.19	3.72	46.75		3641.38	2.98	50.16		
3059.49	3.72	46.57						
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	**PROGNOSED DEPTHS (m)**			**ACTUAL DEPTHS (m)**				
	MDKB	**TVDSS**	**THICK**	**MDKB**	**TVDSS**	**HI/LO**	**THICK**	**DIFF**
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H		
Near 74 Ma Sand	Not prog							
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (<u>note new sensor offsets with new tools</u>)
Gamma Ray: 16.17m
Resistivity: 18.53m
Density: 26.13m
Porosity: 31.43m
Directional : 13.55m
Caliper : 30.39m

Culverin-1

Date:	6-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	18	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3758.0 mMDRT	**Mud Weight:**	1.21 sg
Last Depth:	3697.0 mMDRT	**ECD:**	1.22 sg
Progress:	61 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone and minor Sandstone.	**Mud Chlorides:**	79, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.6 cc
RT Elevation:	21.5 m	**Bit Type:**	Smith Rock-bit

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled ahead from 3697.0 mMDRT to a midnight well TD of 3758.0 mMDRT.
06:00 Update	Recording LWD Wipe from 3575.0 – 3630.0 mMDRT.
NEXT 24 HOURS:	Circulated bottoms up from TD at 3758m. Carried out LWD Recorded Wipe from 3575.0 – 3630.0 mMDRT. POOH and down load LWD. Rig up to run Wireline logs. Run (1) PEX-HALS-DSI-GR Run (2) VSI-4.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
3697 - 3725 ROP 1.6 – 34 m/hr Ave 4.1 m/hr	**Interbedded Sandstone, Siltstone, Coal and minor Dolomite** SANDSTONE (5-70%): white to light brownish grey in fragments, occasionally speckled black and white (due to abundant carbonaceous specks), translucent to white as loose grains, dominantly very fine to fine, very occasionally medium to coarse grained, sub-angular to angular, moderately well-sorted, common white argillaceous matrix in part, trace pyrite, trace calcareous cement in part, trace to common carbonaceous specks, poor inferred visual porosity, trace dull yellow-orange calcite mineral fluorescence, trace mineral(?) fluorescence giving only dull yellow crush-cut residue ring under UV light, grading into coarse brown carbonaceous siltstone. **(Very Poor Show in sample at 3725m - Trace dull yellow, pinpoint, no direct cut, trace crush cut, trace light green / cream broken residue ring.)** SILTSTONE (30-95%): light to dark brownish-grey, soft to firm, amorphous to fissile in parts, very argillaceous, common carbonaceous grains and laminations, very fine sand grains in part, trace pyrite, grading to fine sandstone. COAL (Trace-5%): dull black, sub-vitreous, firm, brittle in part, hackly fracture, silty.

	DOLOMITE (Trace-5%): dark yellowish brown, hard, blocky, sub-conchoidal fracture in part, cryptocrystalline, trace pyrite, trace dull yellow mineral fluorescence.
3725 – 3758 ROP 1.0 – 14 m/hr Ave 2.3 m/hr	**Dominantly Siltstone interbedded with Sandstone and Coal** SILTSTONE (60-80%): light to dark brownish-grey, soft to firm, amorphous to rarely sub blocky, very argillaceous, common carbonaceous grains and laminations, trace very fine sand grains in part, trace pyrite, grading to very fine silty sandstone. SANDSTONE (10-40%): white to light grey, occasionally speckled white / black when carbonaceous, soft to very soft aggregates, very fine to fine, rarely medium, sub-angular to rounded, high sphericity, common carbonaceous grains in part, 5 – 80% white argillaceous (weathered feldspar?) matrix, poor porosity, trace dull yellow mineral fluorescence. COAL (tr-5%): dull black, sub vitreous, firm, brittle in part, hackly fracture, silty.

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
3720 - 3725	Trace dull yellow, pinpoint, no direct cut, trace crush cut, trace light green / cream broken residue ring. **(Very Poor Show)**
3725 - 3730	Trace dull yellow mineral fluorescence.
3740 - 3745	Trace mineral(?) fluorescence giving only dull yellow crush-cut residue ring under UV light.
3745 - 3758	Yellow-white and dull orange-yellow direct UV mineral fluorescence only.

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
3697 - 3725	0.35	1882	246	181	55	77	79
3725 - 3758	0.39	2302	249	192	53	80	69
3705 (PEAK) Coal	0.63	3506	383	234	70	99	88
3740 (PEAK) Coal	0.87	6001	523	314	80	103	83
3751.5 (PEAK) Coal	2.558	19427	1068	380	89	110	37

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		

2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79		3555.34	3.36	53.74		
2973.53	3.73	46.71		3583.83	3.00	50.85		
3002.19	3.72	46.75		3641.38	2.98	50.16		
3059.49	3.72	46.57		3758	2.98	50.16	Projected	
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	**PROGNOSED DEPTHS (m)**			**ACTUAL DEPTHS (m)**				
	MDKB	**TVDSS**	**THICK**	**MDKB**	**TVDSS**	**HI/LO**	**THICK**	**DIFF**
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H		
Near 74 Ma Sand	Not prog	-	-	-	-	-	-	-
TD	3612.0	3590.0						

- **COMMENTS:**

Sperry-Sun LWD sensor to bit distances: (<u>note new sensor offsets with new tools</u>)
Gamma Ray: 16.17m
Resistivity: 18.53m
Density: 26.13m
Porosity: 31.43m
Directional : 13.55m
Caliper : 30.39m

LWD failed at 3700.00 mMDRT. Drilled ahead to TD without Realtime LWD data.

Culverin-1

Date:	7-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	19	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3758.0 mMDRT (TD)	**Mud Weight:**	1.21 sg
Last Depth:	3758.0 mMDRT	**ECD:**	n/a wireline logging
Progress:	0 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone and minor Sandstone.	**Mud Chlorides:**	79, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.8 cc
RT Elevation:	21.5 m	**Bit Type:**	n/a wireline logging

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Reached TD 3758.0 mMDRT at 24:00 hrs on the 6-01-06. Pulled out to wipe/re-log section from 3575.0 – 3630.0 mMDRT with LWD tools. POOH. Remove nuclear sources from LWD, down load data and lay out LWD tools. Rig up for wireline logging. Run into the hole, Run (1) PEX-HALS-DSI-GR.
06:00 Update	Commence rigging up tools for Wireline Run (2) VSI-4-GR.
NEXT 24 HOURS:	Continue wireline logging program. Run (2) VSI-4

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
No drilling	

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
No drilling	

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
No drilling							

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79		3555.34	3.36	53.74		
2973.53	3.73	46.71		3583.83	3.00	50.85		
3002.19	3.72	46.75		3641.38	2.98	50.16		
3059.49	3.72	46.57		3758.00	2.98	50.16	Projected	
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WIRELINE SUMMARY:**

Operations Diary					**Culverin-1**
Date	From	To	Total	NPT (w/o)	Remarks
					Weak Point Used: 6700-7300 lbs (Blue)
7/Jan/06	19:30	19:45	0:15		JSA on rig floor. Tide 0.5m
	19:45	20:35	0:50		Pick up sheaves (delay with rig compensator sheave).
	20:35	21:15	0:40		Pick up tools.
	21:15	21:33	0:18		Load sources.(Run in hole).
	21:33	22:23	0:50		RIH to casing shoe. (Compensate on the way at 100m).
	22:23	23:30	1:07		RIH (Record down-log as precaution but at higher speed-8000ft/hr).
8/Jan/06	23:30	0:10	0:40		Repeat section at 1800ft/hr. (Put on depth.) stretch correction 2.0m
	0:10	2:08	1:58		Log Main-pass from TD (3757m wireline) 1800ft/hr at high-res (On depth). Stretch correction 2.2m
	2:08	3:35	1:27		Log up at 3478ft/hr with standard res from 2775m
	3:35	4:30	0:55		GR to seafloor from 1511m (340mm casing shoe).
	4:30	4:55	0:25		POOH to surface.
	4:55	5:15	0:20		Unload sources.
	5:15	6:00	0:45		Rig down tools. Thermometers 87.8C, 88.9C, 88.9C

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H	-	-
Near 74 Ma Sand	Not prog	-	-	-	-	-	-	-
TD	3612.0	3590.0	-	3758.0	3732.4	-	-	-

Culverin-1

Date:	8-01-2006	**Last Casing:**	340 mm (13 3/8") @ 1511.14 mMDRT
Report Number:	20	**Leak Off Test:**	1.89 sg EMW @ 1528.0 mMDRT
Report Period:	24hrs to 24:00	**Current hole size:**	311 mm (12 1/4")
Depth @ 2400 Hrs:	3758.0 mMDRT (TD)	**Mud Weight:**	1.21 sg
Last Depth:	3758.0 mMDRT	**ECD:**	N/A Wireline Logging
Progress:	0 m	**Mud Type:**	KCl-NaCl-Polymer
TD Lithology:	Siltstone and minor Sandstone.	**Mud Chlorides:**	79, 000 ppm
Water Depth:	585.0 m	**Mud Fluid Loss:**	3.8 cc
RT Elevation:	21.5 m	**Bit Type:**	N/A Wireline Logging

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Ran PEX-HALS-DSI-GR. Rigged up VSI-4 toolstring and commenced seismic survey. Completed VSI-4 seismic survey and rigged down wireline. Commenced P & A program.
06:00 Update	**This is the final DGR on Culverin-1 (P & A Well).**
NEXT 24 HOURS:	Continue with P&A program.

GEOLOGICAL SUMMARY

- **LITHOLOGIC DESCRIPTION:**

Interval mMDRT	Description
No drilling	

- **HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
No drilling	

- **GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	C5 (ppm)
No drilling							

- **SURVEYS**

MD	ANGLE	Azi		MD	ANGLE	Azi		
2743.83	3.80	42.10		3375.03	3.69	54.03		
2772.65	3.83	43.73		3404.40	3.54	54.90		
2801.66	3.84	42.76		3432.80	3.59	51.96		
2830.44	3.89	43.81		3461.32	3.48	51.53		
2859.14	3.95	44.31		3490.24	3.38	50.31		
2887.70	3.86	45.65		3519.26	3.32	50.11		
2916.43	3.87	45.26		3547.59	3.32	49.95		
2944.96	3.83	45.79		3555.34	3.36	53.74		
2973.53	3.73	46.71		3583.83	3.00	50.85		
3002.19	3.72	46.75		3641.38	2.98	50.16		
3059.49	3.72	46.57		3758.00	2.98	50.16	Projected	
3088.21	3.81	46.46						
3116.08	3.75	45.37						
3145.07	3.74	48.33						
3173.79	3.67	49.59						
3202.65	3.71	48.97						
3231.77	3.53	48.2						
3260.37	3.66	49.86						
3346.36	3.65	50.41						
3375.03	3.69	54.03						

- **WELLSITE GEOLOGISTS:**

Mike Woodmansee **Rob Blackmore**

- **FORMATION TOPS**

WD = 585.0 m
RTE = 21.5 m

FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	607.0	585.0	1975.0	606.5	585.0	0.0	1899.9	0.0
Lakes Entrance	2582.0	2560.0	325.0	2508.0	2484.9	75.1 H	315.1	-10.0
Latrobe	2907.0	2885.0	30.0	2824.0	2800.0	85.0 H	11.0	-19.0
Base TF Channel	2937.0	2915.0	10.0	2835.0	2811.0	104.0 H	1.0	-8.0
Top 67.5 Ma Sand	2947.0	2925.0	310.0	2836.0	2812.0	113.0 H	266.5	-43.5
Near 68.5 Ma Sand	3257.0	3235.0	226.0	3103.0	3078.5	156.5 H	374.3	-148.3
Near 70.3 Ma Sand	3482.5	3461.0		3478.0	3452.8	8.2 H	-	-
Near 74 Ma Sand	Not prog	-	-	-	-	-	-	-
TD	3612.0	3590.0	-	3758.0	3732.4	-	-	-

APPENDIX 10

CUTTINGS DESCRIPTIONS

]Culverin-1 Lithology / Show Descriptions

Interval (m) From	To	%	Lithology / Show Description
			From mudline to 1525m, well drilled without riser, all returns to the seafloor. All depths are MDRT unless otherwise specified. 311mm hole section was drilled with a PSD bit motor combination, KCl-NaCl-Polymer mud system was used.
1525	1530	100	ARGILLACEOUS CALCILUTITE: light to medium brownish-grey, occasionally olive grey, soft to rarely firm, amorphous to very rarely sub-blocky, trace arenaceous grains, common forams, common fossil fragments, strongly calcareous, trace pyrite, trace black carbonaceous specks.
		Tr	DOLOMITE: light brown to yellowish-brown, hard to very hard, conchoidal fracture, trace forams visible within matrix, reacts weakly to acid when crushed.
			Calcimetry: 61% Calcite / 0% Dolomite
			(Abundant metal shavings in cuttings from stabilisers passing through casing shoe).
1530	1560	100	ARGILLACEOUS CALCILUTITE: light grey to very light grey, light olive grey, very soft to soft, trace calcareous silt and sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils.
			Calcimetry: 62% Calcite / 0% Dolomite
1560	1590	100	CALCILUTITE: light grey to very light grey, light olive grey, very soft to soft, trace calcareous silt and sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils, gradational to very fine to fine Calcarenite.
			Calcimetry: 84% Calcite / 0% Dolomite
1590	1620	100	ARGILLACEOUS CALCILUTITE: light olive grey, light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils (forams, echinoids), gradational to very fine to fine Calcarenite.
			Calcimetry: 56% Calcite / 0% Dolomite
1620	1650	90	ARGILLACEOUS CALCILUTITE: light olive grey, light grey, rare medium light grey, very soft to soft, trace calcareous sand grains, sub blocky to amorphous, trace carbonaceous specks, trace very fine pyrite patches, trace micro fossils (forams, echinoids).
			Calcimetry: 60% Calcite / 0% Dolomite
		10	CALCARENITE: light olive grey, soft, sub blocky, very fine to fine grained, moderately well sorted, rounded, common to abundant calcareous argillaceous matrix, poor visible porosity.
1650	1680	60	ARGILLACEOUS CALCILUTITE: as above
			Calcimetry: 68% Calcite / 0% Dolomite
		40	CALCARENITE: light olive grey, soft to firm, sub blocky, very fine to fine grained, moderately well sorted, rounded, common to abundant calcareous argillaceous matrix, poor visible porosity.
1680	1710	80	ARGILLACEOUS CALCILUTITE: as above
			Calcimetry: 67% Calcite / 0% Dolomite
		20	CALCARENITE: as above
1710	1740	100	ARGILLACEOUS CALCILUTITE: light olive grey to light grey, soft, sub blocky, common very fine to fine calcareous sand grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils.
			Calcimetry: 69% Calcite / 0% Dolomite

Interval (m) From	To	%	Lithology / Show Description
1740	1770	100	ARGILLACEOUS CALCILUTITE: light olive grey to light grey, occasionally slightly yellowish grey, soft to sub firm, sub blocky, common very fine to fine calcareous sand grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine to fine Calcarenite.
			Calcimetry: 75% Calcite / 0% Dolomite
1770	1800	100	CALCILUTITE: as above
			Calcimetry: 98% Calcite / 0% Dolomite
1800	1830	100	CALCILUTITE: light olive-grey to light grey, occasionally pale yellowish-grey, soft to moderately firm, occasionally firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine to fine Calcisiltite.
1830	1860	100	CALCILUTITE: as above
1860	1890	100	CALCILUTITE: as above
			Calcimetry: 89% Calcite / 0% Dolomite
1890	1920	100	CALCILUTITE: light olive-grey to light grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine to fine Calcisiltite.
		Tr	DOLOMITE: light brown to yellowish-brown, hard to very hard, conchoidal fracture, trace forams visible within matrix, reacts weakly to acid when crushed.
			Calcimetry: 80% Calcite / 0% Dolomite
1920	1950	100	CALCILUTITE: as above
			Calcimetry: 80% Calcite / 0% Dolomite
1950	1980	100	CALCILUTITE: light olive-grey to medium olive-grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine to fine Calcisiltite and Calcarenite, trace splintery light brown dolomite (?) fragments.
			Calcimetry: 95% Calcite / 0% Dolomite
1980	2010	70	CALCILUTITE: as above
			Calcimetry: 85% Calcite / 0% Dolomite
		30	CALCARENITE: light olive grey, soft to firm, sub-blocky, very fine to fine grained, moderately well sorted, rounded grains, common to abundant calcareous argillaceous matrix, poor visible porosity.
2010	2040	100	CALCILUTITE: light to medium greenish-grey, commonly olive grey, occasionally pale yellowish-grey, soft to very soft, rarely firm, amorphous to sub-blocky, common very fine to fine calcareous silt grains, trace carbonaceous specks, trace very fine pyrite, trace microfossils, gradational in part to very fine Calcisiltite and Calcarenite, trace splintery light brown dolomite (?) fragments.
			Calcimetry: 95% Calcite / 0% Dolomite
2040	2070	100	CALCILUTITE: as above gradational to ARGILLACEOUS CALCILUTITE.
			Calcimetry: 79% Calcite / 0% Dolomite
2070	2100	100	CALCILUTITE: as above gradational to ARGILLACEOUS CALCILUTITE.
			Calcimetry: 78% Calcite / 0% Dolomite
2100	2130	100	CALCLUTITE: light olive grey, very soft – rarely firm, sub blocky to amorphous, trace calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite associated with organic matter.
			Calcimetry: 81% Calcite / 0% Dolomite

Interval (m) From	To	%	Lithology / Show Description
2130	2160	100	CALCLUTITE: light olive grey, very soft – rarely firm, sub blocky to amorphous, trace calcareous silt and trace to common very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite associated with organic matter.
			Calcimetry: 81% Calcite / 0% Dolomite
2160	2190	100	CALCLUTITE: light olive grey, occasionally light brownish grey, rare medium grey patches, very soft – rarely firm, sub blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite associated with organic matter. Gradational in part to CALCISILTITE.
			Calcimetry: 82% Calcite / 0% Dolomite
2190	2220	80	CALCLUTITE: light olive grey, occasionally light brownish grey, rare medium grey patches, very soft – rarely firm, sub blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite.
			Calcimetry: 77% Calcite / 0% Dolomite
		20	CALCISILTITE: olive grey, brownish grey, soft to firm, friable in part, sub blocky, trace very fine calcareous sand, trace carbonaceous specks.
2220	2250	90	CALCLUTITE: as above.
			Calcimetry: 84% Calcite / 0% Dolomite
		10	CALCISILTITE: as above
2250	2280	80	CALCLUTITE: as above.
			Calcimetry: 81% Calcite / 0% Dolomite
		20	CALCISILTITE: as above
2280	2310	80	CALCLUTITE: light olive grey, light brownish grey, very soft – rarely firm, sub blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite.
			Calcimetry: 81% Calcite / 0% Dolomite
		20	CALCISILTITE: olive grey, brownish grey, soft to firm, friable in part, sub blocky, trace very fine calcareous sand, trace carbonaceous specks.
2310	2340	90	CALCLUTITE: as above.
			Calcimetry: 90% Calcite / 0% Dolomite
		10	CALCISILTITE: as above.
2340	2370	95	ARGILLACEOUS CALCLUTITE: light brownish-grey, very pale olive grey in part, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace very fine green glauconite grains, trace microfossils, trace very fine pyrite, approximately 15 % clay material remaining after acid dissolution.
			Calcimetry: 77% Calcite / 0% Dolomite
		5	CALCISILTITE: olive grey to brownish grey, soft to firm, friable in part, sub-blocky, trace very fine calcareous sand, trace carbonaceous specks.
2370	2400	80	ARGILLACEOUS CALCLUTITE: light brownish-grey, rarely light olive grey, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace very fine green glauconite grains, trace microfossils, trace very fine pyrite, 15% clay content.
			Calcimetry: 75% Calcite / 0% Dolomite
		20	CALCISILTITE: olive grey to brownish grey, soft to firm, friable in part, sub-blocky, trace very fine calcareous sand, trace carbonaceous specks.

Interval (m) From	To	%	Lithology / Show Description
2400	2430	80	ARGILLACEOUS CALCLUTITE: light brownish-grey, rarely light olive grey, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite, 15% clay content. *Calcimetry: 68% Calcite / 0% Dolomite*
		20	CALCISILTITE: olive grey to brownish grey, soft to firm, friable in part, sub-blocky, trace very fine calcareous sand, trace carbonaceous specks.
		Tr	CALCARENITE: light olive grey, soft to firm, sub-blocky, very fine to fine grained, moderately well sorted, rounded grains, common to abundant calcareous argillaceous matrix, common fine glauconite grains, poor visual porosity.
2430	2460	70	ARGILLACEOUS CALCLUTITE: light brownish-grey, rarely light olive grey, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite, 15% clay content. *Calcimetry: 76% Calcite / 0% Dolomite*
		30	CALCARENITE: light brownish-grey, firm to moderately hard, sub-blocky, very fine to fine grained, moderately well sorted, angular grains, common to abundant calcareous argillaceous matrix, common fine glauconite grains, poor visual porosity.
2460	2490	95	ARGILLACEOUS CALCLUTITE: light brownish-grey, rarely light olive grey, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite, 15% clay content. *Calcimetry: 78% Calcite / 0% Dolomite*
		5	CALCARENITE: light brownish-grey, firm to moderately hard, sub-blocky, very fine to fine grained, moderately well sorted, angular grains, common to abundant calcareous argillaceous matrix, common fine glauconite grains, poor visual porosity.
2490	2520	60	ARGILLACEOUS CALCLUTITE: light brownish-grey, rarely light olive grey, very soft to rarely firm, sub-blocky to amorphous, common calcareous silt and very fine calcareous sand, trace carbonaceous specks, trace microfossils, trace very fine pyrite, 15% clay content.
		40	CALCAREOUS CLAYSTONE: light grey to medium grey, very soft to soft, sub-blocky to amorphous, occasionally cuttings show fine laminations, trace carbonaceous specks, trace microfossils, trace very fine pyrite grains and occasionally disseminated pyrite in patches. *Calcimetry: 35% Calcite / 0% Dolomite*
2520	2550	100	CALCAREOUS CLAYSTONE: light grey to medium grey, very soft to firm, sub-blocky to amorphous, occasionally cuttings show fine laminations, trace carbonaceous specks, trace microfossils, trace very fine pyrite grains and occasionally disseminated pyrite in patches, 50% siliceous clay component. *Calcimetry: 40% Calcite / 0% Dolomite*
2550	2580	100	CALCAREOUS CLAYSTONE: light to medium grey, very soft to soft, sub-blocky to amorphous, occasionally cuttings show fine laminations, trace carbonaceous specks, trace microfossils, trace very fine pyrite grains and occasionally disseminated pyrite in patches. *Calcimetry: 38% Calcite / 0% Dolomite*
2580	2610	100	CALCAREOUS CLAYSTONE: light to medium grey, soft, sub blocky to blocky, trace very fine pyretic patches, occasional medium grey silty patches, rare carbonaceous specks. *Calcimetry: 37% Calcite / 0% Dolomite*

Interval (m) From	To	%	Lithology / Show Description
2610	2640	100	CALCAREOUS CLAYSTONE: light grey, soft, sub blocky to blocky, trace very fine pyritic patches, rare carbonaceous specks, trace very fine glauconite, homogenous.
			Calcimetry: 38% Calcite / 0% Dolomite
2640	2670	90	CALCAREOUS CLAYSTONE: light grey, soft, sub blocky to blocky, trace very fine pyrite, rare carbonaceous specks, trace very fine glauconite, homogenous.
			Calcimetry: 80% Calcite / 0% Dolomite
		10	CALCILUTITE: olive grey, firm, brittle in part, blocky, cryptocrystalline, trace calcareous silt and rare calcareous sand grains, rare dark lithic grains
2670	2700	90	CALCAREOUS CLAYSTONE: as above.
			Calcimetry: 40% Calcite / 0% Dolomite
		10	CALCILUTITE: olive grey, firm, brittle in part, blocky, cryptocrystalline, trace calcareous silt and rare to common very fine calcareous sand grains, rare dark lithic grains, trace disseminated glauconite, trace very fine pyrite, gradational to CALCARENITE.
2700	2730	50	CALCAREOUS CLAYSTONE: as above.
		50	CALCILUTITE: very light grey, light olive grey, rare yellowish brown, very soft to sub firm, sub blocky, trace to locally common very fine calcareous sand, microfossils (forams), trace very fine disseminated pyrite, trace glauconite.
			Calcimetry: 91% Calcite / tr% Dolomite
		Tr	DOLOMITE: orange brown, firm, brittle, blocky, commonly angular and splintery, cryptocrystalline, slightly argillaceous in part.
		Tr	SANDSTONE: clear to white, loose to soft aggregates, medium to rarely coarse, well sorted, sub angular, high sphericity, minor white argillaceous matrix, trace glauconite, fair inferred porosity, no fluorescence no hydrocarbon shows.
2730	2760	100	ARGILLACEOUS CALCILUTITE: light olive grey, occasionally medium light grey, very soft – soft, sub blocky, homogenous, trace glauconite, trace very fine disseminated pyrite.
			Calcimetry:26% Calcite / nil% Dolomite
2760	2790	100	CLAYSTONE: light olive grey, occasionally medium light grey, very soft – soft, sub blocky, homogenous, trace calcareous silt and very fine sand in part, trace glauconite, trace very fine disseminated pyrite. (Trace Argillaceous Calcilutite).
			Calcimetry:6% Calcite / nil% Dolomite
2790	2800	100	CLAYSTONE: as above (move to 10m samples)
2800	2810	100	CLAYSTONE: as above
2810	2820	100	CLAYSTONE: light olive grey, occasionally medium light grey, very soft – soft, sub blocky, homogenous, trace calcareous silt and very fine sand in part, trace glauconite, trace very fine disseminated pyrite.
			Calcimetry:19% Calcite / nil% Dolomite
			(Cannot catch 5m samples due to high ROPs—stick to 10m samples).
2820	2830	70	SILTSTONE: light brown to brownish-grey, soft to firm, occasionally very amorphous and reddish brown, generally massive to sub-blocky, common, glauconite grains, trace mica and black carbonaceous specks, trace pyrite, grading into fine sandstone.
			Calcimetry:16% Calcite / nil% Dolomite
		30	ARGILLACEOUS CALCILUTITE: light olive grey, occasionally medium light grey, very soft – soft, sub blocky, homogenous, trace calcareous silt and very fine sand in part, trace glauconite, trace very fine disseminated pyrite.
2830	2840	70	SANDSTONE: clear to translucent, loose, very fine to very coarse, very poorly sorted, sub-angular to sub-rounded grains, trace glauconite, trace pyrite, trace argillaceous matrix, very good inferred porosity, no fluorescence.

Interval (m) From	To	%	Lithology / Show Description
		30	SILTSTONE: light brown to brownish-grey, soft to firm, occasionally very amorphous and reddish brown, generally massive to sub-blocky, common, glauconite grains, trace mica and black carbonaceous specks, trace pyrite, grading into fine sandstone.
2840	2850	90	SANDSTONE: clear to translucent, loose, very fine to very coarse, very poorly sorted, sub-angular to sub-rounded grains, trace glauconite, trace pyrite, trace argillaceous matrix, very good inferred porosity, no fluorescence.
		10	SILTSTONE: light brown to brownish-grey, soft to firm, occasionally very amorphous and reddish brown, generally massive to sub-blocky, common, glauconite grains, trace mica and black carbonaceous specks, trace pyrite, grading into fine sandstone.
2850	2860	60	SANDSTONE: clear to translucent occasionally yellow and pink, loose, very fine to medium grained, mainly fine, very poorly sorted, sub-angular to rounded grains, very rare glauconite, common pyrite, trace argillaceous matrix, good inferred porosity, no fluorescence.
		40	SILTSTONE: light grey to white, soft to friable, occasionally firm, common loose grains, trace mica and black carbonaceous specks, common pyrite, grading into fine sandstone.
2860	2870	80	ARGILLACEOUS SILTSTONE: light grey to white, very soft to friable, occasionally firm, common loose grains of quartz, trace mica and black carbonaceous specks, common pyrite, grading into fine sandstone.
		20	SILTSTONE: light grey to white, soft to friable, occasionally firm, common loose grains, trace mica and black carbonaceous specks, common pyrite, grading into fine sandstone.
2870	2875	100	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into fine sandstone.
2875	2880	90	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into fine sandstone.
		10	CLAYSTONE: light grey, very soft to soft, trace mica and black carbonaceous specks, common pyrite, grading into fine siltstone.
2880	2890	20	SANDSTONE: clear to translucent occasionally yellow, loose, very fine to coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, no fluorescence.
		80	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into fine sandstone.
2890	2900	95	SANDSTONE: clear to translucent occasionally yellow, loose, very fine to coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into fine sandstone.
2900	2910	80	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into fine sandstone.
		20	SILTY CLAYSTONE: light grey, very soft to soft, trace mica and black carbonaceous specks, common pyrite, grading into fine siltstone.
2910	2920	70	ARGILLACEOUS SILTSTONE: medium grey to white, very soft to amorphous, very rarely firm, common loose grains of fine quartz silt, trace mica and black carbonaceous specks, common pyrite, abundant amorphous white clay matrix inferred, grading into silty claystone with depth.
		30	SILTY CLAYSTONE: light grey, very soft to soft, trace mica and black carbonaceous specks, common pyrite, becoming more dominant with depth.

Interval (m) From	To	%	Lithology / Show Description
2920	2930	100	SILTY CLAYSTONE: light grey, very soft to soft, amorphous to sub-blocky, trace mica and common black carbonaceous specks, common fine rounded-angular quartz silt, common pyrite.
2930	2940	90	CLAYSTONE: light grey, very soft to soft, amorphous to sub-blocky, trace mica and common black carbonaceous specks, non-calcareous, trace fine rounded-angular quartz silt, common pyrite.
		10	SILTY CLAYSTONE: light grey, very soft to soft, amorphous to sub-blocky, trace mica and common black carbonaceous specks, common fine rounded-angular quartz silt, common pyrite.
2940	2950	100	CLAYSTONE: light grey, very soft to soft, amorphous to dispersive, trace mica and common black carbonaceous specks, non-calcareous, trace fine rounded-angular quartz silt, common pyrite.
2950	2960	100	SILTY CLAYSTONE: light to medium grey, occasionally brown and firmer, very soft to firm in part, amorphous to dispersive, trace mica and common black carbonaceous specks, weakly-calcareous in parts (may be cavings?), common pyrite, trace green glauconite grains and greenish stain on some fragments.
2960	2970	10	SANDSTONE: clear to translucent, occasionally yellow, loose, very fine to medium grained, mainly fine grained, poorly sorted, sub-angular to rounded grains, common pyrite, moderate inferred porosity, common argillaceous matrix, no fluorescence.
		90	SILTY CLAYSTONE: light to medium grey, very soft, amorphous to dispersive, trace mica and common black carbonaceous specks, common pyrite, calcareous in part, trace light brown calcite/dolomite-cemented fragments, trace pyrite, trace glauconite.
2970	2980	40	SANDSTONE: clear to translucent, occasionally yellow, loose, very fine to medium grained, mainly fine grained, poorly sorted, sub-angular to rounded grains, common pyrite, moderate inferred porosity, common argillaceous matrix, no fluorescence.
		60	SILTY CLAYSTONE: light to medium grey, very soft, amorphous to dispersive, trace mica and common black carbonaceous specks, common pyrite, calcareous in part, trace light brown calcite/dolomite-cemented fragments, trace pyrite, trace glauconite.
		Tr	CARBONACEOUS CLAYSTONE: black to medium grey, firm to moderately hard, sub-blocky to blocky, laminated into dark and light coloured layers in part, grading into silty claystone.
2980	2990	100	SANDSTONE: clear to translucent, occasionally yellow and white, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, trace argillaceous matrix, no fluorescence.
2990	3000	100	SANDSTONE: clear to translucent, occasionally yellow and white, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, very good inferred porosity, common argillaceous matrix, no fluorescence.
3000	3010	100	SANDSTONE: as above (no shows)
3010	3020	100	SANDSTONE: clear to translucent, occasionally yellow and white to grey, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, loose and cementing grains in rare cases, very good inferred porosity, no fluorescence.
3020	3030	100	SANDSTONE: as above (no shows)
3030	3040	100	SANDSTONE: as above (no shows)
3040	3050	100	SANDSTONE: clear to translucent, occasionally yellow and white to grey, loose, very fine to very coarse grained, mainly medium grained, very poorly sorted, sub-angular to rounded grains, common pyrite, loose and cementing grains in rare cases, very good inferred porosity, no fluorescence.
		Tr	CLAYSTONE: light grey, very soft to soft, amorphous to dispersive, trace mica and common black carbonaceous specks, non-calcareous, trace fine rounded-angular quartz silt, common pyrite.
3050	3060	100	SANDSTONE: as above (no shows)
3060	3070	100	SANDSTONE: as above (no shows)

Interval (m) From	To	%	Lithology / Show Description
3070	3080	90	SANDSTONE: clear to translucent, rare hard aggregates, fine – very coarse, sub angular to well rounded, poorly sorted, trace pyrite cement, trace white argillaceous matrix washing out, very good inferred porosity, no fluorescence.
		10	CLAYSTONE: medium grey, greyish brown, very soft, sub blocky to amorphous, silty in part, trace carbonaceous, very fine pyrite in part, micro mica, gradational in part to Argillaceous Siltstone.
3080	3090	90	SANDSTONE: as above (no shows)
		10	CLAYSTONE: as above (no shows)
3090	3100	80	SANDSTONE: clear to translucent, medium to very coarse, sub angular to well rounded, hi-sphericity, moderately sorted, trace pyrite cement and nodules, very good porosity, no fluorescence.
		20	CLAYSTONE: light grey, brownish grey, very soft, sub blocky to dominantly amorphous, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.
3100	3110	90	SANDSTONE: clear to translucent, fine to very coarse, dominantly medium to very coarse, sub angular to well rounded, hi-sphericity, moderately sorted, trace pyrite cement and nodules, very good porosity, no fluorescence.
		10	CLAYSTONE: light grey, brownish grey, very soft, sub blocky to dominantly amorphous, arenaceous in part, carbonaceous specks, very silty in part, pyritic in part, gradational to Argillaceous Siltstone.
		tr	SILTSTONE: brownish grey, very soft, sub blocky, common carbonaceous specks, very argillaceous, micro mica.
3110	3120	90	SANDSTONE: as above
		10	CLAYSTONE: as above
		tr	SILTSTONE: as above
3120	3130	100	SANDSTONE: clear, medium to coarse, occasionally very coarse, sub angular to well rounded, hi-sphericity, moderately well sorted, trace pyrite cement, very good inferred porosity, no fluorescence.
3130	3140	100	SANDSTONE: clear, rare yellow / brown grains, medium to very coarse, dominantly coarse, sub angular to well rounded, hi-sphericity, well sorted, trace pyrite cement, trace strong siliceous cement, very good inferred porosity, no fluorescence.
3140	3150	95	SANDSTONE: clear to light grey, loose to very hard aggregates, medium to very coarse, poorly sorted, occasional very hard pyrite cement, good inferred porosity in loose component, poor visual porosity in aggregates, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: brownish grey, very soft to amorphous, trace carbonaceous specks, micro mica.
3150	3155	95	SANDSTONE: as above.
		5	ARGILLACEOUS SILTSTONE: as above.
3155	3160	80	SANDSTONE: as above.
		20	ARGILLACEOUS SILTSTONE: as above.
3160	3165	30	SANDSTONE: clear to translucent, fine to very coarse, poorly sorted, sub angular to rounded, moderate to high sphericity, occasional fractured grains, trace strong pyrite cement, good inferred porosity poor visual porosity in pyrite cemented aggregates.
		70	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to soft, rare friable, very carbonaceous in part, carbonaceous laminae, micro mica, trace fine pyrite.
3165	3170	30	SANDSTONE: as above
		70	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to soft, rare friable, sub blocky to amorphous, occasionally sub fissile, very carbonaceous in part, carbonaceous laminae, micro mica, trace fine pyrite.
3170	3175	70	SANDSTONE: clear to translucent, loose, fine to very coarse, poorly sorted, sub angular to rounded, common fractured grains, trace pyrite cement, very good inferred porosity.
		30	ARGILLACEOUS SILTSTONE: as above.

Interval (m) From	To	%	Lithology / Show Description
3175	3180	30	SANDSTONE: clear to translucent, loose, fine to very coarse, poorly sorted, sub angular to rounded, common fractured grains, trace strong pyrite cement, very good inferred porosity in loose fraction, poor visual porosity in aggregates.
		70	ARGILLACEOUS SILTSTONE: light brownish grey, light grey, very soft, dominantly amorphous occasionally sub blocky, trace to locally common carbonaceous specks and carbonaceous laminae, micro mica, trace pyrite.
3180	3185	30	SANDSTONE: as above.
		70	ARGILLACEOUS SILTSTONE: as above.
3185	3190	40	SANDSTONE: as above.
		60	SILTSTONE: brownish grey to light brownish grey, light grey, very soft to rare firm, sub blocky to amorphous, occasionally sub fissile when carbonaceous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Argillaceous Siltstone.
3190	3195	70	SANDSTONE: clear to translucent, loose, fine to very coarse, occasionally very coarse, poorly sorted, sub angular to rounded, common fractured grains, trace strong pyrite cement, very good inferred porosity in loose fraction, poor visual porosity in aggregates.
		30	SILTSTONE: as above.
3195	3200	60	SANDSTONE: as above.
		40	SILTSTONE: as above.
3200	3205	40	SANDSTONE: clear to translucent, medium to granular grained, poorly sorted, sub angular to sub rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, very good inferred porosity, no fluorescence.
		60	SILTSTONE: brownish grey to light brownish grey, light grey, very soft to rare firm, sub blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Argillaceous Siltstone.
3205	3210	80	SANDSTONE: as above.
		20	SILTSTONE: as above.
3210	3215	40	SANDSTONE: as above.
		60	SILTSTONE: as above.
3215	3220	40	SANDSTONE: clear to translucent, medium to granular grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, traces of carbonate cement (calcite/dolomite?), very good inferred porosity, no fluorescence except mineral fluorescence.
		60	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, rarely light grey, very soft to rarely firm, sub blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Siltstone.
3220	3225	10	SANDSTONE: clear to translucent, loose, fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, good inferred porosity, no fluorescence.
		90	SILTSTONE: brownish grey to light brownish grey, light grey, very soft to rare firm, sub blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Argillaceous Siltstone.
3225	3230	20	SANDSTONE: clear to translucent, loose, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, moderate inferred porosity, no fluorescence.
		80	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, trace pyrite, gradational to Siltstone.
3230	3235	40	SANDSTONE: clear to translucent, loose, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, occasional fractured grains, trace pyrite cement, trace calcite/dolomite cement?, abundant white rock flour, moderate inferred porosity, no fluorescence.
		60	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, possible dolomite/calcite cement in parts?, very argillaceous, trace pyrite, gradational to Siltstone.
3235	3240	Tr	SANDSTONE: clear to translucent, loose, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, common white rock flour, occasional fractured grains, trace pyrite cement, trace calcite/dolomite cement?, moderate inferred porosity, no fluorescence.

Interval (m) From	To	%	Lithology / Show Description
		5	CLAYSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, very silty in part, common carbonaceous specks and laminae, hard dolomite/calcite fragments, trace pyrite, gradational to Argillaceous Siltstone.
		95	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, possible dolomite/calcite cement in parts?, very argillaceous, trace pyrite, gradational to Siltstone.
3240	3245	30	SANDSTONE: clear to translucent, loose, very fine grained, poorly sorted, sub-angular to sub-rounded, moderate sphericity, abundant white rock flour, occasional fractured grains, trace pyrite cement, trace calcite/dolomite fragments, moderate inferred porosity, no fluorescence.
		15	CLAYSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, silty in part, common carbonaceous specks and laminae, rare very firm dolomite/calcite fragments, trace pyrite, gradational to Argillaceous Siltstone.
		55	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, possible dolomite/calcite cement in parts?, very argillaceous, trace pyrite, gradational to Siltstone.
3245	3250	65	ARGILLACEOUS SILTSTONE: as above
		20	SANDSTONE: as above (no fluorescence)
		15	CLAYSTONE: as above
3250	3255	5	SANDSTONE: clear to translucent, loose, fine grained, trace coarse grains, poorly sorted, sub-angular to sub-rounded, moderate sphericity, common white rock flour, occasional fractured grains, trace pyrite cement, trace calcite/dolomite fragments, moderate inferred porosity, no fluorescence.
		95	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, weak calcite cement in parts, very argillaceous, trace pyrite, gradational to Siltstone.
3255	3260	40	SANDSTONE: clear to translucent, loose, fine to medium grained, trace coarse grains, poorly sorted, sub-angular to sub-rounded, moderate sphericity, abundant white rock flour inferred to indicate sand in cuttings, occasional fractured grains, trace pyrite cement, trace calcite/dolomite fragments, good inferred porosity in part, no fluorescence.
		60	ARGILLACEOUS SILTSTONE: brownish grey to light brownish grey, occasionally light grey, very soft to rarely firm, sub-blocky to amorphous, common carbonaceous specks and laminae, weak calcite cement in parts, very argillaceous, trace pyrite, gradational to Siltstone.
3260	3265	10	SANDSTONE: white, off white, rare clear to translucent, fine to medium, moderately sorted, rounded, abundant white argillaceous matrix to 90%, commonly matrix supported, poor visible porosity, no fluorescence.
		30	SILTSTONE: brownish grey to light brownish grey, argillaceous to rarely arenaceous, very soft to friable, sub fissile in part, common carbonaceous specks and laminations, occasional very fine pyrite.
		60	CLAYSTONE: olive grey, light brownish grey, very soft, amorphous, slightly calcareous, trace carbonaceous grains, rare very fine disseminated pyrite.
3265	3270	5	SANDSTONE: as above.
		30	SILTSTONE: as above.
		65	CLAYSTONE: as above.
3270	3275	10	SILTSTONE: brownish grey to light brownish grey, argillaceous to arenaceous, very soft to friable, sub fissile in part, common carbonaceous specks and laminations, occasional very fine pyrite.
		90	CLAYSTONE: olive grey, light brownish grey, very light grey to off white very soft, amorphous, slightly calcareous, trace carbonaceous grains, rare very fine disseminated pyrite, common fine sand grains in light grey to off white component.
3275	3280	70	SANDSTONE: clear to translucent, white, loose to soft aggregates, fine to medium, rare coarse, moderately well sorted, sub rounded – sub angular, trace to 40% argillaceous matrix, trace pyrite, fair inferred porosity, no fluorescence.

Interval (m) From	To	%	Lithology / Show Description
		10	SILTSTONE: as above
		20	CLAYSTONE; light olive grey, light brownish grey, very light grey, very soft, amorphous, slightly calcareous, rare very fine disseminated pyrite.
3280	3285	80	SANDSTONE; as above.
		10	SILTSTONE: as above.
		10	CLAYSTONE: light olive grey, light brownish grey, trace yellowish brown, very soft, amorphous, slightly calcareous, rare very fine disseminated pyrite.
3285	3290	80	SANDSTONE: clear to translucent, off white, loose to friable aggregates, fine – very coarse, dominantly medium to coarse, poorly sorted, sub rounded to angular, trace to 50% white argillaceous matrix, trace chlorite, trace lithic grains, fair to good inferred porosity, no fluorescence.
		20	SILTSTONE: light brownish grey, brownish grey, very soft to friable, sub fissile in part, very argillaceous to arenaceous, common carbonaceous specks and flakes, gradational to Carbonaceous Siltstone (possibly some carbonaceous stringers).
3290	3295	60	SANDSTONE: as above.
		20	SILTSTONE: as above.
		20	CLAYSTONE: light brownish grey, occasionally light to medium grey, very soft, amorphous, sticky, slightly carbonaceous in part, silty in part.
3295	3300	20	SANDSTONE: clear to translucent, off white, loose to friable aggregates, fine – coarse, rare very coarse, poorly sorted, sub rounded to angular, trace to 70% white argillaceous matrix, trace chlorite, trace lithic grains, fair to good inferred porosity, no fluorescence.
		30	SILTSTONE: light brownish grey, olive grey, very soft to soft,
		50	CLAYSTONE: light
3300	3305	10	SANDSTONE: clear to translucent, off white, loose to friable aggregates, very fine – coarse, rare very coarse, poorly sorted, sub rounded to angular, trace to 80% white argillaceous matrix, poor to fair inferred porosity, no fluorescence.
		10	SILTSTONE: as above.
		80	CLAYSTONE: light brown, very light greyish brown, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine pyrite.
3305	3310	10	SANDSTONE: as above.
		10	SILTSTONE: as above.
		80	CLAYSTONE: as above.
3310	3315	5	SANDSTONE: clear to translucent, off white, loose to soft aggregates, fine – medium, occasionally coarse, moderately sorted, sub rounded to angular, trace to 80% white argillaceous matrix, poor to fair inferred porosity, no fluorescence.
		10	SILTSTONE: as above.
		85	CLAYSTONE: as above.
3315	3320	20	SANDSTONE: clear to translucent, off white, loose to soft aggregates, fine – coarse, occasionally very coarse, poorly sorted, sub rounded to angular, trace to 60% white argillaceous matrix, fair to good inferred porosity, no fluorescence.
		10	SILTSTONE: light brownish grey, brownish grey, very soft, sub blocky to amorphous, common carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
		70	CLAYSTONE: light brown, very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite.
3320	3325	10	SANDSTONE: off white, soft aggregates, occasional loose grains, very fine – medium, moderately well sorted, sub angular to rounded, 80% white argillaceous matrix, poor inferred porosity, no fluorescence.
		40	SILTSTONE: light brownish grey, brownish grey, very soft to soft, sub blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
		50	CLAYSTONE: as above.
3325	3330	5	SANDSTONE: off-white, soft aggregates, occasional loose grains, very fine, moderately well sorted, sub-angular to rounded, 80% white argillaceous matrix, poor inferred porosity, no fluorescence.
		60	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.

Interval (m) From	To	%	Lithology / Show Description
		35	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite.
		Tr	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part.
3330	3335	70	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
		25	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite.
		5	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part.
3335	3340	100	SANDSTONE: clear to translucent, occasionally off white, loose, fine to coarse, occasionally very coarse, mainly medium grained, very poorly sorted, sub angular to angular, very good inferred porosity, no fluorescence.
		Tr	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
3340	3345	100	SANDSTONE: clear to translucent, occasionally off white and pink, loose, occasionally cemented into small aggregates with silica cement (quartz overgrowths?), fine to very-coarse, occasionally granular, mainly medium grained, very poorly sorted, sub angular to angular, very good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence.
		Tr	SILTSTONE: as above.
3345	3350	30	SANDSTONE: as above (no fluorescence), abundant white rock-flour.
		70	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
3350	3355	10	SANDSTONE: clear to translucent, loose, very fine to fine, mainly fine grained, moderately well sorted, sub angular to angular, good inferred porosity, trace pyrite, trace carbonaceous fragments (possibly cavings?), no fluorescence.
		65	SILTSTONE: as above.
		20	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, dolomite cemented in part, silty in part, trace very fine disseminated pyrite.
		5	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part.
3355	3360	10	SANDSTONE: as above, becoming finer grained, no fluorescence.
		60	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
		30	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, calcareous in part (dolomite stringers?), trace very fine disseminated pyrite.
		Tr	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part, grading into carbonaceous claystone.
3360	3365	10	SANDSTONE: as above, becoming finer grained, no fluorescence.
		30	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
		55	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, silty in part, trace very fine disseminated pyrite.
		5	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part, grading into carbonaceous claystone.
3365	3370	60	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, calcareous cement in part, very argillaceous, disseminated pyrite in part.

Interval (m) From	To	%	Lithology / Show Description
		35	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, carbonaceous specks in part, calcareous in part (dolomite stringers?), silty in part, trace very fine disseminated pyrite.
		5	COAL: black to dark brown, soft to very hard and splintery, grading into carbonaceous siltstone, pyrite cemented in part, grading into carbonaceous claystone.
3370	3375	5	SANDSTONE: as above, becoming finer grained, no fluorescence.
		90	CLAYSTONE: light brown to very light greyish brown, pale grey, very soft, amorphous, abundant carbonaceous specks in part, trace very hard black and white finely laminated fragments, silty in part, trace very fine disseminated pyrite.
		5	COAL: black to dark brown, soft to very hard and splintery (pyritised?), grading into carbonaceous siltstone, very firmly pyrite cemented in part, grading into carbonaceous claystone.
3375	3380	80	CLAYSTONE: light brown to very light greyish brown, occasionally dark brown and carbonaceous, very soft, amorphous, abundant carbonaceous laminae in part, trace very hard (pyritised?) angular black fragments, silty in part, trace very fine disseminated pyrite.
		20	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part.
3380	3385	85	CLAYSTONE: as above
		15	SILTSTONE (1): light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks and laminae, very argillaceous, disseminated pyrite in part. Also SILTSTONE (2) dark grey, brownish black, silicified, very hard, sub blocky, occasionally completely replaced with silica, banded in part.
3385	3390	50	CLAYSTONE: brownish grey, light brownish grey, light grey, very soft, amorphous, silty in part, trace carbonaceous specks, rare pyrite, gradational to Argillaceous Siltstone.
		40	SANDY CLAYSTONE: very light grey to white, very soft, amorphous, lithics, 5 – 30% very fine well rounded quartz sand, grading to Argillaceous Sandstone.
		10	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part.
3390	3395	80	ARGILLACEOUS SANDSTONE: dominantly white to very light grey, minor clear to translucent, dominantly very soft aggregates, minor loose grains, very fine to medium, poorly sorted, sub angular to sub rounded, moderate to high sphericity, trace carbonaceous, abundant white argillaceous matrix, commonly matrix supported, gradational to Sandy Claystone, poor to fair inferred porosity, no fluorescence.
		10	CLAYSTONE: as above.
		10	SILTSTONE: as above (trace very hard silicified/pyritised fragments).
3395	3400	30	ARGILLACEOUS SANDSTONE: dominantly white to very light grey, minor clear to translucent, dominantly very soft aggregates, minor loose grains, very fine to medium, poorly sorted, sub angular to sub rounded, moderate to high sphericity, trace carbonaceous, abundant white argillaceous matrix, commonly matrix supported, gradational to Sandy Claystone, trace pale greenish calcite cemented fragments, poor to fair inferred porosity, no fluorescence.
		60	SANDY CLAYSTONE: very light grey to white, very soft, amorphous, trace lithics, 5-30% very fine well rounded quartz sand, grading to Argillaceous Sandstone.
		10	SILTSTONE: light brownish grey to brownish grey, very soft to soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part.
3400	3405	70	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
		30	SANDY CLAYSTONE: very light grey to white, soft to firm, amorphous to sub-blocky, trace lithics, 5-20% very fine well rounded quartz sand, grading to Argillaceous Sandstone, trace calcareous matrix, no fluorescence.

Interval (m) From	To	%	Lithology / Show Description
		Tr	COAL: black to dark brown, soft to firm, dull to bright, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone, very firmly pyrite cemented in part, grading into carbonaceous claystone.
3405	3410	10	SANDY CLAYSTONE: very light grey to white, soft to firm, amorphous to sub-blocky, trace lithics, 5-20% very fine well rounded quartz sand, grading to Argillaceous Sandstone, trace calcareous matrix, no fluorescence.
		90	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3410	3415	60	ARGILLACEOUS SANDSTONE: white to pale grey in aggregates, clear when loose, friable when in rare aggregates, fine to medium grained, mainly fine grained, moderately well sorted, sub-angular to angular, abundant white argillaceous clay matrix, trace pale greenish firm calcite cemented fragments, poor inferred visual porosity, trace pyrite, trace carbonaceous fragments and laminations, no fluorescence.
		40	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3415	3420	70	ARGILLACEOUS SANDSTONE: very light grey to white, soft to very soft in aggregates, amorphous to dispersive, mainly loose clear to translucent grains, very fine to fine grained, sub-angular to angular, abundant white argillaceous matrix, calcareous in part, trace lithics, trace pyrite, trace carbonaceous specks, poor inferred visual porosity, no fluorescence.
		30	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3420	3425	100	ARGILLACEOUS SANDSTONE: very light grey to white, soft to very soft in aggregates, abundant amorphous to dispersive non-calcareous matrix, mainly loose clear to translucent grains, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, rare very firm calcareous cemented fragments, trace lithics, trace pyrite, trace carbonaceous specks, poor to moderate inferred visual porosity, no fluorescence.
3425	3430	100	ARGILLACEOUS SANDSTONE: clear to translucent, loose, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, common yellowish-grey firm calcareous cement fragments, trace lithics, trace pyrite, trace carbonaceous specks, poor to moderate visual inferred porosity, no fluorescence.
		Tr	COAL: black to dark brown, soft to very firm, sub-blocky to angular, laminated in part, dull to vitreous lustre, conchoidal fracture in part.
3430	3435	20	ARGILLACEOUS SANDSTONE: clear to translucent, loose, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace aggregations of white calcareous rock-flour in cuttings, trace pyrite, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence, white mineral fluorescence from rock-flour.
		80	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
		Tr	COAL: black to dark brown, soft to firm, dull to bright, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone, very firmly pyrite cemented in part, grading into carbonaceous claystone.
3435	3440	20	ARGILLACEOUS SANDSTONE: clear to translucent, mainly loose, very fine to coarse grained, mainly fine grained, very poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace pyrite, calcite cemented in parts, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence.
		80	SILTSTONE: light brownish grey to brownish grey, soft to firm, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
		Tr	COAL: black to dark brown, soft to firm, dull to bright, rare conchoidal fracture, commonly laminated, grading into carbonaceous siltstone, very firmly pyrite cemented in part, grading into carbonaceous claystone.

Interval (m) From	To	%	Lithology / Show Description
3440	3445	10	ARGILLACEOUS SANDSTONE: clear to translucent, mainly loose, very fine to medium grained, mainly very fine grained, moderately-poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace pyrite, calcite cemented in parts, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence.
		90	SILTSTONE: light brownish grey to brownish grey, soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3445	3450	30	ARGILLACEOUS SANDSTONE: clear to translucent, mainly loose, very fine to medium grained, mainly very fine grained, moderately-poorly sorted, sub-angular to angular, abundant white argillaceous matrix, trace pyrite, calcite cemented in parts, trace carbonaceous specks, poor to moderate visual inferred porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: light brownish grey to brownish grey, soft, sub-blocky to amorphous, abundant carbonaceous specks, very argillaceous, disseminated pyrite in part, no fluorescence.
3450	3455	30	ARGILLACEOUS SANDSTONE: as above
		70	SILTSTONE: as above
3455	3460	30	ARGILLACEOUS SANDSTONE: clear to translucent, mainly loose, very fine to coarse, mainly fine grained, poorly sorted, sub-angular to angular, abundant white argillaceous matrix (weathered feldspars?), trace pyrite, poor inferred porosity, no hydrocarbon fluorescence.
		70	SILTSTONE: light brownish grey to whitish-grey, very soft, amorphous, common carbonaceous specks, abundant argillaceous matrix, disseminated pyrite in part, no fluorescence.
3465	3470	60	ARGILLACEOUS SANDSTONE: white, clear to translucent, mainly loose, very fine to coarse, mainly fine grained, poorly sorted, sub-angular to angular, abundant white argillaceous matrix commonly washing out (weathered feldspars?), trace pyrite, poor inferred porosity, no hydrocarbon fluorescence.
		40	SILTSTONE: light brownish grey, brownish grey, whitish-grey, very soft to soft, amorphous, common carbonaceous specks, occasionally very carbonaceous abundant argillaceous matrix, disseminated pyrite in part.
		Tr	COAL: dull black, sub vitreous, firm, brittle, blocky, sub conchoidal fracture.
3470	3475	40	ARGILLACEOUS SANDSTONE: white to very light grey, dominantly very soft aggregates, very fine to fine, well sorted, sub angular to rounded, high sphericity, abundant white argillaceous matrix to 80%, matrix supported, poor inferred porosity, no fluorescence.
		60	SILTSTONE: as above
3475	3480	40	ARGILLACEOUS SANDSTONE: white to very light grey, dominantly very soft aggregates, occasional loose grains, very fine to fine, occasionally medium, moderately well sorted, sub angular to rounded, high sphericity, abundant white argillaceous matrix to 80%, matrix supported, poor to rarely fair inferred porosity, no fluorescence.
		60	SILTSTONE: light brownish grey, brownish grey, off white / light brownish grey, very soft to rare friable, very argillaceous, carbonaceous specks and carbonaceous laminae in part.
3480	3485	60	ARGILLACEOUS SANDSTONE: as above.
		40	SILTSTONE; as above.
3485	3490	60	ARGILLACEOUS SANDSTONE: white aggregates to clear, translucent loose grains, fine to coarse, dominantly fine to medium, moderately sorted, sub angular to angular, moderate sphericity, 70% white argillaceous matrix in aggregates, fair to moderate inferred porosity, no fluorescence.
		40	SILTSTONE: light brownish grey, brownish grey, off white / light brownish grey, very soft to rare friable, occasionally hard, very argillaceous, carbonaceous specks and carbonaceous laminae in part, very pyritic in part, occasionally siliceous and hard.
3490	3495	80	ARGILLACEOUS SANDSTONE: 60% white aggregates to 40% clear translucent loose grains, fine to coarse, dominantly fine to medium, moderately sorted, sub angular to angular, moderate sphericity, 70% white argillaceous matrix in aggregates, fair to moderate inferred porosity, no fluorescence.

Interval (m)			Lithology / Show Description
From	To	%	
		20	SILTSTONE: light brownish grey, brownish grey, off white / light brownish grey, very soft to rare friable, very argillaceous in part, carbonaceous specks and carbonaceous laminae in part, occasional disseminated pyrite.
3495	3500	75	ARGILLACEOUS SANDSTONE: as above.
		15	SILTSTONE: as above
		5	COAL: black, dull black, sub vitreous, firm, blocky, silty in part.
3500	3505	70	SANDSTONE: 50% white aggregates 50% loose grains, dominantly fine to medium, occasionally coarse, moderately well sorted, sub angular to rounded, high sphericity, common white argillaceous matrix, trace pyrite nodules and cement, good inferred porosity, no fluorescence.
		30	SILTSTONE; as above
3505	3510	60	ARGILLACEOUS SANDSTONE: 70% white aggregates 30% loose grains, dominantly fine to medium, occasionally coarse, moderately well sorted, sub angular to rounded, high sphericity, common white argillaceous matrix, trace pyrite nodules and cement, good inferred porosity, no fluorescence.
		40	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rare sub firm, amorphous to sub blocky, rare sub fissile, trace carbonaceous specks and carbonaceous laminae, occasionally very pyritic and grading to Carbonaceous Siltstone.
3510	3515	40	ARGILLACEOUS SANDSTONE: 80% white aggregates 20% loose grains, dominantly fine to medium, rare coarse, well sorted, sub angular to rounded, high sphericity, common white argillaceous matrix, trace pyrite nodules and cement, fair inferred porosity. Fluorescence: trace dull yellow, trace very slow cut, trace dull cream incomplete residue ring.
		60	SILTSTONE: as above
3515	3520	30	ARGILLACEOUS SANDSTONE: dominantly white aggregates, trace loose grains, very fine to fine, well sorted, sub angular to rounded, high sphericity, common white argillaceous matrix to 80%, trace pyrite nodules and cement, fair inferred porosity, no fluorescence.
		65	SILTSTONE: as above.
		5	COAL: dull black, sub vitreous, firm, brittle in part, hackly fracture, very silty in part and gradational to Carbonaceous Siltstone.
3520	3525	60	ARGILLACEOUS SANDSTONE: white to very light grey, soft aggregates trace loose grains, very fine to fine, occasional medium grains, well sorted, sub angular – rounded, white argillaceous matrix to 80%, poor inferred porosity, no fluorescence.
		40	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rare sub firm, amorphous to sub blocky, rare sub fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic.
		Tr	COAL: as above.
3525	3530	65	ARGILLACEOUS SANDSTONE: as above, no fluorescence.
		35	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rare sub firm, amorphous to sub blocky, rare sub fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic.
3530	3535	30	ARGILLACEOUS SANDSTONE: white to very light grey, soft aggregates trace loose grains, very fine to fine, occasional medium grains, well sorted, sub angular rounded, white argillaceous matrix to 80%, poor inferred porosity, no fluorescence.
		70	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rare sub firm, amorphous to sub blocky, rare sub fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic.
		Tr	COAL: as above. (probably under-represented in cuttings, 20% of rock in reality)
3535	3540	10	ARGILLACEOUS SANDSTONE: as above, no fluorescence.
		90	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rarely firm, amorphous to sub-blocky, rarely sub-fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic, trace black hard siliceous banded fragments.
		Tr	COAL: as above.
3540	3545	10	ARGILLACEOUS SANDSTONE: as above, no fluorescence.

Interval (m) From	To	%	Lithology / Show Description
		90	SILTSTONE: light brownish grey, brownish grey, light grey, very soft, rarely firm, amorphous to sub-blocky, rarely sub-fissile, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic, occasionally very pyritic.
		Tr	COAL: as above.
3545	3550	80	ARGILLACEOUS SANDSTONE: white to very light grey, loose grains, very fine to fine, occasional medium grains, well sorted, sub angular to angular, white argillaceous matrix to 80% (weathered feldspars?), poor inferred porosity, no fluorescence.
		20	SILTSTONE: light brownish grey, brownish grey, occasionally white, very soft, amorphous to dispersive, very argillaceous, trace carbonaceous specks and carbonaceous laminae, occasionally pyritic.
		Tr	COAL: as above.
3550	3555	10	ARGILLACEOUS SANDSTONE: white to very light grey, loose grains, very fine to fine, occasional medium grains, well sorted, sub angular to angular, white argillaceous matrix to 80% (weathered feldspars?), poor inferred porosity, no fluorescence.
		90	SILTSTONE: light brownish grey, brownish grey, occasionally white, very soft, amorphous to dispersive, very argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments.
		Tr	COAL: as above.
3555	3560	20	ARGILLACEOUS SANDSTONE: as above
		80	SILTSTONE: as above
3560	3565	10	ARGILLACEOUS SANDSTONE: as above
		90	SILTSTONE: as above
		Tr	COAL: as above.
			Trip out change to a rotary assembly and Rock Bit IADC 5-3-7 Smith GF30BOVCPS
3565	3570	20	ARGILLACEOUS SANDSTONE: as above. (sample very contaminated with cavings following bit trip and should not be trusted with confidence)
		80	SILTSTONE: as above.
3570	3575	10	ARGILLACEOUS SANDSTONE: white to very light grey, loose grains, very fine to fine, occasional medium grains, well-sorted, sub-angular to rounded, white argillaceous matrix to 60% (weathered feldspars?), poor inferred porosity, no fluorescence.
		50	SILTSTONE: light brownish grey, brownish grey, occasionally white, very soft, amorphous to dispersive, very argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, trace very hard black & white finely banded siliceous fragments, grading occasionally into brown claystone.
		40	CLAYSTONE: very light greenish-grey, firm to moderately hard, sub-blocky to fissile, occasionally splintery shaped fragments, trace glauconite?, trace silty quartz grains, calcareous in nature.
		Tr	COAL: black, dull-black, sub-vitreous, firm, blocky, silty in part.
3575	3580	15	ARGILLACEOUS SANDSTONE: white to very light grey with carbonaceous laminations, firm to friable, very fine to fine, occasional medium grains, well-sorted, sub-angular to rounded, white argillaceous matrix to 60% (weathered feldspars?), moderate inferred visual porosity, trace pyrite, abundant carbonaceous specks and laminae, glowing white residual crush cut fluorescence inferred to be from carbonaceous material, no hydrocarbon fluorescence noted from clean sand fragments.
		60	SILTSTONE: light brownish grey to brownish grey, occasionally white, very soft to firm, amorphous to laminated, argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, grading occasionally into brown claystone.
		20	CLAYSTONE: very light greenish-grey, firm to moderately hard, sub-blocky to fissile, occasionally splintery shaped fragments, trace glauconite?, trace silty quartz grains, calcareous in nature.
		5	COAL: black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture.
3580	3585	5	ARGILLACEOUS SANDSTONE: as above (no H/C fluorescence.)

Interval (m) From	To	%	Lithology / Show Description
		70	SILTSTONE: as above
		20	CLAYSTONE: as above
		5	COAL: black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture, commonly pyritised with bright yellowish pyrite.
3585	3590	5	ARGILLACEOUS SANDSTONE: as above (no H/C fluorescence.)
		80	SILTSTONE: light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common carbonaceous specks and carbonaceous laminae, occasionally pyritic, rare weak yellowish fluorescence from carbonaceous laminations.
		15	CLAYSTONE: as above
		Tr	COAL: as above
3590	3595	40	SANDSTONE: white to very light grey in aggregate form, very firm to hard, very fine to fine white to yellowish grains when loose, occasional medium grains, mainly fine-grained, moderately well-sorted, sub-angular to angular, abundant white argillaceous and calcareous matrix to 40% (weathered feldspars? and calcite cement), poor inferred visual porosity, trace pyrite, trace fractured grains, common black and dark brown carbonaceous/woody specks, trace green chlorite/glauconite(?) grains, pale yellow mineral fluorescence from calcite cement, no hydrocarbon fluorescence.
		60	SILTSTONE: light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic.
		Tr	COAL: black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture, commonly pyritised.
3595	3600	50	SANDSTONE: white to very light grey in aggregate form, very firm to hard, very fine to fine white to yellowish grains when loose, occasional coarse grains, mainly fine-grained, moderately well-sorted, sub-angular to angular, abundant white argillaceous and calcareous matrix to 40% (weathered feldspars? and calcite cement), poor inferred visual porosity, trace pyrite, trace fractured grains, trace carbonaceous specks, pale yellow mineral fluorescence from calcite cement, no hydrocarbon fluorescence.
		50	SILTSTONE: light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic.
3600	3605	70	SANDSTONE: white to very light grey in aggregate form, very firm to hard, very fine to fine clear to whitish grains when loose, occasional coarse grains, mainly fine-grained, moderately well-sorted, sub-angular to angular, abundant white argillaceous and calcareous matrix to 40% (weathered feldspars? and calcite cement), moderate-poor inferred visual porosity, trace pyrite, trace fractured grains, trace carbonaceous specks, pale yellow mineral fluorescence from calcite cement, no hydrocarbon fluorescence.
		30	SILTSTONE: light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic.
3605	3610	40	SANDSTONE: white to very light grey in aggregate form, occasionally yellowish to bluish-white, firm to very well cemented in part, very fine to coarse clear to opaque grains when loose, occasional granular grains, mainly medium-grained, poorly-sorted, sub-angular to angular, common white argillaceous matrix (weathered feldspars?), common quartz overgrowths cementing sandstone, poor to fair inferred visual porosity, common pyrite both as cement and in nodular form, trace fractured grains, trace carbonaceous specks, pale yellow mineral fluorescence from calcite cement, no hydrocarbon fluorescence.
		60	SILTSTONE: light brownish grey to brownish grey, occasionally dark brown, soft to firm, amorphous to laminated, argillaceous, common black and dark brown carbonaceous/woody specks and carbonaceous laminae, occasionally pyritic.
		Tr	COAL: black to very dark brown, hard to very hard, sub-blocky to splintery, dull to bright with vitreous lustre and conchoidal fracture, commonly pyritised.

Interval (m) From	To	%	Lithology / Show Description
3610	3615	40	SANDSTONE: white to very light grey aggregates, rare loose grains, very fine to fine, rare medium to coarse loose grains, well sorted in aggregates, sub angular to rounded, occasional carbonaceous grains, trace weak calcareous cement, trace pyrite, 30 – 80% argillaceous matrix, poor – fair inferred and visual porosity, no fluorescence.
		60	SILTSTONE: light brownish grey, black / brownish grey, very soft to sub firm, amorphous to sub blocky, common carbonaceous specks and laminae, trace pyrite, argillaceous in part, intercalated with very fine to fine white sandstone.
		Tr	COAL: as above
3615	3620	40	SANDSTONE: 80% white to very light grey aggregates, 20% loose grains, very fine to fine in aggregates, medium to coarse in loose grains, poorly sorted, moderately well sorted in aggregates, sub angular to rounded, occasional carbonaceous grains, trace weak calcareous cement, trace pyrite, 20 – 70% argillaceous matrix, poor – fair inferred and visual porosity. Fluorescence trace dull, light yellow to cream, no cut, probably from the calcareous cement.
		60	SILTSTONE: as above
3620	3625	60	SANDSTONE: 50% white to very light grey aggregates, 50% loose grains, very fine to fine in aggregates, fine to occasionally coarse in loose grains, poorly sorted, moderately well sorted in aggregates, sub angular to rounded, occasional carbonaceous grains, strong calcareous and occasionally siliceous cement, trace pyrite, 20 – 70% argillaceous matrix, poor inferred and visual porosity. Fluorescence 5% dull yellow, no cut, from the calcareous cement.
		40	SILTSTONE: light brownish grey, black / brownish grey, very soft to sub firm, amorphous to sub blocky, common carbonaceous specks and laminae, trace pyrite, argillaceous to arenaceous, intercalated with very fine to fine white sandstone.
3625	3630	20	SANDSTONE: white to very light grey aggregates, loose grains, fine to medium in aggregates, fine to rare coarse in loose component, poorly sorted, moderately well sorted in aggregates, sub angular to rounded, occasional carbonaceous grains, strong calcareous and occasionally siliceous cement, trace pyrite, 10-40% white argillaceous matrix in part, poor inferred and visual porosity. Fluorescence 10% dull yellow, no cut, from the calcareous cement.
		80	SILTSTONE: as above.
3630	3635	30	SANDSTONE: as above
		70	SILTSTONE: light brownish grey, very light brownish grey, very soft, rare sub firm, amorphous, carbonaceous specks and laminae, very argillaceous, occasional pyrite.
3635	3640	30	SANDSTONE: white very light grey, clear, hard to occasionally friable aggregates, loose grains in part, fine to coarse, sub rounded to angular, poorly sorted, single aggregated are moderately well sorted, carbonaceous grains in part, occasional pyrite, occasional hard calcareous cement, poor visual porosity in calcareous cemented aggregates, poor to fair porosity in friable aggregates, 10% dull yellow mineral fluorescence from calcareous cement.
		65	SILTSTONE; as above
		5	COAL: dull black, firm, brittle in part, sub vitreous to rarely vitreous in patches, occasionally pyritic, commonly silty and gradational to Carbonaceous Siltstone.
3640	3645	15	SANDSTONE: very light grey, off white, 20% clear loose grains, very fine to coarse, dominantly very fine to fine in aggregates, poorly sorted, well sorted in aggregates, soft to friable aggregates, rare hard with calcareous cement, sub angular to rounded, moderate to high sphericity, occasionally with silty lithics and carbonaceous grains, rare pyritic, weak siliceous to occasionally hard calcareous cement, 20 – 80% white argillaceous matrix, poor to fair visual and inferred porosity, trace dull yellow mineral fluorescence from calcareous cement.
		80	SILTSTONE: light brownish grey, very light brownish grey, very soft, rare sub firm, argillaceous, amorphous, carbonaceous specks and laminae, occasional pyrite, occasionally gradational to Carbonaceous Siltstone.
		5	COAL: dull black, firm, brittle in part, sub vitreous to rarely vitreous in patches, occasionally pyritic, commonly silty and gradational to Carbonaceous Siltstone.

Interval (m) From	To	%	Lithology / Show Description
3645	3650	65	SANDSTONE: white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to very well cemented in part, blocky to massive, very fine to medium grained, mainly fine-grained, moderately-sorted, sub-angular to angular, common white argillaceous matrix (weathered feldspars?), common quartz overgrowths cementing sandstone, common calcareous cement, poor inferred visual porosity, common pyrite both as cement and in nodular form, trace fractured grains, trace carbonaceous specks and laminations, common (5%) pale yellow-dull orange mineral fluorescence from calcite/silica(?) cement, no hydrocarbon fluorescence.
		30	SILTSTONE: light brownish grey, very light brownish grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, gradational to Carbonaceous Siltstone.
		5	COAL: dull black, firm, brittle in part, sub vitreous to rarely vitreous in patches, occasionally pyritic.
3650	3655	20	SANDSTONE: as above (mineral fluorescence only).
		80	SILTSTONE: light brownish grey, very light brownish grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, gradational to Carbonaceous Siltstone.
		Tr	COAL: as above.
3655	3660	20	SANDSTONE: white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to well cemented in part, blocky to massive, very fine to coarse grained, mainly fine-grained, poorly-sorted, sub-angular to angular, common white argillaceous matrix (weathered feldspars?), common quartz overgrowths cementing sandstone, common calcareous cement, poor inferred visual porosity, common pyrite both as cement and in nodular form, trace fractured grains, trace carbonaceous specks and laminations, common pale yellow-dull orange mineral fluorescence from calcite/silica(?) cement, no hydrocarbon fluorescence.
		80	SILTSTONE: light brownish grey, very light brownish grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, gradational to Carbonaceous Siltstone.
		Tr	COAL: as above.
3660	3665	30	SANDSTONE: white to very light grey in aggregate form, occasionally clear to white when in loose grains, firm to well-cemented in part, blocky to massive, very fine to medium grained, mainly fine-grained, poorly to moderately-sorted, sub-angular to angular, trace white argillaceous matrix (weathered feldspars?), trace quartz overgrowths, trace calcareous cement, poor inferred visual porosity, trace carbonaceous specks and laminations, trace pale yellow-dull orange mineral fluorescence from calcite(?) cemented fragments, no hydrocarbon fluorescence.
		70	SILTSTONE: brownish grey to very light brownish grey, occasionally dark grey, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, grading into Carbonaceous Siltstone.
		Tr	COAL: as above.
3665	3670	20	SANDSTONE: as above (5% mineral fluorescence).
		80	SILTSTONE: as above.
		Tr	COAL: as above.
3670	3675	30	SANDSTONE: white to very light grey in aggregate form, occasionally clear to white when in loose grains, soft to weakly-cemented in part, blocky to massive, very fine to coarse grained, mainly fine-grained, poorly-sorted, sub-angular to angular, trace white argillaceous matrix (weathered feldspars?), trace quartz overgrowths, moderate inferred visual porosity, trace carbonaceous specks and laminations, trace pale yellow-dull orange mineral fluorescence from calcite/silica(?) cemented fragments, no hydrocarbon fluorescence.
		70	SILTSTONE: brownish grey to very light brownish grey, occasionally dark brown, soft to very firm, argillaceous, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, grading into Carbonaceous Siltstone.
		Tr	COAL: as above.

Interval (m) From	To	%	Lithology / Show Description
3675	3680	100	SILTSTONE: brownish grey to very light brownish grey, occasionally dark brown, soft to very firm, argillaceous, common fine quartz grains, amorphous to laminated, common carbonaceous specks and laminae, occasional pyrite, grading into Carbonaceous Siltstone.
		Tr	COAL: as above.
3680	3685	20	SANDSTONE: white to very light grey in aggregate form, occasionally clear and yellowish to white when in loose grains, well-cemented in part, blocky to massive, very fine to rarely coarse grained, mainly fine-grained, moderately-sorted, sub-angular to angular, trace white argillaceous matrix (weathered feldspars?), trace quartz overgrowths, trace carbonate cement, poor inferred visual porosity, trace carbonaceous specks and laminations, trace pale yellow-dull orange mineral fluorescence from carbonate-cemented fragments, no hydrocarbon fluorescence.
		80	SILTSTONE: brownish grey to very light brownish grey, occasionally dark brown, soft to very firm, argillaceous, common fine quartz grains, amorphous to laminated, common carbonaceous specks and laminae, occasional carbonate cement, occasional pyrite, grading into Carbonaceous Siltstone.
		Tr	COAL: as above.
3685	3690	20	SANDSTONE: as above.
		80	SILTSTONE: light brownish grey, very soft, occasionally sub firm, amorphous to sub blocky, occasionally sub fissile when carbonaceous, commonly carbonaceous grains and laminae, very argillaceous, trace pyrite, intercalated with very fine sandstone.
		Tr	COAL: dull black, sub vitreous, firm, brittle in part, hackly fracture, silty.
3690	3695	30	SANDSTONE: white to very light grey, dominantly soft to friable aggregates, occasional hard aggregates, also loose grains, very fine to fine, occasional medium grains, sub angular to well rounded, moderately will sorted, white argillaceous matrix to 80%, occasional carbonaceous grains and siltstone lithics, poor to fair porosity, no fluorescence.
		70	SILTSTONE: as above.
3695	3700	40	SANDSTONE: white to very light grey, dominantly soft to friable aggregates, also loose grains, very fine to fine, occasional medium grains, sub angular to well rounded, moderately will sorted, 5 – 80% white argillaceous matrix, occasional carbonaceous grains and siltstone lithics, poor to fair porosity, no fluorescence.
		60	SILTSTONE: light brownish grey, very soft to sub firm, amorphous to sub blocky, occasionally sub fissile when carbonaceous, commonly carbonaceous grains and laminae, very argillaceous, trace pyrite, intercalated with very fine sandstone.
3700	3705	30	SANDSTONE: white soft aggregates to 60% loose grains, fine to medium, occasionally coarse, sub rounded to angular, moderately well sorted, weak siliceous and argillaceous cement in part, white argillaceous matrix to 70% in part, trace carbonaceous grains in aggregates, fair to good inferred porosity, no fluorescence.
		65	SILTSTONE: as above.
		5	COAL: as above
3705	3710	70	SANDSTONE: clear to translucent loose grains, minor very light grey friable aggregates, fine to very coarse, dominantly medium to coarse, sub rounded to sub angular, moderately sorted, weak argillaceous cement, trace to 30% argillaceous matrix, carbonaceous grains in part, rare pyrite nodules, good porosity, no fluorescence.
		30	SILTSTONE: as above.
3710	3715	40	SANDSTONE; as above.
		60	SILTSTONE: light brownish grey, very soft to occasionally firm, amorphous to blocky, occasionally sub fissile when carbonaceous, commonly carbonaceous grains and laminae, very argillaceous, slightly dolomitic in part, trace pyrite, intercalated with very fine sandstone.
3715	3720	60	SANDSTONE: clear to translucent, occasional white aggregates, dominantly loose, fine to very coarse, sub angular to sub rounded, poorly sorted, white argillaceous matrix in part, moderately strong siliceous cement in part, occasional hard pyrite cement, fair to good inferred porosity, no fluorescence.
		35	SILTSTONE: light brownish grey, very soft to firm, argillaceous, carbonaceous specks and laminae, intercalates with very fine sand, occasional pyrite.

Interval (m)			Lithology / Show Description
From	To	%	
		5	DOLOMITE: dark yellowish brown, hard, blocky, sub conchoidal fracture in part, cryptocrystalline, trace pyrite. Trace dull yellow mineral fluorescence.
3720	3725	60	SANDSTONE: clear, white, occasionally orange-brown and yellow, loose to soft aggregates, dominantly very fine to fine, occasionally medium to coarse, sub angular to rounded, moderately well sorted, common calcareous matrix, white argillaceous matrix in part, abundant carbonaceous specks and lithics, fair to good porosity, trace dull yellow, pinpoint, no direct cut, trace crush cut, trace light green / cream broken residue ring.
		40	SILTSTONE: light brownish grey, very soft, amorphous, very argillaceous, occasional carbonaceous grains, very fine sand grains in part, intercalated with very fine light grey sandstone.
3725	3730	20	SANDSTONE: white to light brownish grey in fragments, translucent to white when loose, dominantly very fine to fine, occasionally medium to coarse, sub angular to sub-rounded, moderately well sorted, white argillaceous matrix in part, fair to moderate porosity, trace pyrite, trace carbonaceous specks, trace dull yellow, mineral fluorescence only.
		80	SILTSTONE: light brownish-grey, very soft, amorphous, very argillaceous, occasional carbonaceous grains, very fine sand grains in part, intercalated with very fine light grey sandstone.
		Tr	DOLOMITE: dark yellowish brown, hard, blocky, sub conchoidal fracture in part, cryptocrystalline, trace pyrite. Trace dull yellow mineral fluorescence.
		Tr	COAL: as above.
3730	3735	100	SILTSTONE: light brownish-grey to dark grey, very soft, amorphous, very argillaceous, common carbonaceous grains, trace pyrite, very fine sand grains in part, grading to very fine sandstone.
3735	3740	40	SANDSTONE: white to light brownish grey in fragments, occasionally speckled black and white due to carbonaceous specks, translucent to white when loose grains, dominantly very fine to fine, very occasionally medium to coarse, sub-angular to angular, moderately well sorted, common white argillaceous matrix in part, poor inferred visual porosity, trace pyrite, trace calcareous cement in part, trace to common carbonaceous specks, trace dull yellow, calcite mineral fluorescence only, grading into coarse brown carbonaceous siltstone.
		60	SILTSTONE: light to dark brownish-grey, soft to firm, amorphous to fissile in parts, very argillaceous, common carbonaceous grains and laminations, very fine sand grains in part, trace pyrite, grading to fine sandstone.
		Tr	COAL: as above.
3740	3745	5	SANDSTONE: as above (trace mineral(?) fluorescence showing dull yellow crush-cut residue ring in UV light).
		95	SILTSTONE: light to dark brownish-grey, soft to firm, amorphous to fissile in parts, very argillaceous, common carbonaceous grains and laminations, very fine sand grains in part, trace pyrite, grading to very fine silty sandstone.
		Tr	COAL: as above.
3745	3750	10	SANDSTONE: as above. (Yellow-white and dull orange-yellow direct UV mineral fluorescence only).
		85	SILTSTONE: light to dark brownish-grey, soft to firm, amorphous to sub blocky, very argillaceous, common carbonaceous grains and laminations, trace very fine sand grains in part, trace pyrite, grading to fine sandstone.
		5	COAL: dull black, sub vitreous, firm, brittle in part, hackly fracture, silty.
3750	3755	5	SANDSTONE: white to very light grey, soft to rarely firm aggregates, very fine to fine, occasionally medium, sub angular to rounded, moderately well sorted, abundant white argillaceous matrix, poor inferred porosity, Fluorescence trace dull yellow mineral fluorescence.
		90	SILTSTONE: as above
		5	COAL: as above.
3755	3758	10	SANDSTONE: white to light grey, occasionally speckled white / black when carbonaceous, soft to very soft aggregates, very fine to fine, rarely medium, sub angular to rounded, high sphericity, common carbonaceous grains in part, 5 – 80% white argillaceous (weathered feldspar?) matrix, poor porosity, trace dull yellow mineral fluorescence.
		90	SILTSTONE: as above.
			3758m TD

APPENDIX 11

LWD END OF WELL REPORT

HALLIBURTON

Sperry Drilling Services

LWD End of Well Report

for

Nexus Energy Ltd

Culverin-1

Rig: Ocean Patriot

Field: Exploration

Country: Australia

Job No: AU-FE-0003951414

Date: 16th December 2005

HALLIBURTON

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General Information

Company:	Nexus Energy Ltd	
Rig:	Ocean Patriot	
Well:	Culverin-1	
Field:	Exploration	
Country:	Australia	
API Number:		
Sperry-Sun Job Number:	AU-FE-0003951414	
Job start date:	16-Dec-05	
Job end date:	07-Jan-06	
North reference:	Grid	
Declination:	13.402	deg
Dip angle:	-68.823	deg
Total magnetic field:	59972	nT
Date of magnetic data:	17-Dec-05	
Wellhead coordinates N:	38 deg. 24 min 8.140 sec South	
Wellhead coordinates E:	148 deg. 39 min 14.920 sec East	
Vertical section direction:	Closure	
MWD Engineers:	A. Oraekwuotu	S. Willis
	A. Rule	B. Haren
Company Representatives:	W. Westman	R. King
Company Geologist:	M. Woodmansee	R. Blackmore
Lease Name:	VIC/P56	
Unit Number:	182	
State:	Victoria	
County:		

Operational Overview

Sperry Drilling Services (Halliburton) were contracted by Nexus Energy Ltd to provide Logging While Drilling (LWD) services for the drilling of exploration well Culverin-1, in permit VIC/P-56, fro the semi-submersible drilling rig Ocean Patriot.

445mm (17 1/2") Hole Section:
This hole section was drilled in one bit run using Sperry's Directional Gamma While Drilling (DGWD) tool suite, comprising of a Gamma Module (GM) for Formation Evaluation and a Directional Monitor (DM) for directional control. This section was drilled to 1525.0 mMDRT.

311mm (12 1/4") Hole Section:
This hole section was drilled in four bit runs using Sperry's Formation Evaluation While Drilling (FEWD) tool suite, comprising of a Dual Gamma Ray (DGR), Electromagnetic Wave Resistivity (EWR-P4), Stabilized Litho Density (SLD), and Compensated Thermal Neutron Porosity (CTN) fo reservoir evaluation. A Drillstring Dynamics Sensor (DDS) was used for drilling optimisation and a Directional Monitor (DM) for directional control. Culverin-1 was drilled to a well TD of 3758.0 mMDRT.

Summary of MWD runs

Run No.	Bit No.	Hole Size (mm)	MWD Service	Start Depth (m)	End Depth (m)	Drill/Wipe Distance (m)	Run Start Date Time	Run End Date Time	BRT Hrs.	Oper. Hrs.	Circ. Hrs.	Max. Temp. (degC)	Serv. Int.	Trip for MWD	Failure Type
0100	2	445.00	DIR-GR	650.00	650.00	0.00	18-Dec-05 00:54	18-Dec-05 03:54	3.00	3.00	0.42	18.00	Yes	Yes	SBM
0200	2	445.00	DIR-GR	650.00	1525.00	875.00	18-Dec-05 07:08	20-Dec-05 15:14	56.10	56.10	41.64	24.00	No	No	
0300	3	311.00	DIR-FE-NUKE	1525.00	3402.00	1877.00	24-Dec-05 00:20	30-Dec-05 19:04	162.72	162.72	127.83	56.00	No	No	
0400	4	311.00	DIR-FE-NUKE	3402.00	3571.00	169.00	30-Dec-05 23:36	02-Jan-06 05:19	53.72	53.72	32.66	75.00	No	No	
0500	5	311.00	DIR-FE-NUKE	3571.00	3571.00	0.00	02-Jan-06 09:36	03-Jan-06 09:18	23.70	23.70	4.66	55.00	Yes	Yes	Pulser
0600	6	311.00	DIR-FE-NUKE	3571.00	3758.00	187.00	03-Jan-06 12:52	07-Jan-06 17:22	100.50	100.50	63.22	58.00	No	No	HCIM
TOTALS	====>					3108.00			399.74	399.74	270.43		2	2	

Bitrun Summary

Run Time Data

MWD Run :	0100
Rig Bit No:	2
Hole Size :	445.00 mm
Run Start :	18-Dec-05 00:54
Run End :	18-Dec-05 03:54
BRT Hrs :	3.00
Circ. Hrs :	0.42
Oper. Hrs :	3.00

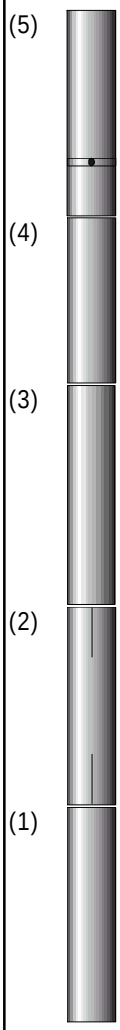
Drilling Data

Start Depth :	650.00	m
End Depth :	650.00	m
Footage :	0.00	m
Avg. Flow Rate :	1150	gpm
Avg. RPM :	N/A	rpm
Avg. WOB :	N/A	klb
Avg. ROP :	N/A	m/hr
Avg. SPP :	N/A	psig

Mud Data

Mud Type :	Seawater			
Weight / Visc :	1.04	sg /	N/A	spqt
Chlorides :	N/A	ppm		
PV / YP :		cp /		lhf2
Solids/Sand :		% /		%
%Oil / O:W :		% /		
pH/Fluid Loss :	N/A	pH /	N/A	mptm
Max. Temp. :	18.00	degC		

MWD Schematics



5. Positive Pulse
SN: 10608129

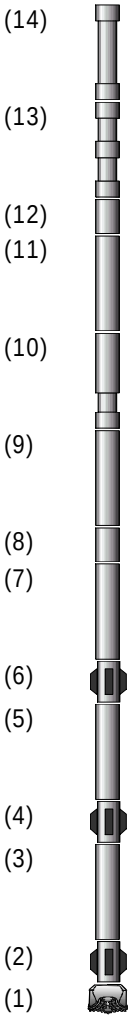
4. TM
SN: 10505184

3. GM
SN: 189039
15.18 m From Bit

2. DM
SN: 149865
13.36 m From Bit

1. Battery Module
SN: 115234

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
14.	Drill Pipe (E)	2000.00	139.700	121.361
13.	HWDP	138.22	161.000	76.000
12.	Cross Over Sub	1.16	200.000	74.000
11.	Drill Collar	17.71	203.200	71.438
10.	Drilling Jars	9.31	205.000	78.000
09.	Drill Collar	26.63	203.200	71.438
08.	Cross Over Sub	1.16	241.000	71.000
07.	Drill Collar	27.18	241.300	76.200
06.	Integral Blade Stabilizer	2.51	196.000	76.000
05.	MWD	9.87	241.000	74.000
04.	Integral Blade Stabilizer	2.51	192.000	76.000
03.	Pony collar	3.06	241.000	78.000
02.	Integral Blade Stabilizer	2.65	192.900	70.000
01.	Tricone Reed T-11	0.60	443.000	300.000

Comments

Ran into hole and performed a shallow pulse test at 95.0 mMDRT. Could not get valid surveys. POOH and picked up backup tool. See Service Interrupt Report.

MWD Performance

Tool OD / Type :	241.00	mm/	D/GWD	
MWD Real-time% :	0.00	%		
MWD Recorded% :	N/A	%		
Min. Inc. :	N/A	deg/	N/A	m
Max. Inc. :	N/A	deg/	N/A	m
Final Az. :	N/A	deg		
Max Op. Press. :	N/A	psig		

Bitrun Summary

Run Time Data

MWD Run :	0200
Rig Bit No:	2
Hole Size :	445.00 mm
Run Start :	18-Dec-05 07:08
Run End :	20-Dec-05 15:14
BRT Hrs :	56.10
Circ. Hrs :	41.64
Oper. Hrs :	56.10

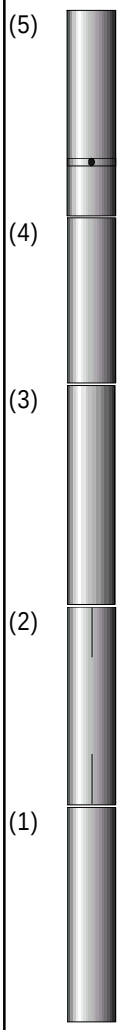
Drilling Data

Start Depth :	650.00	m
End Depth :	1525.00	m
Footage :	875.00	m
Avg. Flow Rate :	1100	gpm
Avg. RPM :	150	rpm
Avg. WOB :	15 .00	klb
Avg. ROP :	27.69	m/hr
Avg. SPP :	2540	psig

Mud Data

Mud Type :	Seawater			
Weight / Visc :	1.04	sg /	N/A	spqt
Chlorides :	N/A	ppm		
PV / YP :	1.00	cp /	1.00	lhf2
Solids/Sand :		% /		%
%Oil / O:W :		% /		
pH/Fluid Loss :	N/A	pH /	N/A	mptm
Max. Temp. :	24.00	degC		

MWD Schematics



5. Positive Pulse
SN: 10608129

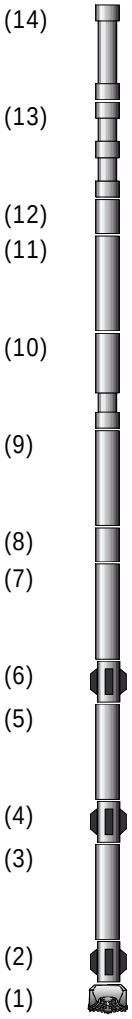
4. TM
SN: 134334

3. GM
SN: 83563
15.18 m From Bit

2. DM
SN: 185534
13.36 m From Bit

1. Battery Modul
SN: 10528028

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
14.	Drill Pipe (E)	2000.00	139.700	121.361
13.	HWDP	138.22	161.000	76.000
12.	Cross Over Sub	1.16	200.000	74.000
11.	Drill Collar	17.71	203.200	71.438
10.	Drilling Jars	9.31	205.000	78.000
09.	Drill Collar	26.63	203.200	71.438
08.	Cross Over Sub	1.16	241.000	71.000
07.	Drill Collar	27.18	241.300	76.200
06.	Integral Blade Stabilizer	2.51	196.000	76.000
05.	MWD	9.87	241.000	74.000
04.	Integral Blade Stabilizer	2.51	192.000	76.000
03.	Pony collar	3.06	241.000	78.000
02.	Integral Blade Stabilizer	2.65	192.900	70.000
01.	Tricone Reed T-11	0.60	443.000	300.000

Comments

Drilled 17 1/2" hole from 650.0m to 1525.0 mMDRT. POOH to run 13 3/8" casing, BOP and riser. All recorded data recovered at surface.

MWD Performance

Tool OD / Type :	241.00	mm/	D/GWD
MWD Real-time% :	95.00	%	
MWD Recorded% :	100.00	%	
Min. Inc. :	0.03	deg/	1371.46 m
Max. Inc. :	1.26	deg/	681.95 m
Final Az. :	0.70	deg	
Max Op. Press. :	2263	psig	

Bitrun Summary

Run Time Data

MWD Run :	0300
Rig Bit No:	3
Hole Size :	311.00 mm
Run Start :	24-Dec-05 00:20
Run End :	30-Dec-05 19:04
BRT Hrs :	162.72
Circ. Hrs :	127.83
Oper. Hrs :	162.72

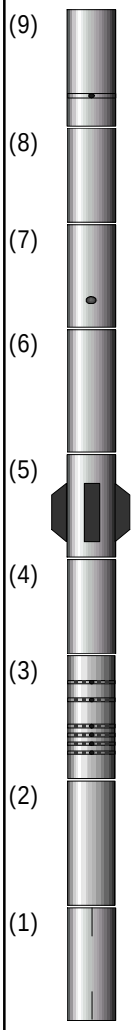
Drilling Data

Start Depth :	1525.00	m
End Depth :	3402.00	m
Footage :	1877.00	m
Avg. Flow Rate :	900	gpm
Avg. RPM :	150	rpm
Avg. WOB :	15.00	klb
Avg. ROP :	33.93	m/hr
Avg. SPP :	3005	psig

Mud Data

Mud Type :	MixSalt-Glydrill			
Weight / Visc :	1.22	sg /	57.00	spqt
Chlorides :	82000	ppm		
PV / YP :	17.00	cp /	30.00	lhf2
Solids/Sand :	10.5	% /	1.25	%
%Oil / O:W :		% /		
pH/Fluid Loss :	9.00	pH /	4.00	mptm
Max. Temp. :	56.00	degC		

MWD Schematics



9. Positive Pulse
SN: 10608129

8. TM
SN: 093281

7. CTN
SN: 10507211
30.97 m From Bit

6. ACAL
SN: 10507211
29.93 m From Bit

5. SLD
SN: 157942
25.66 m From Bit

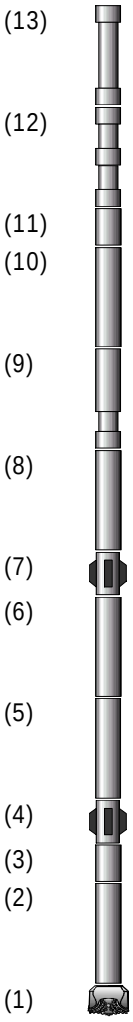
4. HCIM
SN: 093281

3. EWR-P4
SN: 121609
18.04 m From Bit

2. DGR
SN: 172498
15.73 m From Bit

1. DM
SN: 185534
13.13 m From Bit

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
13.	Drill Pipe (E)	3000.00	139.700	121.361
12.	HWDP	192.98	122.500	71.440
11.	Cross Over Sub	1.16	208.250	71.440
10.	Drill Collar	8.81	203.200	71.438
09.	Drilling Jars	9.31	200.400	73.600
08.	Drill Collar	8.68	196.850	71.440
07.	Integral Blade Stabilizer	2.10	202.000	71.440
06.	Drill Collar	9.06	203.200	71.438
05.	MWD	24.39	203.000	1.920
04.	Integral Blade Stabilizer	1.81	202.000	7.300
03.	Cross Over Sub	1.22	238.700	73.000
02.	9-5/8" SperryDrill Lobe 3/4 - 5 stage	8.68	244.602	154.000
01.	PDC Hycalog RSX-616M	0.25	311.150	73.000

Comments

Drilled out cement, shoe and 3m of formation. Perform a FIT. Drilled 12 1/4" hole from 1528.0 to 3402.0 mMDRT. POOH to change bit/BHA. All recorded data recovered at surface.

MWD Performance

Tool OD / Type :	203.00	mm/	P4M
MWD Real-time% :	96.25	%	
MWD Recorded% :	100.00	%	
Min. Inc. :	0.33	deg/	1540.46 m
Max. Inc. :	4.30	deg/	2457.14 m
Final Az. :	54.03	deg	
Max Op. Press. :	5920	psig	

Bitrun Summary

Run Time Data

MWD Run :	0400
Rig Bit No:	4
Hole Size :	311.00 mm
Run Start :	30-Dec-05 23:36
Run End :	02-Jan-06 05:19
BRT Hrs :	53.72
Circ. Hrs :	32.66
Oper. Hrs :	53.72

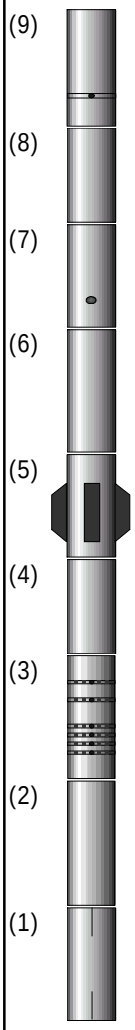
Drilling Data

Start Depth :	3402.00	m
End Depth :	3571.00	m
Footage :	169.00	m
Avg. Flow Rate :	850	gpm
Avg. RPM :	220	rpm
Avg. WOB :	21.00	klb
Avg. ROP :	0.00	m/hr
Avg. SPP :	3723	psig

Mud Data

Mud Type :	MixSalt-Glydrill			
Weight / Visc :	1.22	sg /	62.00	spqt
Chlorides :	84000	ppm		
PV / YP :	17.00	cp /	33.00	lhf2
Solids/Sand :	10.5	% /	1.5	%
%Oil / O:W :	0	% /	N/A	
pH/Fluid Loss :	6.00	pH /	3.60	mptm
Max. Temp. :	75.00	degC		

MWD Schematics



9. Positive Pulse
SN: 8483

8. TM
SN: 093281

7. CTN
SN: 10507211
30.93 m From Bit

6. ACAL
SN: 10507211
29.89 m From Bit

5. SLD
SN: 157942
25.62 m From Bit

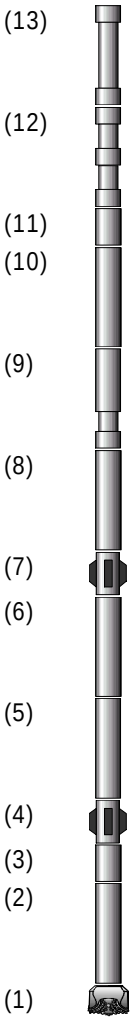
4. HCIM
SN: 093281

3. EWR-P4
SN: 121609
18.00 m From Bit

2. DGR
SN: 172498
15.70 m From Bit

1. DM
SN: 185534
13.09 m From Bit

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
13.	Drill Pipe (E)	3000.00	139.700	121.361
12.	HWDP	192.98	122.500	71.440
11.	Cross Over Sub	1.16	208.250	71.440
10.	Drill Collar	8.81	203.200	71.438
09.	Drilling Jars	9.31	200.400	73.600
08.	Drill Collar	8.68	196.850	71.440
07.	Integral Blade Stabilizer	2.10	202.000	71.440
06.	Drill Collar	9.06	203.200	71.438
05.	MWD	24.39	203.000	1.920
04.	Integral Blade Stabilizer	1.81	202.000	7.300
03.	Cross Over Sub	1.22	238.700	73.000
02.	9-5/8" SperryDrill Lobe 3/4 - 4 stage	8.68	244.602	154.000
01.	PDC Hycalog RSX-616M	0.25	311.150	73.000

Comments

Wiped from 3320.0 to 3360.0 mMDRT with LWD. Drilled ahead 12 1/4" hole from 3402.0 to 3571.0 mMDRT. POOH due to pressure loss in drillstring. All recorded data recovered at surface.

MWD Performance

Tool OD / Type :	203.00	mm/	P4M
MWD Real-time% :	100.00	%	
MWD Recorded% :	100.00	%	
Min. Inc. :	3.32	deg/	3547.59 m
Max. Inc. :	3.59	deg/	3432.80 m
Final Az. :	49.95	deg	
Max Op. Press. :	6184	psig	

Bitrun Summary

Run Time Data

MWD Run :	0500
Rig Bit No:	5
Hole Size :	311.00 mm
Run Start :	02-Jan-06 09:36
Run End :	03-Jan-06 09:18
BRT Hrs :	23.70
Circ. Hrs :	4.66
Oper. Hrs :	23.70

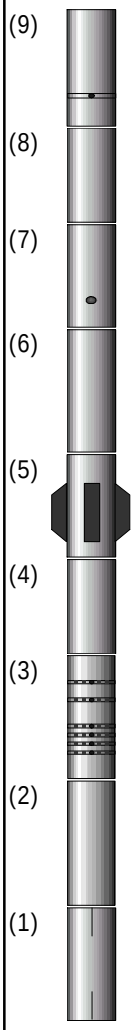
Drilling Data

Start Depth :	3571.00	m
End Depth :	3571.00	m
Footage :	0.00	m
Avg. Flow Rate :	900	gpm
Avg. RPM :	18	rpm
Avg. WOB :	N/A	klb
Avg. ROP :	N/A	m/hr
Avg. SPP :	3608	psig

Mud Data

Mud Type :	MixSalt-Glydrill			
Weight / Visc :	1.22	sg /	62.00	spqt
Chlorides :	82000	ppm		
PV / YP :	18.00	cp /	27.00	lhf2
Solids/Sand :	10.5	% /	1.25	%
%Oil / O:W :		% /		
pH/Fluid Loss :	9.00	pH /	3.60	mptm
Max. Temp. :	55.00	degC		

MWD Schematics



9. Positive Pulse
SN: 8351

8. TM
SN: 093281

7. CTN
SN: 10507211
26.35 m From Bit

6. ACAL
SN: 1
25.31 m From Bit

5. SLD
SN: 157942
21.03 m From Bit

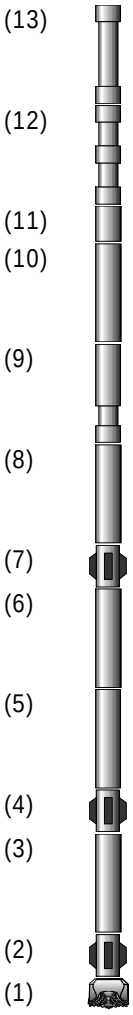
4. HCIM
SN: 093281

3. EWR-P4
SN: 121609
13.41 m From Bit

2. DGR
SN: 172498
11.11 m From Bit

1. DM
SN: 185534
8.50 m From Bit

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
13.	Drill Pipe (E)	3000.00	139.700	121.361
12.	HWDP	138.22	122.500	71.440
11.	Cross Over Sub	1.16	208.250	71.440
10.	Drill Collar	8.81	203.200	71.438
09.	Drilling Jars	9.66	200.400	73.600
08.	Drill Collar	8.68	196.850	71.440
07.	Integral Blade Stabilizer	2.10	202.000	71.440
06.	Drill Collar	70.95	203.200	71.438
05.	MWD	24.39	203.000	1.920
04.	Integral Blade Stabilizer	1.81	203.000	73.000
03.	Pony collar	2.96	203.000	73.000
02.	Integral Blade Stabilizer	2.13	203.000	73.000
01.	Tricone Smith GF30BODVCP	0.33	311.000	73.000

Comments

Performed shallow pulse test while RIH. Good pulses/detection. Continued RIH. Washed and reamed hole. No pulses detected at surface. POOH to pick up backup tool. All recorded data recovered at surface. See Service Interrupt Report.

MWD Performance

Tool OD / Type :	203.00	mm/	P4M	
MWD Real-time% :	0.00	%		
MWD Recorded% :	100.00	%		
Min. Inc. :	N/A	deg/	N/A	m
Max. Inc. :	N/A	deg/	N/A	m
Final Az. :	N/A	deg		
Max Op. Press. :	4612	psig		

Bitrun Summary

Run Time Data

MWD Run :	0600
Rig Bit No:	6
Hole Size :	311.00 mm
Run Start :	03-Jan-06 12:52
Run End :	07-Jan-06 17:22
BRT Hrs :	100.50
Circ. Hrs :	63.22
Oper. Hrs :	100.50

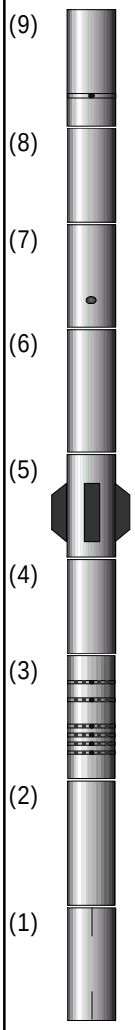
Drilling Data

Start Depth :	3571.00	m
End Depth :	3758.00	m
Footage :	187.00	m
Avg. Flow Rate :	795	gpm
Avg. RPM :	106	rpm
Avg. WOB :	34.00	klb
Avg. ROP :	3.40	m/hr
Avg. SPP :	4021	psig

Mud Data

Mud Type :	MixSalt-Glydrill			
Weight / Visc :	1.22	sg /	59.00	spqt
Chlorides :	79000	ppm		
PV / YP :	15.00	cp /	30.00	lhf2
Solids/Sand :	10.5	% /	0.7	%
%Oil / O:W :	0	% /	N/A	
pH/Fluid Loss :	9.00	pH /	3.80	mptm
Max. Temp. :	58.00	degC		

MWD Schematics



9. Positive Pulse
SN: 8483

8. TM
SN: 160772

7. CTN
SN: 194156
31.48 m From Bit

6. ACAL
SN: 194156
30.39 m From Bit

5. SLD
SN: 133722
26.13 m From Bit

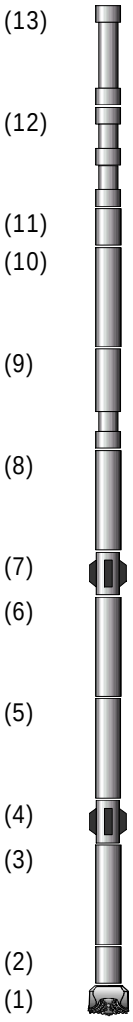
4. HCIM
SN: 160772

3. EWR-P4
SN: 205859
18.53 m From Bit

2. DGR
SN: 151081
16.17 m From Bit

1. DM
SN: 149865
13.55 m From Bit

BHA Schematics



	Component	Length (m)	O.D. (mm)	I.D. (mm)
13.	Drill Pipe (E)	3000.00	139.700	121.361
12.	HWDP	138.22	122.500	71.440
11.	Cross Over Sub	1.16	208.250	71.440
10.	Drill Collar	8.81	203.200	71.438
09.	Drilling Jars	9.66	200.400	73.600
08.	Drill Collar	70.57	196.850	71.440
07.	Integral Blade Stabilizer	2.10	202.000	71.440
06.	Drill Collar	9.06	203.200	71.438
05.	MWD	24.38	203.000	1.920
04.	Integral Blade Stabilizer	1.81	203.000	73.000
03.	Drill Collar	9.04	203.200	71.438
02.	Bit Sub	1.10	216.000	71.440
01.	Tricone Smith GF30BODVCP	0.33	311.000	73.000

Comments

Drilled 12¼" hole with rotary assembly. High vibration, tool stopped pulsing at 3714.0 mMDRT. Drilled to TD, 3758.0 mMDRT, without LWD. All recorded data recovered at surface (except Gamma Ray and Resistivity data over the failed interval). See Service Interrupt Report.

MWD Performance

Tool OD / Type :	203.20	mm/	P4M
MWD Real-time% :	76.00	%	
MWD Recorded% :	84.00	%	
Min. Inc. :	2.98	deg/	3641.38 m
Max. Inc. :	3.36	deg/	3555.34 m
Final Az. :	50.16	deg	
Max Op. Press. :	6500	psig	

Directional Survey Data

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
681.95	1.26	227.00	681.90	5.10S	5.47W	-5.1	TIE-IN
767.68	0.81	263.55	767.61	5.81S	6.76W	-8.7	0.27
825.04	0.93	254.57	824.97	5.98S	7.62W	-9.3	0.09
911.19	1.09	257.49	911.10	6.34S	9.09W	-10.5	0.06
1027.78	0.85	252.60	1027.68	6.84S	11.00W	-12.1	0.06
1056.46	0.79	254.04	1056.35	6.96S	11.39W	-12.4	0.07
1085.16	0.77	260.55	1085.05	7.05S	11.77W	-12.7	0.09
1113.81	0.62	255.11	1113.70	7.12S	12.11W	-13.0	0.18
1142.54	0.51	257.73	1142.43	7.19S	12.38W	-13.2	0.11
1171.11	0.43	257.64	1171.00	7.24S	12.61W	-13.4	0.08
1228.35	0.22	250.90	1228.23	7.32S	12.93W	-13.6	0.12
1257.08	0.17	244.39	1256.96	7.35S	13.02W	-13.7	0.05
1342.79	0.06	257.65	1342.67	7.42S	13.18W	-13.9	0.04
1371.46	0.03	247.14	1371.34	7.43S	13.20W	-13.9	0.03
1428.75	0.11	336.43	1428.63	7.38S	13.24W	-13.9	0.06
1486.03	0.16	21.18	1485.91	7.26S	13.23W	-13.8	0.06
1509.77	0.09	0.70	1509.65	7.21S	13.22W	-13.7	0.10
1525.00	0.09	0.70	1524.88	7.17S	13.22W	-13.7	0.24
1540.46	0.33	354.58	1540.34	7.10S	13.23W	-13.6	0.24
1569.11	0.36	350.12	1568.99	6.93S	13.25W	-13.5	0.04
1597.73	0.50	2.93	1597.61	6.71S	13.26W	-13.4	0.18
1626.44	0.63	1.96	1626.32	6.43S	13.25W	-13.1	0.14
1655.17	0.86	9.39	1655.05	6.06S	13.21W	-12.8	0.26
1683.81	1.15	21.61	1683.68	5.58S	13.07W	-12.3	0.38
1712.56	1.54	24.62	1712.43	4.96S	12.80W	-11.7	0.42
1741.12	1.85	23.41	1740.97	4.19S	12.46W	-10.9	0.33
1769.90	2.12	24.21	1769.74	3.28S	12.05W	-9.9	0.28
1798.49	2.39	23.17	1798.30	2.25S	11.60W	-8.8	0.28
1827.17	2.73	24.42	1826.96	1.08S	11.09W	-7.6	0.36
1855.78	2.98	24.43	1855.53	0.22N	10.50W	-6.2	0.27
1884.43	3.09	24.80	1884.14	1.60N	9.87W	-4.7	0.12
1913.08	3.07	24.58	1912.75	3.00N	9.22W	-3.2	0.02
1941.89	3.12	23.61	1941.52	4.42N	8.59W	-1.7	0.08
1970.98	3.18	24.11	1970.56	5.88N	7.94W	-0.1	0.07
1999.06	3.22	24.85	1998.60	7.31N	7.29W	1.36	0.06
2027.82	3.27	25.23	2027.31	8.79N	6.60W	2.95	0.06
2056.65	3.24	27.04	2056.09	10.26N	5.88W	4.56	0.11
2085.12	3.33	26.59	2084.52	11.72N	5.14W	6.16	0.10
2113.64	3.40	27.83	2112.99	13.21N	4.37W	7.81	0.10
2142.04	3.46	29.61	2141.34	14.70N	3.56W	9.49	0.13

Directional Survey Data

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
2170.63	3.60	30.30	2169.87	16.22N	2.68W	11.23	0.15
2199.17	3.77	30.65	2198.35	17.80N	1.75W	13.05	0.18
2227.87	3.85	36.05	2226.99	19.39N	0.70W	14.95	0.38
2256.54	3.99	35.43	2255.59	20.98N	0.44E	16.91	0.16
2285.35	4.14	37.21	2284.33	22.63N	1.65E	18.95	0.20
2314.02	4.15	34.69	2312.93	24.31N	2.87E	21.02	0.19
2342.60	4.24	35.48	2341.43	26.02N	4.07E	23.11	0.11
2371.30	4.20	37.23	2370.05	27.72N	5.32E	25.22	0.14
2399.91	4.28	37.96	2398.58	29.39N	6.61E	27.34	0.10
2428.46	4.30	38.32	2427.05	31.07N	7.93E	29.47	0.04
2457.14	4.30	37.54	2455.65	32.77N	9.25E	31.62	0.06
2514.65	4.09	38.40	2513.01	36.09N	11.84E	35.83	0.11
2543.24	4.05	40.48	2541.53	37.66N	13.13E	37.86	0.16
2572.00	4.01	40.97	2570.22	39.19N	14.45E	39.88	0.05
2600.65	3.91	40.54	2598.80	40.69N	15.74E	41.85	0.11
2629.39	3.86	40.58	2627.47	42.17N	17.01E	43.80	0.05
2658.02	3.89	41.30	2656.04	43.63N	18.28E	45.73	0.06
2686.60	3.77	41.46	2684.55	45.06N	19.54E	47.63	0.12
2715.15	3.77	40.42	2713.04	46.48N	20.77E	49.51	0.07
2743.83	3.80	42.10	2741.66	47.90N	22.02E	51.40	0.12
2772.65	3.83	43.73	2770.41	49.30N	23.32E	53.31	0.12
2801.66	3.84	42.76	2799.36	50.72N	24.65E	55.24	0.07
2830.44	3.89	43.81	2828.07	52.13N	25.98E	57.17	0.09
2859.14	3.95	44.31	2856.71	53.54N	27.35E	59.12	0.08
2887.70	3.86	45.65	2885.20	54.92N	28.72E	61.05	0.14
2916.43	3.87	45.26	2913.86	56.27N	30.10E	62.96	0.03
2944.96	3.83	45.79	2942.33	57.61N	31.47E	64.86	0.06
2973.53	3.73	46.71	2970.84	58.92N	32.83E	66.72	0.12
3002.19	3.72	46.75	2999.44	60.19N	34.18E	68.56	0.01
3059.49	3.72	46.57	3056.62	62.74N	36.89E	72.23	0.01
3088.21	3.81	46.46	3085.28	64.04N	38.25E	74.09	0.10
3116.08	3.75	45.37	3113.08	65.32N	39.57E	75.91	0.10
3145.07	3.74	48.33	3142.01	66.61N	40.95E	77.77	0.20
3173.79	3.67	49.59	3170.67	67.83N	42.35E	79.59	0.11
3202.65	3.71	48.97	3199.47	69.04N	43.76E	81.41	0.06
3231.77	3.53	48.20	3228.54	70.26N	45.14E	83.22	0.20
3260.37	3.66	49.86	3257.08	71.43N	46.49E	84.97	0.17
3317.48	3.72	47.74	3314.07	73.86N	49.26E	88.58	0.08
3346.36	3.65	50.41	3342.89	75.07N	50.66E	90.40	0.19
3375.03	3.69	54.03	3371.50	76.20N	52.11E	92.17	0.25

Directional Survey Data

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
3404.40	3.54	54.90	3400.81	77.27N	53.62E	93.95	0.17
3432.80	3.59	51.96	3429.16	78.33N	55.04E	95.64	0.20
3461.32	3.48	51.53	3457.62	79.41N	56.42E	97.35	0.12
3490.24	3.38	50.31	3486.49	80.50N	57.76E	99.03	0.13
3519.26	3.32	50.11	3515.46	81.59N	59.06E	100.68	0.06
3547.59	3.32	49.95	3543.75	82.64N	60.32E	102.29	0.01
3555.34	3.36	53.74	3551.48	82.92N	60.68E	102.72	0.87
3583.83	3.00	50.85	3579.93	83.89N	61.93E	104.25	0.41
3641.38	2.98	50.16	3637.40	85.80N	64.24E	107.18	0.02
3758.00	2.98	50.16	3753.86	89.68N	68.90E	113.09	0.00

Directional Survey Data

CALCULATION BASED ON Minimum Curvature METHOD

SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT

VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG CLOSURE OF 37.53 DEGREES (GRID)
A TOTAL CORRECTION OF 14.43 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED

HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 3758.00 METRES
IS 113.09 METRES ALONG 37.53 DEGREES (GRID)

RT - LAT = 21.5m
Final Survey projected to TD.

Service Interrupt Report

MWD run number :	0100	Time/Date of Failure :	18-Dec-05 03:54
Rig Bit Number :	2	Depth at time of Failure :	95.00 m
MWD Run start time/date :	18-Dec-05 00:54	Lost Rig Hours :	3.00
MWD Run end time/date :	18-Dec-05 03:54		

Rig Activity

During MWD Shallow Pulse Test while running into hole to drill 17 1/2" hole.

Description of Failure

Could not get a valid survey during shallow pulse test.

Action Taken

Tried a few times to get a valid survey, but could not. POOH and picked up backup tool.

Operation Impact

Tripped for LWD tool failure.

Reason for Failure

Suspect the Battery Module would not function at low temperatures (less than 15 deg C). Post-Run confidence points to a suspect Directional Tool (DM). See Equipment Failure Report.

Service Interrupt Report

MWD run number :	0500	Time/Date of Failure :	02-Jan-06 21:00
Rig Bit Number :	5	Depth at time of Failure :	2400.00 m
MWD Run start time/date :	02-Jan-06 09:36	Lost Rig Hours :	21.00
MWD Run end time/date :	03-Jan-06 09:18		

Rig Activity

Running / reaming down to bottom after a bit trip.

Description of Failure

No pulses observed on surface while reaming down to bottom after bit trip.

Action Taken

Mode-switched tool using rig pumps, in a bid to reset tool but this did not help. Pulled out of hole and picked up tool.

Operation Impact

Tripped for LWD tool failure

Reason for Failure

Pulser failure. See Equipment Failure Report.

Service Interrupt Report

MWD run number :	0600	Time/Date of Failure :	06-Jan-06 03:32
Rig Bit Number :	6	Depth at time of Failure :	3714.00 m
MWD Run start time/date :	03-Jan-06 12:52	Lost Rig Hours :	0.00
MWD Run end time/date :	07-Jan-06 17:22		

Rig Activity

While drilling 12 1/4" hole.

Description of Failure

Lost communication with downhole tool while drilling. Observed extreme drillstring vibration.

Action Taken

Tried mode-switching tool to reset it, but this did not help.

Operation Impact

Could not obtain real time LWD data from 3714.0m to 3758.0mMDRT, could not recover recorded Gamma Ray Resistivity data over same interval when the tool memory was read when out of hole.

Reason for Failure

Extreme drillstring vibration caused the HCIM (Downhole processor) failure. The non-magnetic stabilizer below tool in the BHA showed extreme wear. See Equipment Failure Report.

APPENDIX 12

VSP REPORT

Q-Borehole Survey Report

Schlumberger

Survey type:	Zero Offset VSP
Company:	Nexus Energy
Well:	Culverin 1
Field:	Exploration
Country:	Australia
Run:	2
Date:	8-Jan-2006

Recorded by: Kasian S. / Tim Hopper

Witnessed by: M. Woodmansee / R. Blackmore

Report Contents

Introduction

A borehole seismic survey was recorded in Suite 1 Run 2 in the vertical (max. 4.3 deg deviation) offshore exploration well Culverin-1 on 08 Jan 2006. This survey included Rig Source VSP measurements from 3750 m MD RT to 620.8 m MD RT. The data were acquired using 4 shuttles VST-C (15.12 m spacing) downhole Tool.

A Delta G-Gun cluster (3 x 150 cu. inch G-GUN) was deployed from the Rig Ocean Patriot with an azimuth of 209 degrees with reference to North. The offset of gun was fixed 64 m from the wellhead. The guns were submerged from a buoy to 4.6 meters below water surface. TRISOR-OFS was deployed 1.25 meters below the center of the gun cluster.

TRISOR-OFS Gun controller was used for the auto-tuning of cluster gun. Firing pressure and the depth of the gun was monitored and recorded at each shot for source QC purpose. Off tuning shots of cluster gun were rejected from stacking.

Survey Results

Total acquisition time for the survey was recorded as 12 hrs 15 mins from rig up to full rig down.

Data quality generally for the VSP considered to be good throughout the survey. At least 5 good repeatable shots were recorded at each VSP level (3750 m to 3220.8 m) and Check-Shot level (3166.2 m to 620.8 m). The Check-Shot survey was ended at the seabed.

Gamma Ray Log was recorded (up log) while main VSP survey. Depth offset 0.5 meters shallower is observed. The depth offset is not corrected in this report.

The tide level used “zero” for the static correction. Static correction of transit time does not use water tide level in this report.

Well Information

Company	**Nexus Energy**
Well	**Culverin 1**
Field	**Exploration**
Country	Australia
State	Victoria
Logging Date	8-Jan-2006
Run Number	2
Service Order	AUSL06151649
Well Head (Latitude)	38 24' 8.14" S
Well Head (Longitude)	148 39' 41.92" E
Well Head (X Coordinate)	644437.3 UTM
Well Head (Y Coordinate)	5748256.5 UTM
Total Depth - Driller	3758.0 m
Total Depth - Logger	3757.0 m
Maximum Hole Deviation	4.3 deg
Azimuth of Maximum Deviation	
Program Version	13C0-300
Bit Size	12.250 in
Recorded by	Kasian S. / Tim Hopper
Witnessed by	M. Woodmansee / R. Blackmore

Elevation Information

Permanent Datum	LAT
Elevation Permanent Datum	0.0 m
Above Permanent Datum	21.5 m
Drilling Measured From	Drill Floor
Derrick Floor	21.5 m
Ground Level	-585.0 m
Kelly Bush	21.5 m
Log Measured From	Drill Floor
Elevation Log Zero	21.5 m

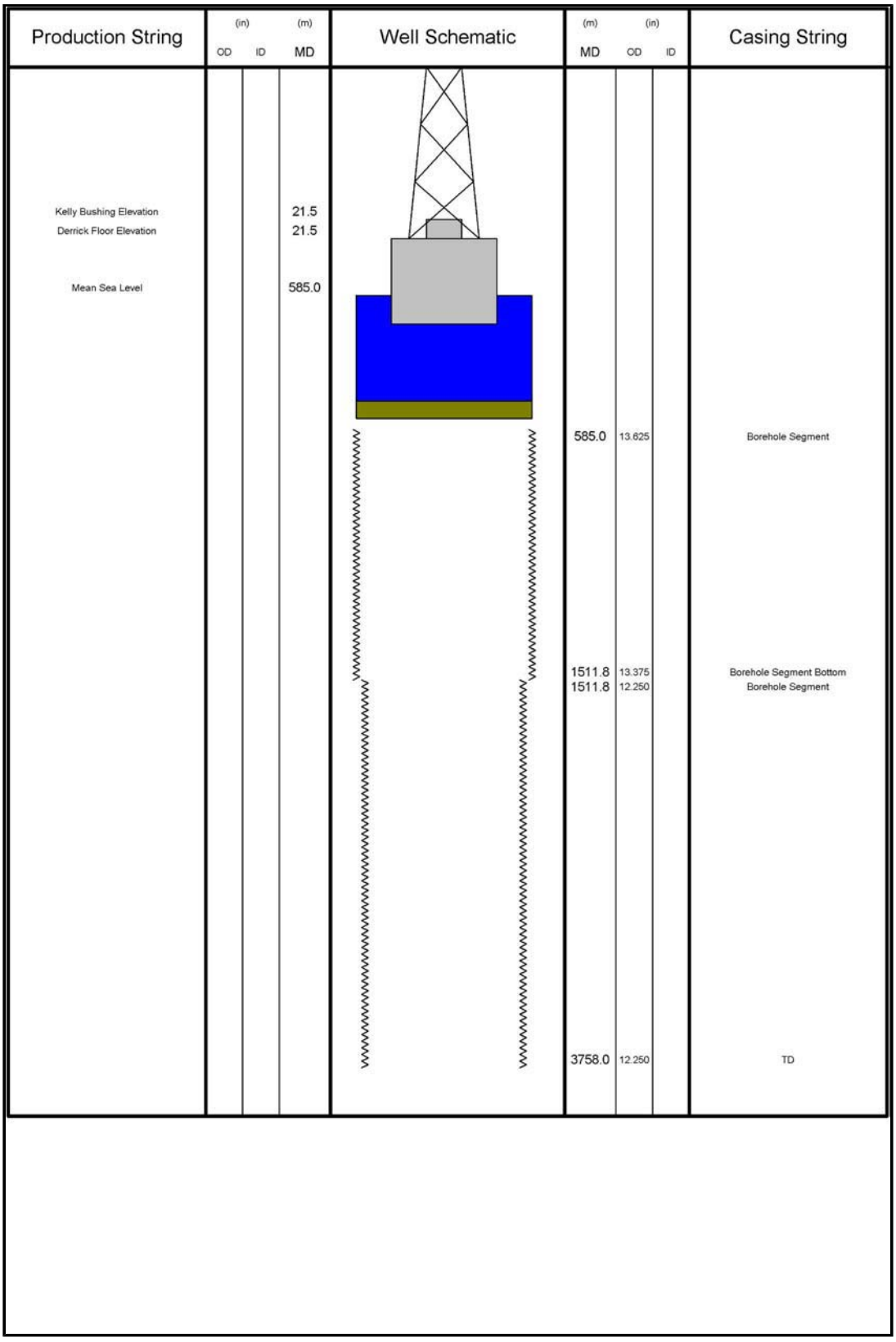
Depth Corrected Information

Water Velocity	1524.0 m/s
Seismic Reference Datum	0.0 m

Remarks

Tool string run as per tool sketch.
Subsequent log in the well, Log correlated to Suite1; Run1 Dated 7-Jan-06
Maximum recodred temp 91.1DegC from thermometer.
Mud Data; Barite 2.4%, Chlorides 80000 mg/l, Bentonite 0.3% Solids 10.5 %Vol

Well Sketch

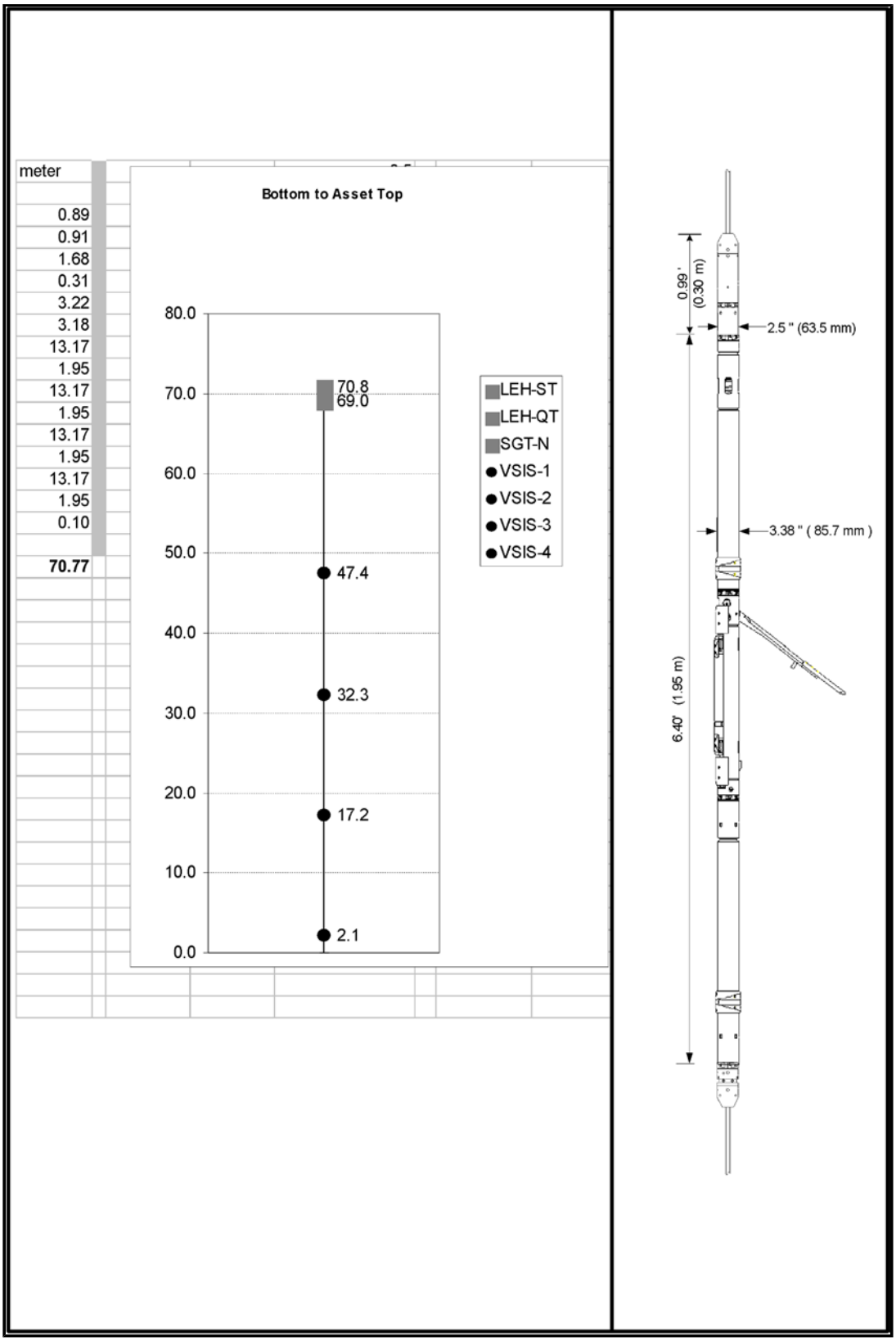

Production String
(in) OD
ID
(m) MD
Well Schematic
(m) MD
(in) OD
ID
Casing String
Kelly Bushing Elevation
21.5
Derrick Floor Elevation
21.5
Mean Sea Level
585.0
585.0
13.625
Borehole Segment
1511.8
13.375
Borehole Segment Bottom
1511.8
12.250
Borehole Segment
3758.0
12.250
TD

Well Inclinometry List

Measured Depth (m)	Deviation (deg)	Azimuth (deg)	True Vertical Depth (m)
0.00	0.00	227.00	
681.95	1.26	227.00	681.90
767.68	0.81	263.55	767.62
825.04	0.93	254.57	824.97
911.19	1.09	257.49	911.11
1027.78	0.85	252.60	1027.68
1056.46	0.79	254.04	1056.36
1085.16	0.77	260.55	1085.06
1113.81	0.62	255.11	1113.70
1142.54	0.51	257.73	1142.43
1171.11	0.43	257.64	1171.00
1228.35	0.22	250.90	1228.24
1257.08	0.17	244.39	1256.97
1342.79	0.06	257.65	1342.68
1371.46	0.03	247.14	1371.35
1428.75	0.11	336.43	1428.64
1486.03	0.16	21.18	1485.92
1509.77	0.09	0.70	1509.66
1540.46	0.33	354.58	1540.35
1569.11	0.36	350.12	1569.00
1597.73	0.50	2.93	1597.62
1626.44	0.63	1.96	1626.33
1655.17	0.86	9.39	1655.05
1683.81	1.15	21.61	1683.69
1712.56	1.54	24.62	1712.43
1741.12	1.85	23.41	1740.98
1769.90	2.12	24.21	1769.74
1798.49	2.39	23.17	1798.31
1827.17	2.73	24.42	1826.96
1855.78	2.98	24.43	1855.54
1884.43	3.09	24.80	1884.15
1913.08	3.07	24.58	1912.75
1941.89	3.12	23.61	1941.52
1970.98	3.18	24.11	1970.57
1999.06	3.22	24.85	1998.60
2027.82	3.27	25.23	2027.32
2056.65	3.24	27.04	2056.10
2085.12	3.33	26.59	2084.53
2113.64	3.40	27.83	2113.00
2142.04	3.46	29.61	2141.35
2170.63	3.60	30.30	2169.88
2199.17	3.77	30.65	2198.36
2227.87	3.85	36.05	2227.00
2256.54	3.99	35.43	2255.60

2285.35	4.14	37.21	2284.34
2314.02	4.15	34.69	2312.93
2342.60	4.24	35.48	2341.44
2371.30	4.20	37.23	2370.06
2399.91	4.28	37.96	2398.59
2428.46	4.30	38.32	2427.06
2457.14	4.30	37.54	2455.66
2514.65	4.09	38.40	2513.02
2543.24	4.05	40.48	2541.53
2572.00	4.01	40.97	2570.22
2600.65	3.91	40.54	2598.80
2629.39	3.86	40.58	2627.48
2658.02	3.89	41.30	2656.04
2686.60	3.77	41.46	2684.56
2715.15	3.77	40.42	2713.05
2743.83	3.80	42.10	2741.67
2772.65	3.83	43.73	2770.42
2801.66	3.84	42.76	2799.37
2830.44	3.89	43.81	2828.08
2859.14	3.95	44.31	2856.71
2887.70	3.86	45.65	2885.21
2916.43	3.87	45.26	2913.87
2944.96	3.83	45.79	2942.34
2973.53	3.73	46.71	2970.84
3002.19	3.72	46.75	2999.44
3059.49	3.72	46.57	3056.62
3088.21	3.81	46.46	3085.28
3116.08	3.75	45.37	3113.09
3145.07	3.74	48.33	3142.02
3173.79	3.67	49.59	3170.68
3202.65	3.71	48.97	3199.48
3231.77	3.53	48.20	3228.54
3260.37	3.66	49.86	3257.08
3317.48	3.72	47.74	3314.08
3346.36	3.65	50.41	3342.90
3375.03	3.69	54.03	3371.51
3404.40	3.54	54.90	3400.82
3432.80	3.59	51.96	3429.16
3461.32	3.48	51.53	3457.63
3490.24	3.38	50.31	3486.50
3519.26	3.32	50.11	3515.47
3547.59	3.32	49.95	3543.75
3555.34	3.36	53.74	3551.49
3583.83	3.00	50.85	3579.93
3641.38	2.98	50.16	3637.41
3758.00	2.98	50.16	3753.87

Tool Sketch


meter
0.89
0.91
1.68
0.31
3.22
3.18
13.17
1.95
13.17
1.95
13.17
1.95
13.17
1.95
0.10
70.77
Bottom to Asset Top
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
70.8
69.0
47.4
32.3
17.2
2.1
LEH-ST
LEH-QT
SGT-N
VSIS-1
VSIS-2
VSIS-3
VSIS-4
0.99 '
(0.30 m)
2.5 " (63.5 mm)
3.38 " (85.7 mm)
6.40' (1.95 m)

Downhole Equipment Information

Tool Type	VSIT
Surface Equipment	TRISOR-OFS
Combined Tool	DTC-H 9166 , SGT-N 9901
Number of Shuttles	4
Nominal Receiver Spacing	15.12 m
Gimbaled (Y/N)	No
Downhole Geophone Type	GAC-D 3-axis orthogonal
Sensitivity	0.5 V/G 3%
Natural Frequency	20 Hz
Damping Factor	N/A
DC Resistance	1500 Ohms 3% @25 degC
Measurement Specification	
Dynamic range	> 105 dB at 36 dB
Distortion	< -90 dB
Analog Low-Cut filter	0.3 Hz, -6 dB/Oct
Digital Low-Cut filter	None
DC Offset removal	Averaging by surface software
Digital High-Cut filter	Linear phase at down hole
Pass band ripple	+- 0.01 dB
Stop band attenuation	< -130 dB
Bandwidth	80% of Nyquist frequency
Test Signal harmonic distortion	< -110 dB
Tool SN	
VSPC-BA	8111
VSCC-BB	8111
VSII-AB	8311
Receiver #1 (VSIS-CA)	8229
VSII-AB	8309
Receiver #2 (VSIS-CA)	8226
VSII-AB	8315
Receiver #3 (VSIS-CA)	8228
VSII-AB	8318
Receiver #4 (VSIS-CA)	8230
VSIA	8057

Operation Time Summary

DATE	Time Start	Time Taken Hr : min	OPERATION
8-Jan-06	7:00	0:30	Rig Up VSI
	7:30	0:15	Surface Check VSI
	7:45	0:25	RIH in hole to 600 m
	8:10	0:10	VSI at 600 m, perform system check
	8:20	1:10	RIH in hole
	9:30	0:15	Commence QC shot at 1599.9 m
	9:45	0:41	RIH in hole
	10:26	0:14	Commence QC shot at 2541.4 m
	10:40	0:44	RIH in hole
	11:24	0:11	Commence QC shot at 3509 m
	11:35	0:35	RIH in hole
	12:10	5:31	VSI at TD commence VSP
	17:41	0:49	VSI at sea bed Complete survey, POOH
	18:30	0:45	VSI at surface, commence rig down of VSI
	19:15		Rig down completed well released
		12:15	**HRS –TOTAL OPERATING TIME**

Remarks:

General Information

Survey Type	Zero Offset VSP
Surface Recording Length	1024.0 ms
Suface Sampling Rate	0.25 ms
Downhole Recording Length	5000.0 ms
Downhole Sampling Rate	1.0 ms
Top of Survey	620.8 m
Bottom of Survey	3749.9 m
Number of Shots	207
Number of Downhole Traces	828
Number of Downhole Traces used for Processing	684

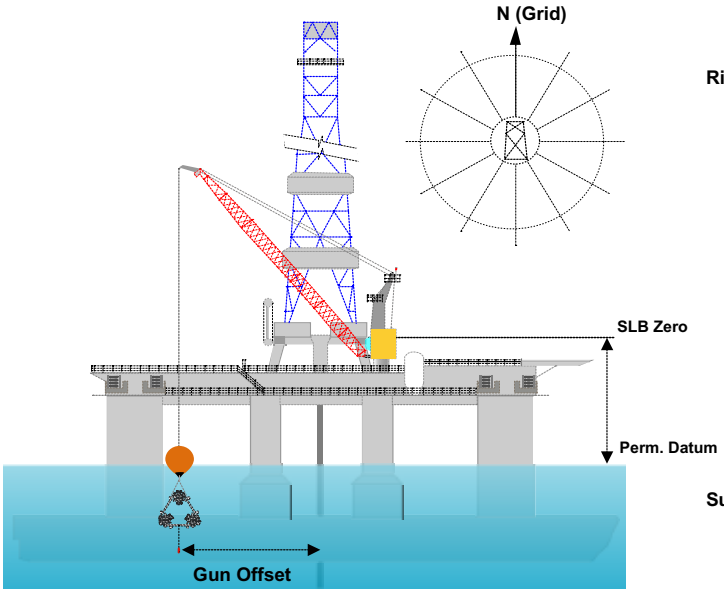
Borehole Seismic Source Information

Engineer: Kasian S. / Tim Hopper
Well Name: Culverin-1 **Date:** 08-Jan-2006
Rig: Ocean Patriot

<Geometrical Coordinates> **Longitude:** 148 39' 14.92" E **Latitude:** 38 24' 8.14" S
<UTM Coordinates> **Easting:** 644,437.3 E **Northing:** 5,748,256.4 N

Permanent Datum: LAT
Log Measured From: DF **Elev.** 21.5 **Unit :** m

SRD (Seismic Reference Datum): LAT **Elev.** 0.0 **from SLB zero:** 21.5 (SRDS)
Water Depth: 585.0



RIG Heading: 272.5 deg
Rig Crane used: ☑ Port side ☐ Starboard side
Rig Crane azimuth (from Rig Heading): 63.0 deg

Gun Azimuth (Grid North): 209.5 deg (GAZI)

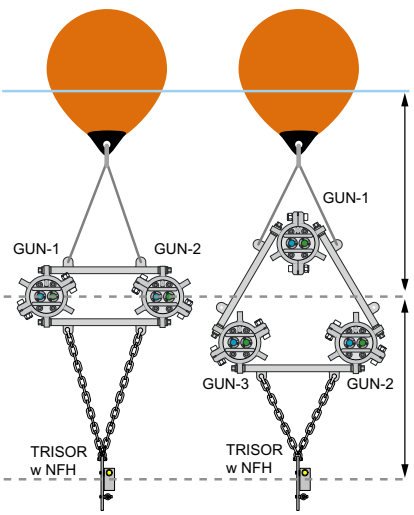
Hy1 Azimuth (Grid North): 209.5 deg

Gun Offset: 64.0 (GOFF)

NF Hydrophone Offset: 64.0

Surface Velocity: 1524 m/s (SVEL)

Cluster Gun Type:
☐ WSGC-P90 ☑ WSGC-T90



Gun Type:
☑ WSG-G150 (G-Gun 150cu.inch)
☐ WSG-G250 (G-Gun 250cu.inch)

GUN-1 sn: 371646
GUN-2 sn: 371663
GUN-3 sn: 17812
Cluster Frame sn: APG05

Gun Depth from Local Tide 4.6
Gun Depth from SLB 26.1 (GDSZ)

NF Hydrophone Type: FJORD HD1-TC
SN: HD1-TC0409-068-016F (WSQB-UB 8025)
Sensitivity (nC/B): 75.8 (-016F)

Hy 1 Depth from Gun 1.25 **Hy 1 Depth from LT** 5.85 **Hy 1 Depth from SLB zero** 27.35

Air Gun Firing Pressure: 1800 psi
Accumulator Pressure (Inlet pressure): 1900 psi
Source of Air supply: Rig Supply
Air Controller (Regulator) Type: WAP-SS01 **sn:** V18-P0001

Sea Condition

Sea Condition: Moderate
Low Tide Level: 0.2
High Tide Level: 0.7
Wave Height: 0.0
at 04:39 08/Jan/06
at 16:49 08/Jan/06
Main survey started at 12:10 08/Jan/06
ended at 17:43 08/Jan/06
Tide Table available: ☑ Yes ☐ No

HSE

Safe Distance: 8.1

Observation of Marine Mammals
Marine Mammals sighted in 30 minutes before the survey ☐ Yes ☑ No
Soft-Start implemented: ☑ Yes ☐ No

Borehole Seismic Gun Tuning Information

Surface Sensor Channels / Gun Controller

SS Channels

S1 : Near Field Hydrophone

Gun Controller

WSQB-GCRIG

WSQB-UB sn : 8025
WSQB-PC sn : 8025
WSQB-PPRIG sn : 8030
WSQB-LPU sn : 488

WSQB-UB Sensor Specifications

Sensor	Type	ADC(bit)	ADC(ms)	Gain(dB)	Filter	Accuracy
Gun TB	G-Gun M/P	12	0.1	-24 to 24	1 KHz	
NFH	HD1-TC	16	0.25	-24 to 24	8th order Bessel (1Hz to 500Hz)	
Depth	SP65B 100 A7	12	per shot	fix	N/A	1.50%
Pressure	SP97AFS-300A-21B ABS	12	per shot	fix	N/A	2%
FP current		12	0.1	fix	N/A	

Loaded Trisor Configuration File name : WSQB8025_T90v211.cfg

Exported Datebase File name : TRISOR.DAT

Cluster Gun Tuning / Quality Control

	Gun Delay (ms)
GUN-1	AUTO
GUN-2	AUTO
GUN-3	AUTO

Gun Delay Offset value (ms) : 2.4

Cluster Gun Tuning QC

	GUN-1 DLY (ms)	GUN-2 DLY (ms)	GUN-3 DLY (ms)
Shot-1	12.7	12.7	11.6
Shot-2	12.8	12.7	11.8
Shot-3	12.8	12.6	11.7
Shot-4	12.7	12.8	11.7
Shot-5	12.8	13.0	11.7
Shot-6	12.8	12.6	11.9
Shot-7	12.6	12.7	11.6
Average	12.8	12.7	11.7

Quality Check Surface Signal (S1) / Filling Time (air Regulator)

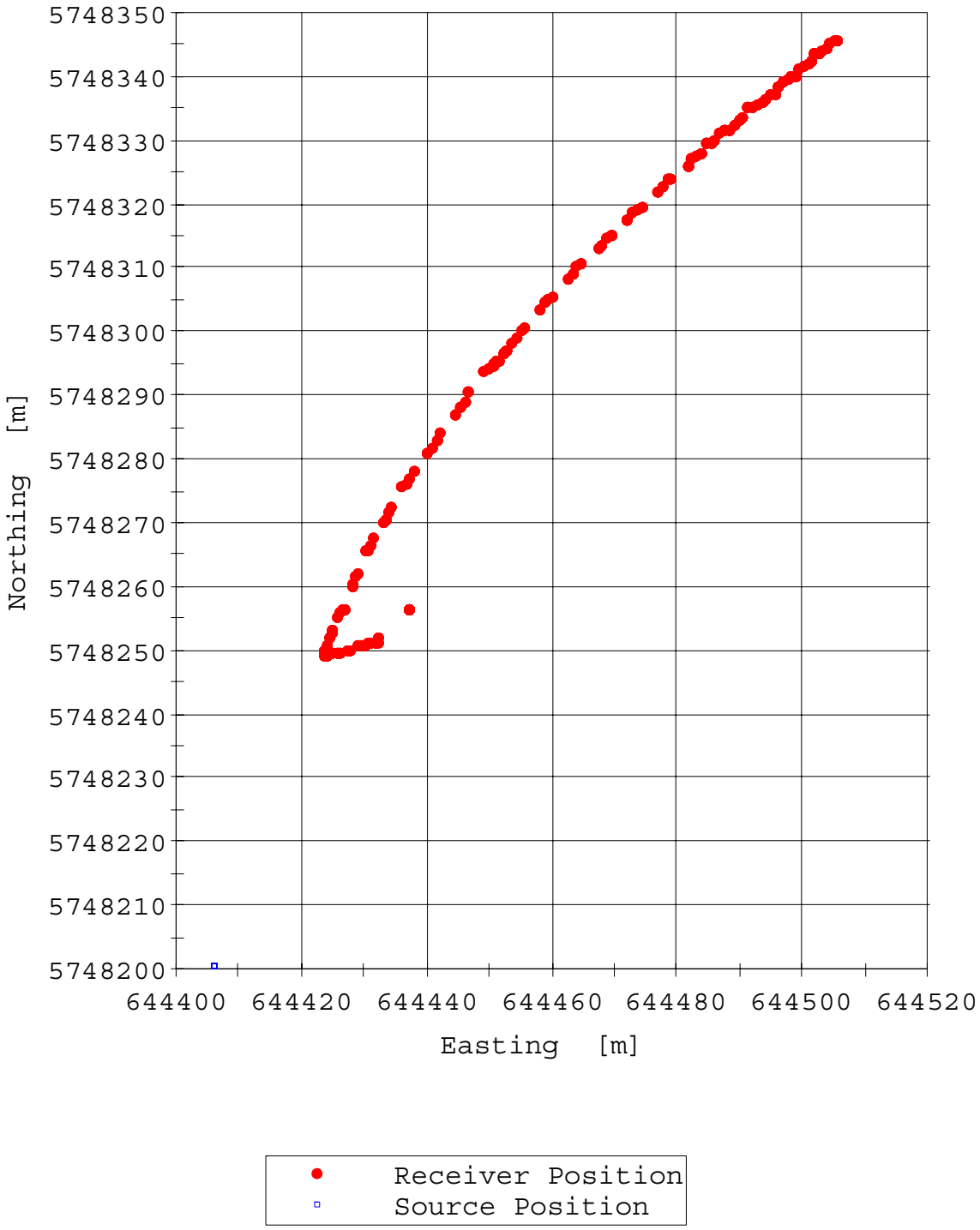
	S1 Time Break (ms)	/ PP (bit)	Filling Time (sec)
Shot-1	0.0	7	5
Shot-2	0.0	7	5
Shot-3	0.0	7	5
Shot-4	0.0	7	5
Shot-5	0.0	7	5

Other Logs Information

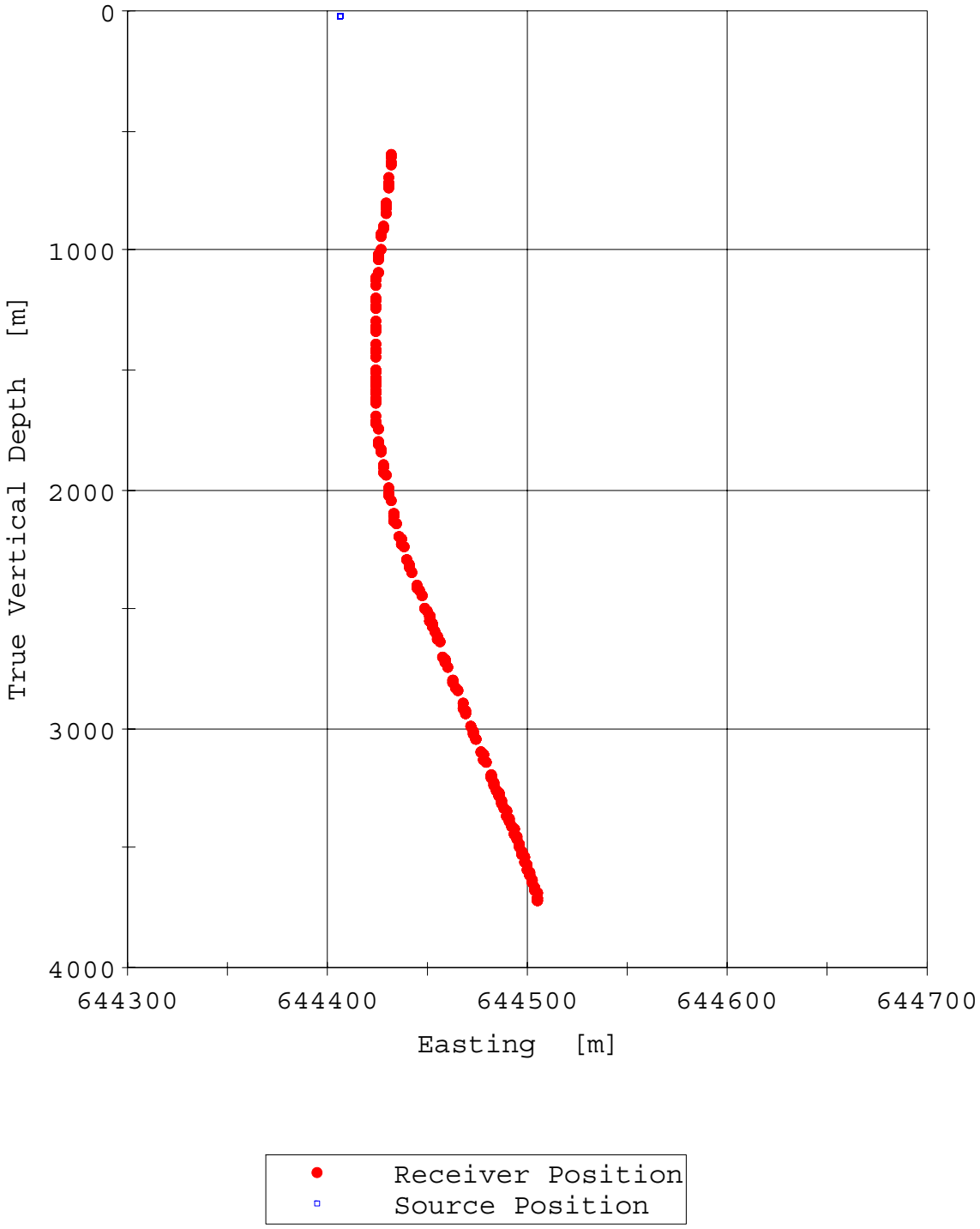
Sonic Log: DSI **Interval:** **from** 3,758.0 **to** 2,713.0 **Date:** 07/Jan/06
Density Log: PEX **Interval:** **from** 3,758.0 **to** 2,713.0 **Date:** 07Jan/06

Remarks

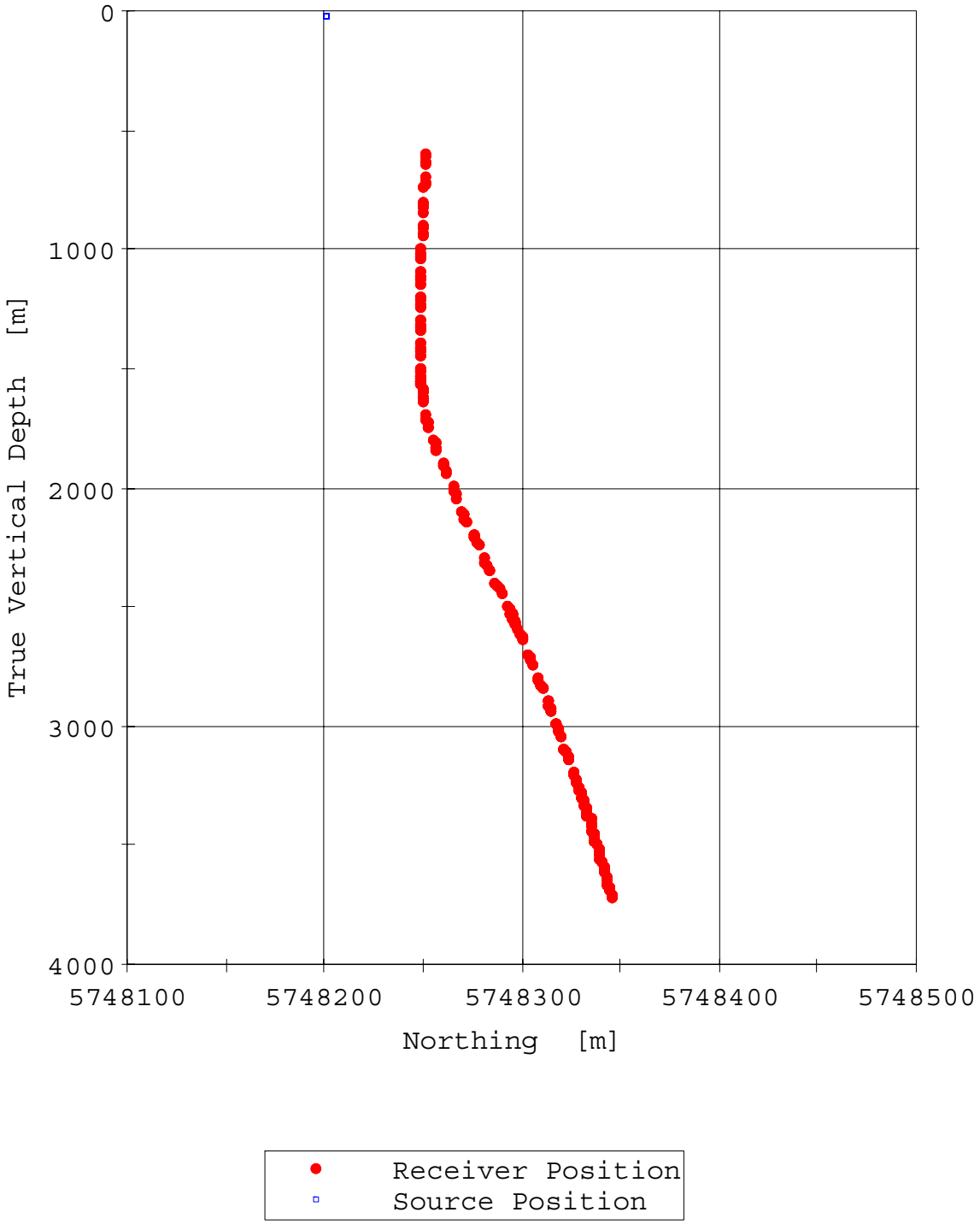
Geometry Infomation Page (X-Y)



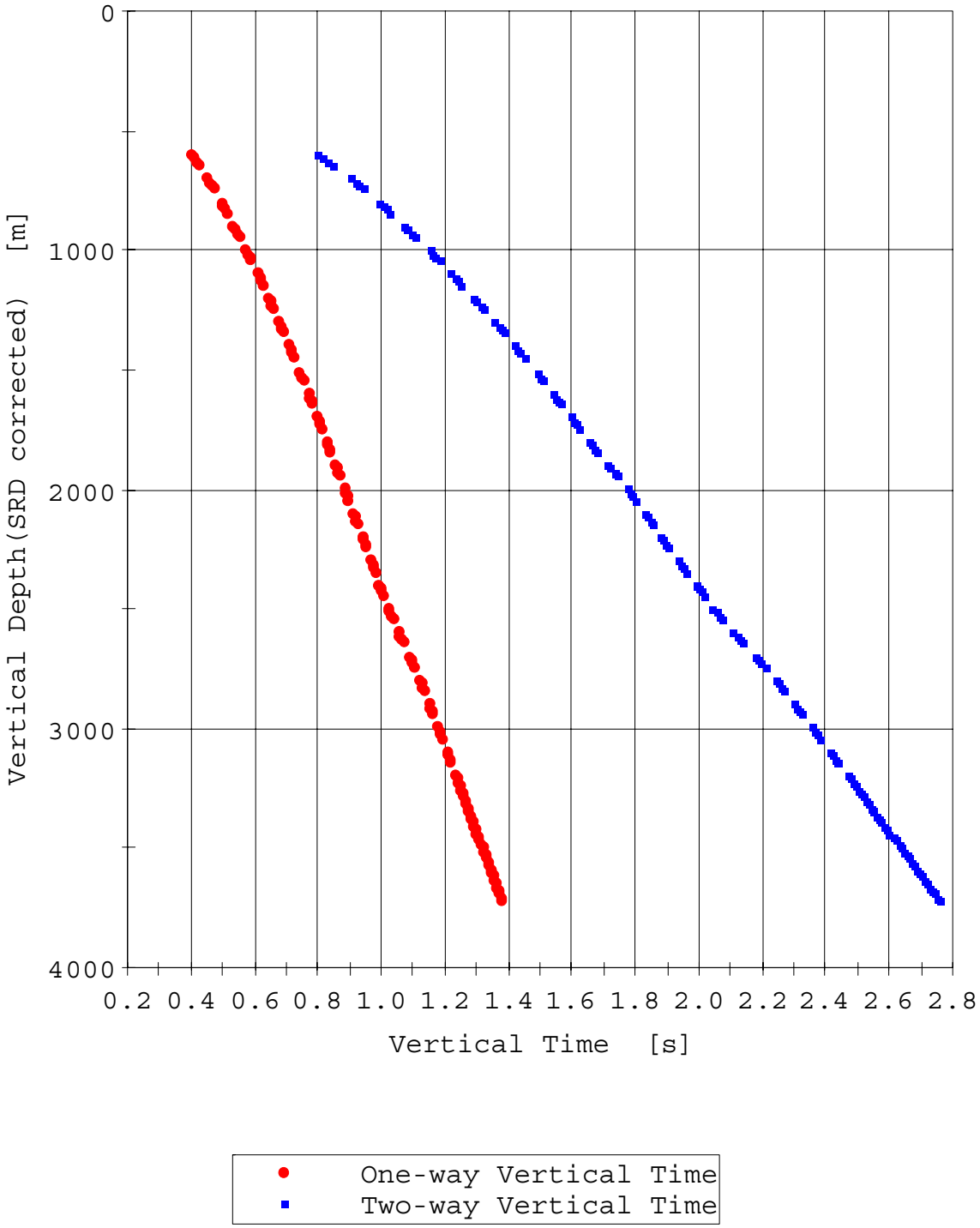
Geometry Infomation Page (X-Z)



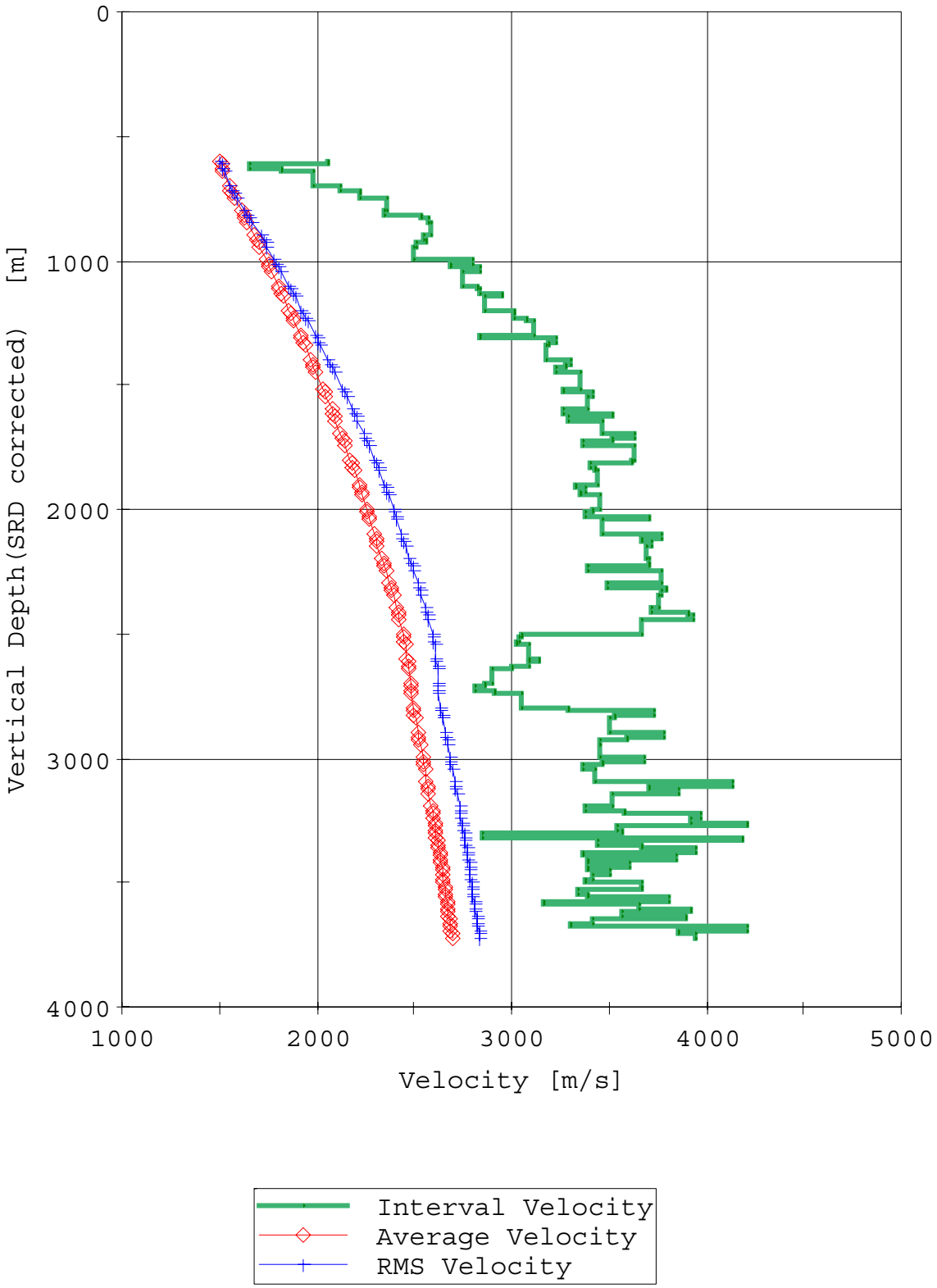
Geometry Infomation Page (Y-Z)



Time Depth Plot Page



Velocity Plot Page



Stack Summary Listing (1/5) from VSI_004_OceanPatriot_geo_wavefield_z.ldf

Stack Number ACQUISITION_ SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
	0	0	0	0	0			
						1501.7		
40	620.8	599.2	0.3971	0.3990	0.7981		1501.7	1501.7
						2060.8		
40	635.9	614.3	0.4043	0.4064	0.8128		1511.8	1513.6
						1659.9		
40	651.0	629.5	0.4133	0.4155	0.8310		1515.0	1517.0
						1813.6		
40	666.1	644.6	0.4216	0.4238	0.8476		1520.9	1523.3
						1984.6		
39	720.8	699.2	0.4490	0.4513	0.9027		1549.2	1555.4
						2124.2		
39	735.9	714.3	0.4560	0.4585	0.9169		1558.1	1565.8
						2219.9		
39	751.0	729.4	0.4628	0.4653	0.9305		1567.8	1577.3
						2214.9		
39	766.1	744.6	0.4696	0.4721	0.9442		1577.1	1588.4
						2356.1		
38	820.8	799.2	0.4926	0.4953	0.9906		1613.6	1632.4
						2342.3		
38	835.9	814.3	0.4991	0.5017	1.0035		1623.0	1643.5
						2534.2		
38	851.0	829.4	0.5050	0.5077	1.0154		1633.7	1656.7
						2578.4		
38	866.1	844.5	0.5108	0.5136	1.0271		1644.5	1670.1
						2584.6		
37	920.8	899.2	0.5318	0.5347	1.0694		1681.6	1715.6
						2543.5		
37	935.9	914.3	0.5378	0.5407	1.0813		1691.1	1726.8
						2559.6		
37	951.0	929.4	0.5436	0.5466	1.0931		1700.5	1738.0
						2515.4		
37	966.1	944.5	0.5496	0.5526	1.1051		1709.4	1748.3
						2496.4		
36	1020.8	999.2	0.5714	0.5745	1.1489		1739.4	1782.6
						2804.2		
36	1035.9	1014.3	0.5768	0.5799	1.1597		1749.3	1794.7
						2691.4		
36	1051.0	1029.4	0.5824	0.5855	1.1709		1758.3	1805.5
						2835.0		
36	1066.2	1044.6	0.5877	0.5908	1.1816		1768.0	1817.4
						2748.3		
35	1120.8	1099.2	0.6075	0.6107	1.2214		1799.9	1855.0
						2826.0		
35	1135.9	1114.3	0.6129	0.6160	1.2321		1808.8	1865.6
						2834.6		
35	1151.0	1129.4	0.6182	0.6214	1.2427		1817.6	1876.1
						2943.5		
35	1166.1	1144.5	0.6233	0.6265	1.2530		1826.9	1887.3
						2859.5		
34	1220.7	1199.1	0.6423	0.6456	1.2912		1857.4	1923.1
						3012.7		
34	1235.8	1214.2	0.6474	0.6506	1.3012		1866.3	1933.8
						3013.2		
34	1251.0	1229.3	0.6524	0.6556	1.3112		1875.1	1944.4
						3076.6		

Stack Summary Listing (2/5) from VSI_004_OceanPatriot_geo_wavefield_z.ldf

Stack Number ACQUISITION_ SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
34	1266.1	1244.5	0.6573	0.6605	1.3211		1884.0	1955.2
						3106.9		
33	1320.8	1299.1	0.6748	0.6781	1.3563		1915.8	1993.5
						2838.9		
33	1335.9	1314.3	0.6801	0.6835	1.3669		1923.0	2001.5
						3231.1		
33	1351.0	1329.4	0.6848	0.6881	1.3763		1931.9	2012.4
						3182.6		
33	1366.1	1344.5	0.6896	0.6929	1.3858		1940.4	2022.7
						3178.8		
32	1420.8	1399.2	0.7067	0.7101	1.4202		1970.4	2058.4
						3296.5		
32	1435.9	1414.3	0.7113	0.7147	1.4294		1978.9	2068.7
						3273.0		
32	1451.0	1429.4	0.7159	0.7193	1.4386		1987.2	2078.7
						3227.8		
32	1466.2	1444.5	0.7206	0.7240	1.4480		1995.3	2088.2
						3355.0		
31	1535.9	1514.3	0.7414	0.7448	1.4896		2033.2	2133.8
						3258.2		
31	1551.1	1529.4	0.7460	0.7494	1.4988		2040.8	2142.6
						3417.6		
31	1566.2	1544.6	0.7504	0.7538	1.5077		2048.9	2152.2
						3389.2		
30	1620.8	1599.2	0.7665	0.7700	1.5399		2077.0	2185.3
						3263.4		
30	1635.9	1614.3	0.7712	0.7746	1.5492		2084.1	2193.3
						3509.7		
30	1651.0	1629.4	0.7755	0.7789	1.5578		2091.9	2202.8
						3290.4		
30	1666.2	1644.5	0.7801	0.7835	1.5670		2099.0	2210.7
						3465.4		
29	1720.4	1698.8	0.7957	0.7991	1.5983		2125.7	2242.1
						3634.5		
29	1735.5	1713.9	0.7999	0.8033	1.6066		2133.5	2251.5
						3512.1		
29	1750.7	1729.0	0.8042	0.8076	1.6152		2140.9	2260.1
						3368.4		
29	1765.8	1744.1	0.8087	0.8121	1.6242		2147.7	2267.7
						3628.6		
28	1820.8	1799.1	0.8238	0.8272	1.6545		2174.8	2299.8
						3622.1		
28	1835.9	1814.2	0.8280	0.8314	1.6628		2182.0	2308.4
						3405.1		
28	1851.0	1829.3	0.8324	0.8358	1.6717		2188.5	2315.6
						3421.8		
28	1866.1	1844.4	0.8369	0.8403	1.6805		2195.0	2322.7
						3439.9		
27	1920.8	1898.9	0.8528	0.8561	1.7122		2218.1	2348.3
						3322.1		
27	1935.9	1914.0	0.8573	0.8607	1.7213		2223.9	2354.5
						3374.6		
27	1951.0	1929.1	0.8618	0.8651	1.7303		2229.8	2360.9
						3350.4		
27	1966.1	1944.2	0.8663	0.8696	1.7393		2235.7	2367.1
						3452.6		

Stack Summary Listing (3/5) from VSI_004_OceanPatriot_geo_wavefield_z.ldf

Stack Number ACQUISITION_ SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
26	2020.7	1998.7	0.8821	0.8854	1.7709		2257.4	2390.8
						3414.2		
26	2035.9	2013.8	0.8865	0.8899	1.7797		2263.1	2396.9
						3378.2		
26	2051.0	2028.9	0.8910	0.8943	1.7886		2268.7	2402.8
						3706.6		
26	2066.1	2044.0	0.8951	0.8984	1.7968		2275.2	2410.3
						3460.0		
25	2120.8	2098.6	0.9109	0.9142	1.8284		2295.7	2432.3
						3762.8		
25	2135.9	2113.7	0.9149	0.9182	1.8364		2302.1	2439.7
						3663.3		
25	2151.0	2128.8	0.9191	0.9223	1.8446		2308.1	2446.5
						3718.3		
25	2166.2	2143.9	0.9231	0.9264	1.8527		2314.3	2453.5
						3685.6		
24	2220.8	2198.4	0.9380	0.9412	1.8823		2335.9	2477.6
						3701.3		
24	2235.9	2213.5	0.9420	0.9452	1.8905		2341.8	2484.2
						3705.3		
24	2251.0	2228.6	0.9461	0.9493	1.8986		2347.6	2490.7
						3388.5		
24	2266.1	2243.7	0.9506	0.9538	1.9075		2352.5	2495.6
						3766.1		
23	2320.8	2298.2	0.9651	0.9682	1.9364		2373.6	2519.3
						3489.0		
23	2335.9	2313.2	0.9694	0.9725	1.9451		2378.5	2524.5
						3793.6		
23	2351.0	2328.3	0.9734	0.9765	1.9530		2384.3	2530.9
						3772.2		
23	2366.1	2343.4	0.9774	0.9805	1.9610		2390.0	2537.2
						3755.5		
22	2420.8	2397.9	0.9920	0.9950	1.9901		2409.9	2559.2
						3721.9		
22	2435.9	2413.0	0.9960	0.9991	1.9982		2415.2	2565.0
						3907.0		
22	2451.0	2428.1	0.9999	1.0029	2.0059		2420.9	2571.5
						3929.9		
22	2466.1	2443.1	1.0038	1.0068	2.0136		2426.7	2578.0
						3669.6		
21	2520.8	2497.6	1.0187	1.0216	2.0433		2444.8	2597.2
						3049.4		
21	2535.9	2512.7	1.0236	1.0266	2.0532		2447.7	2599.5
						3034.8		
21	2551.0	2527.8	1.0286	1.0315	2.0631		2450.5	2601.8
						3031.2		
21	2566.2	2542.9	1.0336	1.0365	2.0730		2453.3	2604.0
						3090.4		
20	2620.8	2597.4	1.0512	1.0542	2.1083		2463.9	2612.9
						3132.7		
20	2635.9	2612.5	1.0561	1.0590	2.1179		2467.0	2615.5
						3088.9		
20	2651.0	2627.6	1.0610	1.0639	2.1277		2469.8	2617.9
						2995.5		
20	2666.1	2642.6	1.0660	1.0689	2.1378		2472.3	2619.8
						2901.8		

Stack Summary Listing (4/5) from VSI_004_OceanPatriot_geo_wavefield_z.ldf

Stack Number ACQUISITION_ SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
19	2720.8	2697.2	1.0848	1.0877	2.1754		2479.7	2624.9
						2857.7		
19	2735.9	2712.3	1.0901	1.0930	2.1859		2481.6	2626.1
						2805.6		
19	2751.0	2727.4	1.0955	1.0983	2.1967		2483.2	2627.0
						2914.1		
19	2766.2	2742.4	1.1007	1.1035	2.2070		2485.2	2628.4
						3046.1		
18	2820.8	2796.9	1.1186	1.1214	2.2428		2494.1	2635.6
						3295.5		
18	2835.9	2812.0	1.1232	1.1260	2.2520		2497.4	2638.6
						3723.5		
18	2851.0	2827.1	1.1273	1.1300	2.2601		2501.8	2643.3
						3526.2		
18	2866.1	2842.2	1.1316	1.1343	2.2686		2505.6	2647.2
						3502.6		
17	2920.8	2896.7	1.1472	1.1499	2.2998		2519.1	2660.6
						3774.1		
17	2935.9	2911.8	1.1512	1.1539	2.3078		2523.5	2665.3
						3594.1		
17	2951.0	2926.9	1.1554	1.1581	2.3162		2527.4	2669.2
						3455.9		
17	2966.1	2942.0	1.1598	1.1624	2.3249		2530.9	2672.6
						3449.8		
16	3020.7	2996.4	1.1756	1.1782	2.3564		2543.2	2684.5
						3675.5		
16	3035.8	3011.5	1.1797	1.1823	2.3646		2547.1	2688.6
						3462.7		
16	3050.9	3026.6	1.1840	1.1867	2.3734		2550.4	2691.8
						3370.5		
16	3066.0	3041.7	1.1885	1.1912	2.3823		2553.5	2694.7
						3429.6		
15	3120.8	3096.3	1.2045	1.2071	2.4142		2565.1	2705.7
						4136.4		
15	3135.9	3111.3	1.2081	1.2107	2.4215		2569.8	2711.1
						3707.1		
15	3151.0	3126.4	1.2122	1.2148	2.4296		2573.6	2715.1
						3854.6		
15	3166.1	3141.5	1.2161	1.2187	2.4374		2577.7	2719.5
						3517.5		
14	3220.8	3196.1	1.2317	1.2342	2.4684		2589.6	2731.0
						3373.1		
14	3235.9	3211.2	1.2362	1.2387	2.4774		2592.4	2733.6
						3582.0		
14	3251.0	3226.3	1.2404	1.2429	2.4858		2595.7	2736.9
						3968.2		
14	3266.2	3241.4	1.2442	1.2467	2.4934		2599.9	2741.5
						3923.1		
12	3281.3	3256.4	1.2481	1.2506	2.5011		2604.0	2745.9
						4208.3		
12	3296.4	3271.5	1.2516	1.2541	2.5083		2608.6	2751.2
						3535.0		
12	3311.5	3286.6	1.2559	1.2584	2.5168		2611.7	2754.2
						3570.5		
12	3326.6	3301.7	1.2602	1.2626	2.5253		2614.9	2757.3
						2849.0		

Stack Summary Listing (5/5) from VSI_004_OceanPatriot_geo_wavefield_z.ldf

Stack Number ACQUISITION_ SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
11	3341.8	3316.8	1.2655	1.2679	2.5359		2615.9	2757.7
						4178.5		
11	3356.9	3331.9	1.2691	1.2715	2.5431		2620.3	2762.8
						3437.4		
11	3372.0	3347.0	1.2735	1.2759	2.5519		2623.2	2765.4
						3665.6		
11	3387.1	3362.1	1.2776	1.2800	2.5601		2626.5	2768.8
						3937.8		
10	3402.2	3377.1	1.2814	1.2839	2.5678		2630.4	2773.0
						3364.0		
10	3417.3	3392.2	1.2859	1.2884	2.5767		2633.0	2775.3
						3839.3		
10	3432.5	3407.3	1.2899	1.2923	2.5846		2636.6	2779.1
						3395.7		
10	3447.6	3422.4	1.2943	1.2967	2.5935		2639.2	2781.5
						3597.7		
9	3462.7	3437.5	1.2985	1.3009	2.6019		2642.3	2784.5
						3384.6		
9	3477.8	3452.6	1.3030	1.3054	2.6108		2644.9	2786.8
						3497.2		
9	3492.9	3467.7	1.3073	1.3097	2.6194		2647.7	2789.4
						3414.4		
9	3508.0	3482.8	1.3117	1.3141	2.6282		2650.3	2791.7
						3378.5		
8	3523.2	3497.9	1.3162	1.3186	2.6372		2652.7	2793.9
						3671.0		
8	3538.3	3513.0	1.3203	1.3227	2.6454		2655.9	2797.1
						3668.1		
8	3553.4	3528.1	1.3245	1.3268	2.6536		2659.0	2800.2
						3338.0		
8	3568.5	3543.1	1.3290	1.3313	2.6627		2661.3	2802.2
						3395.2		
7	3583.7	3558.3	1.3335	1.3358	2.6716		2663.8	2804.4
						3801.5		
7	3598.9	3573.4	1.3374	1.3398	2.6796		2667.2	2807.9
						3165.0		
7	3614.0	3588.5	1.3422	1.3446	2.6891		2668.9	2809.2
						3650.1		
7	3629.1	3603.6	1.3464	1.3487	2.6974		2671.9	2812.2
						3915.1		
6	3644.1	3618.6	1.3502	1.3525	2.7050		2675.5	2815.9
						3570.3		
6	3659.2	3633.7	1.3544	1.3567	2.7135		2678.2	2818.6
						3895.2		
6	3674.3	3648.8	1.3583	1.3606	2.7212		2681.7	2822.2
						3417.4		
6	3689.4	3663.9	1.3627	1.3650	2.7301		2684.1	2824.4
						3298.8		
5	3704.6	3679.0	1.3673	1.3696	2.7392		2686.1	2826.1
						4204.2		
5	3719.7	3694.1	1.3709	1.3732	2.7464		2690.1	2830.6
						3853.9		
5	3734.8	3709.2	1.3748	1.3771	2.7543		2693.4	2834.0
						3939.9		
5	3749.9	3724.3	1.3787	1.3810	2.7619		2696.9	2837.7

Shot Summary Listing (1/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
620.8	1	40	23.0	13.2	887.5	237, 238, 239
635.9	2	40	-7.0	13.2	933.0	237, 238, 239
651.0	3	40	16.4	13.3	878.4	237, 238, 239
666.1	4	40	19.1	13.3	758.4	237, 238, 239
720.8	1	39	23.8	13.2	907.3	234, 235, 236
735.9	2	39	-6.9	13.2	923.6	234, 235, 236
751.0	3	39	14.2	13.4	881.3	234, 235, 236
766.1	4	39	15.9	13.3	744.7	234, 235, 236
820.8	1	38	23.9	13.2	901.4	231, 232, 233
835.9	2	38	-6.5	13.3	914.3	231, 232, 233
851.0	3	38	12.0	13.3	869.4	231, 232, 233
866.1	4	38	13.0	13.3	740.7	231, 232, 233
920.8	1	37	22.0	13.2	912.6	228, 229, 230
935.9	2	37	-7.4	13.2	916.9	228, 229, 230
951.0	3	37	12.7	13.4	883.9	228, 229, 230
966.1	4	37	9.5	13.2	744.4	228, 229, 230
1020.8	1	36	20.7	13.2	887.8	225, 226, 227
1035.9	2	36	-7.3	13.2	904.7	225, 226, 227
1051.0	3	36	9.3	13.4	868.5	225, 226, 227
1066.2	4	36	8.2	13.4	742.6	225, 226, 227
1120.8	1	35	18.5	13.2	904.4	222, 223, 224
1135.9	2	35	-7.0	13.2	901.8	222, 223, 224
1151.0	3	35	7.0	13.4	865.9	222, 223, 224
1166.1	4	35	-0.3	13.3	741.2	222, 223, 224
1220.7	1	34	17.1	13.2	896.8	219, 220, 221
1235.8	2	34	-7.8	13.2	898.8	219, 220, 221
1251.0	3	34	4.9	13.4	855.6	219, 220, 221
1266.1	4	34	-1.4	13.3	724.4	219, 220, 221

Shot Summary Listing (2/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1320.8	1	33	15.0	13.2	896.3	216, 217, 218
1335.9	2	33	-8.4	13.3	887.9	216, 217, 218
1351.0	3	33	4.5	13.3	863.4	216, 217, 218
1366.1	4	33	-7.6	13.3	719.3	216, 217, 218
1420.8	1	32	13.7	13.2	886.0	212, 213, 214, 215
1435.9	2	32	-5.0	13.3	896.7	212, 213, 214, 215
1451.0	3	32	4.2	13.4	859.6	212, 213, 214, 215
1466.2	4	32	-12.7	13.3	714.9	212, 213, 214, 215
1535.9	2	31	-2.4	13.9	899.8	207, 208, 209, 210, 211
1551.1	3	31	3.5	13.5	854.0	207, 208, 209, 210, 211
1566.2	4	31	-12.5	13.2	698.6	207, 208, 209, 210, 211
1620.8	1	30	27.0	13.2	879.6	204, 205, 206
1635.9	2	30	-2.1	13.2	902.4	204, 205, 206
1651.0	3	30	4.4	13.7	837.0	204, 205, 206
1666.2	4	30	-12.3	13.6	727.8	204, 205, 206
1720.4	1	29	33.0	13.0	877.4	201, 202, 203
1735.5	2	29	-2.1	13.2	883.8	201, 202, 203
1750.7	3	29	7.1	13.4	846.9	201, 202, 203
1765.8	4	29	-12.1	13.2	718.0	201, 202, 203
1820.8	1	28	33.0	13.0	884.6	198, 199, 200
1835.9	2	28	-2.4	13.3	873.7	198, 199, 200
1851.0	3	28	8.0	13.4	847.6	198, 199, 200
1866.1	4	28	-11.9	13.2	721.9	198, 199, 200
1920.8	1	27	33.0	13.0	865.3	195, 196, 197
1935.9	2	27	-2.4	13.2	866.7	195, 196, 197
1951.0	3	27	7.8	13.2	802.7	195, 196, 197
1966.1	4	27	-11.7	13.2	703.1	195, 196, 197
2020.7	1	26	32.8	12.9	837.0	192, 193, 194

Shot Summary Listing (3/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2035.9	2	26	-2.7	13.1	868.9	192, 193, 194
2051.0	3	26	7.7	13.3	837.0	192, 193, 194
2066.1	4	26	-11.6	13.1	701.4	192, 193, 194
2120.8	1	25	31.4	12.9	826.3	187, 188, 190, 191
2135.9	2	25	-2.7	13.1	837.9	187, 188, 190, 191
2151.0	3	25	5.8	13.2	810.5	187, 188, 190, 191
2166.2	4	25	-10.3	13.1	701.1	187, 188, 190, 191
2220.8	1	24	28.2	12.9	852.2	183, 184, 185, 186
2235.9	2	24	-2.6	13.1	851.4	183, 184, 185, 186
2251.0	3	24	-3.5	13.2	800.5	183, 184, 185, 186
2266.1	4	24	-13.9	13.1	677.8	183, 184, 185, 186
2320.8	1	23	23.8	13.0	834.9	179, 180, 181, 182
2335.9	2	23	-2.6	13.2	842.0	179, 180, 181, 182
2351.0	3	23	-10.4	13.3	798.9	179, 180, 181, 182
2366.1	4	23	-14.4	13.1	685.1	179, 180, 181, 182
2420.8	1	22	21.3	13.0	841.0	175, 176, 177, 178
2435.9	2	22	-2.7	13.1	814.6	175, 176, 177, 178
2451.0	3	22	-11.5	13.2	798.3	175, 176, 177, 178
2466.1	4	22	-11.1	13.3	662.0	175, 176, 177, 178
2520.8	1	21	18.9	13.0	841.3	171, 172, 173, 174
2535.9	2	21	-4.1	13.3	829.5	171, 172, 173, 174
2551.0	3	21	-14.1	13.3	797.4	171, 172, 173, 174
2566.2	4	21	-9.5	13.3	662.3	171, 172, 173, 174
2620.8	1	20	22.2	13.0	840.2	167, 168, 169, 170
2635.9	2	20	-0.3	13.2	831.0	167, 168, 169, 170
2651.0	3	20	-14.6	13.2	800.3	167, 168, 169, 170
2666.1	4	20	-9.4	13.2	687.4	167, 168, 169, 170
2720.8	1	19	18.7	13.2	801.2	163, 164, 165, 166

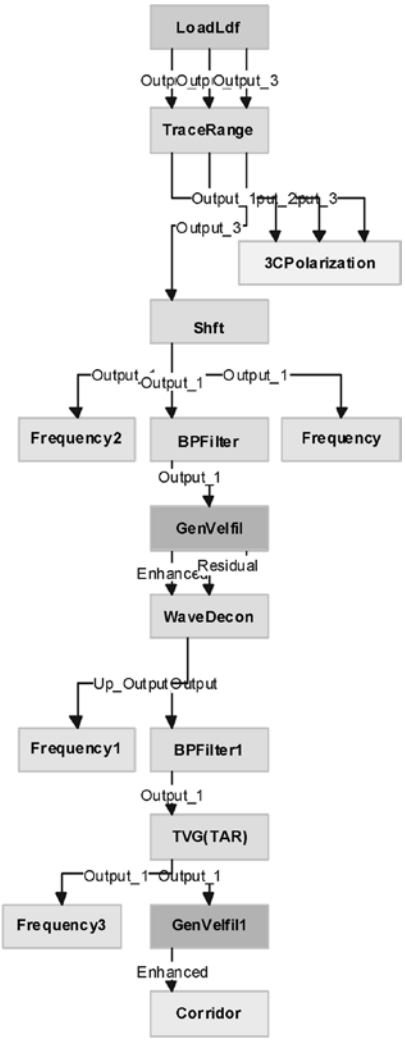
Shot Summary Listing (4/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2735.9	2	19	-4.8	13.3	818.6	163, 164, 165, 166
2751.0	3	19	-5.9	13.2	781.1	163, 164, 165, 166
2766.2	4	19	-20.3	13.3	656.2	163, 164, 165, 166
2820.8	1	18	24.4	13.0	827.6	159, 160, 161, 162
2835.9	2	18	5.3	13.0	813.5	159, 160, 161, 162
2851.0	3	18	-5.1	13.0	800.7	159, 160, 161, 162
2866.1	4	18	-14.1	13.0	672.1	159, 160, 161, 162
2920.8	1	17	24.3	13.0	812.7	152, 153, 154, 155, 156, 157
2935.9	2	17	-1.9	13.6	812.4	152, 153, 154, 155, 156, 157
2951.0	3	17	-5.9	13.7	776.5	152, 153, 154, 155, 156, 157
2966.1	4	17	-10.2	13.0	675.3	152, 153, 154, 155, 156, 157
3020.7	1	16	25.3	12.9	826.1	145, 146, 147, 148, 149, 150, 151
3035.8	2	16	12.1	13.0	822.4	145, 146, 147, 148, 149, 150, 151
3050.9	3	16	-9.2	13.2	766.1	145, 146, 147, 148, 149, 150, 151
3066.0	4	16	-22.0	13.0	659.5	145, 146, 147, 148, 149, 150, 151
3120.8	1	15	32.3	12.8	826.0	138, 139, 141, 142, 143, 144
3135.9	2	15	0.2	13.0	792.9	138, 139, 140, 141, 142, 143, 144
3151.0	3	15	-8.4	13.0	787.4	138, 139, 140, 141, 142, 143, 144
3166.1	4	15	-22.8	13.1	655.1	138, 139, 140, 141, 142, 143, 144
3220.8	1	14	33.1	13.4	788.1	131, 132, 133, 134, 135, 136
3235.9	2	14	2.5	12.9	800.9	131, 132, 133, 134, 135, 136
3251.0	3	14	-4.0	13.0	762.1	131, 132, 133, 134, 135, 136
3266.2	4	14	-16.5	13.1	658.4	131, 132, 133, 134, 135, 136
3281.3	1	12	33.1	12.8	816.2	122, 124, 125, 126, 127, 128
3296.4	2	12	-9.3	13.0	798.2	118, 122, 123, 124, 125, 126, 127, 128
3311.5	3	12	-2.2	13.6	749.1	118, 122, 123, 124, 125, 126, 127, 128
3326.6	4	12	-15.8	13.2	662.0	118, 122, 123, 124, 125, 126, 127, 128
3341.8	1	11	32.7	12.9	811.5	109, 110, 111, 112, 113, 114, 116

Shot Summary Listing (5/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
3356.9	2	11	-0.2	13.3	773.8	109, 110, 111, 112, 113, 114, 116
3372.0	3	11	-4.8	13.1	760.6	109, 110, 111, 112, 113, 114, 116
3387.1	4	11	-10.1	12.9	642.7	109, 110, 111, 112, 113, 114, 116
3402.2	1	10	31.6	13.3	789.1	99, 100, 104, 105, 106, 107, 108
3417.3	2	10	4.5	12.9	793.1	99, 100, 104, 105, 106, 107, 108
3432.5	3	10	1.7	13.2	755.2	99, 100, 104, 105, 106, 107, 108
3447.6	4	10	-14.8	13.2	660.5	99, 100, 104, 105, 106, 107, 108
3462.7	1	9	24.9	12.8	800.1	92, 94, 95, 96, 97, 98
3477.8	2	9	-0.0	12.9	777.6	92, 94, 95, 96, 97, 98
3492.9	3	9	3.1	13.1	766.1	92, 94, 95, 96, 97, 98
3508.0	4	9	-22.6	12.9	649.0	92, 94, 95, 96, 97, 98
3523.2	1	8	25.0	13.0	779.1	86, 87, 88, 89, 90, 91
3538.3	2	8	-3.1	12.9	775.6	86, 87, 88, 89, 90, 91
3553.4	3	8	3.2	13.4	754.1	86, 87, 88, 89, 90, 91
3568.5	4	8	-11.6	13.4	632.7	86, 87, 88, 89, 90, 91
3583.7	1	7	23.7	13.1	751.0	78, 79, 80
3598.9	2	7	-3.4	13.3	773.8	78, 79, 80
3614.0	3	7	2.9	13.6	741.1	78, 79, 80
3629.1	4	7	0.8	13.4	617.4	78, 79, 80
3644.1	1	6	19.7	13.4	763.9	60, 61, 62, 63, 70
3659.2	2	6	-13.6	13.6	760.7	60, 61, 62, 63, 70
3674.3	3	6	2.5	13.5	739.6	60, 61, 62, 63, 70
3689.4	4	6	-8.2	13.6	621.8	60, 61, 62, 63, 70
3704.6	1	5	4.0	13.2	753.2	51, 52, 53, 55, 56, 57, 58, 59
3719.7	2	5	-31.0	14.1	745.1	51, 52, 53, 55, 56, 57, 58, 59
3734.8	3	5	3.8	13.3	750.2	51, 52, 53, 55, 56, 57, 58, 59
3749.9	4	5	-69.0	12.5	607.6	51, 52, 53, 55, 56, 57, 58, 59

Field Processing Report

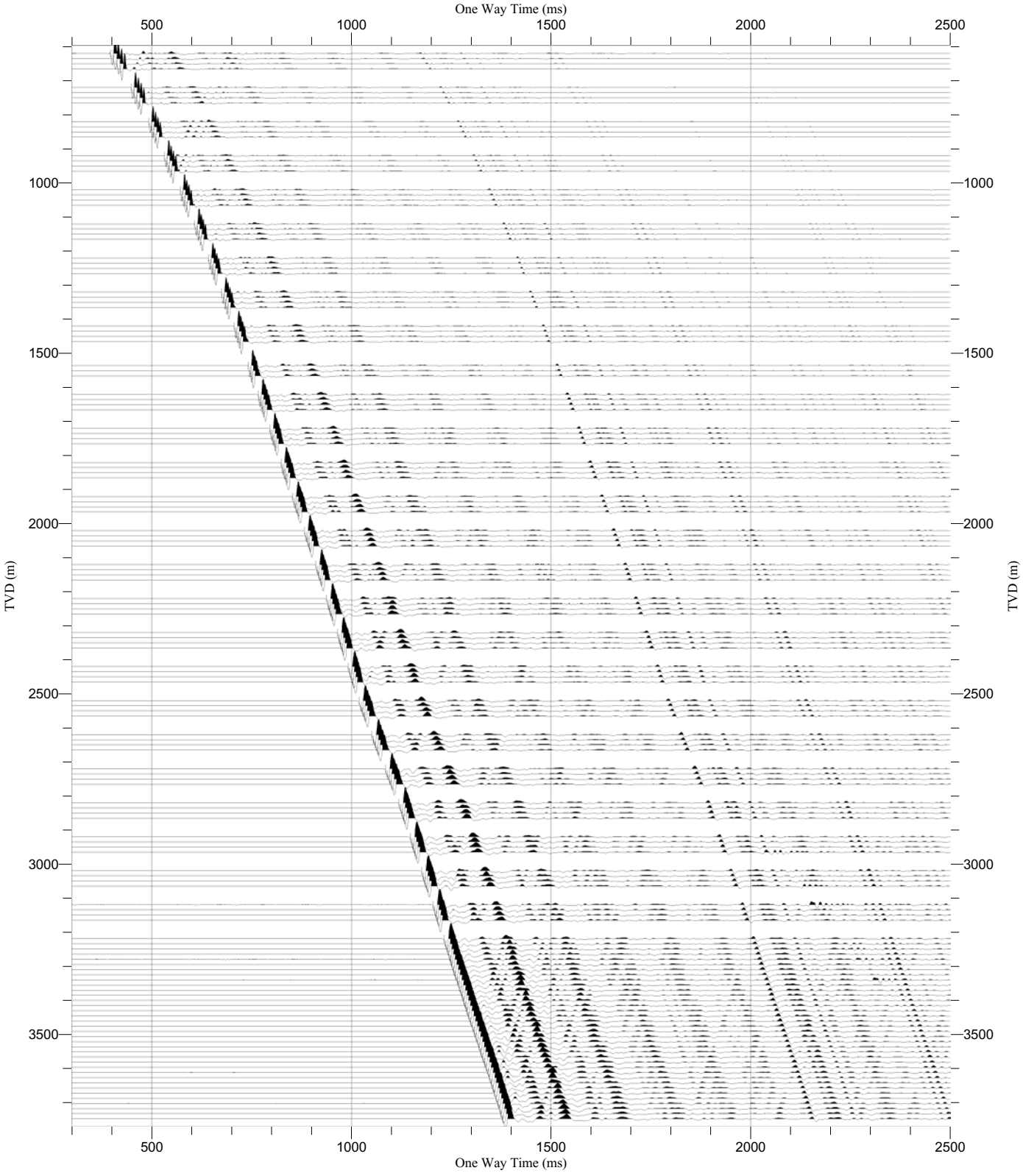
Process Flow	Parameter
	**[LoadLdf]** Input 1: VSI_004_OceanPatriot_geo_wavefield_x.ldf Input 2: VSI_004_OceanPatriot_geo_wavefield_y.ldf Input 3: VSI_004_OceanPatriot_geo_wavefield_z.ldf **[Frequency2]** Apply FZ **[BPFilter]** Phase: Zero Band Width: 5.0 - 90.0Hz **[GenVelfil]** Apply internal Normalization/Denormalization Median Filter 9 Traces **[WaveDecon]** Waveshape Deconvolution Design Filter trace Input start at TRANSIT_TIME wavelet: 8.0 - 85.0 Hz zero-phase Polarity: Positive **[Frequency1]** Process all samples Apply FK **[BPFilter1]** Phase: Zero Band Width: 8.0 - 85.0Hz **[TVG(TAR)]** Travel time exponent = 1.50 **[Frequency3]** Process all samples Apply FK **[GenVelfil1]** Median Filter 7 Traces **[Corridor]** Window Start: TRANSIT_TIME - 0.000 (s) Window End: TRANSIT_TIME - -0.200 (s) (Deepest 10 traces remain) Mean Stack BPF 5.0 - 90.0Hz **[Frequency]** Process all samples Apply FK

```
[LoadLdf]

FileLoadLdf Parameters
    Input 1:  VSI_004_OceanPatriot_geo_wavefield_x.ldf
    Input 2:  VSI_004_OceanPatriot_geo_wavefield_y.ldf
    Input 3:  VSI_004_OceanPatriot_geo_wavefield_z.ldf

[TraceRange]

Trace Range Set Manual Parameters
    Trace Range Set Parameters
        From
         1  To
        Align events using times of 36  Remove Bad Trace

[Shft]

Shift Parameters
    Shift: +  TRANSIT_TIME_ACCURACY -  0 s
     Update selected headers

[Frequency2]

Spectral Analyser Parameters
    Process from   TRANSIT_TIME -  0.020 s
    Gate Length =  3.000 s = (samples) 3001
    = (F Max =  200 Hz
    = (Apply F Max)
    Trace range from 1  to  36
    Depth/Offset header =  RECEIVER_POSITION_Z
    Output is Frequency Domain
    Compute Amplitude spectrum  in dB

[BPFilter]

BPF Parameters
    Butterworth Filter,  Zero Phase
    Charasteristic:  5.000 Hz  to  90.000 Hz  Order  3

[GenVelfil]

Mean/Median Generalized Velocity Filter Parameters
    Align events using times of  TRANSIT_TIME x 1.000
    Compute both enhanced and residual output
    Apply internal Normalization/Denormalization based on RMS of time window
       From  TRANSIT_TIME  -  0.020 s
       Windown length =  0.500 s
    Median Stacking
     Stacking window (traces):  9
    Stacking window (samples):  1
    Source and receiver coordinates Parameters
        Source Offset:   SOURCE_LINE_POSITION_RHO
        Source Depth:    SOURCE_LINE_POSITION_Z
        Receiver Offset: RECEIVER_LINE_POSITION_RHO
        Receiver Depth:  RECEIVER_LINE_POSITION_Z

[WaveDecon]

Waveshaping deconvolution Parameters
    Design Filter trace by trace
```

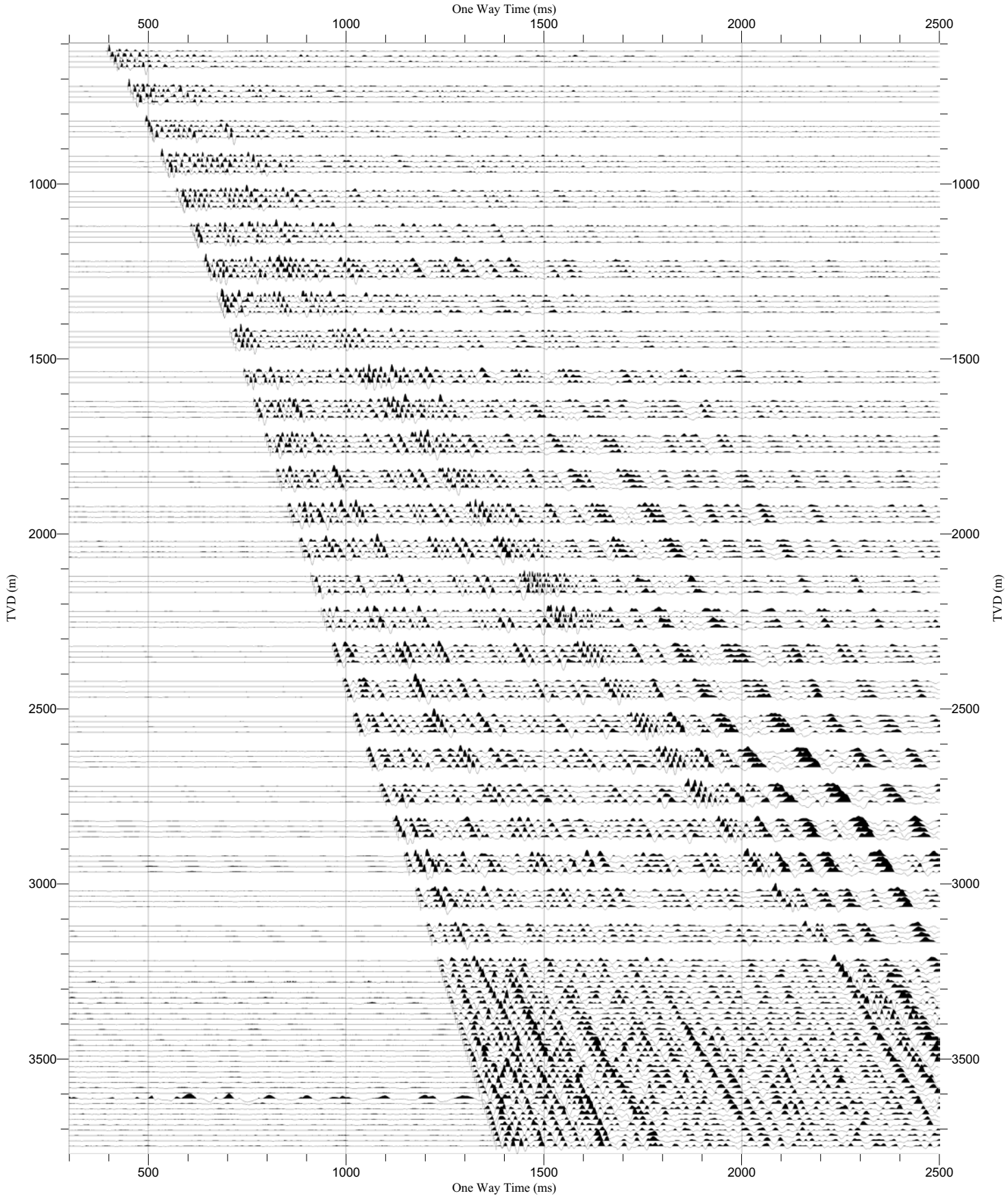
```
    Filter input start at TRANSIT_TIME  -  0.080 s
    Filter input window: 1.000 s
    Filter Length is filter input window
    Desired wavelet created by filtered unit impulse from   8.000 Hz  to  85.000 Hz
    Positive wavelet polarity
    Wavelet delay time = Filter Length / 2
    White noise (%): 5.000
    Waveshaping optimization Parameters

[Frequency1]

Spectral Analyser Parameters
    Process all samples
    Depth/Offset header =  RECEIVER_POSITION_Z
    Output is FK Domain
    Compute Amplitude spectrum  in dB

[BPFilter1]

BPF Parameters
    Butterworth Filter,  Zero Phase
    Charasteristic:  8.000 Hz  to  85.000 Hz  Order  3

[TVG(TAR)]

Time-Varying Gain Parameters
    Window start at  TRANSIT_TIME - 0.000000
    Window length = 4.999000
    Travel time exponent = 1.500000
    Exponential Weighting = 0.000000

[Frequency3]

Spectral Analyser Parameters
    Process all samples
    Depth/Offset header =  RECEIVER_POSITION_Z
    Output is FK Domain
    Compute Amplitude spectrum  in dB

[3CPolarization]

Polarizations Parameters
    Compute polarization from TRANSIT_TIME -  0.005000 s for  0.025 s using threshol
    Apply rotation on traces
    2D rotation
        save Hmn/Hmx angle  in POLARIZATION_1 and rectilinearity in USER_KEY_1
        save Try/Nry angle in POLARIZATION_2 and rectilinearity in USER_KEY_2
    Reference to Z

[GenVelfil1]

Mean/Median Generalized Velocity Filter Parameters
    Align events using times of  TRANSIT_TIME x -1.000
    Compute both enhanced and residual output
    Median Stacking
     Stacking window (traces):  7
    Stacking window (samples):  1
    Source and receiver coordinates Parameters
        Source Offset:   SOURCE_LINE_POSITION_RHO
        Source Depth:    SOURCE_LINE_POSITION_Z
```

```
        Receiver Offset: RECEIVER_LINE_POSITION_RHO
        Receiver Depth:  RECEIVER_LINE_POSITION_Z

[Corridor]

Corridor stack Parameters
    Mute before  TRANSIT_TIME  -  0 s
    Mute after  TRANSIT_TIME  -  -0.200 s
        All traces except the deepest (traces):  10
        Depth header:  RECEIVER_POSITION_Z
    Mean stack
    Apply +TT with  TRANSIT_TIME
    Replicate corridor stack x  10
    Apply BPF on resulting corridor stack
    BPF Parameters
        Butterworth Filter,  Zero Phase
        Charasteristic:  5.000 Hz  to  90.000 Hz  Order  3

[Frequency]

Spectral Analyser Parameters
    Process all samples
    Depth/Offset header =  RECEIVER_POSITION_Z
    Output is FK Domain
    Compute Amplitude spectrum  in dB
```

Raw Stack (Z)	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 7.2 cm/sec, 1/16340	

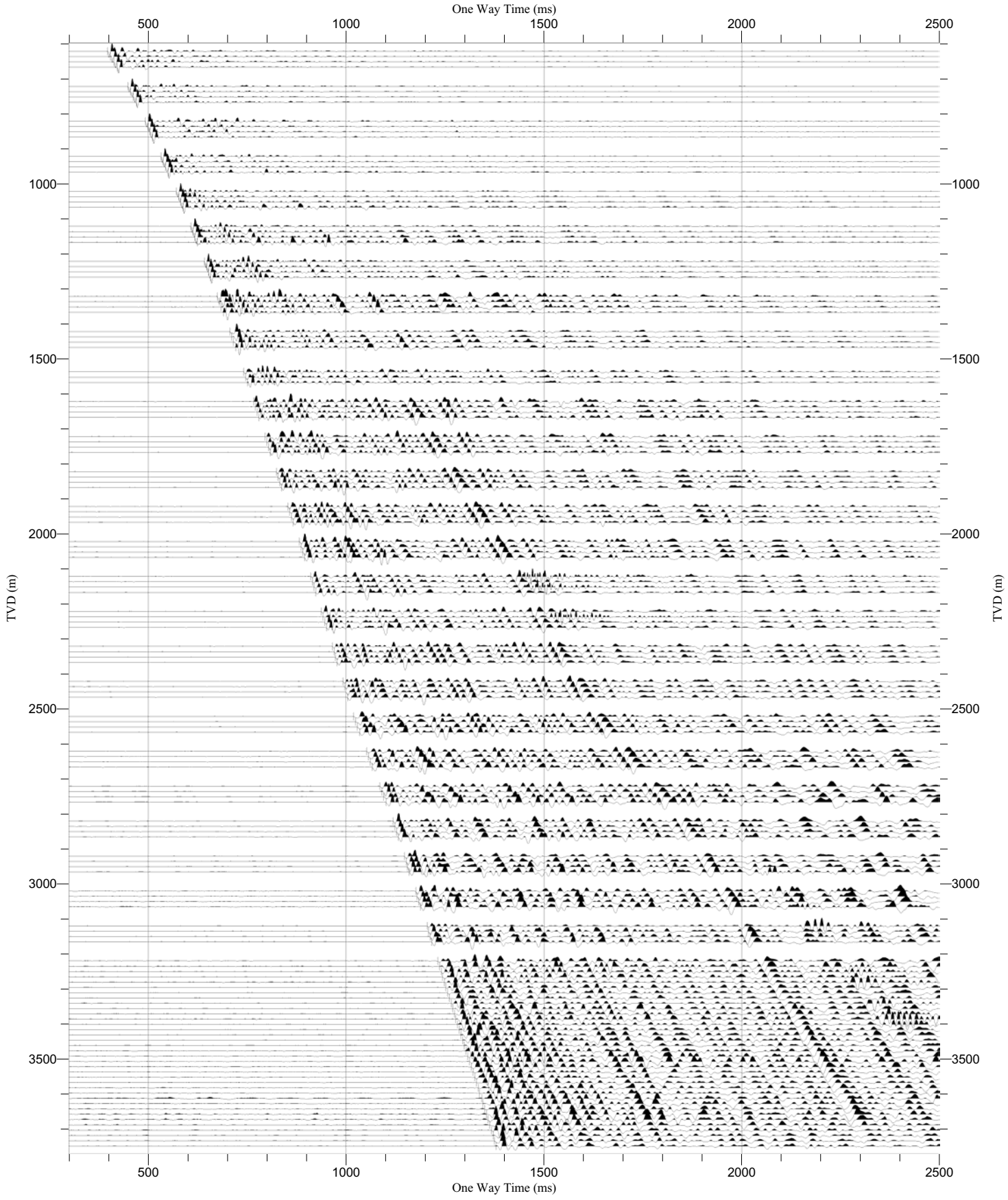


Raw Stack (X)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/14810	

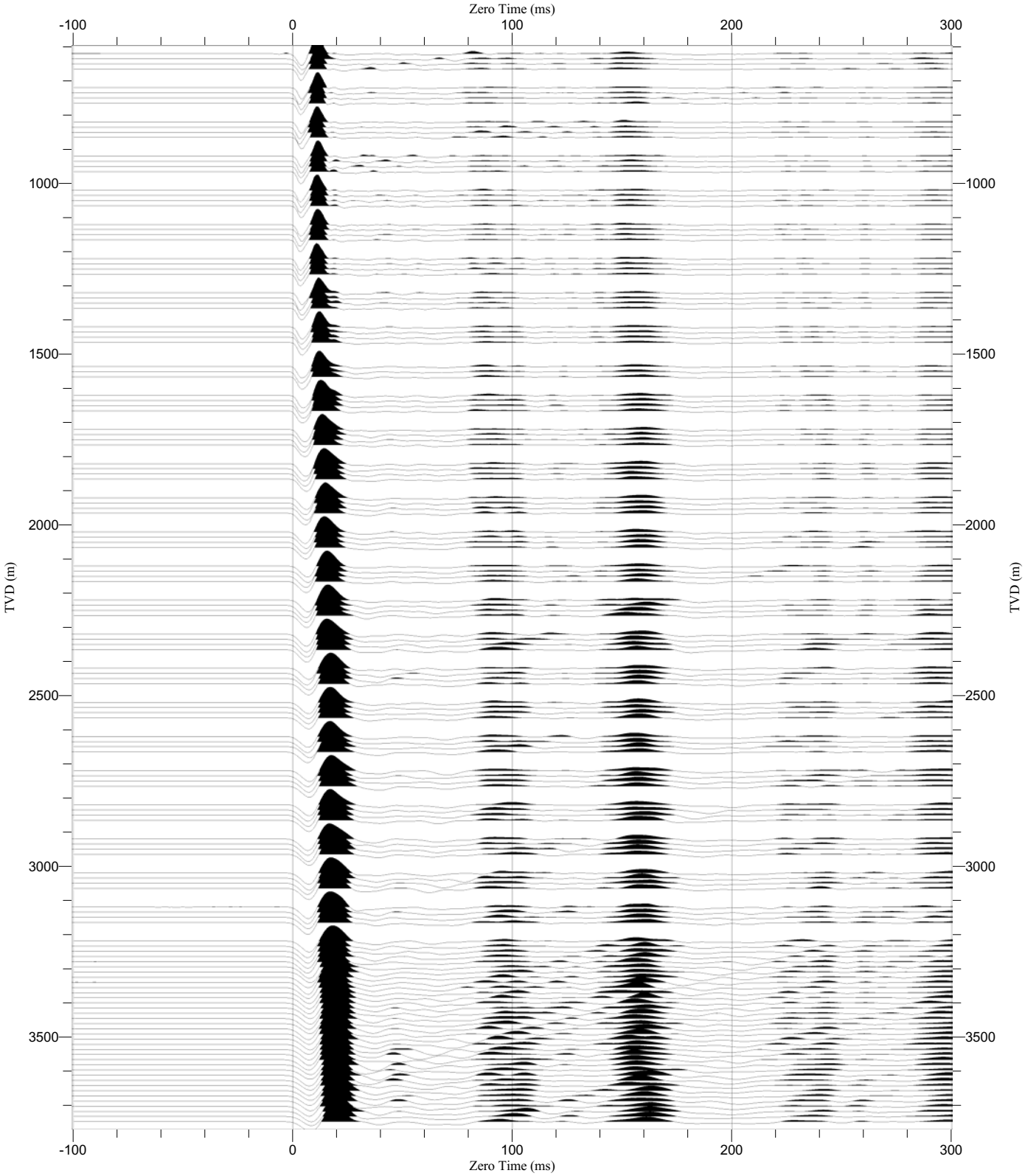


Schlumberger

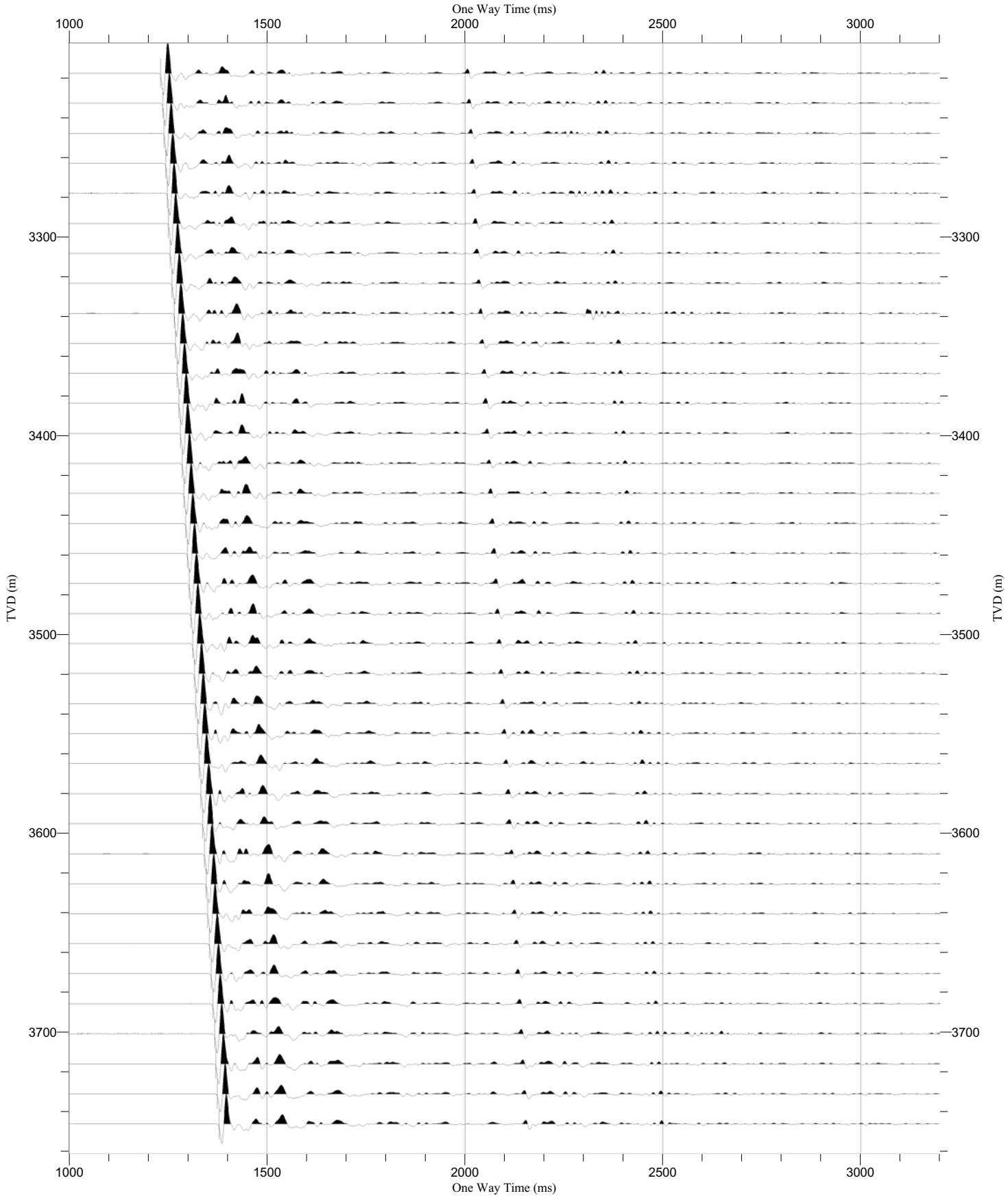
Raw Stack (Y)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/14810	



Raw Stack (Z) (Magnified)	Normalization Trace by Trace (200%) Polarity Normal Zero Time (ms) Scaling 39.4 cm/sec, 1/16340	

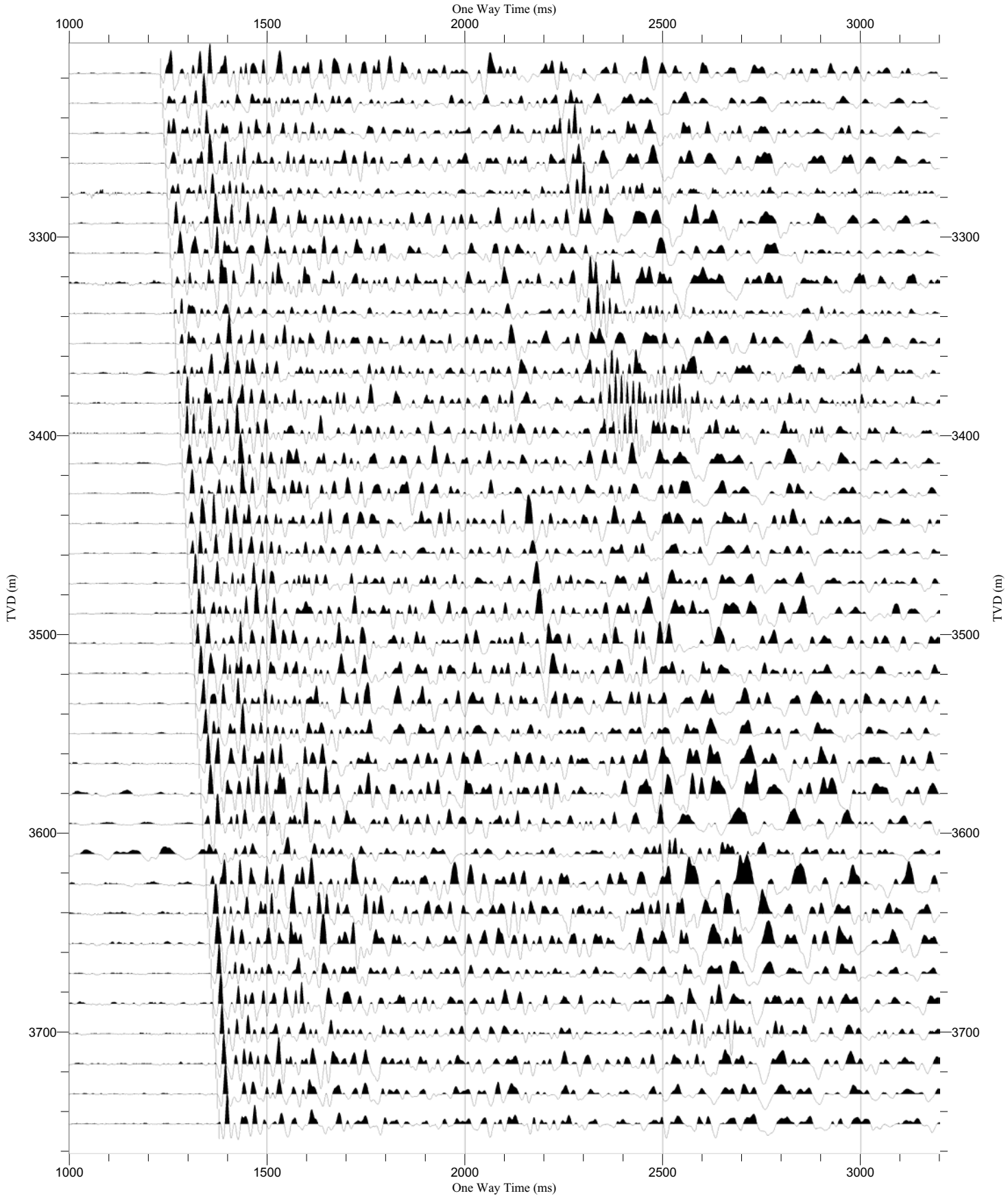


Raw Stack (TRY)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	



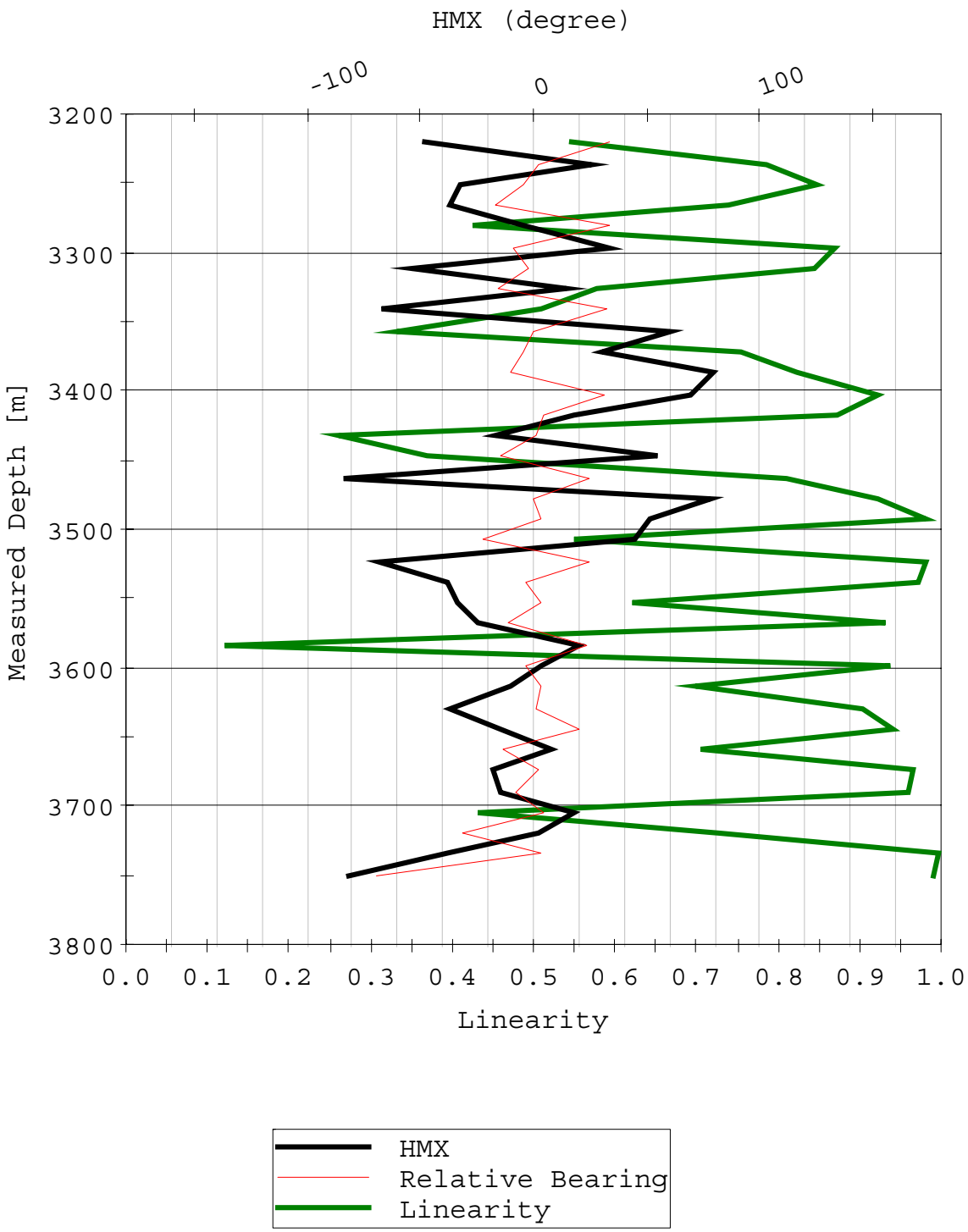
Schlumberger

Raw Stack (HMX)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	

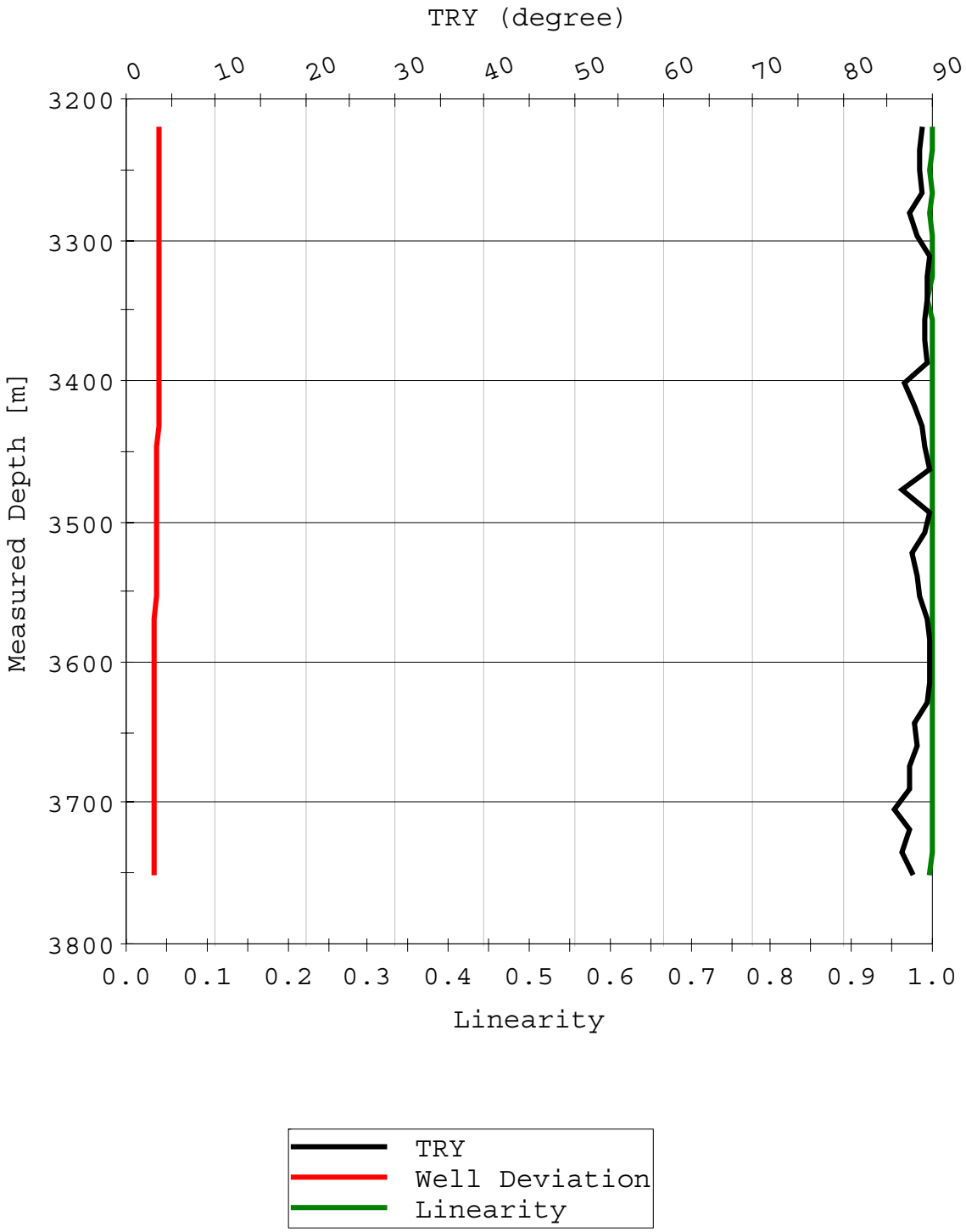


Schlumberger

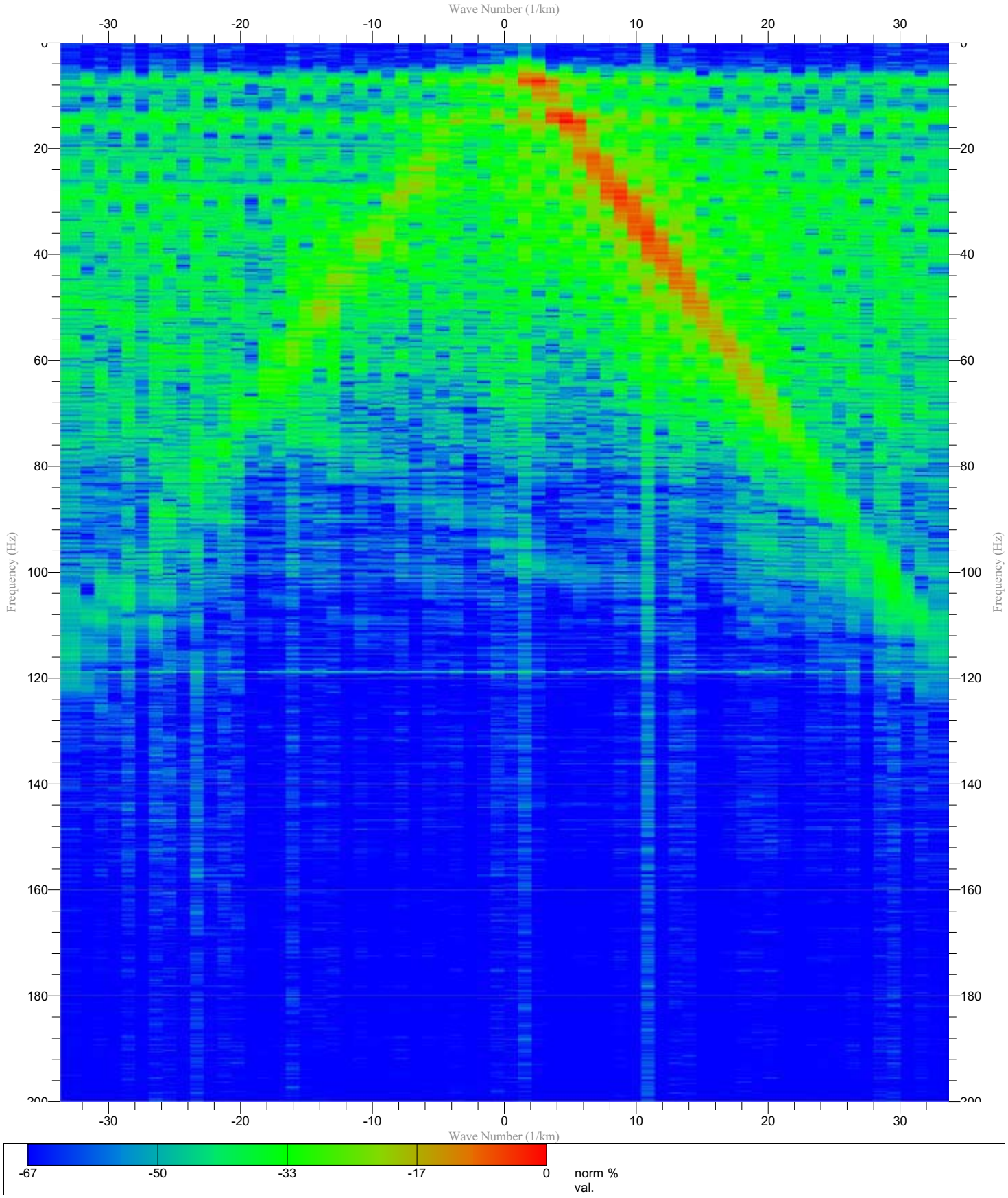
HMX Angle


HMX (degree)
-100
0
100
3200
3300
3400
3500
3600
3700
3800
Measured Depth [m]
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Linearity
HMX
Relative Bearing
Linearity

TRY Angle

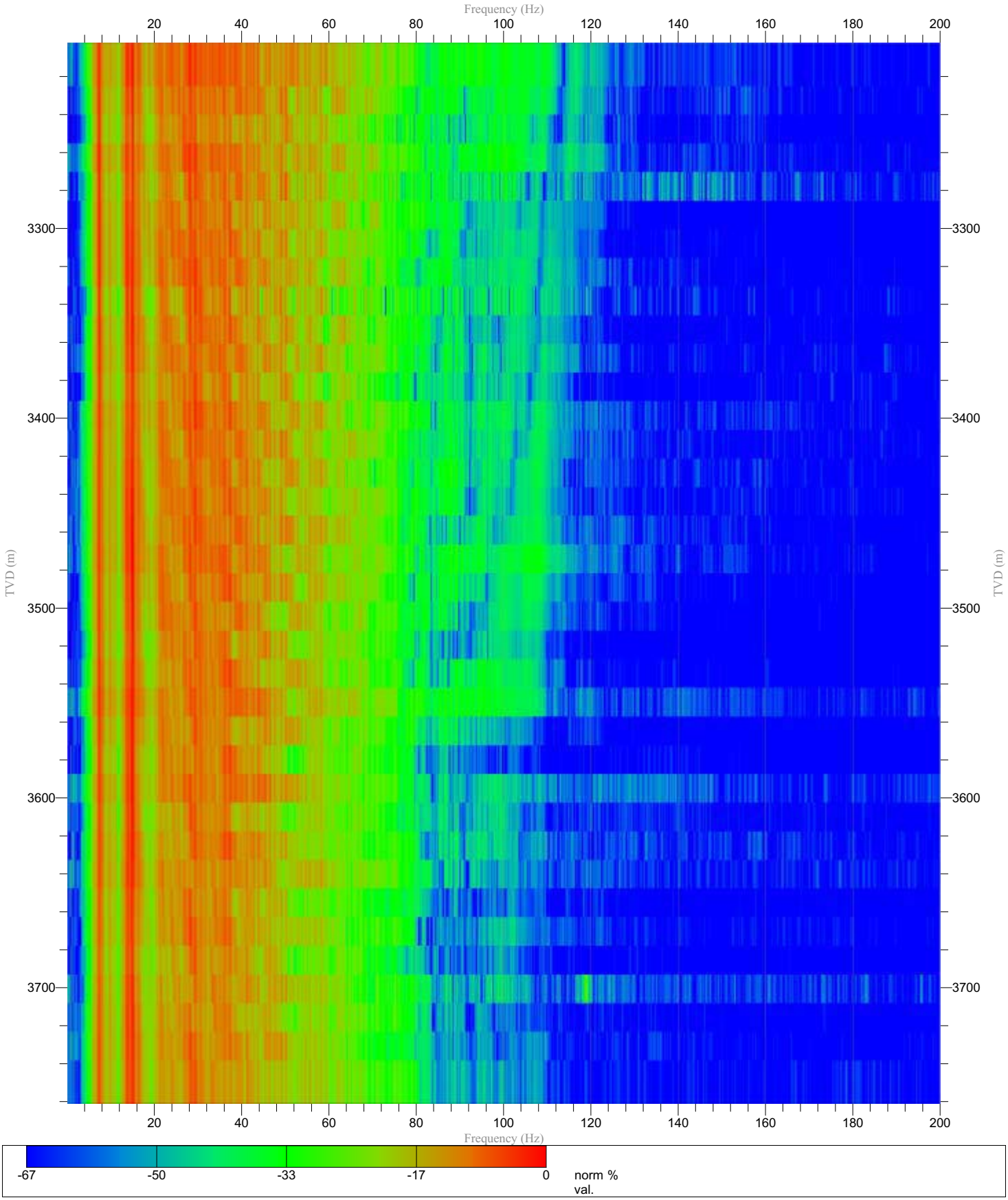

TRY (degree)
0
10
20
30
40
50
60
70
80
90
3200
3300
3400
3500
3600
3700
3800
Measured Depth [m]
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Linearity
TRY
Well Deviation
Linearity

VSP Raw Stack (Z) FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 0.25(1/km)/cm

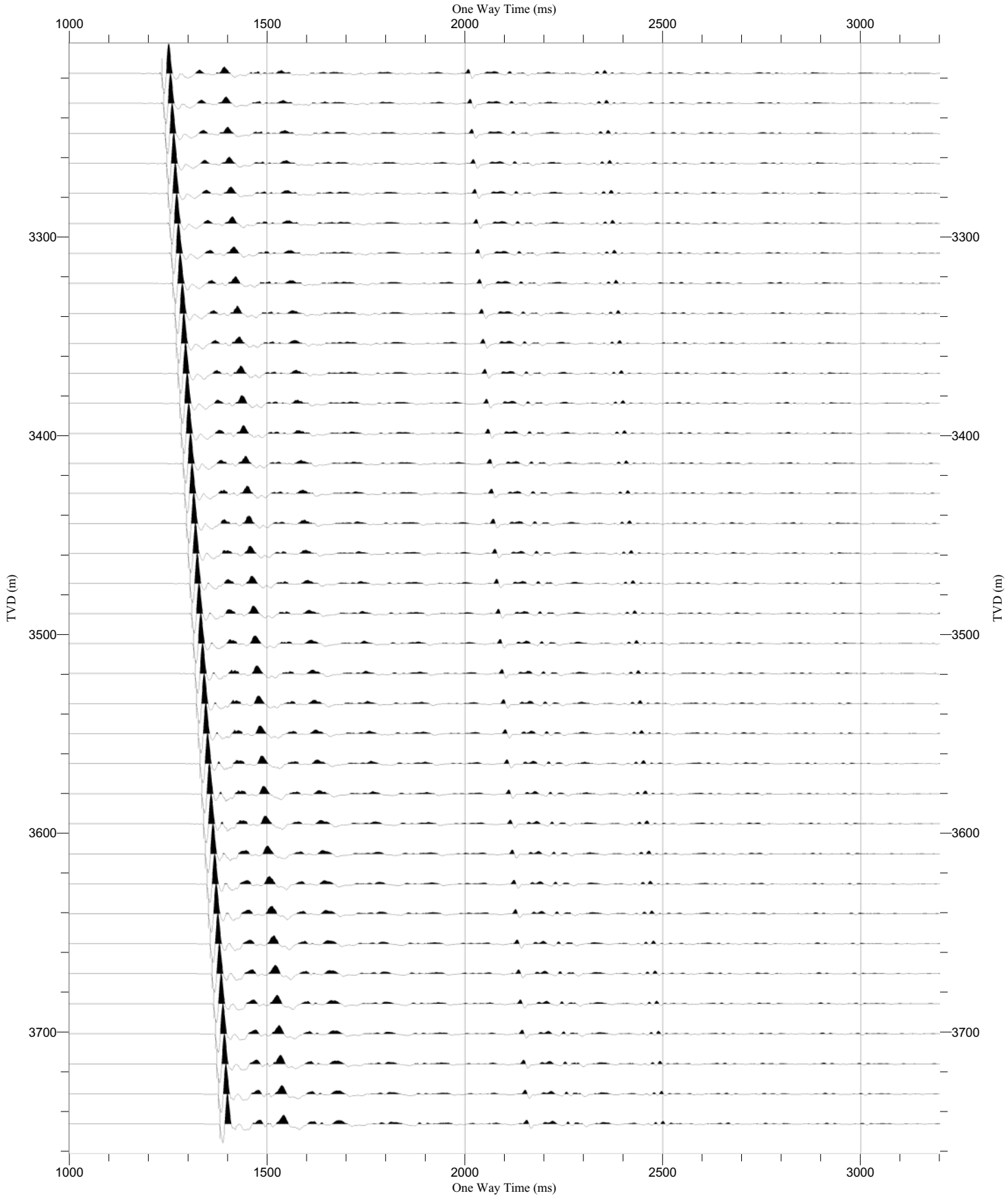


Schlumberger

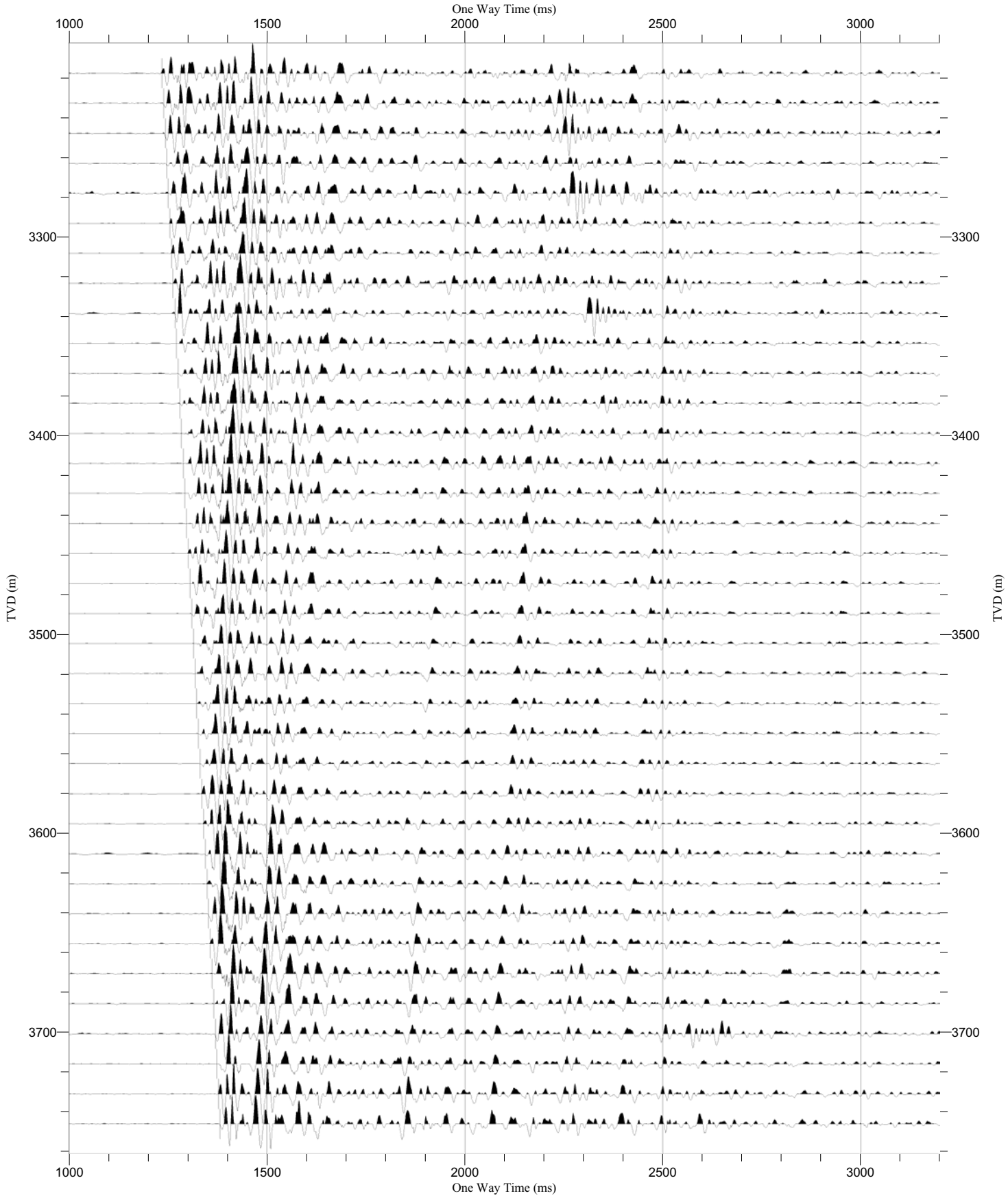
VSP Raw Stack (Z) FZ Apply FZ	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.1 cm/Hz, 1/2620



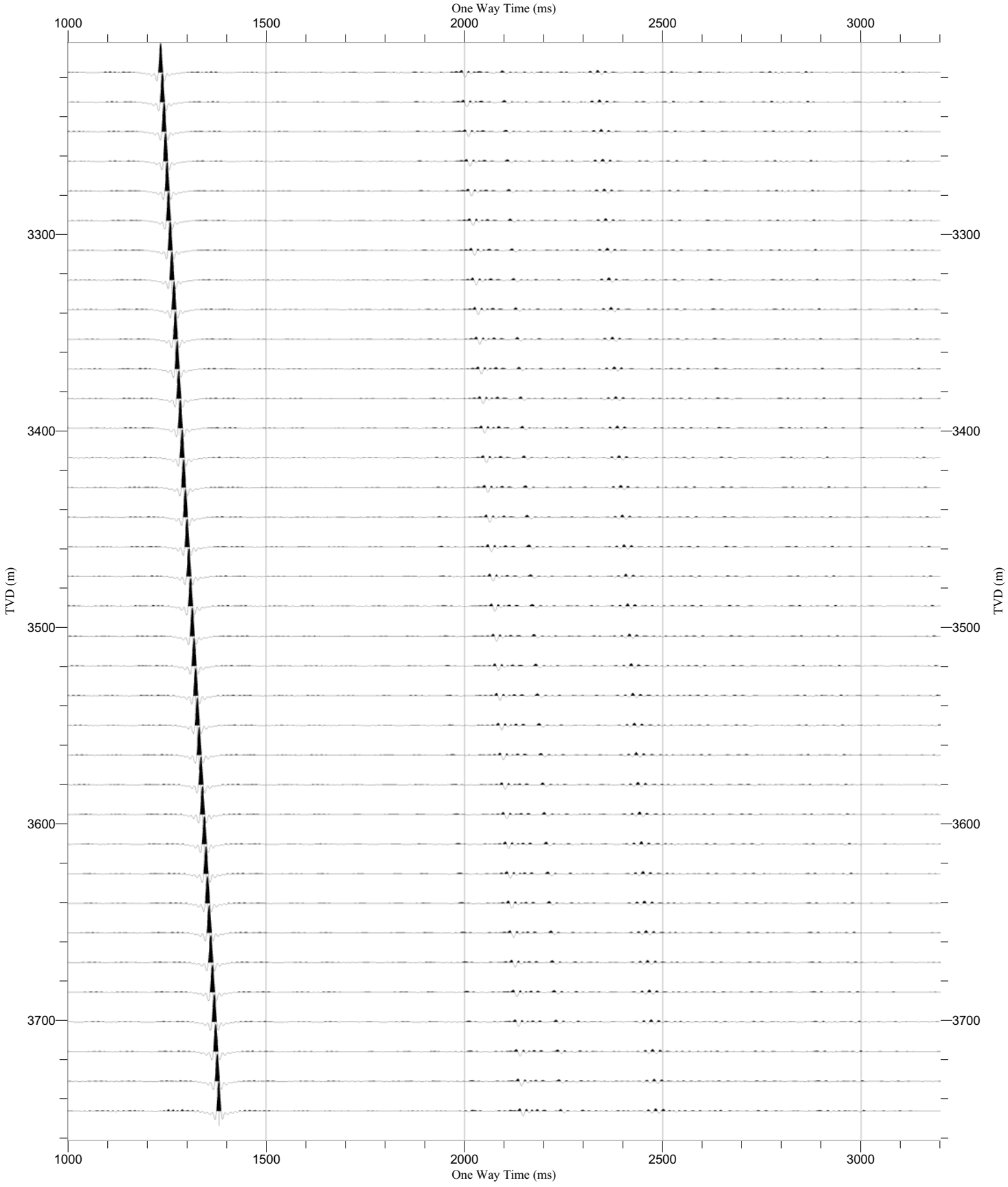
VSP Downgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610



VSP Upgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610

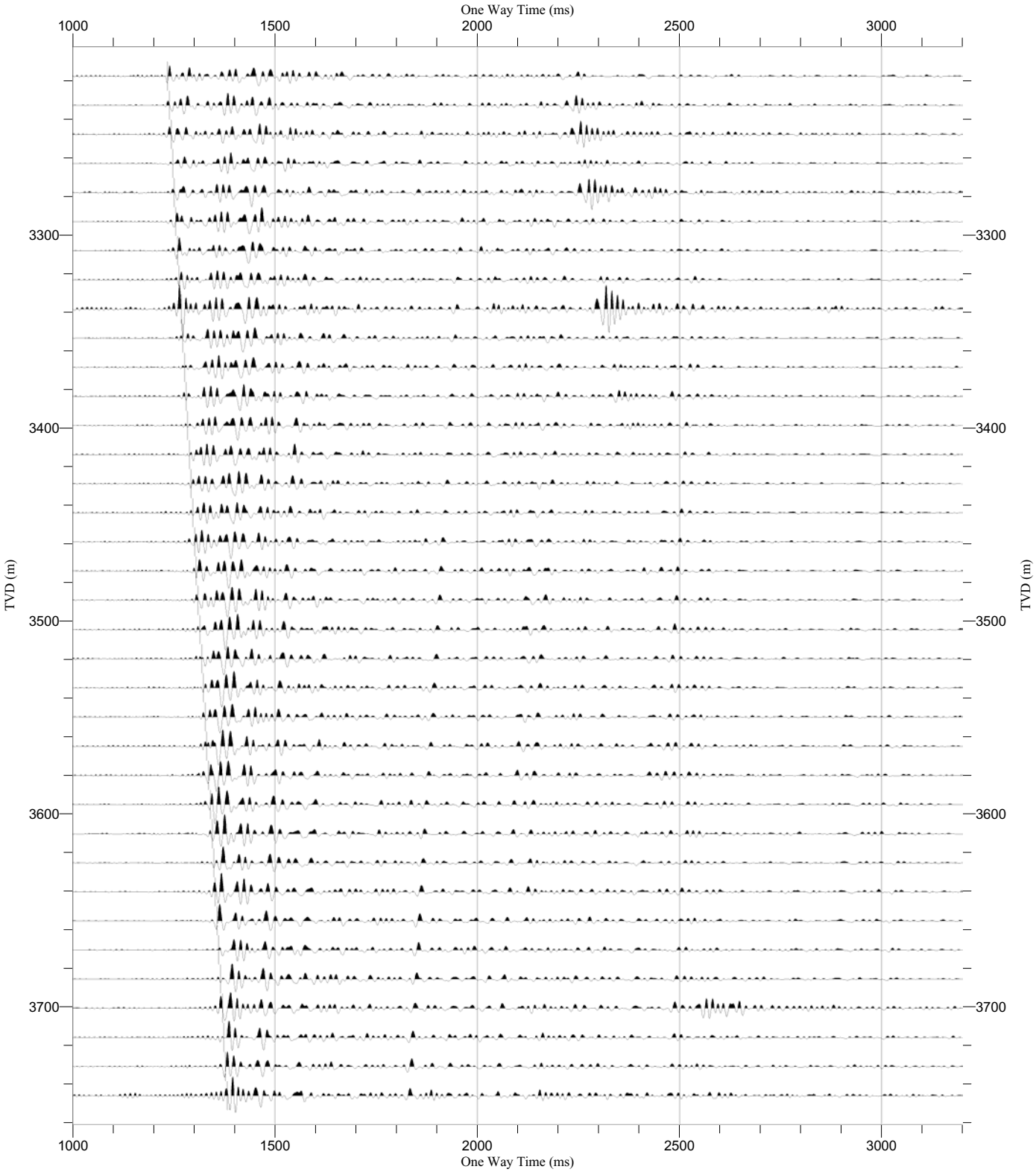


VSP Waveshape decon downgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase)	Normalization Largest Trace in Gather (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2640

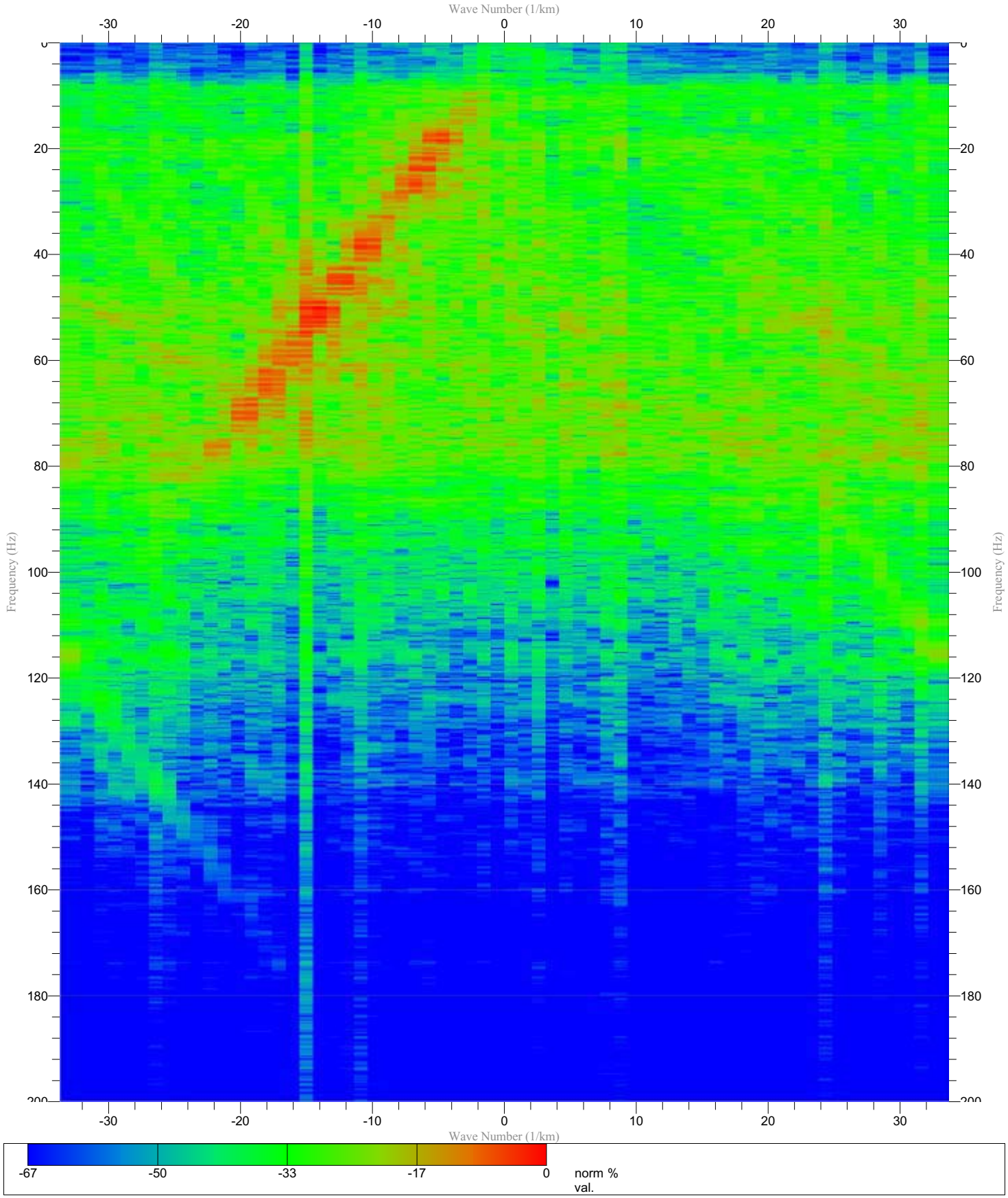


Schlumberger

VSP Waveshape decon upgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase)	Normalization Largest Trace in Gather (100%) Polarity Normal One Way Time (ms) Scaling 7.2 cm/sec, 1/2920	

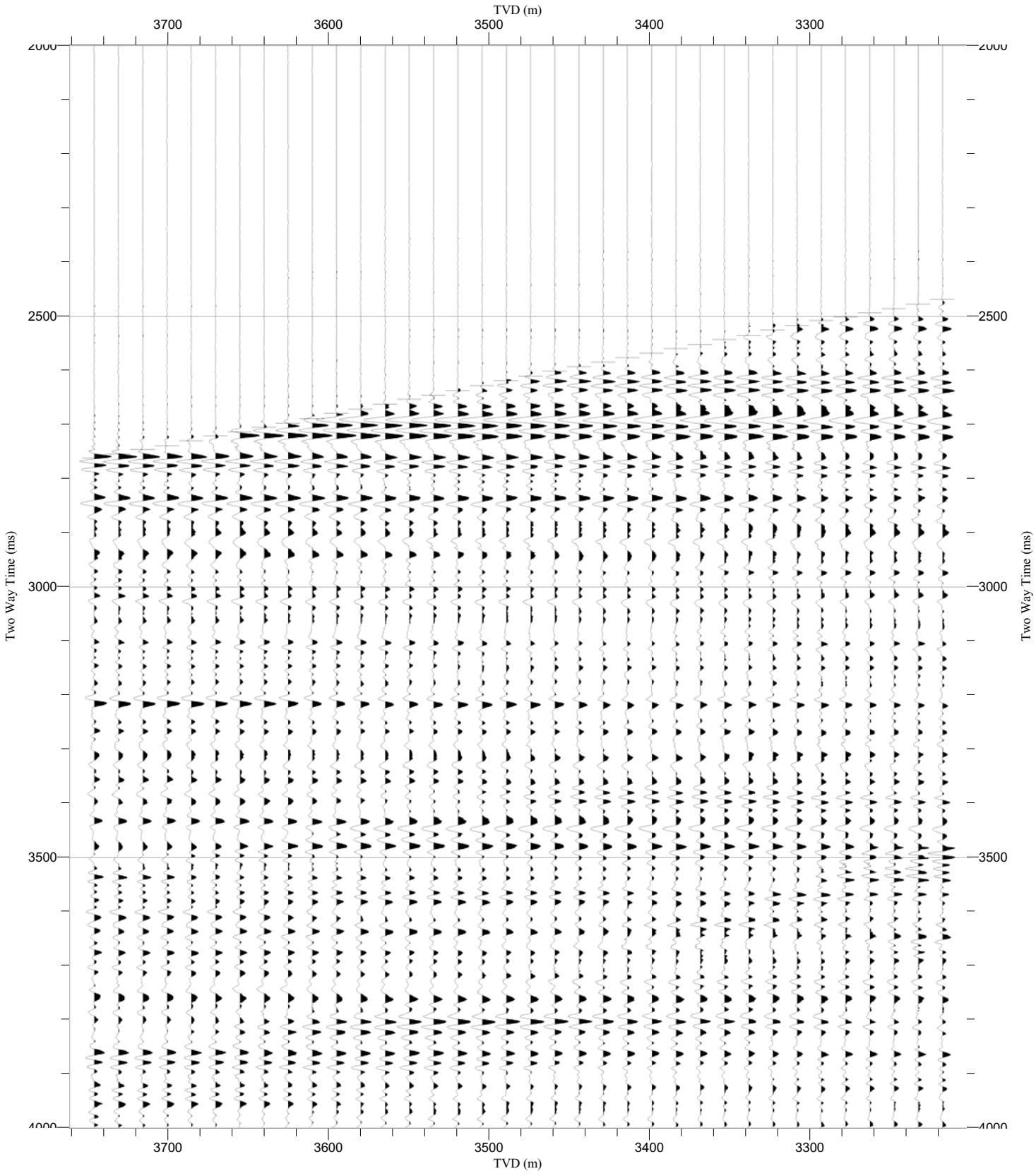


VSP Waveshape decon upgoing FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 0.25(1/km)/cm	



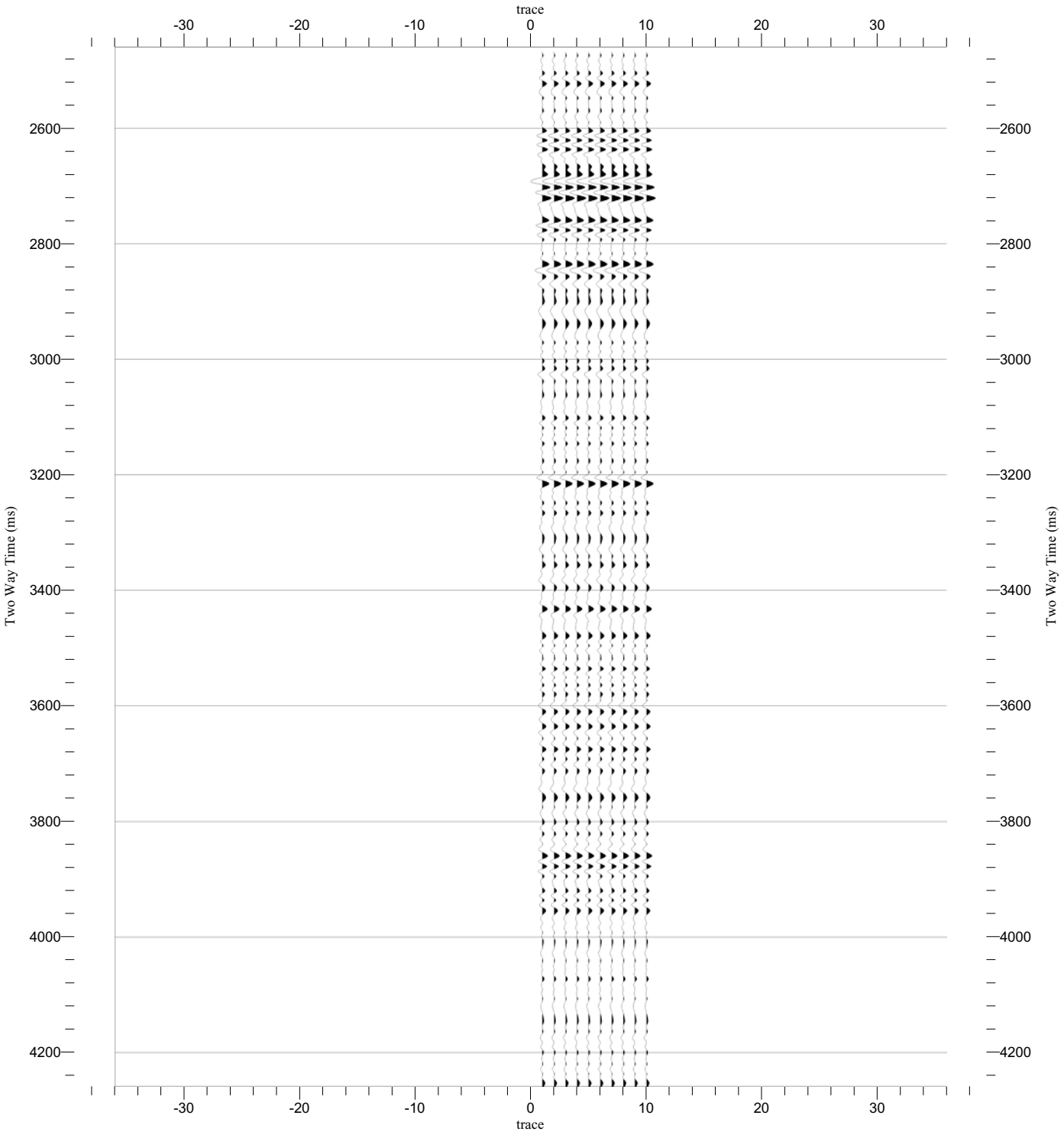
Schlumberger

VSP Corridor Stack (Input) BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase) BPF 8.0 - 85.0Hz Travel time exponent = 1.50 Median Filter 7 Traces	Normalization Largest Trace in Gather (100%) Polarity Normal Two Way Time (ms) Scaling 10.1 cm/sec, 1/3330	



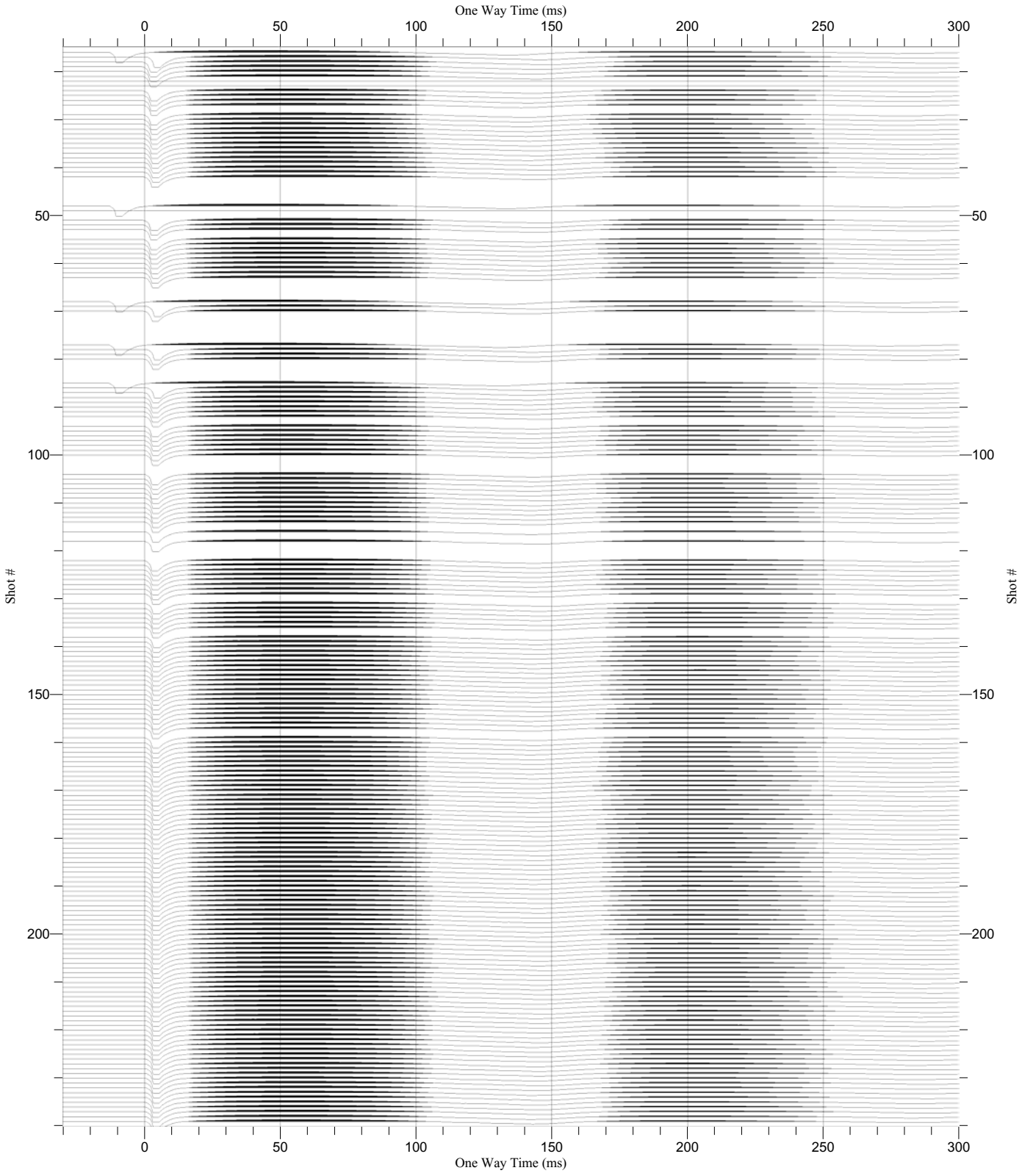
Schlumberger

VSP Corridor Stack (output) BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase) BPF 8.0 - 85.0Hz Travel time exponent = 1.50 Median Filter 7 Traces Corridor Stack (Mean): BPF 5.0 - 90.0Hz	Normalization Trace by Trace (100%) Polarity Normal Two Way Time (ms) Scaling 10.0 cm/sec, 5.0 traces/cm	

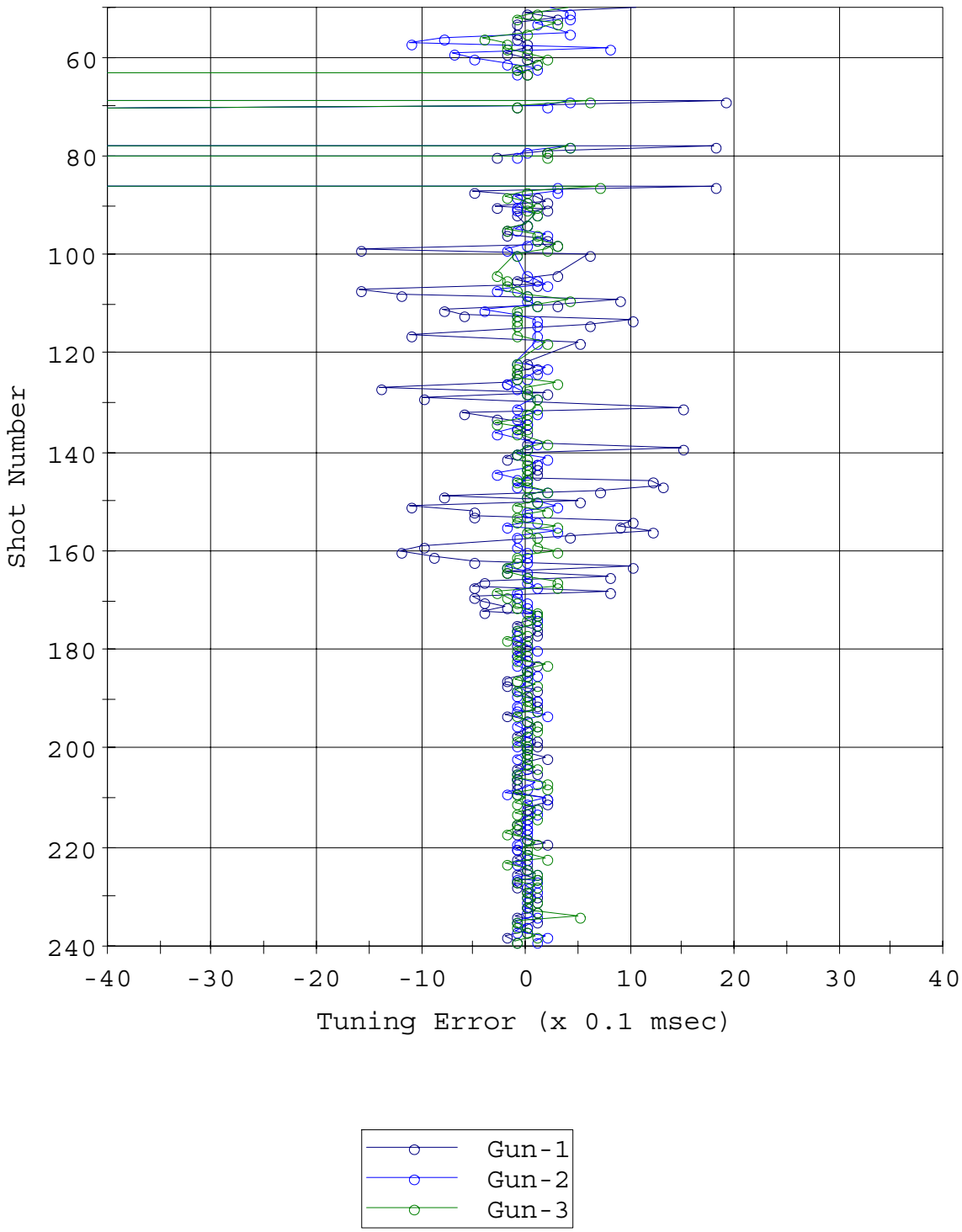


Source Signature QC Report

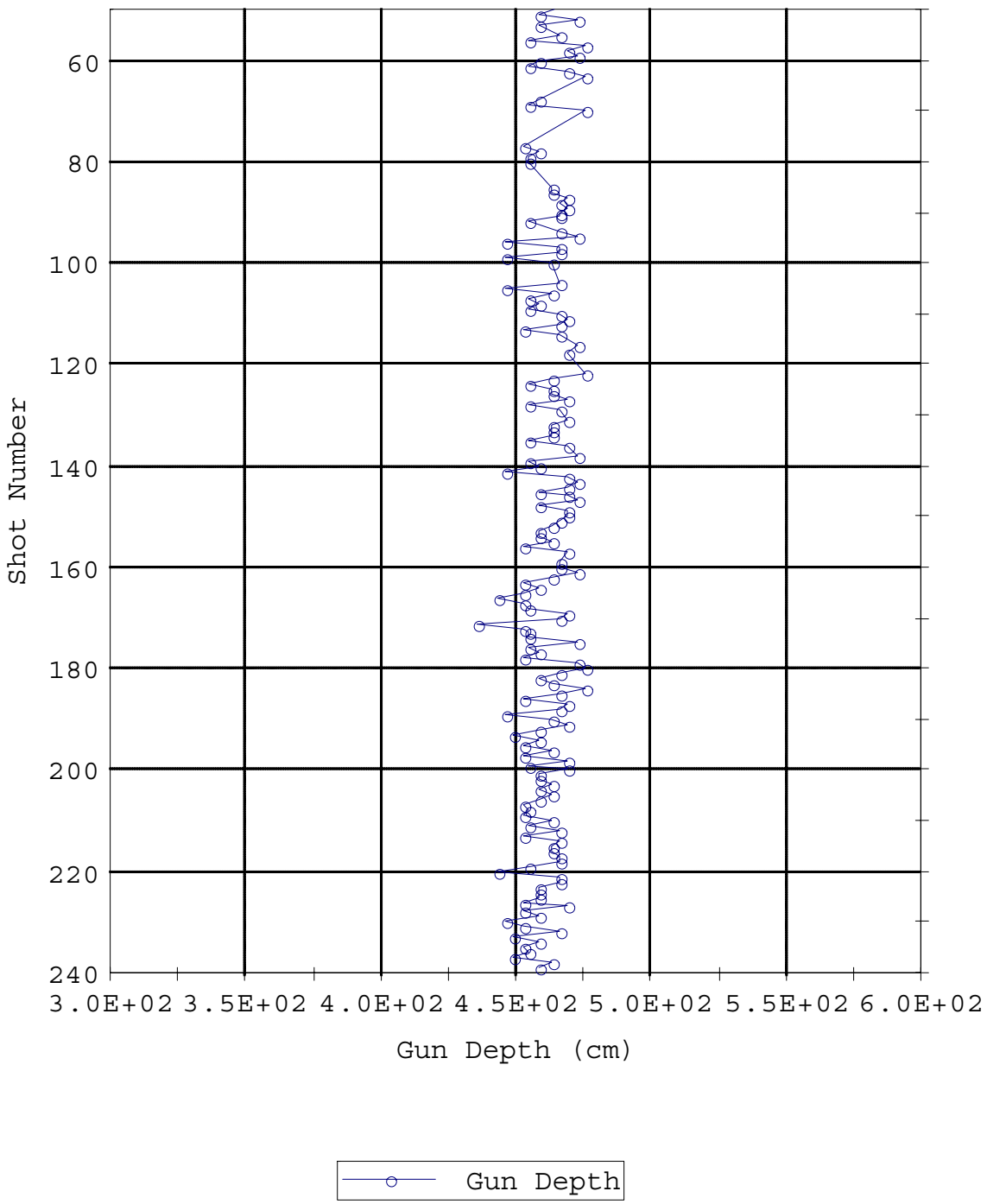
Source Sensor Signature	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 48.85 cm/sec, 0.09/cm	



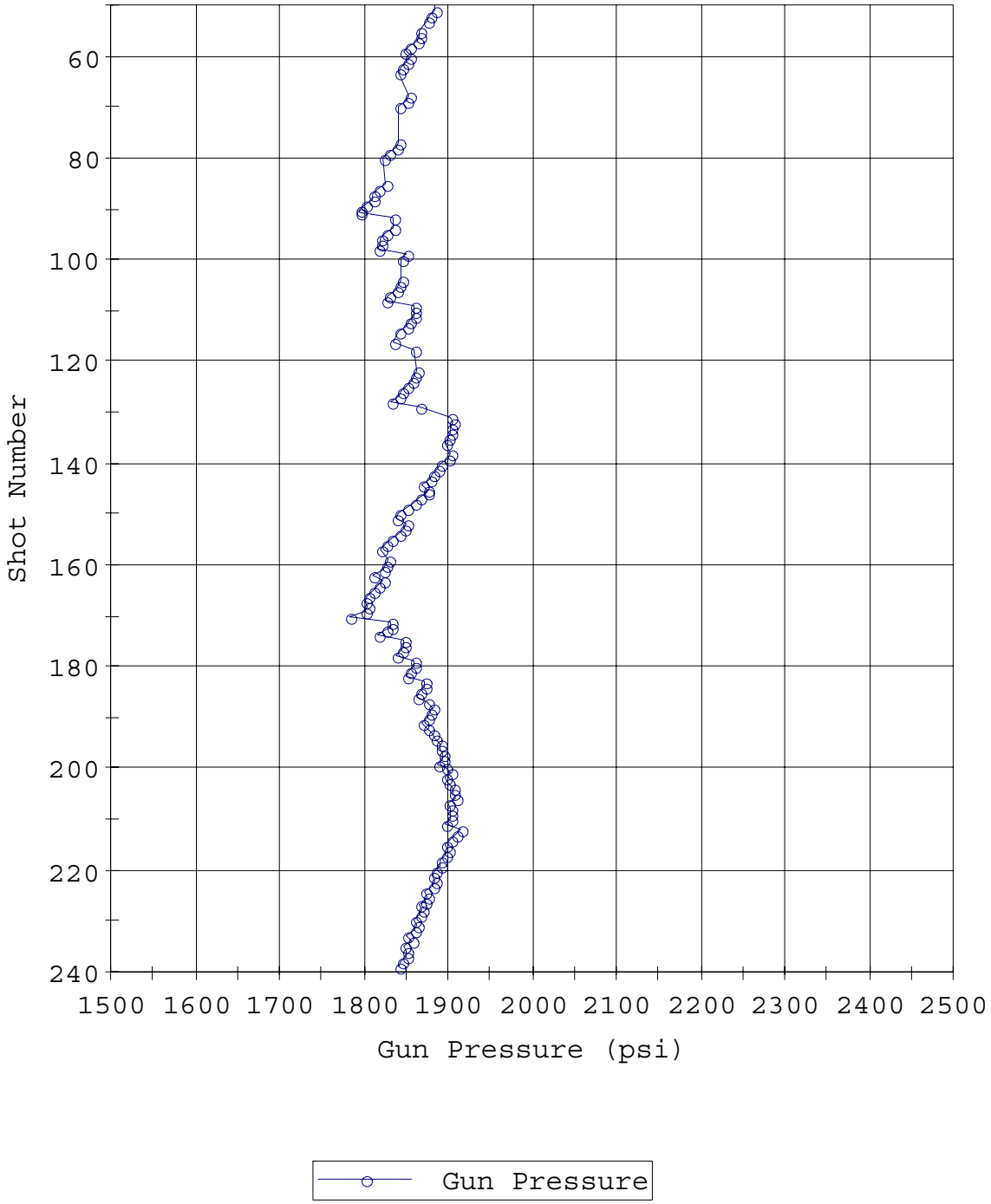
TrisorOFS Tunnig Error



TrisorOFS Gun Depth

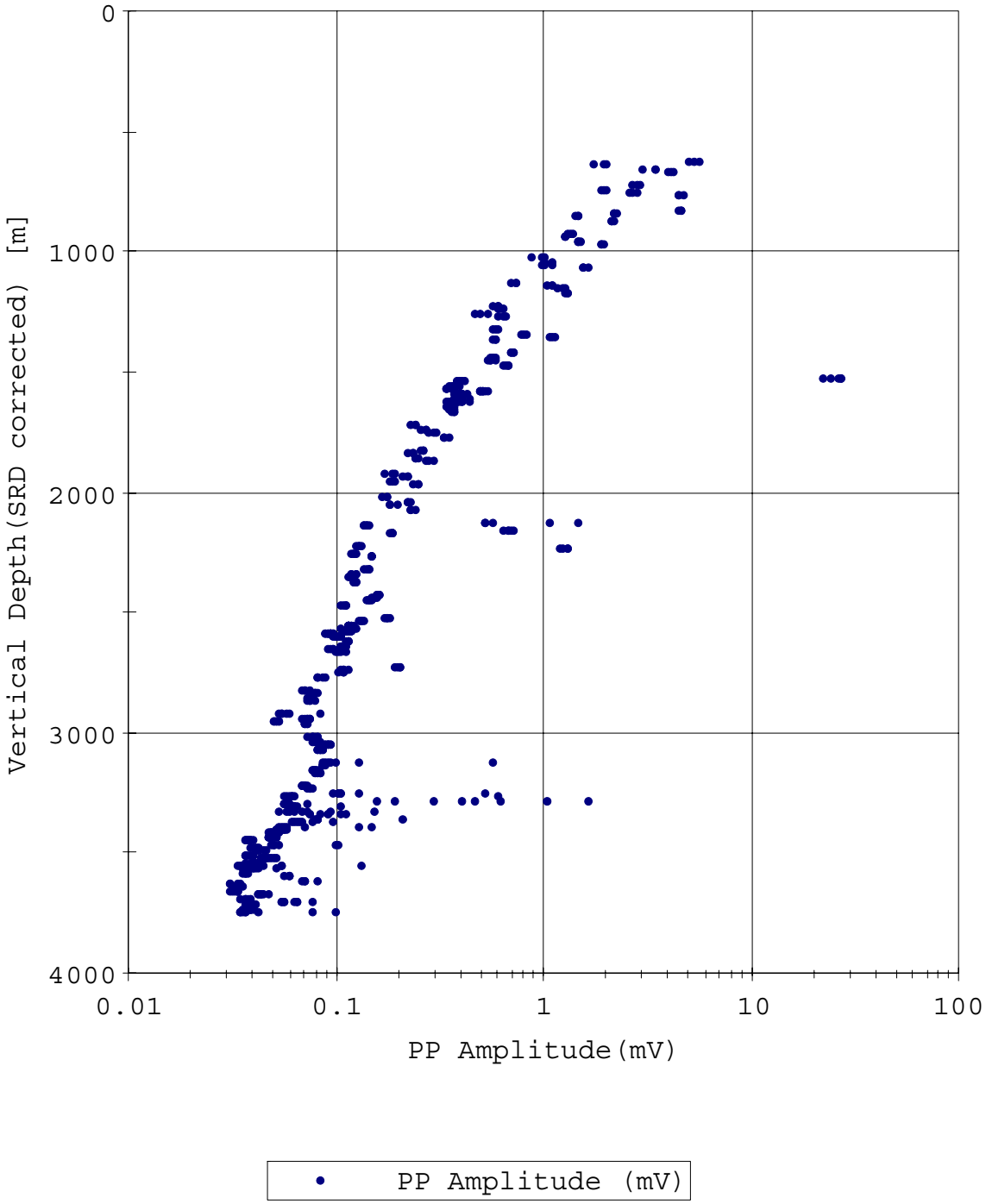


TrisorOFS Gun Pressure

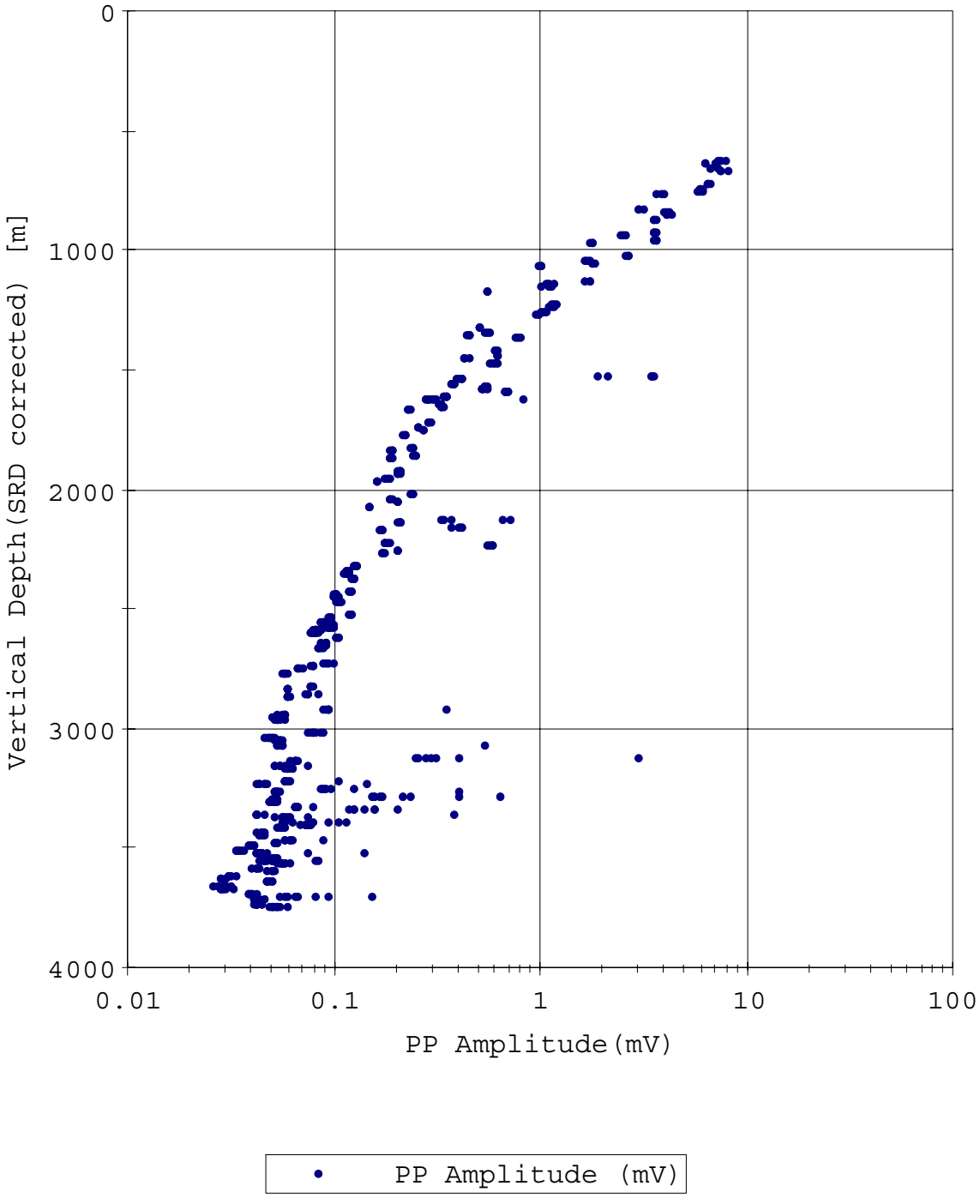


Amplitude QC Report

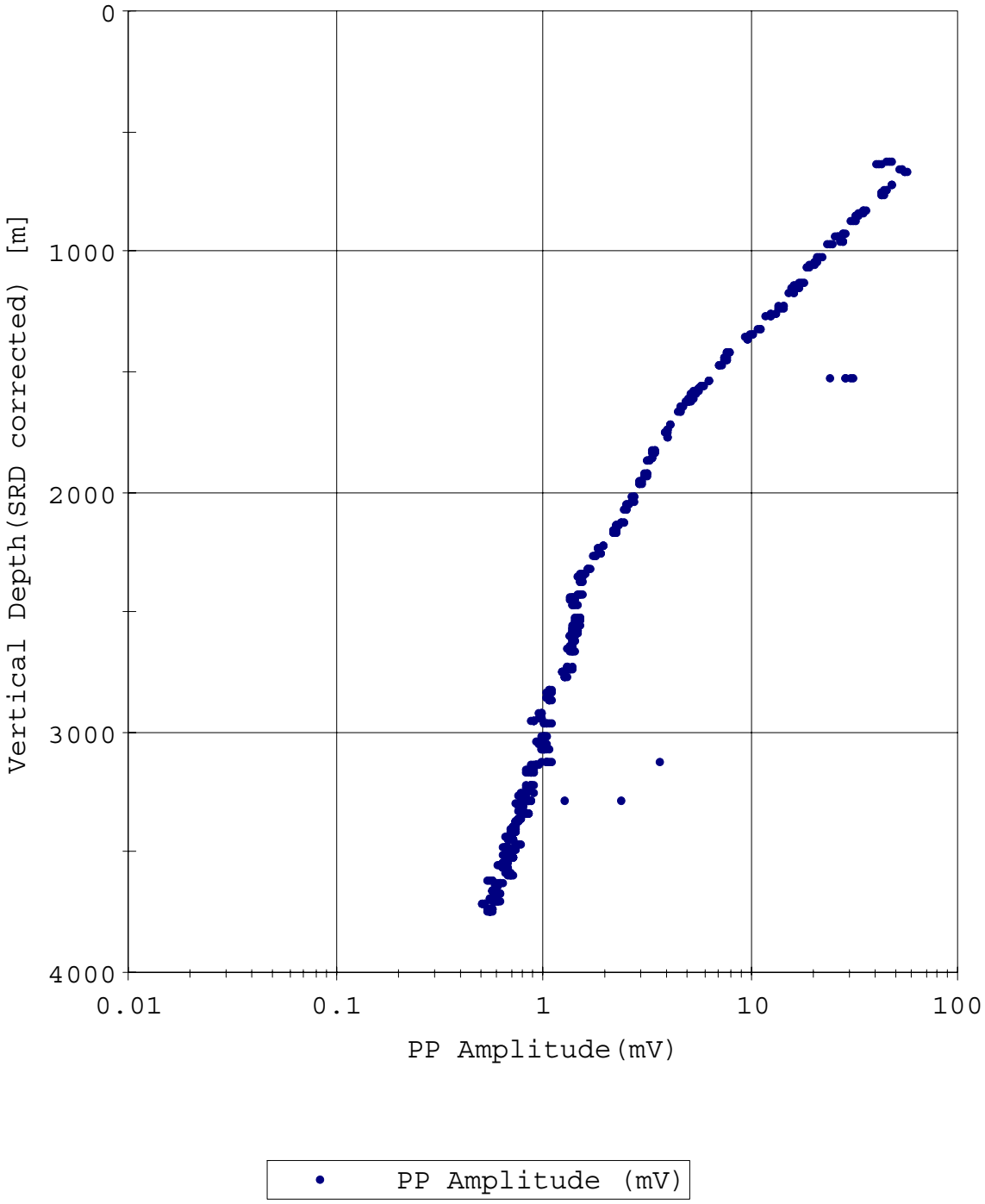
Peak To Peak Plot (X)



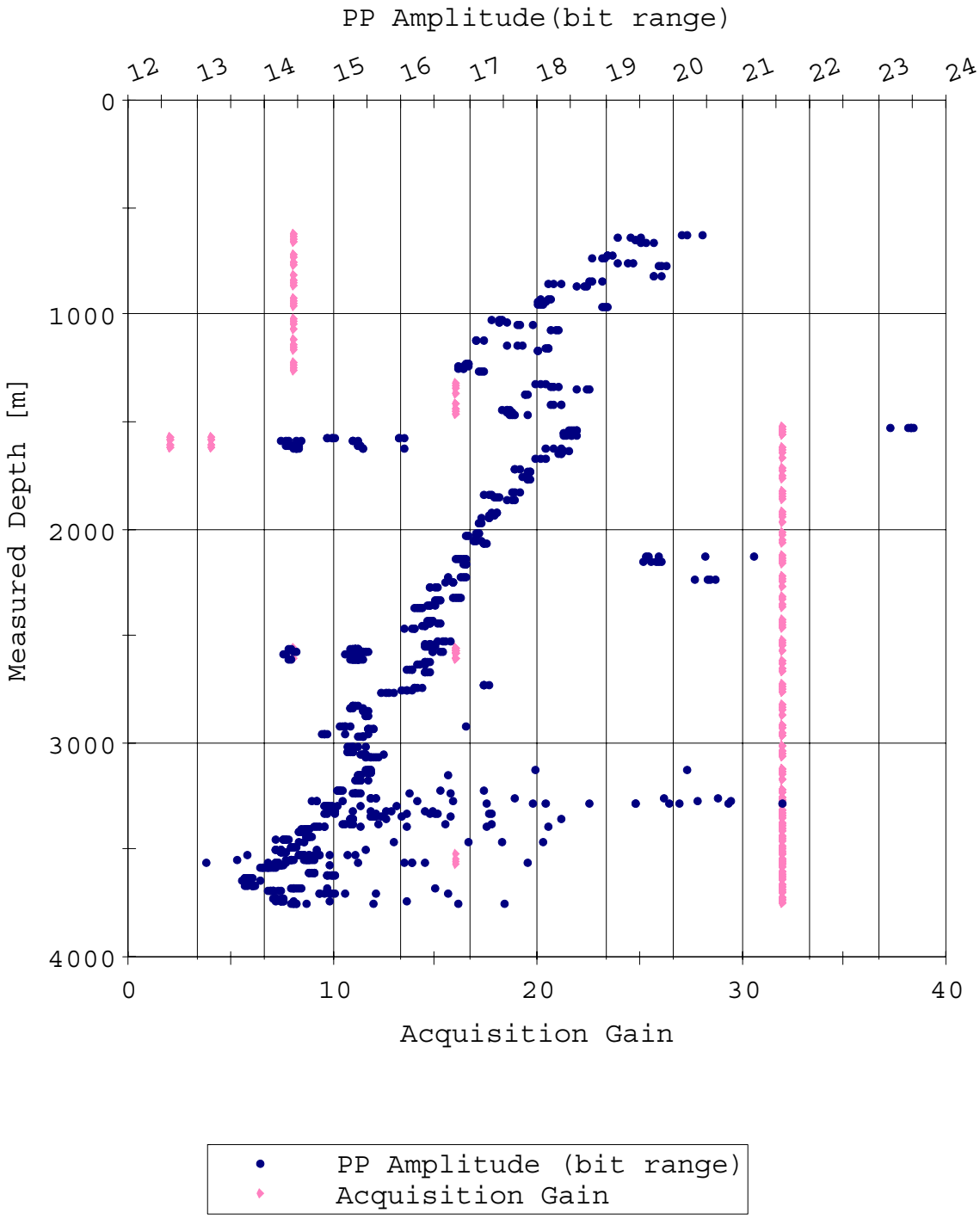
Peak To Peak Plot (Y)



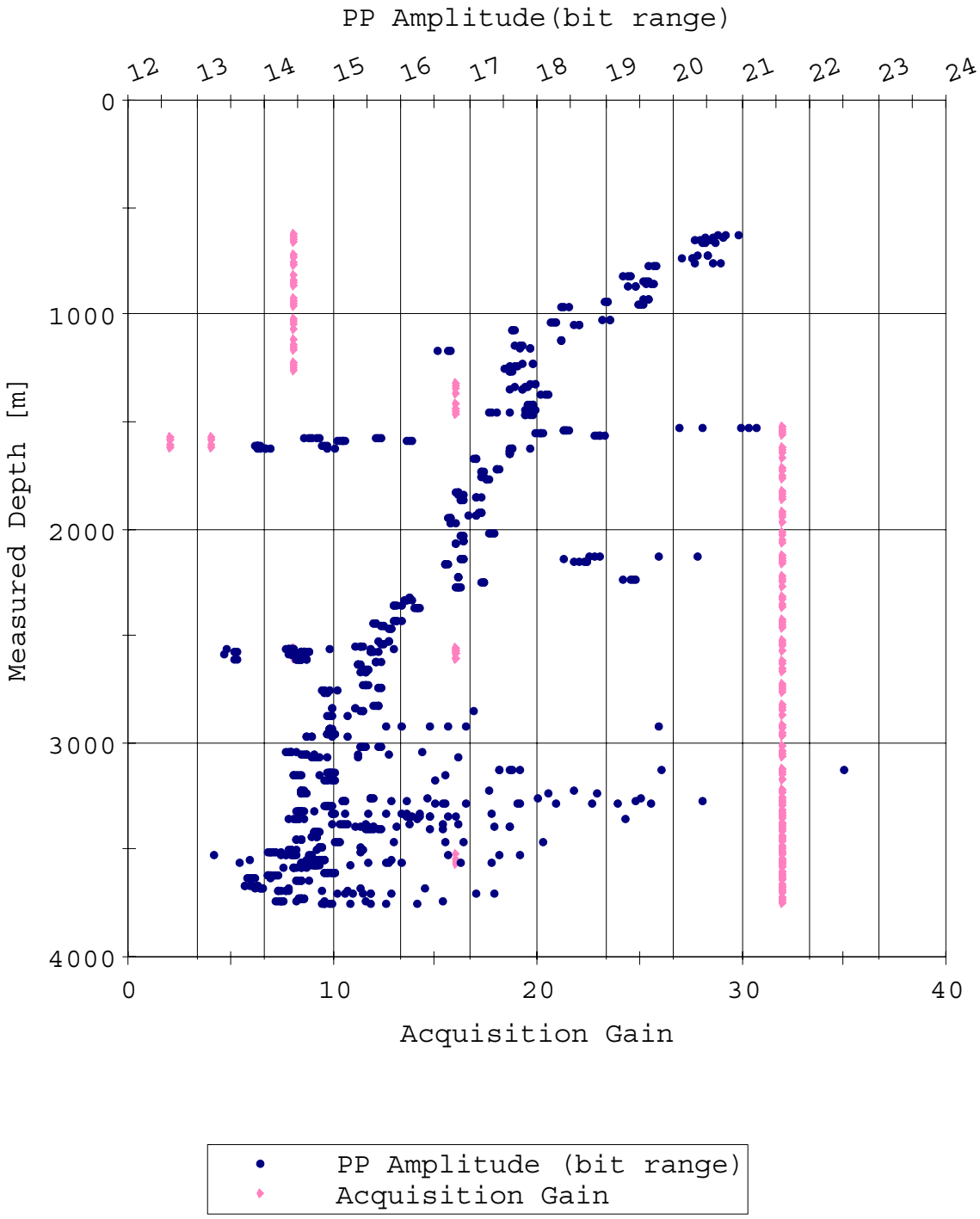
Peak To Peak Plot (Z)



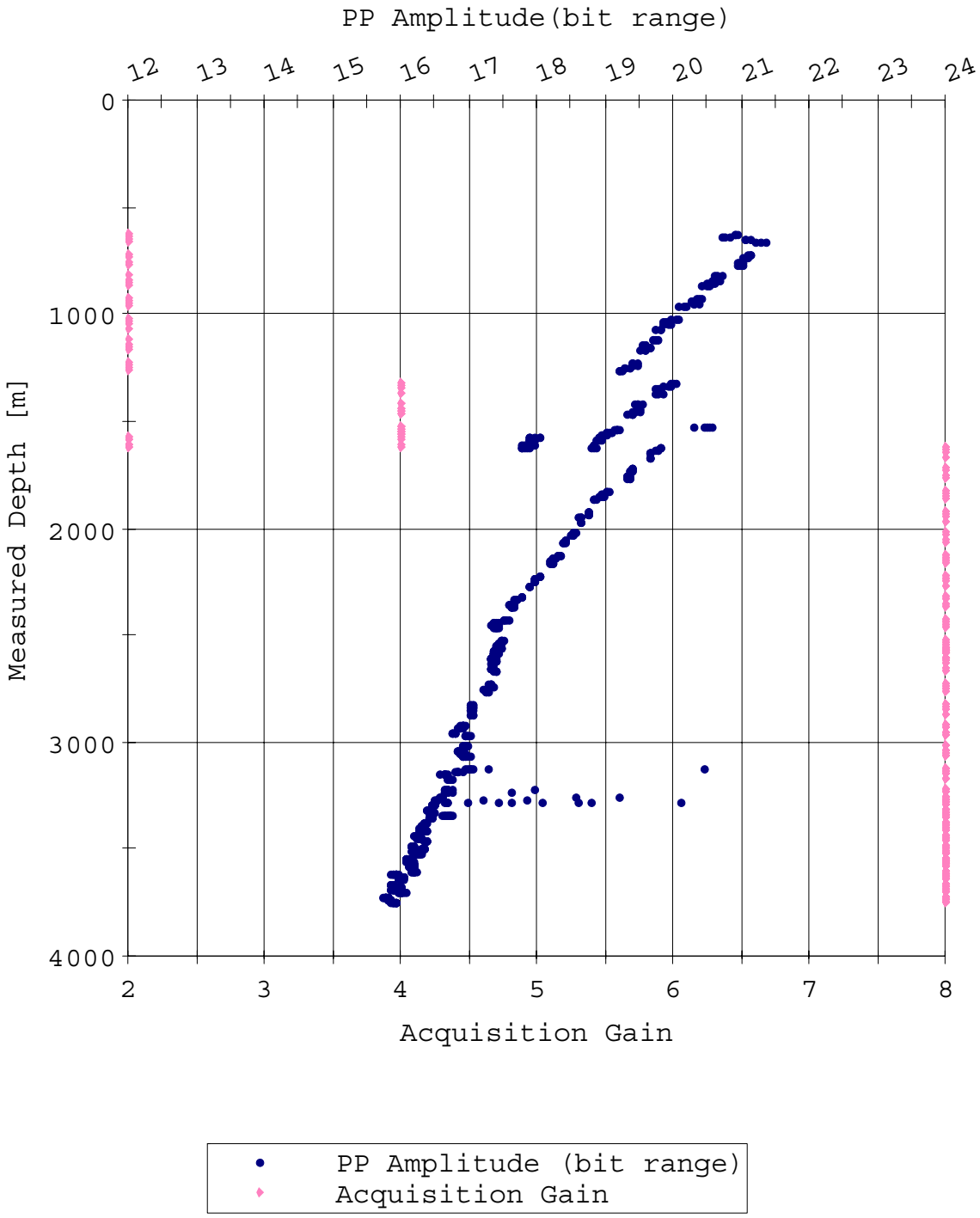
Amplitude QC Plot (X)



Amplitude QC Plot (Y)



Amplitude QC Plot (Z)



Shot and Observer Report

Observer's Note (1/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
659.6	08:08:56	ENLO	1			
659.6	08:09:20	ENHI	2			
659.6	08:11:09	ENLO	3			
659.6	08:11:33	ENHI	4			
659.6	08:11:41	ETHD	5			
659.6	08:11:55	DRNG	6			
659.6	08:12:09	GA02	7			
659.6	08:12:19	GA04	8			
659.6	08:12:29	GA08	9			
659.6	08:12:39	GA16	10			
659.6	08:12:49	GA32	11			
659.6	08:13:04	XTLK	12			
659.6	08:13:23	XTLK	13			
659.6	08:13:42	XTLK	14			
659.6	08:14:00	EIMP	15			
1619.4	09:20:01	SHOT	16	2	OceanPatriot	not tune
1619.4	09:20:35	SHOT	17	2	OceanPatriot	not tune
1619.4	09:21:01	SHOT	18	2	OceanPatriot	
1619.4	09:21:21	SHOT	19	2	OceanPatriot	
1619.4	09:21:44	SHOT	20	2	OceanPatriot	Stack2 CS1
1619.4	09:22:14	SHOT	21	2	OceanPatriot	Noise
1619.4	09:23:05	SHOT	22	2	OceanPatriot	Stack2 CS1
1619.4	09:23:41	SHOT	23	2	OceanPatriot	Stack2 CS1
2600.9	10:29:09	SHOT	24	3	OceanPatriot	shot 24 to 35 shown low manifold pressure
2600.9	10:29:31	SHOT	25	3	OceanPatriot	
2600.9	10:30:11	SHOT	26	3	OceanPatriot	Not tuned
2600.9	10:30:35	SHOT	27	3	OceanPatriot	Not tune
2600.9	10:30:53	SHOT	28	3	OceanPatriot	not tune
2600.9	10:31:45	SHOT	29	3	OceanPatriot	not tune
2600.9	10:32:13	SHOT	30	3	OceanPatriot	
2600.9	10:32:36	SHOT	31	3	OceanPatriot	
2600.9	10:35:04	SHOT	32	3	OceanPatriot	
2600.9	10:36:37	SHOT	33	3	OceanPatriot	
2600.9	10:37:47	SHOT	34	3	OceanPatriot	low inlet pressure
2600.9	10:38:30	SHOT	35	3	OceanPatriot	Low in let pressure
2600.9	10:39:16	SHOT	36	3	OceanPatriot	back to normal pressure
2600.9	10:39:31	SHOT	37	3	OceanPatriot	stack3 CS2
2600.9	10:39:52	SHOT	38	3	OceanPatriot	stack3 CS2
2600.9	10:40:28	SHOT	39	3	OceanPatriot	stack3 CS2
3568.6	11:28:37	SHOT	40	4	OceanPatriot	Stack4 CS3
3568.6	11:29:28	SHOT	41	4	OceanPatriot	Stack4 CS3
3568.6	11:29:52	SHOT	42	4	OceanPatriot	Stack4 CS3
3568.6	11:30:20	SHOT	43	4	OceanPatriot	
3568.6	11:38:12	SHOT	48	4	OceanPatriot	
3568.6	11:38:29	SHOT	49	4	OceanPatriot	
3568.6	11:38:50	SHOT	50	4	OceanPatriot	
3749.9	12:09:00	SHOT	51	5	OceanPatriot	
3749.9	12:09:26	SHOT	52	5	OceanPatriot	
3749.9	12:09:44	SHOT	53	5	OceanPatriot	
3749.9	12:10:14	SHOT	54	5	OceanPatriot	
3749.9	12:11:18	SHOT	55	5	OceanPatriot	
3749.9	12:11:39	SHOT	56	5	OceanPatriot	
3749.9	12:12:12	SHOT	57	5	OceanPatriot	
3749.9	12:12:34	SHOT	58	5	OceanPatriot	
3749.9	12:12:55	SHOT	59	5	OceanPatriot	
3689.4	12:18:21	SHOT	60	6	OceanPatriot	
3689.4	12:18:50	SHOT	61	6	OceanPatriot	
3689.4	12:19:11	SHOT	62	6	OceanPatriot	
3689.4	12:19:25	SHOT	63	6	OceanPatriot	tube

Observer's Note (2/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
3689.4	12:19:46	SHOT	64	6	OceanPatriot	
3689.4	12:34:09	SHOT	68	6	OceanPatriot	
3689.4	12:34:25	SHOT	69	6	OceanPatriot	
3689.4	12:34:42	SHOT	70	6	OceanPatriot	
3629.1	12:40:20	SHOT	71	7	OceanPatriot	
3629.1	12:41:10	SHOT	72	7	OceanPatriot	
3629.1	12:41:36	SHOT	73	7	OceanPatriot	
3629.1	12:42:41	SHOT	74	7	OceanPatriot	
3629.1	12:51:43	SHOT	77	7	OceanPatriot	
3629.1	12:51:55	SHOT	78	7	OceanPatriot	
3629.1	12:52:11	SHOT	79	7	OceanPatriot	
3629.1	12:52:26	SHOT	80	7	OceanPatriot	
3629.1	12:52:44	SHOT	81	7	OceanPatriot	
3568.5	13:00:44	SHOT	85	8	OceanPatriot	
3568.5	13:01:05	SHOT	86	8	OceanPatriot	
3568.5	13:01:17	SHOT	87	8	OceanPatriot	
3568.5	13:01:30	SHOT	88	8	OceanPatriot	
3568.5	13:01:44	SHOT	89	8	OceanPatriot	
3568.5	13:01:56	SHOT	90	8	OceanPatriot	
3568.5	13:02:08	SHOT	91	8	OceanPatriot	
3508.0	13:08:32	SHOT	92	9	OceanPatriot	
3508.0	13:08:57	SHOT	93	9	OceanPatriot	
3508.0	13:09:46	SHOT	94	9	OceanPatriot	
3508.0	13:10:05	SHOT	95	9	OceanPatriot	
3508.0	13:10:24	SHOT	96	9	OceanPatriot	
3508.0	13:10:39	SHOT	97	9	OceanPatriot	
3508.0	13:10:54	SHOT	98	9	OceanPatriot	
3447.6	13:17:17	SHOT	99	10	OceanPatriot	
3447.6	13:17:34	SHOT	100	10	OceanPatriot	
3447.6	13:17:48	SHOT	101	10	OceanPatriot	
3447.6	13:21:15	SHOT	104	10	OceanPatriot	
3447.6	13:21:29	SHOT	105	10	OceanPatriot	
3447.6	13:21:43	SHOT	106	10	OceanPatriot	
3447.6	13:21:57	SHOT	107	10	OceanPatriot	
3447.6	13:22:26	SHOT	108	10	OceanPatriot	
3387.1	13:29:03	SHOT	109	11	OceanPatriot	
3387.1	13:29:21	SHOT	110	11	OceanPatriot	
3387.1	13:29:34	SHOT	111	11	OceanPatriot	
3387.1	13:29:55	SHOT	112	11	OceanPatriot	
3387.1	13:30:19	SHOT	113	11	OceanPatriot	
3387.1	13:30:46	SHOT	114	11	OceanPatriot	
3387.1	13:31:18	SHOT	115	11	OceanPatriot	
3387.1	13:32:07	SHOT	116	11	OceanPatriot	
3387.1	13:32:51	SHOT	117	11	OceanPatriot	
3326.6	13:39:44	SHOT	118	12	OceanPatriot	
3326.6	13:40:10	SHOT	119	12	OceanPatriot	
3326.6	13:41:01	SHOT	120	12	OceanPatriot	
3326.6	13:43:56	SHOT	122	12	OceanPatriot	
3326.6	13:44:12	SHOT	123	12	OceanPatriot	
3326.6	13:44:31	SHOT	124	12	OceanPatriot	
3326.6	13:44:46	SHOT	125	12	OceanPatriot	
3326.6	13:45:00	SHOT	126	12	OceanPatriot	
3326.6	13:45:19	SHOT	127	12	OceanPatriot	
3326.6	13:45:40	SHOT	128	12	OceanPatriot	
3266.2	13:51:43	SHOT	129	13	OceanPatriot	
3266.2	13:52:04	SHOT	130	13	OceanPatriot	
3266.2	14:40:22	SHOT	131	14	OceanPatriot	
3266.2	14:40:46	SHOT	132	14	OceanPatriot	
3266.2	14:41:14	SHOT	133	14	OceanPatriot	

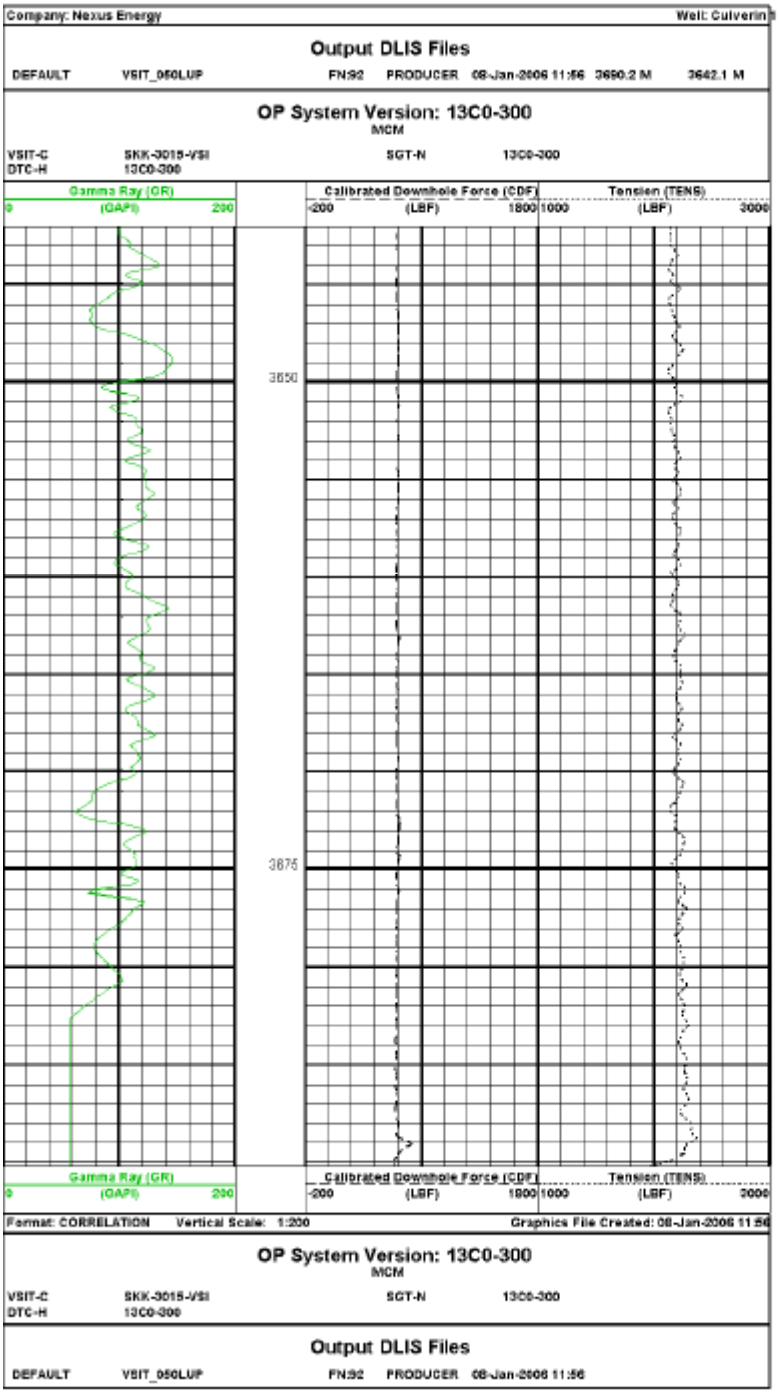
Observer's Note (3/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
3266.2	14:41:38	SHOT	134	14	OceanPatriot	
3266.2	14:41:56	SHOT	135	14	OceanPatriot	
3266.2	14:42:14	SHOT	136	14	OceanPatriot	
3166.1	14:50:29	SHAK	137			
3166.1	14:50:50	SHOT	138	15	OceanPatriot	
3166.1	14:51:07	SHOT	139	15	OceanPatriot	
3166.1	14:51:47	SHOT	140	15	OceanPatriot	
3166.1	14:52:14	SHOT	141	15	OceanPatriot	
3166.1	14:52:36	SHOT	142	15	OceanPatriot	
3166.1	14:52:51	SHOT	143	15	OceanPatriot	
3166.1	14:53:09	SHOT	144	15	OceanPatriot	
3066.0	14:59:36	SHOT	145	16	OceanPatriot	
3066.0	14:59:59	SHOT	146	16	OceanPatriot	
3066.0	15:00:29	SHOT	147	16	OceanPatriot	
3066.0	15:00:45	SHOT	148	16	OceanPatriot	
3066.0	15:01:18	SHOT	149	16	OceanPatriot	
3066.0	15:01:40	SHOT	150	16	OceanPatriot	
3066.0	15:02:00	SHOT	151	16	OceanPatriot	
2966.1	15:09:12	SHOT	152	17	OceanPatriot	
2966.1	15:09:29	SHOT	153	17	OceanPatriot	
2966.1	15:09:45	SHOT	154	17	OceanPatriot	
2966.1	15:10:07	SHOT	155	17	OceanPatriot	
2966.1	15:10:18	SHOT	156	17	OceanPatriot	
2966.1	15:10:37	SHOT	157	17	OceanPatriot	
2866.1	15:17:52	SHAK	158			
2866.1	15:18:16	SHOT	159	18	OceanPatriot	
2866.1	15:18:40	SHOT	160	18	OceanPatriot	
2866.1	15:19:00	SHOT	161	18	OceanPatriot	
2866.1	15:19:21	SHOT	162	18	OceanPatriot	
2766.2	15:26:15	SHOT	163	19	OceanPatriot	
2766.2	15:26:43	SHOT	164	19	OceanPatriot	
2766.2	15:27:15	SHOT	165	19	OceanPatriot	
2766.2	15:27:33	SHOT	166	19	OceanPatriot	
2666.1	15:33:56	SHOT	167	20	OceanPatriot	
2666.1	15:34:25	SHOT	168	20	OceanPatriot	
2666.1	15:34:39	SHOT	169	20	OceanPatriot	
2666.1	15:34:50	SHOT	170	20	OceanPatriot	
2566.2	15:40:52	SHOT	171	21	OceanPatriot	
2566.2	15:41:05	SHOT	172	21	OceanPatriot	
2566.2	15:41:27	SHOT	173	21	OceanPatriot	
2566.2	15:41:44	SHOT	174	21	OceanPatriot	
2466.1	15:47:49	SHOT	175	22	OceanPatriot	
2466.1	15:48:06	SHOT	176	22	OceanPatriot	
2466.1	15:48:20	SHOT	177	22	OceanPatriot	
2466.1	15:48:36	SHOT	178	22	OceanPatriot	
2366.1	15:53:32	SHOT	179	23	OceanPatriot	
2366.1	15:53:44	SHOT	180	23	OceanPatriot	
2366.1	15:54:02	SHOT	181	23	OceanPatriot	
2366.1	15:54:17	SHOT	182	23	OceanPatriot	
2266.1	15:59:17	SHOT	183	24	OceanPatriot	
2266.1	15:59:37	SHOT	184	24	OceanPatriot	
2266.1	15:59:56	SHOT	185	24	OceanPatriot	
2266.1	16:00:09	SHOT	186	24	OceanPatriot	
2166.2	16:05:18	SHOT	187	25	OceanPatriot	
2166.2	16:05:43	SHOT	188	25	OceanPatriot	
2166.2	16:06:03	SHOT	189	25	OceanPatriot	
2166.2	16:06:21	SHOT	190	25	OceanPatriot	
2166.2	16:06:38	SHOT	191	25	OceanPatriot	
2066.1	16:11:44	SHOT	192	26	OceanPatriot	

Observer's Note (4/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
2066.1	16:12:06	SHOT	193	26	OceanPatriot	
2066.1	16:12:26	SHOT	194	26	OceanPatriot	
1966.1	16:17:36	SHOT	195	27	OceanPatriot	
1966.1	16:17:53	SHOT	196	27	OceanPatriot	
1966.1	16:18:09	SHOT	197	27	OceanPatriot	
1866.1	16:22:49	SHOT	198	28	OceanPatriot	
1866.1	16:23:15	SHOT	199	28	OceanPatriot	
1866.1	16:23:35	SHOT	200	28	OceanPatriot	
1765.8	16:29:16	SHOT	201	29	OceanPatriot	
1765.8	16:29:46	SHOT	202	29	OceanPatriot	
1765.8	16:30:19	SHOT	203	29	OceanPatriot	
1666.2	16:36:05	SHOT	204	30	OceanPatriot	
1666.2	16:36:30	SHOT	205	30	OceanPatriot	
1666.2	16:36:48	SHOT	206	30	OceanPatriot	
1566.2	16:44:08	SHOT	207	31	OceanPatriot	Shuttle1 in wash out
1566.2	16:44:39	SHOT	208	31	OceanPatriot	
1566.2	16:45:09	SHOT	209	31	OceanPatriot	
1566.2	16:45:25	SHOT	210	31	OceanPatriot	
1566.2	16:45:46	SHOT	211	31	OceanPatriot	
1466.2	16:53:50	SHOT	212	32	OceanPatriot	
1466.2	16:54:13	SHOT	213	32	OceanPatriot	
1466.2	16:54:31	SHOT	214	32	OceanPatriot	
1466.2	16:54:47	SHOT	215	32	OceanPatriot	
1366.1	16:59:52	SHOT	216	33	OceanPatriot	
1366.1	17:00:27	SHOT	217	33	OceanPatriot	
1366.1	17:00:49	SHOT	218	33	OceanPatriot	
1266.1	17:05:49	SHOT	219	34	OceanPatriot	
1266.1	17:06:11	SHOT	220	34	OceanPatriot	
1266.1	17:06:28	SHOT	221	34	OceanPatriot	
1166.1	17:11:54	SHOT	222	35	OceanPatriot	
1166.1	17:12:08	SHOT	223	35	OceanPatriot	
1166.1	17:12:31	SHOT	224	35	OceanPatriot	
1066.2	17:18:11	SHOT	225	36	OceanPatriot	
1066.2	17:18:29	SHOT	226	36	OceanPatriot	
1066.2	17:18:45	SHOT	227	36	OceanPatriot	
966.1	17:24:28	SHOT	228	37	OceanPatriot	
966.1	17:24:45	SHOT	229	37	OceanPatriot	
966.1	17:25:01	SHOT	230	37	OceanPatriot	
866.1	17:30:33	SHOT	231	38	OceanPatriot	
866.1	17:30:49	SHOT	232	38	OceanPatriot	
866.1	17:31:06	SHOT	233	38	OceanPatriot	
766.1	17:36:41	SHOT	234	39	OceanPatriot	
766.1	17:36:59	SHOT	235	39	OceanPatriot	
766.1	17:37:13	SHOT	236	39	OceanPatriot	
666.1	17:42:35	SHOT	237	40	OceanPatriot	
666.1	17:42:50	SHOT	238	40	OceanPatriot	
666.1	17:43:03	SHOT	239	40	OceanPatriot	

GR Correlation Report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Well: Culverin
Output DLIS Files
DEFAULT VSIT_050LUP FN:92 PRODUCER 08-Jan-2006 11:56 3690.2 M 3642.1 M
OP System Version: 13C0-300
MCM
VSIT-C SKK-3015-VSI SGT-N 13C0-300
DTC-H 13C0-300
Gamma Ray (GR)
0 (GAPI) 200
Calibrated Downhole Force (CDF)
-200 (LBF) 1800
Tension (TENS)
1000 (LBF) 3000
3650
3675
Gamma Ray (GR)
0 (GAPI) 200
Calibrated Downhole Force (CDF)
-200 (LBF) 1800
Tension (TENS)
1000 (LBF) 3000
Format: CORRELATION Vertical Scale: 1:200
Graphics File Created: 08-Jan-2006 11:56
OP System Version: 13C0-300
MCM
VSIT-C SKK-3015-VSI SGT-N 13C0-300
DTC-H 13C0-300
Output DLIS Files
DEFAULT VSIT_050LUP FN:92 PRODUCER 08-Jan-2006 11:56

Tidal Water Level Report

weathernews Always WITH you!

TIDE TURNING POINTS FOR CULVERIN 1

ATTN: UPSTREAM PETROLEUM
VALID: JANUARY 2006
ISSUED: TUESDAY 20 DECEMBER 2005
BLOCK NUMBER: CULVERIN 1
JOB REFERENCE: T05195 HEIGHTS IN METRES AND RELATIVE TO CHART DATUM
TIMES ARE ALL RELATIVE TO 11 HOURS AFTER GMT

DATE	TIME	HEIGHT	TIME	HEIGHT	TIME	HEIGHT	TIME	HEIGHT
SUN 1	09:05	00.03	21:26	00.79				
MON 2	09:47	00.08	22:07	00.72				
TUE 3	10:22	00.16	22:33	00.63				
WED 4	10:34	00.25	22:20	00.54				
THU 5	09:36	00.34	20:09	00.48				
FRI 6	06:26	00.35	17:15	00.51				
SAT 7	04:43	00.29	16:35	00.59				
SUN 8	04:39	00.22	16:49	00.66				
MON 9	05:02	00.15	17:17	00.71				
TUE 10	05:33	00.11	17:50	00.75				
WED 11	06:09	00.08	18:27	00.76				
THU 12	06:44	00.07	19:02	00.77				
FRI 13	07:20	00.07	19:37	00.76				
SAT 14	07:55	00.09	20:13	00.74				
SUN 15	08:30	00.12	20:45	00.70				
MON 16	09:01	00.16	21:15	00.66				
TUE 17	09:25	00.21	21:32	00.61				
WED 18	09:34	00.26	21:29	00.56				
THU 19	09:14	00.31	20:44	00.51				
FRI 20	07:54	00.34	18:50	00.50				
SAT 21	05:49	00.34	17:06	00.52				
SUN 22	04:39	00.30	16:25	00.57				
MON 23	04:23	00.23	16:30	00.64				
TUE 24	04:41	00.17	16:54	00.71				
WED 25	05:11	00.11	17:29	00.76				
THU 26	05:49	00.06	18:13	00.80				
FRI 27	06:36	00.03	18:58	00.82				
SAT 28	07:23	00.03	19:49	00.80				
SUN 29	08:15	00.06	20:40	00.75				
MON 30	09:05	00.12	21:29	00.68				
TUE 31	09:51	00.21	22:10	00.59				

VSI Tool Evaluation Test Report

VSI Seismic Evaluation Report

ELECTRICAL NOISE LOW TEST

2006/01/08 08:08:56

Shot No: 1 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1643	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1173	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4347	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.3551	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1218	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5046	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2313	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1216	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4786	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2055	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1210	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4270	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1622	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1224	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4386	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1689	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1185	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4644	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3493	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1193	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4674	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2691	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1212	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.5246	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.1256	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1203	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4204	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1649	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1207	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4692	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.2175	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1190	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.3969	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.2069	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1177	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4889	micro V	-	2.0000	PASS

ELECTRICAL NOISE HIGH TEST

2006/01/08 08:09:20

Shot No: 2 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.2480	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1170	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4178	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.6932	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1163	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4191	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.0551	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1170	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4270	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2041	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1180	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4178	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9985	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1230	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4460	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.9755	milli V	-100.0000	100.0000	PASS

RMS Noise Level	2	Z	0.1176	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4107	micro V	-	2.0000	PASS
DC Offset	3	X	-25.4017	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1175	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4144	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.1973	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1183	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4717	micro V	-	2.0000	PASS
DC Offset	3	Z	-24.7898	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1190	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4041	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1246	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1183	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4055	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.0394	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1185	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.4261	micro V	-	2.0000	PASS
DC Offset	4	Z	-24.9387	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1197	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4449	micro V	-	2.0000	PASS

ELECTRICAL NOISE LOW TEST

2006/01/08 08:11:09

Shot No: 3 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1623	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1190	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4288	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.3509	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1158	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4044	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2310	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4761	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2050	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1197	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4073	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1615	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1238	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4689	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1690	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1206	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4171	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3489	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1211	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4345	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2683	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1158	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4370	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.1250	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1198	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4497	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1633	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1221	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4437	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.2159	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1209	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.4160	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.2080	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1189	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4273	micro V	-	2.0000	PASS

ELECTRICAL NOISE HIGH TEST

2006/01/08 08:11:33

Shot No: 4			Station Depth: 659.56 m				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
DC Offset	1	X	-25.2225	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1176	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4624	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.6543	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4455	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.0467	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.5319	micro V	-	2.0000	PASS
DC Offset	2	X	-25.1905	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1211	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4332	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9857	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1231	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4743	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.9812	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1163	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4669	micro V	-	2.0000	PASS
DC Offset	3	X	-25.4013	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1174	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4524	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.1947	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1185	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4539	micro V	-	2.0000	PASS
DC Offset	3	Z	-24.7886	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1190	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4514	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1057	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1189	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4678	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.0214	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1203	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.3850	micro V	-	2.0000	PASS
DC Offset	4	Z	-24.9557	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1231	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4164	micro V	-	2.0000	PASS
ELECTRICAL DISTORTION TEST							
2006/01/08 08:11:41							
Shot No: 5			**Station Depth: 659.56 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Total Harmonic Distortion	1	X	-97.4435	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-99.3667	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-96.2281	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-113.3720	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-114.1618	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-110.1160	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-104.9427	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-106.6128	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-102.4097	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	X	-107.0587	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Y	-107.9596	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Z	-109.8715	dB	-	-90.0000	PASS
SYSTEM DYNAMIC RANGE TEST							
2006/01/08 08:11:55							
Shot No: 6			**Station Depth: 659.56 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
System Dynamic Range	1	X	107.1525	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.1124	dB	103.0000	-	PASS

System Dynamic Range	1	Z	106.5015	dB	103.0000	-	PASS
System Dynamic Range	2	X	107.4065	dB	103.0000	-	PASS
System Dynamic Range	2	Y	106.3178	dB	103.0000	-	PASS
System Dynamic Range	2	Z	107.3326	dB	103.0000	-	PASS
System Dynamic Range	3	X	106.9490	dB	103.0000	-	PASS
System Dynamic Range	3	Y	106.8059	dB	103.0000	-	PASS
System Dynamic Range	3	Z	106.8908	dB	103.0000	-	PASS
System Dynamic Range	4	X	106.7074	dB	103.0000	-	PASS
System Dynamic Range	4	Y	107.1207	dB	103.0000	-	PASS
System Dynamic Range	4	Z	106.7863	dB	103.0000	-	PASS

AMPLIFIER GAIN 2 TEST

2006/01/08 08:12:09

Shot No: 7 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1103	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1270	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1267	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1510	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1450	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1459	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1165	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1223	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1182	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1459	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1437	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1535	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0000	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 4 TEST

2006/01/08 08:12:19

Shot No: 8 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1081	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1249	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0018	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1527	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0018	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1461	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1448	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1151	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1236	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1170	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1456	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	4	X	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1444	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	-0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1582	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0047	dB	-0.5000	0.5000	PASS
AMPLIFIER GAIN 8 TEST							
2006/01/08 08:12:29							
Shot No: 9			**Station Depth: 659.56 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Gain Accuracy	1	X	0.1082	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0021	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1270	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1554	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0044	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1466	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0016	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1450	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0009	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1129	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1180	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1462	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	-0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1462	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	-0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1624	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0089	dB	-0.5000	0.5000	PASS
AMPLIFIER GAIN 16 TEST							
2006/01/08 08:12:39							
Shot No: 10			**Station Depth: 659.56 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Gain Accuracy	1	X	0.1045	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0058	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1185	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0085	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1219	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0048	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1513	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1431	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1067	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0097	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1247	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1151	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1432	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1598	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0062	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 32 TEST

2006/01/08 08:12:49

Shot No: 11 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1080	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0024	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1219	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0051	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1261	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1518	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0009	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1453	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1434	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1064	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0100	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1256	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1147	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1477	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1617	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0081	dB	-0.5000	0.5000	PASS

CROSS TALK X TEST

2006/01/08 08:13:04

Shot No: 12 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk X-Y	1	-	-100.3556	dB	-	-90.0000	PASS
Cross Talk X-Z	1	-	-98.5098	dB	-	-90.0000	PASS
Cross Talk X-Y	2	-	-100.1530	dB	-	-90.0000	PASS
Cross Talk X-Z	2	-	-98.8251	dB	-	-90.0000	PASS
Cross Talk X-Y	3	-	-100.2280	dB	-	-90.0000	PASS
Cross Talk X-Z	3	-	-98.5548	dB	-	-90.0000	PASS
Cross Talk X-Y	4	-	-100.4417	dB	-	-90.0000	PASS
Cross Talk X-Z	4	-	-98.7916	dB	-	-90.0000	PASS

CROSS TALK Y TEST

2006/01/08 08:13:23

Shot No: 13 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-97.7978	dB	-	-90.0000	PASS
Cross Talk Y-X	1	-	-99.8954	dB	-	-90.0000	PASS
Cross Talk Y-Z	2	-	-98.1963	dB	-	-90.0000	PASS
Cross Talk Y-X	2	-	-99.7430	dB	-	-90.0000	PASS
Cross Talk Y-Z	3	-	-97.9192	dB	-	-90.0000	PASS
Cross Talk Y-X	3	-	-99.5276	dB	-	-90.0000	PASS
Cross Talk Y-Z	4	-	-98.3293	dB	-	-90.0000	PASS
Cross Talk Y-X	4	-	-99.6655	dB	-	-90.0000	PASS

CROSS TALK Z TEST

2006/01/08 08:13:42

Shot No: 14 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Z-X	1	-	-97.0910	dB	-	-90.0000	PASS
Cross Talk Z-Y	1	-	-96.4178	dB	-	-90.0000	PASS
Cross Talk Z-X	2	-	-97.1588	dB	-	-90.0000	PASS

Cross Talk Z-Y	2	-	-96.7522	dB	-	-90.0000	PASS
Cross Talk Z-X	3	-	-96.7783	dB	-	-90.0000	PASS
Cross Talk Z-Y	3	-	-96.3971	dB	-	-90.0000	PASS
Cross Talk Z-X	4	-	-97.1919	dB	-	-90.0000	PASS
Cross Talk Z-Y	4	-	-96.6712	dB	-	-90.0000	PASS

IMPULSE RESPONSE TEST

2006/01/08 08:14:00

Shot No: 15 **Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Amplitude (0.3Hz)	1	X	-1.5032	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.5801	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	571.0796	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.0000	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.4812	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.5790	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	571.9561	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	-0.1948	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.5886	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.5774	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	572.0991	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	0.8680	degree	-	-	-
Amplitude (0.3Hz)	2	X	-1.5884	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	X	-3.5713	dB	-5.0000	-	PASS
Impulse Amplitude	2	X	574.6655	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	X	0.3373	degree	-	-	-
Amplitude (0.3Hz)	2	Y	-1.5174	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Y	-3.5720	dB	-5.0000	-	PASS
Impulse Amplitude	2	Y	574.3951	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Y	-0.5111	degree	-	-	-
Amplitude (0.3Hz)	2	Z	-1.6060	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Z	-3.5736	dB	-5.0000	-	PASS
Impulse Amplitude	2	Z	574.2646	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Z	0.4677	degree	-	-	-
Amplitude (0.3Hz)	3	X	-1.5605	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	X	-3.5761	dB	-5.0000	-	PASS
Impulse Amplitude	3	X	571.4480	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	X	0.8245	degree	-	-	-
Amplitude (0.3Hz)	3	Y	-1.4815	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Y	-3.5755	dB	-5.0000	-	PASS
Impulse Amplitude	3	Y	572.1942	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Y	-0.0064	degree	-	-	-
Amplitude (0.3Hz)	3	Z	-1.6451	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Z	-3.5734	dB	-5.0000	-	PASS
Impulse Amplitude	3	Z	572.1552	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Z	1.5683	degree	-	-	-
Amplitude (0.3Hz)	4	X	-1.5013	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	X	-3.5743	dB	-5.0000	-	PASS
Impulse Amplitude	4	X	573.9755	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	X	0.5261	degree	-	-	-
Amplitude (0.3Hz)	4	Y	-1.6046	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Y	-3.5759	dB	-5.0000	-	PASS
Impulse Amplitude	4	Y	573.7048	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Y	1.6686	degree	-	-	-
Amplitude (0.3Hz)	4	Z	-1.4858	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Z	-3.5773	dB	-5.0000	-	PASS
Impulse Amplitude	4	Z	574.3013	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Z	0.3371	degree	-	-	-

APPENDIX 13

VITRINITE REFLECTANCE REPORT

NEXUS 2006

WELL NAME	KK #	Page(s)
CULVERIN-1	L0742-0746	2

NEXUS
CULVERIN-1

KK # / Ref #.	Depth (m)	$R_v$max Mean	$R_v$max Range	SD	N	Sample description including liptinite fluorescence maceral abundances, mineral fluorescence
L0741	2940-2950	0.52	0.44-0.62	0.053	25	Sparse sporinite and rare liptodetrinite yellow to dull orange, rare cutinite orange, rare resinite greenish yellow. (Siltstone>sandstone> claystone=carbonate. Dom common, I>V>L. Inertinite common, vitrinite and liptinite sparse. Mineral fluorescence weak orange. Iron oxides rare. Pyrite common.)
Ctgs	$\overline{R}_{I}$max	1.25	0.94-1.88	0.264	10	
L0742	3175-3080	0.48	0.40-0.54	0.042	25	Rare sporinite and liptodetrinite yellow to dull orange, rare cutinite orange. (Sandstone>siltstone>>coal>shaly coal. Coal rare, V, vitrite. Shaly coal rare, V>>L, vitrite. Dom common, V>I=L. Vitrinite sparse, inertinite and liptinite rare to sparse. Mineral fluorescence weak orange. Iron oxides rare. Pyrite sparse.)
Ctgs	$\overline{R}_{I}$max	1.41	1.06-2.04	0.293	10	
L0743	3370-3375	0.51	0.41-0.60	0.048	25	Sparse sporinite and rare liptodetrinite yellow to dull orange, rare cutinite dull orange. (Sandstone>siltstone>shaly coal. Shaly coal rare, V>L, clarite. Dom common, I>V>L. Inertinite common, vitrinite sparse to common, liptinite sparse. Mineral fluorescence weak to moderate orange. Iron oxides rare. Pyrite common.)
Ctgs	$\overline{R}_{I}$max	1.29	0.90-1.92	0.300	10	
L0744	3465-3470	0.53	0.37-0.65	0.064	25	Sparse sporinite and rare liptodetrinite yellow to dull orange, rare to sparse cutinite orange to dull orange, rare resinite yellow. (Sandstone>siltstone>claystone>coal>shaly coal. Coal common, V>I>L, vitrite=duroclarite. Shaly coal rare, V>I>L, duroclarite. Dom common, V>I>L. Vitrinite and inertinite common, liptinite sparse. Mineral fluorescence weak orange in fine grained sediments. Iron oxides rare. Pyrite sparse.)
Ctgs	$\overline{R}_{I}$max	1.51	0.82-2.08	0.342	10	
L0745	3485-3490	0.58	0.48-0.69	0.051	25	Sparse sporinite and rare liptodetrinite orange to dull orange, rare to sparse cutinite orange. (Siltstone>sandstone>shaly coal. Shaly coal rare, I>V>L, vitrinertite(I)=clarite. Dom common, V>I>L. Vitrinite and inertinite common, liptinite sparse. Coalified leaf tissues present. Mineral fluorescence weak orange in fine grained sediments. Iron oxides rare. Pyrite sparse.)
Ctgs	$\overline{R}_{I}$max	1.33	0.86-2.28	0.404	10	
L0746	3750-3755	0.64	0.51-0.76	0.063	25	Sparse to common, sporinite and rare liptodetrinite orange to dull orange, rare cutinite orange, rare suberinite dull orange, rare resinite yellow. (Siltstone>sandstone>claystone>coal>carbonate=shaly coal. Coal abundant, V>I>L, Vitrite>clarite. Shaly coal common V>I>L, duroclarite. Dom common, V>L>I. Vitrinite common, liptinite sparse to common, inertinite sparse. Rare to sparse oil drops, yellow in siltstone. Mineral fluorescence weak orange in fine grained sediments. Iron oxides rare. Pyrite sparse.)
Ctgs	$\overline{R}_{I}$max	1.40	1.20-1.90	0.213	10	

The upper part of the section sampled is close to the top of the oil window, which probably occurs at about 3350m. The deeper section sampled is mid-mature for oil generation.

Organic matter is common in all of the samples. Coal and shaly coal are more common in the deepest two samples but even there represent less than 5% of each sample. The total amount of dom is relatively constant through the section. The main variations in organic matter content are due to increasing abundance of coal down-section.

Small amounts of oil drops are present in the deepest sample.

ACC 26 February 2006

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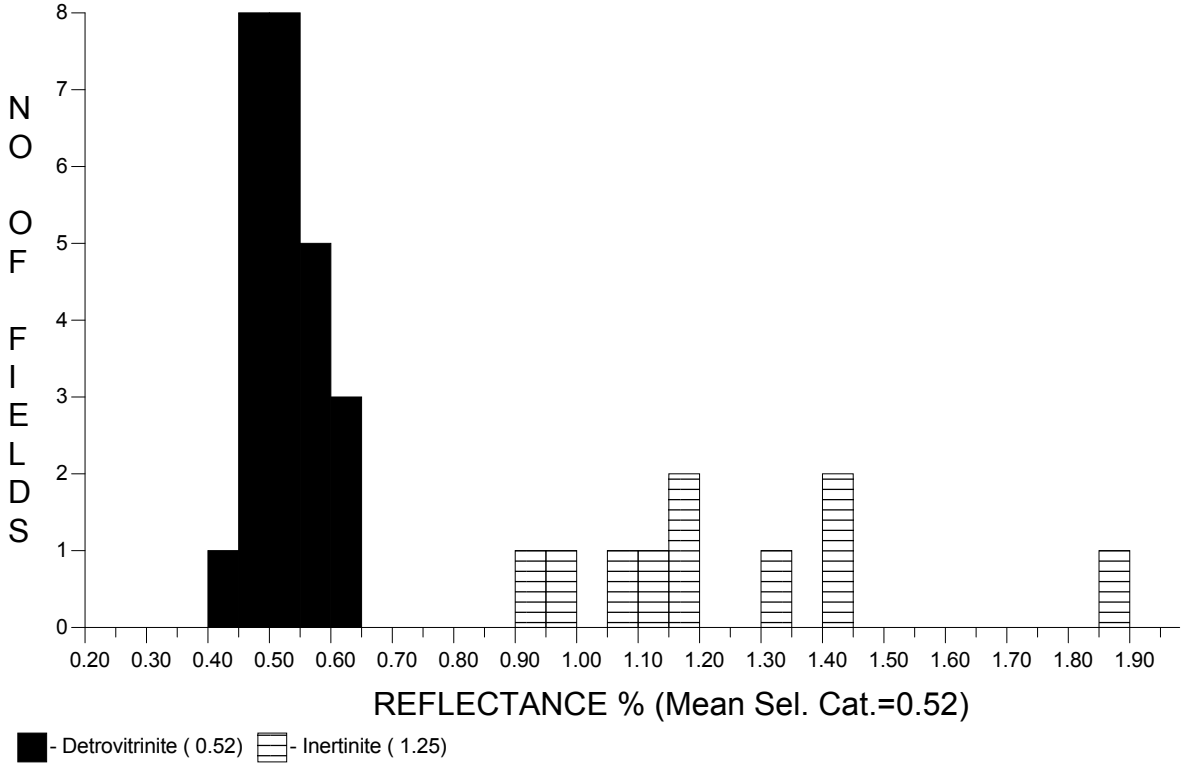
Nexus, Culverin-1, 2940-2950m, Ctgs (L0741)



Category	No. of Readings	Mean	Standard Deviation
Detrovitrinite	25	0.52	0.053
Inertinite	10	1.25	0.264
Total:	35	0.73	0.360

Selected categories: Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.52
Standard deviation of selected categories:	0.053

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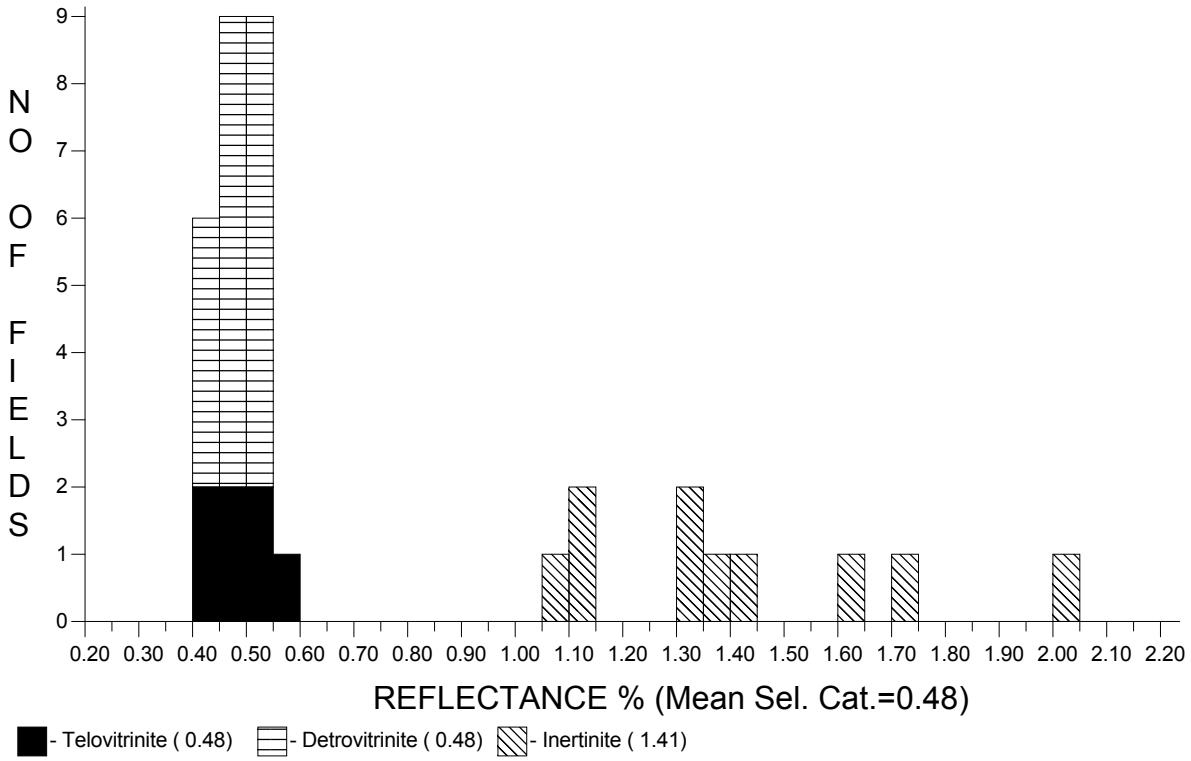
Nexus, Culverin-1, 3175-3180m, Ctgs (L0742)



Category	No. of Readings	Mean	Standard Deviation
Telovitrinite	7	0.48	0.044
Detrovitrinite	18	0.48	0.041
Inertinite	10	1.41	0.293
Total:	35	0.75	0.449

Selected categories: Telovitrinite, Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.48
Standard deviation of selected categories:	0.042

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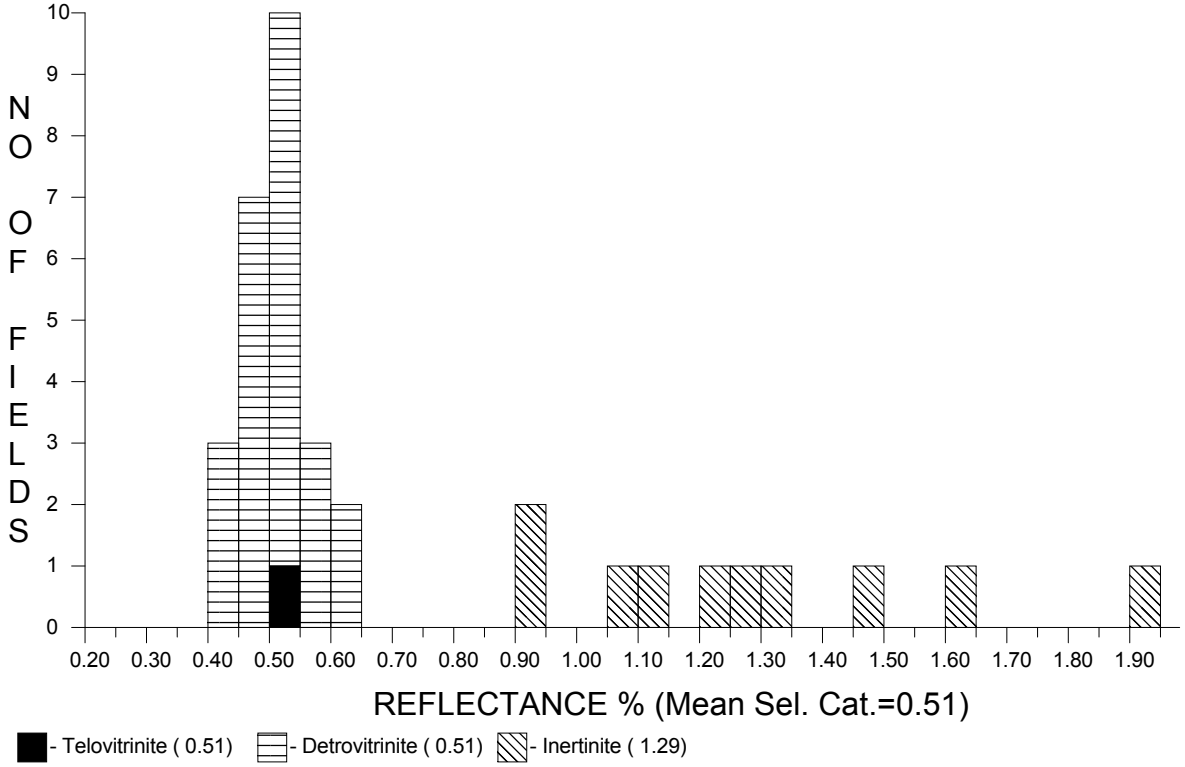
Nexus, Culverin-1, 3370-3375m, Ctgs (L0743)



Category	No. of Readings	Mean	Standard Deviation
Telovitrinite	1	0.51	0.000
Detrovitrinite	24	0.51	0.049
Inertinite	10	1.29	0.300
Total:	35	0.73	0.391

Selected categories: Telovitrinite, Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.51
Standard deviation of selected categories:	0.048

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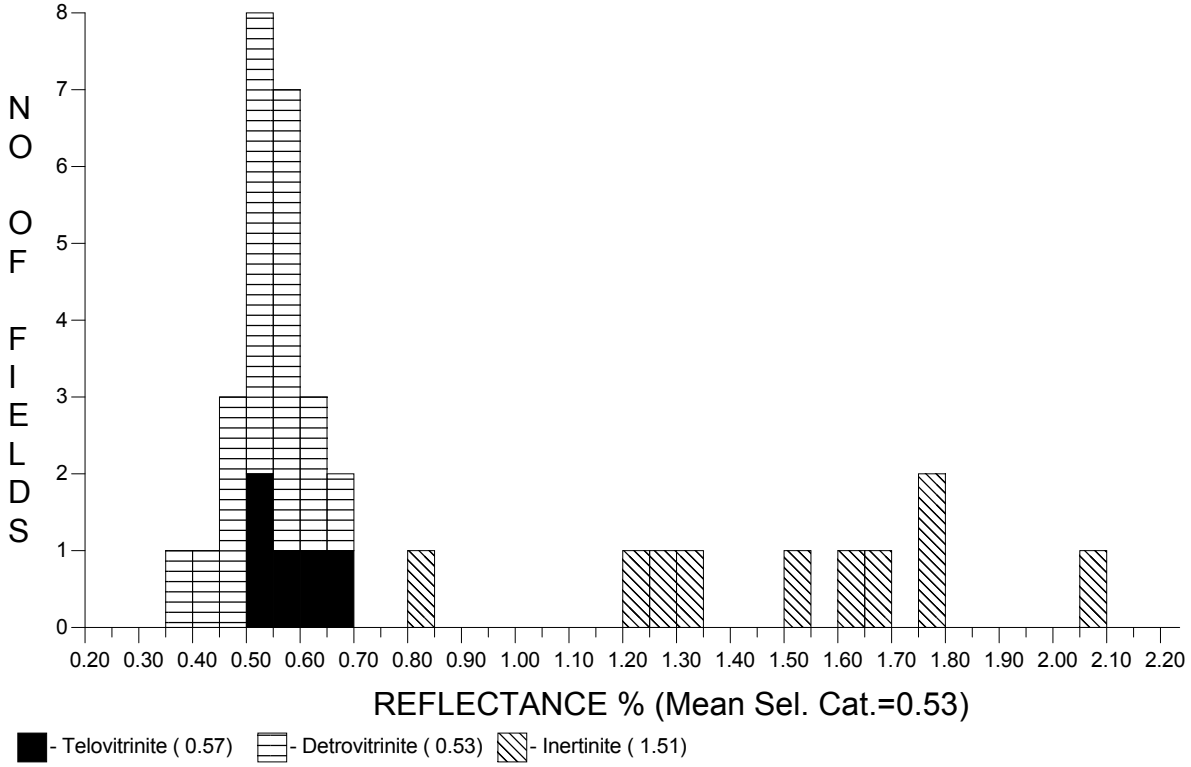
Nexus, Culverin-1, 3465-3470m, Ctgs (L0744)



Category	No. of Readings	Mean	Standard Deviation
Telovitrinite	5	0.57	0.052
Detrovitrinite	20	0.53	0.064
Inertinite	10	1.51	0.342
Total:	35	0.81	0.479

Selected categories: Telovitrinite, Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.53
Standard deviation of selected categories:	0.064

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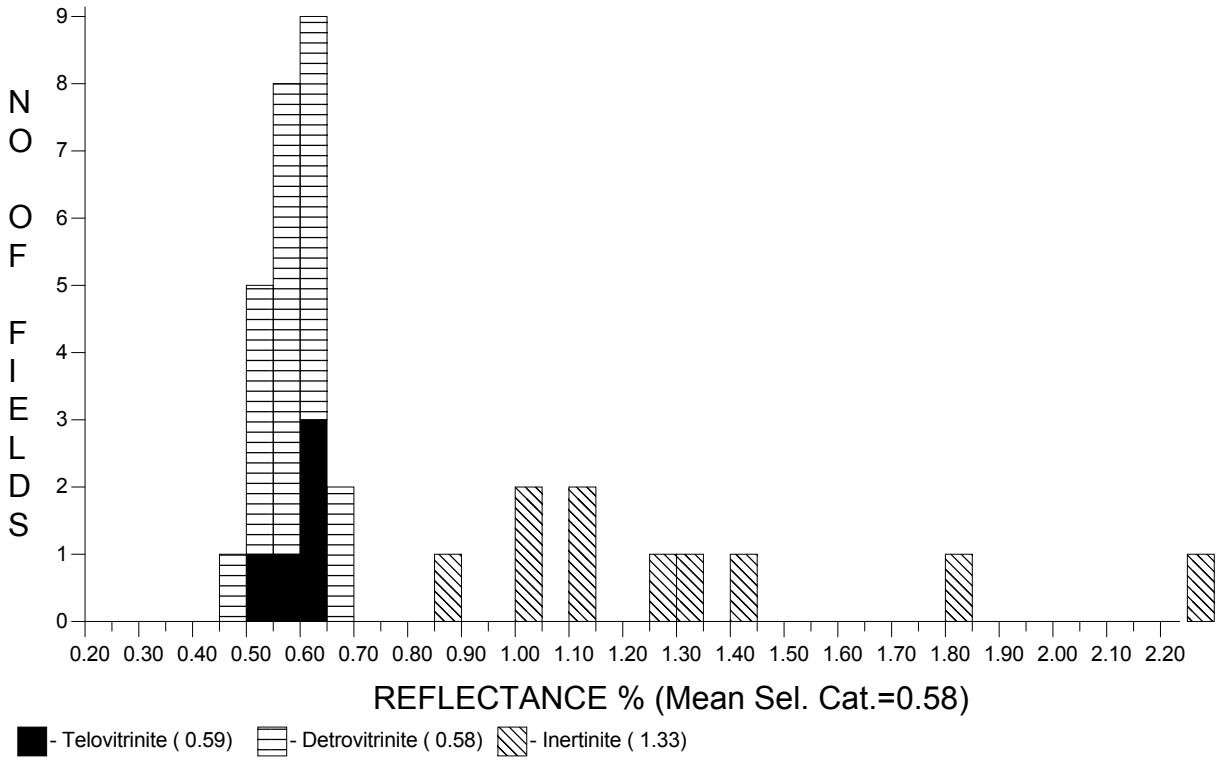
Nexus, Culverin-1, 3485-3490m, Ctgs (L0745)



Category	No. of Readings	Mean	Standard Deviation
Telovitrinite	5	0.59	0.031
Detrovitrinite	20	0.58	0.055
Inertinite	10	1.33	0.404
Total:	35	0.79	0.402

Selected categories: Telovitrinite, Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.58
Standard deviation of selected categories:	0.051

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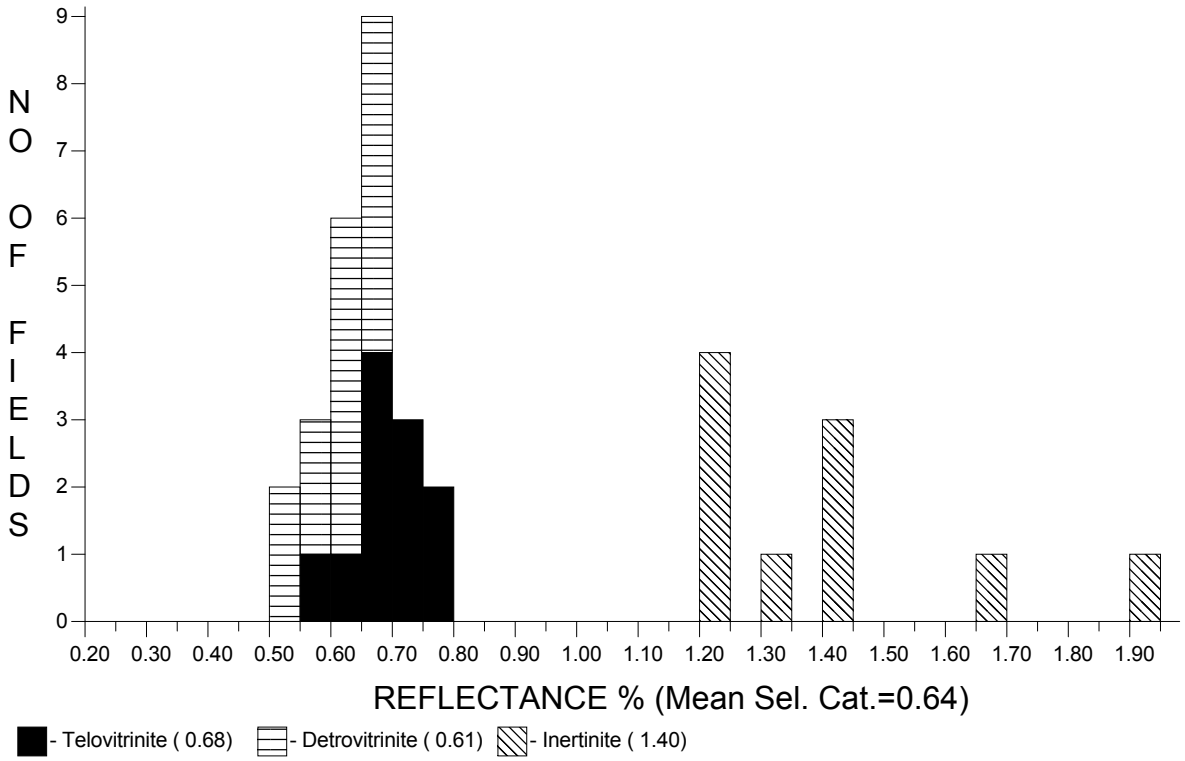
Nexus, Culverine-1, 3750-3755m, Ctgs (L0746)



Category	No. of Readings	Mean	Standard Deviation
Telovitrinite	11	0.68	0.053
Detrovitrinite	14	0.61	0.051
Inertinite	10	1.40	0.213
Total:	35	0.86	0.366

Selected categories: Telovitrinite, Detrovitrinite,

No. of readings:	25
Mean of selected categories:	0.64
Standard deviation of selected categories:	0.063

APPENDIX 14

TOC, ROCK EVAL AND EXTRACT GC ANALYSIS

ANALYSIS OF ORGANIC MATTER BY ROCK-EVAL PYROLYSIS

CLUVERIN-1

Depth (m)		*Tmax*	*S1*	*S2*	*S3*	*S1+S2*	*S2/S3*	*PI*	*TOC*	*HI*	OI
2940-2950	Ctgs	418	0.34	1.39	1.34	1.73	1.04	0.20	1.55	90	86
3175-3180	Ctgs	429	0.33	3.05	1.01	3.38	3.02	0.10	1.40	218	72
3370-3375	Ctgs	435	0.34	1.50	1.36	1.84	1.10	0.18	1.09	138	125
3465-3470	Ctgs	434	0.60	3.52	1.50	4.12	2.35	0.15	2.12	166	71
3585-3590	Ctgs	431	1.18	6.91	2.21	8.09	3.13	0.15	3.57	194	62
3605-3610	Ctgs	433	1.53	7.17	1.26	8.70	5.69	0.18	3.54	203	36
3750-3755	Ctgs	433	1.24	8.88	2.02	10.12	4.40	0.12	4.09	217	49

A TMAX value is not reported if the S2 is <0.2mg/g

TMAX = Max. temperature S2 (^{o}C)

S1 = Volatile hydrocarbons (HC) (mg/g rock)

S2 = HC generating potential (mg/g rock)

S1+S2 = Potential yield (mg/g rock)

S3 = Organic carbon dioxide (mg/g rock)

PI = Production index

OI = Oxygen Index

TOC = Total organic carbon (wt % of rock)

HI = Hydrogen index

nd = no data

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SOLVENT EXTRACTION DATA

CULVERIN-1

DEPTH	Sample Type	Weight of Material Extd. (g)	Total Extract (mg)	Total Extract (ppm)
3605m-3610m	Cuttings	48.3	298.1	6171
3750m-3755m	Cuttings	45.6	269.9	5921

nd = no data

LIQUID CHROMATOGRAPHY DATA
EXTRACT

CULVERIN-1

A. Yields (ppm)

DEPTH	Sample Type	-------Hydrocarbons------- Sats	Aros	HC's	------Non-hydrocarbons------ NSOs	Asph.	Non HC's	Loss on column
3605m-3610m	Cuttings	238	238	477	150	nd	150	5544
3750m-3755m	Cuttings	188	240	428	736	nd	736	4758

CULVERIN-1

B. Yields (%) and Selected Ratios

DEPTH	Sample Type	------Hydrocarbons------ Sats	Aros	HC's	------Non-hydrocarbons------ NSOs	Asph.	Non HC's	Sats / Aros	Asph. / NSO	HC / Non HC
3605m-3610m	Cuttings	38.0	38.0	76	23.9	nd	24	1.0	nd	3.2
3750m-3755m	Cuttings	16.2	20.6	37	63.2	nd	63	0.8	nd	0.6

30/03/06
nd = no data

ANALYSIS OF SATURATED HYDROCARBONS BY GC-MS
EXTRACT

CULVERIN-1

A. Selected Ratios

DEPTH	Sample Type	Prist./Phyt.	Prist./n-C17	Phyt./n-C18	CPI(1)	CPI(2)	(C21+C22)/(C28+C29)
3605m-3610m	Cuttings	8.93	1.99	0.20	1.50	1.38	0.72
3750m-3755m	Cuttings	9.86	5.77	0.53	1.66	1.54	0.35

CULVERIN-1

B. n-Alkane Distributions

DEPTH	nC12	nC13	nC14	nC15	nC16	nC17	Pr	nC18	Ph	nC19	nC20	nC21	nC22	nC23	nC24	nC25	nC26	nC27	nC28	nC29	nC30	nC31
3605m-3610m	0.6	0.8	1.0	1.5	2.0	2.7	5.3	3.0	0.6	3.6	4.1	4.8	5.6	7.0	7.1	9.7	7.4	10.9	6.0	8.6	2.9	4.9
3750m-3755m	0.5	0.7	0.8	1.1	1.3	1.5	8.8	1.7	0.9	2.1	2.4	2.9	3.7	5.2	5.9	9.6	7.7	14.1	7.3	11.6	3.9	6.6

$$CPI(1) = \frac{(C23+C25+C27+C29)+(C25+C27+C29+C31)}{2x(C24+C26+C28+C30)}$$

$$CPI(2) = \frac{(C23+C25+C27)+(C25+C27+C29)}{2x(C24+C26+C28)}$$

30/03/06
nd = no data

ANALYSIS OF ORGANIC MATTER BY ROCK-EVAL PYROLYSIS

CLUVERIN-1

Depth (m)		*Tmax*	*S1*	*S2*	*S3*	*S1+S2*	*S2/S3*	*PI*	*TOC*	*HI*	OI
2940-2950	Ctgs	418	0.34	1.39	1.34	1.73	1.04	0.20	1.55	90	86
3175-3180	Ctgs	429	0.33	3.05	1.01	3.38	3.02	0.10	1.40	218	72
3370-3375	Ctgs	435	0.34	1.50	1.36	1.84	1.10	0.18	1.09	138	125
3465-3470	Ctgs	434	0.60	3.52	1.50	4.12	2.35	0.15	2.12	166	71
3585-3590	Ctgs	431	1.18	6.91	2.21	8.09	3.13	0.15	3.57	194	62
3750-3755	Ctgs	433	1.24	8.88	2.02	10.12	4.40	0.12	4.09	217	49

A TMAX value is not reported if the S2 is <0.2mg/g

TMAX = Max. temperature S2 (^{o}C)

S1+S2 = Potential yield (mg/g rock)

OI = Oxygen Index

S1 = Volatile hydrocarbons (HC) (mg/g rock)

S3 = Organic carbon dioxide (mg/g rock)

TOC = Total organic carbon (wt % of rock)

nd = no data

S2 = HC generating potential (mg/g rock)

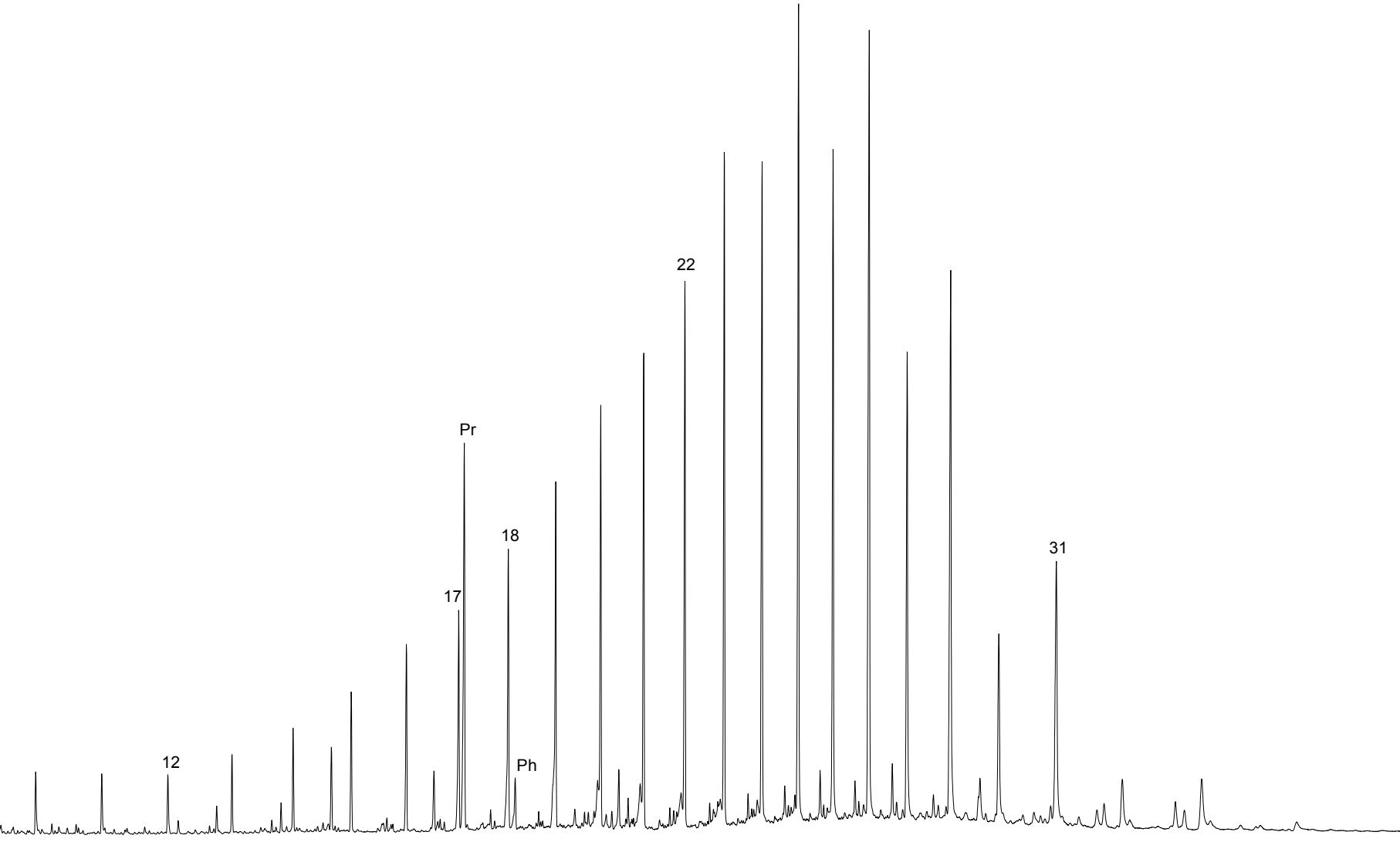
PI = Production index

HI = Hydrogen index

GEOTECHNICAL SERVICES PTY LTD

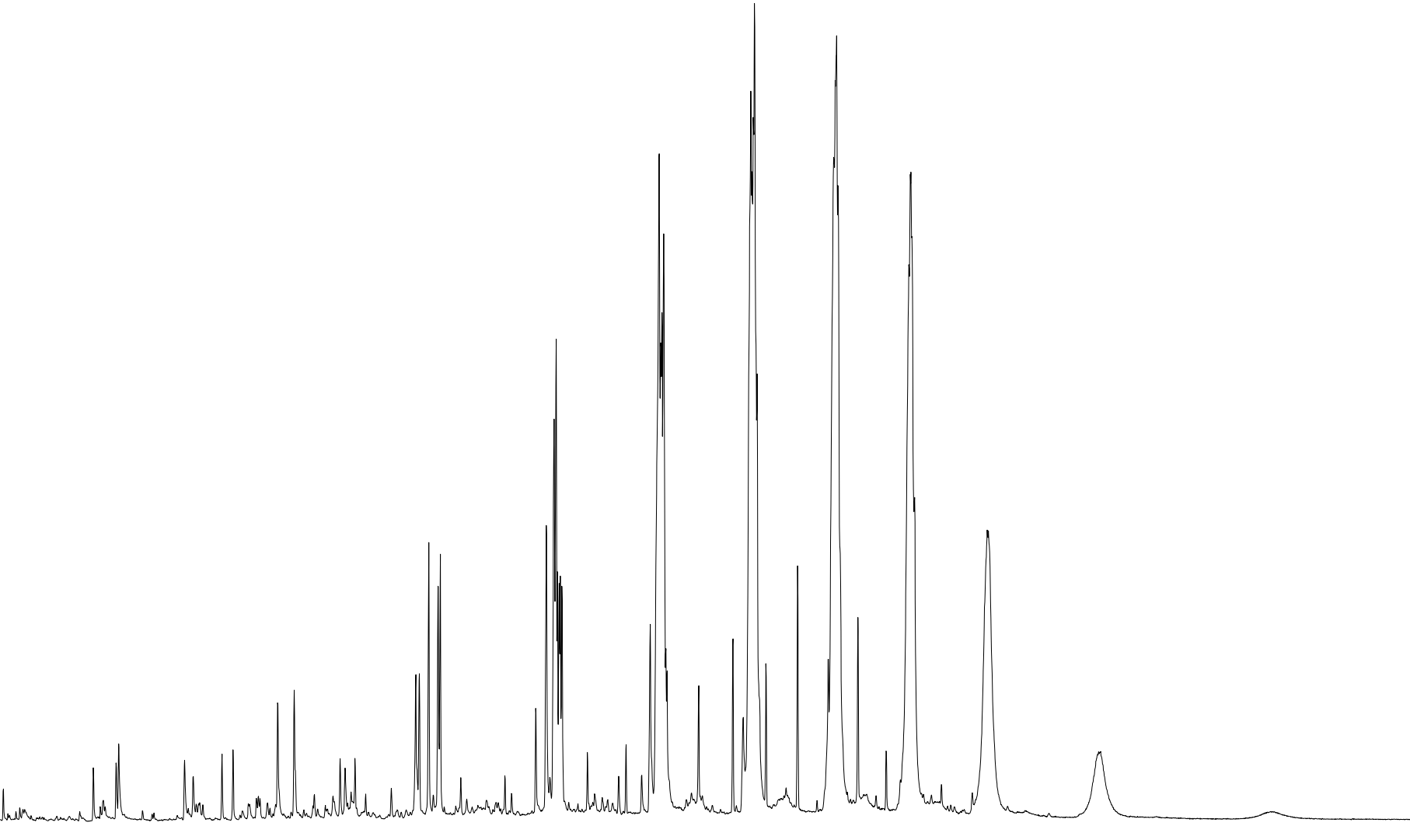
Sample : **CULVERIN-1, 3605-3610m, Cuttings**
File ID : 356601S

Chromatogram obtained from the analysis of saturated hydrocarbons by GC-MS



Sample : **CULVERIN-1, 3750-3755m, Cuttings**
File ID : **356607X**

Chromatogram obtained from analysis of the whole extract by GC-MS



ENCLOSURE 1

MUDLOG

MASTERLOG
CULVERIN-1

GENERAL
Country : AUSTRALIA
Permit : VIC/P-56
Field : GIPPSLAND
Basin : GIPPSLAND
Well Type : Exploration
Rig: OCEAN PATRIOT

POSITION
Latitude : 38° 24' 08.14" S
Longitude : 148° 39' 14.92" E
UTM Co-ord X (m E):644437.3
UTM Co-ord Y (m N):5748256.4
RT-LAT (m): 21.5
RT to Sea Bed (m): 606.5

HOLE / CASING INFO
914mm(36") hole to: 650.0m
445mm(17 1/2") hole to: 1525.0m
311mm(12 1/4") hole to: 3758.0m
762mm(30") Cond. to: 650.0m
340mm(13 3/8") Csg.to: 1511.1m

DATE / DEPTH
Spud Date : 16-12-05
Total Depth Date : 06-01-05
Total Depth (mMDRT): 3758.0
True Vertical Depth (mTVDSS): 3732.4
Log Scale : 1/ 500
Final Status : P & A

ENGINEERS
D.ADDERLEY
T.PLATT
A.DUNN
S.PROSSER

ABBREVIATIONS

MW	Mud Weight	WOB	Weight on Bit (klbs)
FV	Funnel Viscosity	RPM	Rotations Per Min
PV	Plastic Viscosity	FLW	Flow Rate (gpm)
YP	Yield Point	SPP	Pump Pressure (psi)
Gel	Gel Strength	RR	Re-Run Bit
WL	Water Loss	TG	Trip Gas
KCl	Potassium Chloride	CG	Connection Gas
Cl	Chlorides	BG	Background Gas
Incl	Inclination	DGP	Drilled Gas Peak
Az	Azimuth	MM	Mud Motor

LITHOLOGY LEGEND
Claystone, Siltstone, Shale, Fine SST, Medium SST, Coarse SST, Marl, Clay, Limestone, Limestone, Dolomite, Coal, Arg. Siltstone, Lithic Fragment, Foraminifera, Fossils, Bryozoa, Sponges, Brachiopoda, Cement, Glauconite, Pyrite, Iron Minerals, Mica, Carb Fragments

ENGINEERING LEGEND
Shoe, Bit Trip, Deviation survey, DST, Test, Sidewall Core, Core, RFT, FIT, Mud loss, Mud gain

ROP (m/hr) 100 80 60 40 20 0
WOB (klbs) 50 25 0
MWD Gamma Ray (api) 0 100 200
DEPTH MDRTm (tvd)
CUTTINGS LITHOLOGY % 0 100
INTERPRETIVE
RESERVAL TG & CHROMATOGRAPH
C1 C2 C3 iC4 nC4 iC5 nC5 TG
Total Gas in units Chromatograph in PPM
.5 5 50 500 5K
100 1K 10K 100K 1000K
CALCIMETRY % 0 100
DIRECT FLUOR poor fair good
LITHOLOGY DESCRIPTIONS and REMARKS

600
610
620
(620
630
640
(640
650

WOB:1-5 Klbs
RPM:80
SPP:1880 psi
FLW:430 gpm

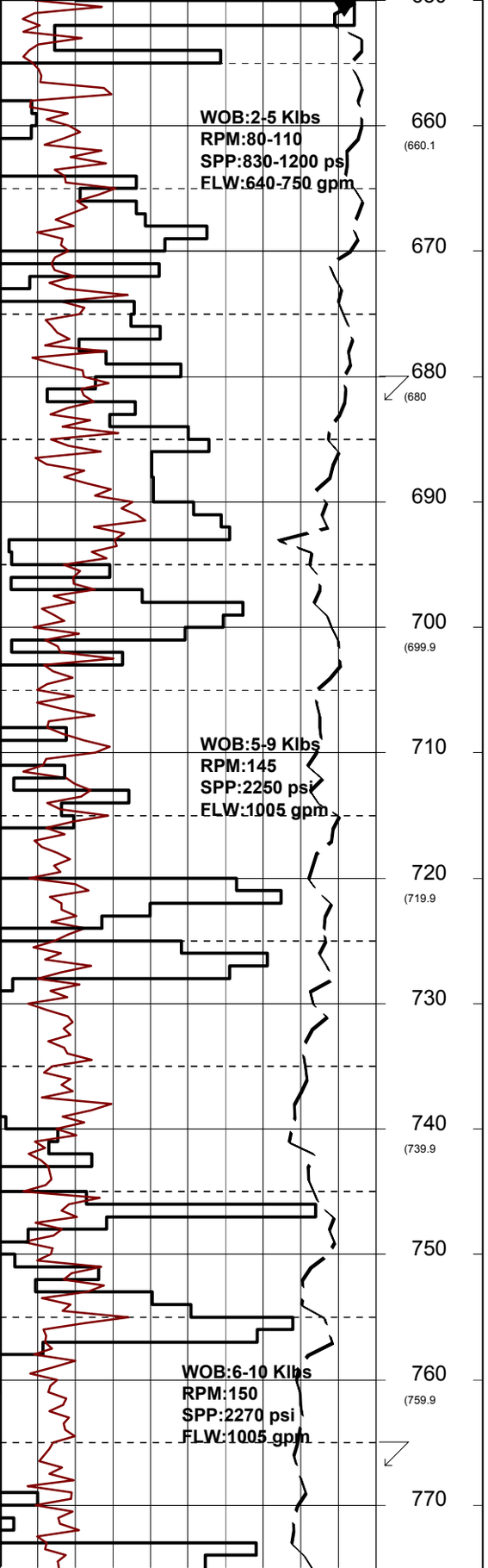
CULVERIN-1 SPUDDED AT 13:30 HRS ON 16-12-2005

RETURNS TO SEA BED

DRILL FROM 607m TO 650m WITH SEAWATER,SWEEPING THE HOLE WITH HI VIS MUD

BIT #1: REED T11
SIZE:445mm + 914mm H.O.
JETS:3x22,1x16
IN:607m OUT:650m
RUN:43m HRS:1.5
COND:0-0-NO-A-O-1-NO-TD

30" CONDUCTOR SET @ 650m



BIT #2RR: REED T11
SIZE:445mm
JETS:3x22,1x16
IN:650m OUT:1525m
RUN:875m HRS: 31.6
COND:1-2-ER-A-0-1-NO-TD

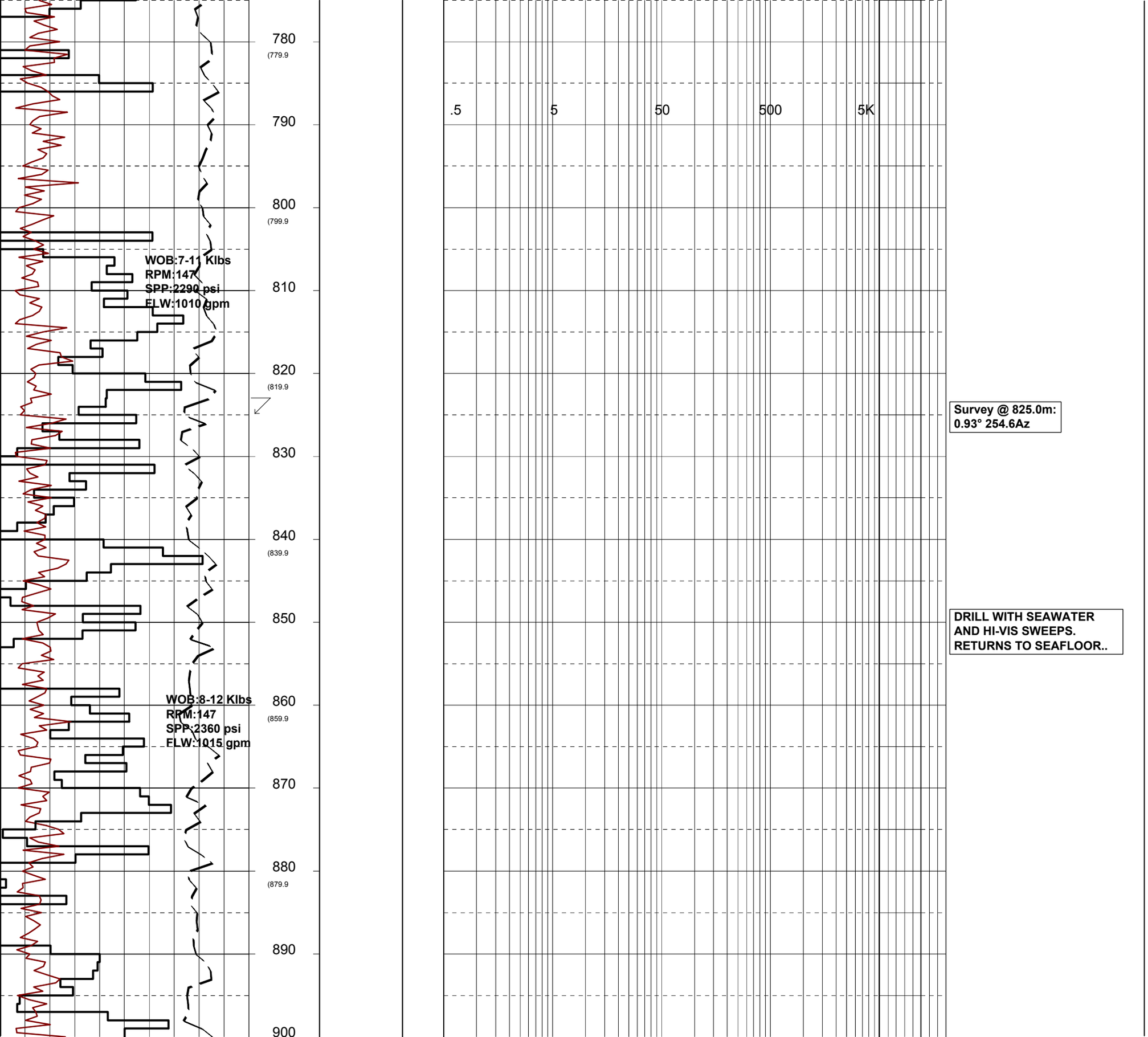
RETURNS TO SEA BED

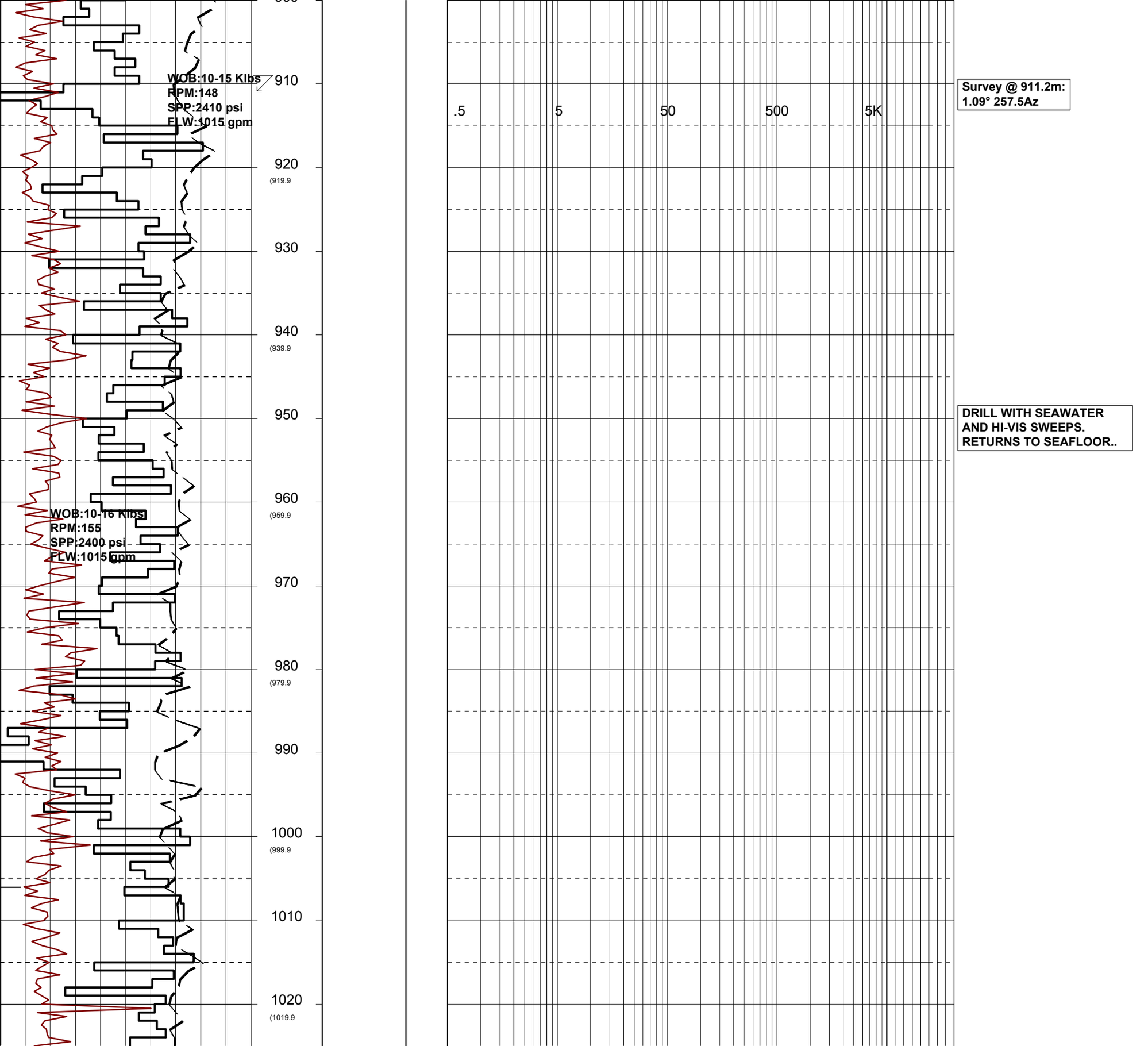
DRILL FROM 650m TO 1525m WITH SEAWATER,SWEEPING THE HOLE WITH HI VIS MUD

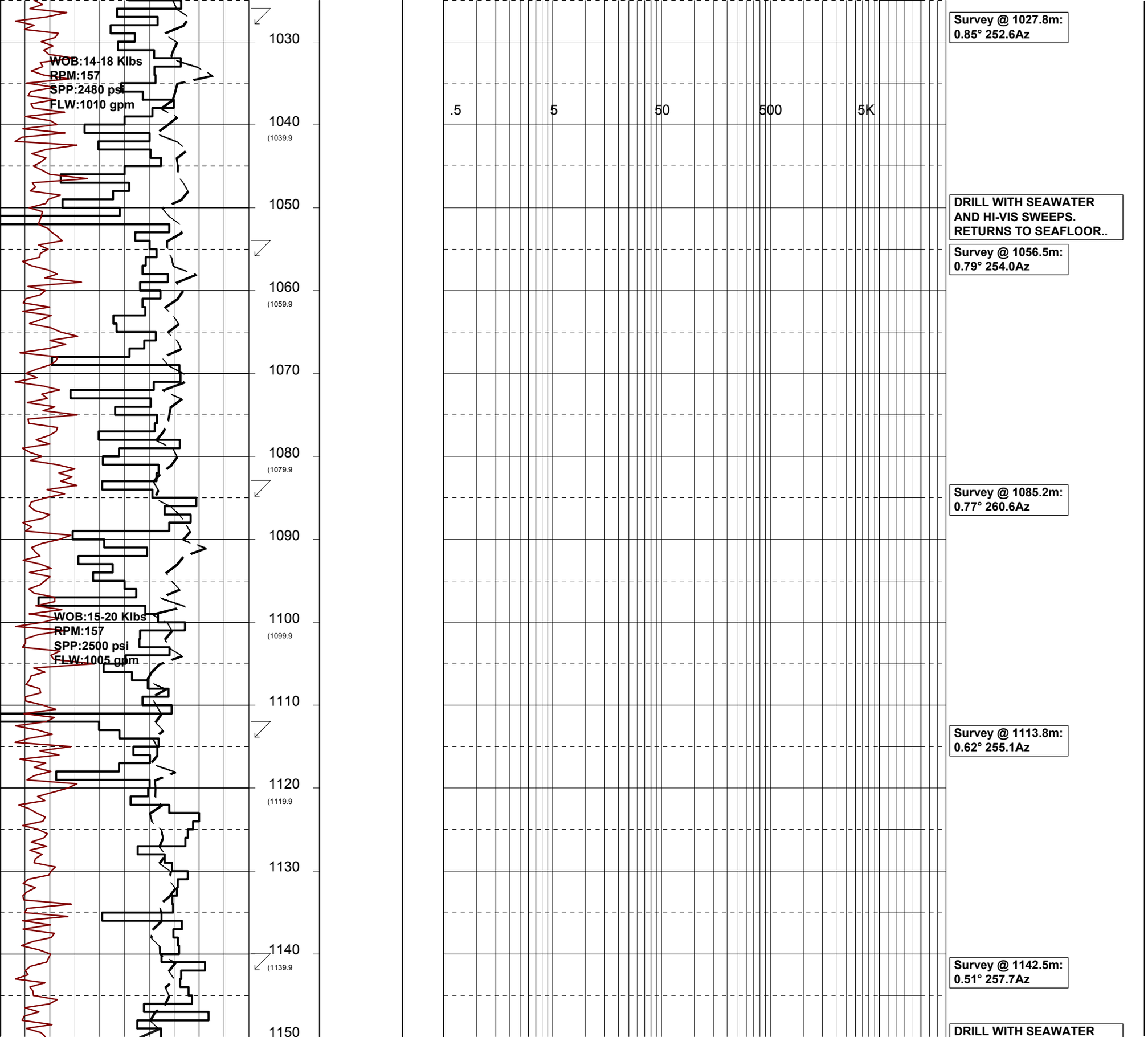
Survey @ 682.0m:
1.26° 227.0Az

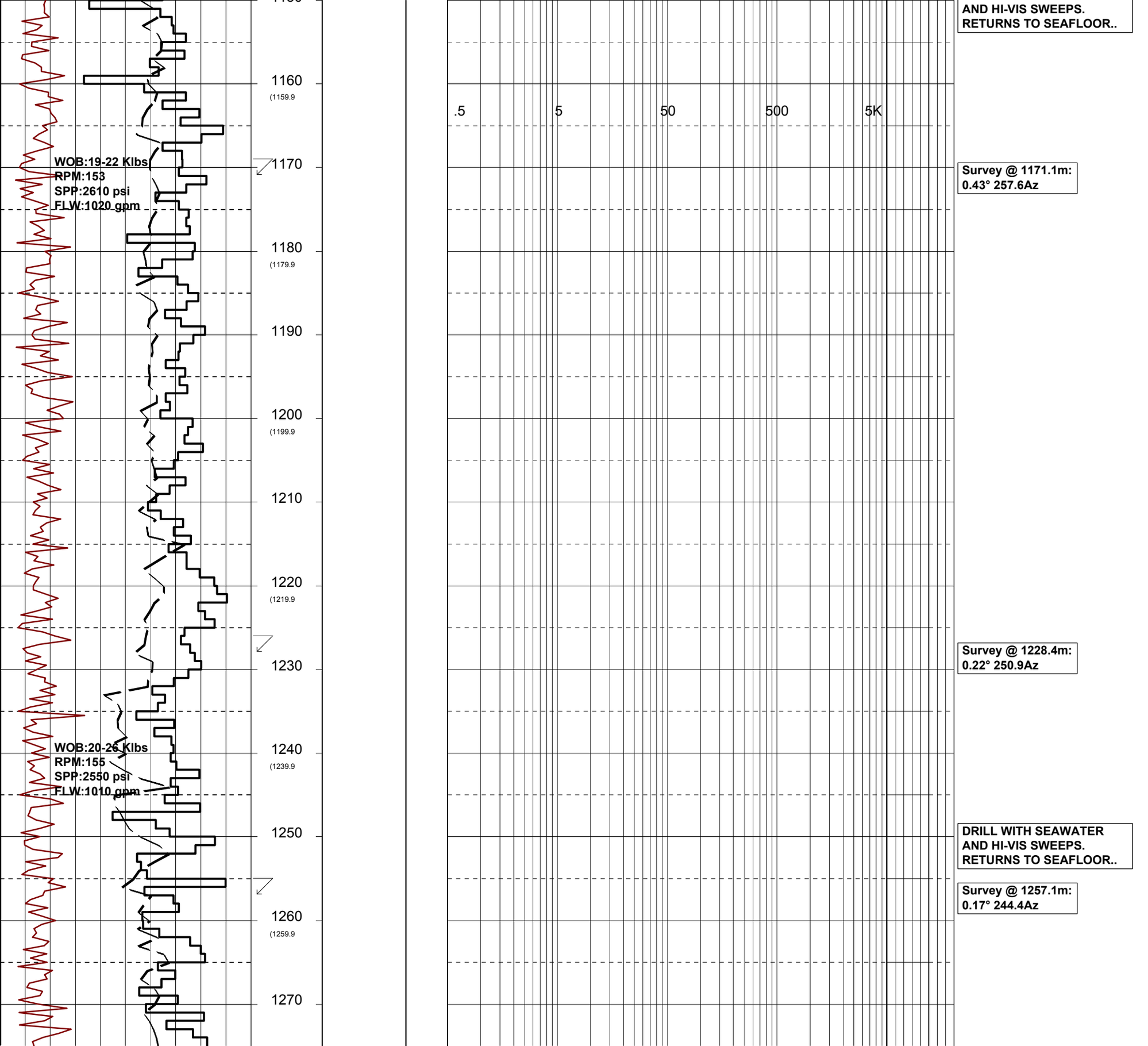
DRILL WITH SEAWATER AND HI-VIS SWEEPS. RETURNS TO SEAFLOOR..

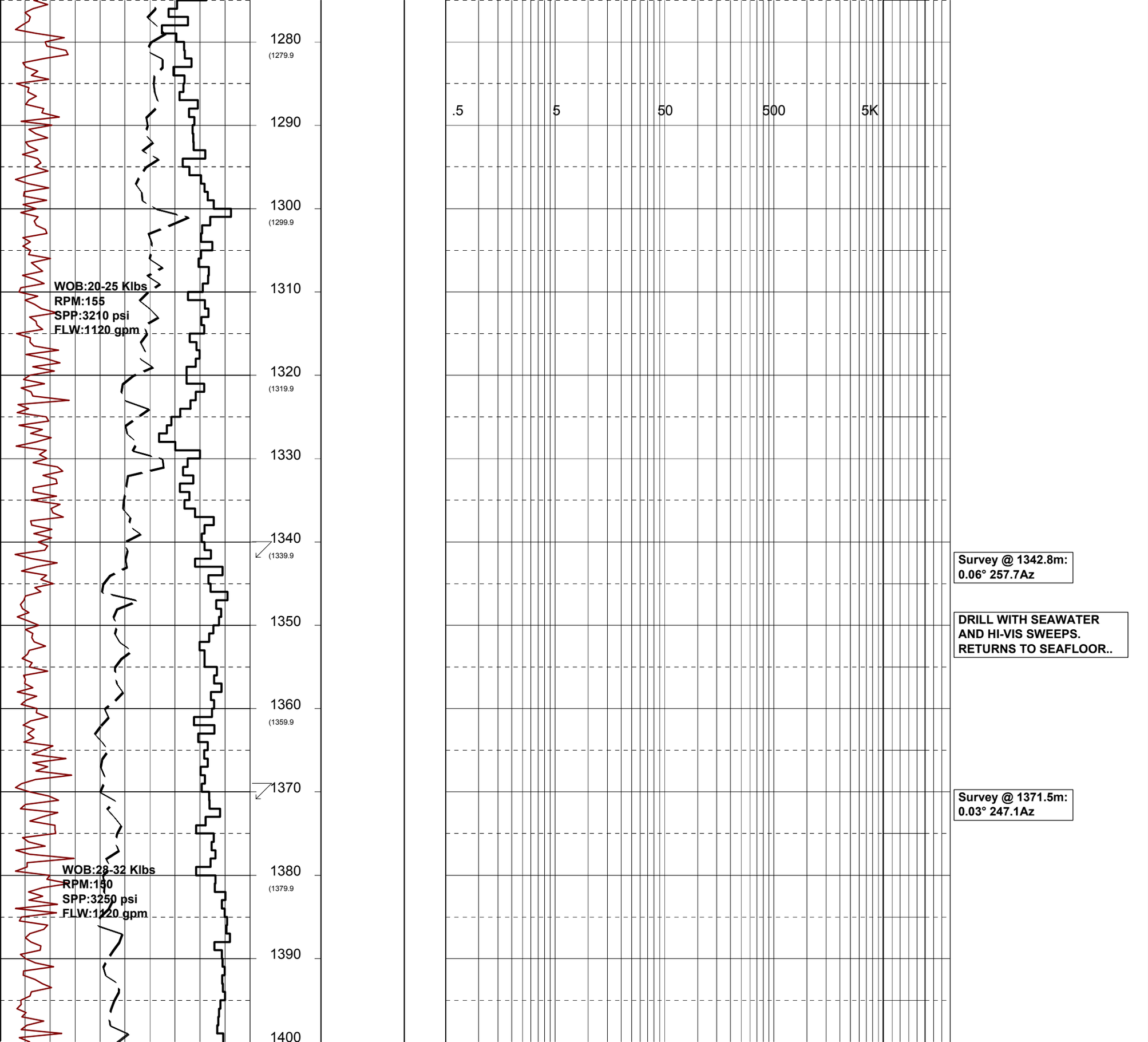
Survey @ 767.7m:
0.81° 263.6Az

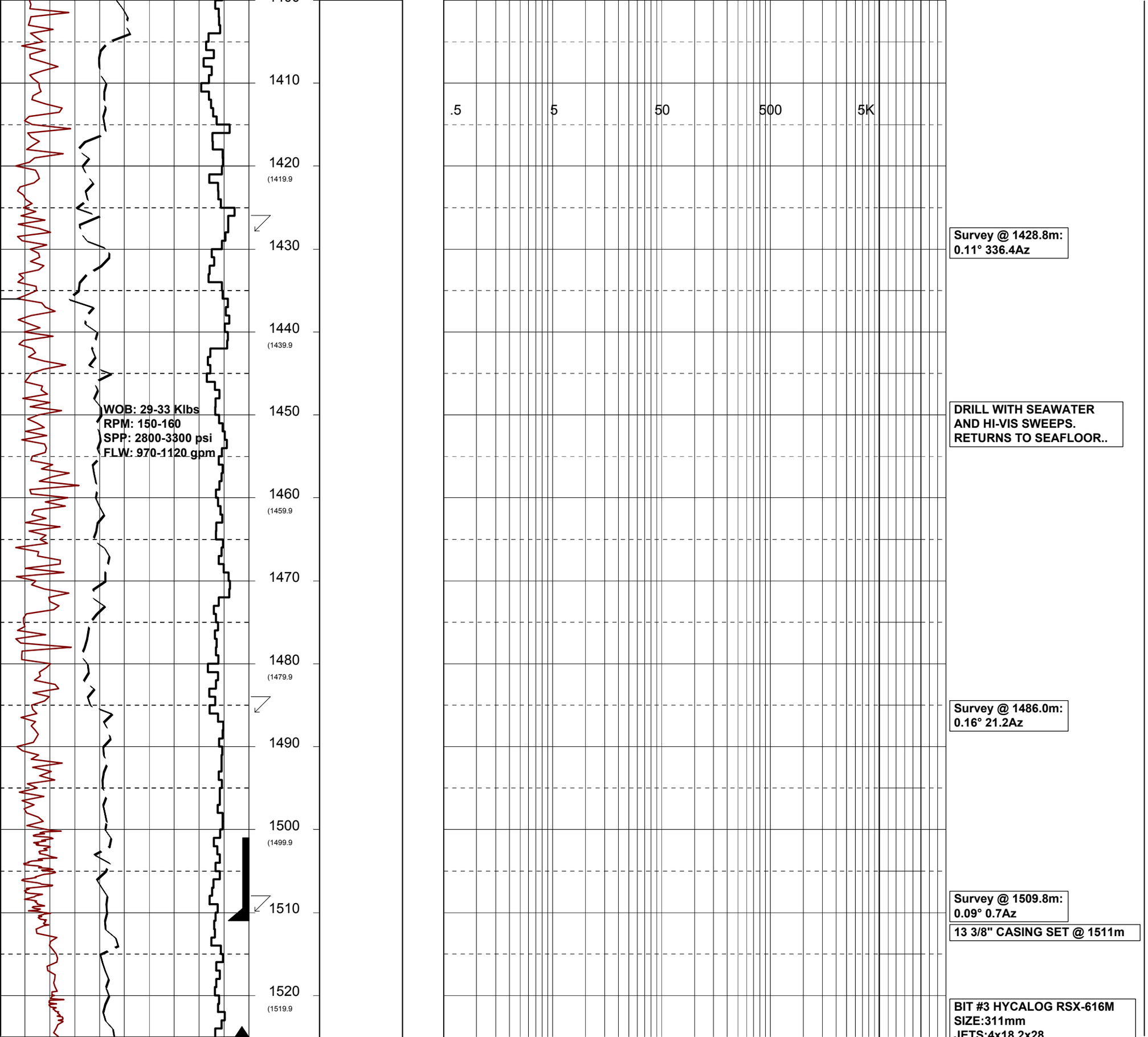

780
(779.9
790
800
(799.9
WOB:7-11 Klbs
RPM:147
SPP:2290 psi
FLW:1010 gpm
810
820
(819.9
830
840
(839.9
850
WOB:8-12 Klbs
RPM:147
SPP:2360 psi
FLW:1015 gpm
860
(859.9
870
880
(879.9
890
900
.5
5
50
500
5K
Survey @ 825.0m:
0.93° 254.6Az
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..

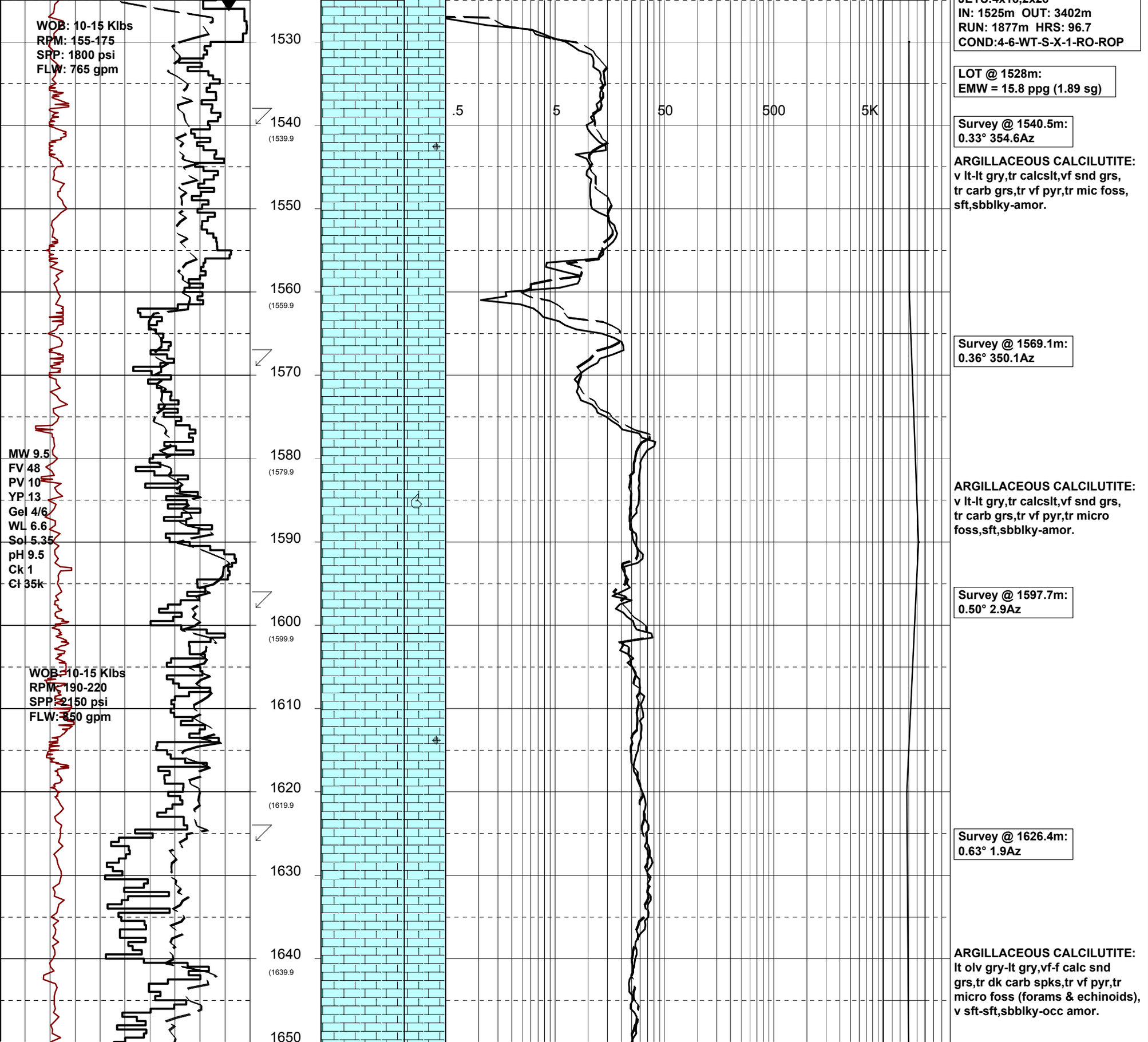

WOB:10-15 Klbs
RPM:148
SPP:2410 psi
FLW:1015 gpm
910
920
(919.9
930
940
(939.9
950
960
(959.9
WOB:10-16 Klbs
RPM:155
SPP:2400 psi
FLW:1015 gpm
970
980
(979.9
990
1000
(999.9
1010
1020
(1019.9
.5
5
50
500
5K
Survey @ 911.2m:
1.09° 257.5Az
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..

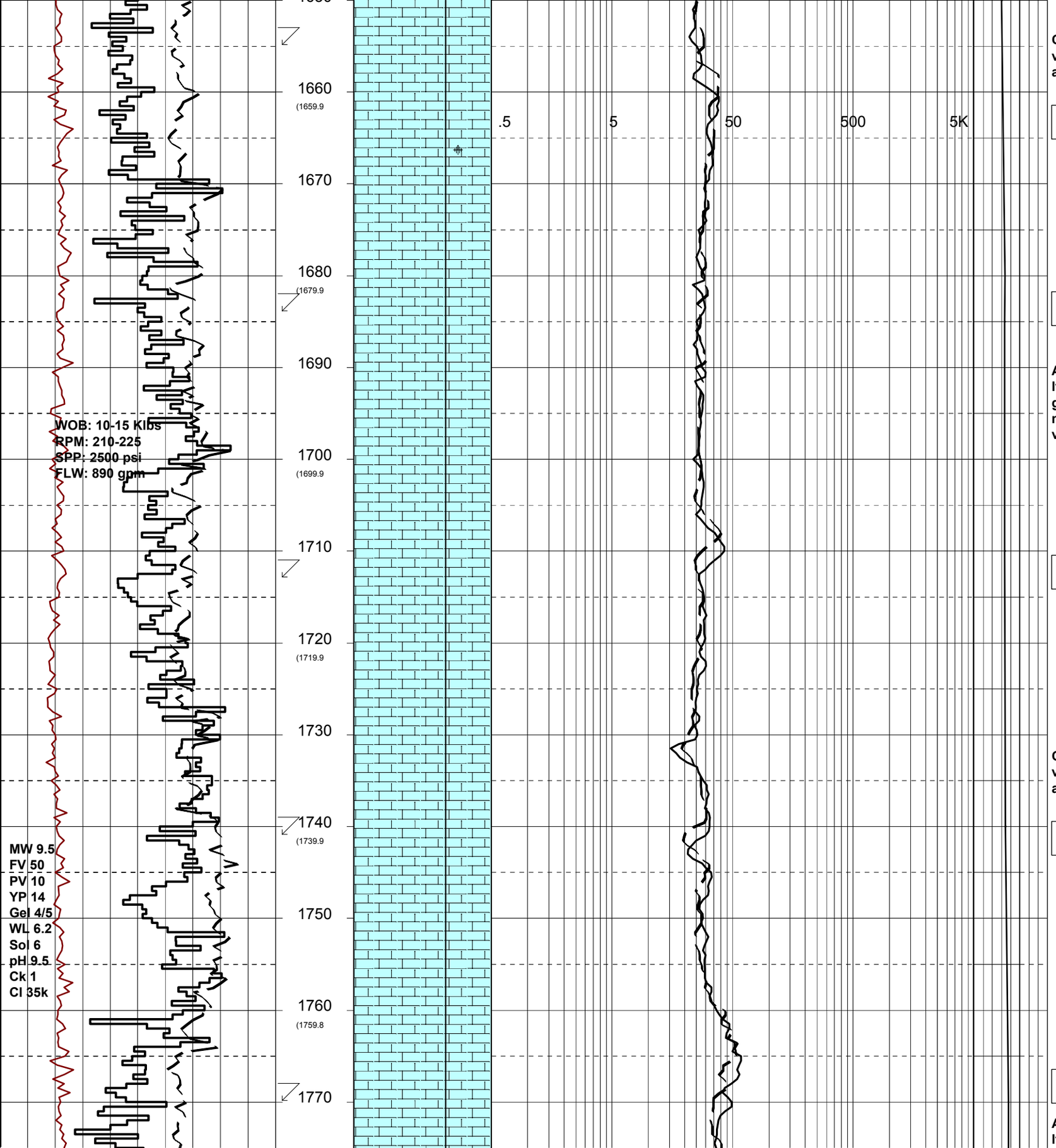

1030
1040
(1039.9
1050
1060
(1059.9
1070
1080
(1079.9
1090
1100
(1099.9
1110
1120
(1119.9
1130
1140
(1139.9
1150
WOB:14-18 Klbs
RPM:157
SPP:2480 psi
FLW:1010 gpm
WOB:15-20 Klbs
RPM:157
SPP:2500 psi
FLW:1005 gpm
.5
5
50
500
5K
Survey @ 1027.8m:
0.85° 252.6Az
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..
Survey @ 1056.5m:
0.79° 254.0Az
Survey @ 1085.2m:
0.77° 260.6Az
Survey @ 1113.8m:
0.62° 255.1Az
Survey @ 1142.5m:
0.51° 257.7Az
DRILL WITH SEAWATER


AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..
1160
(1159.9
.5
5
50
500
5K
WOB:19-22 Klbs
RPM:153
SPP:2610 psi
FLW:1020 gpm
1170
Survey @ 1171.1m:
0.43° 257.6Az
1180
(1179.9
1190
1200
(1199.9
1210
1220
(1219.9
1230
Survey @ 1228.4m:
0.22° 250.9Az
WOB:20-26 Klbs
RPM:155
SPP:2550 psi
FLW:1010 gpm
1240
(1239.9
1250
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..
Survey @ 1257.1m:
0.17° 244.4Az
1260
(1259.9
1270


1280
(1279.9
1290
1300
(1299.9
WOB:20-25 Klbs
RPM:155
SPP:3210 psi
FLW:1120 gpm
1310
1320
(1319.9
1330
1340
(1339.9
1350
1360
(1359.9
1370
WOB:28-32 Klbs
RPM:150
SPP:3250 psi
FLW:1120 gpm
1380
(1379.9
1390
1400
.5
5
50
500
5K
Survey @ 1342.8m:
0.06° 257.7Az
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..
Survey @ 1371.5m:
0.03° 247.1Az


1410
1420
(1419.9
1430
1440
(1439.9
1450
1460
(1459.9
1470
1480
(1479.9
1490
1500
(1499.9
1510
1520
(1519.9
WOB: 29-33 Klbs
RPM: 150-160
SPP: 2800-3300 psi
FLW: 970-1120 gpm
.5
5
50
500
5K
Survey @ 1428.8m:
0.11° 336.4Az
DRILL WITH SEAWATER
AND HI-VIS SWEEPS.
RETURNS TO SEAFLOOR..
Survey @ 1486.0m:
0.16° 21.2Az
Survey @ 1509.8m:
0.09° 0.7Az
13 3/8" CASING SET @ 1511m
BIT #3 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18 2x28


WOB: 10-15 Klbs
RPM: 155-175
SPP: 1800 psi
FLW: 765 gpm
1530
1540
(1539.9
1550
1560
(1559.9
1570
1580
(1579.9
MW 9.5
FV 48
PV 10
YP 13
Gel 4/6
WL 6.6
Sol 5.35
pH 9.5
Ck 1
Cl 35k
1590
1600
(1599.9
WOB: 10-15 Klbs
RPM: 190-220
SPP: 2150 psi
FLW: 850 gpm
1610
1620
(1619.9
1630
1640
(1639.9
1650
.5
5
50
500
5K
IN: 1525m OUT: 3402m
RUN: 1877m HRS: 96.7
COND:4-6-WT-S-X-1-RO-ROP
LOT @ 1528m:
EMW = 15.8 ppg (1.89 sg)
Survey @ 1540.5m:
0.33° 354.6Az
ARGILLACEOUS CALCILUTITE:
v lt-lt gry,tr calcslt,vf snd grs,
tr carb grs,tr vf pyr,tr mic foss,
sft,sbblky-amor.
Survey @ 1569.1m:
0.36° 350.1Az
ARGILLACEOUS CALCILUTITE:
v lt-lt gry,tr calcslt,vf snd grs,
tr carb grs,tr vf pyr,tr micro
foss,sft,sbblky-amor.
Survey @ 1597.7m:
0.50° 2.9Az
Survey @ 1626.4m:
0.63° 1.9Az
ARGILLACEOUS CALCILUTITE:
lt olv gry-lt gry,vf-f calc snd
grs,tr dk carb spks,tr vf pyr,tr
micro foss (forams & echinoids),
v sft-sft,sbblky-occ amor.



CALCARENITE(40%):lt olv gry, vf-f grs,mod wl srt,rnd,com-abdt arg mtx,sft,pr vis por,no fluor.

Survey @ 1655.2m: 0.86° 9.4Az

Survey @ 1683.8m: 1.15° 21.6Az

ARGILLACEOUS CALCILUTITE: lt olv gry-lt gry,com vf-f calc snd grs,tr dk carb spks,tr vf pyr,tr micro foss (forams & echinoids), v sft-sft,sbblky-occ amor.

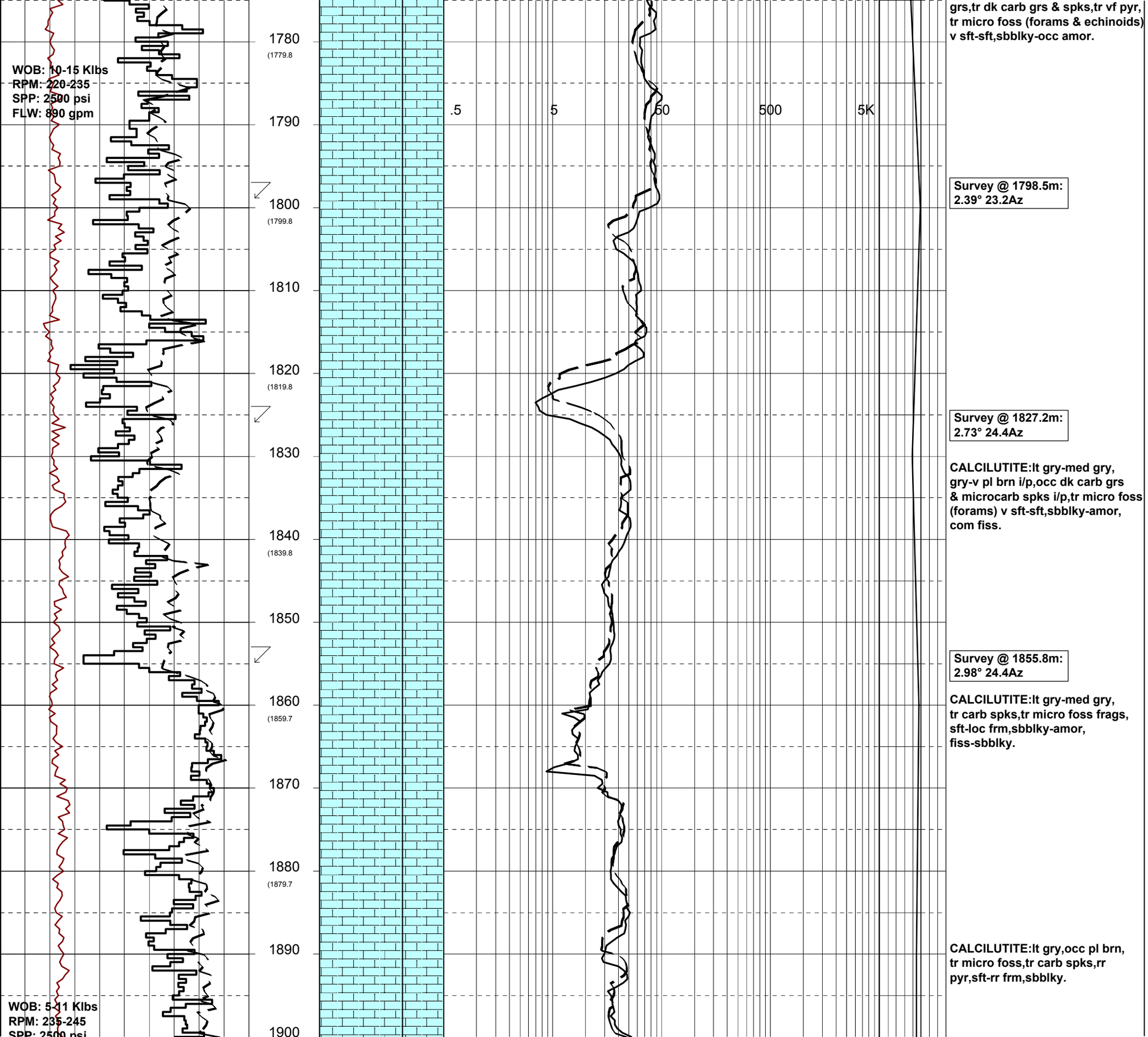
Survey @ 1712.6m: 1.54° 24.6Az

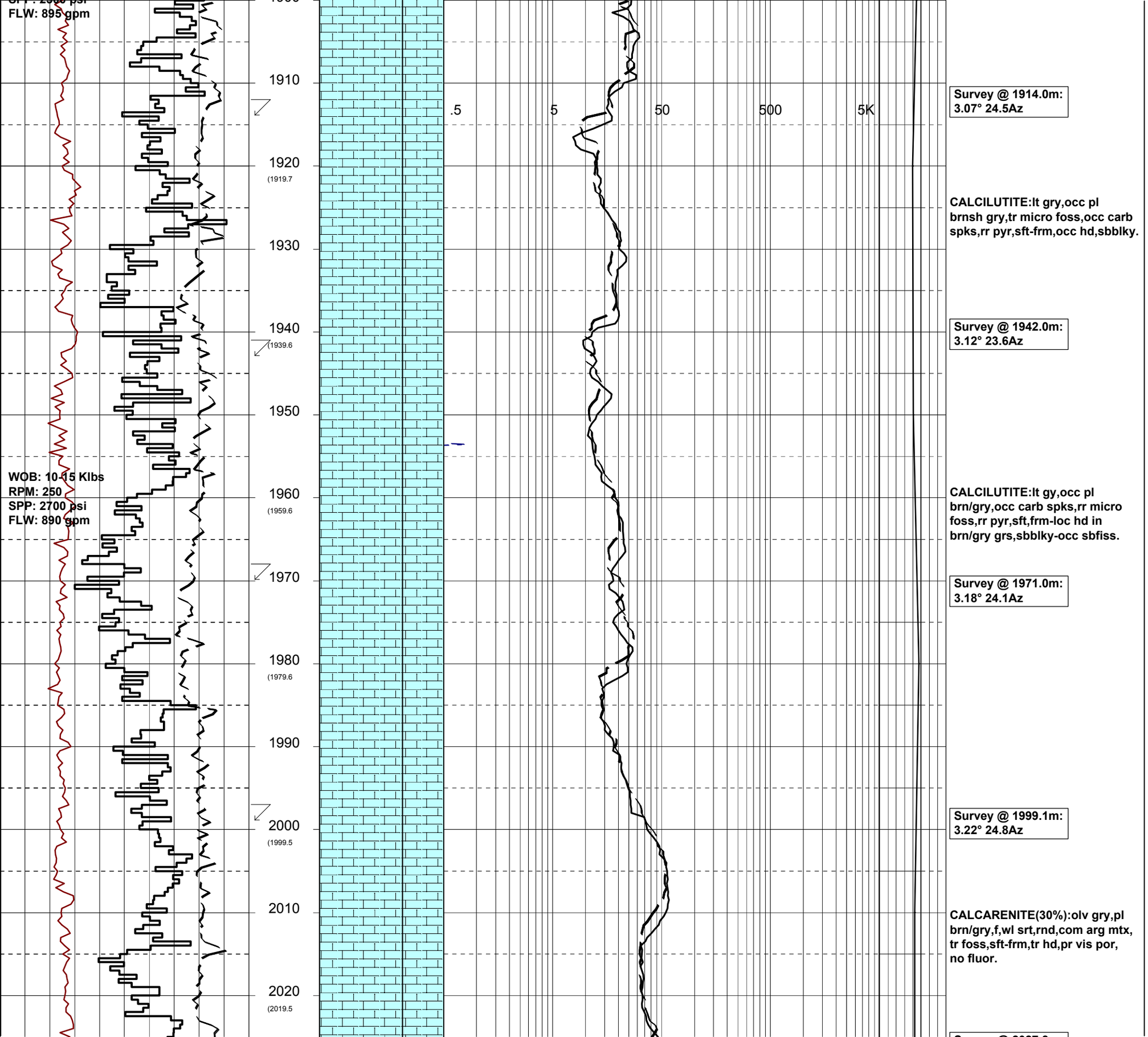
CALCARENITE(40%):lt olv gry, vf-f grs,mod wl srt,rnd,com-abdt arg mtx,sft,pr vis por,no fluor.

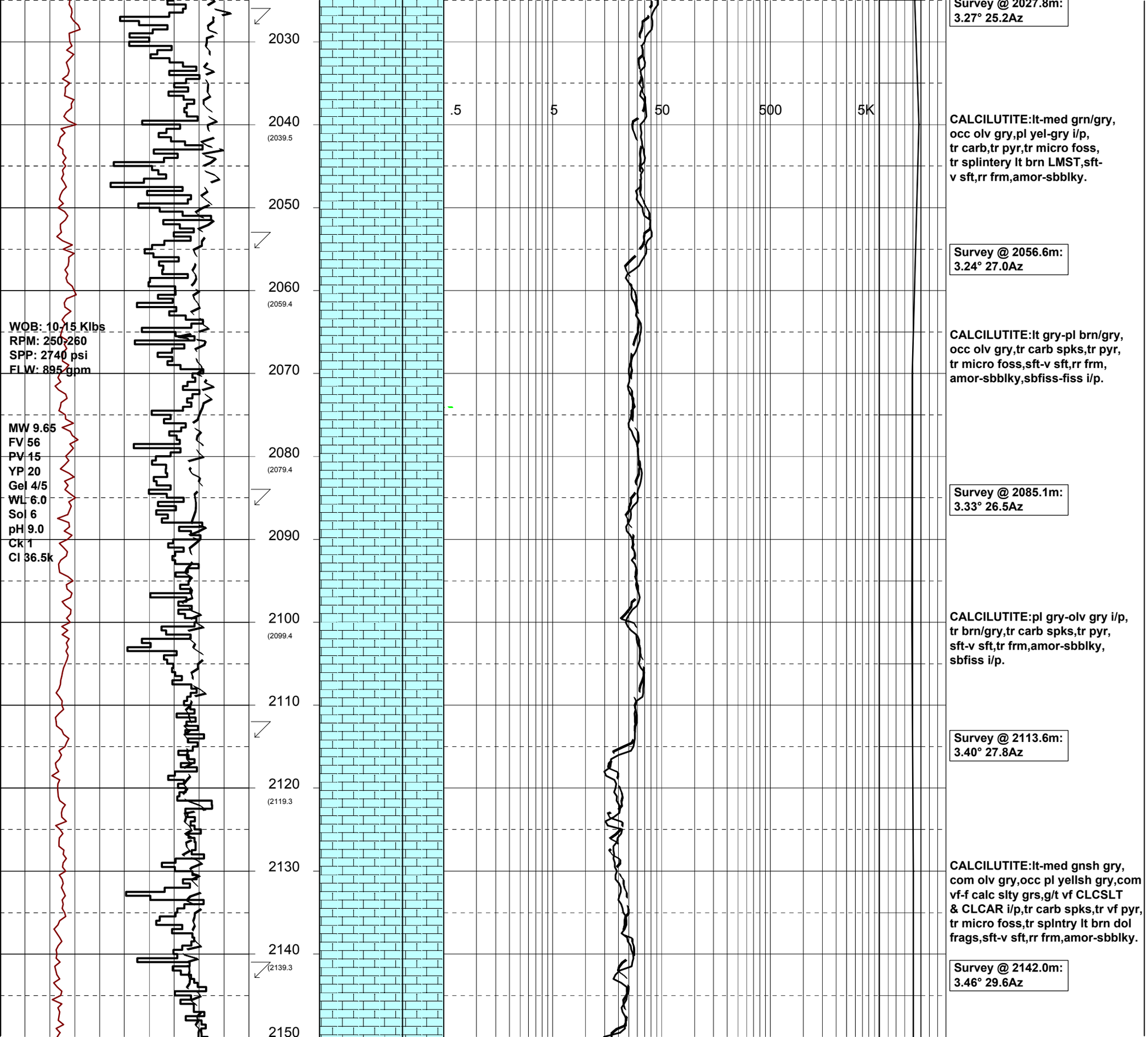
Survey @ 1741.1m: 1.85° 23.4Az

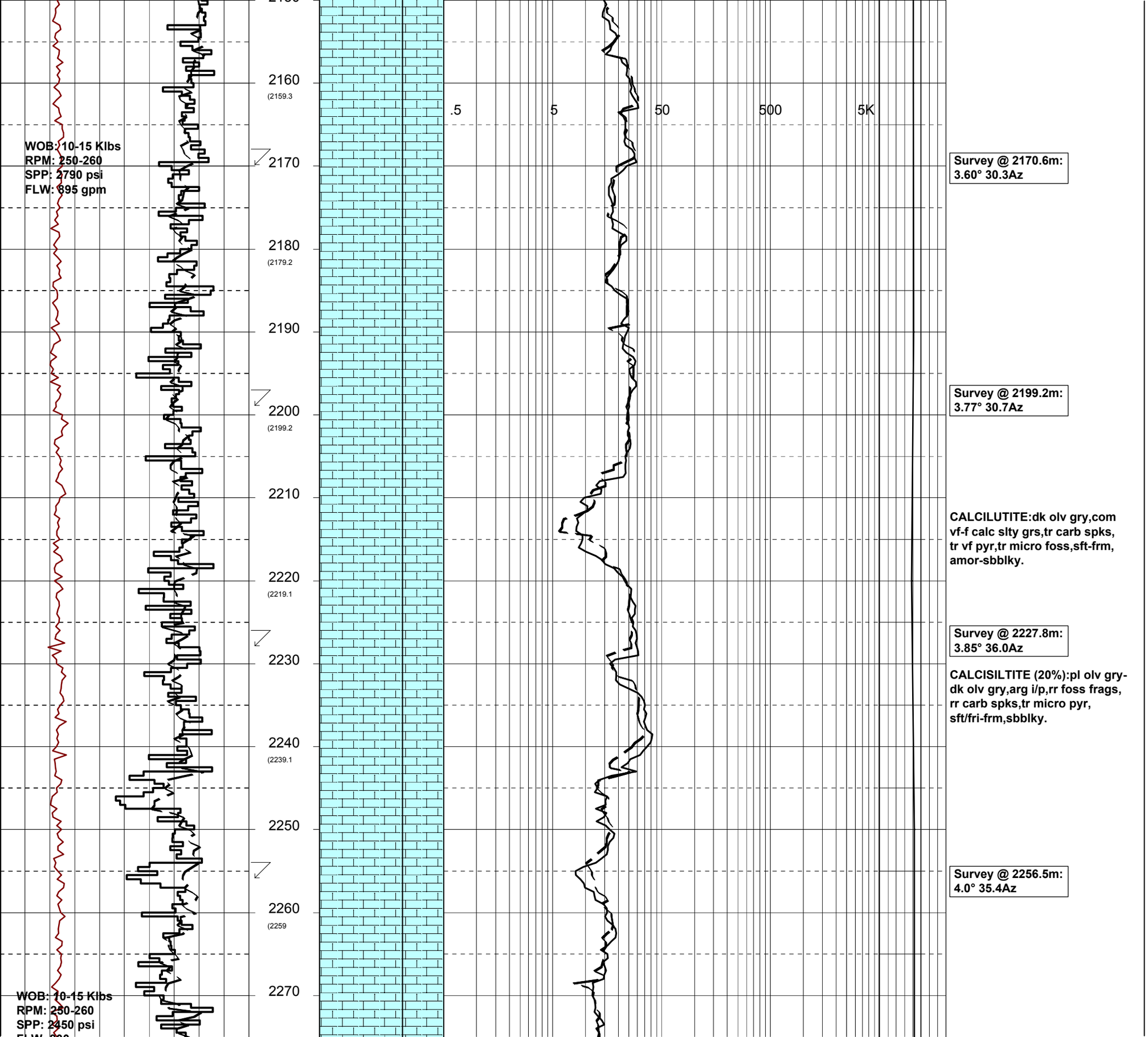
Survey @ 1769.9m: 2.12° 24.2Az

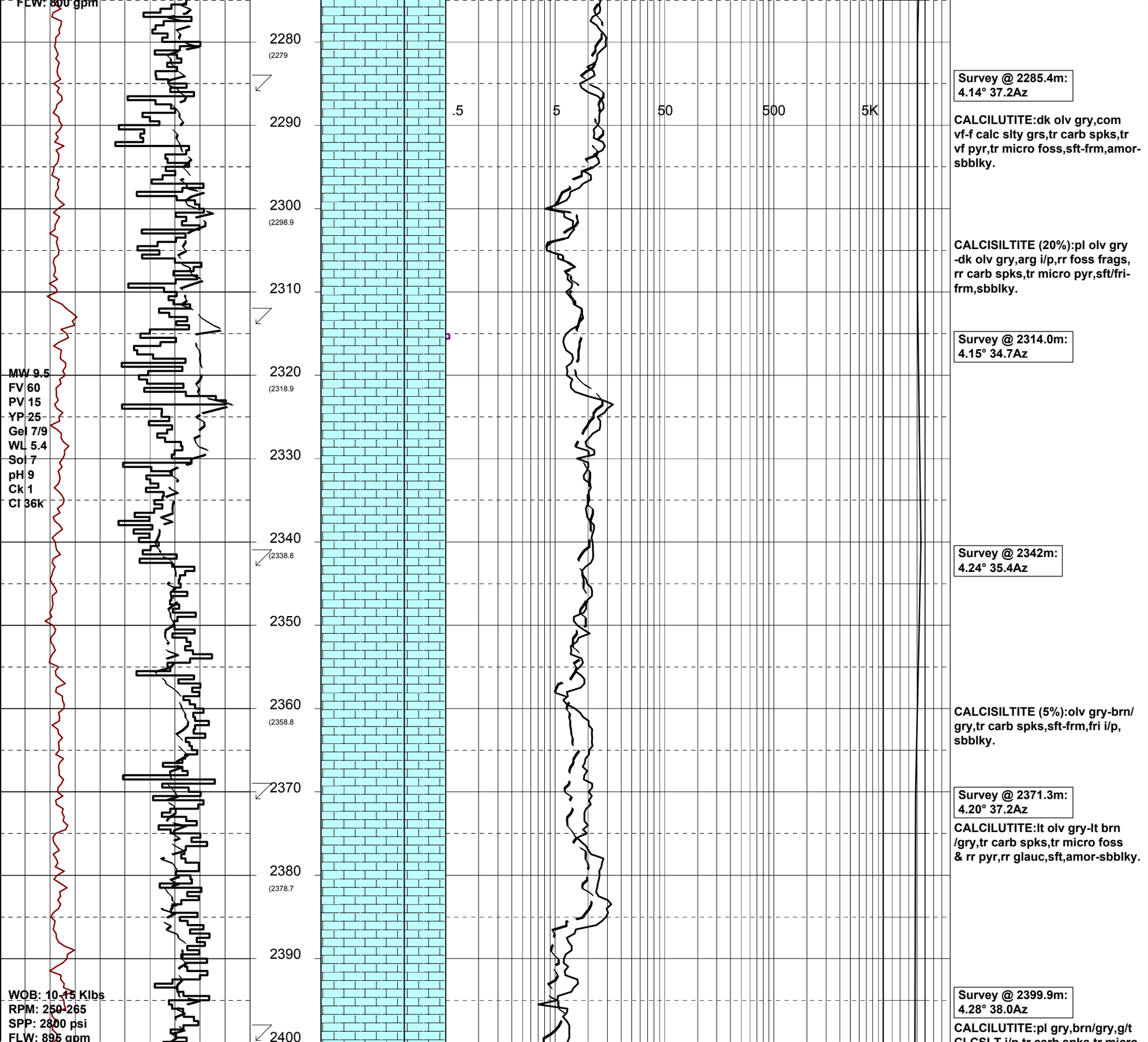
ARGILLACEOUS CALCILUTITE: lt olv gry-lt gry,com vf-f calc snd

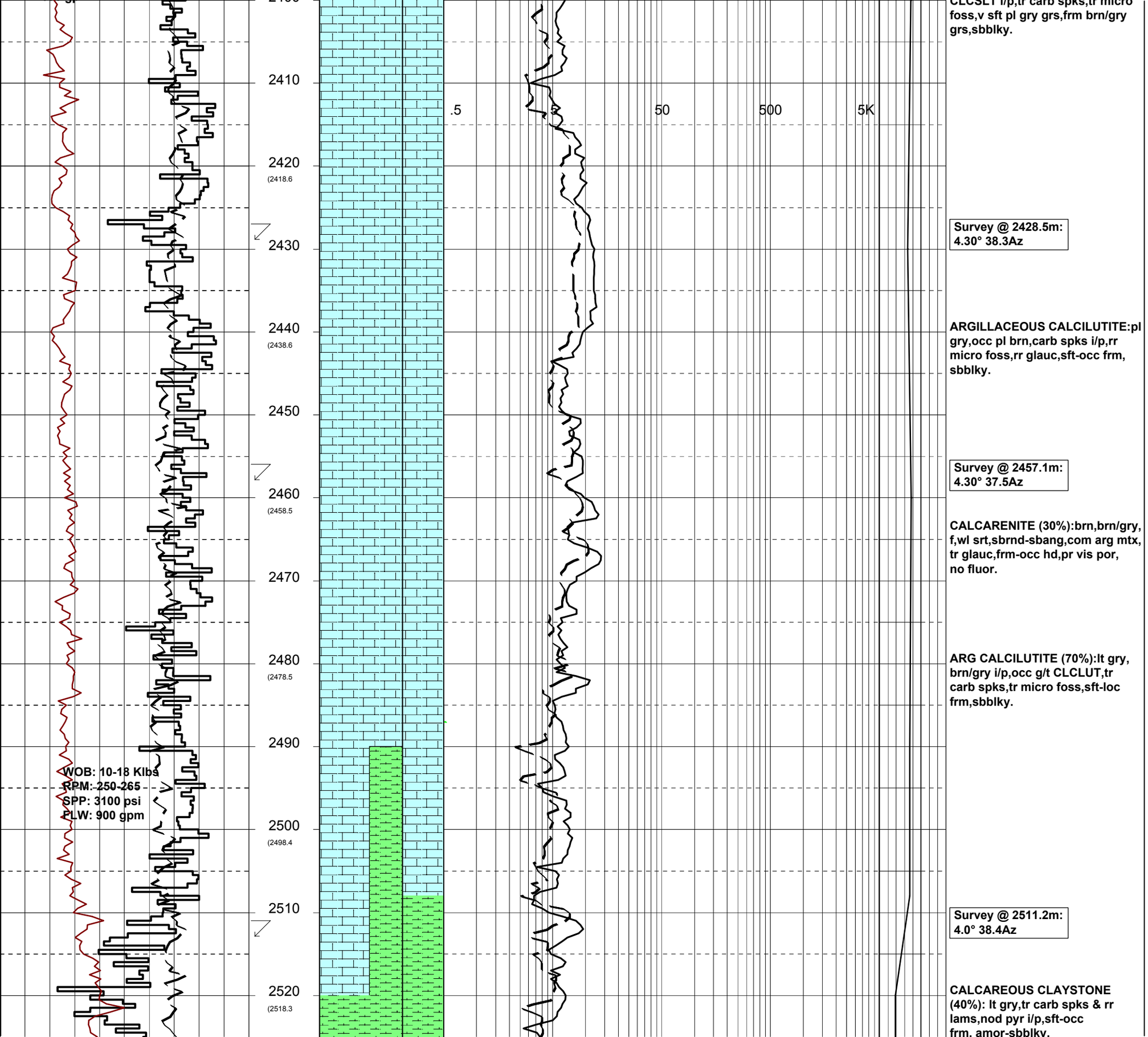

WOB: 10-15 Klbs
RPM: 220-235
SPP: 2500 psi
FLW: 890 gpm
1780
(1779.8
1790
1800
(1799.8
1810
1820
(1819.8
1830
1840
(1839.8
1850
1860
(1859.7
1870
1880
(1879.7
1890
WOB: 5-11 Klbs
RPM: 235-245
SPP: 2500 psi
1900
.5
5
50
500
5K
grs,tr dk carb grs & spks,tr vf pyr, tr micro foss (forams & echinoids) v sft-sft,sbblky-occ amor.
Survey @ 1798.5m: 2.39° 23.2Az
Survey @ 1827.2m: 2.73° 24.4Az
CALCILUTITE:lt gry-med gry, gry-v pl brn i/p,occ dk carb grs & microcarb spks i/p,tr micro foss (forams) v sft-sft,sbblky-amor, com fiss.
Survey @ 1855.8m: 2.98° 24.4Az
CALCILUTITE:lt gry-med gry, tr carb spks,tr micro foss frags, sft-loc frm,sbblky-amor, fiss-sbblky.
CALCILUTITE:lt gry,occ pl brn, tr micro foss,tr carb spks,rr pyr,sft-rr frm,sbblky.

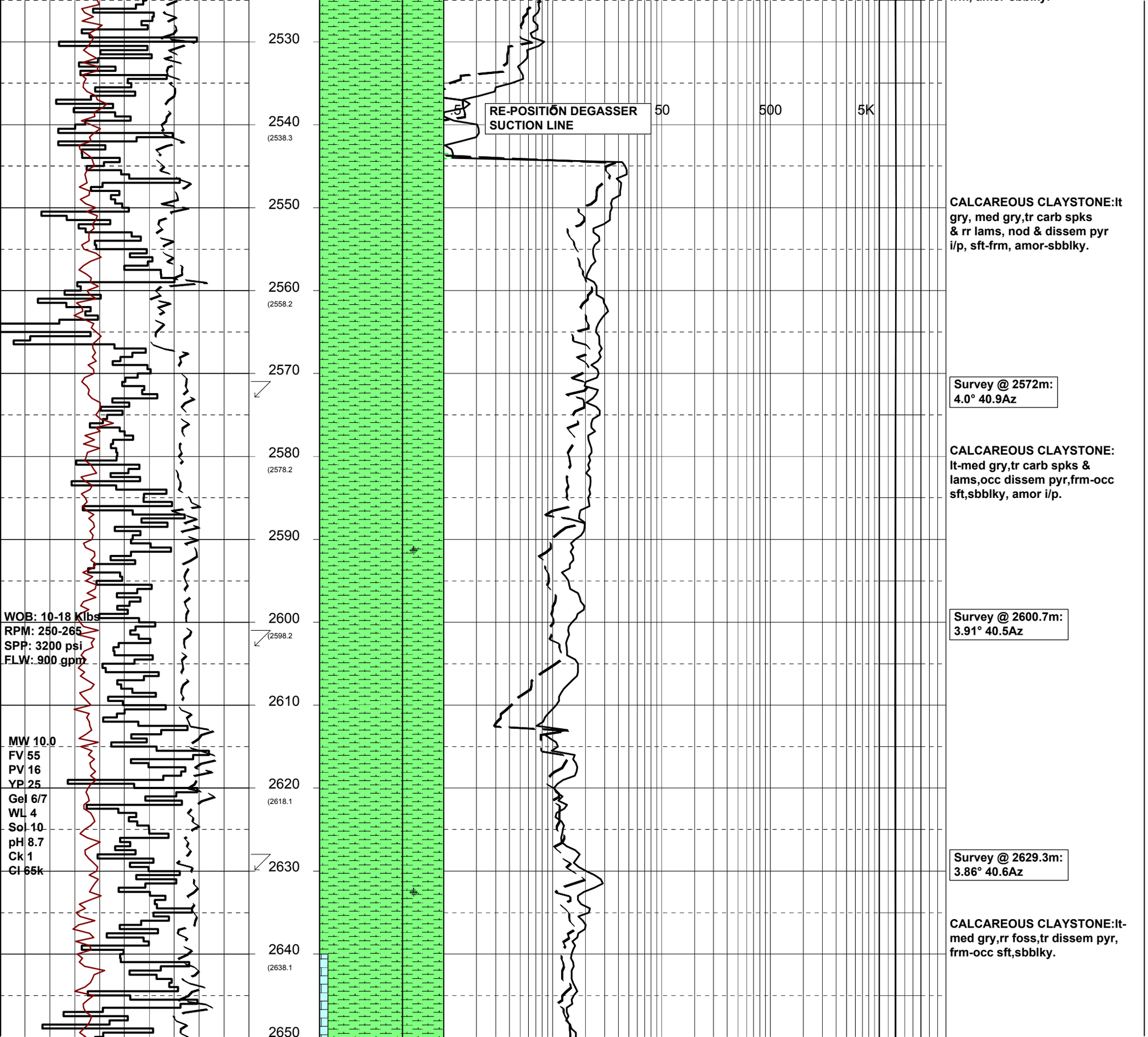

FLW: 895 gpm
1910
1920
(1919.7
1930
1940
(1939.6
1950
WOB: 10-15 Klbs
RPM: 250
SPP: 2700 psi
FLW: 890 gpm
1960
(1959.6
1970
1980
(1979.6
1990
2000
(1999.5
2010
2020
(2019.5
.5
5
50
500
5K
Survey @ 1914.0m:
3.07° 24.5Az
CALCILUTITE:lt gry,occ pl brnsh gry,tr micro foss,occ carb spks,rr pyr,sft-frm,occ hd,sbblky.
Survey @ 1942.0m:
3.12° 23.6Az
CALCILUTITE:lt gy,occ pl brn/gry,occ carb spks,rr micro foss,rr pyr,sft,frm-loc hd in brn/gry grs,sbblky-occ sbfiss.
Survey @ 1971.0m:
3.18° 24.1Az
Survey @ 1999.1m:
3.22° 24.8Az
CALCARENITE(30%):olv gry,pl brn/gry,f,wl srt,rnd,com arg mtx, tr foss,sft-frm,tr hd,pr vis por, no fluor.

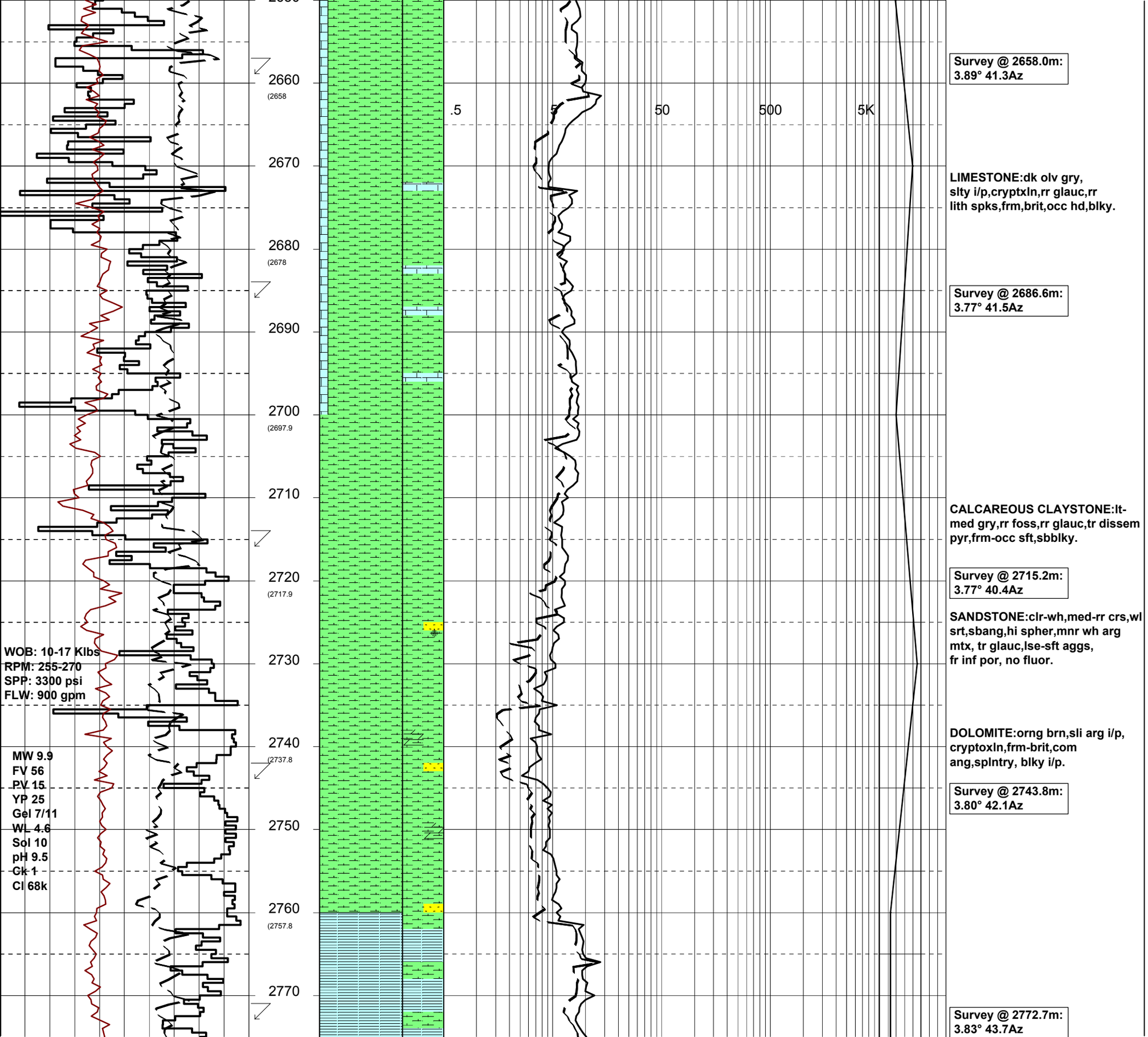

2030
2040
(2039.5
2050
2060
(2059.4
2070
2080
(2079.4
2090
2100
(2099.4
2110
2120
(2119.3
2130
2140
(2139.3
2150
.5
5
50
500
5K
WOB: 10-15 Klbs
RPM: 250-260
SPP: 2740 psi
FLW: 895 gpm
MW 9.65
FV 56
PV 15
YP 20
Gel 4/5
WL 6.0
Sol 6
pH 9.0
Ck 1
Cl 36.5k
Survey @ 2027.8m:
3.27° 25.2Az
CALCILUTITE:lt-med grn/gry,
occ olv gry,pl yel-gry i/p,
tr carb,tr pyr,tr micro foss,
tr splintery lt brn LMST,sft-
v sft,rr frm,amor-sbblky.
Survey @ 2056.6m:
3.24° 27.0Az
CALCILUTITE:lt gry-pl brn/gry,
occ olv gry,tr carb spks,tr pyr,
tr micro foss,sft-v sft,rr frm,
amor-sbblky,sbfiss-fiss i/p.
Survey @ 2085.1m:
3.33° 26.5Az
CALCILUTITE:pl gry-olv gry i/p,
tr brn/gry,tr carb spks,tr pyr,
sft-v sft,tr frm,amor-sbblky,
sbfiss i/p.
Survey @ 2113.6m:
3.40° 27.8Az
CALCILUTITE:lt-med gnsh gry,
com olv gry,occ pl yellsh gry,com
vf-f calc slty grs,g/t vf CLCSLT
& CLCAR i/p,tr carb spks,tr vf pyr,
tr micro foss,tr splntry lt brn dol
frags,sft-v sft,rr frm,amor-sbblky.
Survey @ 2142.0m:
3.46° 29.6Az

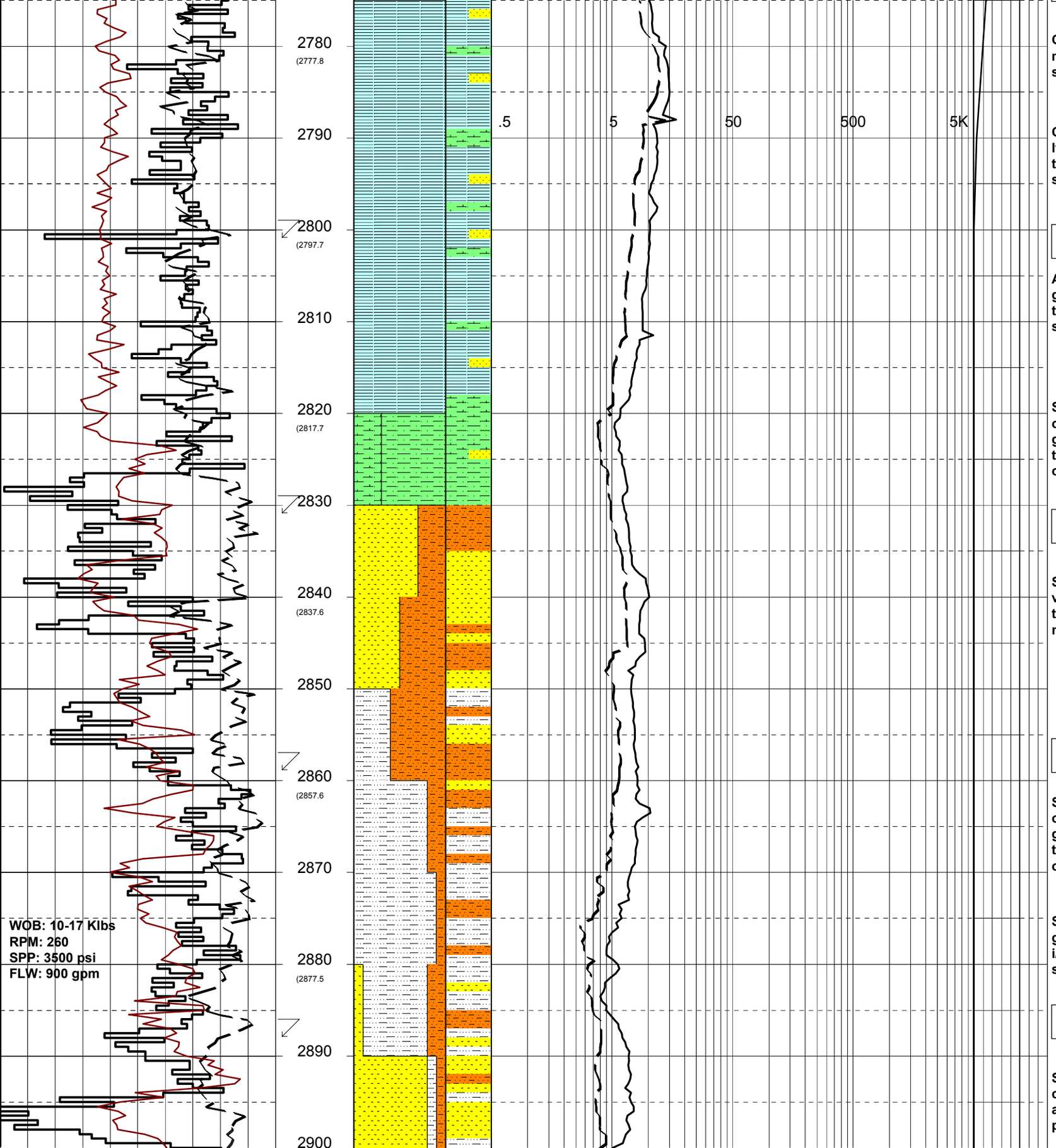

2160
(2159.3
2170
2180
(2179.2
2190
2200
(2199.2
2210
2220
(2219.1
2230
2240
(2239.1
2250
2260
(2259
2270
.5
5
50
500
5K
WOB: 10-15 Klbs
RPM: 250-260
SPP: 2790 psi
FLW: 895 gpm
WOB: 10-15 Klbs
RPM: 250-260
SPP: 2450 psi
Survey @ 2170.6m:
3.60° 30.3Az
Survey @ 2199.2m:
3.77° 30.7Az
CALCILUTITE:dk olv gry,com
vf-f calc slty grs,tr carb spks,
tr vf pyr,tr micro foss,sft-frm,
amor-sbblky.
Survey @ 2227.8m:
3.85° 36.0Az
CALCISILTITE (20%):pl olv gry-
dk olv gry,arg i/p,rr foss frags,
rr carb spks,tr micro pyr,
sft/fri-frm,sbblky.
Survey @ 2256.5m:
4.0° 35.4Az


FLW: 800 gpm
2280
(2279
2290
2300
(2298.9
2310
2320
(2318.9
2330
2340
(2338.8
2350
2360
(2358.8
2370
2380
(2378.7
2390
2400
.5
5
50
500
5K
MW 9.5
FV 60
PV 15
YP 25
Gel 7/9
WL 5.4
Sol 7
pH 9
Ck 1
Cl 36k
WOB: 10-15 Klbs
RPM: 250-265
SPP: 2800 psi
FLW: 895 gpm
Survey @ 2285.4m:
4.14° 37.2Az
CALCILUTITE:dk olv gry,com vf-f calc slty grs,tr carb spks,tr vf pyr,tr micro foss,sft-frm,amor-sbblky.
CALCISILTITE (20%):pl olv gry -dk olv gry,arg i/p,rr foss frags, rr carb spks,tr micro pyr,sft/fri-frm,sbblky.
Survey @ 2314.0m:
4.15° 34.7Az
Survey @ 2342m:
4.24° 35.4Az
CALCISILTITE (5%):olv gry-brn/ gry,tr carb spks,sft-frm,fri i/p, sbblky.
Survey @ 2371.3m:
4.20° 37.2Az
CALCILUTITE:lt olv gry-lt brn /gry,tr carb spks,tr micro foss & rr pyr,rr glauc,sft,amor-sbblky.
Survey @ 2399.9m:
4.28° 38.0Az
CALCILUTITE:pl gry,brn/gry,g/t


2410
2420
(2418.6
2430
2440
(2438.6
2450
2460
(2458.5
2470
2480
(2478.5
2490
2500
(2498.4
2510
2520
(2518.3
.5
5
50
500
5K
WOB: 10-18 Klbs
RPM: 250-265
SPP: 3100 psi
PLW: 900 gpm
CLCSLT i/p,tr carb spks,tr micro foss,v sft pl gry grs,frm brn/gry grs,sbblky.
Survey @ 2428.5m: 4.30° 38.3Az
ARGILLACEOUS CALCILUTITE:pl gry,occ pl brn,carb spks i/p,rr micro foss,rr glauc,sft-occ frm, sbblky.
Survey @ 2457.1m: 4.30° 37.5Az
CALCARENITE (30%):brn,brn/gry, f,wl srt,sbrnd-sbang,com arg mtx, tr glauc,frm-occ hd,pr vis por, no fluor.
ARG CALCILUTITE (70%):lt gry, brn/gry i/p,occ g/t CLCLUT,tr carb spks,tr micro foss,sft-loc frm,sbblky.
Survey @ 2511.2m: 4.0° 38.4Az
CALCAREOUS CLAYSTONE (40%): lt gry,tr carb spks & rr lams,nod pyr i/p,sft-occ frm, amor-sbblky.


2530
2540
(2538.3
2550
2560
(2558.2
2570
2580
(2578.2
2590
2600
(2598.2
2610
2620
(2618.1
2630
2640
(2638.1
2650
RE-POSITION DEGASSER SUCTION LINE
50
500
5K
CALCAREOUS CLAYSTONE:lt gry, med gry,tr carb spks & rr lams, nod & dissem pyr i/p, sft-frm, amor-sbblky.
Survey @ 2572m: 4.0° 40.9Az
CALCAREOUS CLAYSTONE: lt-med gry,tr carb spks & lams,occ dissem pyr,frm-occ sft,sbblky, amor i/p.
Survey @ 2600.7m: 3.91° 40.5Az
CALCAREOUS CLAYSTONE:lt-med gry,rr foss,tr dissem pyr, frm-occ sft,sbblky.
Survey @ 2629.3m: 3.86° 40.6Az
WOB: 10-18 Klbs
RPM: 250-265
SPP: 3200 psi
FLW: 900 gpm
MW 10.0
FV 55
PV 16
YP 25
Gel 6/7
WL 4
Sol 10
pH 8.7
Ck 1
Cl 65k


2660
(2658
2670
2680
(2678
2690
2700
(2697.9
2710
2720
(2717.9
2730
2740
(2737.8
2750
2760
(2757.8
2770
.5
5
50
500
5K
WOB: 10-17 Klbs
RPM: 255-270
SPP: 3300 psi
FLW: 900 gpm
MW 9.9
FV 56
PV 15
YP 25
Gel 7/11
WL 4.6
Sol 10
pH 9.5
Ck 1
Cl 68k
Survey @ 2658.0m:
3.89° 41.3Az
LIMESTONE:dk olv gry,
slty i/p,cryptxln,rr glauc,rr
lith spks,frm,brit,occ hd,blky.
Survey @ 2686.6m:
3.77° 41.5Az
CALCAREOUS CLAYSTONE:lt-
med gry,rr foss,rr glauc,tr dissem
pyr,frm-occ sft,sbblky.
Survey @ 2715.2m:
3.77° 40.4Az
SANDSTONE:clr-wh,med-rr crs,wl
srt,sbang,hi spher,mnr wh arg
mtx, tr glauc,lse-sft aggs,
fr inf por, no fluor.
DOLOMITE:orng brn,sli arg i/p,
cryptoxln,frm-brit,com
ang,splntry, blky i/p.
Survey @ 2743.8m:
3.80° 42.1Az
Survey @ 2772.7m:
3.83° 43.7Az



CALCAREOUS CLAYSTONE: med dk gry,rr glauc,tr foss,tr liths, sft-frm,sbblky.

CLAYSTONE:lt-olv gry,occ med lt gry,tr calc SLTST & vf sand i/p, tr glauc,tr vf dissem pyr,v sft-sft,sbblky.

Survey @ 2801.7m: 3.84° 42.8Az

ARG CALCILUTITE:lt gry-olv gry,med gry,tr vf SST,glauc,tr pyr, tr carb spks & rr lam,sft-occ frm, sbblky.

SILTSTONE:lt brn-brnsh gry, occ rd brn,g/t vf SST i/p,com glauc grs,tr mica & blk carb spks, tr pyr,sft-frm,gen massive-sbblky, occ v amor.

Survey @ 2830.4m: 3.89° 43.8Az

SANDSTONE:clr-trnsl,vf-v crs, v pr srt,sbang-sbrnd,tr arg mtx,tr tr pyr,tr glauc,lse,v gd inf por, no fluor.

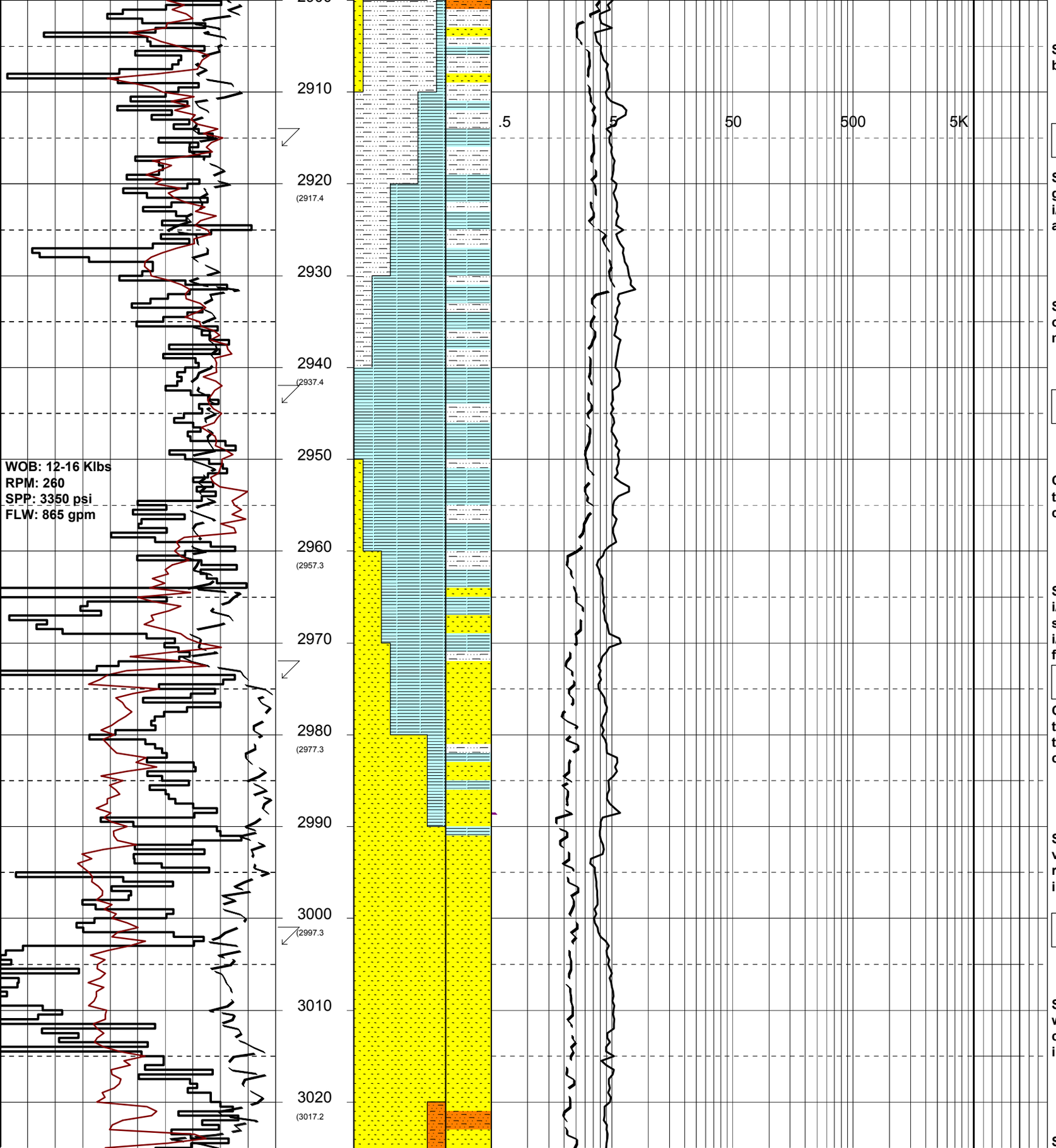
Survey @ 2859.1m: 3.95° 44.8Az

SILTSTONE:lt brn-brnsh gry, occ rd brn,g/t vf SST i/p,com glauc grs,tr mica & blk carb spks, tr pyr,sft-frm,gen massive-sbblky, occ v amor.

SILTSTONE:pl gry-wh,med gry i/p,micmic,tr carb spks & lams i/p,occ dissem pyr,sft-v sft,amor-sbblky.

Survey @ 2887.7m: 3.86° 45.6Az

SANDSTONE:clr-trnsl,med-f,occ crs-v crs,pr srt,sbrnd-sbang, arg mtx i/p,occ carb spks,tr pyr,lse,v pr inf por,no fluor.



SILTY CLAYSTONE:lt gry,occ blk carb spks,tr mica,v sft,sbblky.

Survey @ 2916.4m: 3.87° 45.2Az

SILTSTONE:gry-pl gry,tr med gry,arg,occ carb spks,micmic i/p,occ nod & dissem pyr,sft, amor-sbblky.

SILTY CLAYSTONE:lt gry, occ carb spks & lams i/p,tr mica,v sft,amor-tr sbblky.

Survey @ 2944.9m: 3.83° 45.8Az

CLAYSTONE:lt-med gry,slty i/p, tr f ang qtz,tr mica & com blk carb spks,com pyr,v sft,amor-disp.

SANDSTONE:clr-trnsl,med-f,crs i/p,mod-pr srt,sbang-occ sbrnd,arg slty mtx,carb spks i/p,tr pyr,lse,pr inf por,no fluor.

Survey @ 2973.5m: 3.73° 46.7Az

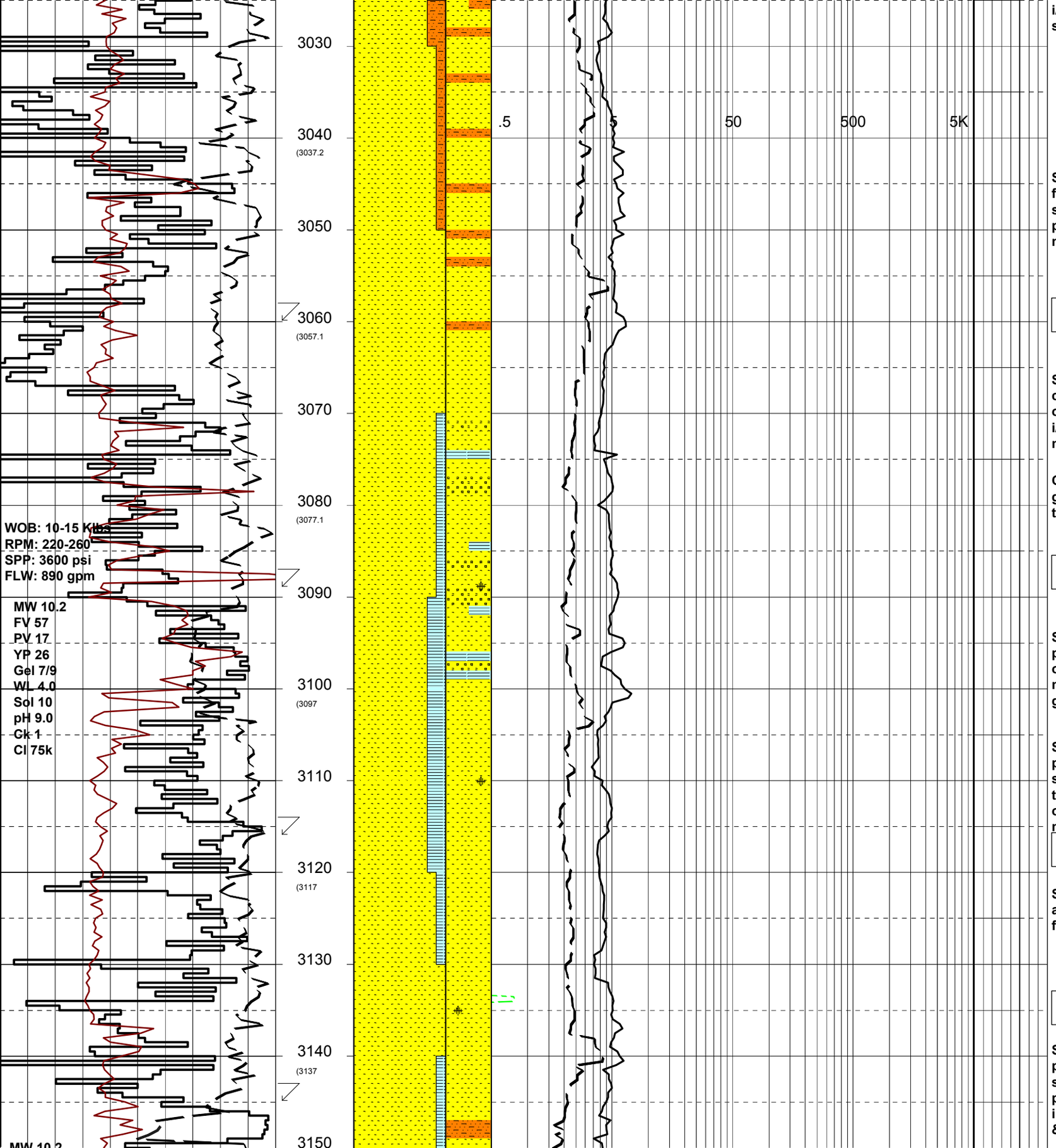
CLAYSTONE:lt-med gry,calc i/p, tr lt brn calcite/dolomite cmt frags, tr mica and com blk carb spks, com pyr,tr glauc,v sft,amor-disp.

SANDSTONE:clr-trnsl,occ yel, vf-med,gen f,pr srt,sbang-rnd,com arg mtx,com pyr,gd inf por,no fluor.

Survey @ 3002.1m: 3.72° 46.7Az

SANDSTONE:clr-trnsl,occ yel/ wh,f-med,pr srt,sbang-sbrnd, com arg mtx,com pyr,lse,v gd inf por,no fluor.

SILTSTONE:med brn,gry-med gry



i/p,com arg,micmic,carb lam i/p, sft-loc disp,sbblky-tr amor.

SANDSTONE:clr-trnsl,com med, f i/p,occ crs,v pr srt,sbang-sbrnd,tr sil cmt,occ arg mtx,com pyr,lse-fri,fr-gd inf & pr vis por, no fluor.

Survey @ 3059.5m: 3.72° 46.5Az

SANDSTONE:clr-trnsl,f-occ med, crs i/p,mod pr srt,sbang-sbrnd, occ pyr cmt,arg mtx i/p,nod pyr i/p,lse-fri,v gd inf & fr vis por, no fluor.

CLAYSTONE:med gry-grysh brn, g/t SLTST i/p,tr carb spks,micmic, tr nod & dissem pyr,sft,amor.

Survey @ 3088.2m: 3.81° 46.4Az

SANDSTONE:clr-trnsl,f-v crs, pred med-crs,pr srt,sbang-sbrnd, occ strg sil cmt,arg mtx i/p,occ nod & dissem pyr incl,lse-mod hd, gd inf por & fr vis por,no fluor.

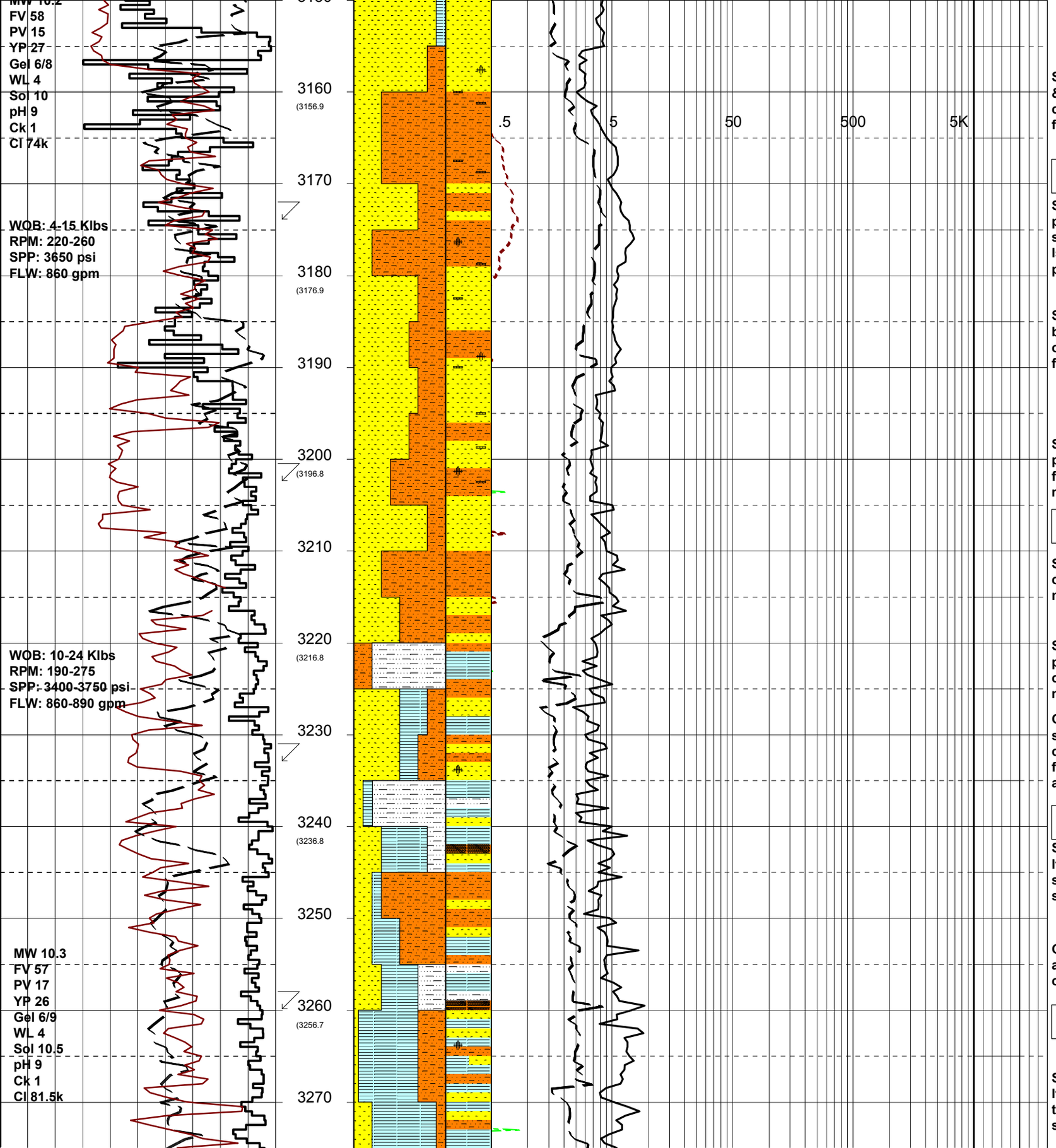
SANDSTONE:clr-trnsl,f-crs pred med,mod srt,sbrnd-sbang, sbspher-sbelong,strg sil cmt i/p, tr arg mtx,tr pyr incl,pred lse-occ hd aggs,gd inf & fr vis por, no fluor.

Survey @ 3116.1m: 3.75° 45.4Az

SILTSTONE:dk gry-grysh brn, arg i/p,micmic,tr carb,tr pyr, frm,sbblky.

Survey @ 3145.1m: 3.74° 48.3Az

SANDSTONE:clr-trnsl,f-crs pred med,mod srt,sbrnd-sbang, sbspher-sbelong,strg sil cmt,tr pyr cmt i/p,tr arg mtx,tr pyr incl,pred lse-occ hd aggs,gd inf & fr vis por, no fluor.



SILTSTONE:med dk gry-blksh brn & dk brn,arg-v arg,micmic,com carb lams & incl,tr pyr,sft-occ frm,sbblky-amor.

Survey @ 3173.8m: 3.67° 49.6Az

SANDSTONE:clr-opq,med-v crs, pr srt,sbang-sbrnd,occ strg sil & pyr cmt,tr arg mtx,pred lse,mod hd i/p,fr vis & gd inf por,no fluor.

SILTSTONE:med dk gry-med gry, brn-dk brn,arg-v arg,micmic,com carb lams & incl,tr pyr,sft,occ frm-fri,sbblky-amor.

SANDSTONE:clr-trnsl,med-gran, pr srt,sbang-sbrnd,mod spher,occ frac grs,tr pyr cmt,dom lse-occ mod hd,fr vis & gd inf por,no fluor.

Survey @ 3202.6m: 3.71° 48.9Az

SILTSTONE:brn,med gry/gry i/p, com arg,micmic,carb lams i/p,occ nod pyr,sft-tr frm,sbblky.

SANDSTONE:clr-trnsl,med-f,mod-pr srt,sbrnd-sbang,tr calcite/dol cmt,occ nod pyr,lse-fri,fr vis & mod inf por,no fluor.

CLAYSTONE:lt-med brn gry, slty i/p,g/t arg SLTST i/p,com carb spks & lams,tr hd dol/calcite frags,tr pyr,v sft-rr frm,sbblky-amor.

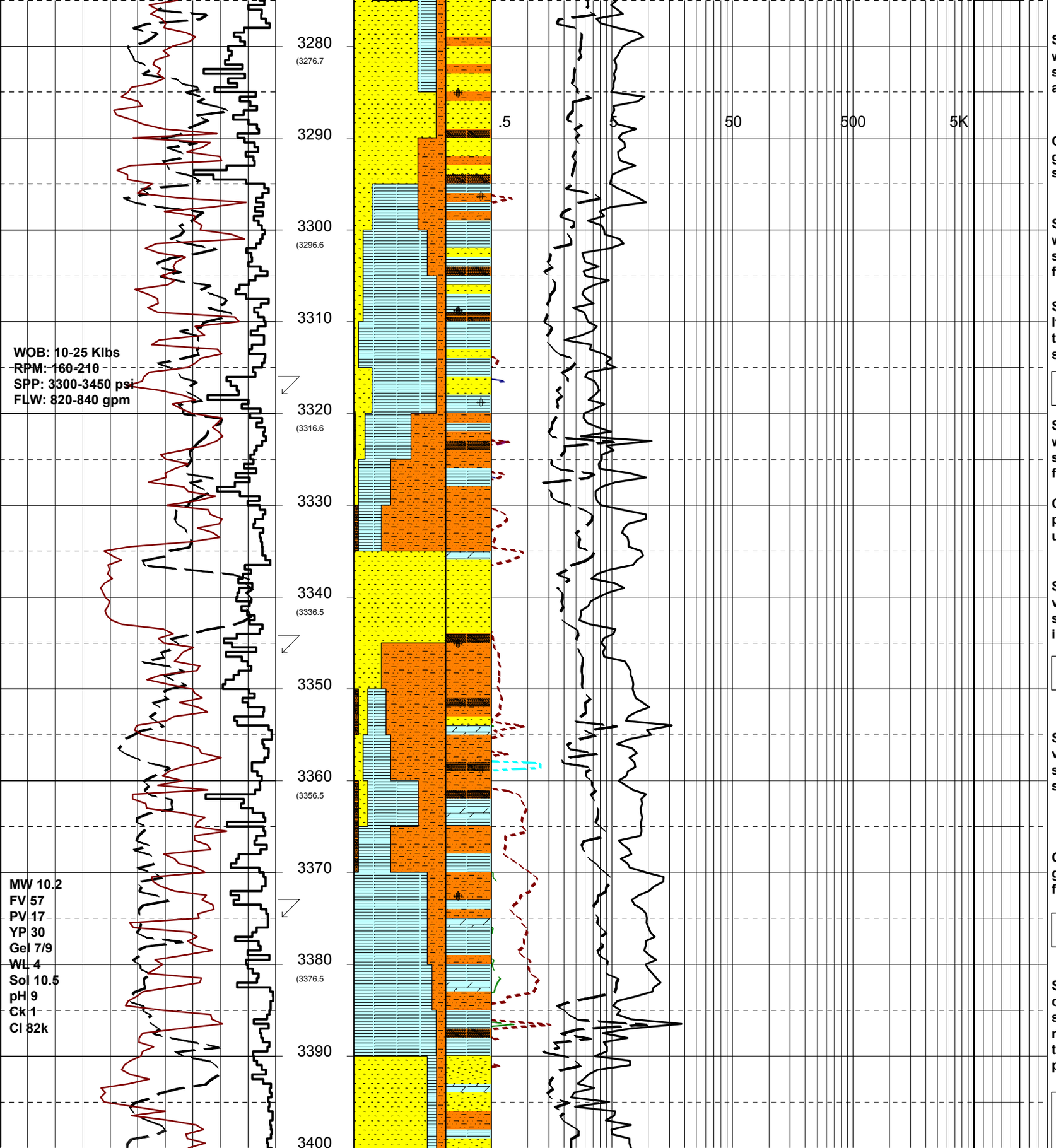
Survey @ 3231.7m: 3.53° 48.9Az

SILTSTONE:brn/gry-lt brn,occ lt gry,arg,occ g/t CLYST,com carb spks & lams,tr pyr,v sft-frm, sbblky-amor.

CLAYSTONE:lt gry,occ brn/gry, aren i/p,occ g/t SLTST,tr carb spks, v sft,com amor.

Survey @ 3260.4m: 3.66° 49.9Az

SILTSTONE:med gry,occ brn, lt gry i/p,micmic,carb spks i/p, tr dissem & nod pyr,occ sft,tr frm, sbblky-dom amor.



SANDSTONE:clr-wh,pred vf-med w/occ crs-gran,p srt,sbrnd-sbang, spher-sbspher,wk sil cmt,abdt wh arg mtx,lse,fr-gd inf por,no fluor.

CLAYSTONE:wh-pl gry-pl brnsh gry,com dissem pyr,tr carb frags, sft,amor.

SANDSTONE:clr-trnsl,vf-crs w/com v crs-gran,p srt,sbrnd-sbang,wk sil cmt,arg mtx,lse, fr-gd inf por,no fluor.

SILTSTONE:med gry,occ brn, lt gry i/p,micmic,carb spks i/p, tr dissem & nod pyr,occ sft,tr frm, sbblky-dom amor.

Survey @ 3317.5m:
3.72° 47.7Az

SANDSTONE:clr-trnsl,vf-crs w/com v crs-gran,p srt,sbrnd-sbang,wk sil cmt,arg mtx,lse, fr-gd inf por,no fluor.

COAL:blk-dk brn,g/t Carb SLTST, pyr cmt i/p,sft-v hd,splntry i/p, unevn.

SANDSTONE:clr-trnsl,off wh, vf-crs,occ v crs,pred med grs,v pr srt,sbang-ang,wk sil cmt,lse,gd inf por,no fluor.

Survey @ 3346.4m:
3.65° 50.4Az

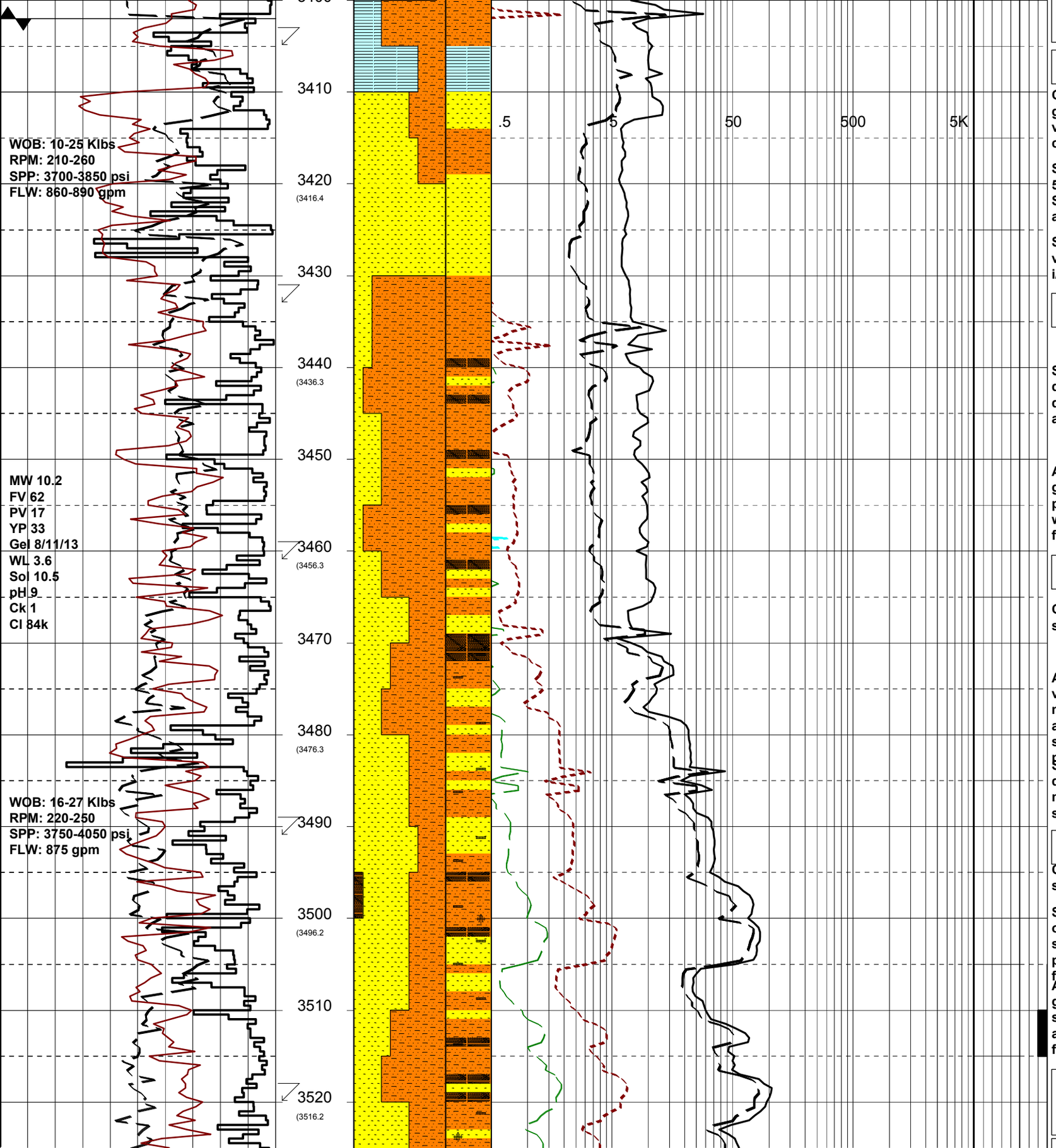
SILTSTONE:lt-med brnsh gry, v arg,tr v hd sil SLTST,com carb spks & lams,dissem pyr i/p,v sft-sft,sbblky-amor.

CLAYSTONE:wh-pl gry,pl brnsh gry i/p,com dissem pyr,tr carb frags,sft,amor.

Survey @ 3375.0m:
3.69° 54.0Az

SANDSTONE:dom wh,v lt gry,rr clr-trnsl,vf-med,mod srt,sbang-sbrnd,abdt wh arg mtx i/p,com mtx spprtd & g/t Arg SST i/p, tr carb, dom sft-fri,mnr lse, pr-fr inf & vis por,no fluor.

BIT #4 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18,2x28



IN: 3402m OUT:3571m
RUN: 169m HRS:27.0
COND:3-5-WT-S-X-1-LT-PP

Survey @ 3404.4m:
3.54° 54.9Az

COAL:blk-dk brn,dll-sbvit, g/t Carb SLTST i/p,com lams, v frm pyr cmt i/p,sft-frm, conch frac.

SANDY CLAYSTONE:v lt gry-wh, 5-30% vf wl rnd qtz sand,q/t Arg SST,tr calc mtx,tr liths,sft-frm, amor-sbblky.

SILTSTONE:lt-med brnsh gry, v arg,abdt carb spks,dissem pyr i/p,sft-frm,sbblky-amor.

Survey @ 3432.8m:
3.59° 51.96Az

SILTSTONE:lt-med brnsh gry-dk gry,v arg,abdt carb spks, dissem pyr i/p,sft-frm,sbblky-amor.

ARGILLACEOUS SANDSTONE:v pl gry-wh,vf-med dom f,occ crs,mod-pr srt,sbang-ang,calc cmt i/p,abdt wh arg mtx,tr pyr,tr carb spks,lse-fri,pr-mod vis & inf por,no fluor.

Survey @ 3461.3m:
3.48° 51.5Az

COAL:dll blk,slty i/p,frm-brit,blky, sbconch frac.

ARGILLACEOUS SANDSTONE: v p lgry-wh,f-med occ crs, mod srt, sbang-ang,tr wk calc cmt, abdt wh arg mtx,tr pyr,tr carb spks,lse- fri,pr-fr vis & inf por,no fluor.

SILTSTONE:lt-med brnsh gry-dk gry,v arg,carb spks & lams,tr nod/dissem pyr,sft-frm,tr v hd sil SLTST,sbblky-amor.

Survey @ 3490.2m:
3.38° 50.3Az

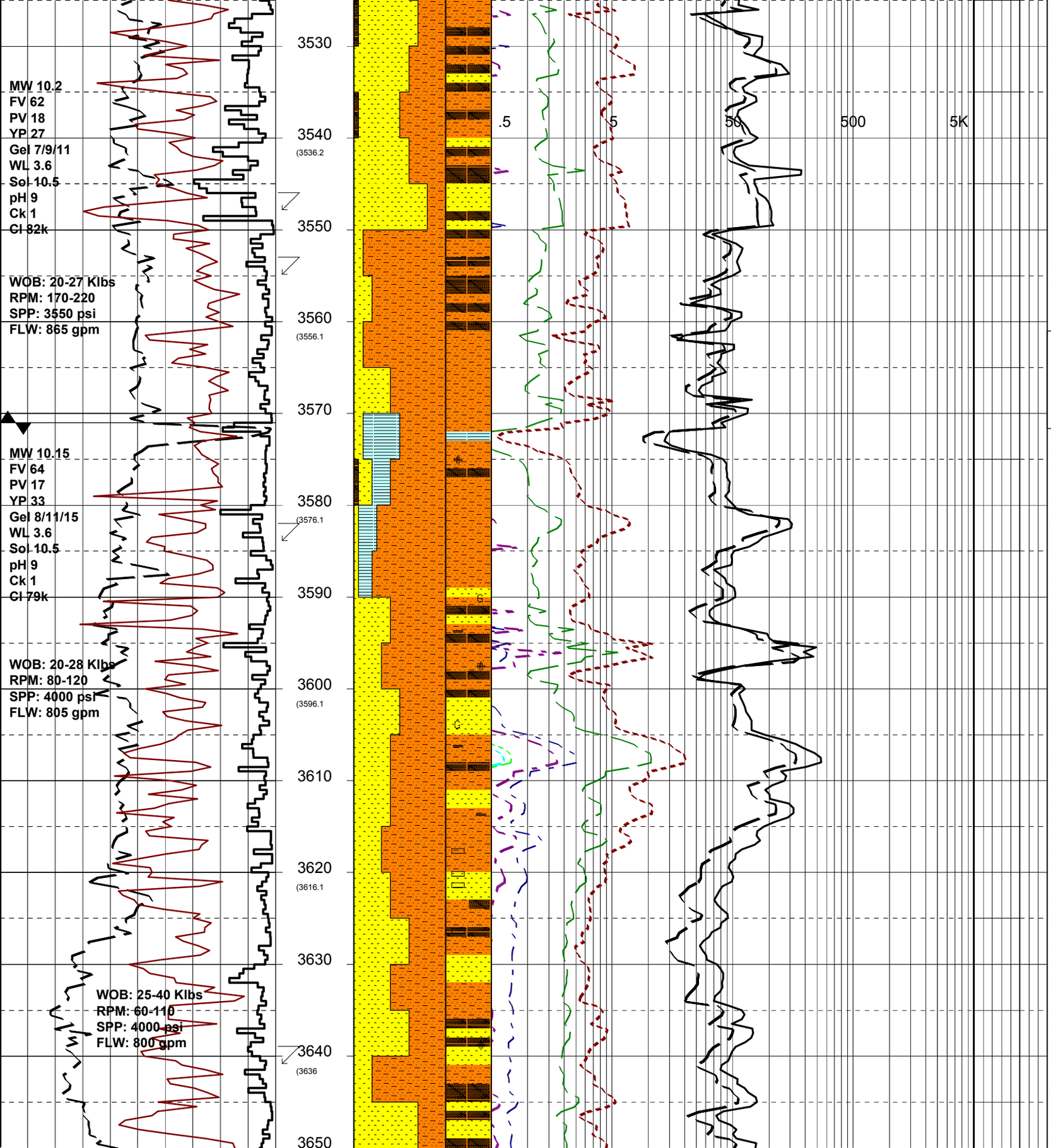
COAL:blk-v dk brnsh blk,dll-sbvit,slty i/p,lig,blky-sbfiss,hckly.

SANDSTONE:clr-wh,dom f-med occ crs,mod-wl srt,sbrnd-rnd,hi spher,tr pyr cmt,wh arg mtx,tr pyr nod,50% fri aggs,50% lse grs, fr vis & gd inf por,no fluor.

ARGILLACEOUS SANDSTONE:v pl gry-wh,f-med occ crs,mod srt, sbang-ang,tr wk calc cmt,abdt wh arg mtx,tr pyr,tr carb spks,lse-fri,pr-fr vis & inf por,tr fluor.

FLUORESCENCE:3510-3515m, Trace dll yel dir fluor,tr v slw cut,tr dll crm incomplete rng res.

Survey @ 3519.3m:



Survey @ 3519.5m:
3.32° 50.1Az

SILTSTONE:med brnsh gry-dk gry,arg i/p,com carb spks & lams, tr nod/dissem pyr,sft-frm,sbblky-amor.

ARGILLACEOUS SANDSTONE: wh-v lt gry,vf-f,occ med grs, wl srtd,sbang-rnd,wh arg mtx to 80%,sft aggs,tr lse grs,pr inf & vis por,no fluor.

Survey @ 3547.6m:
3.32° 50.0Az

Survey @ 3555.3m:
3.36° 53.7Az

SILTSTONE:lt brnsh gry-brnsh gry,occ wh,v arg,tr carb spks & lams,occ pyr,tr blk hd sil banded frags,dom v sft,amor-disp.

BIT #5RR SMITH GF30BOVCPS
SIZE:311mm
JETS:3x20
IN: 3571m OUT:3758m
RUN: 187m HRS:56.4
COND:3-3-WT-A-E-IN-CT-TD

SILTSTONE:lt brnsh gry-brnsh gry,occ wh,arg,occ g/t brn CLYST, com carb spks & lams,occ pyr,tr v hd blk & wh f banded sil frags, amor-lam.

Survey @ 3583.8m:
3.00° 50.8Az

SANDSTONE:wh-v lt gry aggs, wh-yelsh grs when lse,vf-f,occ med grs,gen f grs,mod wl srt, sbang-ang,calc cmt,abdt wh arg & calc mtx,tr pyr,tr frac grs,com blk & dk brn carb woody spks,tr grn chl/glauc grs,v frm-frm,pr inf vis por,pl yel min fluor.

SILTSTONE:med brn-olv blk/ brnsh blk-dk gry,arg,carb spks/ lams,tr pyr,tr liths,frm-v hd, sbblky.

SANDSTONE:wh-clr,dom vf-med, com med-v crs,occ gran,pr srt, sbang-sbrnd,sbspher-elong,wk-mod strg sil & calc cmt,com wh arg mtx,com lse,fri-mod hd,ti-fr vis & inf por,tr dll grn/yel min fluor.

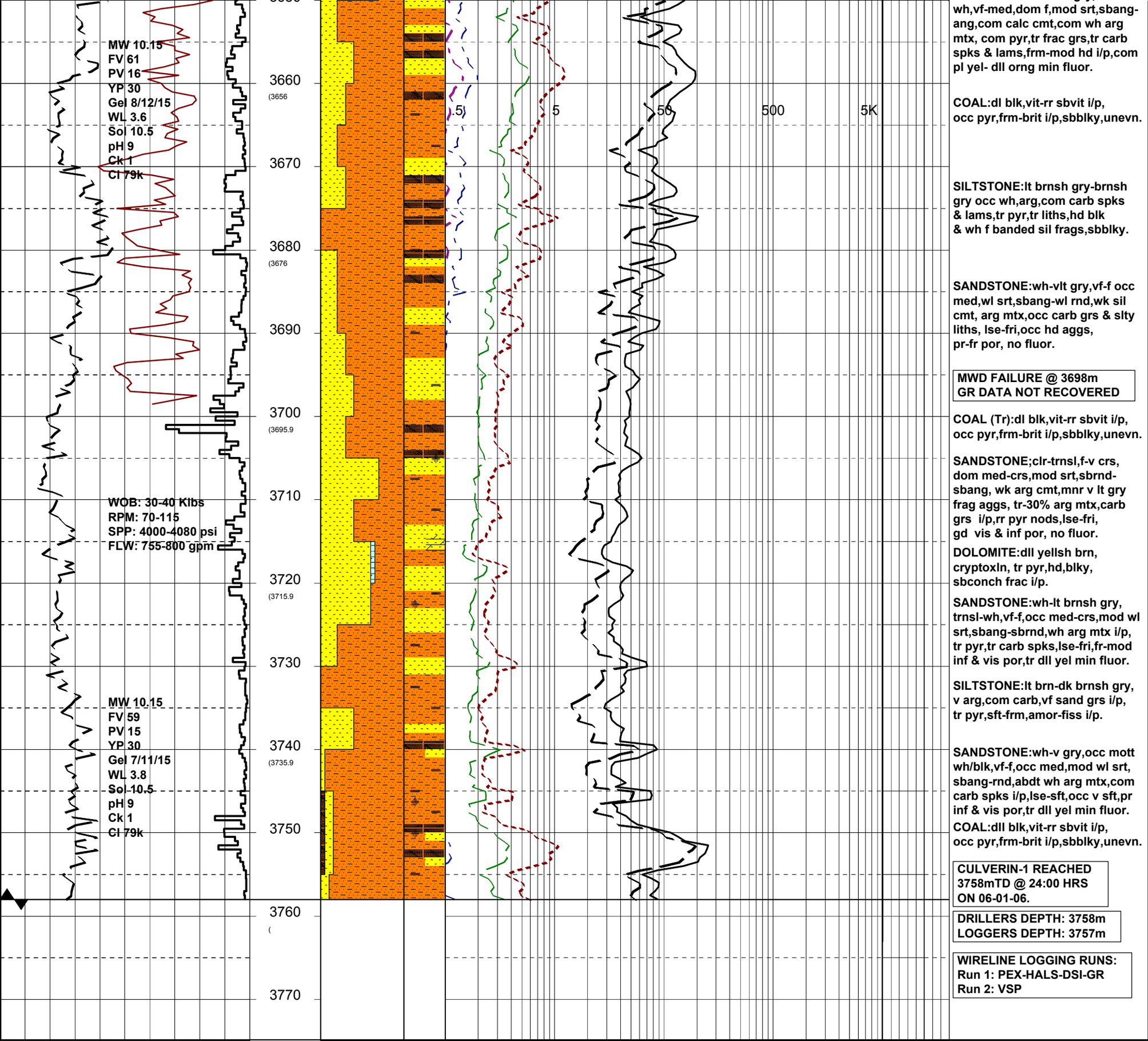
COAL:blk,vit,slty i/p,pyr,fri, sbfiss-sbblky,unevn.

SILTSTONE:med brn-olv blk,brnsh blk-dk gry,arg,carb spks & lams,tr pyr,tr liths,frm-v hd,sbblky.

SANDSTONE:wh-clr,dom vf-med, occ crs-v crs,rr gran,pr srt,sbang-sbrnd,wk-mod strg sil & calc cmt, com wh arg mtx,com lse,mod hd-hd,ti-fr vis & inf por,tr min fluor.

Survey @ 3641.4m:
2.98° 50.2Az

SANDSTONE:wh-v lt gry,occ clr-


MW 10.15
FV 61
PV 16
YP 30
Gel 8/12/15
WL 3.6
Sol 10.5
pH 9
Ck 1
Cl 79k
WOB: 30-40 Klbs
RPM: 70-115
SPP: 4000-4080 psi
FLW: 755-800 gpm
MW 10.15
FV 59
PV 15
YP 30
Gel 7/11/15
WL 3.8
Sol 10.5
pH 9
Ck 1
Cl 79k
3660
(3656
3670
3680
(3676
3690
3700
(3695.9
3710
3720
(3715.9
3730
3740
(3735.9
3750
3760
3770
.5
5
50
500
5K
wh,vf-med,dom f,mod srt,sbang-ang,com calc cmt,com wh arg mtx, com pyr,tr frac grs,tr carb spks & lams,frm-mod hd i/p,com pl yel- dll orng min fluor.
COAL:dl blk,vit-rr sbvit i/p, occ pyr,frm-brit i/p,sbblky,unevn.
SILTSTONE:lt brnsh gry-brnsh gry occ wh,arg,com carb spks & lams,tr pyr,tr liths,hd blk & wh f banded sil frags,sbblky.
SANDSTONE:wh-vlt gry,vf-f occ med,wl srt,sbang-wl rnd,wk sil cmt, arg mtx,occ carb grs & slty liths, lse-fri,occ hd aggs, pr-fr por, no fluor.
MWD FAILURE @ 3698m
GR DATA NOT RECOVERED
COAL (Tr):dl blk,vit-rr sbvit i/p, occ pyr,frm-brit i/p,sbblky,unevn.
SANDSTONE;clr-trnsl,f-v crs, dom med-crs,mod srt,sbrnd-sbang, wk arg cmt,mnr v lt gry frag aggs, tr-30% arg mtx,carb grs i/p,rr pyr nods,lse-fri, gd vis & inf por, no fluor.
DOLOMITE:dll yellsh brn, cryptoxln, tr pyr,hd,blky, sbconch frac i/p.
SANDSTONE:wh-lt brnsh gry, trnsl-wh,vf-f,occ med-crs,mod wl srt,sbang-sbrnd,wh arg mtx i/p, tr pyr,tr carb spks,lse-fri,fr-mod inf & vis por,tr dll yel min fluor.
SILTSTONE:lt brn-dk brnsh gry, v arg,com carb,vf sand grs i/p, tr pyr,sft-frm,amor-fiss i/p.
SANDSTONE:wh-v gry,occ mott wh/blk,vf-f,occ med,mod wl srt, sbang-rnd,abdt wh arg mtx,com carb spks i/p,lse-sft,occ v sft,pr inf & vis por,tr dll yel min fluor.
COAL:dll blk,vit-rr sbvit i/p, occ pyr,frm-brit i/p,sbblky,unevn.
CULVERIN-1 REACHED 3758mTD @ 24:00 HRS ON 06-01-06.
DRILLERS DEPTH: 3758m
LOGGERS DEPTH: 3757m
WIRELINE LOGGING RUNS:
Run 1: PEX-HALS-DSI-GR
Run 2: VSP

ENCLOSURE 2

GAS RATIO LOG

GAS RATIO LOG

WELL : CULVERIN-1

FROM (m): 1500 TO (m): 3780 SCALE: 1/ 500

GENERAL DATA

Client : NEXUS ENERGY
Country : AUSTRALIA
Permit : VIC/P-56
Basin : GIPPSLAND
Well Type : Exploration
Rig Name : OCEAN PATRIOT

LOCATION DATA

Latitude : 38° 24' 08.14" S
Longitude : 148° 39' 14.92" E

RT - LAT (m): 21.5
Water Depth (m): 585

CASING

762mm (30") Shoe: 650.0m
340mm (13 3/8") Shoe: 1511.1m

FINAL WELL DATA

Total Depth (mMDRT): 3758.0
TVD SS (m): 3732.4
Date Well Spudded : 16-12-05
Date TD Reached : 06-01-05
Final Status : P & A

GAS RATIOS FORMULAE

GAS WETNESS RATIO (Wh)
GWR = (C2 + C3 + C4 + C5)/ (C1 + C2 + C3 + C4 + C5)*100

LIGHT TO HEAVY RATIO (Bh)
LHR = (C1 + C2)/(C3 + C4 + C5)

OIL CHARACTER QUALIFIER (Ch)
OCQ = (C4 + C5)/(C3)

LITHOLOGY LEGEND

- Claystone
- Siltstone
- Shale
- Fine SST
- Medium SST
- Coarse SST
- Marl
- Clay, Limestone
- Limestone
- Dolomite
- Coal
- Arg. Siltstone
- Lithic Fragment
- Foraminifera
- Fossils
- Bryozoa
- Sponges
- Brachiopoda
- Cement
- Glauconite
- Pyrite
- Iron Minerals
- Mica
- Carb Fragments

1 unit = 200 ppm methane equivalent in air

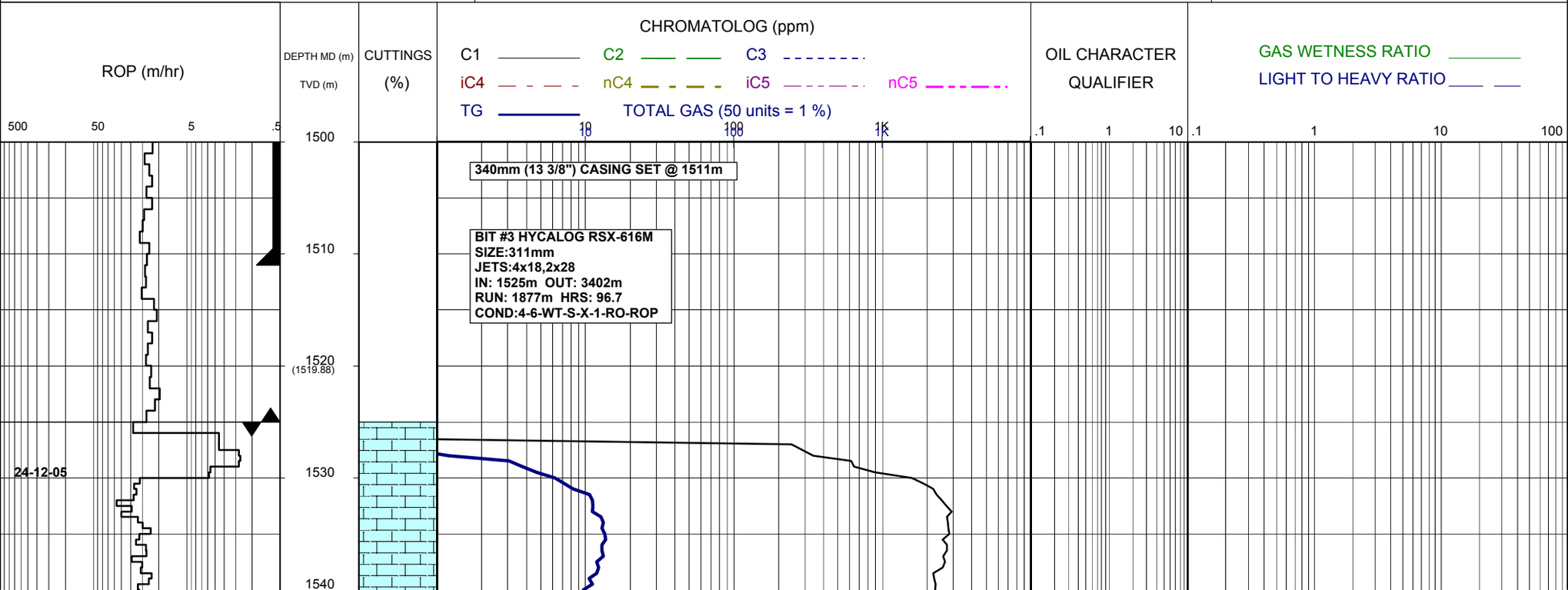
GEOSERVICES CREW

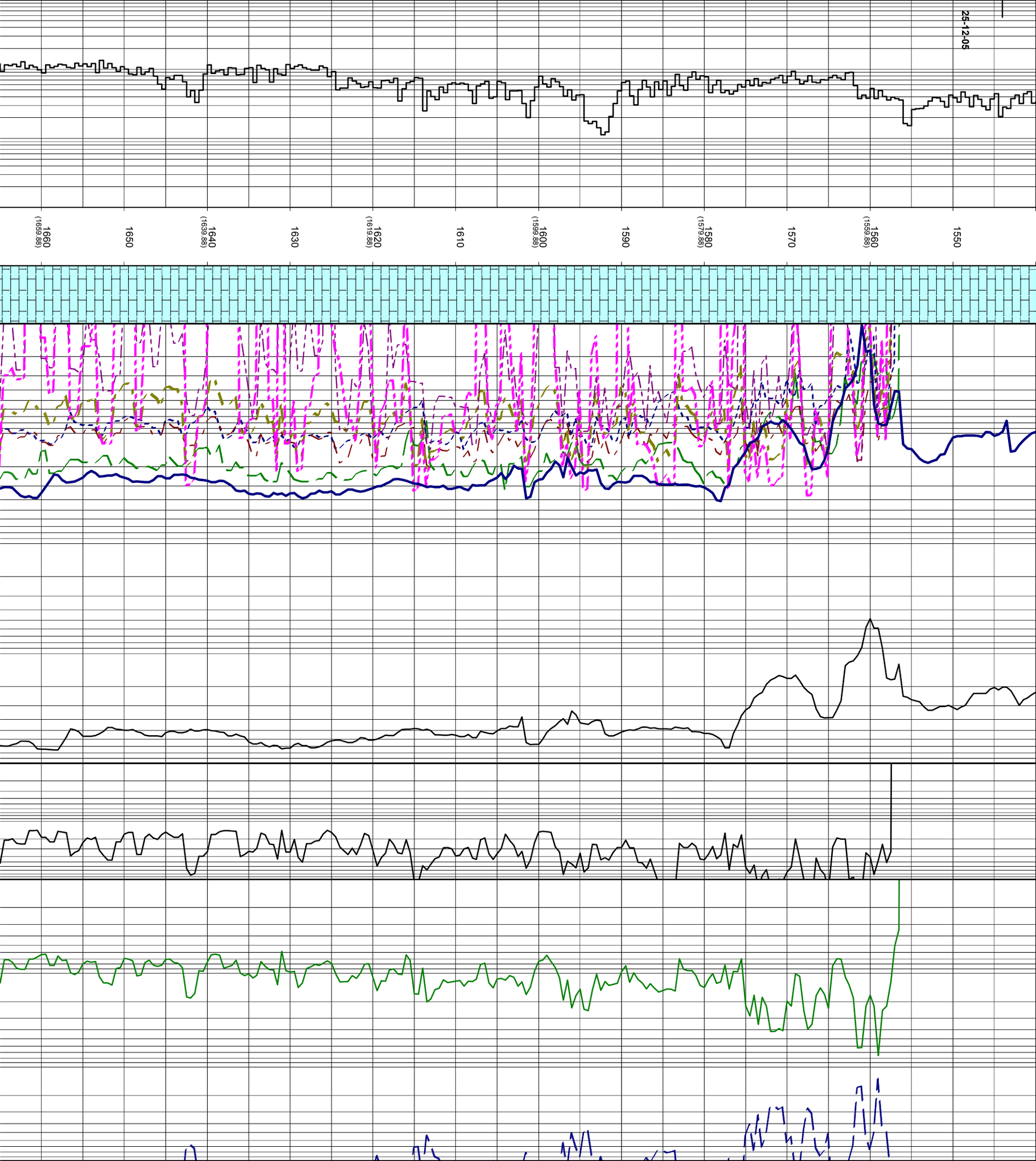
ALS ENGINEERS

D.ADDERLEY
T.PLATT
A.DUNN
S.PROSSER

MUDLOGGERS

N.ELLIOTT
F.MAKHAD
M.BARRETO

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1590
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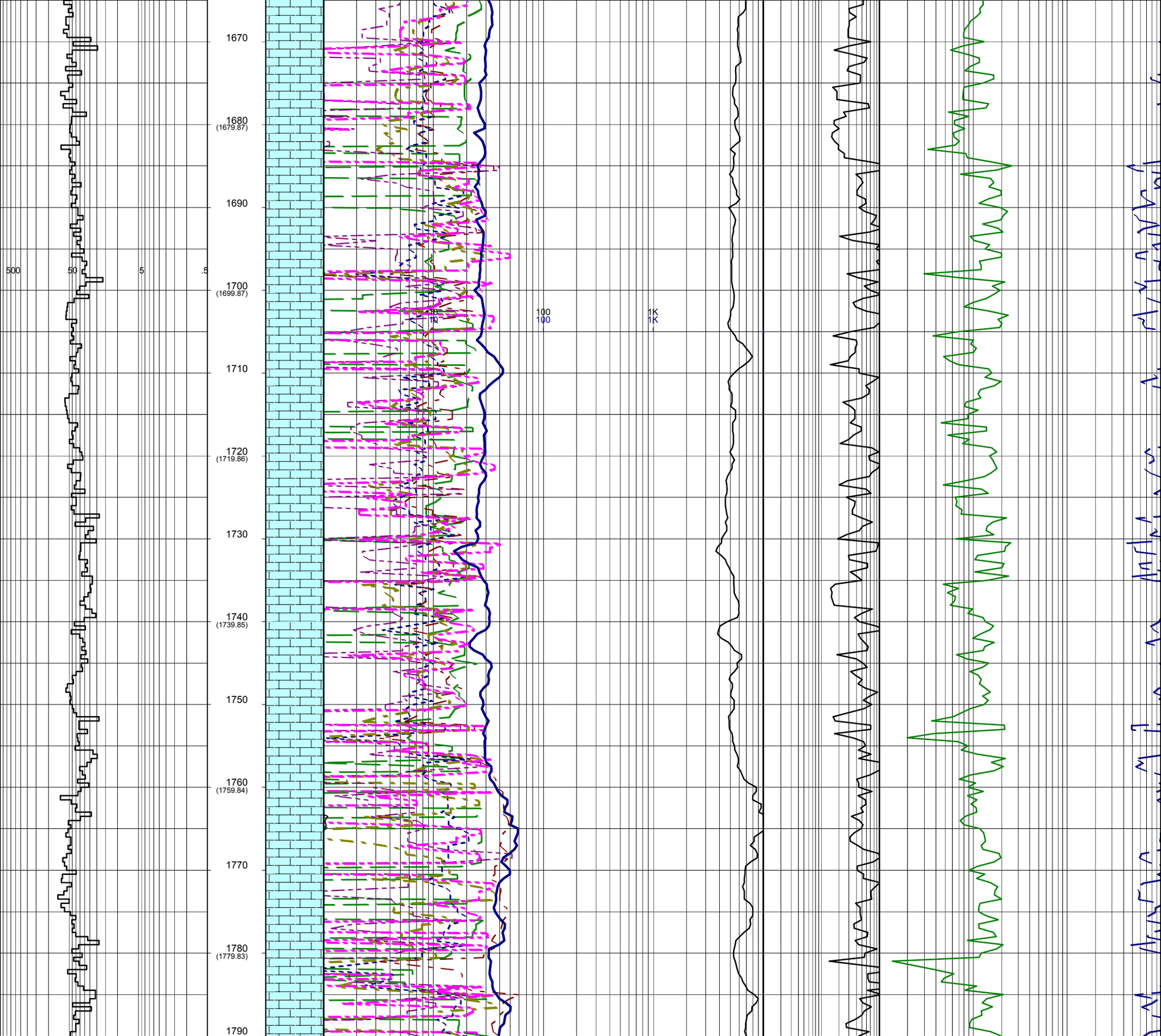
1550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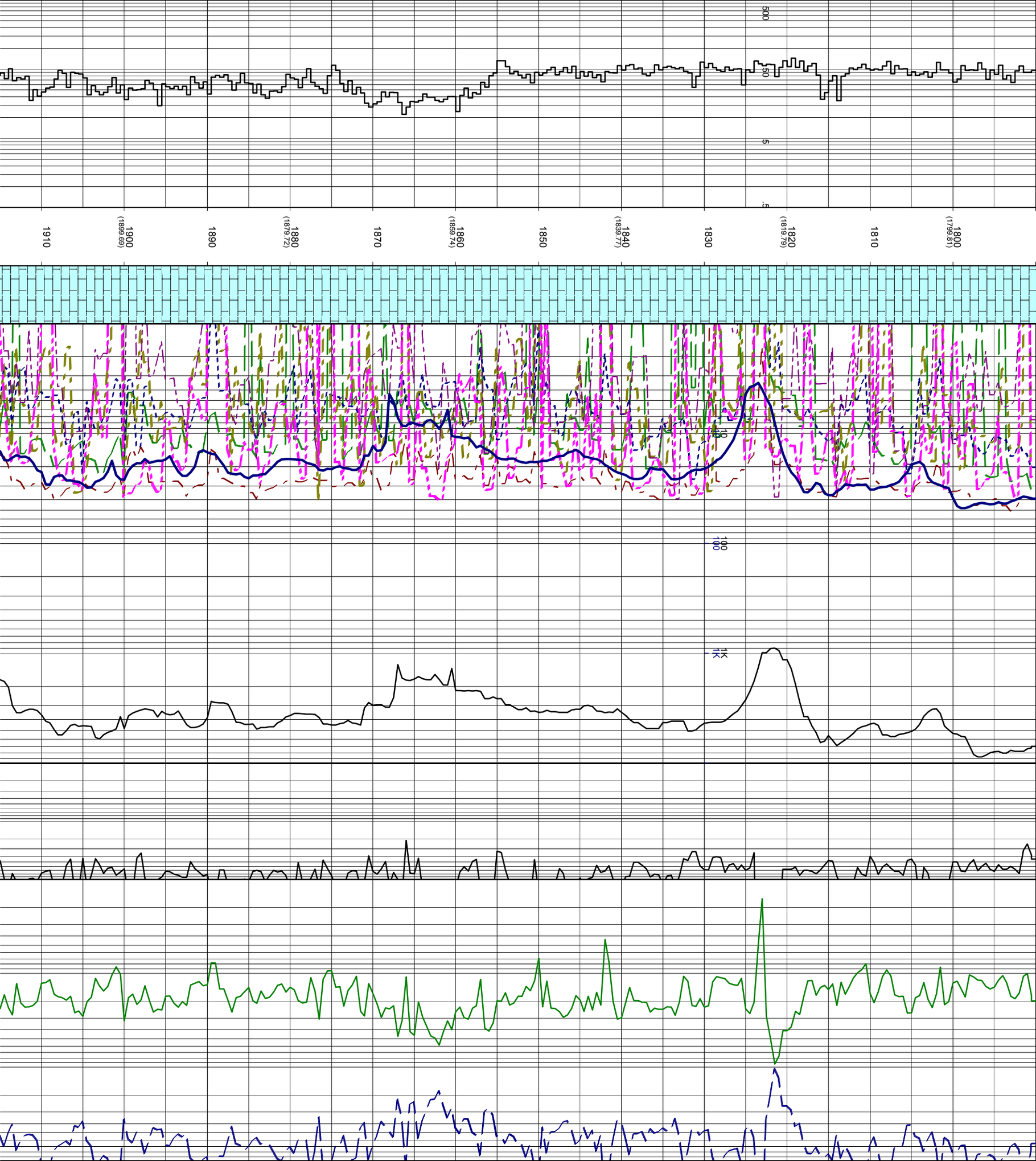
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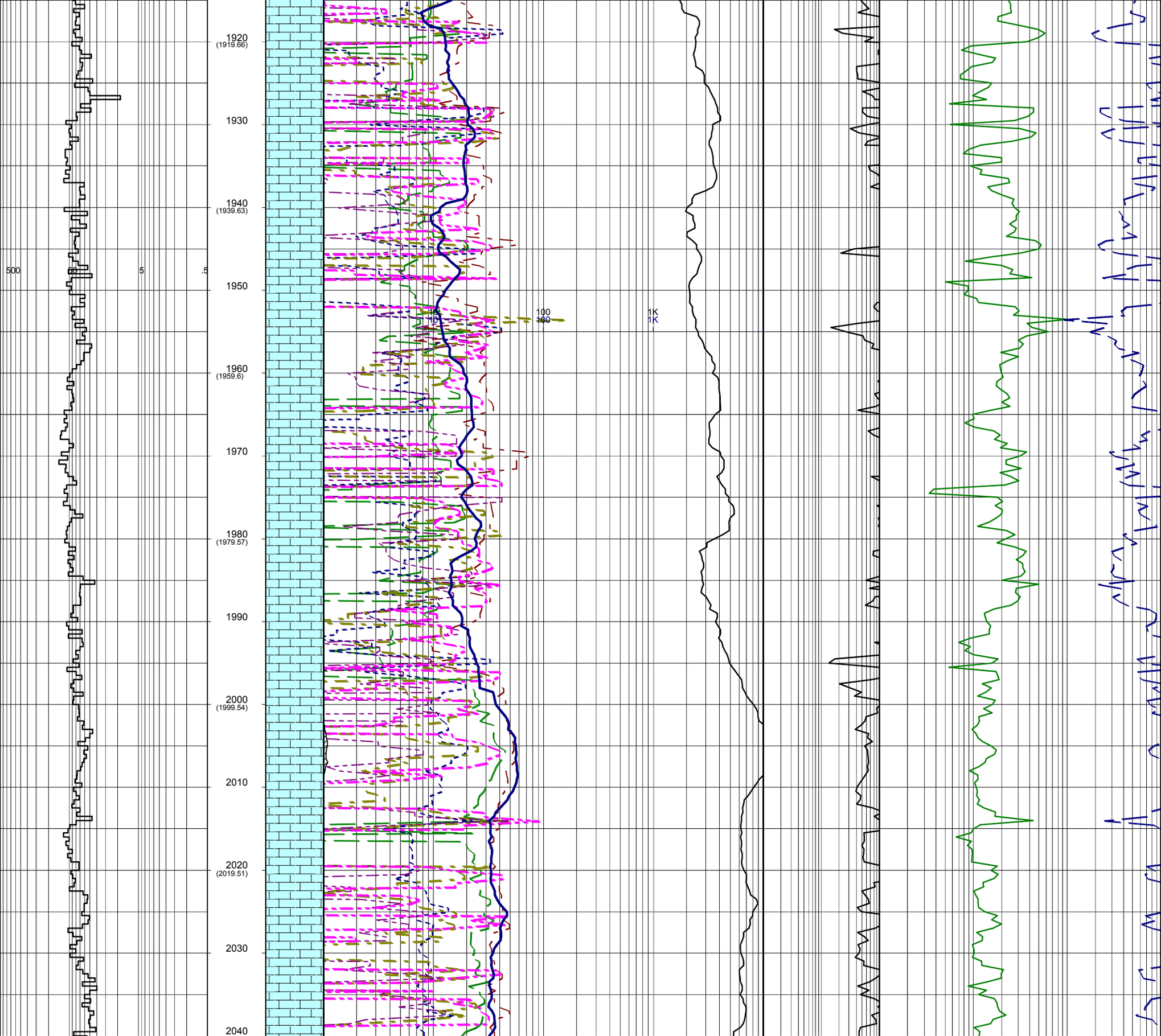
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1950
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2010
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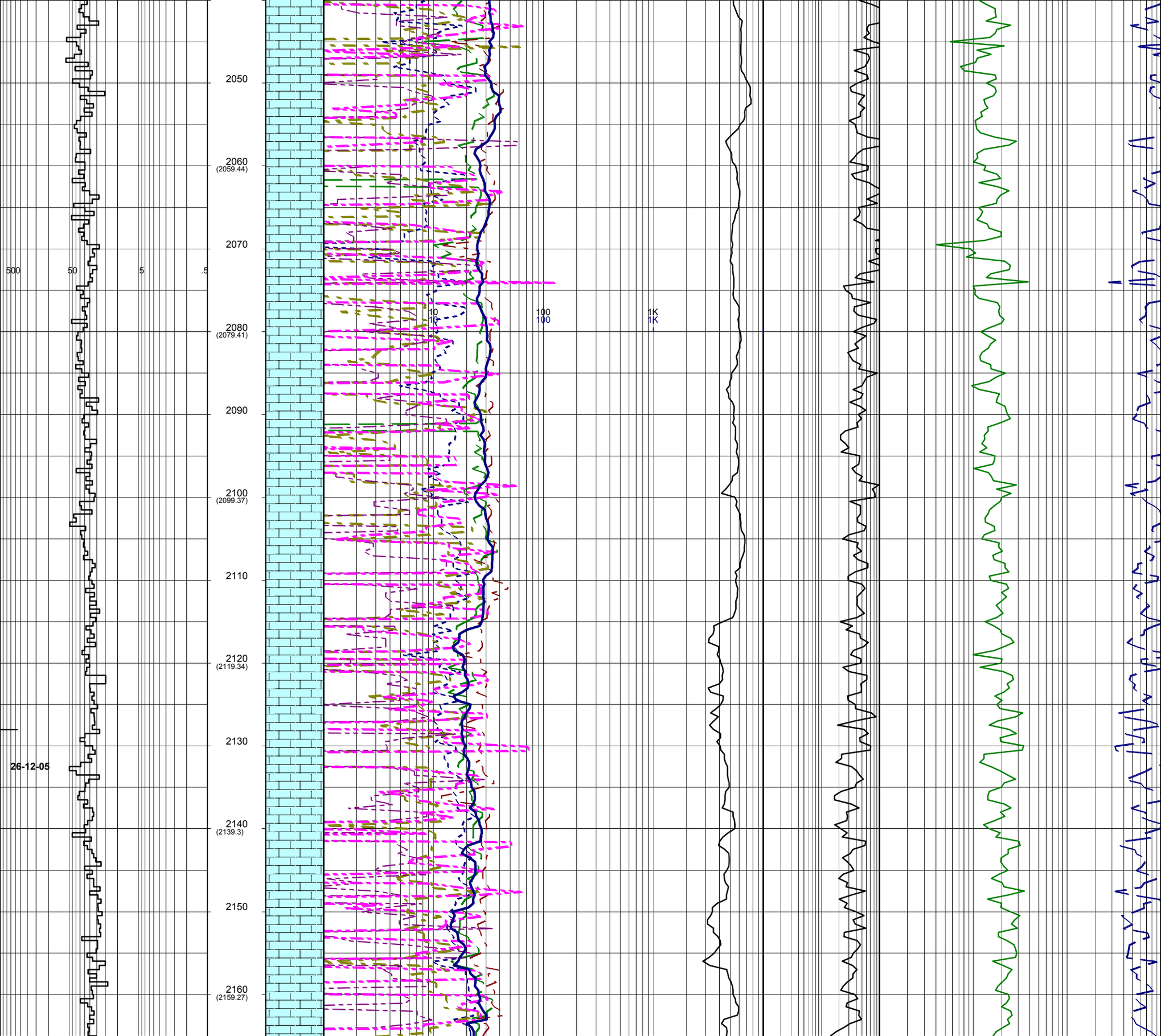
2030
2040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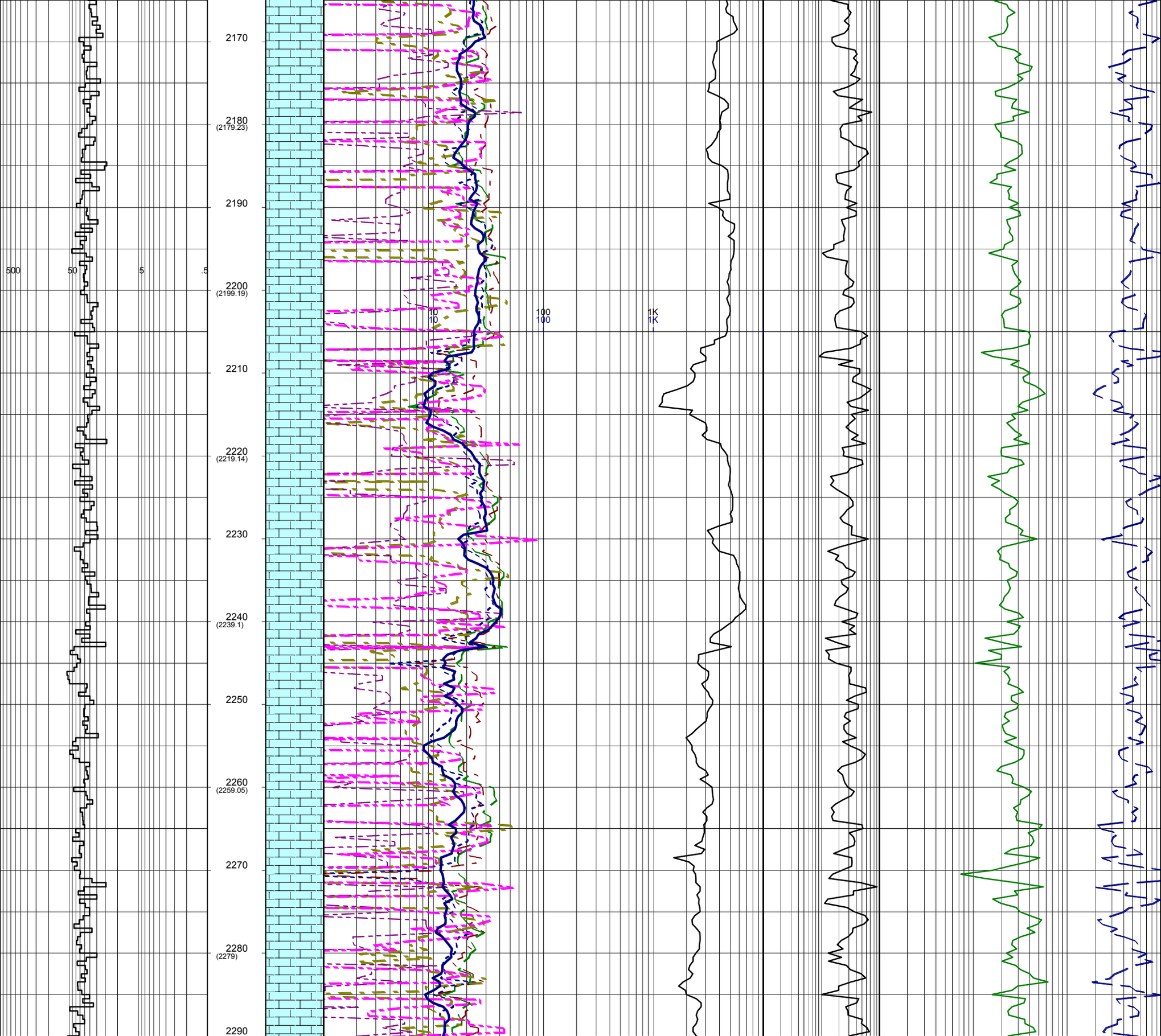
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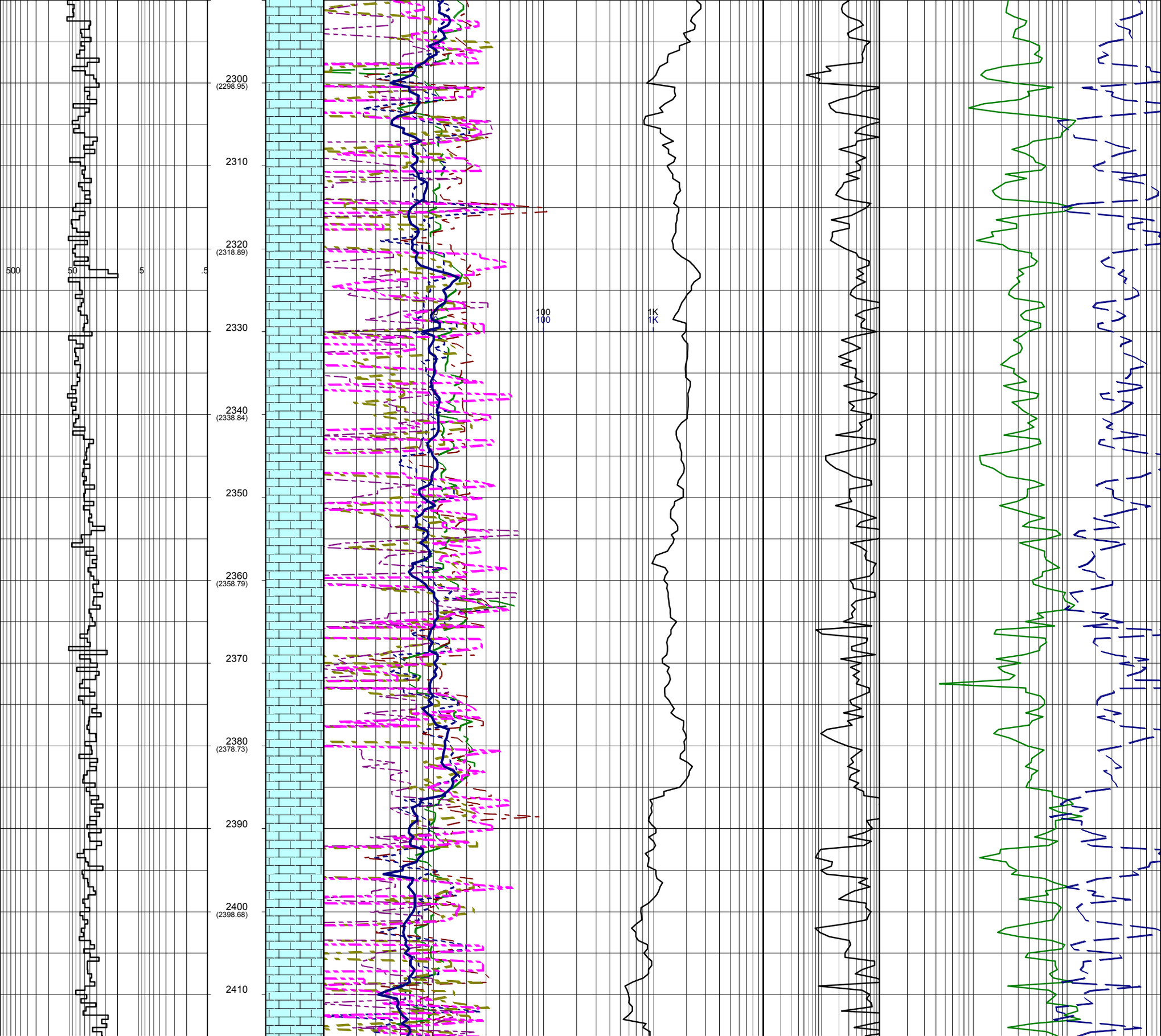
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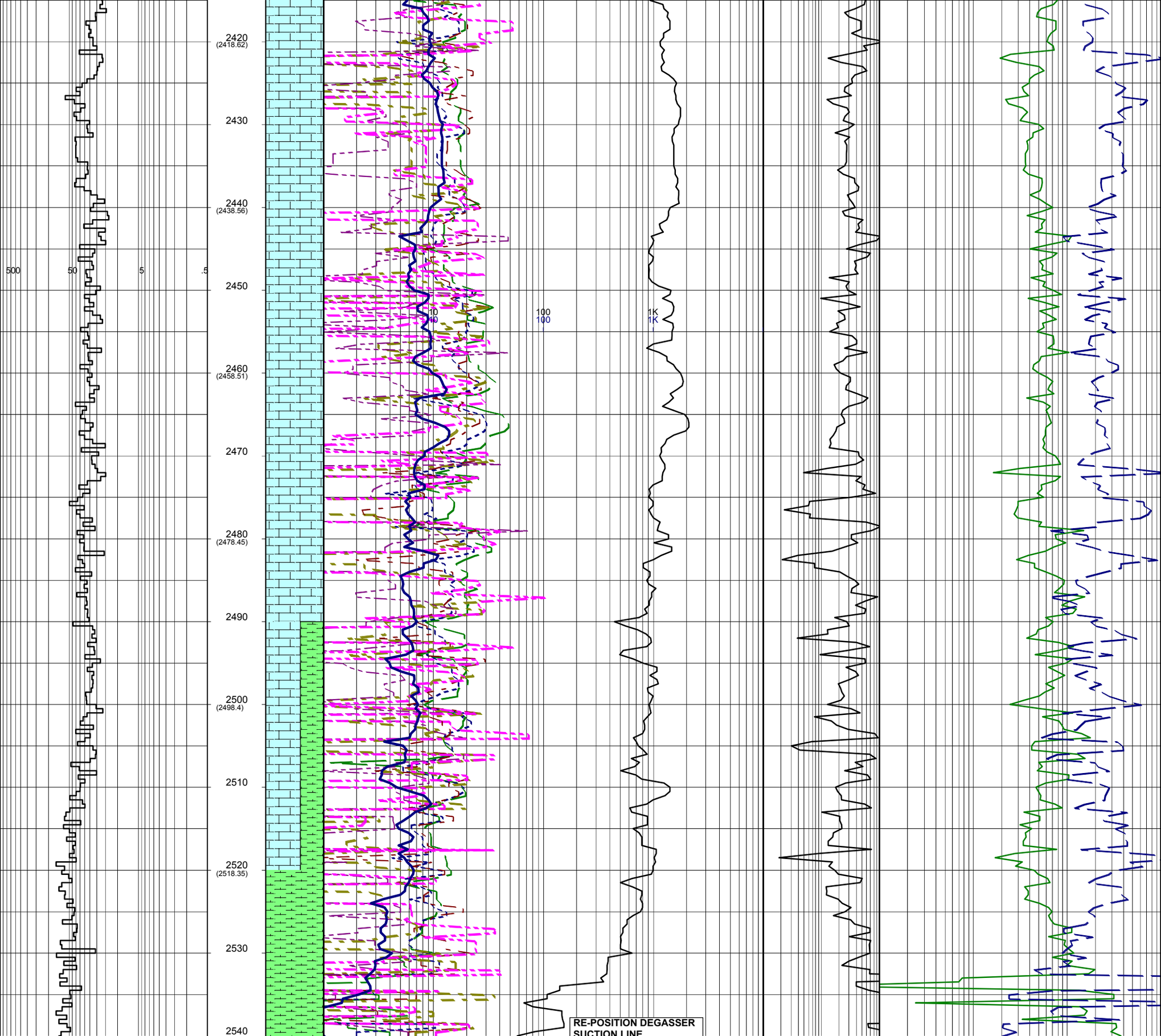
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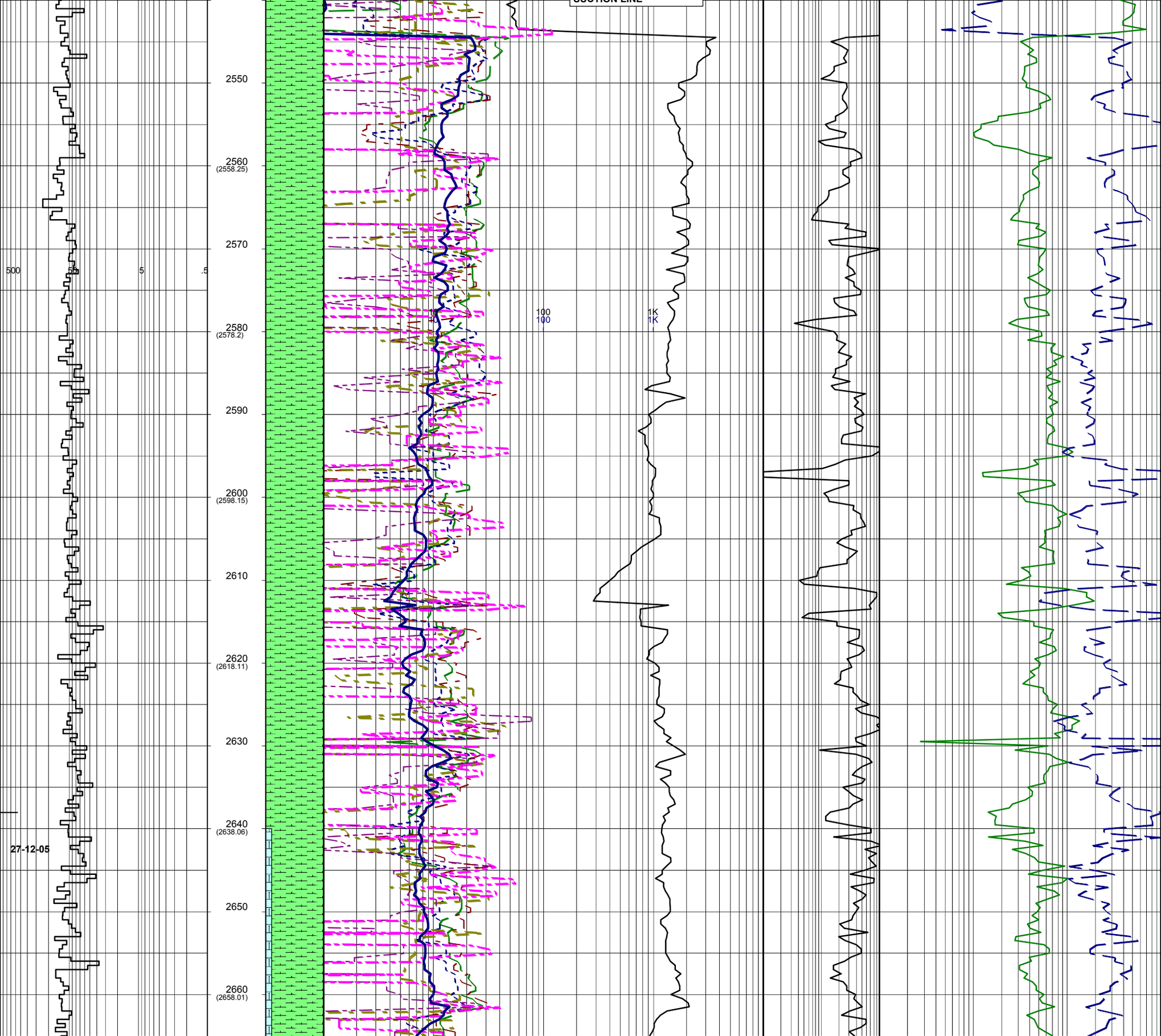
RE-POSITION DEGASSER
SUCTION LINE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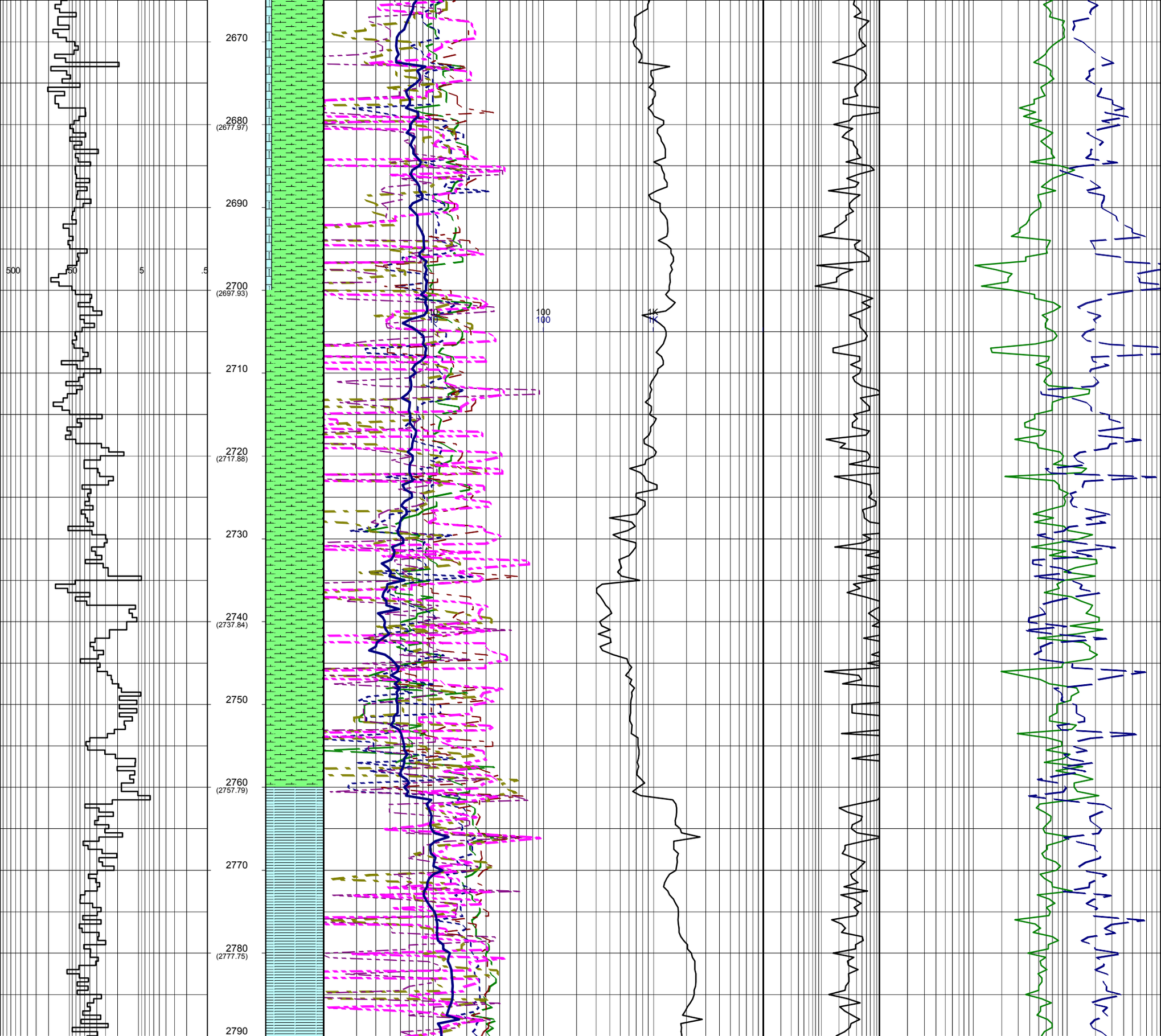
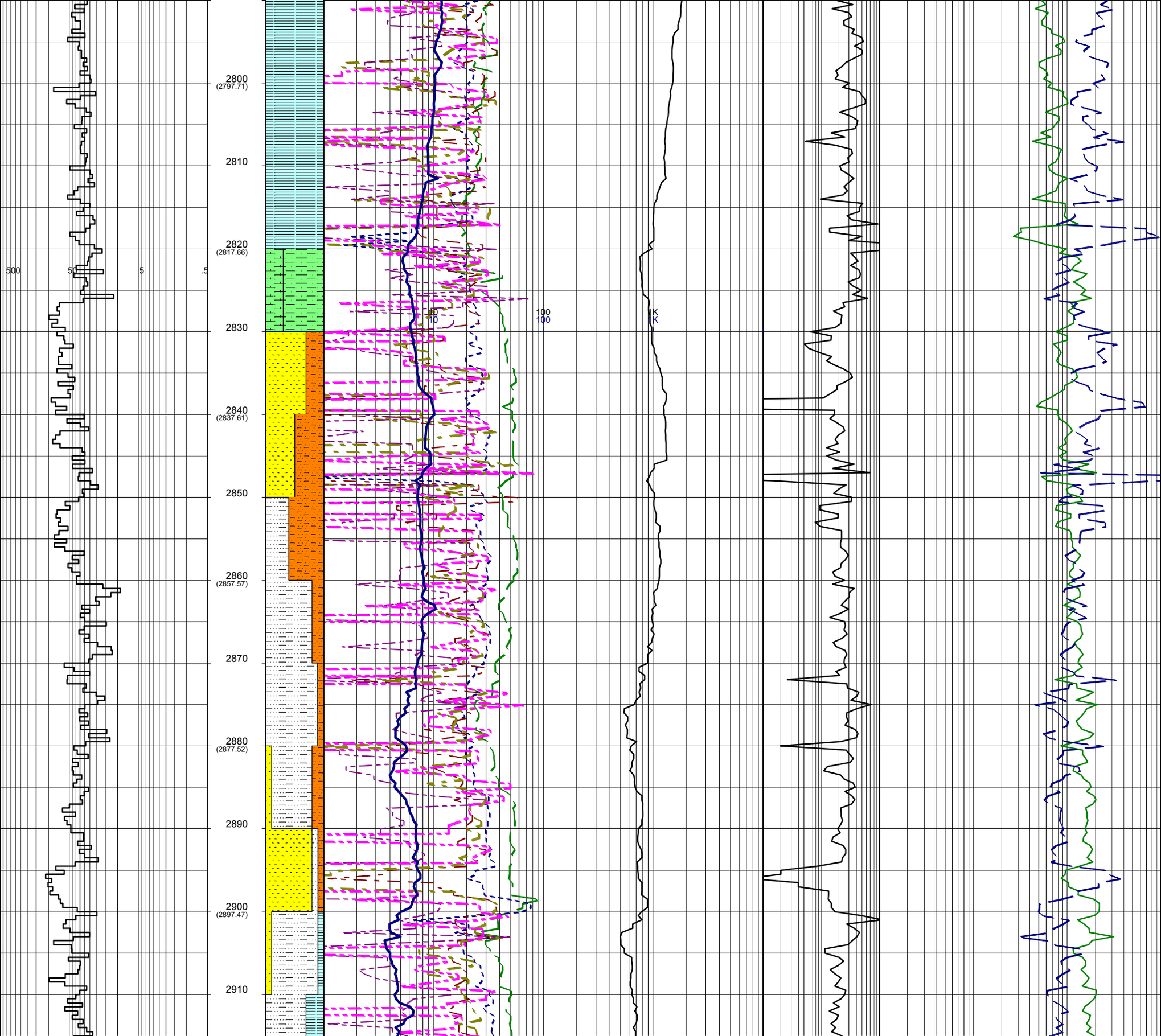
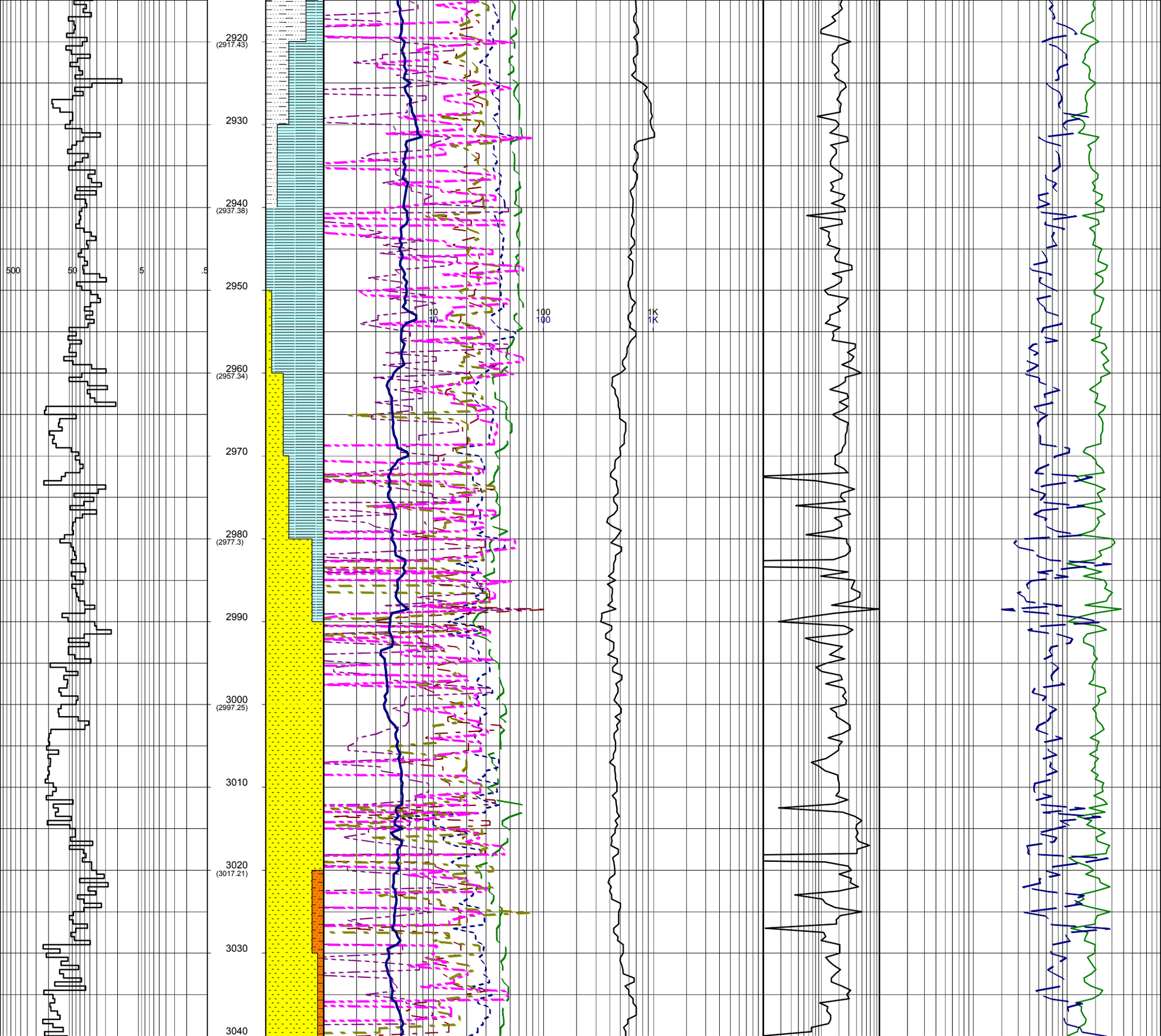
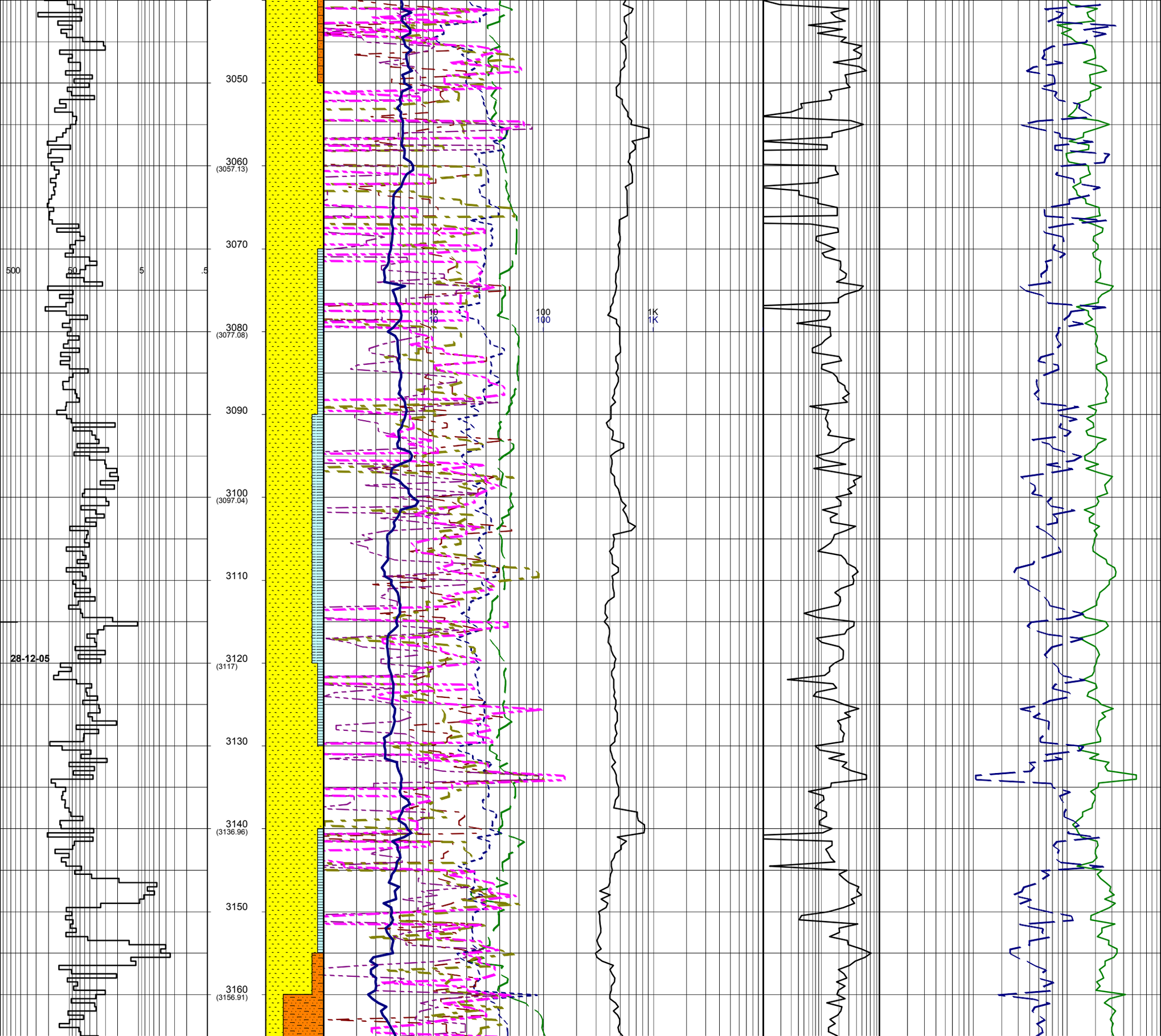
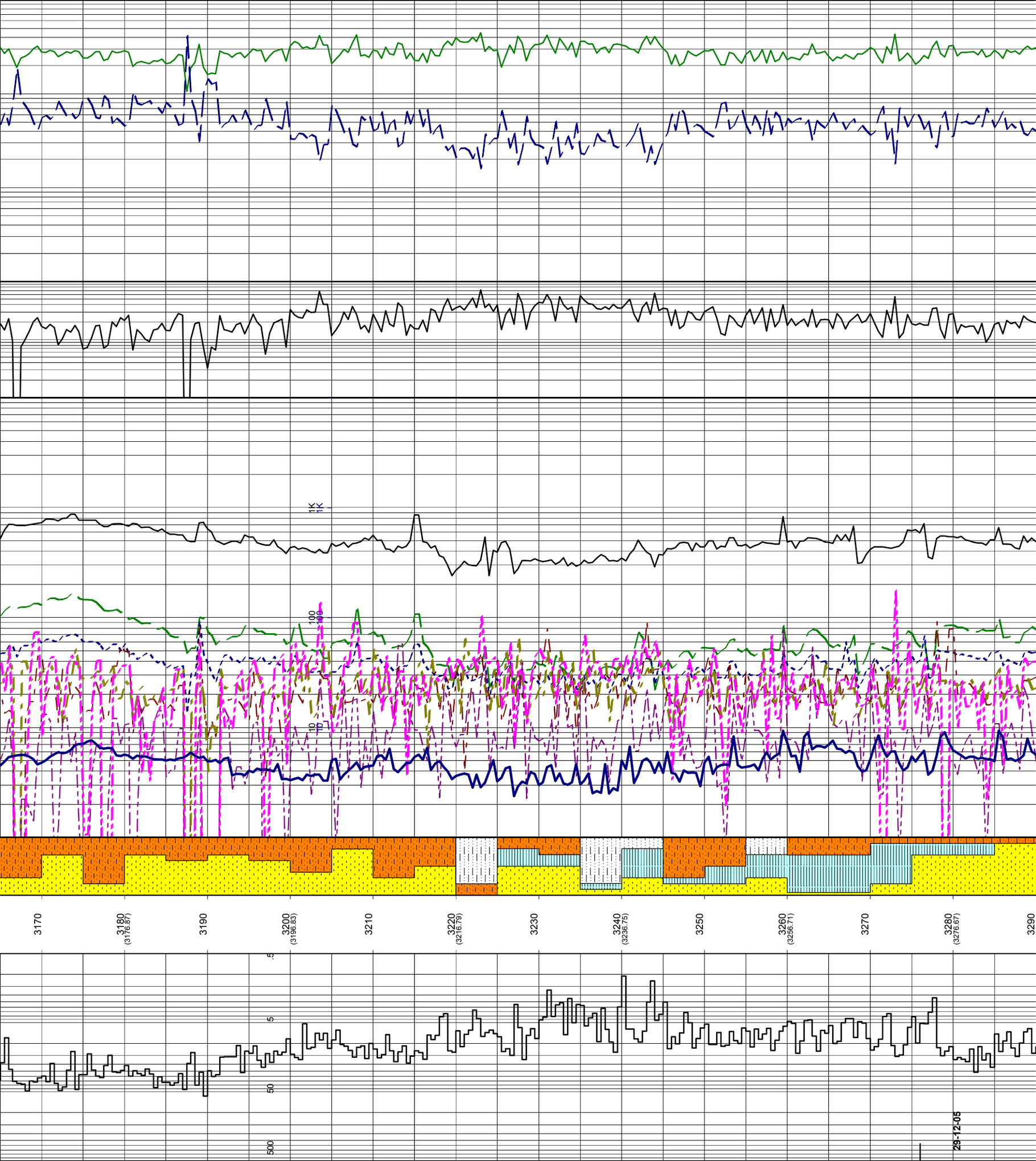
500
5
100
100
1K
1K
27-12-05

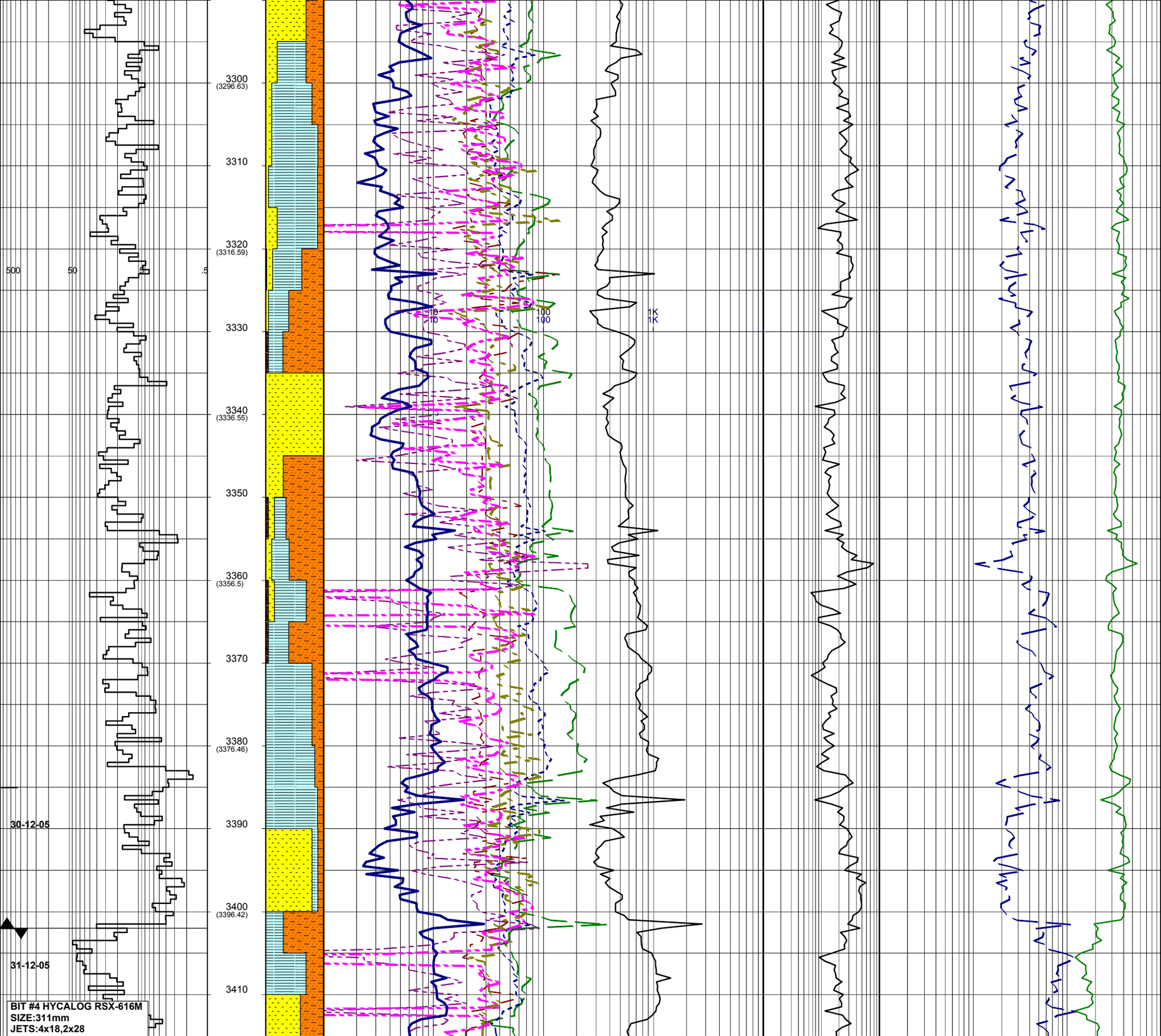

500
50
5
.5
2670
2680
(2677.97)
2690
2700
(2697.93)
2710
2720
(2717.88)
2730
2740
(2737.84)
2750
2760
(2757.79)
2770
2780
(2777.75)
2790
100
100

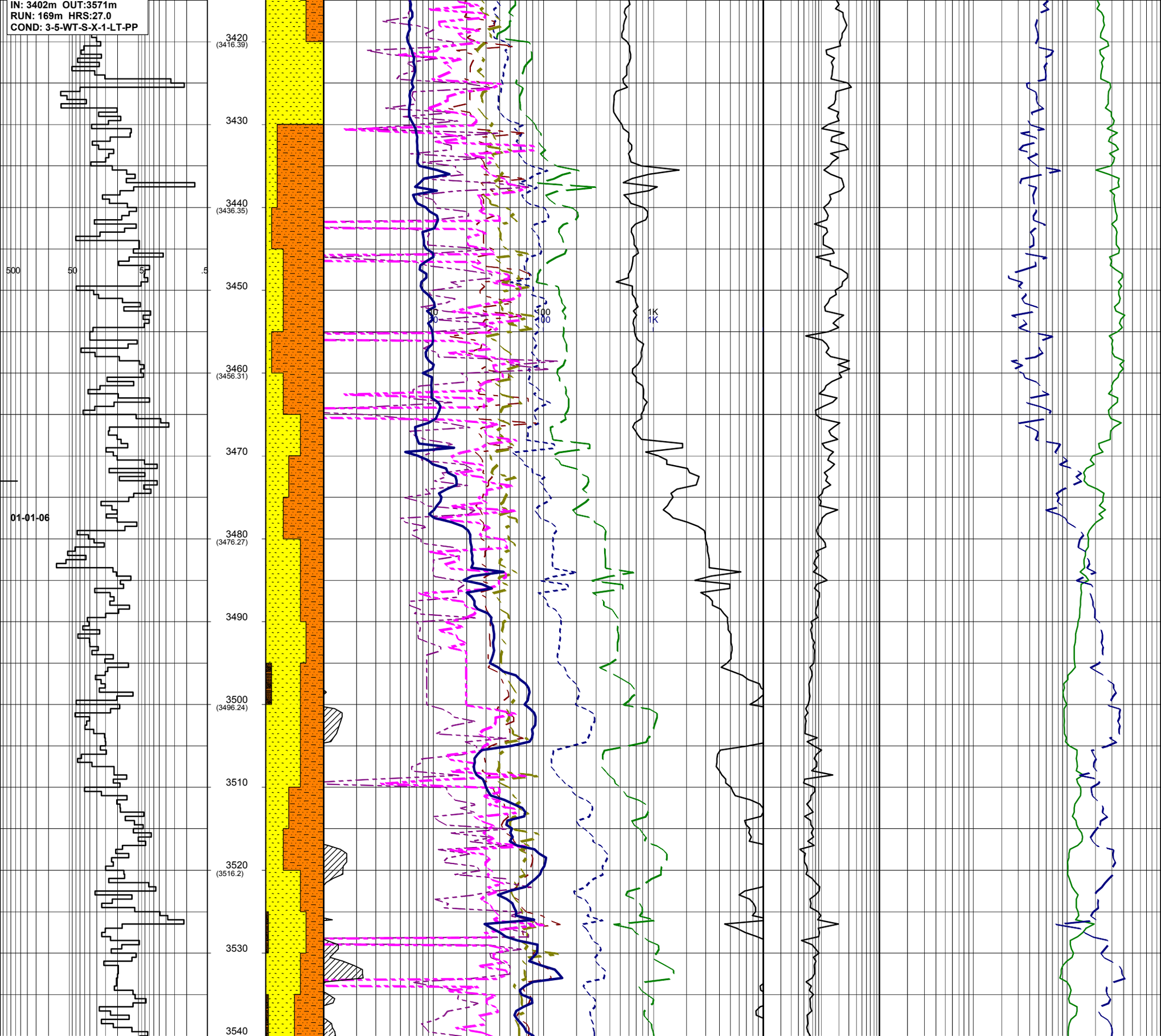

2800
(2797.71)
2810
2820
(2817.66)
2830
2840
(2837.61)
2850
2860
(2857.57)
2870
2880
(2877.52)
2890
2900
(2897.47)
2910
500
5
.5
10
100
100
1K
1K

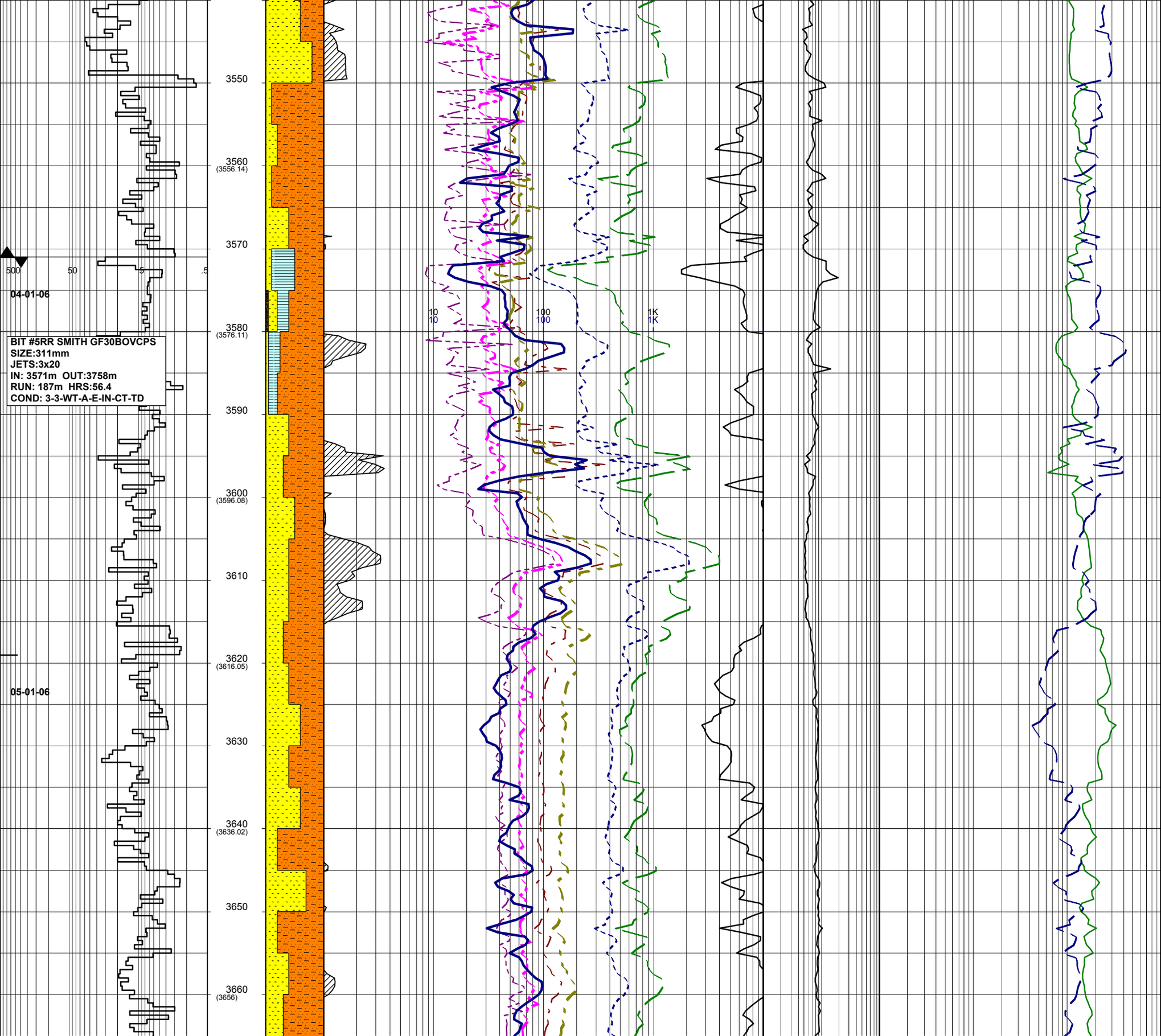

500
50
5
.5
2920
(2917.43)
2930
2940
(2937.38)
2950
2960
(2957.34)
2970
2980
(2977.3)
2990
3000
(2997.25)
3010
3020
(3017.21)
3030
3040
10
40
100
100
1K
1K

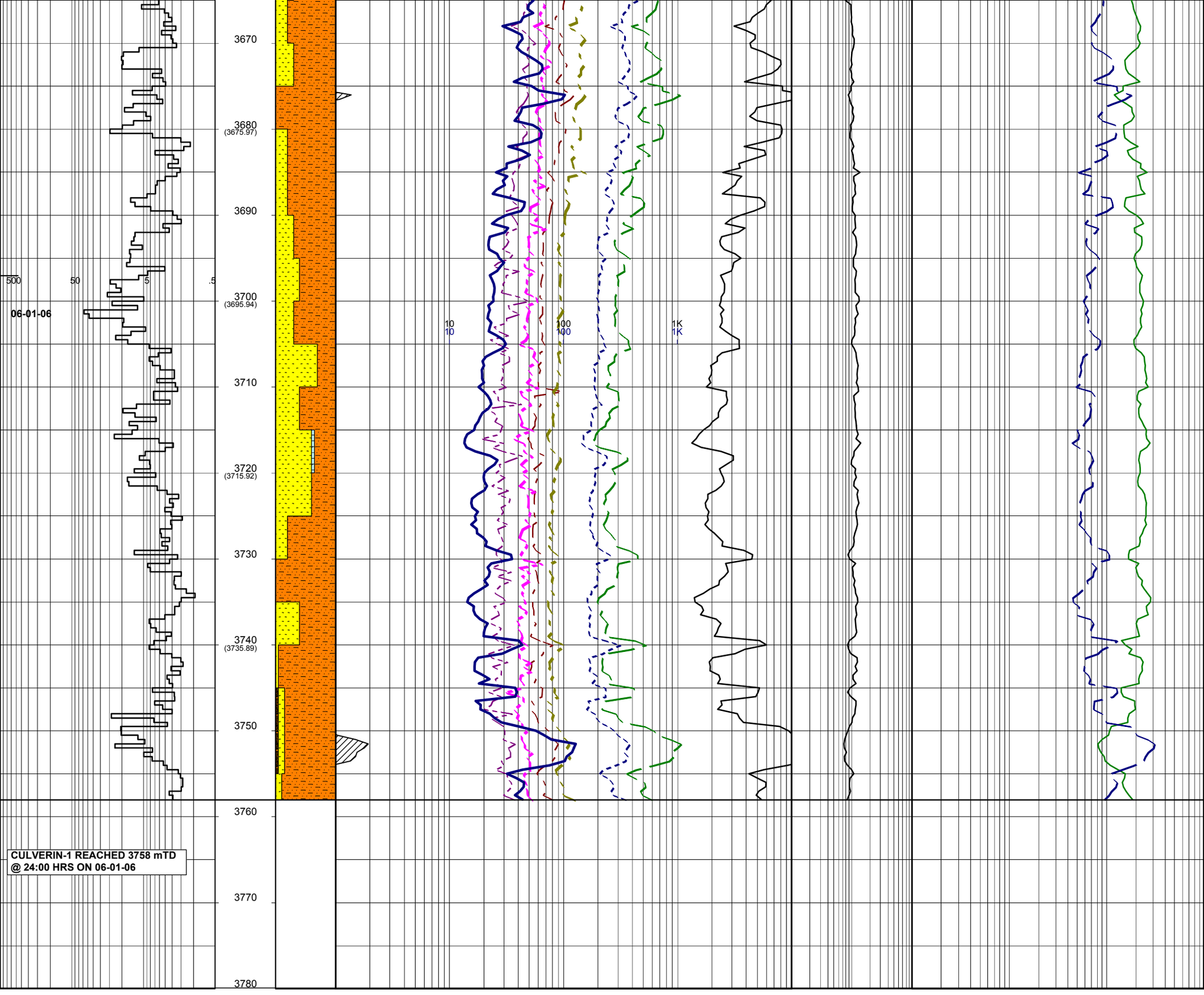

3050
3060
(3057.13)
3070
3080
(3077.08)
3090
3100
(3097.04)
3110
3120
(3117)
3130
3140
(3136.96)
3150
3160
(3156.91)
500
50
5
.5
10
10
100
100
1K
1K
28-12-05


1K
100
10
3170
3180
(3176.87)
3190
3200
(3196.83)
3210
3220
(3216.79)
3230
3240
(3236.75)
3250
3260
(3256.71)
3270
3280
(3276.67)
3290
5
50
500
29-12-05


3300
(3296.63)
3310
3320
(3316.59)
3330
3340
(3336.55)
3350
3360
(3356.5)
3370
3380
(3376.46)
3390
3400
(3396.42)
3410
500
50
10
10
100
100
1K
1K
30-12-05
31-12-05
BIT #4 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18,2x28


IN: 3402m OUT:3571m
RUN: 169m HRS:27.0
COND: 3-5-WT-S-X-1-LT-PP
3420
(3416.39)
3430
3440
(3436.35)
500
50
5
3450
3460
(3456.31)
3470
01-01-06
3480
(3476.27)
3490
3500
(3496.24)
3510
3520
(3516.2)
3530
3540
1K
1K


500
50
5
.5
04-01-06
BIT #5RR SMITH GF30BOVCPS
SIZE:311mm
JETS:3x20
IN: 3571m OUT:3758m
RUN: 187m HRS:56.4
COND: 3-3-WT-A-E-IN-CT-TD
05-01-06
3550
3560
(3556.14)
3570
3580
(3576.11)
3590
3600
(3596.08)
3610
3620
(3616.05)
3630
3640
(3636.02)
3650
3660
(3656)
10
10
100
100
1K
1K


500
50
5
.5
06-01-06
3670
3680
(3675.97)
3690
3700
(3695.94)
3710
3720
(3715.92)
3730
3740
(3735.89)
3750
3760
3770
3780
10
10
100
100
1K
1K
CULVERIN-1 REACHED 3758 mTD
@ 24:00 HRS ON 06-01-06

ENCLOSURE 3

DRILLING LOG

DRILLING LOG

FROM :(mt) 550 TO :(mt) 3810 SCALE : 1/ 1000

Well Name : CULVERIN-1

Company : NEXUS ENERGY

Country : AUSTRALIA

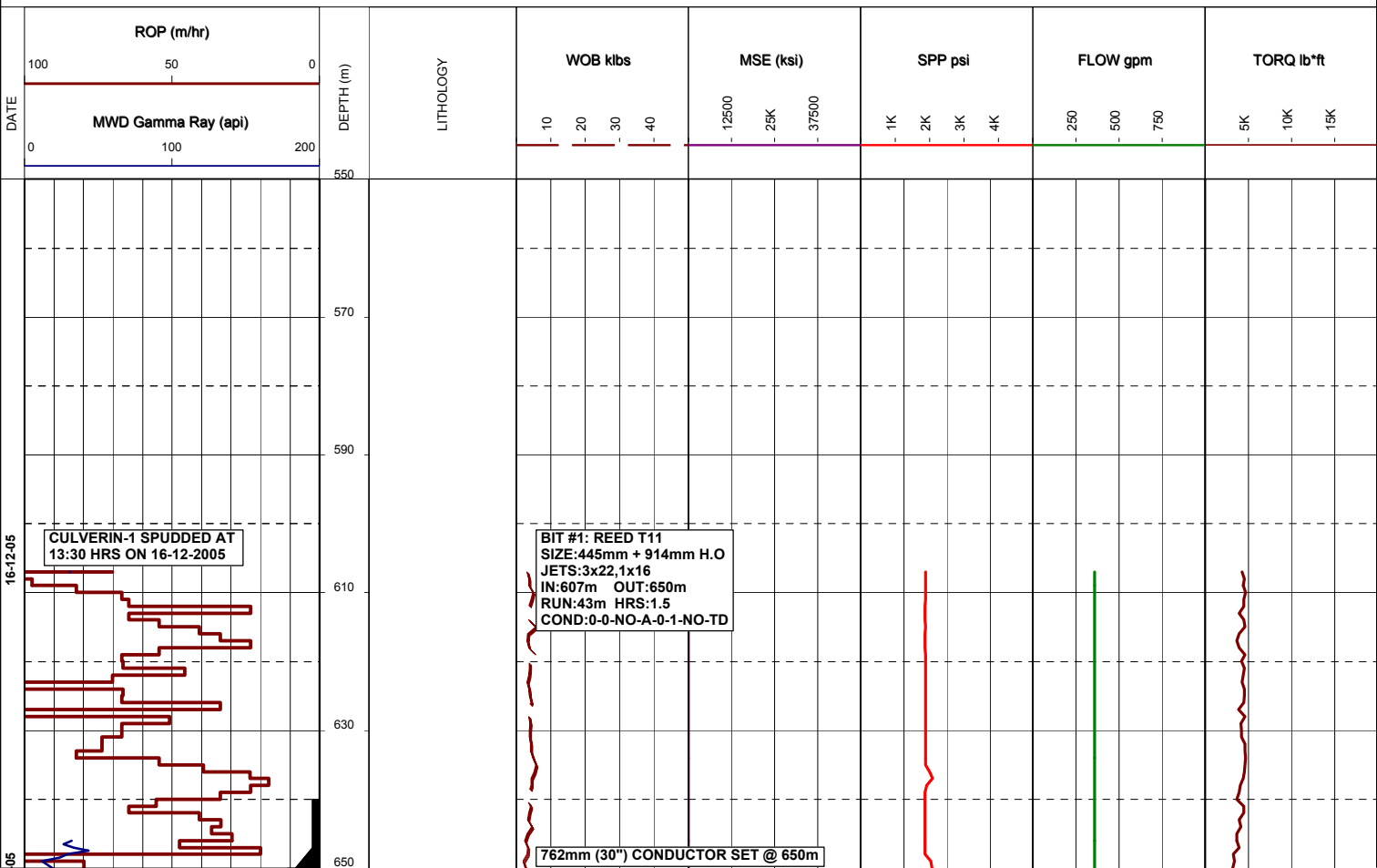
RT-LAT (m) : 21.5

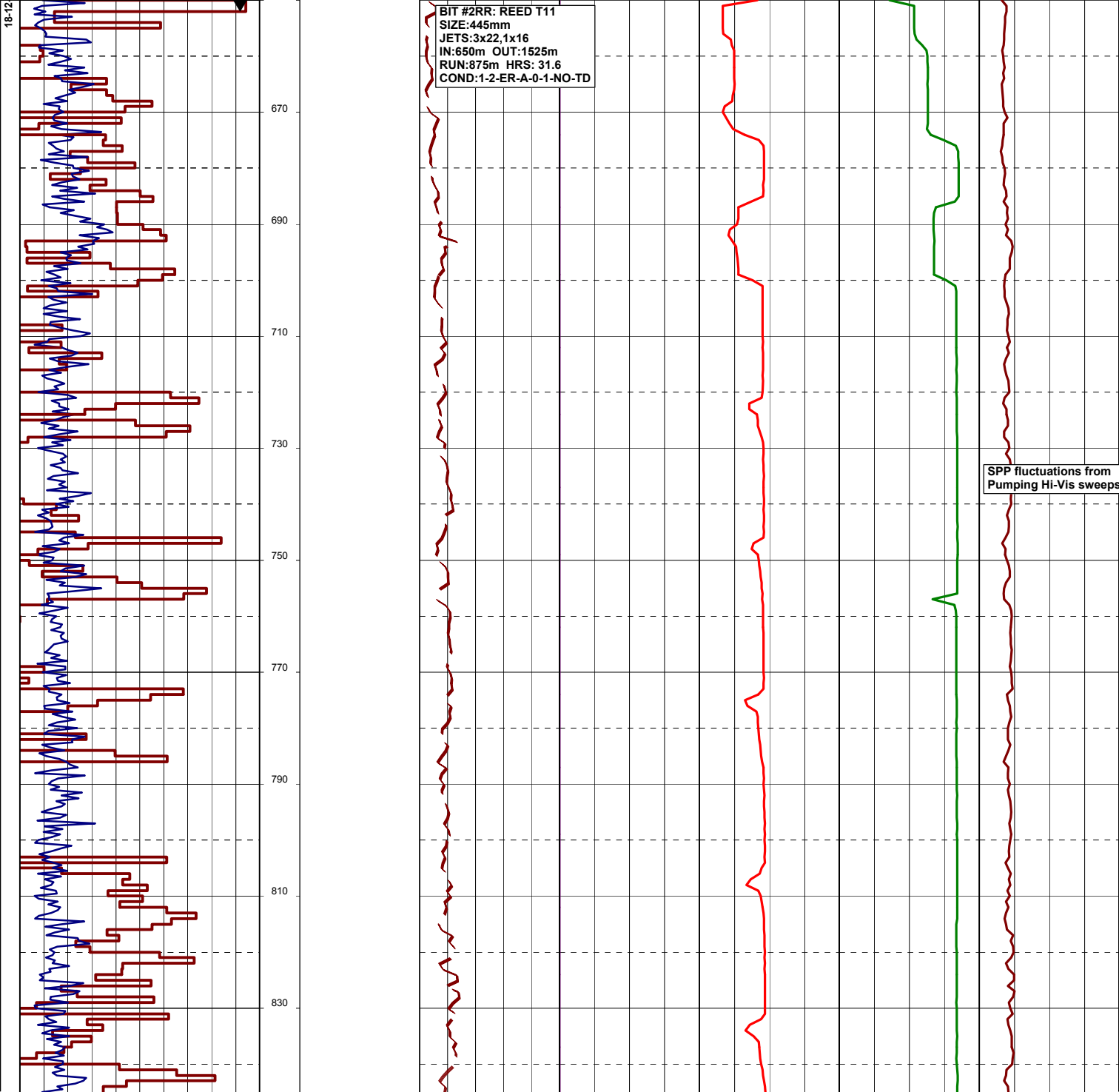
RT-SEABED (m): 606.5

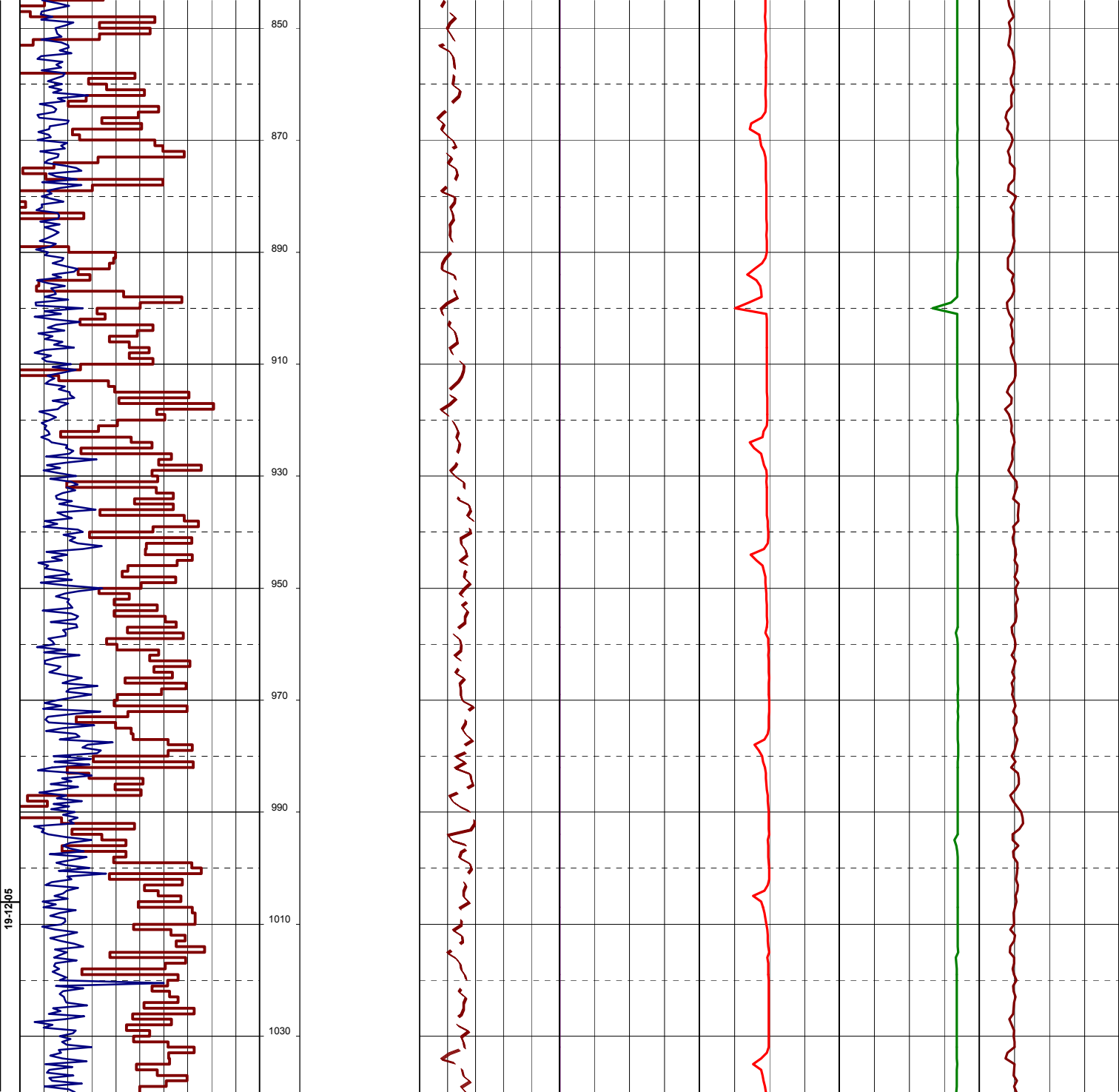
Final TD (mMDRT): 3758.0

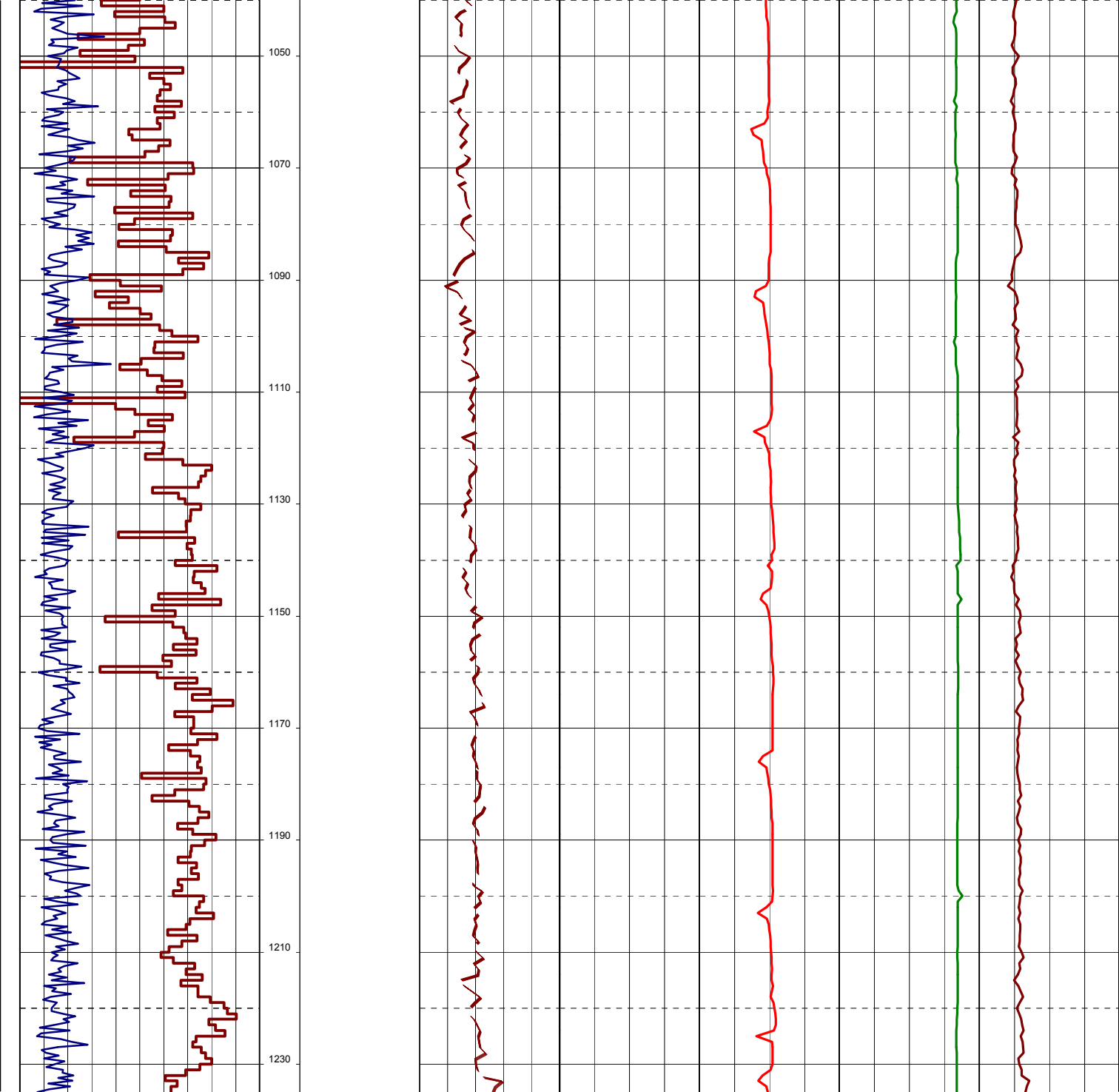
Final TVD (m TVDSS): 3732.4

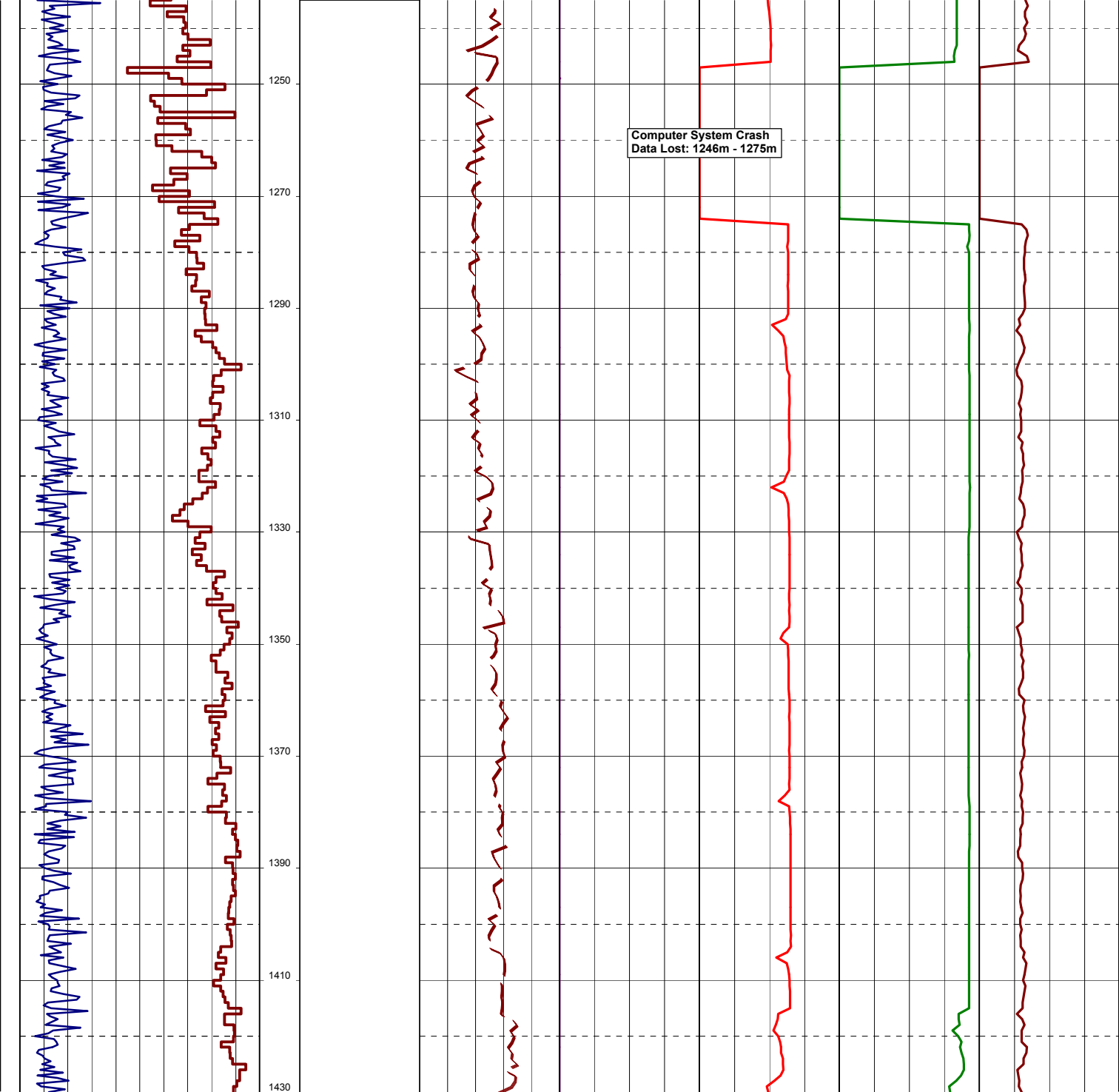
Generated by ALS Package

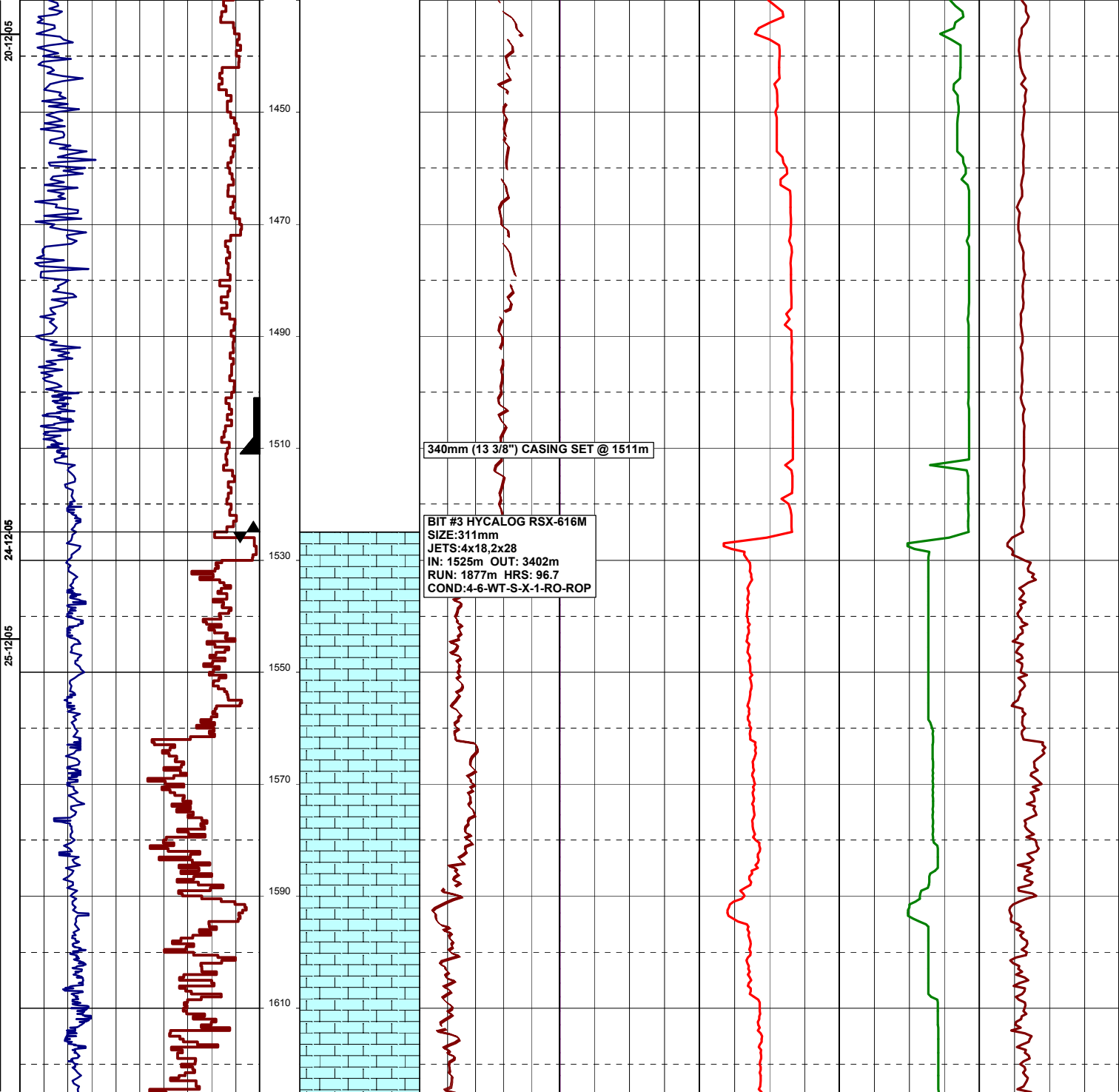


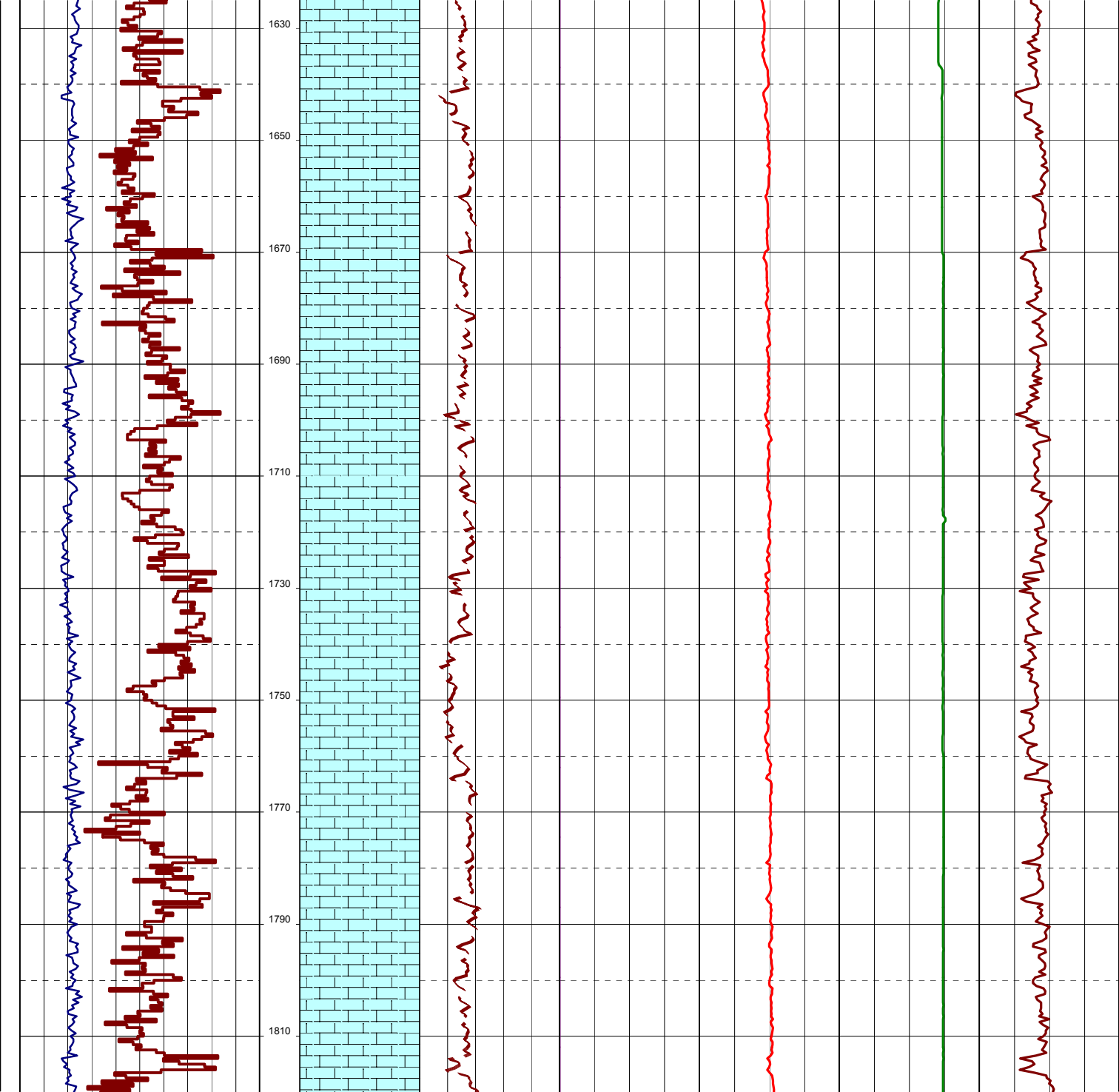

18-12
670
690
710
730
750
770
790
810
830
BIT #2RR: REED T11
SIZE:445mm
JETS:3x22,1x16
IN:650m OUT:1525m
RUN:875m HRS: 31.6
COND:1-2-ER-A-0-1-NO-TD
SPP fluctuations from
Pumping Hi-Vis sweeps

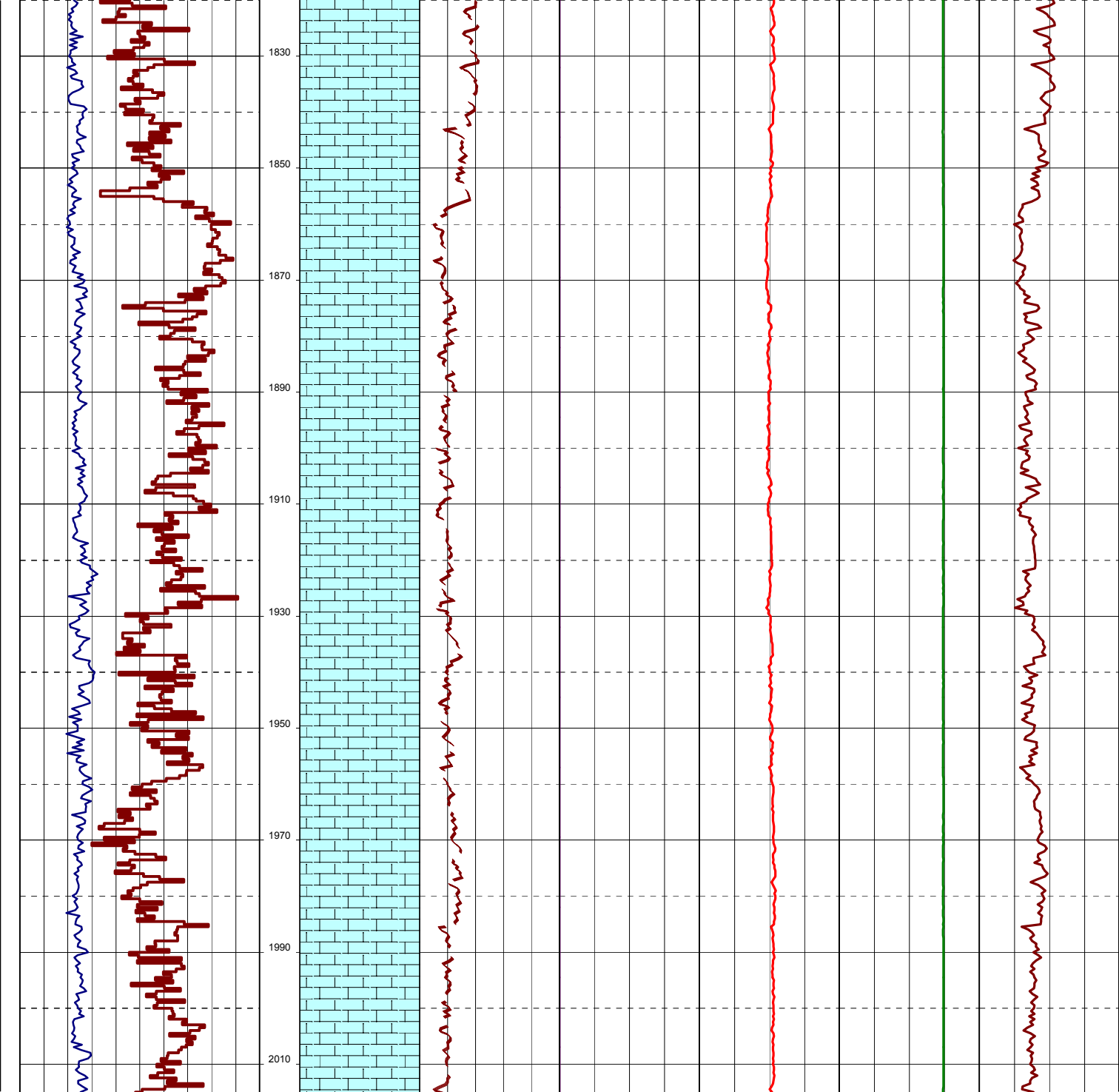

850
870
890
910
930
950
970
990
1010
1030
19-12-05

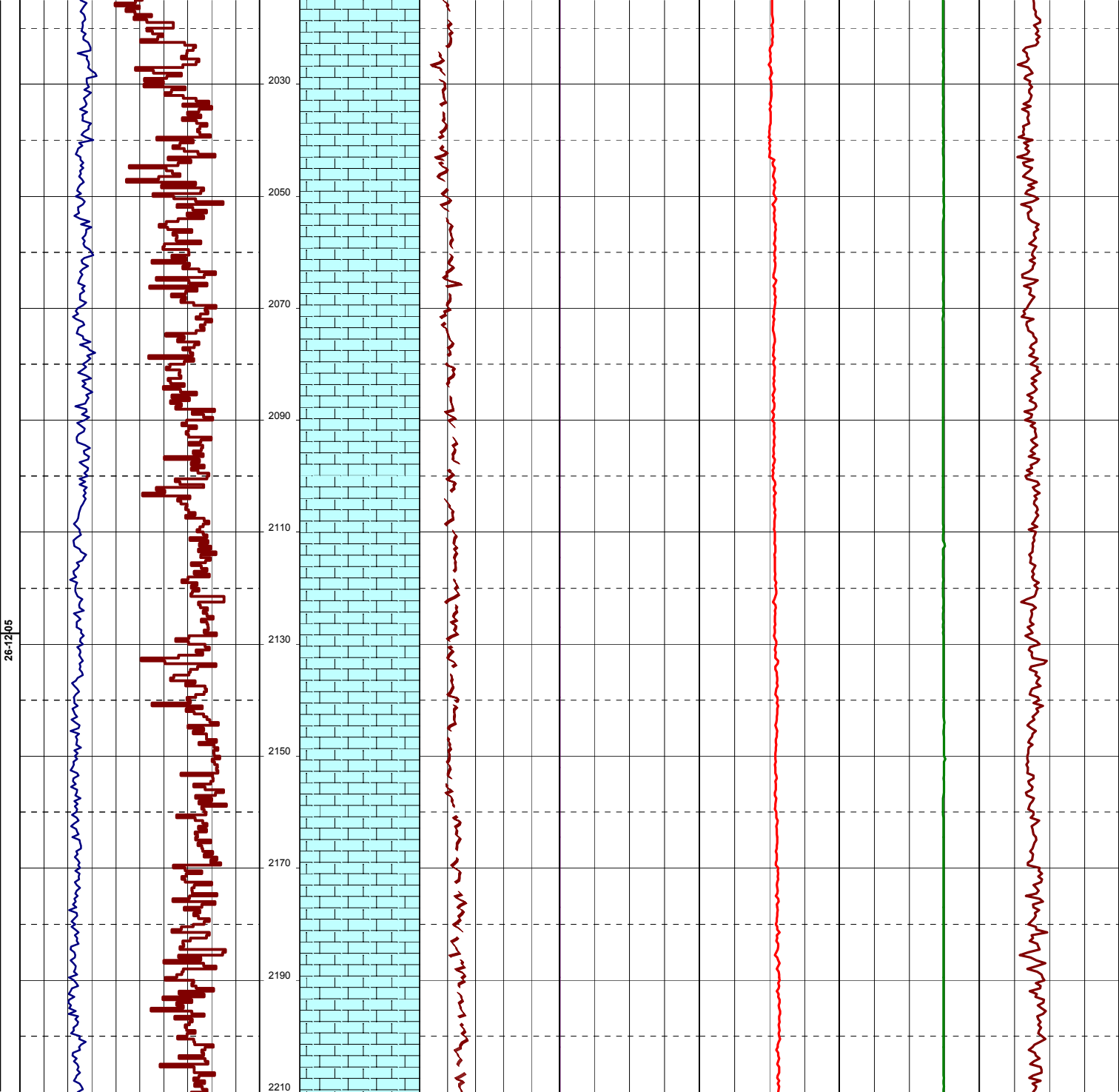

1050
1070
1090
1110
1130
1150
1170
1190
1210
1230

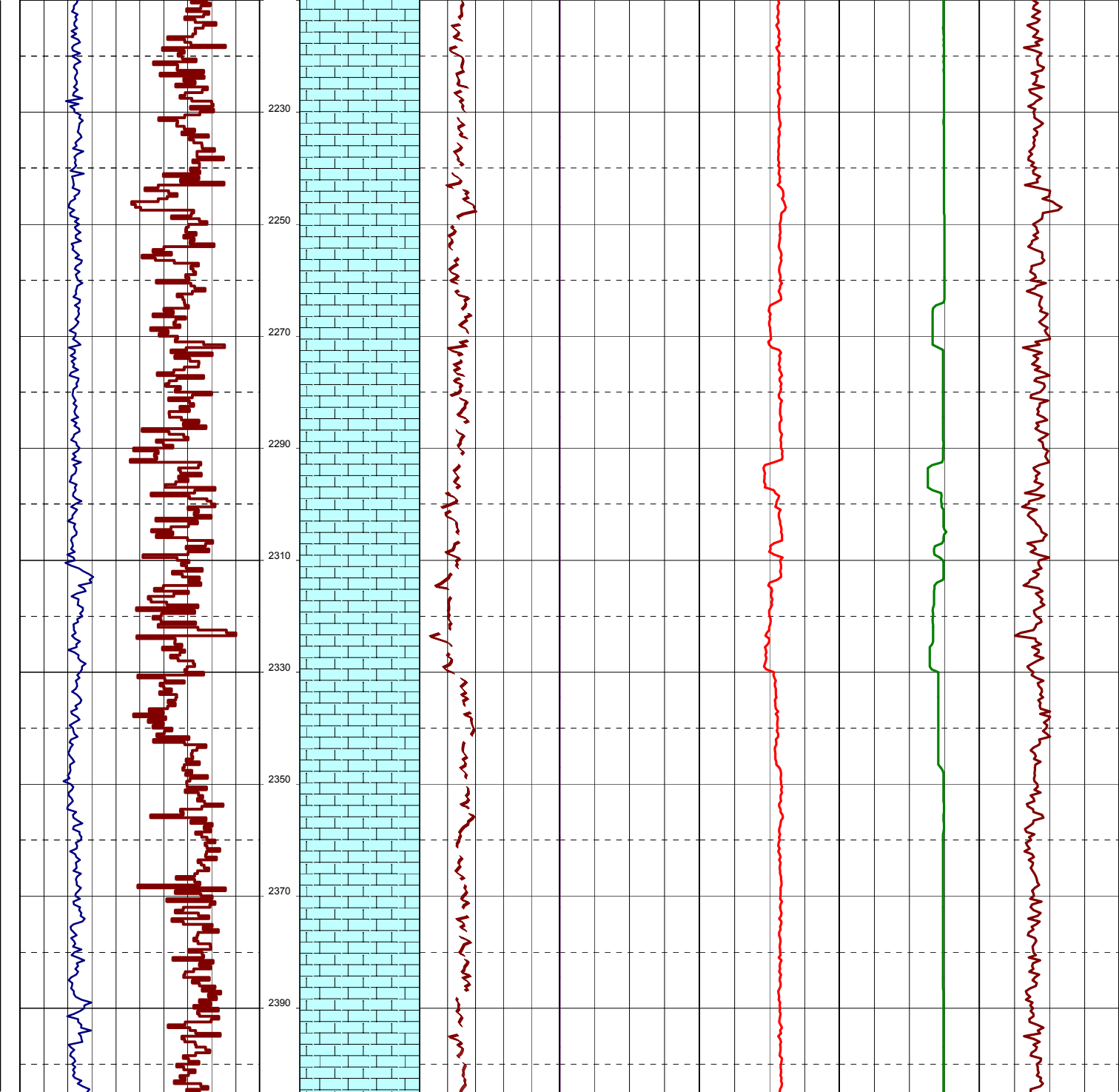

Computer System Crash
Data Lost: 1246m - 1275m
1250
1270
1290
1310
1330
1350
1370
1390
1410
1430

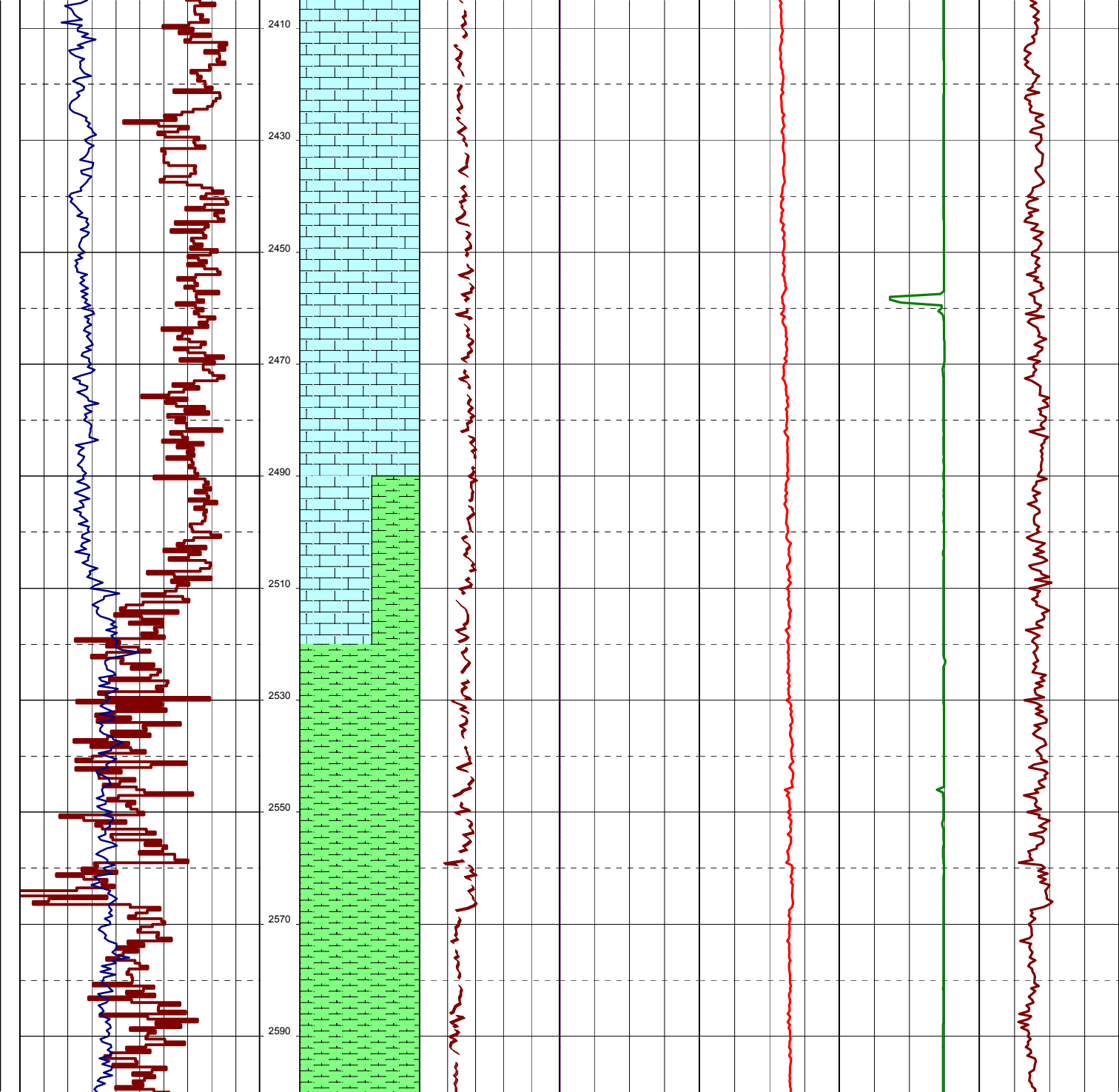

20-12-05
24-12-05
25-12-05
1450
1470
1490
1510
1530
1550
1570
1590
1610
340mm (13 3/8") CASING SET @ 1511m
BIT #3 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18,2x28
IN: 1525m OUT: 3402m
RUN: 1877m HRS: 96.7
COND:4-6-WT-S-X-1-RO-ROP

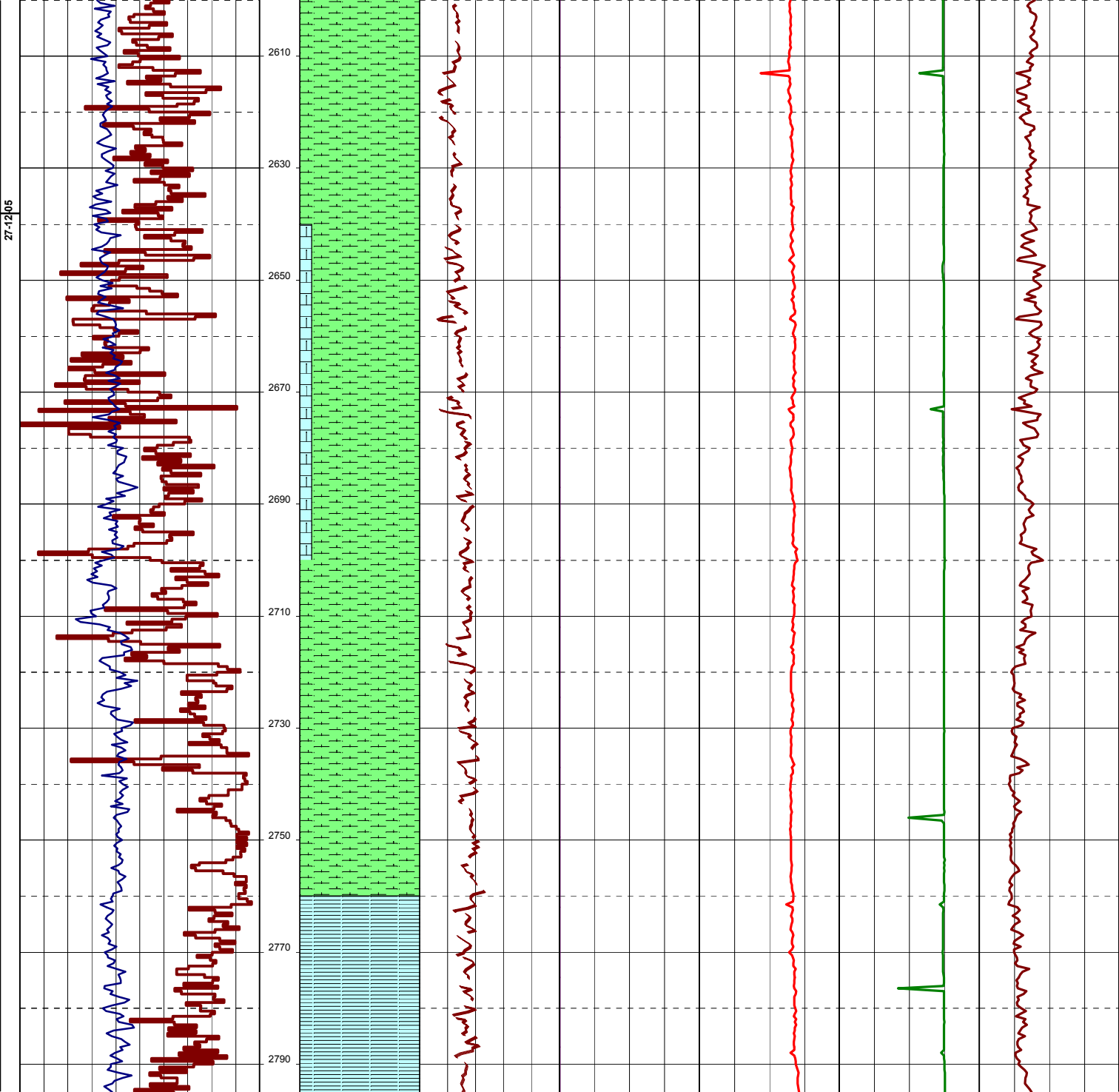

1630
1650
1670
1690
1710
1730
1750
1770
1790
1810

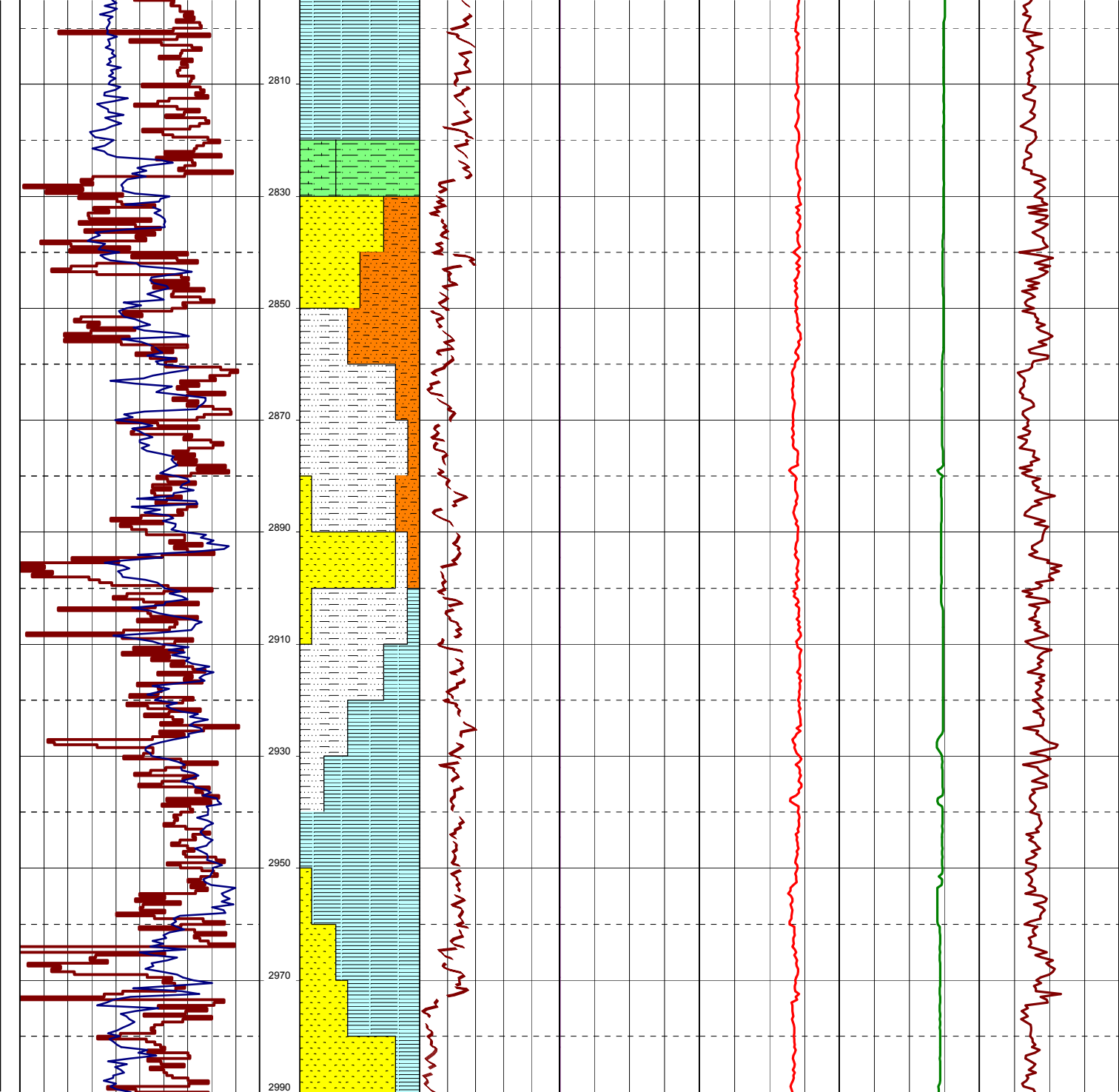

1830
1850
1870
1890
1910
1930
1950
1970
1990
2010

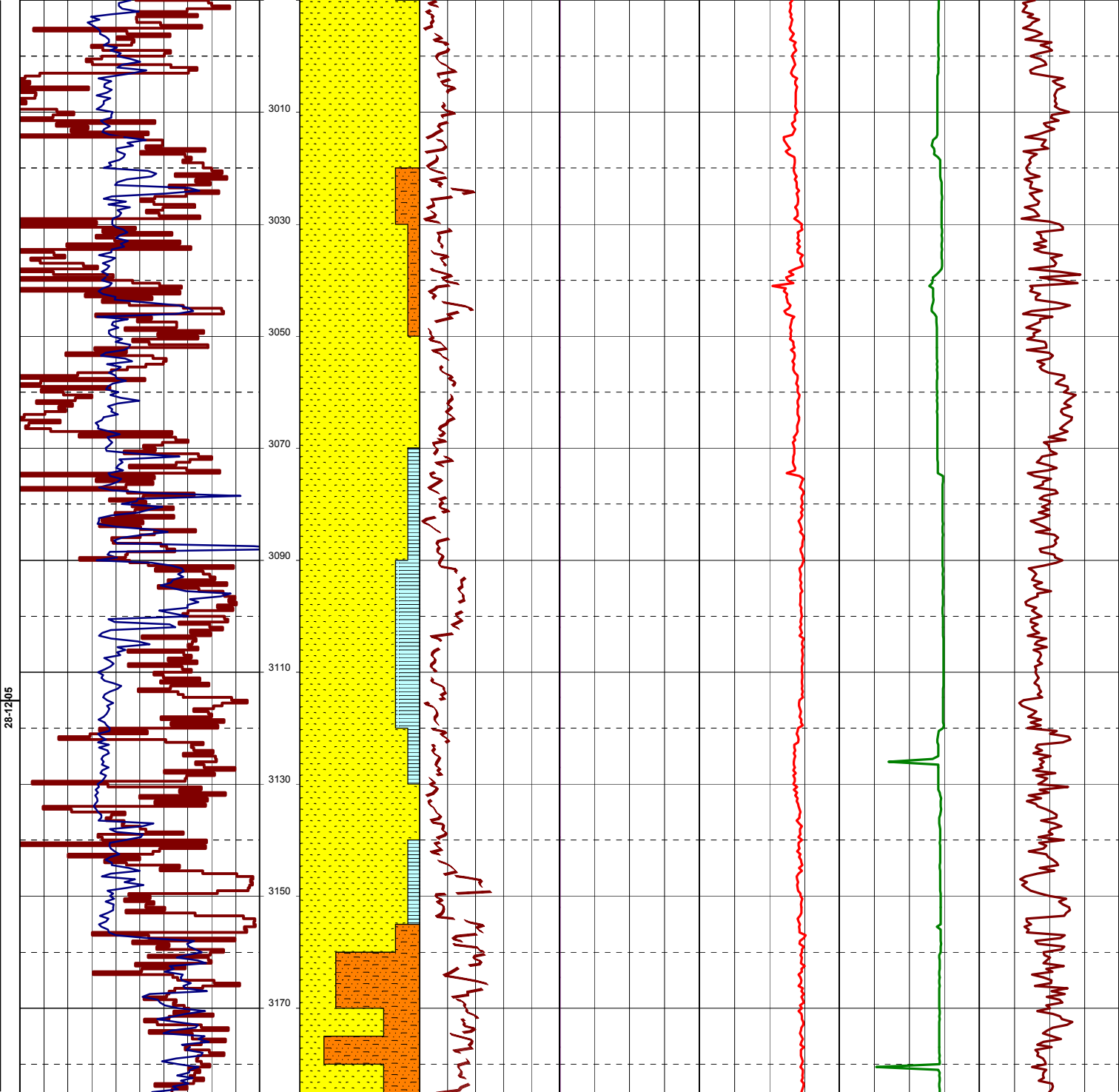

26-12105
2030
2050
2070
2090
2110
2130
2150
2170
2190
2210

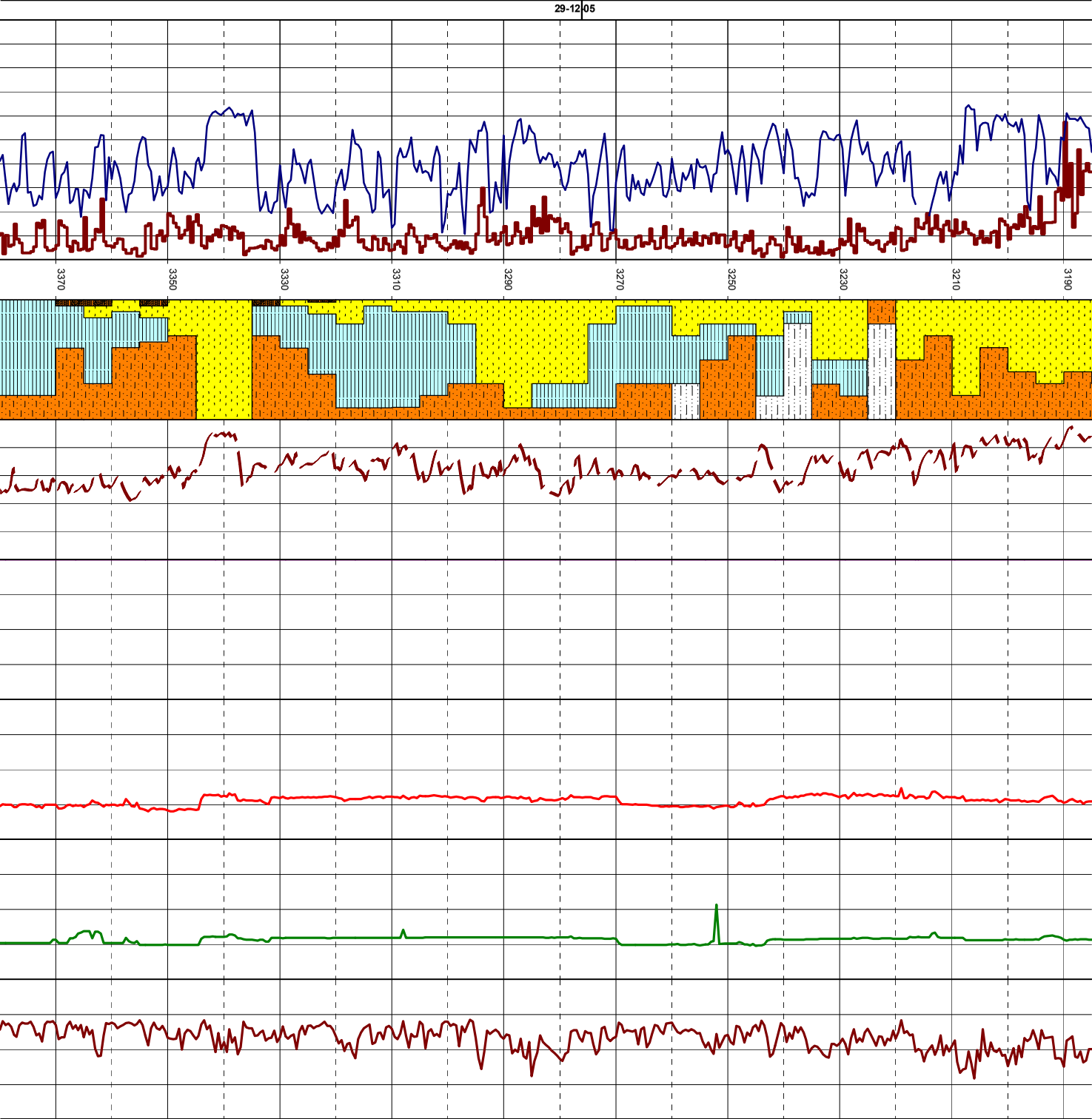

2230
2250
2270
2290
2310
2330
2350
2370
2390

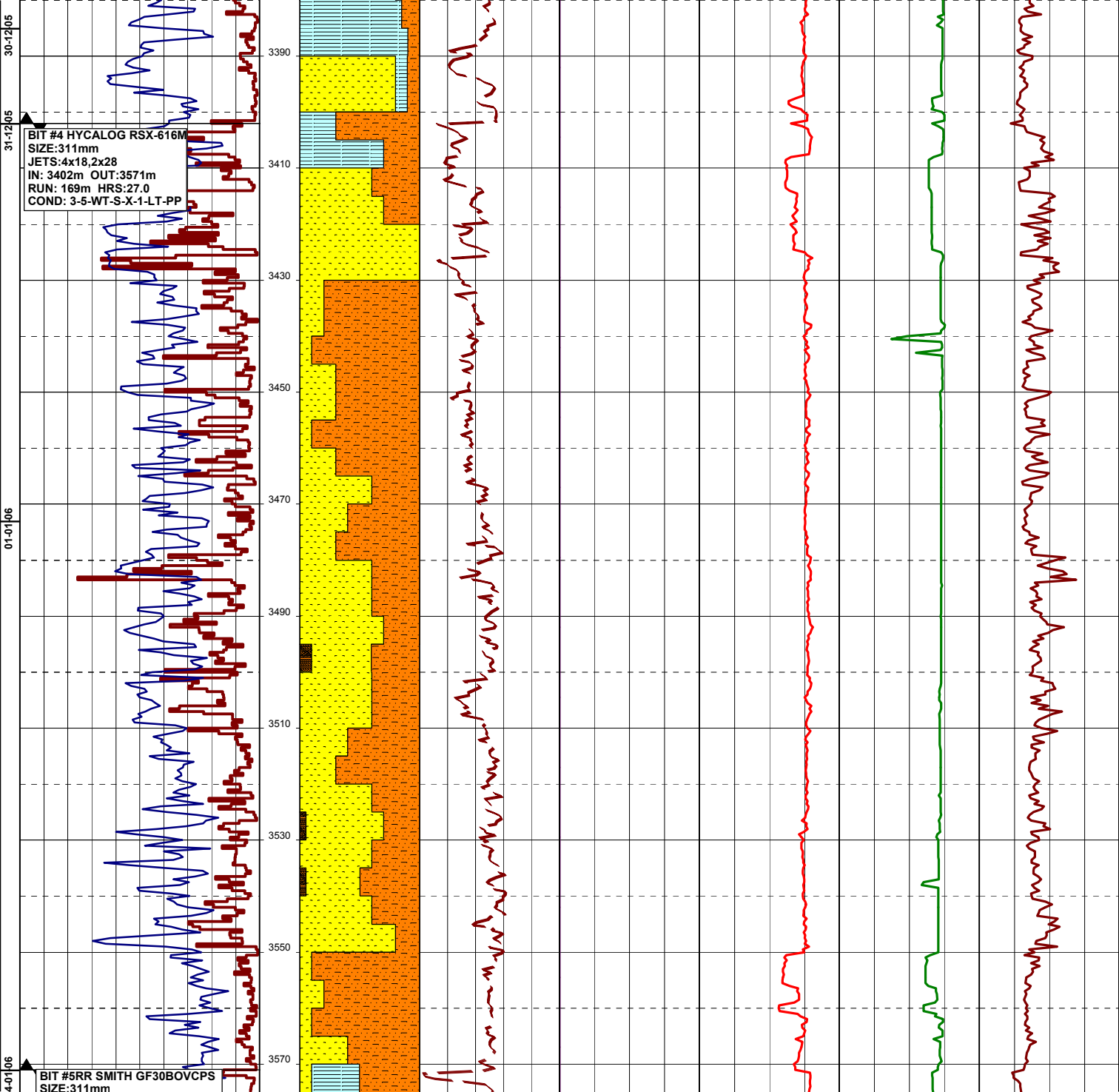

2410
2430
2450
2470
2490
2510
2530
2550
2570
2590

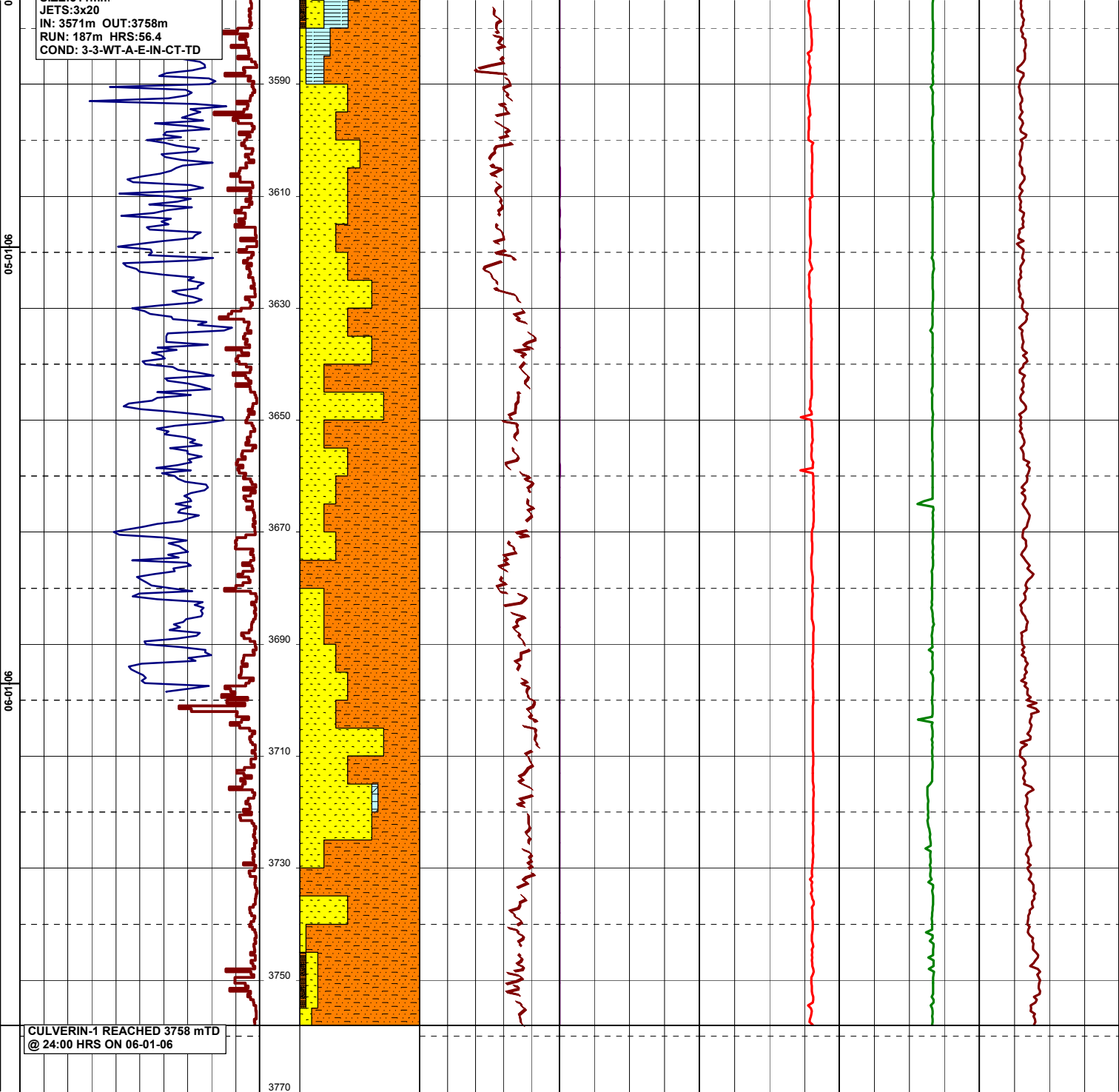

27-12|05
2610
2630
2650
2670
2690
2710
2730
2750
2770
2790

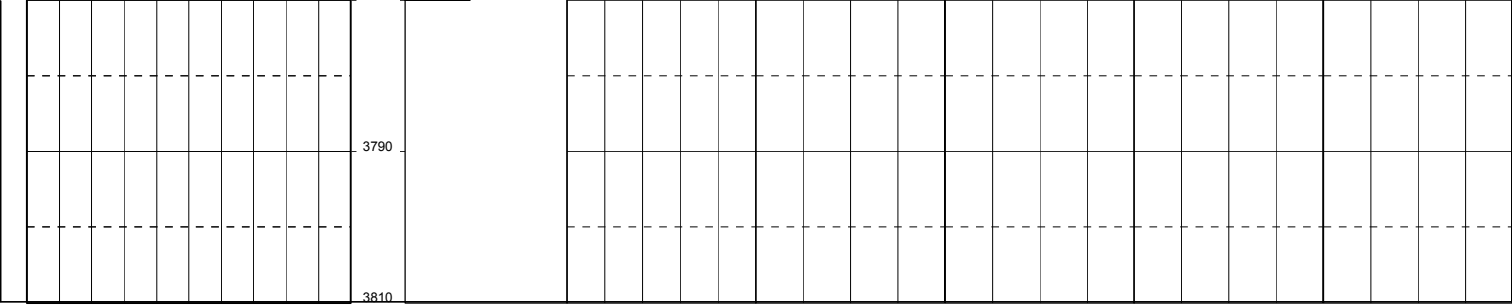

2810
2830
2850
2870
2890
2910
2930
2950
2970
2990


28-12-05
3010
3030
3050
3070
3090
3110
3130
3150
3170


29-12-05
3370
3350
3330
3310
3290
3270
3250
3230
3210
3190


30-12-05
31-12-05
01-01-06
01-01-06
BIT #4 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18,2x28
IN: 3402m OUT:3571m
RUN: 169m HRS:27.0
COND: 3-5-WT-S-X-1-LT-PP
3390
3410
3430
3450
3470
3490
3510
3530
3550
3570
BIT #5RR SMITH GF30BOVCPS
SIZE:311mm


JETS:3x20
IN: 3571m OUT:3758m
RUN: 187m HRS:56.4
COND: 3-3-WT-A-E-IN-CT-TD
3590
3610
3630
3650
3670
3690
3710
3730
3750
3770
05-01-06
06-01-06
CULVERIN-1 REACHED 3758 mTD
@ 24:00 HRS ON 06-01-06


3790
3810

ENCLOSURE 4

PRESSURE LOG

OVERPRESSURE LOG

FROM (m): 550 TO (m): 3900 SCALE : 1/ 2500

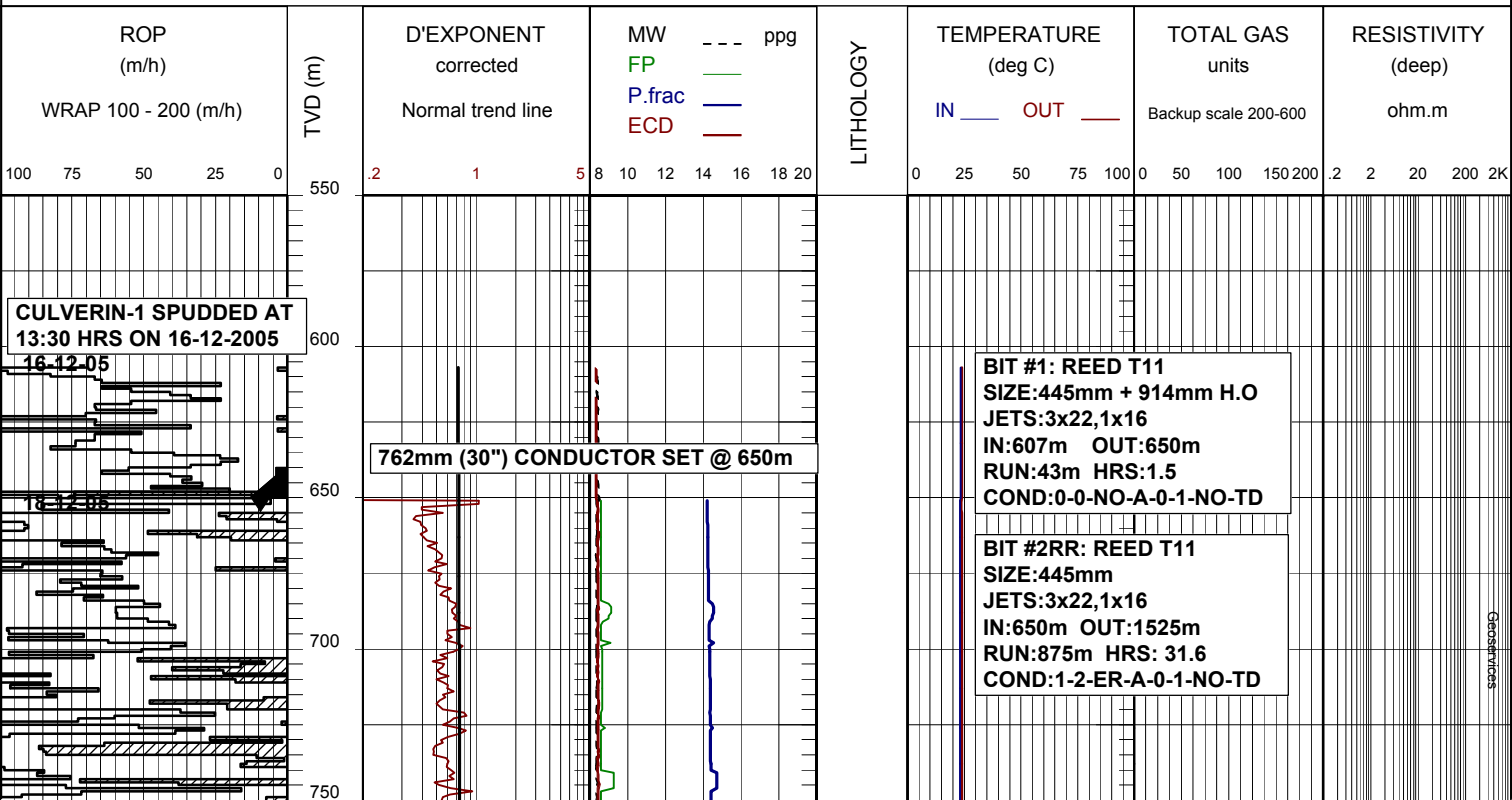
Well name	: CULVERIN-1	Latitude	: 38° 24' 08.14" S	Longitude	: 148° 39' 14.92" E	Rig Name	: OCEAN PATRIOT
Company Name	: NEXUS ENERGY	Country	: AUSTRALIA			Rig Type	: SEMI-SUB

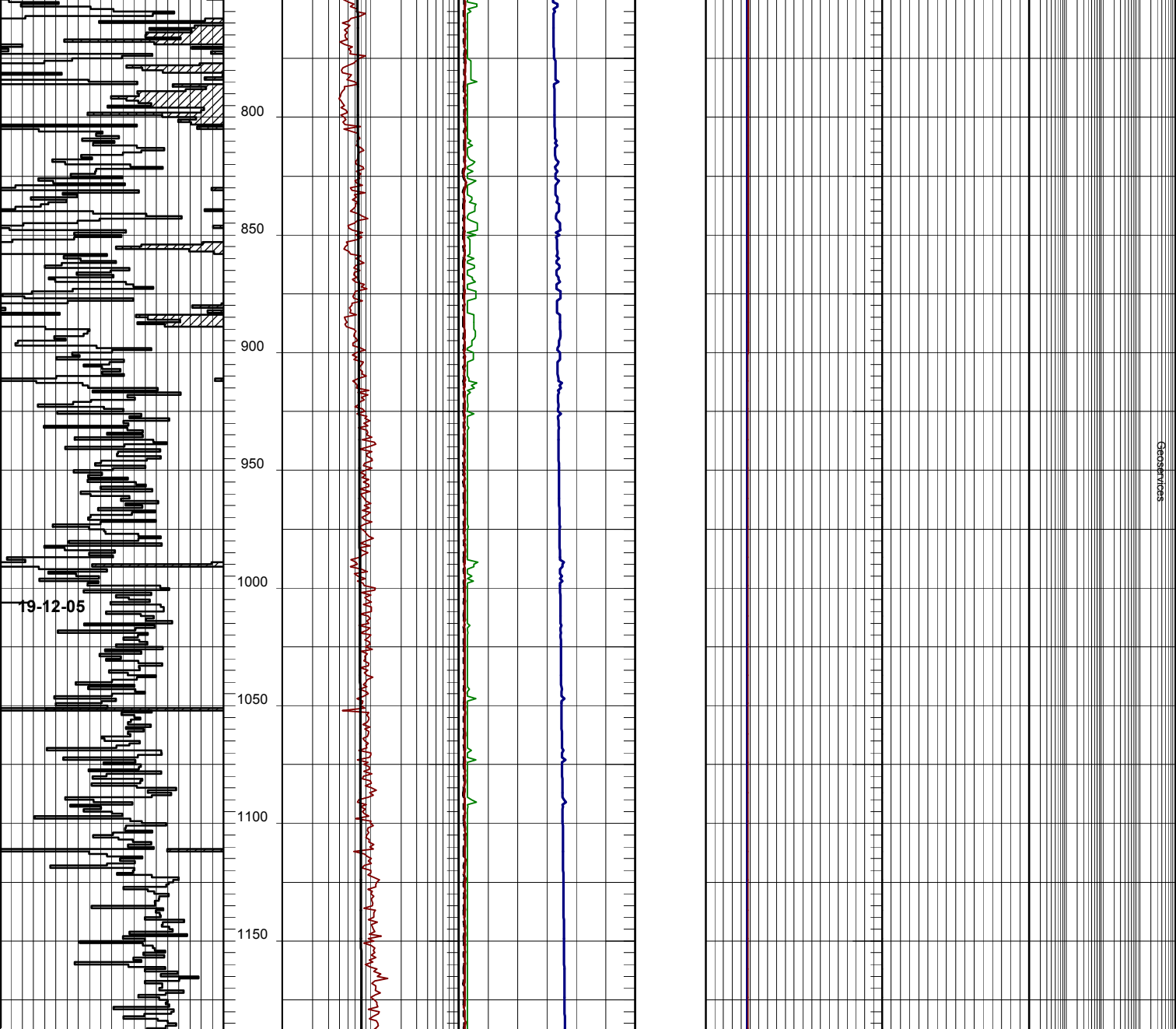
RT-LAT (m): 21.5	Final TD- Drillers (m): 3758.0	Spud Date : 16-12-05
Water Depth (m): 585	Final TVD SS (m): 3732.4	TD Date : 06-01-05

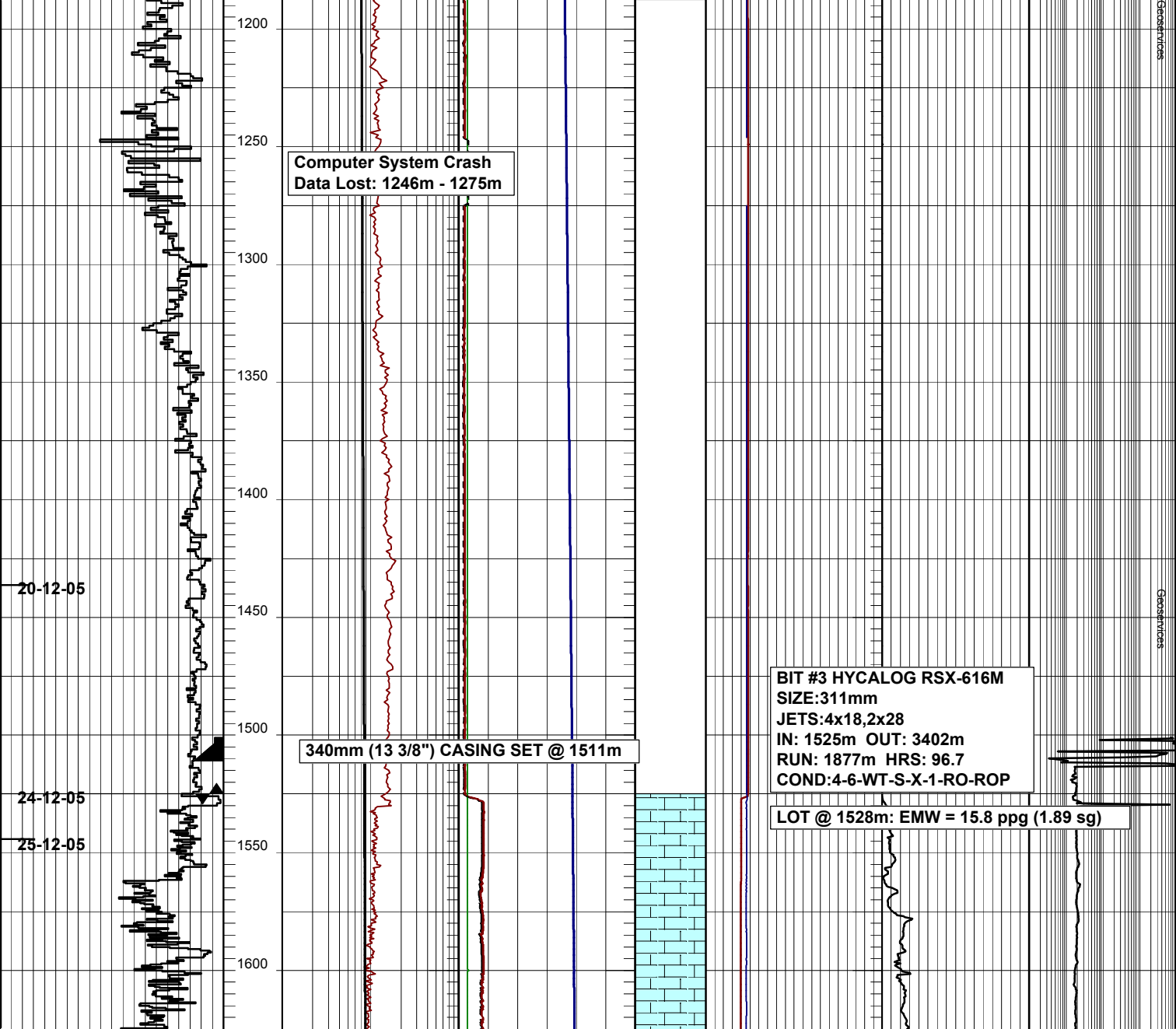
Computed Method: Eaton
Trend Slopes : a = 0.0000694 b = -0.1531207
Hydro. Gradient : 1.04 kg/l

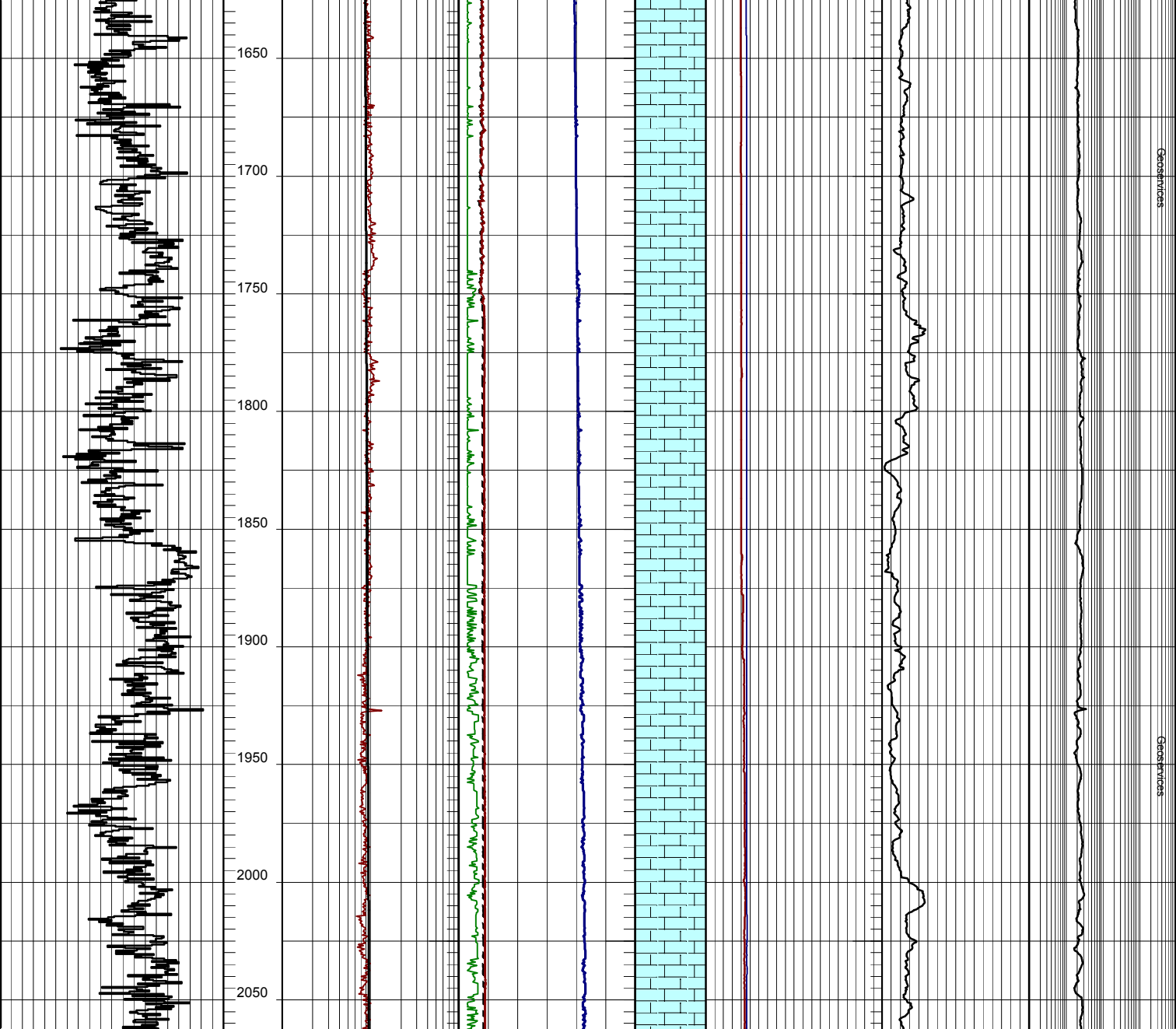
Overburden law : Soft

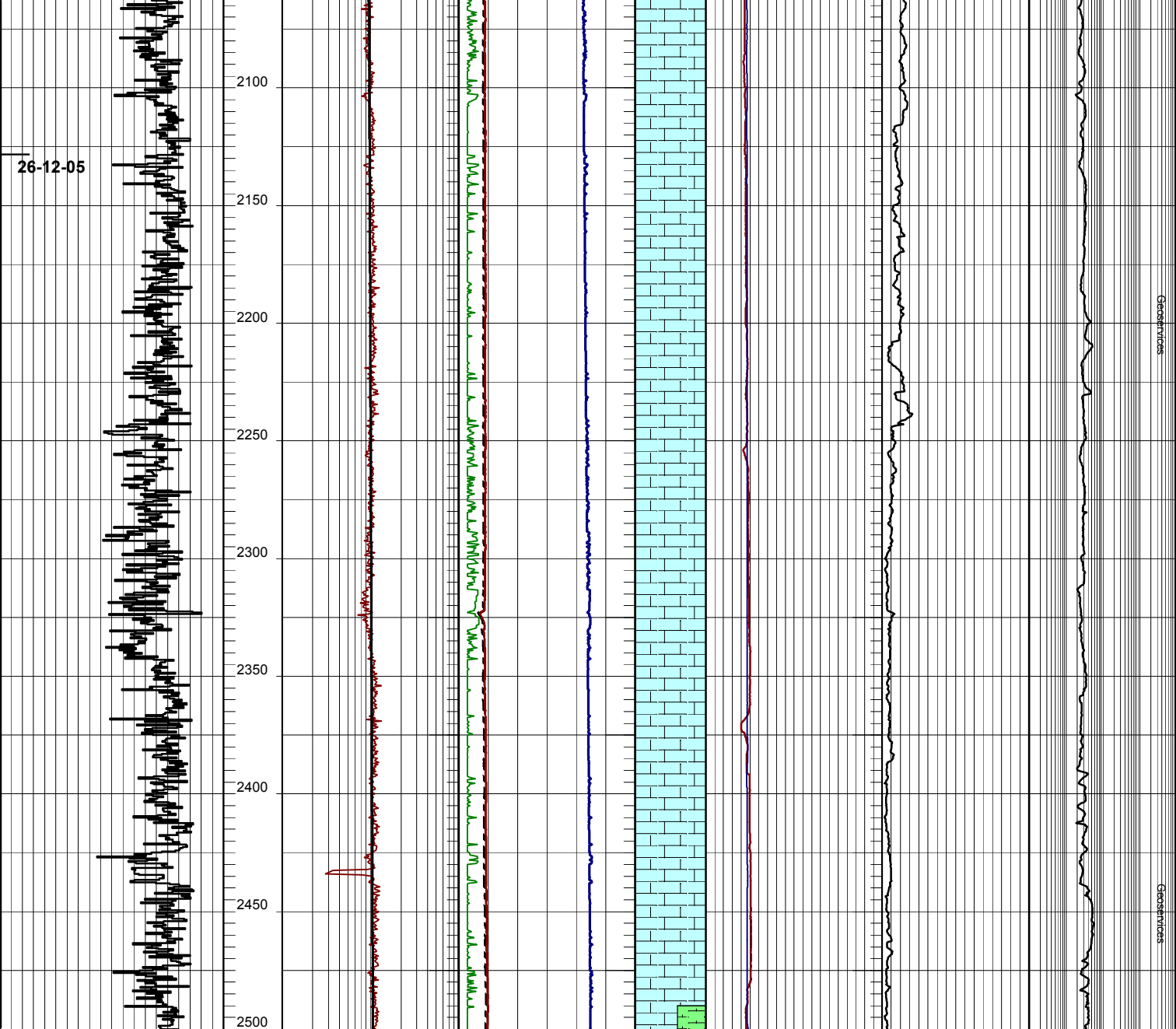
Claystone, Fine SST, Marl, Coal, Siltstone, Medium SST, Limestone, Volcanics

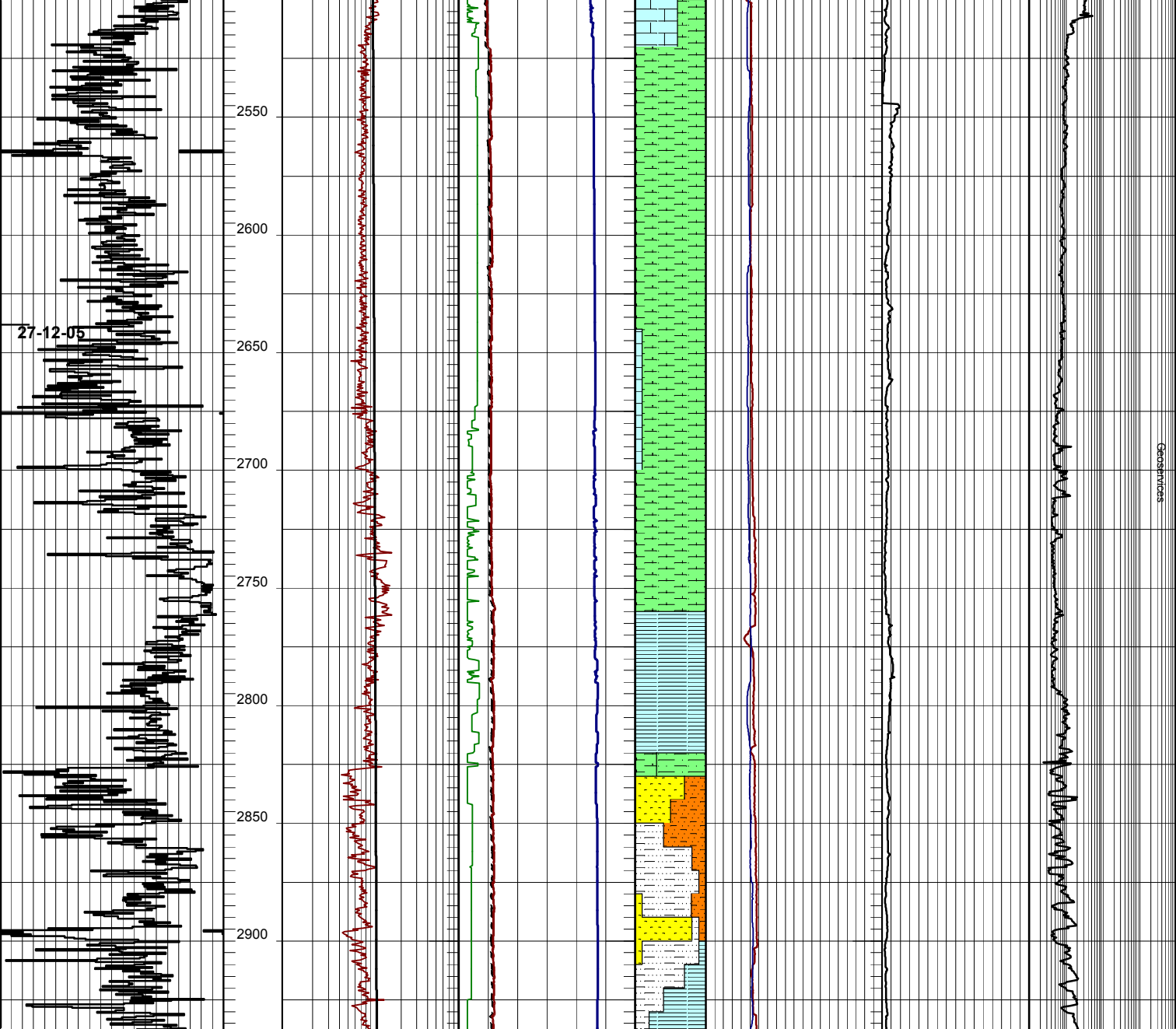


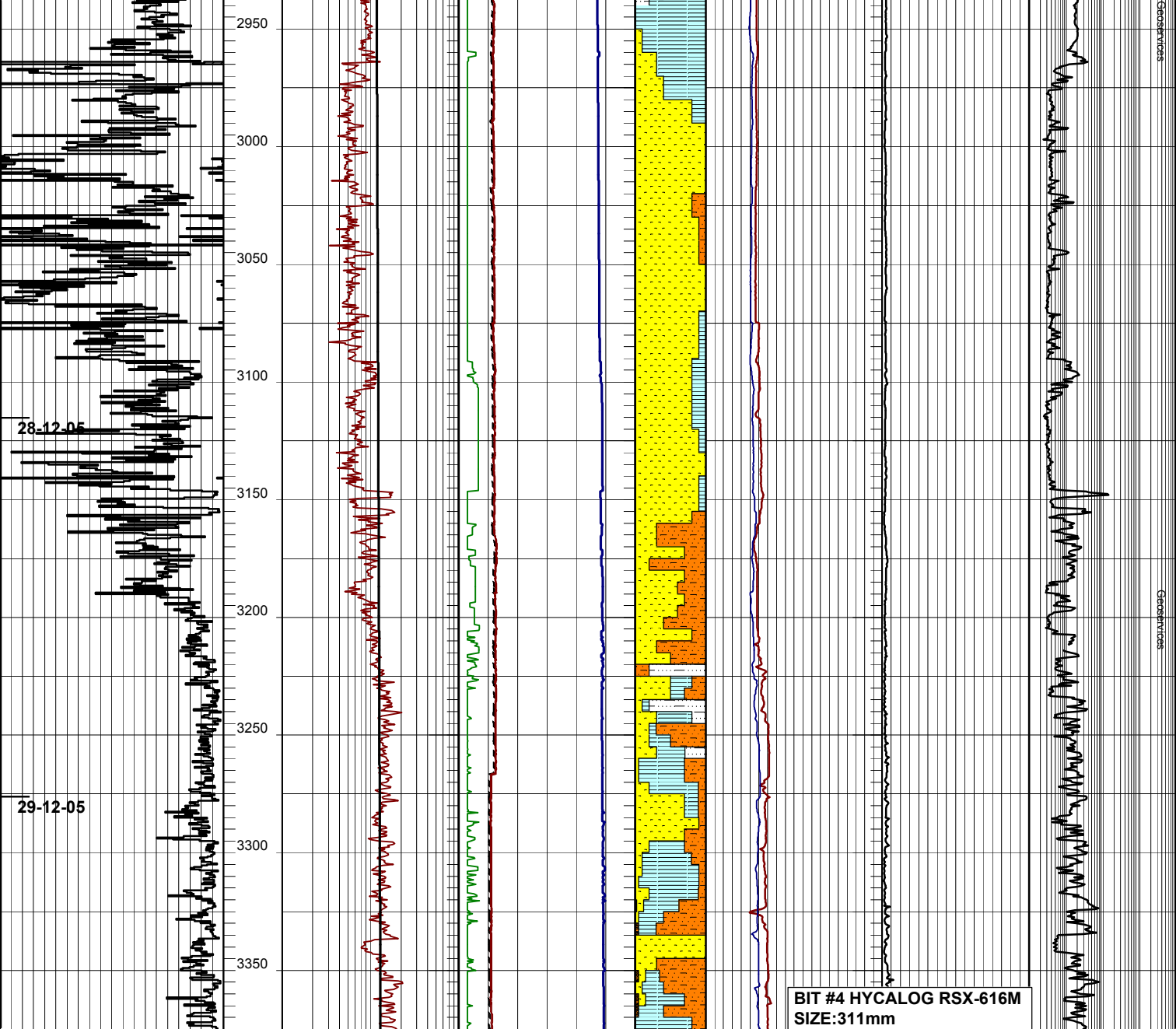

800
850
900
950
1000
1050
1100
1150
19-12-05
Geoservices

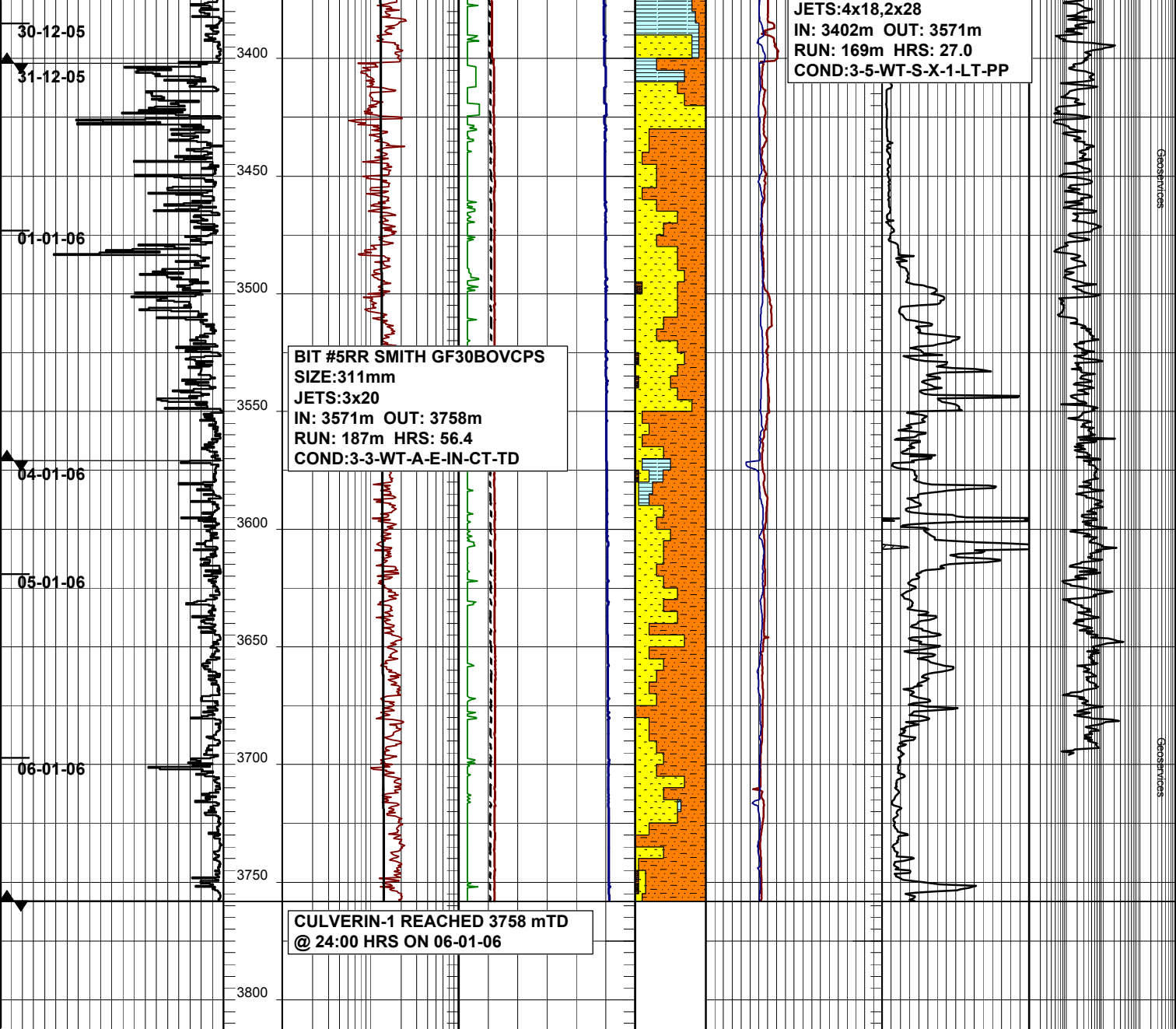

1200
1250
1300
1350
1400
1450
1500
1550
1600
20-12-05
24-12-05
25-12-05
Computer System Crash
Data Lost: 1246m - 1275m
340mm (13 3/8") CASING SET @ 1511m
BIT #3 HYCALOG RSX-616M
SIZE:311mm
JETS:4x18,2x28
IN: 1525m OUT: 3402m
RUN: 1877m HRS: 96.7
COND:4-6-WT-S-X-1-RO-ROP
LOT @ 1528m: EMW = 15.8 ppg (1.89 sg)
Geoservices
Geoservices

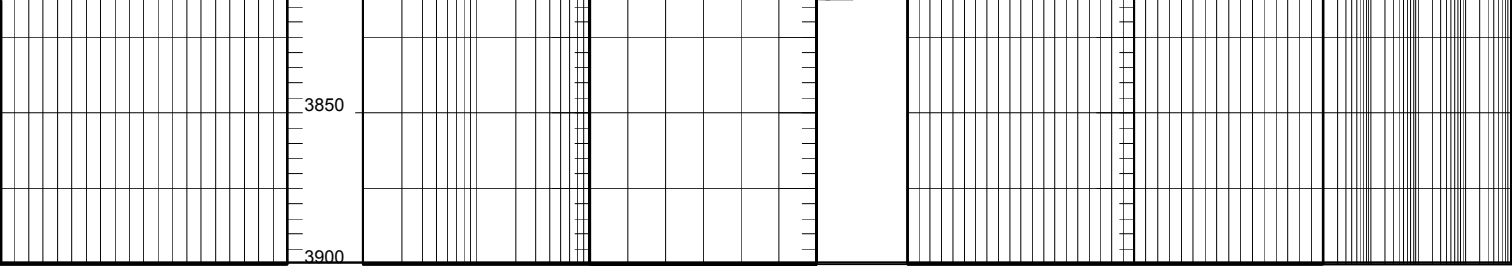

1650
1700
1750
1800
1850
1900
1950
2000
2050
Geoservices
Geoservices


26-12-05
2100
2150
2200
2250
2300
2350
2400
2450
2500
Geoservices
Geoservices


27-12-05
2550
2600
2650
2700
2750
2800
2850
2900
Geoservices


2950
3000
3050
3100
28-12-05
3150
3200
3250
29-12-05
3300
3350
Geoservices
Geoservices
BIT #4 HYCALOG RSX-616M
SIZE:311mm


30-12-05
31-12-05
01-01-06
04-01-06
05-01-06
06-01-06
3400
3450
3500
3550
3600
3650
3700
3750
3800
BIT #5RR SMITH GF30BOVCPS
SIZE:311mm
JETS:3x20
IN: 3571m OUT: 3758m
RUN: 187m HRS: 56.4
COND:3-3-WT-A-E-IN-CT-TD
JETS:4x18,2x28
IN: 3402m OUT: 3571m
RUN: 169m HRS: 27.0
COND:3-5-WT-S-X-1-LT-PP
CULVERIN-1 REACHED 3758 mTD
@ 24:00 HRS ON 06-01-06
Geoservices
Geoservices


3850
3900

ENCLOSURE 5

BASIC PALYNOLOGICAL RANGE CHART

PALYNOLOGY OF

CULVERIN-1

GIPPSLAND BASIN, AUSTRALIA

by

ROGER MORGAN

Prepared for
NEXUS ENERGY LTD **March 2006**

REF: GIP.CULVERIN-1 REPORT

Well Name : CULVERIN-1

Operator : NEXUS ENERGY

Interval : 2800m - 3778m

Scale : 1:5000

Chart date: 03 April 2006

Palynological Data Chart : BASIC DATA

% Abundance histogram : Highest occurrence

Roger Morgan

CULVERIN-1

Morgan Palaeo Associates
Maitland, South Australia

Enclosure 1

Sampling
- Cutting
- Core
- Sidewall core

Text Keys
*1 % within discipline (40mm=100%)
*2 In-Situ occurrences
*3 ALBO

Depth | **Samples** (Samples in Discipline(s) : Paly)

Dinoflagellate Cysts — % within discipline (40mm=100%); In-Situ occurrences

Apteodinium australiense
Cerebrocysta sp.
Cordosphaeridium multispinosum
Glaphyrocysta sp.
Impagidinium sp.
Impletosphaeridium sp. 1
Linguludinium machaerophorum
Nematosphaeropsis balcombiana
Operculodinium spp.
Spiniferites ramosus
Systematophora placacantha
Tuberculodinium vancampoae
Hystrichokolpoma eisenackii
Hystrichosphaeridium tubiferum
Cleistosphaeridium spp.
Apteodinium granulatum
Exochosphaeridium phragmites
Heterosphaeridium heterocanthum
Manumiella conorata
Vozzhennikovia sp.
Cribroperidinium sp.
Saeptodinium spp.

FT (*1 *2)
Microforams .

AL (*1 *2)
Crassosphaera concinna

***3** (*1 *2)
Botryococcus spp.

MP (*1 *2)
Quadraplanus brossus

Spores And Pollen — % within discipline (40mm=100%); In-Situ occurrences

Cyathidites australis
Cyathidites minor
Falcisporites similis
Triletes tuberculiformis
Cyatheacidites annulatus
Dilwynites granulatus
Gleicheniidites spp.
Haloragacidites harrisii
Laevigatosporites ovatus
Microcachryidites antarcticus
Myrtaceidites parvus
Nothofagidites emarcidus
Nothofagidites falcatus
Phyllocladidites mawsonii
Retitriletes austroclavatidites
Stereisporites antiquasporites
Araucariacites australis
Foveotriletes crater
Lygistepollenites florinii
Nothofagidites brachyspinulosus
Osmundacidites wellmanii
Peninsulapollis gillii
Vitreisporites pallidus
Ceratosporites equalis
Dictyophyllidites spp.
Gambierina rudata
Proteacidites spp. (small)
Camerozonosporites ohaiensis
Cyathidites splendens
Falcisporites grandis
Forcipites longus
Nothofagidites endurus
Tricolpites confessus
Lygistepollenites balmei
Cycadopites follicularis
Ericipites scabratus
Podosporites microsaccatus
Proteacidites tuberculiformis
Battenipollis sectilis
Malvacipollis subtilis
Proteacidites incurvatus
Tubulifloridites lilliei
Tricolpites spp.
Aequitriradites spinulosus
Dictyotosporites speciosus
Proteacidites palisadus
Tetracolporites verrucosus
Battenipollis "megasectilis"
Gephyrapollenites wahooensis
Cicatricosisporites australiensis
Proteacidites spp. (large)
Triporoletes reticulatus
Forcipites sabulosus
Phyllocladidites verrucatus
Tricolpites waiparaensis

Samples (Samples in Discipline(s) : Paly)

Total Count — In-Situ occurrences — Total count: Total Count

% Category — In-Situ occurrences — Category %: % Category — MP, AL, ALBO, FT, SP, DC

Depth	Samples	Total count: Total Count
2800m	2820.00m CU	100
	2830.00m CU	100
	2840.00m CU	100
2850m	2850.00m CU	62
	2870.00m CU	84
2900m		
2950m	2960.00m CU	44
3000m		
3050m		
3100m	3100.00m CU	100
3150m	3150.00m CU	100
	3165.00m CU	100
	3185.00m CU	100
3200m	3225.00m CU	100
3250m		
3300m		
	3335.00m CU	100
3350m		
3400m		
3450m	3455.00m CU	100
3500m		
3550m		
	3585.00m CU	26
3600m		
3650m		
3700m		
	3725.00m CU	83
3750m	3758.00m CU	100