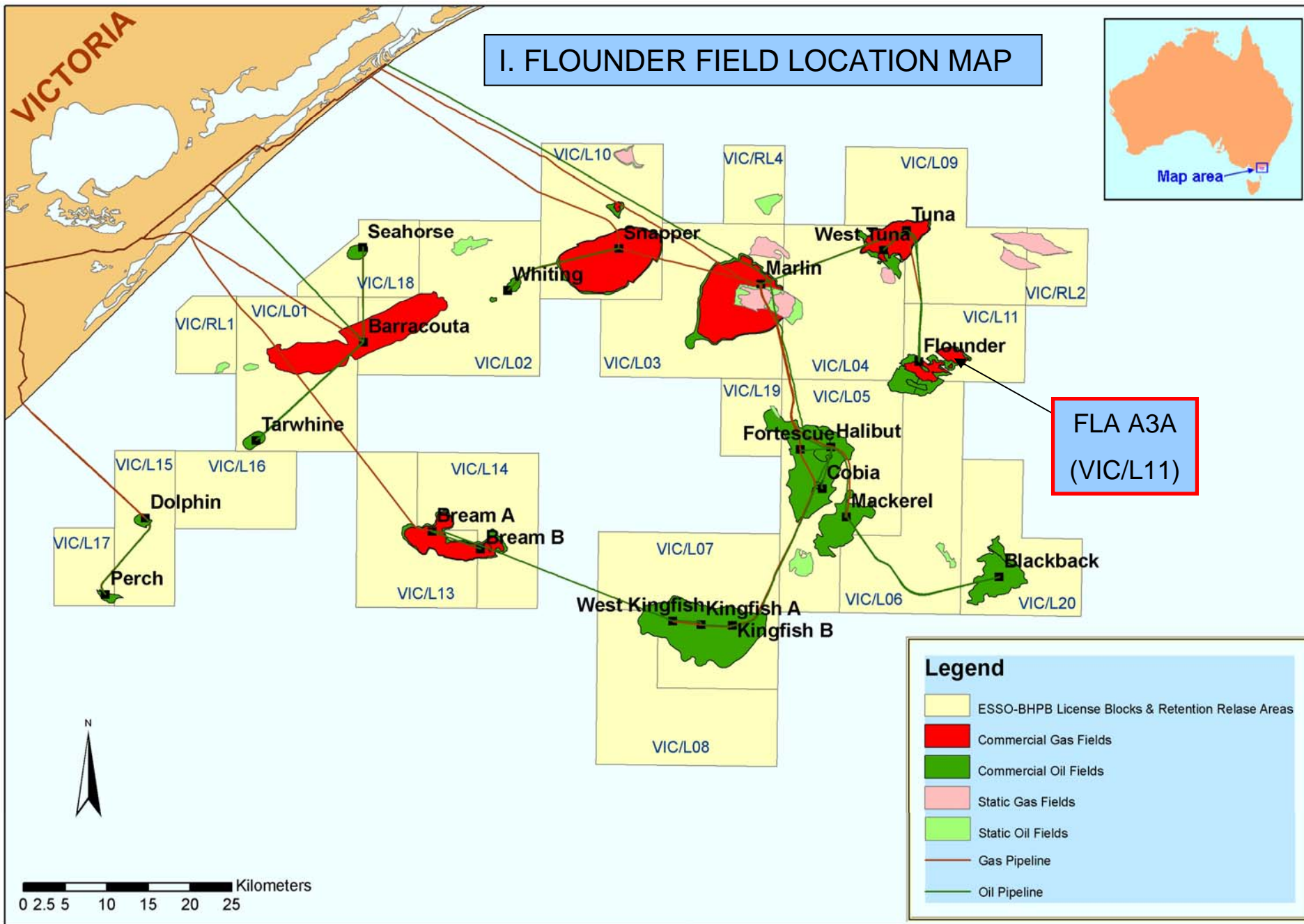


WELL COMPLETION REPORT
FLOUNDER A3A
GIPPSLAND BASIN, VICTORIA

Author: Mike Hordern
Compiler: Sheryl Sazenis
November 2005

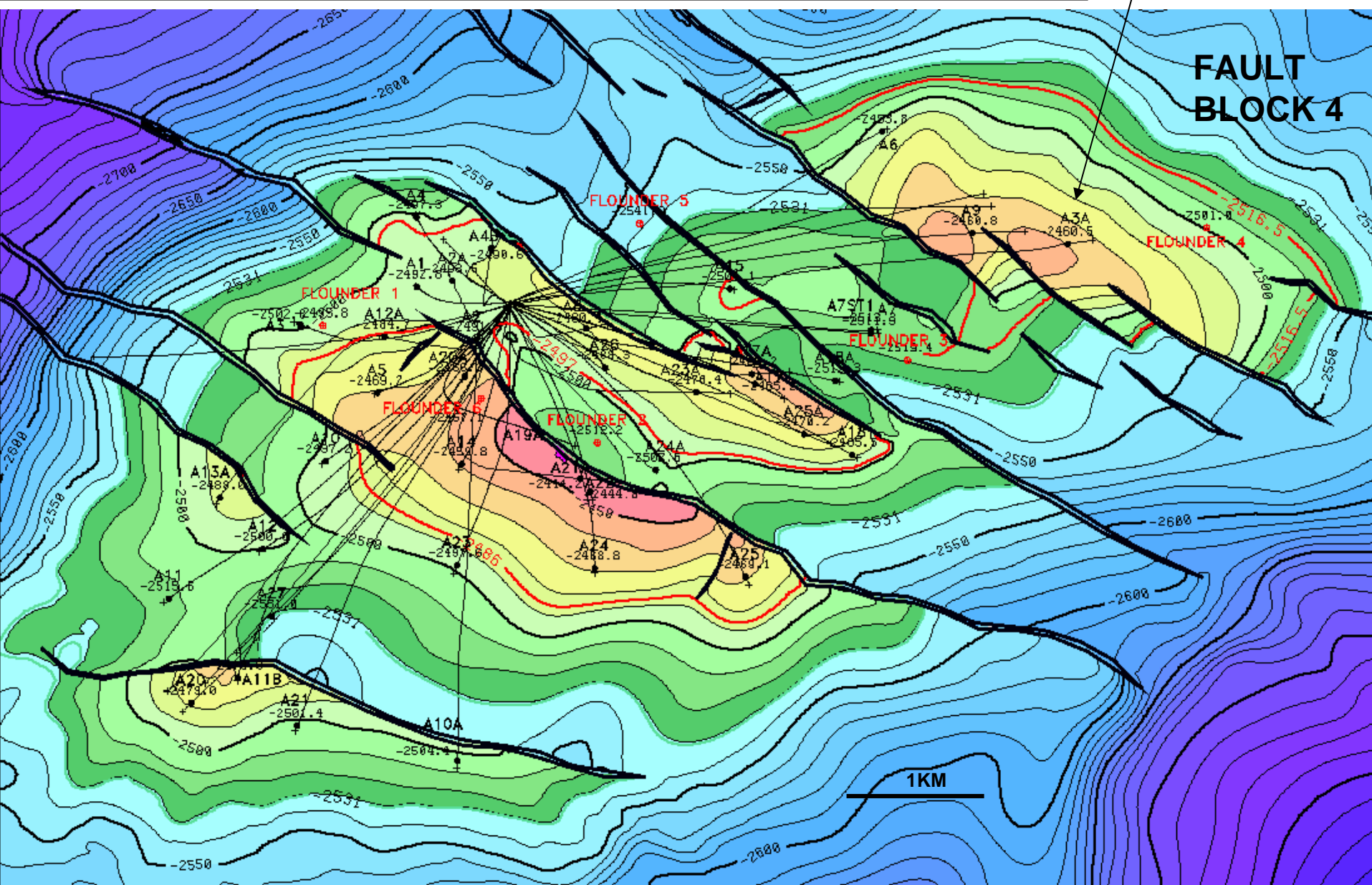
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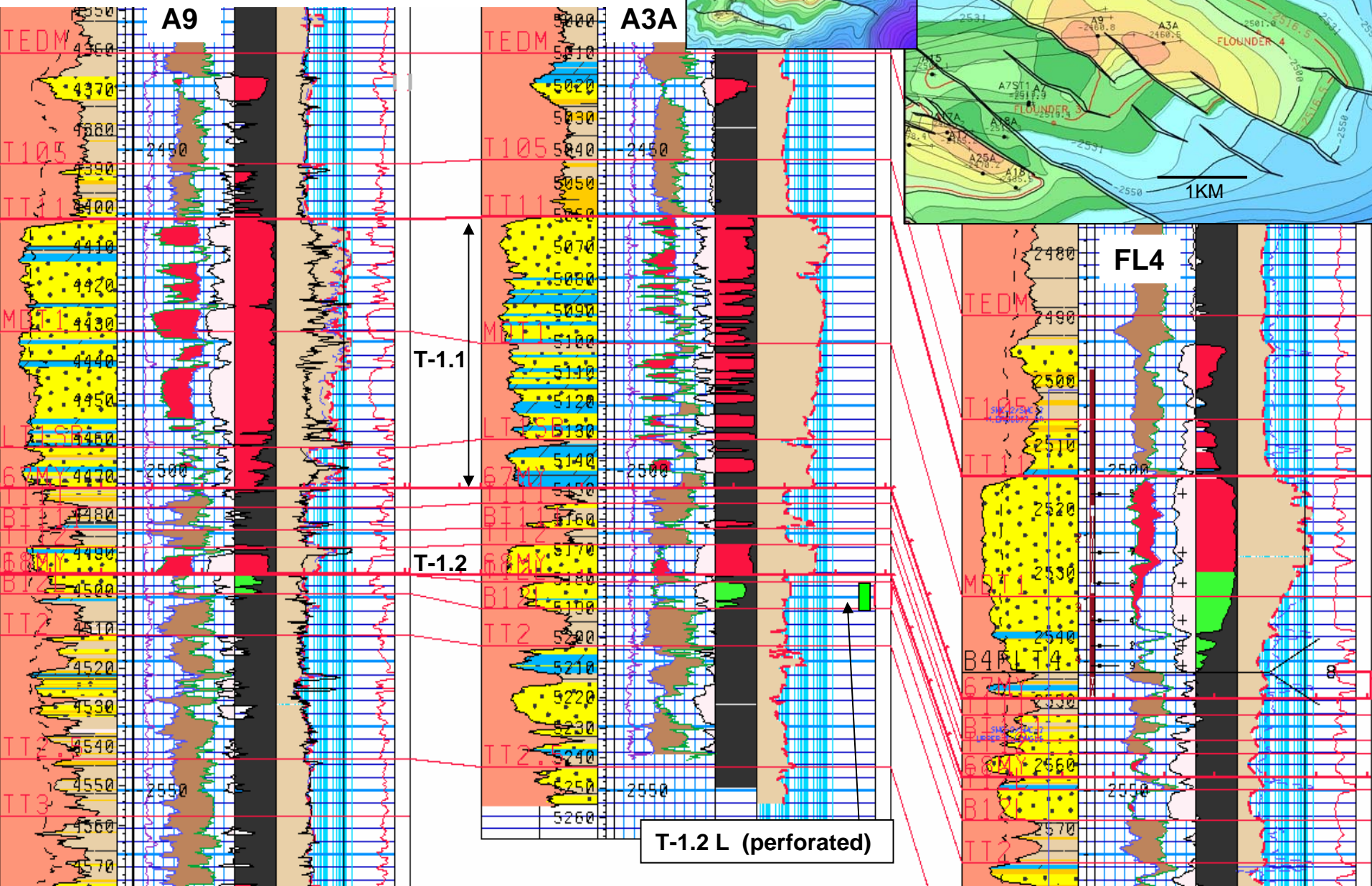


II. WELL DATA RECORD: FLOUNDER TOP OF T-1.1 STRUCTURE MAP

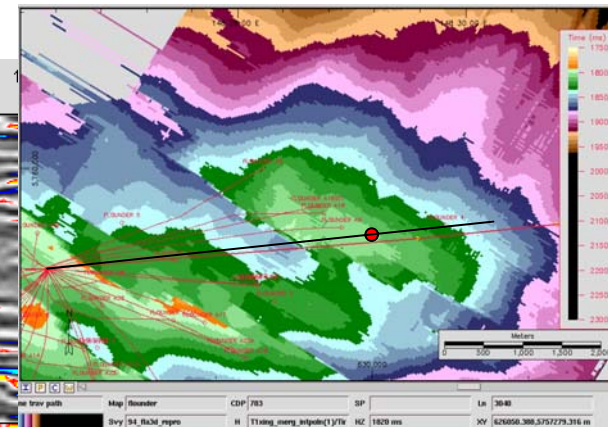
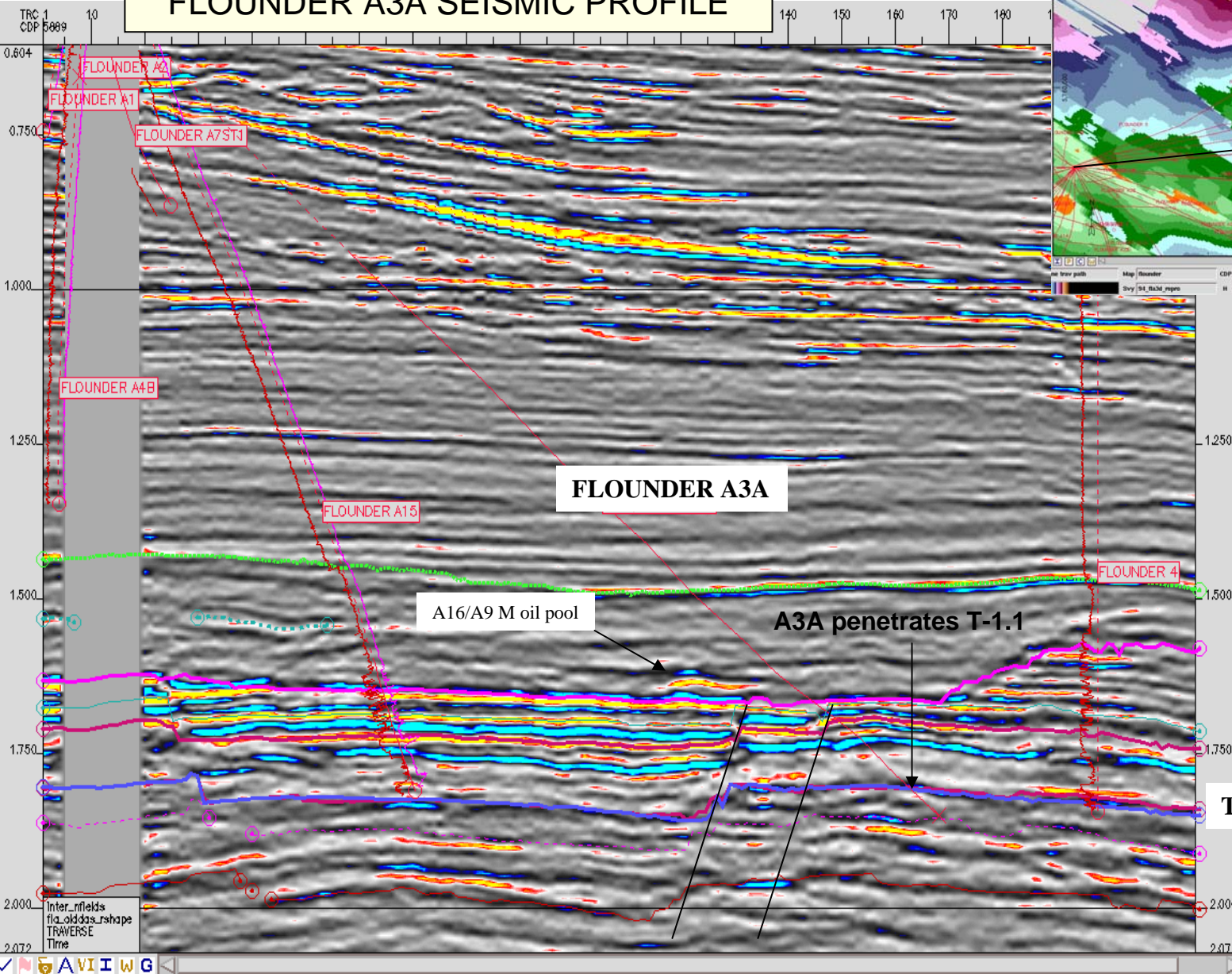
A3A



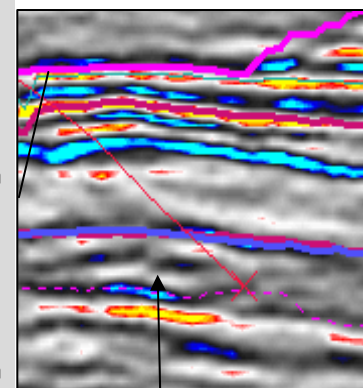
II. WELL DATA RECORD: FLOUNDER FB4
WELL LOG CROSS-SECTION



FLOUNDER A3A SEISMIC PROFILE



T-1 time map



Possible local faulting
(possible cause of T-1
dolomitisation?)

II. WELL DATA RECORD (cont'd)

LOCATION

Field	Flounder	Conductor #3 Surface Coordinates	
Well Name	A3A (Loc R)	(GDA94) X	625,842.98mE
Conductor Number	Slot 3	(MGA94) Y	5,758,713.23mN
State	Victoria	Latitude	38° 18' 39.103"S
Permit/Licence	Vic /L11	Longitude	148° 26' 21.829"E
Geological Basin	Gippsland		
Top of Latrobe	3872.2m MDRT	Perforations	5181.8- 5189.0m MDRT
	2006.4m TVDRT		2568.3 – 2571.6m TVDRT
MGA94 X	628860.01 mE		(-2517.7 – 2521.1m TVDSS)
MGA94 Y	5759043.22 mN		
T-1.1 Sand	5060.6m MDRT		
	2511.0m TVDRT		
	-2460.5m TVDSS		
MGA94 X	629927.9 mE	Datum	GDA94 (GRS80)
MGA94 Y	5759156.7mN	Projection	MGA94/UTM Zone 55 (S)

ELEVATIONS & DEPTHS

Water Depth	94m
Top Wellhead to MSL	20.99m (top casing head)
Main Deck Rel to MSL	25.5m
RT Relative to MSL	50.52m
Average Well Angle	65° (tang)
Total Depth	5267.0m MDRT
	2608.1m TVDRT
	-2557.6m TVDSS
Plug Back Depth	5238m MDRT

DATES

Skid Rig	14/04/2005
Spudded	24/04/2005
Development Rig Days	29.9
NPT Days	1.4
Rig Released	07/06/2005
I.P. Established	15/07/2005

MISCELLANEOUS

Operator	Esso Australia Pty Ltd	Contractor	ENSCO International
Esso Interest	50%	Rig Name	ENSCO 102 (Keppel FELS Mod V "A" Class Jackup)
Permittee/Licensee	Esso/BHPP	Equipment Type	Platform
Other Interest	50% J.V. Interest	Completion Type	single
Overriding Royalty	2.5%	Completion Size	4 1/2"
Drilling AFE No.	L0501F401		

WELL CLASSIFICATION

Before Drilling	Oil Development	After Drilling	Cased and Completed Oil and Gas well
------------------------	-----------------	-----------------------	---

II. WELL DATA RECORD (cont.)

CASING RECORD

Type	Size (Inches)	Weight (lb/ft)	Grade	Thread	Depth (mMDRT)
Existing Conductor	20"	68.0	L80	BTC	220.0
Surface Casing 12¼" Hole	9⅝"	47	L80	VamTop	845.0
Production 8½" Hole	7"	26	L80	VamTop	5265.0

(4 ½ "tubing string completion(12.6 lb/ft, 13Cr80), depth 4967.8m)

CEMENTING RECORD

Casing details	Cement Type	Dry Cement Volume (sacks)	Cement Additives (per 10 bbl)	Mix Water (bbls)	Slurry Volume (bbls)	Slurry Density (ppg)	Cement to/from (m MDRT)	Casing Pressure Test (psi)
9⅝"	Lead Class G	750	Econolite: 20gal NF-6: 0.25gal	12.5	294	12.5	845 to surface	1500
	Tail Class G	209	CFR-3: 5gal NF-6: 0.25gal.	20	43	15.8		1500
7"	Lead HTB	795	HTB G+60 gal/10 bbl Gascon +30 gal/10 bbl Halad 413L+5 gal/10 bbl CFR- 3+7.5 gal/10 bbl SCR-100L+.25 gal/10 NF6	49.6	264	13.0	4944 to 5265	2350
	Tail HTB	623	HTBG+25 gal/10 bbl Gascon+32 gal/10 bbl Halad 413L+5 gal/10 bbl CFR- 3L+2 gal/10 bbl SCR-100L+.25 gal/10 NF	59.7	154	14.5	3797 to 4944	1300

II. WELL DATA RECORD (cont.)

DRILLING PERFORMANCE

FLA A3A - Final Well Report

GENERAL

Platform:	Flounder	Rig:	Ensco 102	Reservoir:	T-1.1 Oil & Gas
Well:	A3A	Well Slot:	#3	RT-MSL (Ensco 102)	50.52m
Drilling Complexity Index	5.6	Completion Complexity	N/A		

DEPTH		PERFORMANCE		MUD	
m MDRT	5,267.00	20" Cond. Hole	N/A	Max Wt (ppg)	10.25 (while drilling)
m TVDRT	2,608.11	12-1/4" Surf. Hole	207.2 m/day	Type (Surf. Hole)	SW / Bentonite
Vert. Section (m)	4,290.93	8-1/2" Prod. Hole	244.7 m/day	Type (Prod. Hole)	Petrofree NAF
INCLINATION	67.3 (4761mMD) / 65.0 (Tang)	6" Liner Hole	N/A	Type (Liner Hole)	N/A
Max (deg) / Ave (deg)		* Time to drill interval, incl's connections & NPT.			

Comments: New hole drilled: Surface Hole - 170m to 848mMD (678m drilled), Production Hole - 848m to 5,267mMDRT (4,419m drilled).

TIME ANALYSIS

Start Date:	24/4/2005, 1200hrs	Finish Date:	7/6/2005, 1800hrs		
Target Days:	43.75	Total Days:	29.92	% Under Target:	31.6%
AFE Days:	52.50	NPT Days:	1.43	% of Total Days:	4.8%
Supplementary AFE Days:	N/A				

COSTS (based on projected)

AFE No.:	L0501F401	Revisions:	N/A	\$ per m	A\$2.87k / metre (new hole)
\$ per day:	A\$490k/day	\$ per day (excl. T + L)	A\$330k/day		A\$2.78k / metre*
		* Equipment, LWD/RSS & Reeves			* based on TD not new hole

	Equipment	Materials	Contracts	Allocations	Contingency	Total
AFE (Original)	595,000	3,727,200	17,225,400	1,252,400	--	A\$22,800,000
AFE (Supp #1)	N/A	N/A	N/A	N/A	--	N/A
Projected	653,759	2,006,051	11,277,484	708,546	--	A\$14,645,840

CASING (all depths herein are based on Ensco 102 elevations: RT-MSL=50.52m)

	<u>Size / Weight / Grade / Thread</u>	m MDRT	m TVDRT	PIT (ppg)
Conductor Casing *	N/A	220	220	N/A
Surface Casing	9-5/8", 47ppf, L80, VamTop	845	700	13.0 (Jug)
Prod Casing	7", 26ppf, L80, VamTop HC	5265	2607	N/A
Prod Liner	N/A	N/A	N/A	N/A

Comments: * Pre-existing casing string.

COMPLETION

	<u>Size / Weight / Grade / Thread</u>	m MDRT	m TVDRT	Type
Completion	4 1/2" 12.6ppf, 13Cr80	4967.8	2464	Single

	Top of Interval [m MDRT]	Bottom of Interval [m TVDRT]	Top of Interval [mMDRT]	Bottom of Interval [mTVDRT]	Gun Type
Perforation Interval:	5181.8	5189.0	2568.3	2571.6	MAXR

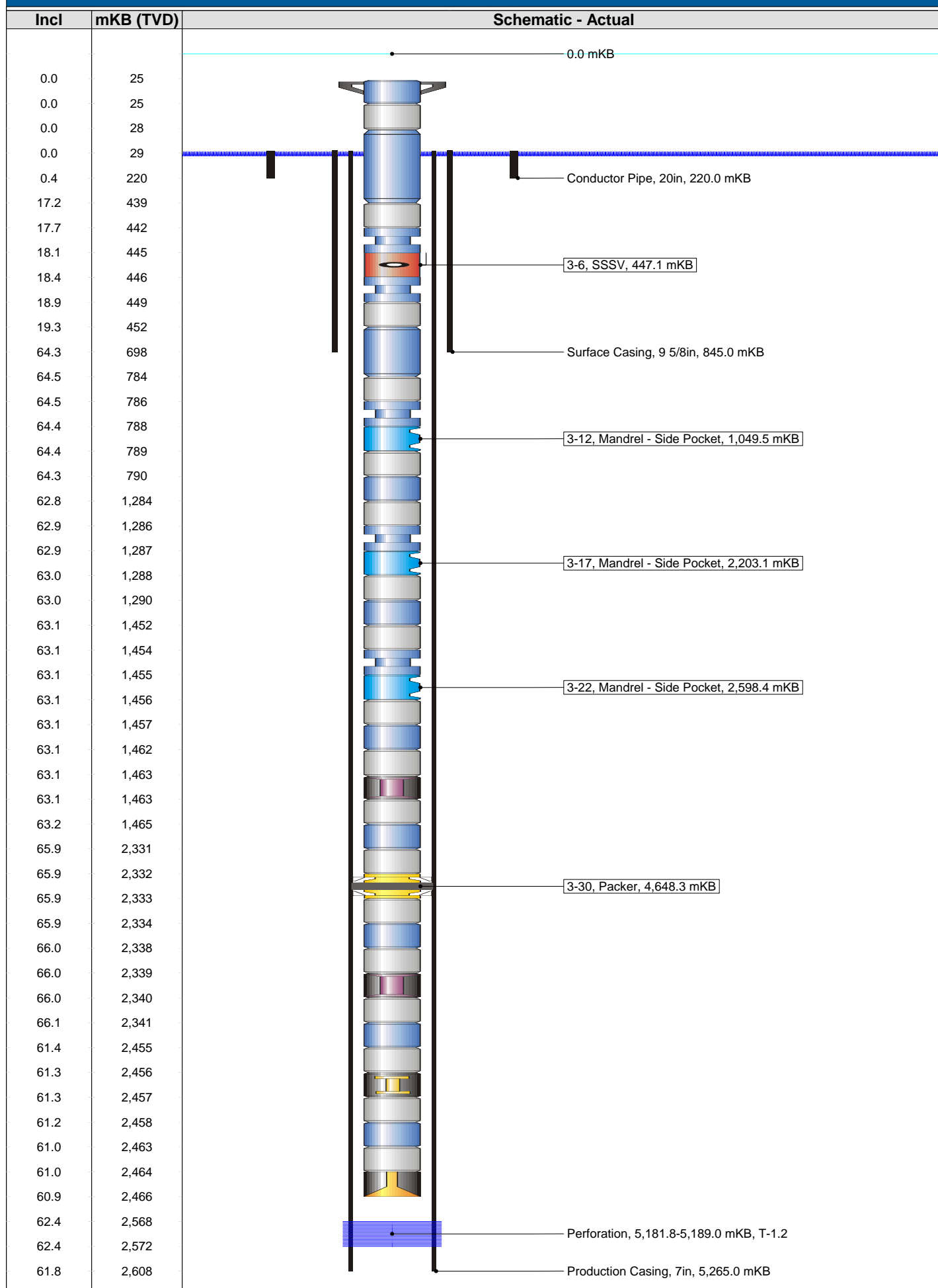
Comments: Completion run under separate AFE/Project. Consult with completion/workover file to view completion details.

ADDITIONAL

		Top of Interval [m MDRT]	Bottom of Interval [m MDRT]
Logs Run	Schlumberger-Anadrill LWD (GR-Resistivity-Density-Neutron-Caliper)	845	5,267

Comments: The 8-1/2" hole interval was logged via LWD from the surface casing shoe to TD. No failures of the LWD suite occurred during the drilling of this well.

Flounder A3A: Existing Schematic



III. SAMPLES

CUTTINGS

The cuttings sampling programme for FLOUNDER A3A are detailed in the following table:

Interval (mMDRT)	Formation	Sampling Interval/Details
Surface Casing to 150m above Top of Latrobe (TOL): 220 m - 3720 mMDRT	Gippsland Limestone	30 m interval Spot samples only
150 m above TOL to near Top of Latrobe (TOL): 3720 m – 3820 mMDRT	Gippsland Limestone	10 m interval Three sets of washed and oven dried cuttings.
Near TOL to Total Depth (TD) 3820 m – 5267 mMDRT (TD)	Lakes Entrance Formation and Latrobe Group	10 m interval 3820 - 3920 mMD 5 m interval 3920 - 4170 mMD 10 m interval 4170 - 4450 mMD 5 m interval 4450 - 5267 mMD Three sets of washed and oven dried cuttings.

Note: Over intervals of high ROP it was not possible to collect 5m samples from the top Latrobe Group to 5267 mMDRT (TD) as designated in the Well Program.

Detailed cuttings descriptions for the interval 848 to 5267 mMDRT (TD) are contained in Appendix 3a.

CONVENTIONAL CORING

No conventional cores were cut in FLOUNDER A3A.

SIDEWALL CORING

No sidewall core samples were shot in FLOUNDER A3A.

IV. LOGS AND SURVEYS

Survey/Log	Company	Top (m MDRT)	Bottom (m MDRT)
MWD Powerpulse (Directional)*	Schlumberger-Anadrill	405.98	5247.8
MWD ARC6 (Resistivity/GR)*	Schlumberger-Anadrill	845.0	5267.0
MWD ADN6 (Density/Neutron)*	Schlumberger-Anadrill	845.0	5267.0

* Run combined in BHA from 845m to TD.

V. FORMATION RESERVOIR TOPS - FLOUNDER A3A

Zone	m TVDSS			m MDRT Actual	m TVT Gross HC Column	
	Predicted Tops	Actual	Diff. (m TVD)		Predicted	Actual
Top of Lakes Entrance Formation	-1933	-1936.6	3.6 low	3821.0		
TOL (Top of Latrobe)	-1953	-1955.9	2.9 low	3872.2		
BTFC (Base Tuna Flounder Channel) (Top of Paleocene L. balmei section)	-2225	-2232.9	7.9 low	4531.5		
Fault (17m throw)	-2255	-2266.7	11.7 low	4611.9		
SHCL (Shallow Coal)	Faulted out	Faulted out		Faulted out		
MPSB (Mid Paleoc. Sequence Bound.)		-2276.8		4636.6		
Oil sand above MPM		-2297.4		4687.1		2.3 prob oil (1.6 net)
MPM Coal (Mid Paleocene Marker)	-2296	-2300.2	4.2 low	4694.0		
63MY (Top of "Flounder shale")	-2379	-2383.1	4.1 low	4900.8		
TEDM (mid shale marker) (~top Cret.)	-2430	-2434.8	4.8 low	5010.0		
T-1.0 sand	-2434	-2438.7	4.7 low	5017.7		4.2 gas (3.2 net)
T1.05		-2451.5		5042.8		
T-1.1 sand top	-2456	-2460.5	4.5 low	5060.6	17 gas (13 net)	19.8 gas (14.8 net)
MDT1		-2480.3		5100.8	23 gas (17 net)	22.6 gas (9.8 net)
67MY (Base of T1.1)	-2496	-2502.8	6.8 low	5149.5		
T-1.1.1 top		-2505.2		5154.7		1.3 gas (0.7 net)
T-1.2 sand top	-2509	-2511.6	2.6 low	5168.5	4 gas (3.5 net)	4.8 gas (4.8 net)

V. FORMATION RESERVOIR TOPS - FLOUNDER A3A (cont'd)

Zone	m TVDSS			m MDRT Actual	m TVT Gross HC Column	
	Predicted Tops	Actual	Diff. (m TVD)		Predicted	Actual
68MY (Base of T1.2)	-2513	-2516.4	3.4 low	5179.0	(GOC - 2516.5)	GOC in shale
T-1.2 L sand top	-2514	-2517.4	3.4 low	5181.0	3 oil	4.1 oil (3.0 net)
TT2		-2527.3		5202.5		
TT2.5		-2546.3		5243.0		
TD (Total Depth)	-2556.4	-2557.6	1.2 low	5267.0		

VI. GEOLOGICAL ANALYSIS - FLOUNDER A3A

Objectives

The objective of Flounder A3A was to further develop the gas and oil reserves in the T-1.1 reservoir in the large Northeast fault block (FB4) of Flounder field. The only previous well to have produced from this fault block was the A6 development well, which is still on production from the T-1.1 oil leg. Although there is also a crestal well A9 which will be an important drainage point for the T-1.1 oil and gas reserves in the future, it is currently still completed in the deeper T-8 reservoir. So an additional well, A3A, was required at the crest in order to develop the large T-1.1 gas and oil reserves in this block in a timely fashion within platform life. Reservoir simulation results indicated that cost effective capture of the T-1 oil reserves could be achieved by gas production ("blowdown") of the gas cap together with upwards recompletion of the rising T-1 oil leg through the T-1.1 sand at the crest.

A3A was targeted at the crest east of A9 but the wellpath was positioned so that the T-1 oil leg could be encountered at about the level of the T-1.2 sand for possible early oil production prior to blowdown of the gas cap.

Results

Flounder A3A was drilled by the Ensco 102 jackup rig out of the reclaimed A3 conductor and spudded on 24 April 2005. 12 ¼" hole was drilled to 848mMDRT, then 9 5/8" casing was run to 845m MDRT (650m TVDSS) and cemented. The Ensco rig was then skidded to A10 for drilling A10A (a large potential but unsuccessful target). Following the plugging of A10A, the rig was skidded back to A3A on May 14, 2005, to drill the production hole. The 8 ½" hole was drilled to Total Depth of 5267mMDRT (2557.6m TVDSS) with Petrofree non-aqueous drilling fluid, and logging was performed by LWD while drilling.

The Top of Latrobe came in at 3872.2m MDRT (1955.9m TVDSS), about 2.9mTVD low to prediction, and the base of Tuna-Flounder Channel section, which is the top of the Paleocene coals and sands section, was at 4531.5m MDRT (2232.9m TVDSS). An exceptionally thick section (38mTVD) of very hard dolomite-cemented sand was drilled in Paleocene sands above the Flounder shale, causing slow drilling through that particular interval.

The top of the primary objective T-1.1 reservoir was intersected at 5060.6m MDRT (2460.5m TVDSS), which is 4.5mTVD low to prediction. The T-1.1 reservoir is composed of a 42mTVD highly interbedded section of dolomitised and porous sand, which contains approximately 25m TVD net gas pay. Further 4.8mTVD net gas pay was also present in the T-1.2 sand (top at 5168.5m MDRT, 2511.6m TVDSS) and 3.0mTVD net oil pay in a small sand called T-1.2Lower below the T1.2. The GOC -2516.5m TVDSS carried for the block occurs in the thin shale between these sands. Postdrill re-correlation of the T-1.1/ T-1.2 section at A3A, A9 and Flounder-4, indicates that the T-1.2L sand is present at FL-4, and that there is a fault at FL-4 within the T-1.1.

Gas was also present in the small T1.0 sand above the T-1.1, and minor gas in the T-1.1.1. A small Paleocene sand encountered at 4687m MDRT just above the MPM coal marker, is also interpreted from logs to be possibly oil-bearing.

Flounder A3A reached TD on 2 June 2005. The well was cased with 7" casing to 5265m MDRT (2556.5m TVDSS) and completed by the Ensco jackup rig as a 3 1/2" single completion with perforations in the small T1.2L oil sand (perforations 5181.8 to 5189m MDRT). The zone flowed at an initial oil rate of 230 kl/d and is currently on production. The Ensco 102 was demobilised from Flounder to move to Bream B platform.

APPENDIX 1a
FLOUNDER A3A
Survey Data



FLA A-3A Final Geodetic Survey

Report Date: June 6, 2005	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Esso Australia Pty Ltd	Vertical Section Azimuth: 83.890°
Field: Flounder GDA 94	Vertical Section Origin: N 0.110 m, E 4.270 m
Structure / Slot: Flounder Rig 19 / 3	TVD Reference Datum: RKB
Well: 3	TVD Reference Elevation: 50.5 m relative to MSL
Borehole: FLA A-3A	Sea Bed / Ground Level Elevation: -94.000 m relative to MSL
UWI/API#:	Magnetic Declination: 13.293°
Survey Name / Date: FLA A-3A Final / April 26, 2005	Total Field Strength: 59968.165 nT
Tort / AHD / DDI / ERD ratio: 181.439° / 4301.17 m / 6.714 / 1.649	Magnetic Dip: -68.768°
Grid Coordinate System: GDA94/MGA94 Zone 55	Declination Date: April 26, 2005
Location Lat/Long: S 38 18 39.104, E 148 26 21.829	Magnetic Declination Model: BGGM 2004
Location Grid N/E Y/X: N 5758713.210 m, E 625842.970 m	North Reference: Grid North
Grid Convergence Angle: -0.89243917°	Total Corr Mag North -> Grid North: +14.185°
Grid Scale Factor: 0.99979503	Local Coordinates Referenced To: Structure Reference Point

Comments	Measured Depth (m)	Inclination (deg)	Azimuth (deg)	TVD (m)	Vertical Section (m)	NS (m)	EW (m)	DLS (deg/30 m)	Northing (m)	Easting (m)	Latitude	Longitude
Tie-In	0.00	0.00	0.00	0.00	0.00	0.11	4.27	0.00	5758713.21	625842.97	S 38 18 39.104	E 148 26 21.829
	90.00	0.00	0.00	90.00	0.00	0.11	4.27	0.00	5758713.21	625842.97	S 38 18 39.104	E 148 26 21.829
	95.00	0.37	298.06	95.00	-0.01	0.12	4.26	2.22	5758713.22	625842.96	S 38 18 39.104	E 148 26 21.828
	100.00	0.34	298.62	100.00	-0.04	0.13	4.23	0.18	5758713.23	625842.93	S 38 18 39.103	E 148 26 21.827
	105.00	0.46	287.34	105.00	-0.07	0.15	4.20	0.86	5758713.25	625842.90	S 38 18 39.103	E 148 26 21.826
	110.00	0.42	284.85	110.00	-0.10	0.16	4.16	0.27	5758713.26	625842.86	S 38 18 39.102	E 148 26 21.824
	115.00	0.38	281.53	115.00	-0.14	0.16	4.13	0.28	5758713.26	625842.83	S 38 18 39.102	E 148 26 21.823
	120.00	0.41	289.13	120.00	-0.17	0.17	4.09	0.36	5758713.27	625842.79	S 38 18 39.102	E 148 26 21.821
	125.00	0.46	293.23	125.00	-0.20	0.19	4.06	0.35	5758713.29	625842.76	S 38 18 39.101	E 148 26 21.820
	130.00	0.42	284.21	130.00	-0.24	0.20	4.02	0.48	5758713.30	625842.72	S 38 18 39.101	E 148 26 21.818
	135.00	0.45	276.30	135.00	-0.27	0.21	3.98	0.40	5758713.31	625842.68	S 38 18 39.101	E 148 26 21.817
	140.00	0.46	272.42	140.00	-0.31	0.21	3.94	0.19	5758713.31	625842.64	S 38 18 39.101	E 148 26 21.815
	145.00	0.55	269.42	145.00	-0.36	0.21	3.90	0.56	5758713.31	625842.60	S 38 18 39.101	E 148 26 21.813
	150.00	0.54	270.93	150.00	-0.40	0.21	3.85	0.11	5758713.31	625842.55	S 38 18 39.101	E 148 26 21.812
	155.00	0.44	265.43	155.00	-0.45	0.21	3.81	0.66	5758713.31	625842.51	S 38 18 39.101	E 148 26 21.810
	160.00	0.46	262.14	160.00	-0.49	0.20	3.77	0.20	5758713.30	625842.47	S 38 18 39.101	E 148 26 21.808
	165.00	0.46	252.53	165.00	-0.53	0.20	3.73	0.46	5758713.30	625842.43	S 38 18 39.101	E 148 26 21.807
	170.00	0.50	262.39	170.00	-0.57	0.19	3.69	0.55	5758713.29	625842.39	S 38 18 39.102	E 148 26 21.805
	175.00	0.53	258.21	175.00	-0.61	0.18	3.65	0.29	5758713.28	625842.35	S 38 18 39.102	E 148 26 21.803
	180.00	0.50	267.40	180.00	-0.66	0.17	3.60	0.53	5758713.27	625842.30	S 38 18 39.102	E 148 26 21.801
	185.00	0.50	266.04	185.00	-0.70	0.17	3.56	0.07	5758713.27	625842.26	S 38 18 39.102	E 148 26 21.799
	190.00	0.55	249.54	190.00	-0.75	0.16	3.52	0.95	5758713.26	625842.21	S 38 18 39.103	E 148 26 21.798
	195.00	0.52	248.34	195.00	-0.79	0.14	3.47	0.19	5758713.24	625842.17	S 38 18 39.103	E 148 26 21.796
	200.00	0.49	228.46	200.00	-0.83	0.12	3.43	1.06	5758713.22	625842.13	S 38 18 39.104	E 148 26 21.794
	205.00	0.57	224.13	205.00	-0.87	0.09	3.40	0.54	5758713.19	625842.10	S 38 18 39.105	E 148 26 21.793
	210.00	0.50	226.20	210.00	-0.90	0.06	3.37	0.44	5758713.16	625842.07	S 38 18 39.106	E 148 26 21.792
	215.00	0.48	224.35	215.00	-0.94	0.03	3.34	0.15	5758713.13	625842.04	S 38 18 39.107	E 148 26 21.790
	220.00	0.41	214.07	220.00	-0.96	0.00	3.31	0.64	5758713.10	625842.01	S 38 18 39.108	E 148 26 21.789
	225.00	0.39	204.53	225.00	-0.98	-0.03	3.30	0.42	5758713.07	625842.00	S 38 18 39.109	E 148 26 21.789
	230.00	0.38	195.62	230.00	-1.00	-0.06	3.28	0.36	5758713.04	625841.98	S 38 18 39.110	E 148 26 21.788
	235.00	0.33	194.18	235.00	-1.01	-0.09	3.28	0.30	5758713.01	625841.98	S 38 18 39.111	E 148 26 21.788
	240.00	0.38	195.79	240.00	-1.02	-0.12	3.27	0.31	5758712.98	625841.97	S 38 18 39.112	E 148 26 21.788
	245.00	0.36	196.53	245.00	-1.03	-0.16	3.26	0.12	5758712.94	625841.96	S 38 18 39.113	E 148 26 21.787
	250.00	0.17	166.73	250.00	-1.04	-0.18	3.26	1.37	5758712.92	625841.96	S 38 18 39.114	E 148 26 21.787
	255.00	0.13	105.10	255.00	-1.03	-0.19	3.26	0.94	5758712.91	625841.96	S 38 18 39.114	E 148 26 21.788
	260.00	0.37	42.63	260.00	-1.01	-0.18	3.28	1.98	5758712.92	625841.98	S 38 18 39.114	E 148 26 21.788
	265.00	0.52	34.09	264.99	-0.99	-0.15	3.30	0.98	5758712.95	625842.00	S 38 18 39.113	E 148 26 21.789
	270.00	0.65	28.94	269.99	-0.96	-0.10	3.33	0.84	5758713.00	625842.03	S 38 18 39.111	E 148 26 21.790
	275.00	0.79	26.35	274.99	-0.92	-0.05	3.36	0.86	5758713.05	625842.06	S 38 18 39.109	E 148 26 21.791
	280.00	1.01	21.28	279.99	-0.88	0.03	3.39	1.40	5758713.13	625842.09	S 38 18 39.107	E 148 26 21.793
	285.00	1.42	14.29	284.99	-0.84	0.13	3.42	2.61	5758713.23	625842.12	S 38 18 39.104	E 148 26 21.794
	290.00	2.21	5.86	289.99	-0.80	0.28	3.45	4.99	5758713.38	625842.15	S 38 18 39.099	E 148 26 21.795
	295.00	3.07	1.23	294.98	-0.76	0.51	3.46	5.31	5758713.61	625842.16	S 38 18 39.091	E 148 26 21.795
	300.00	3.87	357.77	299.98	-0.73	0.81	3.46	4.96	5758713.91	625842.16	S 38 18 39.081	E 148 26 21.795
	305.00	4.31	358.14	304.96	-0.71	1.17	3.44	2.64	5758714.27	625842.14	S 38 18 39.070	E 148 26 21.794
	310.00	4.48	0.77	309.95	-0.67	1.55	3.44	1.58	5758714.65	625842.14	S 38 18 39.057	E 148 26 21.794
	315.00	4.50	3.32	314.93	-0.62	1.95	3.45	1.20	5758715.05	625842.15	S 38 18 39.045	E 148 26 21.794
	320.00	4.55	6.19	319.92	-0.54	2.34	3.49	1.39	5758715.44	625842.19	S 38 18 39.032	E 148 26 21.795

325.00	4.27	13.32	324.90	-0.44	2.72	3.55	3.69	5758715.82	625842.25	S 38 18 39.020	E 148 26 21.797
330.00	4.01	25.68	329.89	-0.28	3.06	3.67	5.56	5758716.15	625842.37	S 38 18 39.009	E 148 26 21.802
335.00	3.93	30.29	334.88	-0.09	3.36	3.83	1.97	5758716.46	625842.53	S 38 18 38.999	E 148 26 21.809
338.70	3.84	33.45	338.57	0.06	3.57	3.96	1.88	5758716.67	625842.66	S 38 18 38.992	E 148 26 21.814
360.66	8.15	31.00	360.40	1.47	5.52	5.17	5.90	5758718.62	625843.87	S 38 18 38.928	E 148 26 21.862
388.67	11.51	58.38	388.01	5.20	8.69	8.58	6.07	5758721.79	625847.27	S 38 18 38.823	E 148 26 22.000
405.98	11.95	65.75	404.96	8.46	10.33	11.68	2.70	5758723.43	625850.38	S 38 18 38.769	E 148 26 22.127
434.56	16.17	76.72	432.68	15.22	12.46	18.26	5.22	5758725.56	625856.95	S 38 18 38.696	E 148 26 22.396
464.13	20.78	83.27	460.73	24.56	14.03	27.48	5.12	5758727.12	625866.17	S 38 18 38.641	E 148 26 22.775
492.67	27.39	82.60	486.77	36.20	15.47	39.03	6.95	5758728.56	625877.72	S 38 18 38.588	E 148 26 23.249
522.03	32.77	81.94	512.16	50.90	17.45	53.61	5.51	5758730.55	625892.29	S 38 18 38.516	E 148 26 23.848
550.64	36.15	81.10	535.75	67.07	19.84	69.61	3.58	5758732.94	625908.30	S 38 18 38.431	E 148 26 24.505
579.48	39.15	80.35	558.58	84.66	22.69	87.00	3.16	5758735.78	625925.68	S 38 18 38.330	E 148 26 25.219
608.69	43.84	79.39	580.45	103.96	26.10	106.04	4.86	5758739.19	625944.72	S 38 18 38.210	E 148 26 26.001
637.69	49.91	79.69	600.27	125.05	29.93	126.85	6.28	5758743.03	625965.52	S 38 18 38.075	E 148 26 26.854
666.79	55.03	80.22	617.99	148.07	33.95	149.56	5.30	5758747.05	625988.23	S 38 18 37.933	E 148 26 27.787
696.36	59.70	79.64	633.93	172.90	38.31	174.07	4.76	5758751.40	626012.74	S 38 18 37.779	E 148 26 28.793
724.38	62.63	81.48	647.45	197.40	42.33	198.28	3.58	5758755.42	626036.94	S 38 18 37.637	E 148 26 29.787
753.31	63.28	79.30	660.60	223.12	46.63	223.69	2.12	5758759.72	626062.34	S 38 18 37.484	E 148 26 30.829
782.40	64.81	79.83	673.33	249.20	51.37	249.41	1.65	5758764.46	626088.06	S 38 18 37.318	E 148 26 31.885
811.00	64.61	82.52	685.55	275.03	55.34	274.96	2.56	5758768.43	626113.60	S 38 18 37.176	E 148 26 32.934
824.28	64.52	84.57	691.26	287.02	56.69	286.87	4.19	5758769.77	626125.51	S 38 18 37.126	E 148 26 33.423
875.94	63.73	85.56	713.80	333.49	60.68	333.18	0.69	5758773.77	626171.81	S 38 18 36.973	E 148 26 35.327
904.94	64.26	85.34	726.52	359.54	62.75	359.16	0.59	5758775.84	626197.79	S 38 18 36.893	E 148 26 36.395
934.24	64.77	85.11	739.12	385.99	64.95	385.52	0.56	5758778.04	626224.14	S 38 18 36.808	E 148 26 37.478
962.55	64.74	84.75	751.20	411.59	67.22	411.03	0.35	5758780.30	626249.64	S 38 18 36.722	E 148 26 38.526
991.92	65.14	84.61	763.64	438.19	69.68	437.52	0.43	5758782.77	626276.13	S 38 18 36.628	E 148 26 39.615
1020.56	64.86	84.61	775.74	464.14	72.12	463.36	0.29	5758785.21	626301.96	S 38 18 36.536	E 148 26 40.677
1049.50	64.40	85.13	788.14	490.29	74.46	489.40	0.68	5758787.55	626328.00	S 38 18 36.447	E 148 26 41.747
1078.39	63.92	85.08	800.73	516.29	76.68	515.31	0.50	5758789.76	626353.90	S 38 18 36.362	E 148 26 42.812
1107.61	63.47	85.14	813.68	542.47	78.91	541.41	0.47	5758792.00	626380.00	S 38 18 36.276	E 148 26 43.885
1136.95	63.21	85.11	826.85	568.69	81.14	567.53	0.27	5758794.22	626406.12	S 38 18 36.191	E 148 26 44.958
1165.69	63.23	84.66	839.80	594.34	83.43	593.09	0.42	5758796.51	626431.67	S 38 18 36.104	E 148 26 46.009
1194.58	63.74	84.45	852.69	620.19	85.88	618.82	0.56	5758798.96	626457.40	S 38 18 36.011	E 148 26 47.066
1223.57	64.14	84.31	865.43	646.23	88.43	644.74	0.43	5758801.51	626483.31	S 38 18 35.915	E 148 26 48.131
1252.24	64.49	83.90	877.86	672.07	91.09	670.44	0.53	5758804.17	626509.00	S 38 18 35.816	E 148 26 49.187
1281.46	64.80	83.80	890.37	698.47	93.91	696.69	0.33	5758806.99	626535.25	S 38 18 35.711	E 148 26 50.266
1310.98	65.19	83.63	902.85	725.23	96.84	723.29	0.43	5758809.92	626561.84	S 38 18 35.603	E 148 26 51.358
1340.30	65.31	83.89	915.12	751.85	99.74	749.76	0.27	5758812.82	626588.30	S 38 18 35.495	E 148 26 52.446
1368.89	65.37	84.38	927.05	777.84	102.39	775.60	0.47	5758815.47	626614.14	S 38 18 35.396	E 148 26 53.508
1398.04	65.10	84.97	939.26	804.30	104.85	801.96	0.62	5758817.93	626640.49	S 38 18 35.303	E 148 26 54.591
1427.09	65.25	85.13	951.46	830.66	107.12	828.22	0.22	5758820.20	626666.75	S 38 18 35.216	E 148 26 55.671
1456.30	64.91	85.64	963.77	857.14	109.26	854.63	0.59	5758822.33	626693.15	S 38 18 35.133	E 148 26 56.756
1484.91	64.47	86.21	976.00	882.99	111.09	880.43	0.71	5758824.17	626718.95	S 38 18 35.061	E 148 26 57.816
1514.34	64.40	86.82	988.70	909.51	112.71	906.93	0.57	5758825.78	626745.44	S 38 18 34.995	E 148 26 58.906
1543.14	64.58	86.29	1001.10	935.48	114.27	932.87	0.53	5758827.35	626771.38	S 38 18 34.931	E 148 26 59.973
1572.00	64.68	85.94	1013.47	961.53	116.04	958.89	0.34	5758829.11	626797.39	S 38 18 34.861	E 148 27 1.042
1601.07	64.88	86.63	1025.85	987.81	117.74	985.13	0.68	5758830.82	626823.63	S 38 18 34.792	E 148 27 2.121
1630.03	64.32	87.05	1038.27	1013.94	119.18	1011.25	0.70	5758832.26	626849.74	S 38 18 34.732	E 148 27 3.195
1658.90	64.04	87.29	1050.85	1039.88	120.47	1037.21	0.37	5758833.54	626875.70	S 38 18 34.677	E 148 27 4.263
1687.97	63.83	87.59	1063.62	1065.94	121.63	1063.30	0.35	5758834.71	626901.78	S 38 18 34.626	E 148 27 5.336
1716.92	63.80	87.60	1076.40	1091.87	122.72	1089.25	0.03	5758835.80	626927.73	S 38 18 34.577	E 148 27 6.403
1746.10	64.98	87.13	1089.01	1118.13	123.93	1115.54	1.29	5758837.01	626954.01	S 38 18 34.525	E 148 27 7.484
1774.98	65.65	86.45	1101.07	1144.34	125.40	1141.74	0.95	5758838.48	626980.20	S 38 18 34.464	E 148 27 8.562
1804.18	65.60	85.69	1113.12	1170.92	127.22	1168.27	0.71	5758840.30	627006.73	S 38 18 34.391	E 148 27 9.652
1832.89	65.40	84.79	1125.03	1197.03	129.39	1194.30	0.88	5758842.47	627032.76	S 38 18 34.307	E 148 27 10.722
1862.02	65.15	83.69	1137.21	1223.49	132.05	1220.63	1.06	5758845.12	627059.08	S 38 18 34.208	E 148 27 11.804
1891.04	65.35	83.10	1149.36	1249.85	135.08	1246.81	0.59	5758848.15	627085.25	S 38 18 34.096	E 148 27 12.880
1920.22	65.52	83.27	1161.49	1276.38	138.23	1273.16	0.24	5758851.30	627111.60	S 38 18 33.981	E 148 27 13.962
1949.49	65.03	83.38	1173.74	1302.97	141.32	1299.57	0.51	5758854.39	627138.00	S 38 18 33.867	E 148 27 15.047
1978.19	64.40	84.28	1185.99	1328.92	144.11	1325.37	1.08	5758857.18	627163.79	S 38 18 33.763	E 148 27 16.107
2007.31	64.38	84.61	1198.58	1355.18	146.65	1351.50	0.31	5758859.72	627189.93	S 38 18 33.668	E 148 27 17.181
2036.29	64.27	84.54	1211.14	1381.29	149.12	1377.50	0.13	5758862.19	627215.92	S 38 18 33.574	E 148 27 18.249
2065.12	63.74	84.96	1223.77	1407.20	151.49	1403.31	0.68	5758864.56	627241.72	S 38 18 33.484	E 148 27 19.310
2094.03	62.86	86.54	1236.76	1433.02	153.41	1429.06	1.73	5758866.47	627267.47	S 38 18 33.409	E 148 27 20.369
2123.19	62.46	86.51	1250.16	1458.89	154.98	1454.92	0.41	5758868.04	627293.32	S 38 18 33.345	E 148 27 21.432
2152.21	62.06	86.46	1263.66	1484.55	156.55	1480.55	0.42	5758869.62	627318.95	S 38 18 33.281	E 148 27 22.486

2181.81	62.63	86.17	1277.40	1510.74	158.24	1506.72	0.63	5758871.30	627345.11	S 38 18 33.213	E 148 27 23.561
2209.88	63.03	85.95	1290.22	1535.70	159.95	1531.63	0.48	5758873.02	627370.02	S 38 18 33.144	E 148 27 24.586
2239.29	63.66	84.22	1303.41	1561.98	162.21	1557.82	1.70	5758875.27	627396.20	S 38 18 33.058	E 148 27 25.662
2268.38	64.46	84.15	1316.14	1588.13	164.86	1583.84	0.83	5758877.92	627422.22	S 38 18 32.959	E 148 27 26.731
2297.67	65.41	83.68	1328.55	1614.67	167.67	1610.22	1.07	5758880.73	627448.59	S 38 18 32.854	E 148 27 27.815
2326.66	65.73	83.48	1340.54	1641.06	170.62	1636.45	0.38	5758883.68	627474.82	S 38 18 32.745	E 148 27 28.893
2355.76	65.73	82.61	1352.50	1667.59	173.83	1662.79	0.82	5758886.90	627501.14	S 38 18 32.627	E 148 27 29.974
2384.91	65.88	82.92	1364.45	1694.17	177.18	1689.16	0.33	5758890.24	627527.52	S 38 18 32.505	E 148 27 31.058
2413.93	65.77	82.87	1376.33	1720.64	180.46	1715.43	0.12	5758893.52	627553.78	S 38 18 32.385	E 148 27 32.137
2442.95	65.59	83.14	1388.28	1747.08	183.68	1741.68	0.32	5758896.74	627580.03	S 38 18 32.268	E 148 27 33.215
2471.74	65.34	83.27	1400.24	1773.27	186.77	1767.69	0.29	5758899.84	627606.03	S 38 18 32.154	E 148 27 34.283
2500.94	65.01	83.42	1412.50	1799.77	189.85	1794.01	0.37	5758902.91	627632.34	S 38 18 32.041	E 148 27 35.364
2529.91	64.59	83.50	1424.83	1825.98	192.83	1820.05	0.44	5758905.89	627658.38	S 38 18 31.930	E 148 27 36.434
2558.85	64.21	83.73	1437.33	1852.08	195.73	1845.99	0.45	5758908.79	627684.31	S 38 18 31.823	E 148 27 37.500
2587.69	63.09	83.72	1450.14	1877.92	198.56	1871.68	1.17	5758911.62	627710.00	S 38 18 31.718	E 148 27 38.555
2616.65	63.09	83.49	1463.24	1903.75	201.44	1897.34	0.21	5758914.49	627735.65	S 38 18 31.612	E 148 27 39.609
2645.58	63.95	83.17	1476.14	1929.64	204.44	1923.06	0.94	5758917.50	627761.37	S 38 18 31.501	E 148 27 40.666
2674.21	64.69	82.66	1488.55	1955.44	207.63	1948.67	0.91	5758920.68	627786.97	S 38 18 31.385	E 148 27 41.718
2703.17	65.15	82.04	1500.82	1981.66	211.12	1974.66	0.75	5758924.17	627812.96	S 38 18 31.258	E 148 27 42.785
2732.63	65.93	81.43	1513.02	2008.46	214.97	2001.20	0.97	5758928.03	627839.49	S 38 18 31.120	E 148 27 43.875
2761.79	66.31	81.09	1524.83	2035.09	219.02	2027.55	0.51	5758932.08	627865.84	S 38 18 30.975	E 148 27 44.957
2790.21	65.97	81.35	1536.32	2061.05	222.99	2053.24	0.44	5758936.05	627891.52	S 38 18 30.833	E 148 27 46.011
2819.61	65.72	81.52	1548.35	2087.86	226.99	2079.77	0.30	5758940.04	627918.04	S 38 18 30.690	E 148 27 47.100
2848.54	65.26	81.84	1560.36	2114.16	230.80	2105.81	0.56	5758943.85	627944.08	S 38 18 30.553	E 148 27 48.170
2877.47	64.84	82.05	1572.56	2140.37	234.47	2131.78	0.48	5758947.52	627970.05	S 38 18 30.420	E 148 27 49.236
2906.40	64.14	81.99	1585.02	2166.47	238.10	2157.64	0.73	5758951.15	627995.90	S 38 18 30.289	E 148 27 50.298
2935.63	63.39	82.35	1597.94	2192.68	241.67	2183.62	0.84	5758954.72	628021.87	S 38 18 30.160	E 148 27 51.365
2963.92	62.68	82.88	1610.77	2217.88	244.91	2208.62	0.90	5758957.96	628046.87	S 38 18 30.042	E 148 27 52.392
2993.33	62.06	83.04	1624.41	2243.94	248.10	2234.48	0.65	5758961.15	628072.72	S 38 18 29.925	E 148 27 53.454
3022.36	61.65	83.16	1638.10	2269.53	251.18	2259.89	0.44	5758964.23	628098.13	S 38 18 29.813	E 148 27 54.498
3051.76	61.49	83.17	1652.10	2295.38	254.26	2285.56	0.16	5758967.30	628123.79	S 38 18 29.700	E 148 27 55.552
3080.23	62.15	83.26	1665.54	2320.48	257.22	2310.48	0.70	5758970.27	628148.71	S 38 18 29.591	E 148 27 56.576
3109.54	62.78	83.11	1679.09	2346.47	260.30	2336.29	0.66	5758973.35	628174.51	S 38 18 29.477	E 148 27 57.636
3137.41	63.37	83.16	1691.71	2371.31	263.27	2360.96	0.64	5758976.32	628199.17	S 38 18 29.368	E 148 27 58.649
3167.18	64.02	83.22	1704.90	2398.00	266.44	2387.46	0.66	5758979.48	628225.67	S 38 18 29.252	E 148 27 59.738
3196.00	64.48	83.42	1717.42	2423.95	269.46	2413.24	0.51	5758982.50	628251.45	S 38 18 29.141	E 148 28 0.797
3225.00	65.42	83.33	1729.70	2450.22	272.49	2439.34	0.98	5758985.53	628277.54	S 38 18 29.029	E 148 28 1.869
3254.68	66.03	83.44	1741.90	2477.28	275.61	2466.21	0.62	5758988.65	628304.41	S 38 18 28.914	E 148 28 2.973
3283.53	66.29	83.36	1753.57	2503.67	278.64	2492.43	0.28	5758991.68	628330.61	S 38 18 28.803	E 148 28 4.049
3312.55	65.73	83.70	1765.36	2530.18	281.63	2518.77	0.66	5758994.67	628356.95	S 38 18 28.692	E 148 28 5.132
3341.17	65.24	83.53	1777.24	2556.22	284.52	2544.65	0.54	5758997.56	628382.83	S 38 18 28.585	E 148 28 6.195
3369.88	64.52	83.80	1789.43	2582.21	287.39	2570.48	0.79	5759000.43	628408.66	S 38 18 28.478	E 148 28 7.256
3398.97	64.80	83.94	1801.88	2608.50	290.20	2596.62	0.32	5759003.24	628434.79	S 38 18 28.374	E 148 28 8.330
3427.95	65.81	83.85	1813.99	2634.83	293.00	2622.80	1.05	5759006.04	628460.97	S 38 18 28.270	E 148 28 9.406
3457.01	66.48	83.94	1825.74	2661.41	295.83	2649.23	0.70	5759008.87	628487.39	S 38 18 28.164	E 148 28 10.491
3486.31	66.59	84.31	1837.40	2688.29	298.58	2675.97	0.37	5759011.62	628514.12	S 38 18 28.061	E 148 28 11.590
3515.12	66.18	84.42	1848.95	2714.68	301.17	2702.24	0.44	5759014.21	628540.38	S 38 18 27.964	E 148 28 12.669
3543.20	65.57	84.41	1860.42	2740.31	303.66	2727.74	0.65	5759016.70	628565.88	S 38 18 27.870	E 148 28 13.717
3572.31	65.05	84.98	1872.58	2766.76	306.11	2754.08	0.76	5759019.15	628592.21	S 38 18 27.777	E 148 28 14.800
3602.08	64.43	85.47	1885.29	2793.67	308.35	2780.91	0.77	5759021.39	628619.04	S 38 18 27.690	E 148 28 15.902
3631.11	63.58	86.00	1898.01	2819.75	310.29	2806.93	1.01	5759023.33	628645.05	S 38 18 27.614	E 148 28 16.972
3689.08	62.73	85.97	1924.19	2871.44	313.91	2858.52	0.44	5759026.95	628696.64	S 38 18 27.470	E 148 28 19.093
3717.23	62.82	85.39	1937.07	2896.46	315.80	2883.48	0.56	5759028.83	628721.59	S 38 18 27.396	E 148 28 20.119
3747.39	62.80	84.76	1950.85	2923.28	318.10	2910.21	0.56	5759031.14	628748.31	S 38 18 27.307	E 148 28 21.217
3776.00	63.22	84.44	1963.83	2948.77	320.50	2935.59	0.53	5759033.53	628773.69	S 38 18 27.216	E 148 28 22.260
3804.50	63.45	83.70	1976.62	2974.24	323.13	2960.92	0.74	5759036.17	628799.02	S 38 18 27.118	E 148 28 23.301
3833.62	63.67	83.51	1989.59	3000.31	326.04	2986.84	0.29	5759039.07	628824.92	S 38 18 27.010	E 148 28 24.365
3862.71	64.25	83.06	2002.36	3026.45	329.09	3012.79	0.73	5759042.12	628850.88	S 38 18 26.898	E 148 28 25.432
3891.23	65.06	83.16	2014.57	3052.22	332.18	3038.38	0.86	5759045.22	628876.46	S 38 18 26.784	E 148 28 26.483
3920.20	65.75	83.11	2026.62	3078.56	335.33	3064.53	0.72	5759048.36	628902.61	S 38 18 26.669	E 148 28 27.557
3949.32	66.82	83.11	2038.33	3105.22	338.53	3091.00	1.10	5759051.56	628929.07	S 38 18 26.551	E 148 28 28.644
3978.22	66.84	83.13	2049.71	3131.78	341.71	3117.38	0.03	5759054.74	628955.44	S 38 18 26.435	E 148 28 29.728
4007.58	66.72	83.29	2061.28	3158.76	344.90	3144.17	0.19	5759057.93	628982.23	S 38 18 26.317	E 148 28 30.828
4036.42	66.19	83.56	2072.80	3185.20	347.93	3170.44	0.61	5759060.96	629008.49	S 38 18 26.205	E 148 28 31.907
4065.44	65.91	83.44	2084.58	3211.72	350.93	3196.79	0.31	5759063.96	629034.83	S 38 18 26.094	E 148 28 32.989
4094.28	65.34	83.26	2096.48	3237.99	353.98	3222.88	0.62	5759067.00	629060.92	S 38 18 25.982	E 148 28 34.061
4123.16	65.10	83.46	2108.59	3264.21	357.01	3248.93	0.31	5759070.03	629086.96	S 38 18 25.870	E 148 28 35.131
4152.20	64.29	83.38	2121.00	3290.46	360.02	3275.01	0.84	5759073.04	629113.03	S 38 18 25.759	E 148 28 36.202

4181.60	64.01	83.74	2133.82	3316.92	362.98	3301.30	0.44	5759076.01	629139.32	S 38 18 25.650	E 148 28 37.283
4210.17	63.95	83.86	2146.35	3342.60	365.76	3326.82	0.13	5759078.78	629164.84	S 38 18 25.546	E 148 28 38.331
4239.28	63.56	83.99	2159.23	3368.70	368.52	3352.78	0.42	5759081.54	629190.80	S 38 18 25.443	E 148 28 39.398
4268.16	63.24	84.36	2172.16	3394.53	371.14	3378.47	0.48	5759084.16	629216.48	S 38 18 25.345	E 148 28 40.453
4297.01	64.04	85.22	2184.97	3420.37	373.49	3404.22	1.16	5759086.51	629242.22	S 38 18 25.256	E 148 28 41.511
4355.02	65.02	85.88	2209.91	3472.72	377.55	3456.43	0.59	5759090.57	629294.42	S 38 18 25.097	E 148 28 43.657
4384.17	65.81	86.42	2222.04	3499.21	379.33	3482.88	0.96	5759092.35	629320.86	S 38 18 25.025	E 148 28 44.744
4412.88	65.91	86.74	2233.78	3525.38	380.89	3509.03	0.32	5759093.91	629347.01	S 38 18 24.961	E 148 28 45.820
4442.01	65.50	86.85	2245.77	3551.90	382.38	3535.54	0.43	5759095.40	629373.51	S 38 18 24.899	E 148 28 46.910
4471.13	65.24	87.17	2257.90	3578.33	383.76	3561.97	0.40	5759096.78	629399.94	S 38 18 24.841	E 148 28 47.997
4499.83	64.92	87.18	2270.00	3604.31	385.04	3587.97	0.33	5759098.06	629425.93	S 38 18 24.786	E 148 28 49.066
4529.08	65.09	88.07	2282.36	3630.77	386.14	3614.46	0.85	5759099.16	629452.42	S 38 18 24.736	E 148 28 50.155
4558.15	64.83	87.97	2294.66	3657.04	387.05	3640.78	0.28	5759100.07	629478.73	S 38 18 24.693	E 148 28 51.238
4586.42	65.14	88.48	2306.62	3682.58	387.84	3666.38	0.59	5759100.86	629504.33	S 38 18 24.654	E 148 28 52.291
4615.48	65.81	88.39	2318.68	3708.93	388.56	3692.81	0.70	5759101.58	629530.75	S 38 18 24.617	E 148 28 53.378
4645.48	65.88	87.36	2330.95	3736.24	389.58	3720.17	0.94	5759102.60	629558.10	S 38 18 24.570	E 148 28 54.503
4674.46	66.09	86.52	2342.75	3762.67	390.99	3746.60	0.82	5759104.01	629584.53	S 38 18 24.510	E 148 28 55.590
4703.47	66.03	85.67	2354.52	3789.17	392.80	3773.05	0.81	5759105.82	629610.98	S 38 18 24.438	E 148 28 56.677
4732.06	66.81	84.97	2365.96	3815.36	394.94	3799.17	1.06	5759107.96	629637.09	S 38 18 24.355	E 148 28 57.751
4761.12	67.23	83.98	2377.30	3842.12	397.51	3825.80	1.04	5759110.53	629663.71	S 38 18 24.257	E 148 28 58.845
4790.23	66.87	82.87	2388.65	3868.92	400.58	3852.42	1.12	5759113.60	629690.33	S 38 18 24.144	E 148 28 59.939
4830.08	66.08	80.96	2404.56	3905.43	405.72	3888.60	1.45	5759118.73	629726.50	S 38 18 23.959	E 148 29 1.424
4859.67	65.98	80.26	2416.58	3932.43	410.13	3915.27	0.66	5759123.14	629753.17	S 38 18 23.802	E 148 29 2.519
4865.81	66.17	80.23	2419.07	3938.03	411.08	3920.80	0.94	5759124.10	629758.70	S 38 18 23.768	E 148 29 2.746
4888.86	65.60	79.20	2428.49	3959.01	414.84	3941.50	1.43	5759127.85	629779.40	S 38 18 23.635	E 148 29 3.595
4917.95	63.60	77.58	2440.97	3985.17	420.12	3967.24	2.56	5759133.13	629805.13	S 38 18 23.451	E 148 29 4.651
4946.85	61.42	77.82	2454.31	4010.65	425.58	3992.29	2.27	5759138.60	629830.17	S 38 18 23.261	E 148 29 5.678
4975.71	60.77	78.16	2468.26	4035.78	430.84	4017.00	0.74	5759143.85	629854.88	S 38 18 23.077	E 148 29 6.691
5004.84	59.62	79.70	2482.74	4060.96	435.69	4041.81	1.82	5759148.71	629879.68	S 38 18 22.907	E 148 29 7.709
5033.57	59.47	80.47	2497.30	4085.67	439.96	4066.20	0.71	5759152.97	629904.07	S 38 18 22.756	E 148 29 8.710
5062.40	59.61	81.80	2511.91	4110.49	443.79	4090.75	1.20	5759156.80	629928.62	S 38 18 22.619	E 148 29 9.718
5091.68	60.71	82.76	2526.48	4135.88	447.20	4115.92	1.41	5759160.21	629953.78	S 38 18 22.495	E 148 29 10.751
5120.75	62.90	81.83	2540.22	4161.49	450.64	4141.31	2.41	5759163.64	629979.16	S 38 18 22.370	E 148 29 11.794
5150.05	62.66	80.80	2553.62	4187.52	454.57	4167.06	0.97	5759167.58	630004.91	S 38 18 22.229	E 148 29 12.851
5179.01	62.47	81.52	2566.96	4213.19	458.52	4192.46	0.69	5759171.53	630030.30	S 38 18 22.088	E 148 29 13.894
5207.72	62.21	81.43	2580.29	4238.60	462.29	4217.61	0.28	5759175.29	630055.45	S 38 18 21.953	E 148 29 14.926
5247.80	61.95	82.67	2599.06	4273.99	467.19	4252.68	0.84	5759180.19	630090.51	S 38 18 21.776	E 148 29 16.366
5267.00	61.82	83.25	2608.11	4290.93	469.26	4269.49	0.82	5759182.27	630107.31	S 38 18 21.699	E 148 29 17.057

Survey Type: Definitive Survey

Survey Error Model: SLB ISCWSA version 21 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (m)

0.00

360.66

MD To (m)

360.66

5267.00

EOU Freq Survey Tool Type

Act-Stns SLB_CNSG+DPIPE

Act-Stns SLB_MWD-STD

**Italicized stations are NOT used in position calculations.*

APPENDIX 1b
FLOUNDER A3A
MD-TVD Survey Data Listing

Report Date:	3 October 2005
Well:	Flounder A3A
Structure / Slot:	ENSCO 102
TVD Reference Datum:	DrillSite Elevation
TVD Reference Elevation:	50.52 m relative to MSL
Sea Bed / Ground Level Elevation:	92.35 m relative to MSL
Grid Coordinate System:	GDA94/MGA94 Zone 55
Location Lat/Long:	S -38 18' 39.103200", E 148 26 21.829200"
Location Grid N/E:	N 5758713.2276 m, E 625842.9809 m
Survey Azimuth Reference:	Grid North

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
0	0	360	0	50.52	0	0	5758713.21	625842.97
5	0	0	5	45.52	0	0	5758713.21	625842.97
10	0	0	10	40.52	0	0	5758713.21	625842.97
15	0	0	15	35.52	0	0	5758713.21	625842.97
20	0	0	20	30.52	0	0	5758713.21	625842.97
25	0	0	25	25.52	0	0	5758713.21	625842.97
30	0	0	30	20.52	0	0	5758713.21	625842.97
35	0	0	35	15.52	0	0	5758713.21	625842.97
40	0	0	40	10.52	0	0	5758713.21	625842.97
45	0	0	45	5.52	0	0	5758713.21	625842.97
50	0	0	50	0.52	0	0	5758713.21	625842.97
55	0	0	55	-4.48	0	0	5758713.21	625842.97
60	0	0	60	-9.48	0	0	5758713.21	625842.97
65	0	0	65	-14.48	0	0	5758713.21	625842.97
70	0	0	70	-19.48	0	0	5758713.21	625842.97
75	0	0	75	-24.48	0	0	5758713.21	625842.97
80	0	0	80	-29.48	0	0	5758713.21	625842.97
85	0	0	85	-34.48	0	0	5758713.21	625842.97
90	0	360	90	-39.48	0	0	5758713.21	625842.97
95	0.37	298.06	95.00	-44.48	0.01	-0.01	5758713.22	625842.96
100	0.34	298.62	100.00	-49.48	0.02	-0.04	5758713.23	625842.93
105	0.46	287.34	105.00	-54.48	0.04	-0.07	5758713.25	625842.90
110	0.42	284.85	110.00	-59.48	0.05	-0.11	5758713.26	625842.86
115	0.38	281.53	115.00	-64.48	0.05	-0.14	5758713.27	625842.83
120	0.41	289.13	120.00	-69.48	0.06	-0.18	5758713.27	625842.80
125	0.46	293.23	125.00	-74.48	0.08	-0.21	5758713.29	625842.76
130	0.42	284.21	130.00	-79.48	0.09	-0.25	5758713.30	625842.72
135	0.45	276.30	135.00	-84.48	0.10	-0.29	5758713.31	625842.69
140	0.46	272.42	140.00	-89.48	0.10	-0.33	5758713.31	625842.65
145	0.55	269.42	145.00	-94.48	0.10	-0.37	5758713.31	625842.60
150	0.54	270.93	150.00	-99.48	0.10	-0.42	5758713.31	625842.56
155	0.44	265.43	155.00	-104.48	0.10	-0.46	5758713.31	625842.51
160	0.46	262.14	160.00	-109.48	0.09	-0.50	5758713.31	625842.47
165	0.46	252.53	165.00	-114.48	0.09	-0.54	5758713.30	625842.43
170	0.50	262.39	170.00	-119.48	0.08	-0.58	5758713.29	625842.39
175	0.53	258.21	175.00	-124.48	0.07	-0.62	5758713.28	625842.35
180	0.50	267.40	180.00	-129.48	0.06	-0.67	5758713.28	625842.31
185	0.50	266.04	185.00	-134.48	0.06	-0.71	5758713.27	625842.26
190	0.55	249.54	190.00	-139.48	0.05	-0.76	5758713.26	625842.22
195	0.52	248.34	195.00	-144.48	0.03	-0.80	5758713.25	625842.17
200	0.49	228.46	200.00	-149.48	0.01	-0.84	5758713.22	625842.14
205	0.57	224.13	205.00	-154.48	-0.02	-0.87	5758713.19	625842.10
210	0.50	226.20	210.00	-159.48	-0.05	-0.90	5758713.16	625842.07
215	0.48	224.35	215.00	-164.48	-0.08	-0.93	5758713.13	625842.04
220	0.41	214.07	220.00	-169.48	-0.11	-0.96	5758713.10	625842.02
225	0.39	204.53	225.00	-174.48	-0.14	-0.98	5758713.07	625842.00

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
230	0.38	195.62	230.00	-179.47	-0.17	-0.99	5758713.04	625841.99
235	0.33	194.18	235.00	-184.47	-0.20	-0.99	5758713.01	625841.98
240	0.38	195.79	240.00	-189.47	-0.23	-1.00	5758712.98	625841.97
245	0.36	196.53	245.00	-194.47	-0.27	-1.01	5758712.95	625841.96
250	0.17	166.73	250.00	-199.47	-0.29	-1.01	5758712.92	625841.96
255	0.13	105.10	255.00	-204.47	-0.30	-1.01	5758712.92	625841.97
260	0.37	42.63	260.00	-209.47	-0.29	-0.99	5758712.93	625841.98
265	0.52	34.09	265.00	-214.47	-0.26	-0.97	5758712.96	625842.01
270	0.65	28.94	270.00	-219.47	-0.21	-0.94	5758713.00	625842.03
275	0.79	26.35	274.99	-224.47	-0.16	-0.91	5758713.06	625842.06
280	1.01	21.28	279.99	-229.47	-0.08	-0.88	5758713.13	625842.09
285	1.42	14.29	284.99	-234.47	0.02	-0.85	5758713.23	625842.12
290	2.21	5.86	289.99	-239.47	0.17	-0.82	5758713.39	625842.15
295	3.07	1.23	294.99	-244.47	0.40	-0.81	5758713.61	625842.16
300	3.87	357.77	299.98	-249.46	0.70	-0.82	5758713.92	625842.16
305	4.31	358.14	304.96	-254.44	1.06	-0.83	5758714.27	625842.15
310	4.48	360.77	309.95	-259.43	1.44	-0.83	5758714.66	625842.14
315	4.50	3.32	314.93	-264.41	1.83	-0.82	5758715.05	625842.16
320	4.55	6.19	319.92	-269.40	2.23	-0.78	5758715.44	625842.19
325	4.27	13.32	324.90	-274.38	2.61	-0.72	5758715.82	625842.25
330	4.01	25.68	329.89	-279.37	2.95	-0.60	5758716.16	625842.37
335	3.93	30.29	334.88	-284.36	3.25	-0.44	5758716.46	625842.53
340	4.10	33.30	339.86	-289.34	3.58	-0.24	5758716.79	625842.74
345	5.08	32.75	344.83	-294.31	4.02	0.04	5758717.24	625843.01
350	6.06	32.19	349.80	-299.28	4.47	0.31	5758717.68	625843.29
355	7.04	31.63	354.78	-304.26	4.91	0.59	5758718.12	625843.56
360	8.02	31.07	359.75	-309.23	5.35	0.86	5758718.57	625843.84
365	8.67	35.24	364.68	-314.16	5.90	1.43	5758719.12	625844.40
370	9.27	40.13	369.61	-319.09	6.47	2.04	5758719.68	625845.01
375	9.87	45.02	374.54	-324.02	7.04	2.64	5758720.25	625845.62
380	10.47	49.91	379.47	-328.95	7.60	3.25	5758720.81	625846.23
385	11.07	54.79	384.40	-333.88	8.17	3.86	5758721.38	625846.83
390	11.54	58.95	389.32	-338.80	8.71	4.54	5758721.92	625847.52
395	11.67	61.08	394.21	-343.69	9.18	5.44	5758722.39	625848.41
400	11.80	63.20	399.11	-348.59	9.66	6.34	5758722.87	625849.31
405	11.93	65.33	404.00	-353.48	10.13	7.23	5758723.34	625850.21
410	12.54	67.29	408.86	-358.34	10.52	8.34	5758723.74	625851.31
415	13.28	69.21	413.71	-363.19	10.90	9.49	5758724.11	625852.46
420	14.02	71.13	418.56	-368.04	11.27	10.64	5758724.48	625853.61
425	14.76	73.05	423.41	-372.89	11.64	11.79	5758724.85	625854.76
430	15.50	74.97	428.26	-377.74	12.01	12.94	5758725.23	625855.91
435	16.24	76.82	433.10	-382.58	12.38	14.12	5758725.59	625857.10
440	17.02	77.93	437.84	-387.32	12.64	15.68	5758725.85	625858.66
445	17.80	79.03	442.59	-392.07	12.91	17.24	5758726.12	625860.22
450	18.58	80.14	447.33	-396.81	13.17	18.80	5758726.38	625861.78
455	19.36	81.25	452.07	-401.55	13.43	20.36	5758726.65	625863.33
460	20.14	82.36	456.81	-406.29	13.70	21.92	5758726.91	625864.89
465	20.98	83.25	461.52	-411.00	13.96	23.56	5758727.17	625866.53
470	22.14	83.13	466.08	-415.56	14.21	25.58	5758727.42	625868.56
475	23.30	83.01	470.64	-420.12	14.46	27.61	5758727.68	625870.58
480	24.46	82.90	475.21	-424.69	14.72	29.63	5758727.93	625872.61
485	25.61	82.78	479.77	-429.25	14.97	31.66	5758728.18	625874.63
490	26.77	82.66	484.33	-433.81	15.22	33.68	5758728.43	625876.65
495	27.82	82.55	488.78	-438.26	15.51	35.92	5758728.73	625878.89
500	28.73	82.44	493.11	-442.59	15.85	38.40	5758729.06	625881.37
505	29.65	82.32	497.43	-446.91	16.19	40.88	5758729.40	625883.85
510	30.57	82.21	501.76	-451.24	16.53	43.36	5758729.74	625886.34
515	31.48	82.10	506.08	-455.56	16.87	45.84	5758730.08	625888.82

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
520	32.40	81.99	510.41	-459.89	17.20	48.33	5758730.42	625891.30
525	33.12	81.85	514.61	-464.09	17.59	51.00	5758730.80	625893.97
530	33.71	81.71	518.73	-468.21	18.01	53.79	5758731.22	625896.77
535	34.30	81.56	522.86	-472.34	18.43	56.59	5758731.64	625899.56
540	34.89	81.41	526.98	-476.46	18.84	59.39	5758732.06	625902.36
545	35.48	81.27	531.10	-480.58	19.26	62.19	5758732.47	625905.16
550	36.07	81.12	535.22	-484.70	19.68	64.98	5758732.89	625907.96
555	36.60	80.99	539.20	-488.68	20.16	67.97	5758733.38	625910.94
560	37.12	80.86	543.16	-492.64	20.66	70.98	5758733.87	625913.96
565	37.64	80.73	547.12	-496.60	21.15	74.00	5758734.36	625916.97
570	38.16	80.60	551.08	-500.56	21.64	77.01	5758734.85	625919.99
575	38.68	80.47	555.04	-504.52	22.13	80.03	5758735.35	625923.00
580	39.23	80.33	558.97	-508.45	22.64	83.06	5758735.85	625926.04
585	40.04	80.17	562.72	-512.20	23.22	86.32	5758736.43	625929.30
590	40.84	80.00	566.46	-515.94	23.80	89.58	5758737.02	625932.56
595	41.64	79.84	570.20	-519.68	24.39	92.84	5758737.60	625935.82
600	42.44	79.68	573.95	-523.43	24.97	96.10	5758738.18	625939.08
605	43.25	79.51	577.69	-527.17	25.56	99.36	5758738.77	625942.34
610	44.11	79.40	581.35	-530.83	26.16	102.71	5758739.37	625945.68
615	45.16	79.46	584.77	-534.25	26.82	106.30	5758740.03	625949.27
620	46.21	79.51	588.18	-537.66	27.48	109.88	5758740.70	625952.86
625	47.25	79.56	591.60	-541.08	28.15	113.47	5758741.36	625956.44
630	48.30	79.61	595.02	-544.50	28.81	117.06	5758742.02	625960.03
635	49.35	79.66	598.43	-547.91	29.47	120.65	5758742.68	625963.62
640	50.32	79.73	601.68	-551.16	30.14	124.38	5758743.36	625967.35
645	51.20	79.82	604.72	-554.20	30.83	128.28	5758744.05	625971.26
650	52.08	79.91	607.77	-557.25	31.53	132.18	5758744.74	625975.16
655	52.96	80.01	610.81	-560.29	32.22	136.09	5758745.43	625979.06
660	53.84	80.10	613.86	-563.34	32.91	139.99	5758746.12	625982.96
665	54.72	80.19	616.90	-566.38	33.60	143.89	5758746.81	625986.87
670	55.54	80.16	619.72	-569.20	34.32	147.95	5758747.53	625990.93
675	56.33	80.06	622.42	-571.90	35.05	152.10	5758748.27	625995.07
680	57.12	79.96	625.11	-574.59	35.79	156.24	5758749.00	625999.22
685	57.91	79.86	627.81	-577.29	36.53	160.39	5758749.74	626003.36
690	58.70	79.76	630.50	-579.98	37.26	164.53	5758750.48	626007.50
695	59.49	79.67	633.20	-582.68	38.00	168.68	5758751.21	626011.65
700	60.08	79.88	635.69	-585.17	38.72	172.95	5758751.94	626015.92
705	60.60	80.21	638.10	-587.58	39.44	177.27	5758752.65	626020.24
710	61.13	80.54	640.51	-589.99	40.16	181.59	5758753.37	626024.56
715	61.65	80.86	642.92	-592.40	40.88	185.91	5758754.09	626028.88
720	62.17	81.19	645.33	-594.81	41.59	190.23	5758754.80	626033.20
725	62.64	81.43	647.73	-597.21	42.31	194.56	5758755.53	626037.53
730	62.76	81.06	650.00	-599.48	43.06	198.95	5758756.27	626041.92
735	62.87	80.68	652.28	-601.76	43.80	203.34	5758757.01	626046.31
740	62.98	80.30	654.55	-604.03	44.54	207.73	5758757.76	626050.70
745	63.09	79.93	656.82	-606.30	45.29	212.12	5758758.50	626055.09
750	63.21	79.55	659.10	-608.58	46.03	216.51	5758759.24	626059.48
755	63.37	79.33	661.34	-610.82	46.80	220.91	5758760.01	626063.88
760	63.63	79.42	663.53	-613.01	47.61	225.33	5758760.83	626068.30
765	63.89	79.51	665.72	-615.20	48.43	229.75	5758761.64	626072.73
770	64.16	79.60	667.91	-617.39	49.24	234.17	5758762.45	626077.15
775	64.42	79.70	670.09	-619.57	50.06	238.59	5758763.27	626081.57
780	64.68	79.79	672.28	-621.76	50.87	243.01	5758764.08	626085.99
785	64.79	80.07	674.44	-623.92	51.62	247.46	5758764.83	626090.43
790	64.76	80.54	676.58	-626.06	52.31	251.93	5758765.53	626094.90
795	64.72	81.02	678.72	-628.20	53.01	256.39	5758766.22	626099.37
800	64.69	81.49	680.85	-630.33	53.70	260.86	5758766.91	626103.83
805	64.65	81.96	682.99	-632.47	54.40	265.33	5758767.61	626108.30

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
810	64.62	82.43	685.13	-634.61	55.09	269.79	5758768.30	626112.77
815	64.58	83.14	687.27	-636.75	55.63	274.28	5758768.85	626117.25
820	64.55	83.91	689.42	-638.90	56.14	278.76	5758769.35	626121.74
825	64.51	84.58	691.57	-641.05	56.63	283.25	5758769.84	626126.22
830	64.43	84.68	693.75	-643.23	57.02	287.73	5758770.23	626130.70
835	64.36	84.78	695.94	-645.42	57.41	292.21	5758770.62	626135.19
840	64.28	84.87	698.12	-647.60	57.79	296.69	5758771.00	626139.67
845	64.20	84.97	700.30	-649.78	58.18	301.18	5758771.39	626144.15
850	64.13	85.06	702.48	-651.96	58.57	305.66	5758771.78	626148.63
855	64.05	85.16	704.66	-654.14	58.95	310.14	5758772.17	626153.11
860	63.97	85.25	706.85	-656.33	59.34	314.62	5758772.55	626157.60
865	63.90	85.35	709.03	-658.51	59.73	319.10	5758772.94	626162.08
870	63.82	85.45	711.21	-660.69	60.12	323.59	5758773.33	626166.56
875	63.74	85.54	713.39	-662.87	60.50	328.07	5758773.71	626171.04
880	63.80	85.53	715.58	-665.06	60.86	332.55	5758774.08	626175.52
885	63.90	85.49	717.77	-667.25	61.22	337.03	5758774.43	626180.00
890	63.99	85.45	719.97	-669.45	61.58	341.51	5758774.79	626184.48
895	64.08	85.42	722.16	-671.64	61.93	345.99	5758775.15	626188.96
900	64.17	85.38	724.35	-673.83	62.29	350.47	5758775.50	626193.44
905	64.26	85.34	726.54	-676.02	62.65	354.95	5758775.86	626197.92
910	64.35	85.30	728.69	-678.17	63.02	359.44	5758776.24	626202.42
915	64.44	85.26	730.85	-680.33	63.40	363.94	5758776.61	626206.91
920	64.52	85.22	733.00	-682.48	63.77	368.44	5758776.99	626211.41
925	64.61	85.18	735.15	-684.63	64.15	372.94	5758777.36	626215.91
930	64.70	85.14	737.30	-686.78	64.53	377.43	5758777.74	626220.41
935	64.77	85.10	739.45	-688.93	64.91	381.93	5758778.12	626224.91
940	64.76	85.04	741.58	-691.06	65.31	386.44	5758778.52	626229.41
945	64.76	84.97	743.71	-693.19	65.70	390.94	5758778.92	626233.92
950	64.75	84.91	745.85	-695.33	66.10	395.45	5758779.32	626238.42
955	64.75	84.85	747.98	-697.46	66.50	399.95	5758779.72	626242.93
960	64.74	84.78	750.11	-699.59	66.90	404.46	5758780.12	626247.43
965	64.77	84.74	752.24	-701.72	67.31	408.96	5758780.53	626251.94
970	64.84	84.71	754.35	-703.83	67.73	413.47	5758780.95	626256.45
975	64.91	84.69	756.47	-705.95	68.15	417.98	5758781.37	626260.96
980	64.98	84.67	758.59	-708.07	68.57	422.49	5758781.79	626265.47
985	65.05	84.64	760.71	-710.19	68.99	427.00	5758782.21	626269.98
990	65.11	84.62	762.82	-712.30	69.41	431.51	5758782.63	626274.49
995	65.11	84.61	764.94	-714.42	69.84	436.02	5758783.05	626279.00
1000	65.06	84.61	767.05	-716.53	70.26	440.54	5758783.47	626283.51
1005	65.01	84.61	769.17	-718.65	70.69	445.05	5758783.90	626288.02
1010	64.96	84.61	771.28	-720.76	71.11	449.56	5758784.33	626292.53
1015	64.91	84.61	773.39	-722.87	71.54	454.07	5758784.75	626297.04
1020	64.87	84.61	775.51	-724.99	71.96	458.58	5758785.18	626301.56
1025	64.79	84.69	777.64	-727.12	72.37	463.08	5758785.58	626306.06
1030	64.71	84.78	779.79	-729.27	72.78	467.58	5758785.99	626310.56
1035	64.63	84.87	781.93	-731.41	73.18	472.08	5758786.39	626315.06
1040	64.55	84.96	784.07	-733.55	73.58	476.58	5758786.80	626319.56
1045	64.47	85.05	786.21	-735.69	73.99	481.08	5758787.20	626324.06
1050	64.39	85.13	788.36	-737.84	74.39	485.58	5758787.60	626328.55
1055	64.31	85.12	790.54	-740.02	74.77	490.06	5758787.99	626333.04
1060	64.23	85.11	792.72	-742.20	75.16	494.55	5758788.37	626337.52
1065	64.14	85.10	794.90	-744.38	75.54	499.03	5758788.75	626342.00
1070	64.06	85.09	797.08	-746.56	75.93	503.51	5758789.14	626346.49
1075	63.98	85.09	799.26	-748.74	76.31	508.00	5758789.52	626350.97
1080	63.90	85.08	801.45	-750.93	76.69	512.48	5758789.90	626355.45
1085	63.82	85.09	803.66	-753.14	77.07	516.94	5758790.29	626359.92
1090	63.74	85.10	805.88	-755.36	77.46	521.41	5758790.67	626364.38
1095	63.66	85.11	808.09	-757.57	77.84	525.87	5758791.05	626368.85

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
1100	63.59	85.12	810.31	-759.79	78.22	530.34	5758791.43	626373.31
1105	63.51	85.13	812.53	-762.01	78.60	534.81	5758791.82	626377.78
1110	63.45	85.14	814.76	-764.24	78.98	539.26	5758792.20	626382.24
1115	63.40	85.13	817.00	-766.48	79.36	543.72	5758792.58	626386.69
1120	63.36	85.13	819.24	-768.72	79.74	548.17	5758792.96	626391.14
1125	63.32	85.12	821.49	-770.97	80.12	552.62	5758793.34	626395.59
1130	63.27	85.12	823.73	-773.21	80.50	557.07	5758793.71	626400.05
1135	63.23	85.11	825.97	-775.45	80.88	561.53	5758794.09	626404.50
1140	63.21	85.06	828.22	-777.70	81.27	565.97	5758794.49	626408.95
1145	63.22	84.98	830.47	-779.95	81.67	570.42	5758794.88	626413.39
1150	63.22	84.91	832.73	-782.21	82.07	574.87	5758795.28	626417.84
1155	63.22	84.83	834.98	-784.46	82.47	579.31	5758795.68	626422.29
1160	63.23	84.75	837.23	-786.71	82.87	583.76	5758796.08	626426.73
1165	63.23	84.67	839.49	-788.97	83.26	588.20	5758796.48	626431.18
1170	63.31	84.63	841.72	-791.20	83.68	592.66	5758796.90	626435.63
1175	63.39	84.59	843.95	-793.43	84.11	597.11	5758797.32	626440.08
1180	63.48	84.56	846.19	-795.67	84.53	601.56	5758797.75	626444.54
1185	63.57	84.52	848.42	-797.90	84.96	606.02	5758798.17	626448.99
1190	63.66	84.48	850.65	-800.13	85.38	610.47	5758798.59	626453.45
1195	63.75	84.45	852.88	-802.36	85.81	614.93	5758799.02	626457.90
1200	63.81	84.42	855.08	-804.56	86.25	619.40	5758799.46	626462.37
1205	63.88	84.40	857.27	-806.75	86.69	623.87	5758799.90	626466.84
1210	63.95	84.38	859.47	-808.95	87.13	628.34	5758800.34	626471.31
1215	64.02	84.35	861.66	-811.14	87.57	632.81	5758800.78	626475.78
1220	64.09	84.33	863.86	-813.34	88.01	637.28	5758801.22	626480.25
1225	64.16	84.29	866.05	-815.53	88.45	641.75	5758801.67	626484.72
1230	64.22	84.22	868.22	-817.70	88.92	646.23	5758802.13	626489.21
1235	64.28	84.15	870.38	-819.86	89.38	650.72	5758802.59	626493.69
1240	64.34	84.08	872.55	-822.03	89.84	655.20	5758803.06	626498.17
1245	64.40	84.00	874.72	-824.20	90.31	659.68	5758803.52	626502.65
1250	64.46	83.93	876.89	-826.37	90.77	664.16	5758803.98	626507.14
1255	64.52	83.89	879.04	-828.52	91.24	668.65	5758804.46	626511.62
1260	64.57	83.87	881.18	-830.66	91.73	673.14	5758804.94	626516.12
1265	64.63	83.86	883.32	-832.80	92.21	677.63	5758805.42	626520.61
1270	64.68	83.84	885.46	-834.94	92.70	682.13	5758805.91	626525.10
1275	64.73	83.82	887.60	-837.08	93.18	686.62	5758806.39	626529.59
1280	64.78	83.80	889.74	-839.22	93.66	691.11	5758806.88	626534.08
1285	64.85	83.78	891.87	-841.35	94.16	695.61	5758807.37	626538.59
1290	64.91	83.75	893.98	-843.46	94.65	700.12	5758807.86	626543.09
1295	64.98	83.72	896.09	-845.57	95.15	704.62	5758808.36	626547.59
1300	65.04	83.69	898.21	-847.69	95.64	709.12	5758808.86	626552.10
1305	65.11	83.66	900.32	-849.80	96.14	713.63	5758809.35	626556.60
1310	65.18	83.64	902.43	-851.91	96.64	718.13	5758809.85	626561.11
1315	65.21	83.67	904.53	-854.01	97.13	722.64	5758810.34	626565.62
1320	65.23	83.71	906.62	-856.10	97.62	727.16	5758810.84	626570.13
1325	65.25	83.75	908.72	-858.20	98.12	731.67	5758811.33	626574.65
1330	65.27	83.80	910.81	-860.29	98.61	736.19	5758811.82	626579.16
1335	65.29	83.84	912.90	-862.38	99.10	740.70	5758812.32	626583.67
1340	65.31	83.89	915.00	-864.48	99.60	745.21	5758812.81	626588.19
1345	65.32	83.97	917.08	-866.56	100.06	749.73	5758813.28	626592.71
1350	65.33	84.06	919.17	-868.65	100.53	754.25	5758813.74	626597.23
1355	65.34	84.14	921.26	-870.74	100.99	758.77	5758814.20	626601.75
1360	65.35	84.23	923.34	-872.82	101.46	763.29	5758814.67	626606.27
1365	65.36	84.31	925.43	-874.91	101.92	767.81	5758815.13	626610.79
1370	65.36	84.40	927.52	-877.00	102.38	772.33	5758815.59	626615.31
1375	65.31	84.50	929.61	-879.09	102.80	776.86	5758816.01	626619.83
1380	65.27	84.60	931.71	-881.19	103.22	781.38	5758816.43	626624.35
1385	65.22	84.71	933.80	-883.28	103.64	785.90	5758816.85	626628.87

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
1390	65.17	84.81	935.89	-885.37	104.06	790.42	5758817.27	626633.39
1395	65.13	84.91	937.99	-887.47	104.48	794.94	5758817.69	626637.91
1400	65.11	84.98	940.08	-889.56	104.89	799.46	5758818.10	626642.43
1405	65.14	85.01	942.18	-891.66	105.28	803.98	5758818.50	626646.95
1410	65.16	85.04	944.28	-893.76	105.68	808.50	5758818.89	626651.47
1415	65.19	85.06	946.38	-895.86	106.07	813.02	5758819.28	626655.99
1420	65.21	85.09	948.48	-897.96	106.46	817.54	5758819.67	626660.52
1425	65.24	85.12	950.58	-900.06	106.85	822.06	5758820.06	626665.04
1430	65.22	85.18	952.68	-902.16	107.23	826.58	5758820.44	626669.56
1435	65.16	85.27	954.79	-904.27	107.59	831.10	5758820.80	626674.08
1440	65.10	85.36	956.90	-906.38	107.96	835.62	5758821.17	626678.60
1445	65.04	85.44	959.00	-908.48	108.32	840.14	5758821.53	626683.12
1450	64.98	85.53	961.11	-910.59	108.69	844.66	5758821.90	626687.64
1455	64.93	85.62	963.22	-912.70	109.05	849.18	5758822.26	626692.16
1460	64.85	85.71	965.35	-914.83	109.38	853.69	5758822.60	626696.67
1465	64.78	85.81	967.49	-916.97	109.70	858.20	5758822.92	626701.18
1470	64.70	85.91	969.62	-919.10	110.03	862.71	5758823.24	626705.68
1475	64.62	86.01	971.76	-921.24	110.35	867.22	5758823.56	626710.19
1480	64.55	86.11	973.90	-923.38	110.67	871.73	5758823.88	626714.70
1485	64.47	86.21	976.04	-925.52	110.99	876.24	5758824.20	626719.21
1490	64.46	86.32	978.19	-927.67	111.26	880.74	5758824.47	626723.71
1495	64.45	86.42	980.35	-929.83	111.54	885.24	5758824.75	626728.21
1500	64.43	86.52	982.51	-931.99	111.81	889.74	5758825.02	626732.72
1505	64.42	86.63	984.67	-934.15	112.09	894.24	5758825.30	626737.22
1510	64.41	86.73	986.82	-936.30	112.36	898.75	5758825.57	626741.72
1515	64.40	86.81	988.98	-938.46	112.63	903.25	5758825.85	626746.22
1520	64.44	86.72	991.13	-940.61	112.90	907.75	5758826.12	626750.73
1525	64.47	86.62	993.29	-942.77	113.18	912.26	5758826.39	626755.23
1530	64.50	86.53	995.44	-944.92	113.45	916.76	5758826.66	626759.74
1535	64.53	86.44	997.60	-947.08	113.72	921.27	5758826.93	626764.24
1540	64.56	86.35	999.75	-949.23	113.99	925.77	5758827.20	626768.75
1545	64.59	86.27	1001.90	-951.38	114.27	930.28	5758827.49	626773.25
1550	64.60	86.21	1004.04	-953.52	114.58	934.78	5758827.79	626777.76
1555	64.62	86.15	1006.18	-955.66	114.89	939.29	5758828.10	626782.27
1560	64.64	86.09	1008.32	-957.80	115.19	943.80	5758828.40	626786.77
1565	64.66	86.02	1010.47	-959.95	115.50	948.31	5758828.71	626791.28
1570	64.67	85.96	1012.61	-962.09	115.80	952.81	5758829.02	626795.79
1575	64.70	86.01	1014.74	-964.22	116.10	957.33	5758829.31	626800.30
1580	64.74	86.13	1016.87	-966.35	116.40	961.84	5758829.61	626804.81
1585	64.77	86.25	1019.01	-968.49	116.69	966.35	5758829.90	626809.33
1590	64.80	86.37	1021.14	-970.62	116.98	970.87	5758830.19	626813.84
1595	64.84	86.49	1023.27	-972.75	117.27	975.38	5758830.49	626818.35
1600	64.87	86.60	1025.40	-974.88	117.57	979.89	5758830.78	626822.87
1605	64.80	86.69	1027.54	-977.02	117.83	984.40	5758831.04	626827.38
1610	64.71	86.76	1029.68	-979.16	118.08	988.91	5758831.29	626831.89
1615	64.61	86.83	1031.83	-981.31	118.32	993.42	5758831.54	626836.40
1620	64.51	86.90	1033.97	-983.45	118.57	997.93	5758831.79	626840.91
1625	64.42	86.98	1036.12	-985.60	118.82	1002.44	5758832.03	626845.42
1630	64.32	87.05	1038.26	-987.74	119.07	1006.95	5758832.28	626849.93
1635	64.27	87.09	1040.44	-989.92	119.29	1011.45	5758832.51	626854.42
1640	64.22	87.13	1042.62	-992.10	119.52	1015.94	5758832.73	626858.92
1645	64.17	87.17	1044.80	-994.28	119.74	1020.44	5758832.95	626863.41
1650	64.13	87.22	1046.97	-996.45	119.96	1024.93	5758833.17	626867.91
1655	64.08	87.26	1049.15	-998.63	120.18	1029.43	5758833.39	626872.40
1660	64.03	87.30	1051.33	-1000.81	120.40	1033.92	5758833.61	626876.90
1665	64.00	87.35	1053.53	-1003.01	120.60	1038.41	5758833.81	626881.38
1670	63.96	87.40	1055.73	-1005.21	120.80	1042.90	5758834.01	626885.87
1675	63.92	87.46	1057.92	-1007.40	121.00	1047.38	5758834.21	626890.36

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
1680	63.89	87.51	1060.12	-1009.60	121.20	1051.87	5758834.41	626894.85
1685	63.85	87.56	1062.32	-1011.80	121.40	1056.36	5758834.62	626899.33
1690	63.83	87.59	1064.52	-1014.00	121.60	1060.84	5758834.81	626903.82
1695	63.82	87.59	1066.72	-1016.20	121.79	1065.33	5758835.00	626908.30
1700	63.82	87.59	1068.93	-1018.41	121.97	1069.81	5758835.19	626912.78
1705	63.81	87.60	1071.14	-1020.62	122.16	1074.29	5758835.38	626917.27
1710	63.81	87.60	1073.34	-1022.82	122.35	1078.78	5758835.56	626921.75
1715	63.80	87.60	1075.55	-1025.03	122.54	1083.26	5758835.75	626926.23
1720	63.92	87.55	1077.73	-1027.21	122.74	1087.75	5758835.95	626930.73
1725	64.13	87.47	1079.89	-1029.37	122.95	1092.26	5758836.16	626935.23
1730	64.33	87.39	1082.05	-1031.53	123.15	1096.76	5758836.37	626939.74
1735	64.53	87.31	1084.21	-1033.69	123.36	1101.27	5758836.57	626944.24
1740	64.73	87.23	1086.37	-1035.85	123.57	1105.77	5758836.78	626948.74
1745	64.94	87.15	1088.53	-1038.01	123.78	1110.27	5758836.99	626953.25
1750	65.07	87.04	1090.64	-1040.12	124.02	1114.80	5758837.23	626957.78
1755	65.19	86.92	1092.73	-1042.21	124.28	1119.34	5758837.49	626962.31
1760	65.30	86.80	1094.81	-1044.29	124.53	1123.87	5758837.74	626966.85
1765	65.42	86.68	1096.90	-1046.38	124.78	1128.41	5758838.00	626971.38
1770	65.53	86.57	1098.99	-1048.47	125.04	1132.95	5758838.25	626975.92
1775	65.65	86.45	1101.08	-1050.56	125.29	1137.48	5758838.51	626980.46
1780	65.64	86.32	1103.14	-1052.62	125.61	1142.03	5758838.82	626985.00
1785	65.63	86.19	1105.21	-1054.69	125.92	1146.57	5758839.13	626989.54
1790	65.62	86.06	1107.27	-1056.75	126.23	1151.11	5758839.44	626994.09
1795	65.62	85.93	1109.33	-1058.81	126.54	1155.66	5758839.75	626998.63
1800	65.61	85.80	1111.40	-1060.88	126.85	1160.20	5758840.07	627003.17
1805	65.59	85.66	1113.46	-1062.94	127.18	1164.74	5758840.39	627007.72
1810	65.56	85.51	1115.54	-1065.02	127.55	1169.28	5758840.77	627012.25
1815	65.52	85.35	1117.61	-1067.09	127.93	1173.81	5758841.14	627016.78
1820	65.49	85.19	1119.68	-1069.16	128.31	1178.34	5758841.52	627021.32
1825	65.45	85.04	1121.76	-1071.24	128.69	1182.88	5758841.90	627025.85
1830	65.42	84.88	1123.83	-1073.31	129.06	1187.41	5758842.28	627030.39
1835	65.38	84.71	1125.91	-1075.39	129.48	1191.94	5758842.69	627034.91
1840	65.34	84.52	1128.00	-1077.48	129.93	1196.46	5758843.14	627039.43
1845	65.30	84.33	1130.09	-1079.57	130.39	1200.98	5758843.60	627043.95
1850	65.25	84.14	1132.18	-1081.66	130.84	1205.50	5758844.05	627048.47
1855	65.21	83.96	1134.28	-1083.76	131.30	1210.01	5758844.51	627052.99
1860	65.17	83.77	1136.37	-1085.85	131.75	1214.53	5758844.97	627057.51
1865	65.17	83.63	1138.46	-1087.94	132.25	1219.05	5758845.46	627062.02
1870	65.20	83.53	1140.55	-1090.03	132.77	1223.56	5758845.98	627066.53
1875	65.24	83.43	1142.65	-1092.13	133.29	1228.07	5758846.51	627071.04
1880	65.27	83.32	1144.74	-1094.22	133.82	1232.58	5758847.03	627075.55
1885	65.31	83.22	1146.83	-1096.31	134.34	1237.09	5758847.55	627080.06
1890	65.34	83.12	1148.93	-1098.41	134.86	1241.60	5758848.07	627084.57
1895	65.37	83.12	1151.01	-1100.49	135.40	1246.11	5758848.61	627089.09
1900	65.40	83.15	1153.09	-1102.57	135.94	1250.63	5758849.15	627093.60
1905	65.43	83.18	1155.17	-1104.65	136.48	1255.15	5758849.69	627098.12
1910	65.46	83.21	1157.24	-1106.72	137.02	1259.66	5758850.23	627102.63
1915	65.49	83.24	1159.32	-1108.80	137.56	1264.18	5758850.77	627107.15
1920	65.52	83.27	1161.40	-1110.88	138.10	1268.69	5758851.31	627111.66
1925	65.44	83.29	1163.49	-1112.97	138.62	1273.20	5758851.84	627116.18
1930	65.36	83.31	1165.58	-1115.06	139.15	1277.71	5758852.36	627120.69
1935	65.27	83.33	1167.67	-1117.15	139.68	1282.22	5758852.89	627125.20
1940	65.19	83.34	1169.77	-1119.25	140.21	1286.73	5758853.42	627129.71
1945	65.11	83.36	1171.86	-1121.34	140.73	1291.25	5758853.95	627134.22
1950	65.02	83.40	1173.95	-1123.43	141.26	1295.75	5758854.47	627138.73
1955	64.91	83.55	1176.09	-1125.57	141.74	1300.25	5758854.96	627143.22
1960	64.80	83.71	1178.22	-1127.70	142.23	1304.74	5758855.44	627147.72
1965	64.69	83.87	1180.36	-1129.84	142.72	1309.24	5758855.93	627152.21

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
1970	64.58	84.02	1182.50	-1131.98	143.20	1313.73	5758856.41	627156.71
1975	64.47	84.18	1184.63	-1134.11	143.69	1318.23	5758856.90	627161.20
1980	64.40	84.30	1186.78	-1136.26	144.16	1322.72	5758857.37	627165.69
1985	64.40	84.36	1188.94	-1138.42	144.59	1327.21	5758857.81	627170.18
1990	64.39	84.41	1191.10	-1140.58	145.03	1331.70	5758858.24	627174.67
1995	64.39	84.47	1193.26	-1142.74	145.47	1336.18	5758858.68	627179.16
2000	64.39	84.53	1195.42	-1144.90	145.90	1340.67	5758859.11	627183.64
2005	64.38	84.58	1197.58	-1147.06	146.34	1345.16	5758859.55	627188.13
2010	64.37	84.60	1199.75	-1149.23	146.77	1349.64	5758859.98	627192.62
2015	64.35	84.59	1201.91	-1151.39	147.20	1354.13	5758860.41	627197.10
2020	64.33	84.58	1204.08	-1153.56	147.62	1358.62	5758860.83	627201.59
2025	64.31	84.57	1206.25	-1155.73	148.05	1363.10	5758861.26	627206.08
2030	64.29	84.56	1208.41	-1157.89	148.47	1367.59	5758861.69	627210.56
2035	64.27	84.54	1210.58	-1160.06	148.90	1372.08	5758862.11	627215.05
2040	64.20	84.59	1212.76	-1162.24	149.32	1376.55	5758862.53	627219.53
2045	64.11	84.67	1214.95	-1164.43	149.73	1381.03	5758862.94	627224.00
2050	64.02	84.74	1217.15	-1166.63	150.14	1385.50	5758863.35	627228.48
2055	63.93	84.81	1219.34	-1168.82	150.55	1389.98	5758863.76	627232.95
2060	63.83	84.89	1221.53	-1171.01	150.96	1394.45	5758864.17	627237.43
2065	63.74	84.96	1223.72	-1173.20	151.37	1398.93	5758864.58	627241.90
2070	63.59	85.23	1225.97	-1175.45	151.70	1403.38	5758864.92	627246.36
2075	63.44	85.50	1228.21	-1177.69	152.04	1407.84	5758865.25	627250.81
2080	63.29	85.77	1230.46	-1179.94	152.37	1412.29	5758865.58	627255.27
2085	63.13	86.05	1232.71	-1182.19	152.70	1416.75	5758865.91	627259.72
2090	62.98	86.32	1234.95	-1184.43	153.03	1421.20	5758866.24	627264.18
2095	62.85	86.54	1237.21	-1186.69	153.35	1425.65	5758866.56	627268.63
2100	62.78	86.53	1239.50	-1188.98	153.62	1430.09	5758866.83	627273.06
2105	62.71	86.53	1241.80	-1191.28	153.89	1434.52	5758867.10	627277.49
2110	62.64	86.52	1244.10	-1193.58	154.16	1438.95	5758867.37	627281.93
2115	62.57	86.52	1246.39	-1195.87	154.43	1443.39	5758867.64	627286.36
2120	62.50	86.51	1248.69	-1198.17	154.69	1447.82	5758867.91	627290.79
2125	62.44	86.51	1251.00	-1200.48	154.96	1452.25	5758868.18	627295.22
2130	62.37	86.50	1253.32	-1202.80	155.24	1456.66	5758868.45	627299.64
2135	62.30	86.49	1255.65	-1205.13	155.51	1461.08	5758868.72	627304.05
2140	62.23	86.48	1257.98	-1207.46	155.78	1465.50	5758868.99	627308.47
2145	62.16	86.47	1260.31	-1209.79	156.05	1469.91	5758869.26	627312.89
2150	62.09	86.46	1262.63	-1212.11	156.32	1474.33	5758869.53	627317.30
2155	62.11	86.43	1264.96	-1214.44	156.60	1478.75	5758869.81	627321.72
2160	62.21	86.38	1267.28	-1216.76	156.89	1483.17	5758870.10	627326.14
2165	62.31	86.33	1269.60	-1219.08	157.17	1487.59	5758870.38	627330.56
2170	62.40	86.29	1271.92	-1221.40	157.45	1492.01	5758870.67	627334.98
2175	62.50	86.24	1274.24	-1223.72	157.74	1496.43	5758870.95	627339.40
2180	62.60	86.19	1276.56	-1226.04	158.02	1500.85	5758871.24	627343.82
2185	62.68	86.14	1278.86	-1228.34	158.32	1505.28	5758871.53	627348.25
2190	62.75	86.11	1281.14	-1230.62	158.63	1509.72	5758871.84	627352.69
2195	62.82	86.07	1283.42	-1232.90	158.93	1514.15	5758872.15	627357.13
2200	62.89	86.03	1285.71	-1235.19	159.24	1518.59	5758872.45	627361.57
2205	62.96	85.99	1287.99	-1237.47	159.54	1523.03	5758872.76	627366.00
2210	63.03	85.94	1290.27	-1239.75	159.85	1527.47	5758873.06	627370.44
2215	63.14	85.65	1292.52	-1242.00	160.23	1531.92	5758873.45	627374.89
2220	63.25	85.35	1294.76	-1244.24	160.62	1536.37	5758873.83	627379.35
2225	63.35	85.06	1297.00	-1246.48	161.00	1540.82	5758874.21	627383.80
2230	63.46	84.77	1299.25	-1248.73	161.38	1545.28	5758874.60	627388.25
2235	63.57	84.47	1301.49	-1250.97	161.77	1549.73	5758874.98	627392.70
2240	63.68	84.22	1303.72	-1253.20	162.16	1554.18	5758875.37	627397.16
2245	63.82	84.21	1305.91	-1255.39	162.62	1558.66	5758875.83	627401.63
2250	63.95	84.19	1308.10	-1257.58	163.07	1563.13	5758876.28	627406.10
2255	64.09	84.18	1310.29	-1259.77	163.53	1567.60	5758876.74	627410.58

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
2260	64.23	84.17	1312.47	-1261.95	163.98	1572.08	5758877.19	627415.05
2265	64.37	84.16	1314.66	-1264.14	164.44	1576.55	5758877.65	627419.52
2270	64.51	84.12	1316.83	-1266.31	164.90	1581.03	5758878.11	627424.00
2275	64.67	84.04	1318.94	-1268.42	165.38	1585.53	5758878.59	627428.51
2280	64.84	83.96	1321.06	-1270.54	165.86	1590.04	5758879.07	627433.01
2285	65.00	83.88	1323.18	-1272.66	166.34	1594.54	5758879.55	627437.52
2290	65.16	83.80	1325.30	-1274.78	166.82	1599.04	5758880.03	627442.02
2295	65.32	83.72	1327.42	-1276.90	167.30	1603.55	5758880.52	627446.52
2300	65.44	83.66	1329.51	-1278.99	167.80	1608.06	5758881.01	627451.03
2305	65.49	83.63	1331.58	-1281.06	168.31	1612.59	5758881.52	627455.56
2310	65.55	83.59	1333.65	-1283.13	168.81	1617.11	5758882.03	627460.08
2315	65.60	83.56	1335.71	-1285.19	169.32	1621.63	5758882.54	627464.61
2320	65.66	83.53	1337.78	-1287.26	169.83	1626.16	5758883.04	627469.13
2325	65.71	83.49	1339.85	-1289.33	170.34	1630.68	5758883.55	627473.65
2330	65.73	83.38	1341.91	-1291.39	170.88	1635.20	5758884.09	627478.18
2335	65.73	83.23	1343.96	-1293.44	171.43	1639.73	5758884.64	627482.70
2340	65.73	83.08	1346.02	-1295.50	171.98	1644.25	5758885.20	627487.23
2345	65.73	82.93	1348.08	-1297.56	172.53	1648.78	5758885.75	627491.75
2350	65.73	82.78	1350.13	-1299.61	173.09	1653.30	5758886.30	627496.28
2355	65.73	82.63	1352.19	-1301.67	173.64	1657.83	5758886.85	627500.80
2360	65.75	82.66	1354.24	-1303.72	174.21	1662.35	5758887.42	627505.32
2365	65.78	82.71	1356.28	-1305.76	174.78	1666.88	5758888.00	627509.85
2370	65.80	82.76	1358.33	-1307.81	175.36	1671.40	5758888.57	627514.37
2375	65.83	82.81	1360.38	-1309.86	175.93	1675.93	5758889.15	627518.90
2380	65.85	82.87	1362.43	-1311.91	176.51	1680.45	5758889.72	627523.42
2385	65.88	82.92	1364.48	-1313.96	177.08	1684.97	5758890.29	627527.95
2390	65.86	82.91	1366.53	-1316.01	177.65	1689.50	5758890.86	627532.47
2395	65.84	82.90	1368.58	-1318.06	178.21	1694.03	5758891.42	627537.00
2400	65.82	82.89	1370.63	-1320.11	178.77	1698.55	5758891.99	627541.53
2405	65.80	82.89	1372.67	-1322.15	179.34	1703.08	5758892.55	627546.05
2410	65.78	82.88	1374.72	-1324.20	179.90	1707.61	5758893.11	627550.58
2415	65.76	82.88	1376.77	-1326.25	180.46	1712.13	5758893.68	627555.11
2420	65.73	82.93	1378.83	-1328.31	181.02	1716.65	5758894.23	627559.63
2425	65.70	82.97	1380.89	-1330.37	181.57	1721.18	5758894.79	627564.15
2430	65.67	83.02	1382.95	-1332.43	182.13	1725.70	5758895.34	627568.67
2435	65.64	83.07	1385.01	-1334.49	182.68	1730.22	5758895.90	627573.20
2440	65.61	83.11	1387.07	-1336.55	183.24	1734.74	5758896.45	627577.72
2445	65.57	83.15	1389.13	-1338.61	183.79	1739.26	5758897.00	627582.24
2450	65.53	83.17	1391.21	-1340.69	184.33	1743.78	5758897.54	627586.75
2455	65.49	83.19	1393.28	-1342.76	184.86	1748.30	5758898.08	627591.27
2460	65.44	83.22	1395.36	-1344.84	185.40	1752.81	5758898.61	627595.79
2465	65.40	83.24	1397.44	-1346.92	185.94	1757.33	5758899.15	627600.30
2470	65.36	83.26	1399.51	-1348.99	186.48	1761.85	5758899.69	627604.82
2475	65.30	83.29	1401.60	-1351.08	187.01	1766.36	5758900.22	627609.33
2480	65.25	83.31	1403.70	-1353.18	187.53	1770.86	5758900.75	627613.84
2485	65.19	83.34	1405.80	-1355.28	188.06	1775.37	5758901.27	627618.35
2490	65.13	83.36	1407.90	-1357.38	188.59	1779.88	5758901.80	627622.85
2495	65.08	83.39	1410.00	-1359.48	189.11	1784.39	5758902.32	627627.36
2500	65.02	83.42	1412.10	-1361.58	189.64	1788.89	5758902.85	627631.87
2505	64.95	83.43	1414.22	-1363.70	190.15	1793.39	5758903.37	627636.37
2510	64.88	83.45	1416.35	-1365.83	190.67	1797.89	5758903.88	627640.86
2515	64.81	83.46	1418.48	-1367.96	191.19	1802.38	5758904.40	627645.35
2520	64.73	83.47	1420.61	-1370.09	191.70	1806.88	5758904.91	627649.85
2525	64.66	83.49	1422.74	-1372.22	192.22	1811.37	5758905.43	627654.34
2530	64.59	83.50	1424.87	-1374.35	192.73	1815.86	5758905.94	627658.84
2535	64.52	83.54	1427.03	-1376.51	193.23	1820.35	5758906.44	627663.32
2540	64.46	83.58	1429.19	-1378.67	193.73	1824.83	5758906.95	627667.80
2545	64.39	83.62	1431.35	-1380.83	194.24	1829.31	5758907.45	627672.28

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
2550	64.33	83.66	1433.51	-1382.99	194.74	1833.79	5758907.95	627676.76
2555	64.26	83.70	1435.67	-1385.15	195.24	1838.27	5758908.45	627681.24
2560	64.17	83.73	1437.85	-1387.33	195.74	1842.75	5758908.95	627685.72
2565	63.97	83.73	1440.06	-1389.54	196.23	1847.20	5758909.44	627690.17
2570	63.78	83.73	1442.28	-1391.76	196.72	1851.65	5758909.93	627694.63
2575	63.58	83.72	1444.50	-1393.98	197.21	1856.11	5758910.42	627699.08
2580	63.39	83.72	1446.72	-1396.20	197.70	1860.56	5758910.91	627703.53
2585	63.19	83.72	1448.94	-1398.42	198.19	1865.01	5758911.40	627707.99
2590	63.09	83.70	1451.18	-1400.66	198.68	1869.46	5758911.89	627712.43
2595	63.09	83.66	1453.44	-1402.92	199.18	1873.89	5758912.39	627716.86
2600	63.09	83.62	1455.71	-1405.19	199.67	1878.32	5758912.88	627721.29
2605	63.09	83.58	1457.97	-1407.45	200.17	1882.75	5758913.38	627725.72
2610	63.09	83.54	1460.23	-1409.71	200.66	1887.18	5758913.88	627730.15
2615	63.09	83.50	1462.50	-1411.98	201.16	1891.61	5758914.37	627734.58
2620	63.19	83.45	1464.74	-1414.22	201.67	1896.05	5758914.89	627739.02
2625	63.34	83.40	1466.97	-1416.45	202.19	1900.50	5758915.41	627743.47
2630	63.49	83.34	1469.19	-1418.67	202.71	1904.94	5758915.93	627747.91
2635	63.64	83.29	1471.42	-1420.90	203.23	1909.39	5758916.45	627752.36
2640	63.78	83.23	1473.65	-1423.13	203.75	1913.83	5758916.97	627756.80
2645	63.93	83.18	1475.88	-1425.36	204.27	1918.28	5758917.49	627761.25
2650	64.06	83.09	1478.06	-1427.54	204.82	1922.74	5758918.04	627765.72
2655	64.19	83.00	1480.22	-1429.70	205.38	1927.22	5758918.59	627770.19
2660	64.32	82.91	1482.39	-1431.87	205.94	1931.69	5758919.15	627774.66
2665	64.45	82.82	1484.56	-1434.04	206.49	1936.16	5758919.70	627779.13
2670	64.58	82.73	1486.72	-1436.20	207.05	1940.63	5758920.26	627783.60
2675	64.70	82.64	1488.88	-1438.36	207.61	1945.11	5758920.82	627788.08
2680	64.78	82.54	1491.00	-1440.48	208.21	1949.59	5758921.43	627792.57
2685	64.86	82.43	1493.12	-1442.60	208.82	1954.08	5758922.03	627797.06
2690	64.94	82.32	1495.24	-1444.72	209.42	1958.57	5758922.63	627801.54
2695	65.02	82.21	1497.36	-1446.84	210.02	1963.06	5758923.24	627806.03
2700	65.10	82.11	1499.48	-1448.96	210.63	1967.55	5758923.84	627810.52
2705	65.20	82.00	1501.58	-1451.06	211.25	1972.04	5758924.46	627815.01
2710	65.33	81.90	1503.65	-1453.13	211.90	1976.55	5758925.11	627819.52
2715	65.46	81.80	1505.72	-1455.20	212.56	1981.05	5758925.77	627824.02
2720	65.60	81.69	1507.79	-1457.27	213.21	1985.55	5758926.42	627828.53
2725	65.73	81.59	1509.86	-1459.34	213.87	1990.06	5758927.08	627833.03
2730	65.86	81.48	1511.93	-1461.41	214.52	1994.56	5758927.73	627837.53
2735	65.96	81.40	1513.98	-1463.46	215.19	1999.07	5758928.41	627842.04
2740	66.03	81.34	1516.01	-1465.49	215.89	2003.59	5758929.10	627846.56
2745	66.09	81.29	1518.03	-1467.51	216.58	2008.11	5758929.79	627851.08
2750	66.16	81.23	1520.05	-1469.53	217.28	2012.63	5758930.49	627855.60
2755	66.22	81.17	1522.08	-1471.56	217.97	2017.15	5758931.18	627860.12
2760	66.29	81.11	1524.10	-1473.58	218.67	2021.67	5758931.88	627864.64
2765	66.27	81.12	1526.13	-1475.61	219.36	2026.18	5758932.58	627869.16
2770	66.21	81.17	1528.15	-1477.63	220.06	2030.70	5758933.27	627873.68
2775	66.15	81.21	1530.17	-1479.65	220.76	2035.22	5758933.97	627878.20
2780	66.09	81.26	1532.19	-1481.67	221.46	2039.74	5758934.67	627882.72
2785	66.03	81.30	1534.22	-1483.70	222.16	2044.26	5758935.37	627887.24
2790	65.97	81.35	1536.24	-1485.72	222.85	2048.78	5758936.07	627891.75
2795	65.93	81.38	1538.28	-1487.76	223.53	2053.29	5758936.75	627896.27
2800	65.89	81.41	1540.33	-1489.81	224.21	2057.80	5758937.43	627900.78
2805	65.84	81.44	1542.38	-1491.86	224.89	2062.31	5758938.10	627905.29
2810	65.80	81.46	1544.42	-1493.90	225.57	2066.83	5758938.78	627909.80
2815	65.76	81.49	1546.47	-1495.95	226.25	2071.34	5758939.46	627914.31
2820	65.71	81.52	1548.52	-1498.00	226.93	2075.85	5758940.14	627918.82
2825	65.63	81.58	1550.59	-1500.07	227.59	2080.35	5758940.80	627923.32
2830	65.55	81.63	1552.66	-1502.14	228.25	2084.85	5758941.46	627927.82
2835	65.48	81.69	1554.74	-1504.22	228.90	2089.35	5758942.12	627932.33

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
2840	65.40	81.75	1556.81	-1506.29	229.56	2093.85	5758942.78	627936.83
2845	65.32	81.80	1558.89	-1508.37	230.22	2098.36	5758943.43	627941.33
2850	65.24	81.85	1560.97	-1510.45	230.87	2102.85	5758944.09	627945.83
2855	65.17	81.89	1563.08	-1512.56	231.51	2107.34	5758944.72	627950.32
2860	65.09	81.92	1565.19	-1514.67	232.14	2111.83	5758945.36	627954.80
2865	65.02	81.96	1567.30	-1516.78	232.78	2116.32	5758945.99	627959.29
2870	64.95	82.00	1569.41	-1518.89	233.41	2120.81	5758946.63	627963.78
2875	64.88	82.03	1571.52	-1521.00	234.05	2125.30	5758947.26	627968.27
2880	64.78	82.04	1573.65	-1523.13	234.68	2129.77	5758947.89	627972.75
2885	64.66	82.03	1575.80	-1525.28	235.31	2134.24	5758948.52	627977.22
2890	64.54	82.02	1577.96	-1527.44	235.93	2138.71	5758949.14	627981.69
2895	64.42	82.01	1580.11	-1529.59	236.56	2143.18	5758949.77	627986.15
2900	64.29	82.00	1582.26	-1531.74	237.19	2147.65	5758950.40	627990.62
2905	64.17	81.99	1584.42	-1533.90	237.81	2152.12	5758951.02	627995.09
2910	64.05	82.03	1586.61	-1536.09	238.43	2156.57	5758951.64	627999.54
2915	63.92	82.10	1588.82	-1538.30	239.04	2161.01	5758952.25	628003.99
2920	63.79	82.16	1591.03	-1540.51	239.65	2165.46	5758952.86	628008.43
2925	63.66	82.22	1593.24	-1542.72	240.26	2169.90	5758953.47	628012.87
2930	63.53	82.28	1595.45	-1544.93	240.87	2174.34	5758954.08	628017.32
2935	63.41	82.34	1597.66	-1547.14	241.48	2178.79	5758954.69	628021.76
2940	63.28	82.43	1599.92	-1549.40	242.06	2183.21	5758955.27	628026.18
2945	63.15	82.53	1602.19	-1551.67	242.63	2187.63	5758955.85	628030.60
2950	63.03	82.62	1604.46	-1553.94	243.21	2192.05	5758956.42	628035.02
2955	62.90	82.71	1606.72	-1556.20	243.78	2196.47	5758956.99	628039.44
2960	62.78	82.81	1608.99	-1558.47	244.35	2200.88	5758957.56	628043.86
2965	62.66	82.89	1611.27	-1560.75	244.92	2205.30	5758958.13	628048.27
2970	62.55	82.91	1613.59	-1563.07	245.46	2209.70	5758958.67	628052.67
2975	62.45	82.94	1615.91	-1565.39	246.00	2214.09	5758959.22	628057.07
2980	62.34	82.97	1618.22	-1567.70	246.55	2218.49	5758959.76	628061.46
2985	62.24	82.99	1620.54	-1570.02	247.09	2222.88	5758960.30	628065.86
2990	62.13	83.02	1622.86	-1572.34	247.63	2227.28	5758960.84	628070.26
2995	62.04	83.05	1625.19	-1574.67	248.17	2231.67	5758961.38	628074.64
3000	61.97	83.07	1627.55	-1577.03	248.70	2236.05	5758961.91	628079.02
3005	61.90	83.09	1629.91	-1579.39	249.23	2240.42	5758962.44	628083.40
3010	61.82	83.11	1632.27	-1581.75	249.76	2244.80	5758962.97	628087.78
3015	61.75	83.13	1634.63	-1584.11	250.29	2249.18	5758963.50	628092.15
3020	61.68	83.15	1636.99	-1586.47	250.82	2253.56	5758964.03	628096.53
3025	61.64	83.16	1639.36	-1588.84	251.35	2257.93	5758964.56	628100.90
3030	61.61	83.16	1641.74	-1591.22	251.87	2262.29	5758965.08	628105.27
3035	61.58	83.16	1644.12	-1593.60	252.39	2266.66	5758965.60	628109.63
3040	61.55	83.17	1646.50	-1595.98	252.92	2271.02	5758966.13	628114.00
3045	61.53	83.17	1648.88	-1598.36	253.44	2275.39	5758966.65	628118.36
3050	61.50	83.17	1651.26	-1600.74	253.96	2279.75	5758967.17	628122.73
3055	61.57	83.18	1653.63	-1603.11	254.48	2284.13	5758967.70	628127.10
3060	61.68	83.20	1655.99	-1605.47	255.00	2288.50	5758968.22	628131.48
3065	61.80	83.21	1658.35	-1607.83	255.53	2292.88	5758968.74	628135.85
3070	61.91	83.23	1660.71	-1610.19	256.05	2297.26	5758969.26	628140.23
3075	62.03	83.24	1663.07	-1612.55	256.57	2301.63	5758969.78	628144.61
3080	62.14	83.26	1665.43	-1614.91	257.09	2306.01	5758970.30	628148.98
3085	62.25	83.24	1667.75	-1617.23	257.61	2310.41	5758970.83	628153.39
3090	62.36	83.21	1670.06	-1619.54	258.14	2314.81	5758971.35	628157.79
3095	62.47	83.18	1672.37	-1621.85	258.67	2319.22	5758971.88	628162.19
3100	62.57	83.16	1674.68	-1624.16	259.19	2323.62	5758972.40	628166.59
3105	62.68	83.13	1676.99	-1626.47	259.72	2328.02	5758972.93	628170.99
3110	62.79	83.11	1679.30	-1628.78	260.24	2332.42	5758973.46	628175.40
3115	62.90	83.12	1681.56	-1631.04	260.78	2336.85	5758973.99	628179.82
3120	63.00	83.13	1683.83	-1633.31	261.31	2341.28	5758974.52	628184.25
3125	63.11	83.14	1686.09	-1635.57	261.84	2345.70	5758975.06	628188.68

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
3130	63.21	83.15	1688.36	-1637.84	262.38	2350.13	5758975.59	628193.10
3135	63.32	83.16	1690.62	-1640.10	262.91	2354.55	5758976.12	628197.53
3140	63.43	83.17	1692.86	-1642.34	263.44	2358.99	5758976.65	628201.97
3145	63.54	83.18	1695.07	-1644.55	263.97	2363.44	5758977.18	628206.42
3150	63.64	83.19	1697.29	-1646.77	264.50	2367.89	5758977.72	628210.87
3155	63.75	83.20	1699.51	-1648.99	265.04	2372.34	5758978.25	628215.32
3160	63.86	83.21	1701.72	-1651.20	265.57	2376.80	5758978.78	628219.77
3165	63.97	83.22	1703.94	-1653.42	266.10	2381.25	5758979.31	628224.22
3170	64.07	83.24	1706.13	-1655.61	266.63	2385.71	5758979.84	628228.68
3175	64.14	83.27	1708.30	-1657.78	267.15	2390.18	5758980.36	628233.16
3180	64.22	83.31	1710.47	-1659.95	267.67	2394.66	5758980.89	628237.63
3185	64.30	83.34	1712.65	-1662.13	268.20	2399.13	5758981.41	628242.10
3190	64.38	83.38	1714.82	-1664.30	268.72	2403.60	5758981.93	628246.57
3195	64.46	83.41	1716.99	-1666.47	269.24	2408.07	5758982.46	628251.05
3200	64.61	83.41	1719.12	-1668.60	269.77	2412.57	5758982.98	628255.54
3205	64.77	83.39	1721.23	-1670.71	270.29	2417.07	5758983.50	628260.04
3210	64.93	83.38	1723.35	-1672.83	270.81	2421.57	5758984.03	628264.54
3215	65.10	83.36	1725.47	-1674.95	271.34	2426.07	5758984.55	628269.04
3220	65.26	83.35	1727.59	-1677.07	271.86	2430.57	5758985.07	628273.54
3225	65.42	83.33	1729.70	-1679.18	272.38	2435.06	5758985.59	628278.04
3230	65.52	83.35	1731.76	-1681.24	272.91	2439.59	5758986.12	628282.57
3235	65.63	83.37	1733.81	-1683.29	273.43	2444.12	5758986.64	628287.09
3240	65.73	83.39	1735.87	-1685.35	273.96	2448.65	5758987.17	628291.62
3245	65.83	83.40	1737.93	-1687.41	274.48	2453.18	5758987.69	628296.15
3250	65.93	83.42	1739.98	-1689.46	275.01	2457.70	5758988.22	628300.68
3255	66.03	83.44	1742.03	-1691.51	275.53	2462.23	5758988.74	628305.21
3260	66.08	83.43	1744.06	-1693.54	276.06	2466.77	5758989.27	628309.75
3265	66.12	83.41	1746.08	-1695.56	276.58	2471.32	5758989.79	628314.29
3270	66.17	83.40	1748.10	-1697.58	277.11	2475.86	5758990.32	628318.83
3275	66.21	83.38	1750.12	-1699.60	277.63	2480.40	5758990.85	628323.38
3280	66.26	83.37	1752.14	-1701.62	278.16	2484.95	5758991.37	628327.92
3285	66.26	83.38	1754.16	-1703.64	278.68	2489.49	5758991.89	628332.46
3290	66.17	83.44	1756.20	-1705.68	279.20	2494.03	5758992.41	628337.00
3295	66.07	83.49	1758.23	-1707.71	279.71	2498.57	5758992.92	628341.54
3300	65.97	83.55	1760.26	-1709.74	280.23	2503.11	5758993.44	628346.08
3305	65.88	83.61	1762.29	-1711.77	280.74	2507.64	5758993.95	628350.62
3310	65.78	83.67	1764.33	-1713.81	281.26	2512.18	5758994.47	628355.16
3315	65.69	83.69	1766.38	-1715.86	281.77	2516.71	5758994.98	628359.69
3320	65.60	83.66	1768.46	-1717.94	282.27	2521.23	5758995.48	628364.21
3325	65.52	83.63	1770.53	-1720.01	282.78	2525.76	5758995.99	628368.73
3330	65.43	83.60	1772.60	-1722.08	283.28	2530.28	5758996.50	628373.25
3335	65.35	83.57	1774.68	-1724.16	283.79	2534.80	5758997.00	628377.77
3340	65.26	83.54	1776.75	-1726.23	284.30	2539.32	5758997.51	628382.29
3345	65.14	83.57	1778.87	-1728.35	284.80	2543.82	5758998.01	628386.80
3350	65.02	83.61	1780.99	-1730.47	285.30	2548.32	5758998.51	628391.30
3355	64.89	83.66	1783.11	-1732.59	285.80	2552.82	5758999.01	628395.80
3360	64.77	83.71	1785.23	-1734.71	286.30	2557.32	5758999.51	628400.30
3365	64.64	83.75	1787.36	-1736.84	286.79	2561.82	5759000.01	628404.80
3370	64.52	83.80	1789.48	-1738.96	287.29	2566.32	5759000.51	628409.29
3375	64.57	83.82	1791.62	-1741.10	287.78	2570.81	5759000.99	628413.79
3380	64.62	83.85	1793.76	-1743.24	288.26	2575.31	5759001.47	628418.28
3385	64.67	83.87	1795.90	-1745.38	288.74	2579.80	5759001.95	628422.77
3390	64.71	83.90	1798.04	-1747.52	289.22	2584.29	5759002.44	628427.27
3395	64.76	83.92	1800.18	-1749.66	289.71	2588.79	5759002.92	628431.76
3400	64.84	83.94	1802.31	-1751.79	290.19	2593.28	5759003.40	628436.26
3405	65.01	83.92	1804.40	-1753.88	290.67	2597.80	5759003.88	628440.77
3410	65.18	83.91	1806.49	-1755.97	291.16	2602.32	5759004.37	628445.29
3415	65.36	83.89	1808.57	-1758.05	291.64	2606.83	5759004.85	628449.81

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
3420	65.53	83.87	1810.66	-1760.14	292.12	2611.35	5759005.33	628454.33
3425	65.71	83.86	1812.75	-1762.23	292.61	2615.87	5759005.82	628458.84
3430	65.86	83.86	1814.81	-1764.29	293.09	2620.40	5759006.30	628463.37
3435	65.97	83.87	1816.84	-1766.32	293.58	2624.94	5759006.79	628467.92
3440	66.09	83.89	1818.86	-1768.34	294.06	2629.49	5759007.27	628472.47
3445	66.20	83.90	1820.88	-1770.36	294.55	2634.04	5759007.76	628477.01
3450	66.32	83.92	1822.90	-1772.38	295.04	2638.59	5759008.25	628481.56
3455	66.43	83.93	1824.93	-1774.41	295.52	2643.13	5759008.73	628486.11
3460	66.49	83.98	1826.93	-1776.41	296.00	2647.69	5759009.21	628490.66
3465	66.51	84.04	1828.92	-1778.40	296.47	2652.25	5759009.68	628495.22
3470	66.53	84.10	1830.91	-1780.39	296.94	2656.81	5759010.15	628499.79
3475	66.55	84.17	1832.90	-1782.38	297.41	2661.38	5759010.62	628504.35
3480	66.57	84.23	1834.89	-1784.37	297.88	2665.94	5759011.09	628508.91
3485	66.59	84.29	1836.88	-1786.36	298.34	2670.50	5759011.56	628513.47
3490	66.54	84.32	1838.88	-1788.36	298.80	2675.06	5759012.01	628518.03
3495	66.47	84.34	1840.89	-1790.37	299.25	2679.62	5759012.46	628522.59
3500	66.40	84.36	1842.89	-1792.37	299.70	2684.18	5759012.91	628527.15
3505	66.32	84.38	1844.89	-1794.37	300.15	2688.74	5759013.36	628531.71
3510	66.25	84.40	1846.89	-1796.37	300.60	2693.30	5759013.81	628536.27
3515	66.18	84.42	1848.90	-1798.38	301.05	2697.86	5759014.26	628540.83
3520	66.07	84.42	1850.94	-1800.42	301.49	2702.40	5759014.70	628545.37
3525	65.97	84.42	1852.98	-1802.46	301.94	2706.94	5759015.15	628549.91
3530	65.86	84.41	1855.03	-1804.51	302.38	2711.48	5759015.59	628554.45
3535	65.75	84.41	1857.07	-1806.55	302.82	2716.02	5759016.04	628559.00
3540	65.64	84.41	1859.11	-1808.59	303.27	2720.56	5759016.48	628563.54
3545	65.54	84.45	1861.17	-1810.65	303.70	2725.10	5759016.92	628568.07
3550	65.45	84.54	1863.26	-1812.74	304.12	2729.62	5759017.34	628572.60
3555	65.36	84.64	1865.35	-1814.83	304.54	2734.15	5759017.76	628577.12
3560	65.27	84.74	1867.44	-1816.92	304.96	2738.67	5759018.18	628581.64
3565	65.18	84.84	1869.53	-1819.01	305.39	2743.19	5759018.60	628586.17
3570	65.09	84.93	1871.62	-1821.10	305.81	2747.72	5759019.02	628590.69
3575	64.99	85.02	1873.73	-1823.21	306.20	2752.23	5759019.41	628595.20
3580	64.89	85.11	1875.86	-1825.34	306.58	2756.74	5759019.79	628599.71
3585	64.79	85.19	1878.00	-1827.48	306.95	2761.24	5759020.17	628604.22
3590	64.68	85.27	1880.13	-1829.61	307.33	2765.75	5759020.54	628608.72
3595	64.58	85.35	1882.26	-1831.74	307.71	2770.25	5759020.92	628613.23
3600	64.47	85.44	1884.40	-1833.88	308.08	2774.76	5759021.30	628617.73
3605	64.34	85.52	1886.57	-1836.05	308.44	2779.25	5759021.65	628622.23
3610	64.20	85.61	1888.76	-1838.24	308.77	2783.73	5759021.98	628626.71
3615	64.05	85.71	1890.95	-1840.43	309.10	2788.22	5759022.32	628631.19
3620	63.91	85.80	1893.14	-1842.62	309.44	2792.70	5759022.65	628635.67
3625	63.76	85.89	1895.33	-1844.81	309.77	2797.18	5759022.99	628640.15
3630	63.61	85.98	1897.52	-1847.00	310.11	2801.66	5759023.32	628644.63
3635	63.52	86.00	1899.77	-1849.25	310.42	2806.12	5759023.64	628649.09
3640	63.45	86.00	1902.02	-1851.50	310.74	2810.57	5759023.95	628653.54
3645	63.38	85.99	1904.28	-1853.76	311.05	2815.02	5759024.26	628657.99
3650	63.30	85.99	1906.54	-1856.02	311.36	2819.47	5759024.57	628662.44
3655	63.23	85.99	1908.80	-1858.28	311.67	2823.92	5759024.89	628666.89
3660	63.16	85.99	1911.06	-1860.54	311.99	2828.37	5759025.20	628671.34
3665	63.08	85.98	1913.31	-1862.79	312.30	2832.82	5759025.51	628675.79
3670	63.01	85.98	1915.57	-1865.05	312.61	2837.27	5759025.82	628680.24
3675	62.94	85.98	1917.83	-1867.31	312.92	2841.72	5759026.14	628684.69
3680	62.86	85.97	1920.09	-1869.57	313.24	2846.17	5759026.45	628689.14
3685	62.79	85.97	1922.34	-1871.82	313.55	2850.62	5759026.76	628693.59
3690	62.73	85.95	1924.61	-1874.09	313.86	2855.07	5759027.08	628698.04
3695	62.75	85.85	1926.90	-1876.38	314.20	2859.50	5759027.41	628702.47
3700	62.76	85.75	1929.18	-1878.66	314.53	2863.93	5759027.75	628706.91
3705	62.78	85.64	1931.47	-1880.95	314.87	2868.37	5759028.08	628711.34

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
3710	62.80	85.54	1933.76	-1883.24	315.20	2872.80	5759028.42	628715.77
3715	62.81	85.44	1936.04	-1885.52	315.54	2877.23	5759028.75	628720.21
3720	62.82	85.33	1938.33	-1887.81	315.90	2881.67	5759029.11	628724.64
3725	62.81	85.23	1940.62	-1890.10	316.28	2886.10	5759029.49	628729.07
3730	62.81	85.12	1942.90	-1892.38	316.66	2890.53	5759029.88	628733.50
3735	62.81	85.02	1945.19	-1894.67	317.05	2894.96	5759030.26	628737.93
3740	62.80	84.91	1947.47	-1896.95	317.43	2899.39	5759030.64	628742.36
3745	62.80	84.81	1949.75	-1899.23	317.81	2903.82	5759031.02	628746.79
3750	62.84	84.73	1952.03	-1901.51	318.21	2908.25	5759031.42	628751.23
3755	62.91	84.67	1954.30	-1903.78	318.63	2912.69	5759031.84	628755.66
3760	62.99	84.62	1956.57	-1906.05	319.05	2917.13	5759032.26	628760.10
3765	63.06	84.56	1958.84	-1908.32	319.47	2921.56	5759032.68	628764.54
3770	63.13	84.51	1961.11	-1910.59	319.89	2926.00	5759033.10	628768.97
3775	63.21	84.45	1963.38	-1912.86	320.31	2930.43	5759033.52	628773.41
3780	63.25	84.34	1965.63	-1915.11	320.76	2934.88	5759033.97	628777.85
3785	63.29	84.21	1967.87	-1917.35	321.22	2939.32	5759034.43	628782.29
3790	63.33	84.08	1970.11	-1919.59	321.68	2943.76	5759034.90	628786.74
3795	63.37	83.95	1972.36	-1921.84	322.15	2948.21	5759035.36	628791.18
3800	63.41	83.82	1974.60	-1924.08	322.61	2952.65	5759035.82	628795.63
3805	63.45	83.70	1976.84	-1926.32	323.07	2957.10	5759036.28	628800.07
3810	63.49	83.66	1979.07	-1928.55	323.57	2961.55	5759036.78	628804.52
3815	63.53	83.63	1981.30	-1930.78	324.07	2966.00	5759037.28	628808.97
3820	63.57	83.60	1983.52	-1933.00	324.57	2970.44	5759037.78	628813.42
3825	63.60	83.57	1985.75	-1935.23	325.07	2974.89	5759038.28	628817.87
3830	63.64	83.53	1987.98	-1937.46	325.57	2979.34	5759038.78	628822.32
3835	63.70	83.49	1990.19	-1939.67	326.07	2983.80	5759039.28	628826.77
3840	63.80	83.41	1992.39	-1941.87	326.60	2988.26	5759039.81	628831.23
3845	63.90	83.33	1994.58	-1944.06	327.12	2992.72	5759040.33	628835.69
3850	64.00	83.26	1996.78	-1946.26	327.65	2997.18	5759040.86	628840.15
3855	64.10	83.18	1998.97	-1948.45	328.17	3001.64	5759041.39	628844.62
3860	64.20	83.10	2001.17	-1950.65	328.70	3006.10	5759041.91	628849.08
3865	64.32	83.07	2003.34	-1952.82	329.23	3010.58	5759042.44	628853.55
3870	64.46	83.09	2005.48	-1954.96	329.77	3015.06	5759042.99	628858.04
3872	64.51	83.09	2006.33	-1955.81	329.99	3016.86	5759043.20	628859.83
3873	64.54	83.10	2006.76	-1956.24	330.10	3017.75	5759043.31	628860.73
3874	64.57	83.10	2007.19	-1956.67	330.21	3018.65	5759043.42	628861.63
3875	64.60	83.10	2007.62	-1957.10	330.32	3019.55	5759043.53	628862.52
3876	64.63	83.11	2008.05	-1957.53	330.42	3020.45	5759043.64	628863.42
3877	64.66	83.11	2008.47	-1957.95	330.53	3021.34	5759043.74	628864.32
3878	64.68	83.11	2008.90	-1958.38	330.64	3022.24	5759043.85	628865.21
3879	64.71	83.12	2009.33	-1958.81	330.75	3023.14	5759043.96	628866.11
3880	64.74	83.12	2009.76	-1959.24	330.86	3024.03	5759044.07	628867.01
3881	64.77	83.12	2010.19	-1959.67	330.97	3024.93	5759044.18	628867.91
3882	64.80	83.13	2010.62	-1960.10	331.07	3025.83	5759044.29	628868.80
3883	64.83	83.13	2011.04	-1960.52	331.18	3026.73	5759044.40	628869.70
3884	64.85	83.13	2011.47	-1960.95	331.29	3027.62	5759044.50	628870.60
3885	64.88	83.14	2011.90	-1961.38	331.40	3028.52	5759044.61	628871.49
3886	64.91	83.14	2012.33	-1961.81	331.51	3029.42	5759044.72	628872.39
3887	64.94	83.15	2012.76	-1962.24	331.62	3030.32	5759044.83	628873.29
3888	64.97	83.15	2013.18	-1962.66	331.73	3031.21	5759044.94	628874.19
3889	65.00	83.15	2013.61	-1963.09	331.83	3032.11	5759045.05	628875.08
3890	65.03	83.16	2014.04	-1963.52	331.94	3033.01	5759045.15	628875.98
3891	65.05	83.16	2014.47	-1963.95	332.05	3033.90	5759045.26	628876.88
3892	65.08	83.16	2014.89	-1964.37	332.16	3034.81	5759045.37	628877.78
3893	65.10	83.16	2015.30	-1964.78	332.27	3035.71	5759045.48	628878.68
3894	65.13	83.16	2015.72	-1965.20	332.38	3036.61	5759045.59	628879.58
3895	65.15	83.15	2016.14	-1965.62	332.49	3037.51	5759045.70	628880.49
3896	65.17	83.15	2016.55	-1966.03	332.59	3038.42	5759045.81	628881.39

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
3897	65.20	83.15	2016.97	-1966.45	332.70	3039.32	5759045.91	628882.29
3898	65.22	83.15	2017.38	-1966.86	332.81	3040.22	5759046.02	628883.20
3899	65.25	83.15	2017.80	-1967.28	332.92	3041.12	5759046.13	628884.10
3900	65.27	83.14	2018.22	-1967.70	333.03	3042.03	5759046.24	628885.00
3901	65.29	83.14	2018.63	-1968.11	333.14	3042.93	5759046.35	628885.90
3902	65.32	83.14	2019.05	-1968.53	333.25	3043.83	5759046.46	628886.81
3903	65.34	83.14	2019.46	-1968.94	333.35	3044.74	5759046.57	628887.71
3904	65.36	83.14	2019.88	-1969.36	333.46	3045.64	5759046.68	628888.61
3905	65.39	83.14	2020.30	-1969.78	333.57	3046.54	5759046.78	628889.52
3906	65.41	83.13	2020.71	-1970.19	333.68	3047.44	5759046.89	628890.42
3907	65.44	83.13	2021.13	-1970.61	333.79	3048.35	5759047.00	628891.32
3908	65.46	83.13	2021.55	-1971.03	333.90	3049.25	5759047.11	628892.22
3909	65.48	83.13	2021.96	-1971.44	334.01	3050.15	5759047.22	628893.13
3910	65.51	83.13	2022.38	-1971.86	334.12	3051.06	5759047.33	628894.03
3911	65.53	83.13	2022.79	-1972.27	334.22	3051.96	5759047.44	628894.93
3912	65.55	83.12	2023.21	-1972.69	334.33	3052.86	5759047.55	628895.83
3913	65.58	83.12	2023.63	-1973.11	334.44	3053.76	5759047.65	628896.74
3914	65.60	83.12	2024.04	-1973.52	334.55	3054.67	5759047.76	628897.64
3915	65.63	83.12	2024.46	-1973.94	334.66	3055.57	5759047.87	628898.54
3916	65.65	83.12	2024.88	-1974.36	334.77	3056.47	5759047.98	628899.45
3917	65.67	83.12	2025.29	-1974.77	334.88	3057.37	5759048.09	628900.35
3918	65.70	83.11	2025.71	-1975.19	334.99	3058.28	5759048.20	628901.25
3919	65.72	83.11	2026.12	-1975.60	335.09	3059.18	5759048.31	628902.15
3920	65.75	83.11	2026.54	-1976.02	335.20	3060.08	5759048.41	628903.06
3921	65.78	83.11	2026.94	-1976.42	335.31	3060.99	5759048.52	628903.96
3922	65.82	83.11	2027.35	-1976.83	335.42	3061.90	5759048.63	628904.87
3923	65.85	83.11	2027.75	-1977.23	335.53	3062.81	5759048.74	628905.78
3924	65.89	83.11	2028.15	-1977.63	335.64	3063.72	5759048.85	628906.69
3925	65.93	83.11	2028.55	-1978.03	335.75	3064.63	5759048.96	628907.60
3926	65.96	83.11	2028.96	-1978.44	335.86	3065.54	5759049.07	628908.51
3927	66.00	83.11	2029.36	-1978.84	335.97	3066.44	5759049.18	628909.42
3928	66.04	83.11	2029.76	-1979.24	336.08	3067.35	5759049.29	628910.33
3929	66.07	83.11	2030.16	-1979.64	336.19	3068.26	5759049.40	628911.24
3930	66.11	83.11	2030.56	-1980.04	336.30	3069.17	5759049.51	628912.14
3931	66.15	83.11	2030.97	-1980.45	336.41	3070.08	5759049.62	628913.05
3932	66.18	83.11	2031.37	-1980.85	336.52	3070.99	5759049.73	628913.96
3933	66.22	83.11	2031.77	-1981.25	336.63	3071.90	5759049.84	628914.87
3934	66.26	83.11	2032.17	-1981.65	336.74	3072.81	5759049.95	628915.78
3935	66.29	83.11	2032.58	-1982.06	336.85	3073.72	5759050.06	628916.69
3936	66.33	83.11	2032.98	-1982.46	336.96	3074.62	5759050.17	628917.60
3937	66.37	83.11	2033.38	-1982.86	337.07	3075.53	5759050.28	628918.51
3938	66.40	83.11	2033.78	-1983.26	337.18	3076.44	5759050.39	628919.42
3939	66.44	83.11	2034.18	-1983.66	337.29	3077.35	5759050.50	628920.32
3940	66.48	83.11	2034.59	-1984.07	337.40	3078.26	5759050.61	628921.23
3941	66.51	83.11	2034.99	-1984.47	337.51	3079.17	5759050.72	628922.14
3942	66.55	83.11	2035.39	-1984.87	337.62	3080.08	5759050.83	628923.05
3943	66.59	83.11	2035.79	-1985.27	337.73	3080.99	5759050.94	628923.96
3944	66.62	83.11	2036.20	-1985.68	337.84	3081.90	5759051.05	628924.87
3945	66.66	83.11	2036.60	-1986.08	337.95	3082.80	5759051.16	628925.78
3946	66.70	83.11	2037.00	-1986.48	338.06	3083.71	5759051.27	628926.69
3947	66.73	83.11	2037.40	-1986.88	338.17	3084.62	5759051.38	628927.60
3948	66.77	83.11	2037.80	-1987.28	338.28	3085.53	5759051.49	628928.51
3949	66.81	83.11	2038.21	-1987.69	338.39	3086.44	5759051.60	628929.41
3950	66.82	83.11	2038.60	-1988.08	338.50	3087.35	5759051.71	628930.33
3951	66.82	83.11	2039.00	-1988.48	338.61	3088.26	5759051.82	628931.24
3952	66.82	83.11	2039.39	-1988.87	338.72	3089.18	5759051.93	628932.15
3953	66.82	83.11	2039.78	-1989.26	338.83	3090.09	5759052.04	628933.06
3954	66.82	83.11	2040.18	-1989.66	338.94	3091.00	5759052.15	628933.98

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
3955	66.82	83.11	2040.57	-1990.05	339.05	3091.92	5759052.26	628934.89
3956	66.82	83.11	2040.96	-1990.44	339.16	3092.83	5759052.37	628935.80
3957	66.83	83.12	2041.36	-1990.84	339.27	3093.74	5759052.48	628936.71
3958	66.83	83.12	2041.75	-1991.23	339.38	3094.65	5759052.59	628937.63
3959	66.83	83.12	2042.14	-1991.62	339.49	3095.57	5759052.70	628938.54
3960	66.83	83.12	2042.54	-1992.02	339.60	3096.48	5759052.81	628939.45
3961	66.83	83.12	2042.93	-1992.41	339.71	3097.39	5759052.92	628940.37
3962	66.83	83.12	2043.32	-1992.80	339.82	3098.30	5759053.03	628941.28
3963	66.83	83.12	2043.72	-1993.20	339.93	3099.22	5759053.14	628942.19
3964	66.83	83.12	2044.11	-1993.59	340.04	3100.13	5759053.25	628943.10
3965	66.83	83.12	2044.50	-1993.98	340.15	3101.04	5759053.36	628944.02
3966	66.83	83.12	2044.90	-1994.38	340.26	3101.96	5759053.47	628944.93
3967	66.83	83.12	2045.29	-1994.77	340.37	3102.87	5759053.58	628945.84
3968	66.83	83.12	2045.68	-1995.16	340.48	3103.78	5759053.69	628946.75
3969	66.83	83.12	2046.08	-1995.56	340.59	3104.69	5759053.80	628947.67
3970	66.83	83.12	2046.47	-1995.95	340.70	3105.61	5759053.91	628948.58
3971	66.84	83.13	2046.87	-1996.35	340.81	3106.52	5759054.02	628949.49
3972	66.84	83.13	2047.26	-1996.74	340.92	3107.43	5759054.13	628950.41
3973	66.84	83.13	2047.65	-1997.13	341.03	3108.34	5759054.24	628951.32
3974	66.84	83.13	2048.05	-1997.53	341.14	3109.26	5759054.35	628952.23
3975	66.84	83.13	2048.44	-1997.92	341.25	3110.17	5759054.46	628953.14
3976	66.84	83.13	2048.83	-1998.31	341.36	3111.08	5759054.57	628954.06
3977	66.84	83.13	2049.23	-1998.71	341.47	3112.00	5759054.68	628954.97
3978	66.84	83.13	2049.62	-1999.10	341.58	3112.91	5759054.79	628955.88
3979	66.84	83.13	2050.01	-1999.49	341.69	3113.82	5759054.90	628956.79
3980	66.83	83.14	2050.41	-1999.89	341.80	3114.73	5759055.01	628957.71
3981	66.83	83.15	2050.80	-2000.28	341.91	3115.65	5759055.12	628958.62
3982	66.82	83.15	2051.20	-2000.68	342.02	3116.56	5759055.23	628959.53
3983	66.82	83.16	2051.59	-2001.07	342.12	3117.47	5759055.34	628960.44
3984	66.82	83.16	2051.98	-2001.46	342.23	3118.38	5759055.45	628961.36
3985	66.81	83.17	2052.38	-2001.86	342.34	3119.30	5759055.55	628962.27
3986	66.81	83.17	2052.77	-2002.25	342.45	3120.21	5759055.66	628963.18
3987	66.80	83.18	2053.17	-2002.65	342.56	3121.12	5759055.77	628964.09
3988	66.80	83.18	2053.56	-2003.04	342.67	3122.03	5759055.88	628965.01
3989	66.80	83.19	2053.96	-2003.44	342.78	3122.95	5759055.99	628965.92
3990	66.79	83.19	2054.35	-2003.83	342.89	3123.86	5759056.10	628966.83
3991	66.79	83.20	2054.74	-2004.22	342.99	3124.77	5759056.21	628967.75
3992	66.78	83.21	2055.14	-2004.62	343.10	3125.68	5759056.31	628968.66
3993	66.78	83.21	2055.53	-2005.01	343.21	3126.60	5759056.42	628969.57
3994	66.78	83.22	2055.93	-2005.41	343.32	3127.51	5759056.53	628970.48
3995	66.77	83.22	2056.32	-2005.80	343.43	3128.42	5759056.64	628971.40
3996	66.77	83.23	2056.72	-2006.20	343.54	3129.33	5759056.75	628972.31
3997	66.76	83.23	2057.11	-2006.59	343.65	3130.25	5759056.86	628973.22
3998	66.76	83.24	2057.50	-2006.98	343.75	3131.16	5759056.97	628974.13
3999	66.76	83.24	2057.90	-2007.38	343.86	3132.07	5759057.08	628975.05
4000	66.75	83.25	2058.29	-2007.77	343.97	3132.98	5759057.18	628975.96
4001	66.75	83.25	2058.69	-2008.17	344.08	3133.90	5759057.29	628976.87
4002	66.74	83.26	2059.08	-2008.56	344.19	3134.81	5759057.40	628977.78
4003	66.74	83.27	2059.48	-2008.96	344.30	3135.72	5759057.51	628978.70
4004	66.73	83.27	2059.87	-2009.35	344.41	3136.63	5759057.62	628979.61
4005	66.73	83.28	2060.26	-2009.74	344.52	3137.55	5759057.73	628980.52
4006	66.73	83.28	2060.66	-2010.14	344.62	3138.46	5759057.84	628981.43
4007	66.72	83.29	2061.05	-2010.53	344.73	3139.37	5759057.94	628982.35
4008	66.71	83.29	2061.45	-2010.93	344.84	3140.28	5759058.05	628983.26
4009	66.69	83.30	2061.85	-2011.33	344.94	3141.19	5759058.16	628984.17
4010	66.68	83.31	2062.25	-2011.73	345.05	3142.11	5759058.26	628985.08
4011	66.66	83.32	2062.65	-2012.13	345.15	3143.02	5759058.37	628985.99
4012	66.64	83.33	2063.05	-2012.53	345.26	3143.93	5759058.47	628986.90

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4013	66.62	83.34	2063.45	-2012.93	345.36	3144.84	5759058.58	628987.81
4014	66.60	83.35	2063.85	-2013.33	345.47	3145.75	5759058.68	628988.72
4015	66.58	83.36	2064.25	-2013.73	345.57	3146.66	5759058.79	628989.63
4016	66.57	83.37	2064.64	-2014.12	345.68	3147.57	5759058.89	628990.54
4017	66.55	83.38	2065.04	-2014.52	345.78	3148.48	5759059.00	628991.45
4018	66.53	83.39	2065.44	-2014.92	345.89	3149.39	5759059.10	628992.36
4019	66.51	83.40	2065.84	-2015.32	345.99	3150.30	5759059.21	628993.28
4020	66.49	83.41	2066.24	-2015.72	346.10	3151.21	5759059.31	628994.19
4021	66.47	83.42	2066.64	-2016.12	346.20	3152.12	5759059.42	628995.10
4022	66.45	83.43	2067.04	-2016.52	346.31	3153.03	5759059.52	628996.01
4023	66.44	83.43	2067.44	-2016.92	346.41	3153.94	5759059.63	628996.92
4024	66.42	83.44	2067.84	-2017.32	346.52	3154.86	5759059.73	628997.83
4025	66.40	83.45	2068.24	-2017.72	346.62	3155.77	5759059.84	628998.74
4026	66.38	83.46	2068.64	-2018.12	346.73	3156.68	5759059.94	628999.65
4027	66.36	83.47	2069.04	-2018.52	346.83	3157.59	5759060.05	629000.56
4028	66.34	83.48	2069.44	-2018.92	346.94	3158.50	5759060.15	629001.47
4029	66.33	83.49	2069.84	-2019.32	347.04	3159.41	5759060.26	629002.38
4030	66.31	83.50	2070.24	-2019.72	347.15	3160.32	5759060.36	629003.29
4031	66.29	83.51	2070.64	-2020.12	347.25	3161.23	5759060.47	629004.20
4032	66.27	83.52	2071.04	-2020.52	347.36	3162.14	5759060.57	629005.11
4033	66.25	83.53	2071.44	-2020.92	347.46	3163.05	5759060.68	629006.03
4034	66.23	83.54	2071.84	-2021.32	347.57	3163.96	5759060.78	629006.94
4035	66.22	83.55	2072.23	-2021.71	347.67	3164.87	5759060.89	629007.85
4036	66.20	83.56	2072.63	-2022.11	347.78	3165.78	5759060.99	629008.76
4037	66.18	83.56	2073.04	-2022.52	347.88	3166.69	5759061.09	629009.67
4038	66.17	83.55	2073.44	-2022.92	347.99	3167.60	5759061.20	629010.57
4039	66.17	83.55	2073.85	-2023.33	348.09	3168.51	5759061.30	629011.48
4040	66.16	83.55	2074.26	-2023.74	348.19	3169.42	5759061.41	629012.39
4041	66.15	83.54	2074.66	-2024.14	348.30	3170.33	5759061.51	629013.30
4042	66.14	83.54	2075.07	-2024.55	348.40	3171.23	5759061.61	629014.21
4043	66.13	83.53	2075.47	-2024.95	348.50	3172.14	5759061.72	629015.11
4044	66.12	83.53	2075.88	-2025.36	348.61	3173.05	5759061.82	629016.02
4045	66.11	83.52	2076.29	-2025.77	348.71	3173.96	5759061.92	629016.93
4046	66.10	83.52	2076.69	-2026.17	348.81	3174.87	5759062.03	629017.84
4047	66.09	83.52	2077.10	-2026.58	348.92	3175.77	5759062.13	629018.75
4048	66.08	83.51	2077.50	-2026.98	349.02	3176.68	5759062.23	629019.66
4049	66.07	83.51	2077.91	-2027.39	349.12	3177.59	5759062.34	629020.56
4050	66.06	83.50	2078.31	-2027.79	349.23	3178.50	5759062.44	629021.47
4051	66.05	83.50	2078.72	-2028.20	349.33	3179.41	5759062.54	629022.38
4052	66.04	83.50	2079.13	-2028.61	349.43	3180.31	5759062.65	629023.29
4053	66.03	83.49	2079.53	-2029.01	349.54	3181.22	5759062.75	629024.20
4054	66.02	83.49	2079.94	-2029.42	349.64	3182.13	5759062.85	629025.10
4055	66.01	83.48	2080.34	-2029.82	349.74	3183.04	5759062.96	629026.01
4056	66.00	83.48	2080.75	-2030.23	349.85	3183.95	5759063.06	629026.92
4057	65.99	83.47	2081.16	-2030.64	349.95	3184.85	5759063.16	629027.83
4058	65.98	83.47	2081.56	-2031.04	350.06	3185.76	5759063.27	629028.74
4059	65.97	83.47	2081.97	-2031.45	350.16	3186.67	5759063.37	629029.64
4060	65.96	83.46	2082.37	-2031.85	350.26	3187.58	5759063.47	629030.55
4061	65.95	83.46	2082.78	-2032.26	350.37	3188.49	5759063.58	629031.46
4062	65.94	83.45	2083.19	-2032.67	350.47	3189.39	5759063.68	629032.37
4063	65.93	83.45	2083.59	-2033.07	350.57	3190.30	5759063.78	629033.28
4064	65.92	83.45	2084.00	-2033.48	350.68	3191.21	5759063.89	629034.18
4065	65.91	83.44	2084.40	-2033.88	350.78	3192.12	5759063.99	629035.09
4066	65.90	83.44	2084.81	-2034.29	350.88	3193.02	5759064.10	629036.00
4067	65.88	83.43	2085.23	-2034.71	350.99	3193.93	5759064.20	629036.90
4068	65.86	83.42	2085.64	-2035.12	351.09	3194.83	5759064.31	629037.81
4069	65.84	83.42	2086.05	-2035.53	351.20	3195.74	5759064.41	629038.71
4070	65.82	83.41	2086.46	-2035.94	351.31	3196.64	5759064.52	629039.62

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4071	65.80	83.41	2086.88	-2036.36	351.41	3197.55	5759064.62	629040.52
4072	65.78	83.40	2087.29	-2036.77	351.52	3198.45	5759064.73	629041.43
4073	65.76	83.39	2087.70	-2037.18	351.62	3199.36	5759064.83	629042.33
4074	65.74	83.39	2088.12	-2037.60	351.73	3200.26	5759064.94	629043.24
4075	65.72	83.38	2088.53	-2038.01	351.83	3201.17	5759065.05	629044.14
4076	65.70	83.37	2088.94	-2038.42	351.94	3202.07	5759065.15	629045.05
4077	65.68	83.37	2089.35	-2038.83	352.04	3202.98	5759065.26	629045.95
4078	65.66	83.36	2089.77	-2039.25	352.15	3203.88	5759065.36	629046.85
4079	65.64	83.36	2090.18	-2039.66	352.26	3204.79	5759065.47	629047.76
4080	65.62	83.35	2090.59	-2040.07	352.36	3205.69	5759065.57	629048.66
4081	65.60	83.34	2091.00	-2040.48	352.47	3206.60	5759065.68	629049.57
4082	65.58	83.34	2091.42	-2040.90	352.57	3207.50	5759065.78	629050.47
4083	65.56	83.33	2091.83	-2041.31	352.68	3208.40	5759065.89	629051.38
4084	65.54	83.32	2092.24	-2041.72	352.78	3209.31	5759065.99	629052.28
4085	65.52	83.32	2092.66	-2042.14	352.89	3210.21	5759066.10	629053.19
4086	65.50	83.31	2093.07	-2042.55	352.99	3211.12	5759066.21	629054.09
4087	65.48	83.31	2093.48	-2042.96	353.10	3212.02	5759066.31	629055.00
4088	65.46	83.30	2093.89	-2043.37	353.20	3212.93	5759066.42	629055.90
4089	65.44	83.29	2094.31	-2043.79	353.31	3213.83	5759066.52	629056.81
4090	65.42	83.29	2094.72	-2044.20	353.42	3214.74	5759066.63	629057.71
4091	65.40	83.28	2095.13	-2044.61	353.52	3215.64	5759066.73	629058.62
4092	65.39	83.27	2095.54	-2045.02	353.63	3216.55	5759066.84	629059.52
4093	65.37	83.27	2095.96	-2045.44	353.73	3217.45	5759066.94	629060.43
4094	65.35	83.26	2096.37	-2045.85	353.84	3218.36	5759067.05	629061.33
4095	65.33	83.26	2096.79	-2046.27	353.94	3219.26	5759067.15	629062.23
4096	65.33	83.27	2097.21	-2046.69	354.05	3220.16	5759067.26	629063.13
4097	65.32	83.28	2097.63	-2047.11	354.15	3221.06	5759067.36	629064.04
4098	65.31	83.29	2098.04	-2047.52	354.26	3221.96	5759067.47	629064.94
4099	65.30	83.29	2098.46	-2047.94	354.36	3222.87	5759067.57	629065.84
4100	65.29	83.30	2098.88	-2048.36	354.47	3223.77	5759067.68	629066.74
4101	65.28	83.31	2099.30	-2048.78	354.57	3224.67	5759067.78	629067.64
4102	65.28	83.31	2099.72	-2049.20	354.68	3225.57	5759067.89	629068.55
4103	65.27	83.32	2100.14	-2049.62	354.78	3226.47	5759067.99	629069.45
4104	65.26	83.33	2100.56	-2050.04	354.89	3227.38	5759068.10	629070.35
4105	65.25	83.33	2100.98	-2050.46	354.99	3228.28	5759068.20	629071.25
4106	65.24	83.34	2101.40	-2050.88	355.10	3229.18	5759068.31	629072.15
4107	65.23	83.35	2101.82	-2051.30	355.20	3230.08	5759068.41	629073.05
4108	65.23	83.36	2102.24	-2051.72	355.31	3230.98	5759068.52	629073.96
4109	65.22	83.36	2102.65	-2052.13	355.41	3231.88	5759068.62	629074.86
4110	65.21	83.37	2103.07	-2052.55	355.52	3232.79	5759068.73	629075.76
4111	65.20	83.38	2103.49	-2052.97	355.62	3233.69	5759068.83	629076.66
4112	65.19	83.38	2103.91	-2053.39	355.73	3234.59	5759068.94	629077.56
4113	65.18	83.39	2104.33	-2053.81	355.83	3235.49	5759069.04	629078.47
4114	65.18	83.40	2104.75	-2054.23	355.94	3236.39	5759069.15	629079.37
4115	65.17	83.40	2105.17	-2054.65	356.04	3237.30	5759069.25	629080.27
4116	65.16	83.41	2105.59	-2055.07	356.15	3238.20	5759069.36	629081.17
4117	65.15	83.42	2106.01	-2055.49	356.25	3239.10	5759069.46	629082.07
4118	65.14	83.42	2106.43	-2055.91	356.36	3240.00	5759069.57	629082.97
4119	65.13	83.43	2106.85	-2056.33	356.46	3240.90	5759069.67	629083.88
4120	65.13	83.44	2107.27	-2056.75	356.57	3241.80	5759069.78	629084.78
4121	65.12	83.45	2107.68	-2057.16	356.67	3242.71	5759069.88	629085.68
4122	65.11	83.45	2108.10	-2057.58	356.78	3243.61	5759069.99	629086.58
4123	65.10	83.46	2108.52	-2058.00	356.88	3244.51	5759070.09	629087.48
4124	65.08	83.46	2108.95	-2058.43	356.99	3245.41	5759070.20	629088.38
4125	65.05	83.45	2109.38	-2058.86	357.09	3246.31	5759070.30	629089.28
4126	65.02	83.45	2109.80	-2059.28	357.19	3247.20	5759070.40	629090.18
4127	64.99	83.45	2110.23	-2059.71	357.30	3248.10	5759070.51	629091.08
4128	64.96	83.45	2110.66	-2060.14	357.40	3249.00	5759070.61	629091.97

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4129	64.94	83.44	2111.09	-2060.57	357.50	3249.90	5759070.72	629092.87
4130	64.91	83.44	2111.51	-2060.99	357.61	3250.80	5759070.82	629093.77
4131	64.88	83.44	2111.94	-2061.42	357.71	3251.70	5759070.92	629094.67
4132	64.85	83.44	2112.37	-2061.85	357.81	3252.59	5759071.03	629095.57
4133	64.83	83.43	2112.80	-2062.28	357.92	3253.49	5759071.13	629096.47
4134	64.80	83.43	2113.22	-2062.70	358.02	3254.39	5759071.23	629097.36
4135	64.77	83.43	2113.65	-2063.13	358.13	3255.29	5759071.34	629098.26
4136	64.74	83.42	2114.08	-2063.56	358.23	3256.19	5759071.44	629099.16
4137	64.71	83.42	2114.51	-2063.99	358.33	3257.08	5759071.54	629100.06
4138	64.69	83.42	2114.93	-2064.41	358.44	3257.98	5759071.65	629100.96
4139	64.66	83.42	2115.36	-2064.84	358.54	3258.88	5759071.75	629101.85
4140	64.63	83.41	2115.79	-2065.27	358.64	3259.78	5759071.86	629102.75
4141	64.60	83.41	2116.22	-2065.70	358.75	3260.68	5759071.96	629103.65
4142	64.57	83.41	2116.64	-2066.12	358.85	3261.57	5759072.06	629104.55
4143	64.55	83.41	2117.07	-2066.55	358.95	3262.47	5759072.17	629105.45
4144	64.52	83.40	2117.50	-2066.98	359.06	3263.37	5759072.27	629106.34
4145	64.49	83.40	2117.92	-2067.40	359.16	3264.27	5759072.37	629107.24
4146	64.46	83.40	2118.35	-2067.83	359.26	3265.17	5759072.48	629108.14
4147	64.44	83.39	2118.78	-2068.26	359.37	3266.06	5759072.58	629109.04
4148	64.41	83.39	2119.21	-2068.69	359.47	3266.96	5759072.68	629109.94
4149	64.38	83.39	2119.63	-2069.11	359.58	3267.86	5759072.79	629110.83
4150	64.35	83.39	2120.06	-2069.54	359.68	3268.76	5759072.89	629111.73
4151	64.32	83.38	2120.49	-2069.97	359.78	3269.66	5759072.99	629112.63
4152	64.30	83.38	2120.92	-2070.40	359.89	3270.55	5759073.10	629113.53
4153	64.28	83.39	2121.35	-2070.83	359.99	3271.45	5759073.20	629114.42
4154	64.27	83.40	2121.79	-2071.27	360.09	3272.34	5759073.30	629115.32
4155	64.26	83.41	2122.22	-2071.70	360.19	3273.24	5759073.40	629116.21
4156	64.25	83.43	2122.66	-2072.14	360.29	3274.13	5759073.50	629117.11
4157	64.24	83.44	2123.09	-2072.57	360.39	3275.03	5759073.60	629118.00
4158	64.23	83.45	2123.53	-2073.01	360.49	3275.92	5759073.70	629118.89
4159	64.23	83.46	2123.97	-2073.45	360.59	3276.82	5759073.81	629119.79
4160	64.22	83.48	2124.40	-2073.88	360.69	3277.71	5759073.91	629120.68
4161	64.21	83.49	2124.84	-2074.32	360.80	3278.60	5759074.01	629121.58
4162	64.20	83.50	2125.28	-2074.76	360.90	3279.50	5759074.11	629122.47
4163	64.19	83.51	2125.71	-2075.19	361.00	3280.39	5759074.21	629123.37
4164	64.18	83.52	2126.15	-2075.63	361.10	3281.29	5759074.31	629124.26
4165	64.17	83.54	2126.58	-2076.06	361.20	3282.18	5759074.41	629125.15
4166	64.16	83.55	2127.02	-2076.50	361.30	3283.08	5759074.51	629126.05
4167	64.15	83.56	2127.46	-2076.94	361.40	3283.97	5759074.61	629126.94
4168	64.14	83.57	2127.89	-2077.37	361.50	3284.86	5759074.71	629127.84
4169	64.13	83.59	2128.33	-2077.81	361.60	3285.76	5759074.81	629128.73
4170	64.12	83.60	2128.76	-2078.24	361.70	3286.65	5759074.92	629129.63
4171	64.11	83.61	2129.20	-2078.68	361.80	3287.55	5759075.02	629130.52
4172	64.10	83.62	2129.64	-2079.12	361.91	3288.44	5759075.12	629131.41
4173	64.09	83.63	2130.07	-2079.55	362.01	3289.34	5759075.22	629132.31
4174	64.08	83.65	2130.51	-2079.99	362.11	3290.23	5759075.32	629133.20
4175	64.07	83.66	2130.94	-2080.42	362.21	3291.12	5759075.42	629134.10
4176	64.06	83.67	2131.38	-2080.86	362.31	3292.02	5759075.52	629134.99
4177	64.05	83.68	2131.82	-2081.30	362.41	3292.91	5759075.62	629135.89
4178	64.04	83.70	2132.25	-2081.73	362.51	3293.81	5759075.72	629136.78
4179	64.03	83.71	2132.69	-2082.17	362.61	3294.70	5759075.82	629137.67
4180	64.03	83.72	2133.12	-2082.60	362.71	3295.59	5759075.93	629138.57
4181	64.02	83.73	2133.56	-2083.04	362.81	3296.49	5759076.03	629139.46
4182	64.01	83.74	2134.00	-2083.48	362.91	3297.38	5759076.13	629140.36
4183	64.01	83.75	2134.44	-2083.92	363.01	3298.28	5759076.22	629141.25
4184	64.00	83.75	2134.87	-2084.35	363.11	3299.17	5759076.32	629142.14
4185	64.00	83.75	2135.31	-2084.79	363.20	3300.06	5759076.42	629143.04
4186	64.00	83.76	2135.75	-2085.23	363.30	3300.96	5759076.51	629143.93

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4187	64.00	83.76	2136.19	-2085.67	363.40	3301.85	5759076.61	629144.82
4188	64.00	83.77	2136.63	-2086.11	363.50	3302.74	5759076.71	629145.72
4189	63.99	83.77	2137.07	-2086.55	363.59	3303.64	5759076.81	629146.61
4190	63.99	83.78	2137.51	-2086.99	363.69	3304.53	5759076.90	629147.50
4191	63.99	83.78	2137.94	-2087.42	363.79	3305.42	5759077.00	629148.40
4192	63.99	83.78	2138.38	-2087.86	363.88	3306.32	5759077.10	629149.29
4193	63.99	83.79	2138.82	-2088.30	363.98	3307.21	5759077.19	629150.18
4194	63.98	83.79	2139.26	-2088.74	364.08	3308.10	5759077.29	629151.08
4195	63.98	83.80	2139.70	-2089.18	364.18	3309.00	5759077.39	629151.97
4196	63.98	83.80	2140.14	-2089.62	364.27	3309.89	5759077.48	629152.86
4197	63.98	83.80	2140.58	-2090.06	364.37	3310.78	5759077.58	629153.76
4198	63.98	83.81	2141.02	-2090.50	364.47	3311.68	5759077.68	629154.65
4199	63.97	83.81	2141.45	-2090.93	364.56	3312.57	5759077.78	629155.54
4200	63.97	83.82	2141.89	-2091.37	364.66	3313.46	5759077.87	629156.44
4201	63.97	83.82	2142.33	-2091.81	364.76	3314.36	5759077.97	629157.33
4202	63.97	83.83	2142.77	-2092.25	364.85	3315.25	5759078.07	629158.22
4203	63.97	83.83	2143.21	-2092.69	364.95	3316.14	5759078.16	629159.12
4204	63.96	83.83	2143.65	-2093.13	365.05	3317.04	5759078.26	629160.01
4205	63.96	83.84	2144.09	-2093.57	365.15	3317.93	5759078.36	629160.90
4206	63.96	83.84	2144.52	-2094.00	365.24	3318.82	5759078.46	629161.80
4207	63.96	83.85	2144.96	-2094.44	365.34	3319.72	5759078.55	629162.69
4208	63.95	83.85	2145.40	-2094.88	365.44	3320.61	5759078.65	629163.59
4209	63.95	83.86	2145.84	-2095.32	365.53	3321.50	5759078.75	629164.48
4210	63.95	83.86	2146.28	-2095.76	365.63	3322.40	5759078.84	629165.37
4211	63.94	83.86	2146.72	-2096.20	365.73	3323.29	5759078.94	629166.26
4212	63.93	83.87	2147.16	-2096.64	365.82	3324.18	5759079.03	629167.16
4213	63.91	83.87	2147.61	-2097.09	365.92	3325.07	5759079.13	629168.05
4214	63.90	83.88	2148.05	-2097.53	366.01	3325.97	5759079.22	629168.94
4215	63.89	83.88	2148.49	-2097.97	366.11	3326.86	5759079.32	629169.83
4216	63.87	83.89	2148.93	-2098.41	366.20	3327.75	5759079.41	629170.72
4217	63.86	83.89	2149.37	-2098.85	366.30	3328.64	5759079.51	629171.62
4218	63.85	83.89	2149.82	-2099.30	366.39	3329.53	5759079.60	629172.51
4219	63.83	83.90	2150.26	-2099.74	366.49	3330.43	5759079.70	629173.40
4220	63.82	83.90	2150.70	-2100.18	366.58	3331.32	5759079.79	629174.29
4221	63.80	83.91	2151.14	-2100.62	366.68	3332.21	5759079.89	629175.18
4222	63.79	83.91	2151.59	-2101.07	366.77	3333.10	5759079.98	629176.07
4223	63.78	83.92	2152.03	-2101.51	366.87	3333.99	5759080.08	629176.97
4224	63.76	83.92	2152.47	-2101.95	366.96	3334.88	5759080.17	629177.86
4225	63.75	83.93	2152.91	-2102.39	367.06	3335.78	5759080.27	629178.75
4226	63.74	83.93	2153.35	-2102.83	367.15	3336.67	5759080.36	629179.64
4227	63.72	83.94	2153.80	-2103.28	367.24	3337.56	5759080.46	629180.53
4228	63.71	83.94	2154.24	-2103.72	367.34	3338.45	5759080.55	629181.43
4229	63.70	83.94	2154.68	-2104.16	367.43	3339.34	5759080.65	629182.32
4230	63.68	83.95	2155.12	-2104.60	367.53	3340.24	5759080.74	629183.21
4231	63.67	83.95	2155.57	-2105.05	367.62	3341.13	5759080.84	629184.10
4232	63.66	83.96	2156.01	-2105.49	367.72	3342.02	5759080.93	629184.99
4233	63.64	83.96	2156.45	-2105.93	367.81	3342.91	5759081.03	629185.88
4234	63.63	83.97	2156.89	-2106.37	367.91	3343.80	5759081.12	629186.78
4235	63.62	83.97	2157.33	-2106.81	368.00	3344.69	5759081.22	629187.67
4236	63.60	83.98	2157.78	-2107.26	368.10	3345.59	5759081.31	629188.56
4237	63.59	83.98	2158.22	-2107.70	368.19	3346.48	5759081.41	629189.45
4238	63.58	83.98	2158.66	-2108.14	368.29	3347.37	5759081.50	629190.34
4239	63.56	83.99	2159.10	-2108.58	368.38	3348.26	5759081.60	629191.24
4240	63.55	84.00	2159.55	-2109.03	368.48	3349.15	5759081.69	629192.13
4241	63.54	84.01	2160.00	-2109.48	368.57	3350.04	5759081.78	629193.02
4242	63.53	84.02	2160.44	-2109.92	368.66	3350.93	5759081.87	629193.91
4243	63.52	84.04	2160.89	-2110.37	368.75	3351.82	5759081.96	629194.79
4244	63.51	84.05	2161.34	-2110.82	368.84	3352.71	5759082.05	629195.68

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4245	63.50	84.06	2161.79	-2111.27	368.93	3353.60	5759082.14	629196.57
4246	63.49	84.08	2162.24	-2111.72	369.02	3354.49	5759082.23	629197.46
4247	63.47	84.09	2162.68	-2112.16	369.11	3355.38	5759082.32	629198.35
4248	63.46	84.10	2163.13	-2112.61	369.20	3356.27	5759082.41	629199.24
4249	63.45	84.11	2163.58	-2113.06	369.29	3357.16	5759082.51	629200.13
4250	63.44	84.13	2164.03	-2113.51	369.38	3358.05	5759082.60	629201.02
4251	63.43	84.14	2164.47	-2113.95	369.47	3358.94	5759082.69	629201.91
4252	63.42	84.15	2164.92	-2114.40	369.57	3359.83	5759082.78	629202.80
4253	63.41	84.17	2165.37	-2114.85	369.66	3360.72	5759082.87	629203.69
4254	63.40	84.18	2165.82	-2115.30	369.75	3361.61	5759082.96	629204.58
4255	63.39	84.19	2166.27	-2115.75	369.84	3362.50	5759083.05	629205.47
4256	63.37	84.20	2166.71	-2116.19	369.93	3363.39	5759083.14	629206.36
4257	63.36	84.22	2167.16	-2116.64	370.02	3364.27	5759083.23	629207.25
4258	63.35	84.23	2167.61	-2117.09	370.11	3365.16	5759083.32	629208.14
4259	63.34	84.24	2168.06	-2117.54	370.20	3366.05	5759083.41	629209.03
4260	63.33	84.26	2168.50	-2117.98	370.29	3366.94	5759083.50	629209.92
4261	63.32	84.27	2168.95	-2118.43	370.38	3367.83	5759083.59	629210.81
4262	63.31	84.28	2169.40	-2118.88	370.47	3368.72	5759083.68	629211.70
4263	63.30	84.29	2169.85	-2119.33	370.56	3369.61	5759083.78	629212.59
4264	63.29	84.31	2170.30	-2119.78	370.65	3370.50	5759083.87	629213.48
4265	63.28	84.32	2170.74	-2120.22	370.75	3371.39	5759083.96	629214.36
4266	63.26	84.33	2171.19	-2120.67	370.84	3372.28	5759084.05	629215.25
4267	63.25	84.35	2171.64	-2121.12	370.93	3373.17	5759084.14	629216.14
4268	63.24	84.36	2172.09	-2121.57	371.02	3374.06	5759084.23	629217.03
4269	63.26	84.39	2172.53	-2122.01	371.10	3374.95	5759084.31	629217.93
4270	63.29	84.41	2172.97	-2122.45	371.18	3375.84	5759084.39	629218.82
4271	63.32	84.44	2173.42	-2122.90	371.26	3376.74	5759084.48	629219.71
4272	63.35	84.47	2173.86	-2123.34	371.34	3377.63	5759084.56	629220.60
4273	63.37	84.50	2174.31	-2123.79	371.43	3378.52	5759084.64	629221.49
4274	63.40	84.53	2174.75	-2124.23	371.51	3379.41	5759084.72	629222.39
4275	63.43	84.56	2175.20	-2124.68	371.59	3380.31	5759084.80	629223.28
4276	63.46	84.59	2175.64	-2125.12	371.67	3381.20	5759084.88	629224.17
4277	63.49	84.62	2176.08	-2125.56	371.75	3382.09	5759084.96	629225.06
4278	63.51	84.65	2176.53	-2126.01	371.83	3382.98	5759085.04	629225.96
4279	63.54	84.68	2176.97	-2126.45	371.91	3383.87	5759085.13	629226.85
4280	63.57	84.71	2177.42	-2126.90	371.99	3384.77	5759085.21	629227.74
4281	63.60	84.74	2177.86	-2127.34	372.08	3385.66	5759085.29	629228.63
4282	63.62	84.77	2178.30	-2127.78	372.16	3386.55	5759085.37	629229.53
4283	63.65	84.80	2178.75	-2128.23	372.24	3387.44	5759085.45	629230.42
4284	63.68	84.83	2179.19	-2128.67	372.32	3388.34	5759085.53	629231.31
4285	63.71	84.86	2179.64	-2129.12	372.40	3389.23	5759085.61	629232.20
4286	63.73	84.89	2180.08	-2129.56	372.48	3390.12	5759085.69	629233.09
4287	63.76	84.92	2180.52	-2130.00	372.56	3391.01	5759085.78	629233.99
4288	63.79	84.95	2180.97	-2130.45	372.65	3391.91	5759085.86	629234.88
4289	63.82	84.98	2181.41	-2130.89	372.73	3392.80	5759085.94	629235.77
4290	63.85	85.01	2181.86	-2131.34	372.81	3393.69	5759086.02	629236.66
4291	63.87	85.04	2182.30	-2131.78	372.89	3394.58	5759086.10	629237.56
4292	63.90	85.07	2182.74	-2132.22	372.97	3395.47	5759086.18	629238.45
4293	63.93	85.10	2183.19	-2132.67	373.05	3396.37	5759086.26	629239.34
4294	63.96	85.13	2183.63	-2133.11	373.13	3397.26	5759086.35	629240.23
4295	63.98	85.16	2184.08	-2133.56	373.21	3398.15	5759086.43	629241.12
4296	64.01	85.19	2184.52	-2134.00	373.30	3399.04	5759086.51	629242.02
4297	64.04	85.22	2184.96	-2134.44	373.38	3399.94	5759086.59	629242.91
4298	64.06	85.23	2185.39	-2134.87	373.45	3400.84	5759086.66	629243.81
4299	64.07	85.24	2185.82	-2135.30	373.52	3401.74	5759086.73	629244.71
4300	64.09	85.25	2186.25	-2135.73	373.59	3402.64	5759086.80	629245.61
4301	64.11	85.27	2186.68	-2136.16	373.66	3403.54	5759086.87	629246.51
4302	64.12	85.28	2187.11	-2136.59	373.73	3404.44	5759086.94	629247.41

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4303	64.14	85.29	2187.54	-2137.02	373.80	3405.34	5759087.01	629248.31
4304	64.16	85.30	2187.97	-2137.45	373.87	3406.24	5759087.08	629249.21
4305	64.17	85.31	2188.40	-2137.88	373.94	3407.14	5759087.15	629250.11
4306	64.19	85.32	2188.83	-2138.31	374.01	3408.04	5759087.22	629251.01
4307	64.21	85.33	2189.26	-2138.74	374.08	3408.94	5759087.29	629251.91
4308	64.23	85.35	2189.69	-2139.17	374.15	3409.84	5759087.36	629252.81
4309	64.24	85.36	2190.12	-2139.60	374.22	3410.74	5759087.43	629253.71
4310	64.26	85.37	2190.55	-2140.03	374.29	3411.64	5759087.50	629254.61
4311	64.28	85.38	2190.98	-2140.46	374.36	3412.54	5759087.57	629255.51
4312	64.29	85.39	2191.41	-2140.89	374.43	3413.44	5759087.64	629256.41
4313	64.31	85.40	2191.84	-2141.32	374.50	3414.34	5759087.71	629257.31
4314	64.33	85.41	2192.27	-2141.75	374.57	3415.24	5759087.78	629258.21
4315	64.34	85.42	2192.70	-2142.18	374.64	3416.14	5759087.85	629259.11
4316	64.36	85.44	2193.13	-2142.61	374.71	3417.04	5759087.92	629260.01
4317	64.38	85.45	2193.56	-2143.04	374.78	3417.94	5759087.99	629260.91
4318	64.39	85.46	2193.99	-2143.47	374.85	3418.84	5759088.06	629261.81
4319	64.41	85.47	2194.42	-2143.90	374.92	3419.74	5759088.13	629262.71
4320	64.43	85.48	2194.85	-2144.33	374.99	3420.64	5759088.20	629263.61
4321	64.45	85.49	2195.28	-2144.76	375.06	3421.54	5759088.27	629264.51
4322	64.46	85.50	2195.71	-2145.19	375.13	3422.44	5759088.34	629265.41
4323	64.48	85.52	2196.14	-2145.62	375.20	3423.34	5759088.41	629266.31
4324	64.50	85.53	2196.57	-2146.05	375.27	3424.24	5759088.48	629267.21
4325	64.51	85.54	2197.01	-2146.49	375.34	3425.14	5759088.55	629268.11
4326	64.53	85.55	2197.44	-2146.92	375.41	3426.04	5759088.62	629269.01
4327	64.55	85.56	2197.87	-2147.35	375.48	3426.94	5759088.69	629269.91
4328	64.56	85.57	2198.30	-2147.78	375.55	3427.84	5759088.76	629270.81
4329	64.58	85.58	2198.73	-2148.21	375.62	3428.74	5759088.83	629271.71
4330	64.60	85.60	2199.16	-2148.64	375.69	3429.64	5759088.90	629272.61
4331	64.61	85.61	2199.59	-2149.07	375.76	3430.54	5759088.97	629273.51
4332	64.63	85.62	2200.02	-2149.50	375.83	3431.44	5759089.04	629274.41
4333	64.65	85.63	2200.45	-2149.93	375.90	3432.34	5759089.11	629275.31
4334	64.66	85.64	2200.88	-2150.36	375.97	3433.24	5759089.18	629276.21
4335	64.68	85.65	2201.31	-2150.79	376.04	3434.14	5759089.25	629277.11
4336	64.70	85.66	2201.74	-2151.22	376.11	3435.04	5759089.32	629278.01
4337	64.72	85.67	2202.17	-2151.65	376.18	3435.94	5759089.39	629278.91
4338	64.73	85.69	2202.60	-2152.08	376.25	3436.84	5759089.46	629279.81
4339	64.75	85.70	2203.03	-2152.51	376.32	3437.74	5759089.53	629280.71
4340	64.77	85.71	2203.46	-2152.94	376.39	3438.64	5759089.60	629281.61
4341	64.78	85.72	2203.89	-2153.37	376.46	3439.54	5759089.67	629282.51
4342	64.80	85.73	2204.32	-2153.80	376.53	3440.44	5759089.74	629283.41
4343	64.82	85.74	2204.75	-2154.23	376.60	3441.34	5759089.81	629284.31
4344	64.83	85.75	2205.18	-2154.66	376.67	3442.24	5759089.88	629285.21
4345	64.85	85.77	2205.61	-2155.09	376.74	3443.14	5759089.95	629286.11
4346	64.87	85.78	2206.04	-2155.52	376.81	3444.04	5759090.02	629287.01
4347	64.88	85.79	2206.47	-2155.95	376.88	3444.94	5759090.09	629287.91
4348	64.90	85.80	2206.90	-2156.38	376.95	3445.84	5759090.16	629288.81
4349	64.92	85.81	2207.33	-2156.81	377.02	3446.74	5759090.23	629289.71
4350	64.94	85.82	2207.76	-2157.24	377.09	3447.64	5759090.30	629290.61
4351	64.95	85.83	2208.19	-2157.67	377.16	3448.54	5759090.37	629291.51
4352	64.97	85.85	2208.62	-2158.10	377.23	3449.44	5759090.44	629292.41
4353	64.99	85.86	2209.05	-2158.53	377.30	3450.34	5759090.51	629293.31
4354	65.00	85.87	2209.48	-2158.96	377.37	3451.24	5759090.58	629294.21
4355	65.02	85.88	2209.91	-2159.39	377.44	3452.14	5759090.65	629295.11
4356	65.05	85.90	2210.32	-2159.80	377.50	3453.05	5759090.71	629296.02
4357	65.07	85.92	2210.74	-2160.22	377.56	3453.95	5759090.77	629296.93
4358	65.10	85.94	2211.15	-2160.63	377.62	3454.86	5759090.83	629297.84
4359	65.13	85.95	2211.57	-2161.05	377.68	3455.77	5759090.90	629298.74
4360	65.15	85.97	2211.99	-2161.47	377.74	3456.68	5759090.96	629299.65

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4361	65.18	85.99	2212.40	-2161.88	377.81	3457.58	5759091.02	629300.56
4362	65.21	86.01	2212.82	-2162.30	377.87	3458.49	5759091.08	629301.46
4363	65.24	86.03	2213.23	-2162.71	377.93	3459.40	5759091.14	629302.37
4364	65.26	86.05	2213.65	-2163.13	377.99	3460.31	5759091.20	629303.28
4365	65.29	86.06	2214.07	-2163.55	378.05	3461.21	5759091.26	629304.19
4366	65.32	86.08	2214.48	-2163.96	378.11	3462.12	5759091.32	629305.09
4367	65.34	86.10	2214.90	-2164.38	378.17	3463.03	5759091.38	629306.00
4368	65.37	86.12	2215.31	-2164.79	378.23	3463.93	5759091.45	629306.91
4369	65.40	86.14	2215.73	-2165.21	378.29	3464.84	5759091.51	629307.82
4370	65.43	86.16	2216.15	-2165.63	378.36	3465.75	5759091.57	629308.72
4371	65.45	86.18	2216.56	-2166.04	378.42	3466.66	5759091.63	629309.63
4372	65.48	86.19	2216.98	-2166.46	378.48	3467.56	5759091.69	629310.54
4373	65.51	86.21	2217.40	-2166.88	378.54	3468.47	5759091.75	629311.44
4374	65.53	86.23	2217.81	-2167.29	378.60	3469.38	5759091.81	629312.35
4375	65.56	86.25	2218.23	-2167.71	378.66	3470.29	5759091.87	629313.26
4376	65.59	86.27	2218.64	-2168.12	378.72	3471.19	5759091.93	629314.17
4377	65.62	86.29	2219.06	-2168.54	378.78	3472.10	5759091.99	629315.07
4378	65.64	86.31	2219.48	-2168.96	378.84	3473.01	5759092.06	629315.98
4379	65.67	86.32	2219.89	-2169.37	378.90	3473.91	5759092.12	629316.89
4380	65.70	86.34	2220.31	-2169.79	378.97	3474.82	5759092.18	629317.80
4381	65.72	86.36	2220.72	-2170.20	379.03	3475.73	5759092.24	629318.70
4382	65.75	86.38	2221.14	-2170.62	379.09	3476.64	5759092.30	629319.61
4383	65.78	86.40	2221.56	-2171.04	379.15	3477.54	5759092.36	629320.52
4384	65.81	86.42	2221.97	-2171.45	379.21	3478.45	5759092.42	629321.42
4385	65.81	86.43	2222.38	-2171.86	379.27	3479.36	5759092.48	629322.34
4386	65.82	86.44	2222.79	-2172.27	379.32	3480.27	5759092.53	629323.25
4387	65.82	86.45	2223.20	-2172.68	379.37	3481.18	5759092.59	629324.16
4388	65.82	86.46	2223.61	-2173.09	379.43	3482.09	5759092.64	629325.07
4389	65.83	86.47	2224.02	-2173.50	379.48	3483.01	5759092.70	629325.98
4390	65.83	86.48	2224.43	-2173.91	379.54	3483.92	5759092.75	629326.89
4391	65.83	86.50	2224.84	-2174.32	379.59	3484.83	5759092.80	629327.80
4392	65.84	86.51	2225.24	-2174.72	379.65	3485.74	5759092.86	629328.71
4393	65.84	86.52	2225.65	-2175.13	379.70	3486.65	5759092.91	629329.62
4394	65.84	86.53	2226.06	-2175.54	379.76	3487.56	5759092.97	629330.53
4395	65.85	86.54	2226.47	-2175.95	379.81	3488.47	5759093.02	629331.44
4396	65.85	86.55	2226.88	-2176.36	379.86	3489.38	5759093.08	629332.36
4397	65.85	86.56	2227.29	-2176.77	379.92	3490.29	5759093.13	629333.27
4398	65.86	86.57	2227.70	-2177.18	379.97	3491.20	5759093.19	629334.18
4399	65.86	86.59	2228.11	-2177.59	380.03	3492.11	5759093.24	629335.09
4400	65.87	86.60	2228.52	-2178.00	380.08	3493.03	5759093.29	629336.00
4401	65.87	86.61	2228.93	-2178.41	380.14	3493.94	5759093.35	629336.91
4402	65.87	86.62	2229.33	-2178.81	380.19	3494.85	5759093.40	629337.82
4403	65.88	86.63	2229.74	-2179.22	380.25	3495.76	5759093.46	629338.73
4404	65.88	86.64	2230.15	-2179.63	380.30	3496.67	5759093.51	629339.64
4405	65.88	86.65	2230.56	-2180.04	380.35	3497.58	5759093.57	629340.55
4406	65.89	86.66	2230.97	-2180.45	380.41	3498.49	5759093.62	629341.46
4407	65.89	86.67	2231.38	-2180.86	380.46	3499.40	5759093.68	629342.38
4408	65.89	86.69	2231.79	-2181.27	380.52	3500.31	5759093.73	629343.29
4409	65.90	86.70	2232.20	-2181.68	380.57	3501.22	5759093.78	629344.20
4410	65.90	86.71	2232.61	-2182.09	380.63	3502.13	5759093.84	629345.11
4411	65.90	86.72	2233.02	-2182.50	380.68	3503.05	5759093.89	629346.02
4412	65.91	86.73	2233.42	-2182.90	380.74	3503.96	5759093.95	629346.93
4413	65.91	86.74	2233.83	-2183.31	380.79	3504.87	5759094.00	629347.84
4414	65.89	86.74	2234.24	-2183.72	380.84	3505.78	5759094.05	629348.75
4415	65.88	86.75	2234.66	-2184.14	380.89	3506.69	5759094.10	629349.66
4416	65.87	86.75	2235.07	-2184.55	380.94	3507.60	5759094.15	629350.57
4417	65.85	86.76	2235.48	-2184.96	380.99	3508.51	5759094.21	629351.48
4418	65.84	86.76	2235.89	-2185.37	381.04	3509.42	5759094.26	629352.39

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4419	65.82	86.76	2236.30	-2185.78	381.09	3510.33	5759094.31	629353.30
4420	65.81	86.77	2236.71	-2186.19	381.15	3511.24	5759094.36	629354.21
4421	65.80	86.77	2237.12	-2186.60	381.20	3512.15	5759094.41	629355.12
4422	65.78	86.77	2237.54	-2187.02	381.25	3513.06	5759094.46	629356.03
4423	65.77	86.78	2237.95	-2187.43	381.30	3513.97	5759094.51	629356.94
4424	65.75	86.78	2238.36	-2187.84	381.35	3514.88	5759094.56	629357.85
4425	65.74	86.79	2238.77	-2188.25	381.40	3515.79	5759094.61	629358.76
4426	65.73	86.79	2239.18	-2188.66	381.45	3516.70	5759094.66	629359.67
4427	65.71	86.79	2239.59	-2189.07	381.50	3517.61	5759094.71	629360.58
4428	65.70	86.80	2240.00	-2189.48	381.55	3518.52	5759094.77	629361.49
4429	65.68	86.80	2240.42	-2189.90	381.60	3519.43	5759094.82	629362.40
4430	65.67	86.80	2240.83	-2190.31	381.66	3520.34	5759094.87	629363.31
4431	65.65	86.81	2241.24	-2190.72	381.71	3521.25	5759094.92	629364.22
4432	65.64	86.81	2241.65	-2191.13	381.76	3522.16	5759094.97	629365.13
4433	65.63	86.82	2242.06	-2191.54	381.81	3523.07	5759095.02	629366.04
4434	65.61	86.82	2242.47	-2191.95	381.86	3523.98	5759095.07	629366.95
4435	65.60	86.82	2242.88	-2192.36	381.91	3524.89	5759095.12	629367.86
4436	65.58	86.83	2243.30	-2192.78	381.96	3525.80	5759095.17	629368.77
4437	65.57	86.83	2243.71	-2193.19	382.01	3526.71	5759095.22	629369.68
4438	65.56	86.83	2244.12	-2193.60	382.06	3527.62	5759095.28	629370.59
4439	65.54	86.84	2244.53	-2194.01	382.11	3528.53	5759095.33	629371.50
4440	65.53	86.84	2244.94	-2194.42	382.16	3529.44	5759095.38	629372.41
4441	65.51	86.85	2245.35	-2194.83	382.22	3530.35	5759095.43	629373.32
4442	65.50	86.85	2245.76	-2195.24	382.27	3531.26	5759095.48	629374.23
4443	65.49	86.86	2246.18	-2195.66	382.31	3532.17	5759095.53	629375.14
4444	65.48	86.87	2246.60	-2196.08	382.36	3533.07	5759095.57	629376.05
4445	65.47	86.88	2247.02	-2196.50	382.41	3533.98	5759095.62	629376.95
4446	65.46	86.89	2247.43	-2196.91	382.46	3534.89	5759095.67	629377.86
4447	65.46	86.90	2247.85	-2197.33	382.50	3535.80	5759095.72	629378.77
4448	65.45	86.92	2248.27	-2197.75	382.55	3536.70	5759095.76	629379.68
4449	65.44	86.93	2248.68	-2198.16	382.60	3537.61	5759095.81	629380.59
4450	65.43	86.94	2249.10	-2198.58	382.65	3538.52	5759095.86	629381.49
4451	65.42	86.95	2249.52	-2199.00	382.69	3539.43	5759095.91	629382.40
4452	65.41	86.96	2249.93	-2199.41	382.74	3540.34	5759095.95	629383.31
4453	65.40	86.97	2250.35	-2199.83	382.79	3541.24	5759096.00	629384.22
4454	65.39	86.98	2250.77	-2200.25	382.84	3542.15	5759096.05	629385.12
4455	65.38	86.99	2251.18	-2200.66	382.88	3543.06	5759096.10	629386.03
4456	65.38	87.00	2251.60	-2201.08	382.93	3543.97	5759096.14	629386.94
4457	65.37	87.01	2252.02	-2201.50	382.98	3544.87	5759096.19	629387.85
4458	65.36	87.03	2252.43	-2201.91	383.03	3545.78	5759096.24	629388.76
4459	65.35	87.04	2252.85	-2202.33	383.07	3546.69	5759096.28	629389.66
4460	65.34	87.05	2253.27	-2202.75	383.12	3547.60	5759096.33	629390.57
4461	65.33	87.06	2253.68	-2203.16	383.17	3548.51	5759096.38	629391.48
4462	65.32	87.07	2254.10	-2203.58	383.21	3549.41	5759096.43	629392.39
4463	65.31	87.08	2254.52	-2204.00	383.26	3550.32	5759096.47	629393.29
4464	65.30	87.09	2254.93	-2204.41	383.31	3551.23	5759096.52	629394.20
4465	65.29	87.10	2255.35	-2204.83	383.36	3552.14	5759096.57	629395.11
4466	65.29	87.11	2255.77	-2205.25	383.40	3553.04	5759096.62	629396.02
4467	65.28	87.12	2256.18	-2205.66	383.45	3553.95	5759096.66	629396.93
4468	65.27	87.14	2256.60	-2206.08	383.50	3554.86	5759096.71	629397.83
4469	65.26	87.15	2257.02	-2206.50	383.55	3555.77	5759096.76	629398.74
4470	65.25	87.16	2257.43	-2206.91	383.59	3556.68	5759096.81	629399.65
4471	65.24	87.17	2257.85	-2207.33	383.64	3557.58	5759096.85	629400.56
4472	65.23	87.17	2258.27	-2207.75	383.69	3558.49	5759096.90	629401.46
4473	65.22	87.17	2258.69	-2208.17	383.73	3559.39	5759096.94	629402.37
4474	65.21	87.17	2259.11	-2208.59	383.78	3560.30	5759096.99	629403.27
4475	65.20	87.17	2259.54	-2209.02	383.82	3561.21	5759097.03	629404.18
4476	65.19	87.17	2259.96	-2209.44	383.87	3562.11	5759097.08	629405.09

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4477	65.17	87.17	2260.38	-2209.86	383.91	3563.02	5759097.12	629405.99
4478	65.16	87.17	2260.80	-2210.28	383.96	3563.92	5759097.17	629406.90
4479	65.15	87.17	2261.22	-2210.70	384.00	3564.83	5759097.21	629407.80
4480	65.14	87.17	2261.64	-2211.12	384.04	3565.74	5759097.26	629408.71
4481	65.13	87.17	2262.06	-2211.54	384.09	3566.64	5759097.30	629409.61
4482	65.12	87.17	2262.49	-2211.97	384.13	3567.55	5759097.35	629410.52
4483	65.11	87.17	2262.91	-2212.39	384.18	3568.45	5759097.39	629411.43
4484	65.10	87.17	2263.33	-2212.81	384.22	3569.36	5759097.44	629412.33
4485	65.09	87.17	2263.75	-2213.23	384.27	3570.26	5759097.48	629413.24
4486	65.07	87.18	2264.17	-2213.65	384.31	3571.17	5759097.52	629414.14
4487	65.06	87.18	2264.59	-2214.07	384.36	3572.08	5759097.57	629415.05
4488	65.05	87.18	2265.01	-2214.49	384.40	3572.98	5759097.61	629415.96
4489	65.04	87.18	2265.43	-2214.91	384.45	3573.89	5759097.66	629416.86
4490	65.03	87.18	2265.86	-2215.34	384.49	3574.79	5759097.70	629417.77
4491	65.02	87.18	2266.28	-2215.76	384.54	3575.70	5759097.75	629418.67
4492	65.01	87.18	2266.70	-2216.18	384.58	3576.61	5759097.79	629419.58
4493	65.00	87.18	2267.12	-2216.60	384.63	3577.51	5759097.84	629420.48
4494	64.99	87.18	2267.54	-2217.02	384.67	3578.42	5759097.88	629421.39
4495	64.97	87.18	2267.96	-2217.44	384.72	3579.32	5759097.93	629422.30
4496	64.96	87.18	2268.38	-2217.86	384.76	3580.23	5759097.97	629423.20
4497	64.95	87.18	2268.81	-2218.29	384.80	3581.13	5759098.02	629424.11
4498	64.94	87.18	2269.23	-2218.71	384.85	3582.04	5759098.06	629425.01
4499	64.93	87.18	2269.65	-2219.13	384.89	3582.95	5759098.11	629425.92
4500	64.92	87.19	2270.07	-2219.55	384.94	3583.85	5759098.15	629426.83
4501	64.93	87.22	2270.49	-2219.97	384.98	3584.76	5759098.19	629427.73
4502	64.93	87.25	2270.91	-2220.39	385.01	3585.66	5759098.22	629428.64
4503	64.94	87.28	2271.34	-2220.82	385.05	3586.57	5759098.26	629429.54
4504	64.94	87.31	2271.76	-2221.24	385.09	3587.47	5759098.30	629430.45
4505	64.95	87.34	2272.18	-2221.66	385.13	3588.38	5759098.34	629431.35
4506	64.96	87.37	2272.61	-2222.09	385.16	3589.29	5759098.38	629432.26
4507	64.96	87.40	2273.03	-2222.51	385.20	3590.19	5759098.41	629433.16
4508	64.97	87.43	2273.45	-2222.93	385.24	3591.10	5759098.45	629434.07
4509	64.97	87.46	2273.87	-2223.35	385.28	3592.00	5759098.49	629434.98
4510	64.98	87.49	2274.30	-2223.78	385.31	3592.91	5759098.53	629435.88
4511	64.98	87.52	2274.72	-2224.20	385.35	3593.81	5759098.56	629436.79
4512	64.99	87.55	2275.14	-2224.62	385.39	3594.72	5759098.60	629437.69
4513	65.00	87.58	2275.56	-2225.04	385.43	3595.62	5759098.64	629438.60
4514	65.00	87.61	2275.99	-2225.47	385.46	3596.53	5759098.68	629439.50
4515	65.01	87.64	2276.41	-2225.89	385.50	3597.44	5759098.71	629440.41
4516	65.01	87.67	2276.83	-2226.31	385.54	3598.34	5759098.75	629441.31
4517	65.02	87.70	2277.25	-2226.73	385.58	3599.25	5759098.79	629442.22
4518	65.03	87.73	2277.68	-2227.16	385.61	3600.15	5759098.83	629443.13
4519	65.03	87.76	2278.10	-2227.58	385.65	3601.06	5759098.86	629444.03
4520	65.04	87.79	2278.52	-2228.00	385.69	3601.96	5759098.90	629444.94
4521	65.04	87.82	2278.94	-2228.42	385.73	3602.87	5759098.94	629445.84
4522	65.05	87.85	2279.37	-2228.85	385.76	3603.77	5759098.98	629446.75
4523	65.05	87.89	2279.79	-2229.27	385.80	3604.68	5759099.01	629447.65
4524	65.06	87.92	2280.21	-2229.69	385.84	3605.59	5759099.05	629448.56
4525	65.07	87.95	2280.63	-2230.11	385.88	3606.49	5759099.09	629449.46
4526	65.07	87.98	2281.06	-2230.54	385.91	3607.40	5759099.13	629450.37
4527	65.08	88.01	2281.48	-2230.96	385.95	3608.30	5759099.16	629451.28
4528	65.08	88.04	2281.90	-2231.38	385.99	3609.21	5759099.20	629452.18
4529	65.09	88.07	2282.32	-2231.80	386.03	3610.11	5759099.24	629453.09
4530	65.08	88.07	2282.75	-2232.23	386.06	3611.02	5759099.27	629453.99
4531	65.07	88.06	2283.17	-2232.65	386.09	3611.92	5759099.30	629454.90
4532	65.06	88.06	2283.59	-2233.07	386.12	3612.83	5759099.33	629455.80
4533	65.05	88.06	2284.02	-2233.50	386.15	3613.73	5759099.36	629456.71
4534	65.05	88.05	2284.44	-2233.92	386.18	3614.64	5759099.40	629457.61

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4535	65.04	88.05	2284.86	-2234.34	386.21	3615.55	5759099.43	629458.52
4536	65.03	88.05	2285.29	-2234.77	386.25	3616.45	5759099.46	629459.42
4537	65.02	88.04	2285.71	-2235.19	386.28	3617.36	5759099.49	629460.33
4538	65.01	88.04	2286.13	-2235.61	386.31	3618.26	5759099.52	629461.24
4539	65.00	88.04	2286.56	-2236.04	386.34	3619.17	5759099.55	629462.14
4540	64.99	88.03	2286.98	-2236.46	386.37	3620.07	5759099.58	629463.05
4541	64.98	88.03	2287.40	-2236.88	386.40	3620.98	5759099.61	629463.95
4542	64.97	88.03	2287.83	-2237.31	386.43	3621.88	5759099.65	629464.86
4543	64.97	88.02	2288.25	-2237.73	386.47	3622.79	5759099.68	629465.76
4544	64.96	88.02	2288.67	-2238.15	386.50	3623.69	5759099.71	629466.67
4545	64.95	88.02	2289.10	-2238.58	386.53	3624.60	5759099.74	629467.57
4546	64.94	88.01	2289.52	-2239.00	386.56	3625.51	5759099.77	629468.48
4547	64.93	88.01	2289.94	-2239.42	386.59	3626.41	5759099.80	629469.38
4548	64.92	88.00	2290.36	-2239.84	386.62	3627.32	5759099.83	629470.29
4549	64.91	88.00	2290.79	-2240.27	386.65	3628.22	5759099.87	629471.20
4550	64.90	88.00	2291.21	-2240.69	386.68	3629.13	5759099.90	629472.10
4551	64.89	87.99	2291.63	-2241.11	386.72	3630.03	5759099.93	629473.01
4552	64.89	87.99	2292.06	-2241.54	386.75	3630.94	5759099.96	629473.91
4553	64.88	87.99	2292.48	-2241.96	386.78	3631.84	5759099.99	629474.82
4554	64.87	87.98	2292.90	-2242.38	386.81	3632.75	5759100.02	629475.72
4555	64.86	87.98	2293.33	-2242.81	386.84	3633.65	5759100.05	629476.63
4556	64.85	87.98	2293.75	-2243.23	386.87	3634.56	5759100.08	629477.53
4557	64.84	87.97	2294.17	-2243.65	386.90	3635.47	5759100.12	629478.44
4558	64.83	87.97	2294.60	-2244.08	386.93	3636.37	5759100.15	629479.34
4559	64.84	87.99	2295.02	-2244.50	386.96	3637.28	5759100.18	629480.25
4560	64.85	88.00	2295.44	-2244.92	386.99	3638.18	5759100.20	629481.16
4561	64.86	88.02	2295.87	-2245.35	387.02	3639.09	5759100.23	629482.06
4562	64.87	88.04	2296.29	-2245.77	387.05	3639.99	5759100.26	629482.97
4563	64.88	88.06	2296.71	-2246.19	387.08	3640.90	5759100.29	629483.87
4564	64.89	88.08	2297.13	-2246.61	387.10	3641.81	5759100.32	629484.78
4565	64.91	88.09	2297.56	-2247.04	387.13	3642.71	5759100.34	629485.68
4566	64.92	88.11	2297.98	-2247.46	387.16	3643.62	5759100.37	629486.59
4567	64.93	88.13	2298.40	-2247.88	387.19	3644.52	5759100.40	629487.50
4568	64.94	88.15	2298.83	-2248.31	387.22	3645.43	5759100.43	629488.40
4569	64.95	88.17	2299.25	-2248.73	387.24	3646.33	5759100.46	629489.31
4570	64.96	88.18	2299.67	-2249.15	387.27	3647.24	5759100.48	629490.21
4571	64.97	88.20	2300.09	-2249.57	387.30	3648.15	5759100.51	629491.12
4572	64.98	88.22	2300.52	-2250.00	387.33	3649.05	5759100.54	629492.03
4573	64.99	88.24	2300.94	-2250.42	387.36	3649.96	5759100.57	629492.93
4574	65.00	88.26	2301.36	-2250.84	387.38	3650.86	5759100.60	629493.84
4575	65.01	88.27	2301.79	-2251.27	387.41	3651.77	5759100.62	629494.74
4576	65.03	88.29	2302.21	-2251.69	387.44	3652.67	5759100.65	629495.65
4577	65.04	88.31	2302.63	-2252.11	387.47	3653.58	5759100.68	629496.55
4578	65.05	88.33	2303.05	-2252.53	387.50	3654.49	5759100.71	629497.46
4579	65.06	88.35	2303.48	-2252.96	387.52	3655.39	5759100.74	629498.37
4580	65.07	88.36	2303.90	-2253.38	387.55	3656.30	5759100.76	629499.27
4581	65.08	88.38	2304.32	-2253.80	387.58	3657.20	5759100.79	629500.18
4582	65.09	88.40	2304.75	-2254.23	387.61	3658.11	5759100.82	629501.08
4583	65.10	88.42	2305.17	-2254.65	387.64	3659.02	5759100.85	629501.99
4584	65.11	88.44	2305.59	-2255.07	387.66	3659.92	5759100.88	629502.89
4585	65.12	88.45	2306.01	-2255.49	387.69	3660.83	5759100.90	629503.80
4586	65.14	88.47	2306.44	-2255.92	387.72	3661.73	5759100.93	629504.71
4587	65.15	88.48	2306.86	-2256.34	387.75	3662.64	5759100.96	629505.61
4588	65.18	88.48	2307.27	-2256.75	387.77	3663.55	5759100.98	629506.52
4589	65.20	88.47	2307.69	-2257.17	387.80	3664.46	5759101.01	629507.43
4590	65.22	88.47	2308.10	-2257.58	387.82	3665.37	5759101.03	629508.34
4591	65.25	88.47	2308.52	-2258.00	387.85	3666.28	5759101.06	629509.25
4592	65.27	88.46	2308.93	-2258.41	387.87	3667.19	5759101.08	629510.16

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4593	65.29	88.46	2309.35	-2258.83	387.90	3668.10	5759101.11	629511.07
4594	65.31	88.46	2309.76	-2259.24	387.92	3669.01	5759101.13	629511.98
4595	65.34	88.45	2310.18	-2259.66	387.95	3669.92	5759101.16	629512.89
4596	65.36	88.45	2310.59	-2260.07	387.97	3670.83	5759101.18	629513.80
4597	65.38	88.45	2311.01	-2260.49	388.00	3671.73	5759101.21	629514.71
4598	65.41	88.44	2311.42	-2260.90	388.02	3672.64	5759101.23	629515.62
4599	65.43	88.44	2311.84	-2261.32	388.05	3673.55	5759101.26	629516.53
4600	65.45	88.44	2312.25	-2261.73	388.07	3674.46	5759101.28	629517.44
4601	65.48	88.43	2312.67	-2262.15	388.09	3675.37	5759101.31	629518.35
4602	65.50	88.43	2313.08	-2262.56	388.12	3676.28	5759101.33	629519.26
4603	65.52	88.43	2313.50	-2262.98	388.14	3677.19	5759101.36	629520.16
4604	65.55	88.43	2313.91	-2263.39	388.17	3678.10	5759101.38	629521.07
4605	65.57	88.42	2314.33	-2263.81	388.19	3679.01	5759101.41	629521.98
4606	65.59	88.42	2314.74	-2264.22	388.22	3679.92	5759101.43	629522.89
4607	65.61	88.42	2315.16	-2264.64	388.24	3680.83	5759101.46	629523.80
4608	65.64	88.41	2315.57	-2265.05	388.27	3681.74	5759101.48	629524.71
4609	65.66	88.41	2315.99	-2265.47	388.29	3682.65	5759101.51	629525.62
4610	65.68	88.41	2316.40	-2265.88	388.32	3683.56	5759101.53	629526.53
4611	65.71	88.40	2316.82	-2266.30	388.34	3684.47	5759101.56	629527.44
4612	65.73	88.40	2317.23	-2266.71	388.37	3685.38	5759101.58	629528.35
4613	65.75	88.40	2317.65	-2267.13	388.39	3686.29	5759101.61	629529.26
4614	65.78	88.39	2318.06	-2267.54	388.42	3687.19	5759101.63	629530.17
4615	65.80	88.39	2318.48	-2267.96	388.44	3688.10	5759101.66	629531.08
4616	65.81	88.37	2318.89	-2268.37	388.47	3689.01	5759101.68	629531.99
4617	65.81	88.34	2319.30	-2268.78	388.51	3689.93	5759101.72	629532.90
4618	65.82	88.30	2319.71	-2269.19	388.54	3690.84	5759101.75	629533.81
4619	65.82	88.27	2320.12	-2269.60	388.57	3691.75	5759101.79	629534.72
4620	65.82	88.23	2320.53	-2270.01	388.61	3692.66	5759101.82	629535.64
4621	65.82	88.20	2320.94	-2270.42	388.64	3693.57	5759101.85	629536.55
4622	65.83	88.17	2321.35	-2270.83	388.68	3694.49	5759101.89	629537.46
4623	65.83	88.13	2321.76	-2271.24	388.71	3695.40	5759101.92	629538.37
4624	65.83	88.10	2322.16	-2271.64	388.74	3696.31	5759101.96	629539.28
4625	65.83	88.06	2322.57	-2272.05	388.78	3697.22	5759101.99	629540.19
4626	65.83	88.03	2322.98	-2272.46	388.81	3698.13	5759102.02	629541.11
4627	65.84	87.99	2323.39	-2272.87	388.84	3699.04	5759102.06	629542.02
4628	65.84	87.96	2323.80	-2273.28	388.88	3699.96	5759102.09	629542.93
4629	65.84	87.93	2324.21	-2273.69	388.91	3700.87	5759102.12	629543.84
4630	65.84	87.89	2324.62	-2274.10	388.95	3701.78	5759102.16	629544.75
4631	65.85	87.86	2325.03	-2274.51	388.98	3702.69	5759102.19	629545.67
4632	65.85	87.82	2325.44	-2274.92	389.01	3703.60	5759102.23	629546.58
4633	65.85	87.79	2325.85	-2275.33	389.05	3704.52	5759102.26	629547.49
4634	65.85	87.75	2326.26	-2275.74	389.08	3705.43	5759102.29	629548.40
4635	65.86	87.72	2326.67	-2276.15	389.12	3706.34	5759102.33	629549.31
4636	65.86	87.69	2327.07	-2276.55	389.15	3707.25	5759102.36	629550.22
4637	65.86	87.65	2327.48	-2276.96	389.18	3708.16	5759102.40	629551.14
4638	65.86	87.62	2327.89	-2277.37	389.22	3709.07	5759102.43	629552.05
4639	65.86	87.58	2328.30	-2277.78	389.25	3709.99	5759102.46	629552.96
4640	65.87	87.55	2328.71	-2278.19	389.28	3710.90	5759102.50	629553.87
4641	65.87	87.51	2329.12	-2278.60	389.32	3711.81	5759102.53	629554.78
4642	65.87	87.48	2329.53	-2279.01	389.35	3712.72	5759102.56	629555.70
4643	65.87	87.45	2329.94	-2279.42	389.39	3713.63	5759102.60	629556.61
4644	65.88	87.41	2330.35	-2279.83	389.42	3714.55	5759102.63	629557.52
4645	65.88	87.38	2330.76	-2280.24	389.45	3715.46	5759102.67	629558.43
4646	65.88	87.34	2331.17	-2280.65	389.50	3716.37	5759102.71	629559.34
4647	65.89	87.32	2331.57	-2281.05	389.54	3717.28	5759102.76	629560.25
4648	65.90	87.29	2331.98	-2281.46	389.59	3718.19	5759102.81	629561.17
4649	65.91	87.26	2332.39	-2281.87	389.64	3719.11	5759102.85	629562.08
4650	65.91	87.23	2332.79	-2282.27	389.69	3720.02	5759102.90	629562.99

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4651	65.92	87.20	2333.20	-2282.68	389.74	3720.93	5759102.95	629563.90
4652	65.93	87.17	2333.61	-2283.09	389.79	3721.84	5759103.00	629564.82
4653	65.93	87.14	2334.01	-2283.49	389.84	3722.75	5759103.05	629565.73
4654	65.94	87.11	2334.42	-2283.90	389.89	3723.67	5759103.10	629566.64
4655	65.95	87.08	2334.83	-2284.31	389.93	3724.58	5759103.15	629567.55
4656	65.96	87.06	2335.24	-2284.72	389.98	3725.49	5759103.20	629568.46
4657	65.96	87.03	2335.64	-2285.12	390.03	3726.40	5759103.24	629569.38
4658	65.97	87.00	2336.05	-2285.53	390.08	3727.31	5759103.29	629570.29
4659	65.98	86.97	2336.46	-2285.94	390.13	3728.23	5759103.34	629571.20
4660	65.99	86.94	2336.86	-2286.34	390.18	3729.14	5759103.39	629572.11
4661	65.99	86.91	2337.27	-2286.75	390.23	3730.05	5759103.44	629573.02
4662	66.00	86.88	2337.68	-2287.16	390.28	3730.96	5759103.49	629573.94
4663	66.01	86.85	2338.08	-2287.56	390.32	3731.87	5759103.54	629574.85
4664	66.01	86.82	2338.49	-2287.97	390.37	3732.79	5759103.59	629575.76
4665	66.02	86.79	2338.90	-2288.38	390.42	3733.70	5759103.63	629576.67
4666	66.03	86.77	2339.31	-2288.79	390.47	3734.61	5759103.68	629577.59
4667	66.04	86.74	2339.71	-2289.19	390.52	3735.52	5759103.73	629578.50
4668	66.04	86.71	2340.12	-2289.60	390.57	3736.44	5759103.78	629579.41
4669	66.05	86.68	2340.53	-2290.01	390.62	3737.35	5759103.83	629580.32
4670	66.06	86.65	2340.93	-2290.41	390.67	3738.26	5759103.88	629581.23
4671	66.06	86.62	2341.34	-2290.82	390.71	3739.17	5759103.93	629582.15
4672	66.07	86.59	2341.75	-2291.23	390.76	3740.08	5759103.98	629583.06
4673	66.08	86.56	2342.15	-2291.63	390.81	3741.00	5759104.02	629583.97
4674	66.09	86.53	2342.56	-2292.04	390.86	3741.91	5759104.07	629584.88
4675	66.09	86.50	2342.97	-2292.45	390.92	3742.82	5759104.13	629585.79
4676	66.09	86.47	2343.37	-2292.85	390.98	3743.73	5759104.19	629586.71
4677	66.08	86.45	2343.78	-2293.26	391.04	3744.64	5759104.25	629587.62
4678	66.08	86.42	2344.18	-2293.66	391.10	3745.56	5759104.32	629588.53
4679	66.08	86.39	2344.59	-2294.07	391.17	3746.47	5759104.38	629589.44
4680	66.08	86.36	2345.00	-2294.48	391.23	3747.38	5759104.44	629590.35
4681	66.08	86.33	2345.40	-2294.88	391.29	3748.29	5759104.50	629591.26
4682	66.07	86.30	2345.81	-2295.29	391.35	3749.20	5759104.56	629592.18
4683	66.07	86.27	2346.21	-2295.69	391.42	3750.11	5759104.63	629593.09
4684	66.07	86.24	2346.62	-2296.10	391.48	3751.03	5759104.69	629594.00
4685	66.07	86.21	2347.03	-2296.51	391.54	3751.94	5759104.75	629594.91
4686	66.07	86.18	2347.43	-2296.91	391.60	3752.85	5759104.81	629595.82
4687	66.06	86.15	2347.84	-2297.32	391.66	3753.76	5759104.88	629596.74
4688	66.06	86.12	2348.24	-2297.72	391.73	3754.67	5759104.94	629597.65
4689	66.06	86.09	2348.65	-2298.13	391.79	3755.59	5759105.00	629598.56
4690	66.06	86.06	2349.05	-2298.53	391.85	3756.50	5759105.06	629599.47
4691	66.06	86.04	2349.46	-2298.94	391.91	3757.41	5759105.13	629600.38
4692	66.05	86.01	2349.87	-2299.35	391.98	3758.32	5759105.19	629601.30
4693	66.05	85.98	2350.27	-2299.75	392.04	3759.23	5759105.25	629602.21
4694	66.05	85.95	2350.68	-2300.16	392.10	3760.15	5759105.31	629603.12
4695	66.05	85.92	2351.08	-2300.56	392.16	3761.06	5759105.37	629604.03
4696	66.05	85.89	2351.49	-2300.97	392.22	3761.97	5759105.44	629604.94
4697	66.04	85.86	2351.89	-2301.37	392.29	3762.88	5759105.50	629605.85
4698	66.04	85.83	2352.30	-2301.78	392.35	3763.79	5759105.56	629606.77
4699	66.04	85.80	2352.71	-2302.19	392.41	3764.70	5759105.62	629607.68
4700	66.04	85.77	2353.11	-2302.59	392.47	3765.62	5759105.69	629608.59
4701	66.04	85.74	2353.52	-2303.00	392.54	3766.53	5759105.75	629609.50
4702	66.03	85.71	2353.92	-2303.40	392.60	3767.44	5759105.81	629610.41
4703	66.03	85.68	2354.33	-2303.81	392.66	3768.35	5759105.87	629611.33
4704	66.04	85.66	2354.73	-2304.21	392.73	3769.26	5759105.94	629612.24
4705	66.07	85.63	2355.13	-2304.61	392.80	3770.18	5759106.02	629613.15
4706	66.10	85.61	2355.53	-2305.01	392.88	3771.09	5759106.09	629614.06
4707	66.13	85.58	2355.93	-2305.41	392.95	3772.00	5759106.17	629614.98
4708	66.15	85.56	2356.33	-2305.81	393.03	3772.92	5759106.24	629615.89

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4709	66.18	85.53	2356.73	-2306.21	393.10	3773.83	5759106.31	629616.81
4710	66.21	85.51	2357.13	-2306.61	393.18	3774.75	5759106.39	629617.72
4711	66.24	85.49	2357.53	-2307.01	393.25	3775.66	5759106.46	629618.63
4712	66.26	85.46	2357.93	-2307.41	393.33	3776.57	5759106.54	629619.55
4713	66.29	85.44	2358.33	-2307.81	393.40	3777.49	5759106.61	629620.46
4714	66.32	85.41	2358.73	-2308.21	393.48	3778.40	5759106.69	629621.37
4715	66.34	85.39	2359.13	-2308.61	393.55	3779.31	5759106.76	629622.29
4716	66.37	85.36	2359.53	-2309.01	393.63	3780.23	5759106.84	629623.20
4717	66.40	85.34	2359.93	-2309.41	393.70	3781.14	5759106.91	629624.11
4718	66.43	85.31	2360.33	-2309.81	393.78	3782.05	5759106.99	629625.03
4719	66.45	85.29	2360.73	-2310.21	393.85	3782.97	5759107.06	629625.94
4720	66.48	85.27	2361.13	-2310.61	393.93	3783.88	5759107.14	629626.85
4721	66.51	85.24	2361.53	-2311.01	394.00	3784.79	5759107.21	629627.77
4722	66.54	85.22	2361.93	-2311.41	394.07	3785.71	5759107.29	629628.68
4723	66.56	85.19	2362.33	-2311.81	394.15	3786.62	5759107.36	629629.59
4724	66.59	85.17	2362.73	-2312.21	394.22	3787.53	5759107.44	629630.51
4725	66.62	85.14	2363.13	-2312.61	394.30	3788.45	5759107.51	629631.42
4726	66.64	85.12	2363.53	-2313.01	394.37	3789.36	5759107.59	629632.33
4727	66.67	85.09	2363.93	-2313.41	394.45	3790.27	5759107.66	629633.25
4728	66.70	85.07	2364.33	-2313.81	394.52	3791.19	5759107.74	629634.16
4729	66.73	85.04	2364.73	-2314.21	394.60	3792.10	5759107.81	629635.07
4730	66.75	85.02	2365.13	-2314.61	394.67	3793.01	5759107.89	629635.99
4731	66.78	85.00	2365.53	-2315.01	394.75	3793.93	5759107.96	629636.90
4732	66.81	84.97	2365.93	-2315.41	394.82	3794.84	5759108.04	629637.81
4733	66.82	84.94	2366.32	-2315.80	394.91	3795.76	5759108.12	629638.73
4734	66.84	84.90	2366.71	-2316.19	395.00	3796.67	5759108.21	629639.65
4735	66.85	84.87	2367.10	-2316.58	395.09	3797.59	5759108.30	629640.56
4736	66.87	84.84	2367.50	-2316.98	395.18	3798.51	5759108.39	629641.48
4737	66.88	84.80	2367.89	-2317.37	395.27	3799.42	5759108.48	629642.40
4738	66.90	84.77	2368.28	-2317.76	395.35	3800.34	5759108.57	629643.31
4739	66.91	84.73	2368.67	-2318.15	395.44	3801.26	5759108.65	629644.23
4740	66.92	84.70	2369.06	-2318.54	395.53	3802.17	5759108.74	629645.15
4741	66.94	84.67	2369.45	-2318.93	395.62	3803.09	5759108.83	629646.06
4742	66.95	84.63	2369.84	-2319.32	395.71	3804.00	5759108.92	629646.98
4743	66.97	84.60	2370.23	-2319.71	395.80	3804.92	5759109.01	629647.89
4744	66.98	84.56	2370.62	-2320.10	395.89	3805.84	5759109.10	629648.81
4745	67.00	84.53	2371.01	-2320.49	395.97	3806.75	5759109.19	629649.73
4746	67.01	84.50	2371.40	-2320.88	396.06	3807.67	5759109.28	629650.64
4747	67.03	84.46	2371.79	-2321.27	396.15	3808.59	5759109.36	629651.56
4748	67.04	84.43	2372.18	-2321.66	396.24	3809.50	5759109.45	629652.48
4749	67.05	84.39	2372.57	-2322.05	396.33	3810.42	5759109.54	629653.39
4750	67.07	84.36	2372.96	-2322.44	396.42	3811.34	5759109.63	629654.31
4751	67.08	84.32	2373.35	-2322.83	396.51	3812.25	5759109.72	629655.23
4752	67.10	84.29	2373.74	-2323.22	396.59	3813.17	5759109.81	629656.14
4753	67.11	84.26	2374.13	-2323.61	396.68	3814.08	5759109.90	629657.06
4754	67.13	84.22	2374.52	-2324.00	396.77	3815.00	5759109.98	629657.97
4755	67.14	84.19	2374.91	-2324.39	396.86	3815.92	5759110.07	629658.89
4756	67.16	84.15	2375.30	-2324.78	396.95	3816.83	5759110.16	629659.81
4757	67.17	84.12	2375.69	-2325.17	397.04	3817.75	5759110.25	629660.72
4758	67.18	84.09	2376.08	-2325.56	397.13	3818.67	5759110.34	629661.64
4759	67.20	84.05	2376.48	-2325.96	397.22	3819.58	5759110.43	629662.56
4760	67.21	84.02	2376.87	-2326.35	397.30	3820.50	5759110.52	629663.47
4761	67.23	83.98	2377.26	-2326.74	397.39	3821.42	5759110.60	629664.39
4762	67.22	83.95	2377.65	-2327.13	397.50	3822.33	5759110.71	629665.30
4763	67.21	83.91	2378.04	-2327.52	397.60	3823.24	5759110.81	629666.22
4764	67.19	83.87	2378.43	-2327.91	397.71	3824.16	5759110.92	629667.13
4765	67.18	83.83	2378.82	-2328.30	397.81	3825.07	5759111.02	629668.05
4766	67.17	83.79	2379.21	-2328.69	397.92	3825.99	5759111.13	629668.96

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4767	67.16	83.76	2379.60	-2329.08	398.02	3826.90	5759111.24	629669.88
4768	67.14	83.72	2379.99	-2329.47	398.13	3827.82	5759111.34	629670.79
4769	67.13	83.68	2380.38	-2329.86	398.23	3828.73	5759111.45	629671.71
4770	67.12	83.64	2380.77	-2330.25	398.34	3829.65	5759111.55	629672.62
4771	67.11	83.60	2381.16	-2330.64	398.44	3830.56	5759111.66	629673.54
4772	67.10	83.57	2381.55	-2331.03	398.55	3831.48	5759111.76	629674.45
4773	67.08	83.53	2381.94	-2331.42	398.66	3832.39	5759111.87	629675.37
4774	67.07	83.49	2382.33	-2331.81	398.76	3833.31	5759111.97	629676.28
4775	67.06	83.45	2382.72	-2332.20	398.87	3834.22	5759112.08	629677.20
4776	67.05	83.41	2383.11	-2332.59	398.97	3835.14	5759112.18	629678.11
4777	67.03	83.37	2383.50	-2332.98	399.08	3836.05	5759112.29	629679.03
4778	67.02	83.34	2383.89	-2333.37	399.18	3836.97	5759112.40	629679.94
4779	67.01	83.30	2384.28	-2333.76	399.29	3837.88	5759112.50	629680.85
4780	67.00	83.26	2384.66	-2334.14	399.39	3838.80	5759112.61	629681.77
4781	66.98	83.22	2385.05	-2334.53	399.50	3839.71	5759112.71	629682.68
4782	66.97	83.18	2385.44	-2334.92	399.60	3840.63	5759112.82	629683.60
4783	66.96	83.15	2385.83	-2335.31	399.71	3841.54	5759112.92	629684.51
4784	66.95	83.11	2386.22	-2335.70	399.82	3842.46	5759113.03	629685.43
4785	66.93	83.07	2386.61	-2336.09	399.92	3843.37	5759113.13	629686.34
4786	66.92	83.03	2387.00	-2336.48	400.03	3844.28	5759113.24	629687.26
4787	66.91	82.99	2387.39	-2336.87	400.13	3845.20	5759113.34	629688.17
4788	66.90	82.96	2387.78	-2337.26	400.24	3846.11	5759113.45	629689.09
4789	66.89	82.92	2388.17	-2337.65	400.34	3847.03	5759113.56	629690.00
4790	66.87	82.88	2388.56	-2338.04	400.45	3847.94	5759113.66	629690.92
4791	66.85	82.83	2388.96	-2338.44	400.57	3848.85	5759113.78	629691.83
4792	66.83	82.79	2389.36	-2338.84	400.70	3849.76	5759113.91	629692.73
4793	66.82	82.74	2389.76	-2339.24	400.83	3850.67	5759114.04	629693.64
4794	66.80	82.69	2390.16	-2339.64	400.96	3851.58	5759114.17	629694.55
4795	66.78	82.64	2390.56	-2340.04	401.09	3852.48	5759114.30	629695.46
4796	66.76	82.59	2390.96	-2340.44	401.22	3853.39	5759114.43	629696.37
4797	66.74	82.55	2391.36	-2340.84	401.35	3854.30	5759114.56	629697.27
4798	66.72	82.50	2391.76	-2341.24	401.47	3855.21	5759114.69	629698.18
4799	66.70	82.45	2392.15	-2341.63	401.60	3856.11	5759114.82	629699.09
4800	66.68	82.40	2392.55	-2342.03	401.73	3857.02	5759114.94	629700.00
4801	66.66	82.35	2392.95	-2342.43	401.86	3857.93	5759115.07	629700.90
4802	66.64	82.31	2393.35	-2342.83	401.99	3858.84	5759115.20	629701.81
4803	66.62	82.26	2393.75	-2343.23	402.12	3859.75	5759115.33	629702.72
4804	66.60	82.21	2394.15	-2343.63	402.25	3860.65	5759115.46	629703.63
4805	66.58	82.16	2394.55	-2344.03	402.38	3861.56	5759115.59	629704.53
4806	66.56	82.11	2394.95	-2344.43	402.51	3862.47	5759115.72	629705.44
4807	66.54	82.07	2395.35	-2344.83	402.63	3863.38	5759115.85	629706.35
4808	66.52	82.02	2395.75	-2345.23	402.76	3864.28	5759115.98	629707.26
4809	66.50	81.97	2396.15	-2345.63	402.89	3865.19	5759116.10	629708.17
4810	66.48	81.92	2396.55	-2346.03	403.02	3866.10	5759116.23	629709.07
4811	66.46	81.87	2396.94	-2346.42	403.15	3867.01	5759116.36	629709.98
4812	66.44	81.83	2397.34	-2346.82	403.28	3867.91	5759116.49	629710.89
4813	66.42	81.78	2397.74	-2347.22	403.41	3868.82	5759116.62	629711.80
4814	66.40	81.73	2398.14	-2347.62	403.54	3869.73	5759116.75	629712.70
4815	66.38	81.68	2398.54	-2348.02	403.67	3870.64	5759116.88	629713.61
4816	66.36	81.63	2398.94	-2348.42	403.79	3871.55	5759117.01	629714.52
4817	66.34	81.59	2399.34	-2348.82	403.92	3872.45	5759117.14	629715.43
4818	66.32	81.54	2399.74	-2349.22	404.05	3873.36	5759117.26	629716.33
4819	66.30	81.49	2400.14	-2349.62	404.18	3874.27	5759117.39	629717.24
4820	66.28	81.44	2400.54	-2350.02	404.31	3875.18	5759117.52	629718.15
4821	66.26	81.40	2400.94	-2350.42	404.44	3876.08	5759117.65	629719.06
4822	66.24	81.35	2401.34	-2350.82	404.57	3876.99	5759117.78	629719.97
4823	66.22	81.30	2401.73	-2351.21	404.70	3877.90	5759117.91	629720.87
4824	66.20	81.25	2402.13	-2351.61	404.83	3878.81	5759118.04	629721.78

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4825	66.18	81.20	2402.53	-2352.01	404.95	3879.72	5759118.17	629722.69
4826	66.16	81.16	2402.93	-2352.41	405.08	3880.62	5759118.30	629723.60
4827	66.14	81.11	2403.33	-2352.81	405.21	3881.53	5759118.42	629724.50
4828	66.12	81.06	2403.73	-2353.21	405.34	3882.44	5759118.55	629725.41
4829	66.10	81.01	2404.13	-2353.61	405.47	3883.35	5759118.68	629726.32
4830	66.08	80.96	2404.53	-2354.01	405.60	3884.25	5759118.81	629727.23
4831	66.08	80.94	2404.93	-2354.41	405.75	3885.16	5759118.96	629728.13
4832	66.07	80.91	2405.34	-2354.82	405.90	3886.06	5759119.11	629729.03
4833	66.07	80.89	2405.75	-2355.23	406.04	3886.96	5759119.26	629729.93
4834	66.07	80.87	2406.15	-2355.63	406.19	3887.86	5759119.41	629730.83
4835	66.06	80.84	2406.56	-2356.04	406.34	3888.76	5759119.55	629731.74
4836	66.06	80.82	2406.97	-2356.45	406.49	3889.66	5759119.70	629732.64
4837	66.06	80.80	2407.37	-2356.85	406.64	3890.56	5759119.85	629733.54
4838	66.05	80.77	2407.78	-2357.26	406.79	3891.47	5759120.00	629734.44
4839	66.05	80.75	2408.18	-2357.66	406.94	3892.37	5759120.15	629735.34
4840	66.05	80.73	2408.59	-2358.07	407.09	3893.27	5759120.30	629736.24
4841	66.04	80.70	2409.00	-2358.48	407.24	3894.17	5759120.45	629737.14
4842	66.04	80.68	2409.40	-2358.88	407.39	3895.07	5759120.60	629738.05
4843	66.04	80.65	2409.81	-2359.29	407.54	3895.97	5759120.75	629738.95
4844	66.03	80.63	2410.22	-2359.70	407.68	3896.88	5759120.90	629739.85
4845	66.03	80.61	2410.62	-2360.10	407.83	3897.78	5759121.05	629740.75
4846	66.03	80.58	2411.03	-2360.51	407.98	3898.68	5759121.19	629741.65
4847	66.02	80.56	2411.43	-2360.91	408.13	3899.58	5759121.34	629742.55
4848	66.02	80.54	2411.84	-2361.32	408.28	3900.48	5759121.49	629743.45
4849	66.02	80.51	2412.25	-2361.73	408.43	3901.38	5759121.64	629744.36
4850	66.01	80.49	2412.65	-2362.13	408.58	3902.28	5759121.79	629745.26
4851	66.01	80.47	2413.06	-2362.54	408.73	3903.19	5759121.94	629746.16
4852	66.01	80.44	2413.47	-2362.95	408.88	3904.09	5759122.09	629747.06
4853	66.00	80.42	2413.87	-2363.35	409.03	3904.99	5759122.24	629747.96
4854	66.00	80.39	2414.28	-2363.76	409.17	3905.89	5759122.39	629748.86
4855	66.00	80.37	2414.68	-2364.16	409.32	3906.79	5759122.54	629749.77
4856	65.99	80.35	2415.09	-2364.57	409.47	3907.69	5759122.69	629750.67
4857	65.99	80.32	2415.50	-2364.98	409.62	3908.59	5759122.83	629751.57
4858	65.99	80.30	2415.90	-2365.38	409.77	3909.50	5759122.98	629752.47
4859	65.98	80.28	2416.31	-2365.79	409.92	3910.40	5759123.13	629753.37
4860	65.99	80.26	2416.72	-2366.20	410.07	3911.30	5759123.28	629754.27
4861	66.02	80.25	2417.12	-2366.60	410.23	3912.20	5759123.44	629755.17
4862	66.05	80.25	2417.53	-2367.01	410.38	3913.10	5759123.59	629756.07
4863	66.08	80.24	2417.93	-2367.41	410.54	3914.00	5759123.75	629756.98
4864	66.11	80.24	2418.34	-2367.82	410.69	3914.90	5759123.90	629757.88
4865	66.14	80.23	2418.74	-2368.22	410.85	3915.80	5759124.06	629758.78
4866	66.17	80.22	2419.15	-2368.63	411.00	3916.70	5759124.21	629759.68
4867	66.14	80.18	2419.56	-2369.04	411.17	3917.60	5759124.38	629760.58
4868	66.12	80.13	2419.97	-2369.45	411.33	3918.50	5759124.54	629761.47
4869	66.09	80.09	2420.38	-2369.86	411.49	3919.40	5759124.70	629762.37
4870	66.07	80.04	2420.78	-2370.26	411.65	3920.30	5759124.87	629763.27
4871	66.04	80.00	2421.19	-2370.67	411.82	3921.19	5759125.03	629764.17
4872	66.02	79.95	2421.60	-2371.08	411.98	3922.09	5759125.19	629765.07
4873	65.99	79.91	2422.01	-2371.49	412.14	3922.99	5759125.36	629765.96
4874	65.97	79.86	2422.42	-2371.90	412.31	3923.89	5759125.52	629766.86
4875	65.94	79.82	2422.83	-2372.31	412.47	3924.79	5759125.68	629767.76
4876	65.92	79.77	2423.24	-2372.72	412.63	3925.68	5759125.84	629768.66
4877	65.89	79.73	2423.64	-2373.12	412.79	3926.58	5759126.01	629769.56
4878	65.87	79.69	2424.05	-2373.53	412.96	3927.48	5759126.17	629770.45
4879	65.84	79.64	2424.46	-2373.94	413.12	3928.38	5759126.33	629771.35
4880	65.82	79.60	2424.87	-2374.35	413.28	3929.28	5759126.50	629772.25
4881	65.79	79.55	2425.28	-2374.76	413.45	3930.17	5759126.66	629773.15
4882	65.77	79.51	2425.69	-2375.17	413.61	3931.07	5759126.82	629774.05

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4883	65.74	79.46	2426.10	-2375.58	413.77	3931.97	5759126.98	629774.94
4884	65.72	79.42	2426.50	-2375.98	413.94	3932.87	5759127.15	629775.84
4885	65.70	79.37	2426.91	-2376.39	414.10	3933.77	5759127.31	629776.74
4886	65.67	79.33	2427.32	-2376.80	414.26	3934.66	5759127.47	629777.64
4887	65.65	79.28	2427.73	-2377.21	414.42	3935.56	5759127.64	629778.54
4888	65.62	79.24	2428.14	-2377.62	414.59	3936.46	5759127.80	629779.43
4889	65.59	79.19	2428.55	-2378.03	414.75	3937.36	5759127.96	629780.33
4890	65.52	79.14	2428.98	-2378.46	414.93	3938.24	5759128.15	629781.22
4891	65.45	79.08	2429.41	-2378.89	415.12	3939.13	5759128.33	629782.10
4892	65.38	79.03	2429.84	-2379.32	415.30	3940.01	5759128.51	629782.98
4893	65.32	78.97	2430.27	-2379.75	415.48	3940.90	5759128.69	629783.87
4894	65.25	78.91	2430.69	-2380.17	415.66	3941.78	5759128.87	629784.75
4895	65.18	78.86	2431.12	-2380.60	415.84	3942.67	5759129.05	629785.64
4896	65.11	78.80	2431.55	-2381.03	416.02	3943.55	5759129.24	629786.52
4897	65.04	78.75	2431.98	-2381.46	416.21	3944.43	5759129.42	629787.41
4898	64.97	78.69	2432.41	-2381.89	416.39	3945.32	5759129.60	629788.29
4899	64.90	78.64	2432.84	-2382.32	416.57	3946.20	5759129.78	629789.18
4900	64.83	78.58	2433.27	-2382.75	416.75	3947.09	5759129.96	629790.06
4901	64.77	78.52	2433.70	-2383.18	416.93	3947.97	5759130.14	629790.95
4902	64.70	78.47	2434.13	-2383.61	417.11	3948.86	5759130.33	629791.83
4903	64.63	78.41	2434.56	-2384.04	417.30	3949.74	5759130.51	629792.72
4904	64.56	78.36	2434.98	-2384.46	417.48	3950.63	5759130.69	629793.60
4905	64.49	78.30	2435.41	-2384.89	417.66	3951.51	5759130.87	629794.49
4906	64.42	78.25	2435.84	-2385.32	417.84	3952.40	5759131.05	629795.37
4907	64.35	78.19	2436.27	-2385.75	418.02	3953.28	5759131.23	629796.26
4908	64.28	78.13	2436.70	-2386.18	418.20	3954.17	5759131.42	629797.14
4909	64.22	78.08	2437.13	-2386.61	418.39	3955.05	5759131.60	629798.03
4910	64.15	78.02	2437.56	-2387.04	418.57	3955.94	5759131.78	629798.91
4911	64.08	77.97	2437.99	-2387.47	418.75	3956.82	5759131.96	629799.80
4912	64.01	77.91	2438.42	-2387.90	418.93	3957.71	5759132.14	629800.68
4913	63.94	77.86	2438.84	-2388.32	419.11	3958.59	5759132.33	629801.57
4914	63.87	77.80	2439.27	-2388.75	419.29	3959.48	5759132.51	629802.45
4915	63.80	77.74	2439.70	-2389.18	419.48	3960.36	5759132.69	629803.33
4916	63.73	77.69	2440.13	-2389.61	419.66	3961.25	5759132.87	629804.22
4917	63.67	77.63	2440.56	-2390.04	419.84	3962.13	5759133.05	629805.10
4918	63.60	77.58	2440.99	-2390.47	420.02	3963.01	5759133.23	629805.99
4919	63.52	77.59	2441.45	-2390.93	420.21	3963.88	5759133.42	629806.85
4920	63.45	77.60	2441.91	-2391.39	420.40	3964.75	5759133.61	629807.72
4921	63.37	77.61	2442.38	-2391.86	420.59	3965.61	5759133.80	629808.59
4922	63.29	77.61	2442.84	-2392.32	420.78	3966.48	5759133.99	629809.45
4923	63.22	77.62	2443.30	-2392.78	420.97	3967.35	5759134.18	629810.32
4924	63.14	77.63	2443.76	-2393.24	421.16	3968.21	5759134.37	629811.19
4925	63.07	77.64	2444.22	-2393.70	421.34	3969.08	5759134.56	629812.06
4926	62.99	77.65	2444.68	-2394.16	421.53	3969.95	5759134.75	629812.92
4927	62.92	77.66	2445.15	-2394.63	421.72	3970.81	5759134.93	629813.79
4928	62.84	77.66	2445.61	-2395.09	421.91	3971.68	5759135.12	629814.66
4929	62.77	77.67	2446.07	-2395.55	422.10	3972.55	5759135.31	629815.52
4930	62.69	77.68	2446.53	-2396.01	422.29	3973.41	5759135.50	629816.39
4931	62.62	77.69	2446.99	-2396.47	422.48	3974.28	5759135.69	629817.26
4932	62.54	77.70	2447.45	-2396.93	422.67	3975.15	5759135.88	629818.12
4933	62.46	77.70	2447.91	-2397.39	422.86	3976.01	5759136.07	629818.99
4934	62.39	77.71	2448.38	-2397.86	423.05	3976.88	5759136.26	629819.86
4935	62.31	77.72	2448.84	-2398.32	423.23	3977.75	5759136.45	629820.72
4936	62.24	77.73	2449.30	-2398.78	423.42	3978.61	5759136.64	629821.59
4937	62.16	77.74	2449.76	-2399.24	423.61	3979.48	5759136.82	629822.46
4938	62.09	77.75	2450.22	-2399.70	423.80	3980.35	5759137.01	629823.32
4939	62.01	77.75	2450.68	-2400.16	423.99	3981.21	5759137.20	629824.19
4940	61.94	77.76	2451.15	-2400.63	424.18	3982.08	5759137.39	629825.06

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4941	61.86	77.77	2451.61	-2401.09	424.37	3982.95	5759137.58	629825.92
4942	61.79	77.78	2452.07	-2401.55	424.56	3983.81	5759137.77	629826.79
4943	61.71	77.79	2452.53	-2402.01	424.75	3984.68	5759137.96	629827.66
4944	61.63	77.80	2452.99	-2402.47	424.94	3985.55	5759138.15	629828.52
4945	61.56	77.80	2453.45	-2402.93	425.12	3986.41	5759138.34	629829.39
4946	61.48	77.81	2453.91	-2403.39	425.31	3987.28	5759138.53	629830.26
4947	61.42	77.82	2454.38	-2403.86	425.50	3988.15	5759138.71	629831.12
4948	61.39	77.83	2454.86	-2404.34	425.68	3989.00	5759138.90	629831.98
4949	61.37	77.85	2455.35	-2404.83	425.87	3989.86	5759139.08	629832.83
4950	61.35	77.86	2455.83	-2405.31	426.05	3990.72	5759139.26	629833.69
4951	61.33	77.87	2456.31	-2405.79	426.23	3991.57	5759139.44	629834.55
4952	61.30	77.88	2456.80	-2406.28	426.41	3992.43	5759139.62	629835.40
4953	61.28	77.89	2457.28	-2406.76	426.59	3993.28	5759139.81	629836.26
4954	61.26	77.90	2457.76	-2407.24	426.78	3994.14	5759139.99	629837.11
4955	61.24	77.92	2458.25	-2407.73	426.96	3995.00	5759140.17	629837.97
4956	61.21	77.93	2458.73	-2408.21	427.14	3995.85	5759140.35	629838.83
4957	61.19	77.94	2459.21	-2408.69	427.32	3996.71	5759140.53	629839.68
4958	61.17	77.95	2459.70	-2409.18	427.50	3997.57	5759140.72	629840.54
4959	61.15	77.96	2460.18	-2409.66	427.69	3998.42	5759140.90	629841.40
4960	61.12	77.97	2460.66	-2410.14	427.87	3999.28	5759141.08	629842.25
4961	61.10	77.99	2461.15	-2410.63	428.05	4000.13	5759141.26	629843.11
4962	61.08	78.00	2461.63	-2411.11	428.23	4000.99	5759141.45	629843.96
4963	61.06	78.01	2462.11	-2411.59	428.42	4001.85	5759141.63	629844.82
4964	61.03	78.02	2462.60	-2412.08	428.60	4002.70	5759141.81	629845.68
4965	61.01	78.03	2463.08	-2412.56	428.78	4003.56	5759141.99	629846.53
4966	60.99	78.05	2463.56	-2413.04	428.96	4004.42	5759142.17	629847.39
4967	60.97	78.06	2464.05	-2413.53	429.14	4005.27	5759142.36	629848.25
4968	60.94	78.07	2464.53	-2414.01	429.33	4006.13	5759142.54	629849.10
4969	60.92	78.08	2465.01	-2414.49	429.51	4006.98	5759142.72	629849.96
4970	60.90	78.09	2465.50	-2414.98	429.69	4007.84	5759142.90	629850.81
4971	60.88	78.10	2465.98	-2415.46	429.87	4008.70	5759143.08	629851.67
4972	60.85	78.12	2466.46	-2415.94	430.05	4009.55	5759143.27	629852.53
4973	60.83	78.13	2466.95	-2416.43	430.24	4010.41	5759143.45	629853.38
4974	60.81	78.14	2467.43	-2416.91	430.42	4011.27	5759143.63	629854.24
4975	60.79	78.15	2467.91	-2417.39	430.60	4012.12	5759143.81	629855.09
4976	60.76	78.18	2468.40	-2417.88	430.78	4012.98	5759143.99	629855.95
4977	60.72	78.23	2468.90	-2418.38	430.95	4013.83	5759144.16	629856.80
4978	60.68	78.28	2469.40	-2418.88	431.11	4014.68	5759144.32	629857.65
4979	60.64	78.33	2469.89	-2419.37	431.28	4015.53	5759144.49	629858.50
4980	60.60	78.39	2470.39	-2419.87	431.45	4016.38	5759144.66	629859.36
4981	60.56	78.44	2470.89	-2420.37	431.61	4017.23	5759144.82	629860.21
4982	60.52	78.49	2471.38	-2420.86	431.78	4018.09	5759144.99	629861.06
4983	60.48	78.55	2471.88	-2421.36	431.95	4018.94	5759145.16	629861.91
4984	60.44	78.60	2472.38	-2421.86	432.11	4019.79	5759145.32	629862.76
4985	60.40	78.65	2472.87	-2422.35	432.28	4020.64	5759145.49	629863.61
4986	60.36	78.70	2473.37	-2422.85	432.45	4021.49	5759145.66	629864.46
4987	60.32	78.76	2473.87	-2423.35	432.61	4022.34	5759145.82	629865.32
4988	60.28	78.81	2474.37	-2423.85	432.78	4023.19	5759145.99	629866.17
4989	60.25	78.86	2474.86	-2424.34	432.95	4024.05	5759146.16	629867.02
4990	60.21	78.92	2475.36	-2424.84	433.11	4024.90	5759146.32	629867.87
4991	60.17	78.97	2475.86	-2425.34	433.28	4025.75	5759146.49	629868.72
4992	60.13	79.02	2476.35	-2425.83	433.45	4026.60	5759146.66	629869.57
4993	60.09	79.07	2476.85	-2426.33	433.61	4027.45	5759146.82	629870.43
4994	60.05	79.13	2477.35	-2426.83	433.78	4028.30	5759146.99	629871.28
4995	60.01	79.18	2477.85	-2427.33	433.95	4029.15	5759147.16	629872.13
4996	59.97	79.23	2478.34	-2427.82	434.11	4030.01	5759147.32	629872.98
4997	59.93	79.29	2478.84	-2428.32	434.28	4030.86	5759147.49	629873.83
4998	59.89	79.34	2479.34	-2428.82	434.45	4031.71	5759147.66	629874.68

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
4999	59.85	79.39	2479.83	-2429.31	434.61	4032.56	5759147.82	629875.53
5000	59.81	79.44	2480.33	-2429.81	434.78	4033.41	5759147.99	629876.39
5001	59.77	79.50	2480.83	-2430.31	434.95	4034.26	5759148.16	629877.24
5002	59.73	79.55	2481.32	-2430.80	435.11	4035.12	5759148.32	629878.09
5003	59.69	79.60	2481.82	-2431.30	435.28	4035.97	5759148.49	629878.94
5004	59.65	79.66	2482.32	-2431.80	435.45	4036.82	5759148.66	629879.79
5005	59.62	79.70	2482.82	-2432.30	435.61	4037.67	5759148.82	629880.64
5006	59.61	79.73	2483.32	-2432.80	435.76	4038.52	5759148.97	629881.49
5007	59.61	79.76	2483.83	-2433.31	435.91	4039.37	5759149.12	629882.34
5008	59.60	79.78	2484.34	-2433.82	436.05	4040.22	5759149.27	629883.19
5009	59.60	79.81	2484.84	-2434.32	436.20	4041.07	5759149.42	629884.04
5010	59.59	79.84	2485.35	-2434.83	436.35	4041.92	5759149.56	629884.89
5011	59.59	79.87	2485.86	-2435.34	436.50	4042.76	5759149.71	629885.74
5012	59.58	79.89	2486.37	-2435.85	436.65	4043.61	5759149.86	629886.59
5013	59.58	79.92	2486.87	-2436.35	436.80	4044.46	5759150.01	629887.44
5014	59.57	79.95	2487.38	-2436.86	436.95	4045.31	5759150.16	629888.29
5015	59.57	79.97	2487.89	-2437.37	437.09	4046.16	5759150.31	629889.13
5016	59.56	80.00	2488.39	-2437.87	437.24	4047.01	5759150.45	629889.98
5017	59.56	80.03	2488.90	-2438.38	437.39	4047.86	5759150.60	629890.83
5018	59.55	80.05	2489.41	-2438.89	437.54	4048.71	5759150.75	629891.68
5019	59.55	80.08	2489.91	-2439.39	437.69	4049.56	5759150.90	629892.53
5020	59.54	80.11	2490.42	-2439.90	437.84	4050.41	5759151.05	629893.38
5021	59.54	80.13	2490.93	-2440.41	437.98	4051.26	5759151.20	629894.23
5022	59.53	80.16	2491.43	-2440.91	438.13	4052.11	5759151.35	629895.08
5023	59.53	80.19	2491.94	-2441.42	438.28	4052.95	5759151.49	629895.93
5024	59.52	80.21	2492.45	-2441.93	438.43	4053.80	5759151.64	629896.78
5025	59.51	80.24	2492.95	-2442.43	438.58	4054.65	5759151.79	629897.63
5026	59.51	80.27	2493.46	-2442.94	438.73	4055.50	5759151.94	629898.48
5027	59.50	80.29	2493.97	-2443.45	438.88	4056.35	5759152.09	629899.32
5028	59.50	80.32	2494.47	-2443.95	439.02	4057.20	5759152.24	629900.17
5029	59.49	80.35	2494.98	-2444.46	439.17	4058.05	5759152.38	629901.02
5030	59.49	80.37	2495.49	-2444.97	439.32	4058.90	5759152.53	629901.87
5031	59.48	80.40	2496.00	-2445.48	439.47	4059.75	5759152.68	629902.72
5032	59.48	80.43	2496.50	-2445.98	439.62	4060.60	5759152.83	629903.57
5033	59.47	80.45	2497.01	-2446.49	439.77	4061.45	5759152.98	629904.42
5034	59.47	80.49	2497.52	-2447.00	439.91	4062.30	5759153.12	629905.27
5035	59.48	80.54	2498.02	-2447.50	440.04	4063.15	5759153.25	629906.12
5036	59.48	80.58	2498.53	-2448.01	440.17	4064.00	5759153.39	629906.97
5037	59.49	80.63	2499.04	-2448.52	440.31	4064.85	5759153.52	629907.83
5038	59.49	80.67	2499.54	-2449.02	440.44	4065.70	5759153.65	629908.68
5039	59.50	80.72	2500.05	-2449.53	440.57	4066.55	5759153.78	629909.53
5040	59.50	80.77	2500.56	-2450.04	440.70	4067.41	5759153.92	629910.38
5041	59.51	80.81	2501.06	-2450.54	440.84	4068.26	5759154.05	629911.23
5042	59.51	80.86	2501.57	-2451.05	440.97	4069.11	5759154.18	629912.08
5043	59.52	80.91	2502.08	-2451.56	441.10	4069.96	5759154.32	629912.94
5044	59.52	80.95	2502.59	-2452.07	441.24	4070.81	5759154.45	629913.79
5045	59.53	81.00	2503.09	-2452.57	441.37	4071.66	5759154.58	629914.64
5046	59.53	81.04	2503.60	-2453.08	441.50	4072.52	5759154.71	629915.49
5047	59.54	81.09	2504.11	-2453.59	441.63	4073.37	5759154.85	629916.34
5048	59.54	81.14	2504.61	-2454.09	441.77	4074.22	5759154.98	629917.19
5049	59.54	81.18	2505.12	-2454.60	441.90	4075.07	5759155.11	629918.05
5050	59.55	81.23	2505.63	-2455.11	442.03	4075.92	5759155.24	629918.90
5051	59.55	81.27	2506.13	-2455.61	442.17	4076.77	5759155.38	629919.75
5052	59.56	81.32	2506.64	-2456.12	442.30	4077.63	5759155.51	629920.60
5053	59.56	81.37	2507.15	-2456.63	442.43	4078.48	5759155.64	629921.45
5054	59.57	81.41	2507.66	-2457.14	442.56	4079.33	5759155.78	629922.30
5055	59.57	81.46	2508.16	-2457.64	442.70	4080.18	5759155.91	629923.16
5056	59.58	81.50	2508.67	-2458.15	442.83	4081.03	5759156.04	629924.01

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
5057	59.58	81.55	2509.18	-2458.66	442.96	4081.88	5759156.17	629924.86
5058	59.59	81.60	2509.68	-2459.16	443.10	4082.74	5759156.31	629925.71
5059	59.59	81.64	2510.19	-2459.67	443.23	4083.59	5759156.44	629926.56
5060	59.60	81.69	2510.70	-2460.18	443.36	4084.44	5759156.57	629927.41
5061	59.60	81.74	2511.20	-2460.68	443.49	4085.29	5759156.71	629928.27
5062	59.61	81.78	2511.71	-2461.19	443.63	4086.14	5759156.84	629929.12
5063	59.63	81.82	2512.21	-2461.69	443.75	4087.00	5759156.96	629929.97
5064	59.67	81.85	2512.71	-2462.19	443.87	4087.86	5759157.08	629930.83
5065	59.71	81.89	2513.21	-2462.69	443.98	4088.72	5759157.19	629931.69
5066	59.75	81.92	2513.71	-2463.19	444.10	4089.58	5759157.31	629932.55
5067	59.78	81.95	2514.20	-2463.68	444.22	4090.44	5759157.43	629933.41
5068	59.82	81.98	2514.70	-2464.18	444.33	4091.30	5759157.54	629934.27
5069	59.86	82.02	2515.20	-2464.68	444.45	4092.16	5759157.66	629935.13
5070	59.90	82.05	2515.70	-2465.18	444.56	4093.02	5759157.78	629935.99
5071	59.93	82.08	2516.19	-2465.67	444.68	4093.88	5759157.89	629936.85
5072	59.97	82.11	2516.69	-2466.17	444.80	4094.74	5759158.01	629937.71
5073	60.01	82.15	2517.19	-2466.67	444.91	4095.59	5759158.13	629938.57
5074	60.05	82.18	2517.69	-2467.17	445.03	4096.45	5759158.24	629939.43
5075	60.08	82.21	2518.18	-2467.66	445.15	4097.31	5759158.36	629940.29
5076	60.12	82.25	2518.68	-2468.16	445.26	4098.17	5759158.48	629941.15
5077	60.16	82.28	2519.18	-2468.66	445.38	4099.03	5759158.59	629942.01
5078	60.20	82.31	2519.68	-2469.16	445.50	4099.89	5759158.71	629942.87
5079	60.23	82.34	2520.17	-2469.65	445.61	4100.75	5759158.83	629943.73
5080	60.27	82.38	2520.67	-2470.15	445.73	4101.61	5759158.94	629944.59
5081	60.31	82.41	2521.17	-2470.65	445.85	4102.47	5759159.06	629945.44
5082	60.35	82.44	2521.67	-2471.15	445.96	4103.33	5759159.17	629946.30
5083	60.38	82.48	2522.16	-2471.64	446.08	4104.19	5759159.29	629947.16
5084	60.42	82.51	2522.66	-2472.14	446.20	4105.05	5759159.41	629948.02
5085	60.46	82.54	2523.16	-2472.64	446.31	4105.91	5759159.52	629948.88
5086	60.50	82.57	2523.66	-2473.14	446.43	4106.77	5759159.64	629949.74
5087	60.53	82.61	2524.15	-2473.63	446.54	4107.63	5759159.76	629950.60
5088	60.57	82.64	2524.65	-2474.13	446.66	4108.49	5759159.87	629951.46
5089	60.61	82.67	2525.15	-2474.63	446.78	4109.35	5759159.99	629952.32
5090	60.65	82.70	2525.65	-2475.13	446.89	4110.21	5759160.11	629953.18
5091	60.68	82.74	2526.14	-2475.62	447.01	4111.07	5759160.22	629954.04
5092	60.73	82.75	2526.63	-2476.11	447.13	4111.93	5759160.34	629954.90
5093	60.81	82.72	2527.11	-2476.59	447.25	4112.80	5759160.46	629955.78
5094	60.88	82.69	2527.58	-2477.06	447.36	4113.68	5759160.58	629956.65
5095	60.96	82.65	2528.05	-2477.53	447.48	4114.55	5759160.69	629957.52
5096	61.04	82.62	2528.52	-2478.00	447.60	4115.42	5759160.81	629958.40
5097	61.11	82.59	2529.00	-2478.48	447.72	4116.30	5759160.93	629959.27
5098	61.19	82.56	2529.47	-2478.95	447.84	4117.17	5759161.05	629960.14
5099	61.26	82.53	2529.94	-2479.42	447.96	4118.04	5759161.17	629961.02
5100	61.34	82.49	2530.41	-2479.89	448.07	4118.92	5759161.29	629961.89
5101	61.41	82.46	2530.89	-2480.37	448.19	4119.79	5759161.40	629962.76
5102	61.49	82.43	2531.36	-2480.84	448.31	4120.66	5759161.52	629963.64
5103	61.56	82.40	2531.83	-2481.31	448.43	4121.54	5759161.64	629964.51
5104	61.64	82.37	2532.30	-2481.78	448.55	4122.41	5759161.76	629965.38
5105	61.71	82.33	2532.78	-2482.26	448.66	4123.28	5759161.88	629966.26
5106	61.79	82.30	2533.25	-2482.73	448.78	4124.16	5759162.00	629967.13
5107	61.86	82.27	2533.72	-2483.20	448.90	4125.03	5759162.11	629968.00
5108	61.94	82.24	2534.19	-2483.67	449.02	4125.90	5759162.23	629968.88
5109	62.01	82.21	2534.67	-2484.15	449.14	4126.78	5759162.35	629969.75
5110	62.09	82.17	2535.14	-2484.62	449.26	4127.65	5759162.47	629970.62
5111	62.17	82.14	2535.61	-2485.09	449.37	4128.52	5759162.59	629971.50
5112	62.24	82.11	2536.08	-2485.56	449.49	4129.40	5759162.70	629972.37
5113	62.32	82.08	2536.56	-2486.04	449.61	4130.27	5759162.82	629973.24
5114	62.39	82.05	2537.03	-2486.51	449.73	4131.14	5759162.94	629974.12

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
5115	62.47	82.01	2537.50	-2486.98	449.85	4132.02	5759163.06	629974.99
5116	62.54	81.98	2537.97	-2487.45	449.97	4132.89	5759163.18	629975.86
5117	62.62	81.95	2538.45	-2487.93	450.08	4133.76	5759163.30	629976.74
5118	62.69	81.92	2538.92	-2488.40	450.20	4134.64	5759163.41	629977.61
5119	62.77	81.89	2539.39	-2488.87	450.32	4135.51	5759163.53	629978.48
5120	62.84	81.85	2539.86	-2489.34	450.44	4136.38	5759163.65	629979.36
5121	62.90	81.82	2540.33	-2489.81	450.56	4137.26	5759163.77	629980.23
5122	62.89	81.79	2540.79	-2490.27	450.69	4138.14	5759163.91	629981.11
5123	62.88	81.75	2541.25	-2490.73	450.83	4139.02	5759164.04	629981.99
5124	62.87	81.72	2541.70	-2491.18	450.96	4139.89	5759164.18	629982.87
5125	62.87	81.68	2542.16	-2491.64	451.10	4140.77	5759164.31	629983.75
5126	62.86	81.65	2542.62	-2492.10	451.23	4141.65	5759164.44	629984.63
5127	62.85	81.61	2543.08	-2492.56	451.37	4142.53	5759164.58	629985.51
5128	62.84	81.58	2543.53	-2493.01	451.50	4143.41	5759164.71	629986.38
5129	62.83	81.54	2543.99	-2493.47	451.63	4144.29	5759164.85	629987.26
5130	62.82	81.50	2544.45	-2493.93	451.77	4145.17	5759164.98	629988.14
5131	62.82	81.47	2544.91	-2494.39	451.90	4146.05	5759165.12	629989.02
5132	62.81	81.43	2545.36	-2494.84	452.04	4146.93	5759165.25	629989.90
5133	62.80	81.40	2545.82	-2495.30	452.17	4147.81	5759165.38	629990.78
5134	62.79	81.36	2546.28	-2495.76	452.31	4148.69	5759165.52	629991.66
5135	62.78	81.33	2546.74	-2496.22	452.44	4149.56	5759165.65	629992.54
5136	62.78	81.29	2547.19	-2496.67	452.57	4150.44	5759165.79	629993.42
5137	62.77	81.26	2547.65	-2497.13	452.71	4151.32	5759165.92	629994.30
5138	62.76	81.22	2548.11	-2497.59	452.84	4152.20	5759166.06	629995.17
5139	62.75	81.19	2548.57	-2498.05	452.98	4153.08	5759166.19	629996.05
5140	62.74	81.15	2549.02	-2498.50	453.11	4153.96	5759166.32	629996.93
5141	62.73	81.12	2549.48	-2498.96	453.25	4154.84	5759166.46	629997.81
5142	62.73	81.08	2549.94	-2499.42	453.38	4155.72	5759166.59	629998.69
5143	62.72	81.05	2550.40	-2499.88	453.51	4156.60	5759166.73	629999.57
5144	62.71	81.01	2550.85	-2500.33	453.65	4157.48	5759166.86	630000.45
5145	62.70	80.98	2551.31	-2500.79	453.78	4158.35	5759167.00	630001.33
5146	62.69	80.94	2551.77	-2501.25	453.92	4159.23	5759167.13	630002.21
5147	62.68	80.91	2552.22	-2501.70	454.05	4160.11	5759167.26	630003.09
5148	62.68	80.87	2552.68	-2502.16	454.19	4160.99	5759167.40	630003.97
5149	62.67	80.84	2553.14	-2502.62	454.32	4161.87	5759167.53	630004.84
5150	62.66	80.80	2553.60	-2503.08	454.45	4162.75	5759167.67	630005.72
5151	62.65	80.82	2554.06	-2503.54	454.59	4163.63	5759167.80	630006.60
5152	62.65	80.85	2554.52	-2504.00	454.73	4164.50	5759167.94	630007.48
5153	62.64	80.87	2554.98	-2504.46	454.86	4165.38	5759168.08	630008.35
5154	62.63	80.90	2555.44	-2504.92	455.00	4166.26	5759168.21	630009.23
5155	62.63	80.92	2555.90	-2505.38	455.14	4167.13	5759168.35	630010.11
5156	62.62	80.95	2556.36	-2505.84	455.27	4168.01	5759168.49	630010.99
5157	62.61	80.97	2556.82	-2506.30	455.41	4168.89	5759168.62	630011.86
5158	62.61	81.00	2557.28	-2506.76	455.55	4169.77	5759168.76	630012.74
5159	62.60	81.02	2557.74	-2507.22	455.68	4170.64	5759168.89	630013.62
5160	62.59	81.05	2558.20	-2507.68	455.82	4171.52	5759169.03	630014.49
5161	62.59	81.07	2558.67	-2508.15	455.96	4172.40	5759169.17	630015.37
5162	62.58	81.10	2559.13	-2508.61	456.09	4173.27	5759169.30	630016.25
5163	62.58	81.12	2559.59	-2509.07	456.23	4174.15	5759169.44	630017.12
5164	62.57	81.15	2560.05	-2509.53	456.36	4175.03	5759169.58	630018.00
5165	62.56	81.17	2560.51	-2509.99	456.50	4175.90	5759169.71	630018.88
5166	62.56	81.20	2560.97	-2510.45	456.64	4176.78	5759169.85	630019.76
5167	62.55	81.22	2561.43	-2510.91	456.77	4177.66	5759169.99	630020.63
5168	62.54	81.25	2561.89	-2511.37	456.91	4178.54	5759170.12	630021.51
5169	62.54	81.27	2562.35	-2511.83	457.05	4179.41	5759170.26	630022.39
5170	62.53	81.30	2562.81	-2512.29	457.18	4180.29	5759170.39	630023.26
5171	62.52	81.32	2563.27	-2512.75	457.32	4181.17	5759170.53	630024.14
5172	62.52	81.35	2563.73	-2513.21	457.46	4182.04	5759170.67	630025.02

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
5173	62.51	81.37	2564.19	-2513.67	457.59	4182.92	5759170.80	630025.89
5174	62.50	81.40	2564.65	-2514.13	457.73	4183.80	5759170.94	630026.77
5175	62.50	81.42	2565.12	-2514.60	457.86	4184.67	5759171.08	630027.65
5176	62.49	81.45	2565.58	-2515.06	458.00	4185.55	5759171.21	630028.52
5177	62.48	81.47	2566.04	-2515.52	458.14	4186.43	5759171.35	630029.40
5178	62.48	81.49	2566.50	-2515.98	458.27	4187.30	5759171.49	630030.28
5179	62.47	81.52	2566.96	-2516.44	458.41	4188.18	5759171.62	630031.16
5180	62.46	81.52	2567.42	-2516.90	458.54	4189.06	5759171.75	630032.03
5181	62.45	81.51	2567.89	-2517.37	458.67	4189.93	5759171.88	630032.91
5182	62.44	81.51	2568.35	-2517.83	458.80	4190.81	5759172.02	630033.78
5183	62.43	81.51	2568.82	-2518.30	458.94	4191.69	5759172.15	630034.66
5184	62.42	81.50	2569.28	-2518.76	459.07	4192.56	5759172.28	630035.54
5185	62.42	81.50	2569.74	-2519.22	459.20	4193.44	5759172.41	630036.41
5186	62.41	81.50	2570.21	-2519.69	459.33	4194.31	5759172.54	630037.29
5187	62.40	81.49	2570.67	-2520.15	459.46	4195.19	5759172.67	630038.16
5188	62.39	81.49	2571.14	-2520.62	459.59	4196.07	5759172.80	630039.04
5189	62.38	81.49	2571.60	-2521.08	459.72	4196.94	5759172.94	630039.92
5190	62.37	81.49	2572.06	-2521.54	459.85	4197.82	5759173.07	630040.79
5191	62.36	81.48	2572.53	-2522.01	459.99	4198.69	5759173.20	630041.67
5192	62.35	81.48	2572.99	-2522.47	460.12	4199.57	5759173.33	630042.54
5193	62.34	81.48	2573.46	-2522.94	460.25	4200.45	5759173.46	630043.42
5194	62.33	81.47	2573.92	-2523.40	460.38	4201.32	5759173.59	630044.29
5195	62.33	81.47	2574.39	-2523.87	460.51	4202.20	5759173.72	630045.17
5196	62.32	81.47	2574.85	-2524.33	460.64	4203.07	5759173.85	630046.05
5197	62.31	81.46	2575.31	-2524.79	460.77	4203.95	5759173.99	630046.92
5198	62.30	81.46	2575.78	-2525.26	460.90	4204.82	5759174.12	630047.80
5199	62.29	81.46	2576.24	-2525.72	461.04	4205.70	5759174.25	630048.67
5200	62.28	81.45	2576.71	-2526.19	461.17	4206.58	5759174.38	630049.55
5201	62.27	81.45	2577.17	-2526.65	461.30	4207.45	5759174.51	630050.43
5202	62.26	81.45	2577.64	-2527.12	461.43	4208.33	5759174.64	630051.30
5203	62.25	81.44	2578.10	-2527.58	461.56	4209.20	5759174.77	630052.18
5204	62.24	81.44	2578.56	-2528.04	461.69	4210.08	5759174.90	630053.05
5205	62.23	81.44	2579.03	-2528.51	461.82	4210.96	5759175.04	630053.93
5206	62.23	81.44	2579.49	-2528.97	461.95	4211.83	5759175.17	630054.81
5207	62.22	81.43	2579.96	-2529.44	462.09	4212.71	5759175.30	630055.68
5208	62.21	81.44	2580.42	-2529.90	462.21	4213.58	5759175.43	630056.56
5209	62.20	81.47	2580.89	-2530.37	462.34	4214.46	5759175.55	630057.43
5210	62.20	81.50	2581.36	-2530.84	462.46	4215.33	5759175.67	630058.31
5211	62.19	81.53	2581.83	-2531.31	462.58	4216.21	5759175.79	630059.18
5212	62.18	81.56	2582.30	-2531.78	462.70	4217.08	5759175.92	630060.06
5213	62.18	81.59	2582.76	-2532.24	462.83	4217.96	5759176.04	630060.93
5214	62.17	81.62	2583.23	-2532.71	462.95	4218.83	5759176.16	630061.81
5215	62.16	81.66	2583.70	-2533.18	463.07	4219.71	5759176.28	630062.68
5216	62.16	81.69	2584.17	-2533.65	463.19	4220.58	5759176.40	630063.56
5217	62.15	81.72	2584.64	-2534.12	463.31	4221.46	5759176.53	630064.43
5218	62.14	81.75	2585.10	-2534.58	463.44	4222.33	5759176.65	630065.31
5219	62.14	81.78	2585.57	-2535.05	463.56	4223.21	5759176.77	630066.18
5220	62.13	81.81	2586.04	-2535.52	463.68	4224.09	5759176.89	630067.06
5221	62.12	81.84	2586.51	-2535.99	463.80	4224.96	5759177.02	630067.93
5222	62.12	81.87	2586.98	-2536.46	463.93	4225.84	5759177.14	630068.81
5223	62.11	81.90	2587.45	-2536.93	464.05	4226.71	5759177.26	630069.68
5224	62.10	81.93	2587.91	-2537.39	464.17	4227.59	5759177.38	630070.56
5225	62.10	81.96	2588.38	-2537.86	464.29	4228.46	5759177.50	630071.43
5226	62.09	82.00	2588.85	-2538.33	464.41	4229.34	5759177.63	630072.31
5227	62.08	82.03	2589.32	-2538.80	464.54	4230.21	5759177.75	630073.18
5228	62.08	82.06	2589.79	-2539.27	464.66	4231.09	5759177.87	630074.06
5229	62.07	82.09	2590.26	-2539.74	464.78	4231.96	5759177.99	630074.93
5230	62.07	82.12	2590.72	-2540.20	464.90	4232.84	5759178.12	630075.81

MD	Angle	Direction	TVDRT	TVDSS	Dnorth	Deast	Northing	Easting
5231	62.06	82.15	2591.19	-2540.67	465.03	4233.71	5759178.24	630076.68
5232	62.05	82.18	2591.66	-2541.14	465.15	4234.59	5759178.36	630077.56
5233	62.05	82.21	2592.13	-2541.61	465.27	4235.46	5759178.48	630078.43
5234	62.04	82.24	2592.60	-2542.08	465.39	4236.34	5759178.61	630079.31
5235	62.03	82.27	2593.06	-2542.54	465.52	4237.21	5759178.73	630080.18
5236	62.03	82.30	2593.53	-2543.01	465.64	4238.09	5759178.85	630081.06
5237	62.02	82.34	2594.00	-2543.48	465.76	4238.96	5759178.97	630081.93
5238	62.01	82.37	2594.47	-2543.95	465.88	4239.84	5759179.09	630082.81
5239	62.01	82.40	2594.94	-2544.42	466.00	4240.71	5759179.22	630083.68
5240	62.00	82.43	2595.41	-2544.89	466.13	4241.59	5759179.34	630084.56
5241	61.99	82.46	2595.87	-2545.35	466.25	4242.46	5759179.46	630085.44
5242	61.99	82.49	2596.34	-2545.82	466.37	4243.34	5759179.58	630086.31
5243	61.98	82.52	2596.81	-2546.29	466.49	4244.21	5759179.71	630087.19
5244	61.97	82.55	2597.28	-2546.76	466.62	4245.09	5759179.83	630088.06
5245	61.97	82.58	2597.75	-2547.23	466.74	4245.96	5759179.95	630088.94
5246	61.96	82.61	2598.22	-2547.70	466.86	4246.84	5759180.07	630089.81
5247	61.96	82.65	2598.68	-2548.16	466.98	4247.71	5759180.19	630090.69
5248	61.95	82.68	2599.15	-2548.63	467.10	4248.59	5759180.31	630091.56
5249	61.94	82.71	2599.62	-2549.10	467.21	4249.46	5759180.42	630092.44
5250	61.94	82.74	2600.09	-2549.57	467.32	4250.34	5759180.53	630093.31
5251	61.93	82.77	2600.57	-2550.05	467.43	4251.21	5759180.64	630094.19
5252	61.92	82.80	2601.04	-2550.52	467.53	4252.09	5759180.75	630095.06
5253	61.91	82.83	2601.51	-2550.99	467.64	4252.96	5759180.85	630095.94
5254	61.91	82.86	2601.98	-2551.46	467.75	4253.84	5759180.96	630096.81
5255	61.90	82.89	2602.45	-2551.93	467.86	4254.71	5759181.07	630097.69
5256	61.89	82.92	2602.92	-2552.40	467.97	4255.59	5759181.18	630098.56
5257	61.89	82.95	2603.39	-2552.87	468.07	4256.47	5759181.29	630099.44
5258	61.88	82.98	2603.86	-2553.34	468.18	4257.34	5759181.39	630100.31
5259	61.87	83.01	2604.34	-2553.82	468.29	4258.22	5759181.50	630101.19
5260	61.87	83.04	2604.81	-2554.29	468.40	4259.09	5759181.61	630102.07
5261	61.86	83.07	2605.28	-2554.76	468.51	4259.97	5759181.72	630102.94
5262	61.85	83.10	2605.75	-2555.23	468.61	4260.84	5759181.83	630103.82
5263	61.85	83.13	2606.22	-2555.70	468.72	4261.72	5759181.94	630104.69
5264	61.84	83.16	2606.69	-2556.17	468.83	4262.59	5759182.04	630105.57
5265	61.83	83.19	2607.16	-2556.64	468.94	4263.47	5759182.15	630106.44
5266	61.83	83.22	2607.63	-2557.11	469.05	4264.34	5759182.26	630107.32
5267	61.82	83.25	2608.11	-2557.59	469.16	4265.22	5759182.37	630108.19

APPENDIX 2a
FLOUNDER A3A
Petrophysics Evaluation Summary

Esso Australia Pty Ltd.
Exploration Department

Flounder A3A
Petrophysics Report

Petrophysicist: K.Kuttan
November 2005

Flounder A3A Log Interpretation

The FLA-A3A well was designed to appraise and develop the remaining oil and gas reserves in the T-1.1 reservoir in Fault Block 4 in the north east part of the field. The well was drilled from the abandoned Founder A3 well which had an existing 20 inch conductor set at 222 MD. A 12.25 inch hole was drilled from 222 mMD to 845 mMD where the 9.875 inch casing was set. An 8.5 inch hole was drilled from 845 mMD to a final TD of 5267 mMD. The well was drilled and steered with non-aqueous fluid (NAF) with the average hole angle of 62 degrees over the T-1.1 reservoir. The well was completed as a T-1.2 oil producer after 7 inch production string was run.

The well was logged with Schlumberger's 6.75 inch LWD tools which consisted of GR-ARC6-AND combination.

The LWD logs have been analysed for porosity, water saturation and net pay over the interval 4470-5250 mMD.

Note that all depth quoted in this report are logged mMDRT unless otherwise specified

DATA

Data from the following logging surveys were used in the interpretation:

Survey/Log	Suite	Company	Top (m MDRT)	Bottom (m MDRT)
GR-ARC 6 -ADN	1	Schlumberger	845	5257

Deviation

The well angle over the T-1.1 reservoir was 62 degrees.

Mud Data

Mud Type : NAF (Petrofree SBM)
Mud Weight: 10.1. ppg
BHT: 116⁰C

Hole Size

222-845 mMDRT 12.25 inches
845-5267 mMDRT 8.5 inches

Data Acquisition & Log Quality

No problems were encountered in the acquisition of the logs. The data quality was met all of Esso's requirements.

Data Processing

Only memory logs were used in the interpretation. The P40H was chosen as the deep reading resistivity and it was edited for "polarisation horns". The TNPH provided by Anadril although environmentally corrected, showed apparent gas effect in clean water bearing sands. To remove the apparent gas effect the TNPH was adjusted by +0.03 so that it overlay the bottom bulk density ROBB in clean water sands plotted on a sandstone compatible scale. ROBB and associated curves (PEB, DRHB, HORD, VERD) were depth matched to the GR. The P40H and the other phase-shift resistivity curves were depth matched to the GR and these GR-depth matched curves were re-depth matched to the GR-depth-matched ROBB. The adjusted TNPH curve and total neutron Near and Far counts were depth matched to the GR-depth-matched ROBB. No additional environmental corrections other than those applied in the field were applied to the final logs.

INTERPRETATION

Logs Used

The primary logs used in the interpretation were P40H (deep resistivity), GR_ARC (gamma ray), ROBB (bottom bulk density) and TNPH (thermal neutron porosity in limestone matrix, environmentally corrected for bit size, temperature and hydrogen index). In addition coal intervals were identified using a coal flag (Flag_coal). Hydrocarbon types were denoted with a hydrocarbon flag (Flag_rhoh). A temperature log was created using the following data. :

<u>Depth</u>	<u>Temperature (deg. C)</u>
142.8	10
5257	126

The temperature at depth 142.8 mMDRT represents the temperature of the sea-bed and the temperature at 5257) MDRT (first reading of the LWD tools) is the estimated formation temperature –BHT +10 deg.

Formation Water Salinity

R_{wa} analysis using $a = 1$, $m = 2$ and $n = 2$ indicates clean water sands have an apparent formation water salinity of 30,000 ppm NaCl equivalent. This salinity was used as the formation water salinity for all the sands.

Hydrocarbon Type Identification

The hydrocarbon types in this well were identified using a combination of density-neutron response, total neutron Near-Far count rates and mud logs shows. The sand in the interval 4687.1-4692.8 mMDRT (MPM Sand) has been interpreted to be oil bearing, predominantly on the basis of the density-neutron response. The gas and oil zones in the T-1.1 and T-1.2 sands were identified on the basis of the density-neutron response, the total Near-Far neutron count rate overlays and mud log gas shows.

Shale Volume, Porosity and Water Saturation

Schlumberger's Geoframe ELAN+ module was used to determine mineral volumes, total porosity, effective porosity and effective saturation. The details of the models are illustrated in the figures and tables below.

ELAN+ MODEL

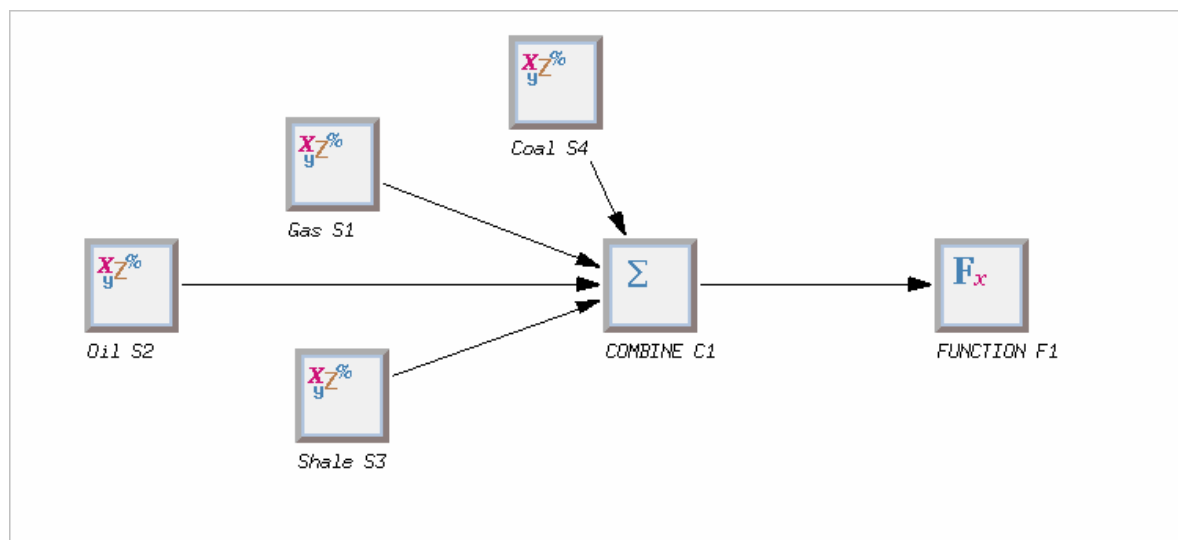


Figure1: Elan + Model and Module Configuration

ELAN Input Channels

Log Curve Selector		Selector Options	
		Compound Name Spec	FLOUNDER A3A
TEMP_CH	TEMP;*	TEMP TEMP TEMP@ElanInput;3 [A1251202]	
RHOB_IFAC_CH	IFRH;*		
NPHI_IFAC_CH	INPH;*		
RHOB_CH	ROBB;*	ROBB ROBB ROBB@ElanInput;5 [A1251191]	
NPHI_CH	TNPH;*	TNPH TNPH TNPH@ElanInput;6 [A1251199]	
CUDC_CH/RT_CH	P40H;*	P40H P40H.DM P40H@P40H_DM_ROBB;4 [A1251191]	
GR_CH	GR_ARC;*	GR_ARC GR_ARC GR_ARC@ElanInput;7 [A1251191]	
PRB1_CH	FLAG_RHOH;*	FLAG_RHOH FLAG_RHOH FLAG_RHOH@ElanInput;8 [A1251191]	
PRB2_CH	PRB2;*		
PRB3_CH	PRB3;*		
PRB4_CH	FLAG_COAL;*	FLAG_COAL FLAG_COAL FLAG_COAL@ElanInput;9 [A1251191]	
M_CH	MXP;*		
N_CH	SYD;*		

ELAN Global Parameters

Reference Index	MD
Processing Interval	4470.0(m) To 5238.0(m)
Sampling Rate	0.1(m)
Uncertainty Channel	FALSE
Clay Input	DRY
Special Fluids	IMMOVABLE_HYDROCARBON

ELAN Zone Definition

Name	Bottom To Top
Coarse Clastics	5250.0020(m) To 4470.0000(m)

ELAN Process Definition

Process SOLVE1 "Gas"

Equations	RHOB	NPHI	CUDC_DWA	GR	CT1	CT3
Volumes	QUAR	ORTH	ILLI	XWAT	UWAT	XGAS
						UGAS

Constraints Applied

UNDEFINED	-	WaterBaseMud_SXO_gt_SW
UNDEFINED	-	IrreducibleXWater
UNDEFINED	-	IrreducibleUWater

Process SOLVE2 "Oil"

Equations	RHOB	NPHI	CUDC_DWA	GR	CT2	CT3
Volumes	QUAR	ORTH	ILLI	XWAT	UWAT	XOIL
						UOIL

Constraints Applied

UNDEFINED	-	IrreducibleXWater
UNDEFINED	-	IrreducibleUWater
UNDEFINED	-	WaterBaseMud_SXO_gt_SW

Process SOLVE3 "Shale"

Equations	RHOB	CUDC_DWA	GR	
Volumes	QUAR	ILLI	XWAT	UWAT

Constraint Zones	Bottom	Top
UNDEFINED	5250.0020 (m)	4470.0000 (m)

Process SOLVE4 "Coal"

Equations	RHOB
Volumes	COAL

UNDEFINED	5250.0020 (m)	4470.0000 (m)
-----------	----------------	----------------

Process COMBINE 1 "COMBINE"

Order	SOL.2	SOL.1	SOL.3	SOL.4
-------	-------	-------	-------	-------

Combine Method

"Tuna	"	17224.4160 (m)	Internal Average
-------	---	-----------------	------------------

Probability Functions

```
probability(SOL.4, PRB4_CH)
prob3 = linear(ILLI_VOL.SOL.3, 0.3, 0, 0.5, 1)
probability(SOL.3, prob3)
prob1 = if (PRB1_CH <=0.25, 1, 0)
probability(SOL.1, prob1)
```

Process FUNCTION 1 "FUNCTION"

Outputs VCL SXWI SWT SUWI PIGN PHIT

User-defined Function

```
swt_cmp=if((PRB4_CH > 0),1,(UWAT_VOL + XBWA_VOL)/(UWAT_VOL + XBWA_VOL +  
UOIL_VOL + UGAS_VOL))  
output(SWT, swt_cmp)
```

LAN Same Parameters

Parameter	Value	Parameter	Value
RHOB_QUAR	2.650(g/cm3)	RHOB_CALC	2.710(g/cm3)
RHOB_DOLO	2.847(g/cm3)	RHOB_ORTH	2.570(g/cm3)
RHOB_PYRI	4.990(g/cm3)	RHOB_GLAU	2.650(g/cm3)
RHOB_ILLI	2.780(g/cm3)	RHOB_KAOL	2.620(g/cm3)
RHOB_COAL	1.200(g/cm3)	RHOB_IGNE	3.000(g/cm3)
RHOB_XWAT	1.000(g/cm3)	RHOB_UWAT	0.958(g/cm3)
RHOB_XOIL	0.700(g/cm3)	RHOB_UOIL	0.700(g/cm3)
RHOB_XGAS	-0.015(g/cm3)	RHOB_UGAS	-0.015(g/cm3)
RHOB_XBWA	1.000(g/cm3)	NPHI_QUAR	-0.059(m3/m3)
NPHI_CALC	0.000(m3/m3)	NPHI_DOLO	0.032(m3/m3)
NPHI_ORTH	-0.010(m3/m3)	NPHI_PYRI	0.008(m3/m3)
NPHI_GLAU	0.410(m3/m3)	NPHI_ILLI	0.247(m3/m3)
NPHI_KAOL	0.450(m3/m3)	NPHI_COAL	0.450(m3/m3)
NPHI_XWAT	1.000(m3/m3)	NPHI_UWAT	1.000(m3/m3)
NPHI_XOIL	1.000(m3/m3)	NPHI_UOIL	1.000(m3/m3)
NPHI_XGAS	0.188(m3/m3)	NPHI_UGAS	0.188(m3/m3)
NPHI_XBWA	1.000(m3/m3)	DT_QUAR	55.500(us/m)
DT_CALC	47.800(us/m)	DT_DOLO	43.500(us/m)
DT_ORTH	60.000(us/m)	DT_ILLI	60.000(us/m)
DT_KAOL	91.318(us/m)	DT_COAL	121.920(us/m)
DT_IGNE	16.916(us/m)	DT_XWAT	0.000(us/m)
DT_UWAT	220.000(us/m)	DT_XOIL	0.000(us/m)
DT_UOIL	240.000(us/m)	DT_XGAS	0.000(us/m)
DT_UGAS	289.865(us/m)	DT_XBWA	189.000(us/m)
U_QUAR	5.000()	U_CALC	14.100()
U_DOLO	9.100()	U_ILLI	9.900()
U_KAOL	5.100()	U_COAL	1.000()
U_XWAT	0.692()	U_UWAT	0.000()
U_XOIL	0.136()	U_UOIL	0.000()
U_XGAS	0.012()	U_UGAS	0.000()
U_XBWA	0.398()	CXDC_ILLI	-999.250(mS/m)
CXDC_KAOL	-999.250(mS/m)	CXDC_XWAT	20.038(mS/m)
CXDC_XBWA	11.445(mS/m)	CUDC_GLAU	-999.250(mS/m)
CUDC_ILLI	-999.250(mS/m)	CUDC_KAOL	-999.250(mS/m)
CUDC_UWAT	15.924(mS/m)	CUDC_UBWA	5.000(mS/m)
GR_QUAR	40.000(gAPI)	GR_CALC	11.000(gAPI)
GR_DOLO	3.000(gAPI)	GR_ORTH	200.000(gAPI)
GR_PYRI	0.000(gAPI)	GR_GLAU	150.000(gAPI)

GR_ILLI	235.000(gAPI)	GR_KAOL	98.000(gAPI)
GR_COAL	40.000(gAPI)	GR_IGNE	40.000(gAPI)
GR_XWAT	0.000(gAPI)	GR_UWAT	0.000(gAPI)
GR_XOIL	0.000(gAPI)	GR_UOIL	0.000(gAPI)
GR_XGAS	0.000(gAPI)	GR_UGAS	0.000(gAPI)
GR_XBWA	0.000(gAPI)	EX1_QUAR	0.000()
EX1_CALC	0.000()	EX1_ORTH	0.000()
EX1_PYRI	0.000()	EX1_ILLI	0.000()
EX1_COAL	0.000()	EX1_XWAT	0.000()
EX1_UWAT	0.000()	EX1_XOIL	0.000()
EX1_UOIL	0.000()	EX1_XGAS	0.000()
EX1_UGAS	0.000()	EX1_XBWA	0.000()
CT1_QUAR	0.000()	CT1_CALC	0.000()
CT1_DOLO	0.000()	CT1_ORTH	0.000()
CT1_PYRI	0.000()	CT1_GLAU	0.000()
CT1_ILLI	0.000()	CT1_KAOL	0.000()
CT1_COAL	0.000()	CT1_IGNE	0.000()
CT1_XWAT	0.000()	CT1_UWAT	0.000()
CT1_XOIL	0.000()	CT1_UOIL	0.000()
CT1_XGAS	1.000()	CT1_UGAS	-0.300()
CT1_XBWA	0.000()	CT2_QUAR	0.000()
CT2_CALC	0.000()	CT2_DOLO	0.000()
CT2_ORTH	0.000()	CT2_PYRI	0.000()
CT2_GLAU	0.000()	CT2_ILLI	0.000()
CT2_KAOL	0.000()	CT2_COAL	0.000()
CT2_IGNE	0.000()	CT2_XWAT	0.000()
CT2_UWAT	0.000()	CT2_XOIL	1.000()
CT2_UOIL	-0.300()	CT2_XGAS	0.000()
CT2_UGAS	0.000()	CT2_XBWA	0.000()
CT3_QUAR	-0.050()	CT3_CALC	0.000()
CT3_ORTH	1.000()	CT3_PYRI	0.000()
CT3_GLAU	0.000()	CT3_ILLI	0.000()
CT3_KAOL	0.000()	CT3_COAL	0.000()
CT3_XWAT	0.000()	CT3_UWAT	0.000()
CT3_XOIL	0.000()	CT3_UOIL	0.000()
CT3_XGAS	0.000()	CT3_UGAS	0.000()
CT3_XBWA	0.000()	CT4_QUAR	0.010()
CT4_CALC	0.000()	CT4_ORTH	0.000()
CT4_PYRI	-1.000()	CT4_GLAU	0.000()
CT4_ILLI	0.000()	CT4_COAL	0.000()
CT4_XWAT	0.000()	CT4_UWAT	0.000()
CT4_XOIL	0.000()	CT4_UOIL	0.000()
CT4_XGAS	0.000()	CT4_UGAS	0.000()
CT4_XBWA	0.000()	ARHOB_GLAU	2.960(g/cm3)
ARHOB_ILLI	2.780(g/cm3)	ARHOB_KAOL	2.620(g/cm3)
WCLP_GLAU	0.156(m3/m3)	WCLP_ILLI	0.154(m3/m3)
WCLP_KAOL	0.058(m3/m3)	CBWA_GLAU	-999.250(mS/m)
CBWA_ILLI	-999.250(mS/m)	CBWA_KAOL	-999.250(mS/m)
CECA_GLAU	0.233(meq/g)	CECA_ILLI	0.200(meq/g)
CECA_KAOL	0.090(meq/g)	RMF	0.160(ohm.m)
MST	61.880(degC)	RW	0.387(ohm.m)
RWT	-999.250(degC)	SALIN_ISOL	-999.250(ppk)
SALIN_PARA	-999.250(ppk)	SALIN_XWAT	12.924(ppk)

SALIN_UWAT	30.000(ppk)	SALIN_XIWA	-999.250(ppk)
SALIN_UIWA	-999.250(ppk)	SALIN_XOIL	0.000(ppk)
SALIN_UOIL	0.000(ppk)	SALIN_XGAS	0.000(ppk)
SALIN_UGAS	0.000(ppk)	SALIN_XSFL	-999.250(ppk)
SALIN_USFL	-999.250(ppk)	CT1_ZP	0.000()
CT2_ZP	0.000()	CT3_ZP	0.000()
CT4_ZP	0.000()	RHOB_UNC_ZP	0.027(g/cm3)
NPHI_UNC_ZP	0.015(m3/m3)	DT_UNC_ZP	2.250(us/m)
U_UNC_ZP	0.225()	CXDC_UNC_ZP	0.072(mS/m)
CUDC_UNC_ZP	0.060(mS/m)	GR_UNC_ZP	2.250(gAPI)
EX1_UNC_ZP	0.015()	CT1_UNC_ZP	0.015()
CT2_UNC_ZP	0.015()	CT3_UNC_ZP	0.015()
CT4_UNC_ZP	0.015()	VOLS_UNC_ZP	0.015(m3/m3)
RHOB_UNC_WM	1.000()	NPHI_UNC_WM	1.000()
DT_UNC_WM	0.300()	U_UNC_WM	0.400()
CXDC_UNC_WM	0.500()	CUDC_UNC_WM	0.800()
GR_UNC_WM	0.300()	EX1_UNC_WM	1.000()
CT1_UNC_WM	0.200()	CT2_UNC_WM	0.200()
CT3_UNC_WM	0.900()	CT4_UNC_WM	1.000()
VOLS_UNC_WM	1.000()	RHOB_IFAC_ZP	0.500()
NPHI_IFAC_ZP	0.500()	A_ZP	1.000()
N_ZP	2.000()	C_DWA	0.000()
M_DWA	2.000()	BVIRR	0.010(m3/m3)

RESULTS AND DISCUSSION

The MPM Sand is interpreted to be oil bearing; however given the shaly nature of the sand it is possible that this sand could be gas bearing (Fig 1.0). The T-1.1 is all gas bearing (Fig. 2.0) and the interpretation indicates there is about 63.1 mMD (30.1 mTVD) of net gas sand present. The T-1.2 is oil bearing with 6.4 mMD (3.0 mTVD) of net oil pay.

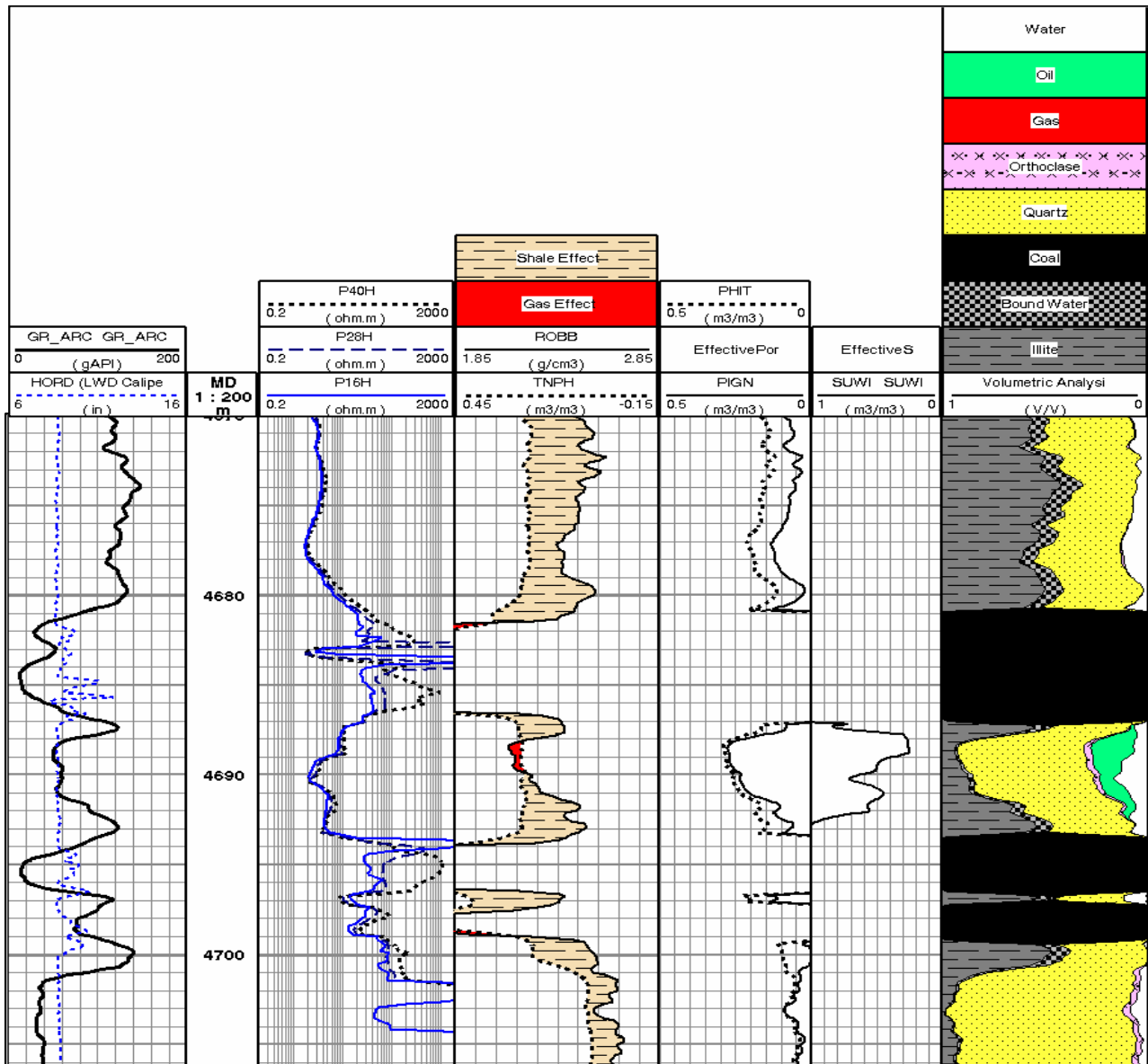


Fig. 1.0 Flounder A3A MPM Oil Sand

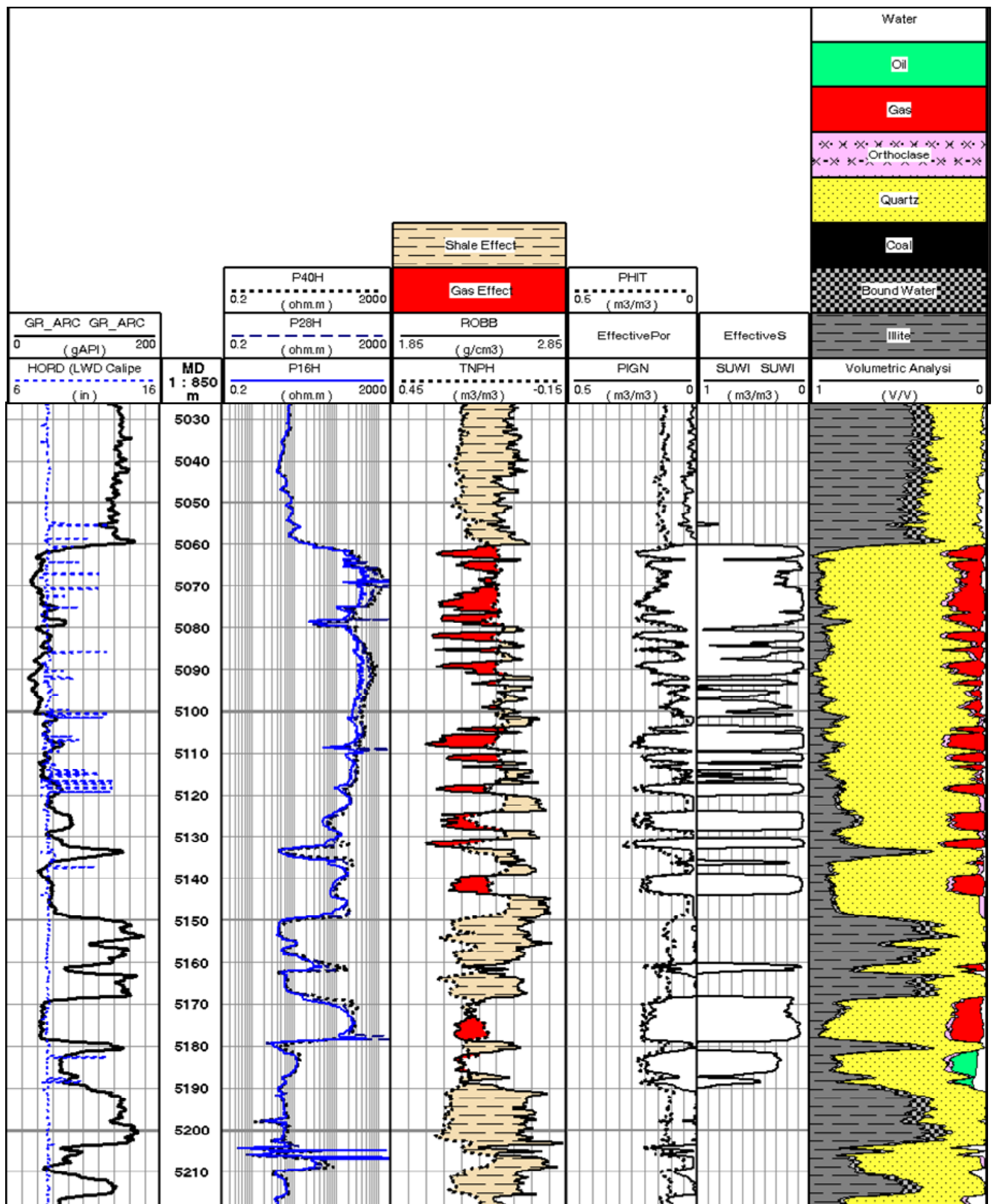


Fig. 1.0 Flounder A3A T-1.1 Gas and T-1.2 Oil Sands

Flounder A3A

Petrophysical Summary 4465 - 5250m MD

Depth Reference:

Mean VCL, Mean PHIE (or PIGN), Mean SWE (or SUWI) is based on a PHIE or PIGN cutoff:

Primary: MDKB

0.08 for Gas, 0.12 for oil and water

Zone	Top Depth mMD	Top Depth mTVDSS	Bottom Depth mMD	Bottom Depth mTVDSS	Gross Thickness mMD	Gross Thickness mTVD	Net/Gross	Mean VCL	Mean PHIE	Mean SWE	Comments	Net Pay Thickness mMD	Net Pay Thickness mTVD
MPMOil	4687.1	2297.4	4692.8	2299.7	5.7	2.3	0.70	0.16	0.228	0.43	Probably oil bearing	4.0	1.6
T-1.0Gas	5017.7	2438.7	5025.9	2442.9	8.3	4.2	0.76	0.36	0.111	0.34	Gas bearing	6.3	3.2
T-1.1UGas	5060.5	2460.4	5100.8	2480.3	40.3	19.8	0.74	0.09	0.154	0.11	Gas bearing	30.0	14.8
T-1.1LGas	5100.8	2480.3	5149.5	2502.9	48.7	22.6	0.44	0.17	0.175	0.07	Gas bearing	21.2	9.8
T-111Gas	5160.1	2507.7	5162.9	2509.0	2.8	1.3	0.57	0.34	0.116	0.31	Gas bearing	1.6	0.7
T-1.2Gas	5168.5	2511.6	5179.0	2516.4	10.5	4.8	0.99	0.15	0.176	0.13	Gas bearing	10.3	4.8
T-1.2Oil	5181.0	2517.4	5189.8	2521.5	8.8	4.1	0.73	0.19	0.178	0.33	Oil bearing	6.4	3.0
T-2Water	5203.6	2527.9	5211.2	2531.4	7.6	3.5	0.11	0.23	0.149	1.00	Water bearing		
T-2Water	5215.8	2533.6	5228.9	2539.7	13.1	6.1	0.60	0.17	0.172	1.00	Water bearing		

Table 1

APPENDIX 3a

FLOUNDER A3A

Lithology/Show Descriptions

Flounder A3A Lithology / Show Descriptions

Interval (m) From To		%	Lithology / Show Description
Geologist on board from 848 mMDRT. Drill from 848 to 4828 mMDRT with PDC bit on steerable rotary assembly. 30m spot samples for description only from 848 to 3720 mMDRT.			
848	850	100	CEMENTcc
850	870	60	CALCISILTITE: medium grey to light grey, 20% non calcareous clay, grading to MARL, trace micromica, trace to 2% disseminated very fine glauconite, trace quartz silt, soft to firm, subblocky.
		40	MARL: light grey to predominantly medium grey, 45% non calcareous clay, grading to CALCISILTITE, trace quartz silt, trace micromica, firm, subblocky.
870	900	60	MARL: as above.
		40	CALCISILTITE: as above.
900	930	80	MARL: as above, medium light grey to light grey, soft to firm.
		20	CALCISILTITE: as above.
930	960	60	MARL: as above, firm.
		40	CALCISILTITE: as above.
960	990	50	MARL: as above.
		50	CALCISILTITE: as above, 5% greenish grey with 2 to 5% fine glauconite.
990	1020	60	CALCISILTITE: as above.
		40	MARL: as above.
1020	1050	60	MARL: as above.
		40	CALCISILTITE: as above.
1050	1080	50	MARL: as above,
		50	CALCISILTITE: as above.
1080	1110	60	CALCISILTITE: as above.
		40	MARL: as above.
1110	1140	60	CALCISILTITE: as above, firm to occasionally moderately hard.
		40	MARL: as above.
1140	1170	60	MARL: as above, firm.
		40	CALCISILTITE: as above.
1170	1200	50	MARL: medium grey to medium light grey, 45% non calcareous clay, firm, subblocky, 5 to 10% calcareous silt, trace to 2% disseminated very fine glauconite, trace micromica.
		50	CALCISILTITE: medium light grey, 30% calcareous clay, grading to MARL, firm, subblocky, trace to 2% fine glauconite.
1200	1230	70	MARL: as above
		30	CALCISILTITE: as above.
1230	1260	60	MARL: as above, medium light grey to light olive grey.
		40	CALCISILTITE: as above.
1260	1290	70	MARL: as above
		30	CALCISILTITE: as above.
1290	1320	70	MARL: as above
		30	CALCISILTITE: as above.
1320	1350	80	MARL: as above
		20	CALCISILTITE: as above.
1350	1380	80	MARL: as above, medium light grey to predominantly light grey.
		20	CALCISILTITE: as above.
1380	1410	90	MARL: as above, 2% greyish brown and moderately hard.
		10	CALCISILTITE: as above.
1410	1440	90	MARL: as above

Flounder A3A Lithology / Show Descriptions

Interval (m)		%	Lithology / Show Description
From	To		
1440	1470	10	CALCISILTITE: as above.
		90	MARL: medium grey to medium light grey, 45% non calcareous clay, firm, subblocky, 5 to 10% calcareous silt, trace to 2% disseminated very fine glauconite, trace micromica.
		10	CALCISILTITE: medium light grey, 30% calcareous clay, grading to MARL, firm, subblocky, trace to 2% fine glauconite.
1470	1500	100	MARL: as above, 5% very light grey, soft to predominantly firm.
1500	1530	100	MARL: as above.
1530	1560	90	MARL: as above.
		10	CALCISILTITE: as above.
1560	1590	100	MARL: as above.
1590	1620	100	MARL: as above.
1620	1650	100	MARL: as above, medium light grey to light grey.
1650	1680	100	MARL: as above.
1680	1710	100	MARL: as above, medium light grey.
1710	1740	100	MARL: as above, trace greenish grey with 5% fine glauconite.
1740	1770	100	MARL: as above, 2% calcareous silt, trace disseminated very fine glauconite.
1770	1800	100	MARL: predominantly medium light grey, 30 to 40% non calcareous clay, firm, subblocky, 5 to 10% calcareous silt, trace to 2% disseminated very fine glauconite, trace micromica.
1800	1830	100	MARL: as above, medium grey to medium light grey.
1830	1860	100	MARL: as above.
1860	1890	100	MARL: as above, 25 to 30% non calcareous clay, trace dolomite, firm.
1890	1920	100	MARL: as above, 5% very light grey calcareous material - possibly calcite fracture infilling.
1920	1950	100	MARL: as above, trace calcareous fracture infilling as above.
1950	1980	100	MARL: as above, trace Foraminifer, 2% calcareous fracture infilling as above.
1980	2010	100	MARL: as above, medium grey to light olive grey, nil calcareous fracture infilling as above.
2010	2040	100	MARL: as above, predominantly medium grey.
2040	2070	100	MARL: as above.
2070	2100	100	MARL: medium grey to olive grey, 30 to 40% non calcareous clay, firm, subblocky, trace micromica, trace to 2% disseminated glauconite.
2100	2130	100	MARL: as above.
2130	2160	100	MARL: as above, 5% medium dark grey, firm to moderately hard.
2160	2190	100	MARL: as above.
2190	2220	100	MARL: as above.
2220	2237	100	MARL: as above, medium grey to olive grey, trace very light grey sparry calcite - fracture infilling? Gas Peak.
2237	2250	100	MARL: as above.
2250	2280	100	MARL: as above.
2280	2310	100	MARL: as above, medium grey to predominantly olive grey.
2310	2340	100	MARL: as above.
2340	2370	100	MARL: as above.
2370	2400	100	MARL: as above, predominantly medium grey to olive grey, 5% medium dark grey to dark grey.
2400	2434	100	MARL: as above, 2% calcareous fracture infilling. Gas peak.
2434	2460	100	MARL: as above, trace calcareous fracture infilling.
2460	2490	100	MARL: as above, 10% dark grey.

Flounder A3A Lithology / Show Descriptions

Interval (m)		%	Lithology / Show Description
From	To		
2490	2520	100	MARL: as above, predominantly olive grey.
2520	2550	100	MARL: as above, firm to moderately hard.
2550	2580	100	MARL: as above.
2580	2610	100	MARL: as above, 15% dark grey and grading to Calcareous Claystone.
2610	2640	100	MARL: as above.
2640	2670	95	MARL: predominantly medium light grey, 30 to 40% non calcareous clay, grading to CALCAREOUS CLAYSTONE, firm, subblocky, 5 to 10% calcareous silt, trace to 2% disseminated very fine glauconite, trace micromica.
		5	CALCAREOUS CLAYSTONE: medium dark grey to dark grey, 20 to 30% calcareous, grading to MARL, trace to 1% very fine carbonaceous material, trace micromica.
2670	2700	90	MARL: as above.
		10	CALCAREOUS CLAYSTONE: as above, dark grey.
2700	2730	100	MARL: as above, predominantly olive grey.
2730	2760	100	MARL: as above, medium grey to olive grey.
2760	2790	100	MARL: as above.
2790	2820	100	MARL: as above, soft to predominantly firm.
2820	2850	100	MARL: as above, medium grey to medium dark grey, olive grey.
2850	2880	100	MARL: as above.
2880	2910	100	MARL: Medium dark grey to predominantly olive grey.
2910	2940	100	MARL: as above, medium dark grey to olive grey, firm to moderately hard.
2940	2970	100	MARL: as above.
2970	3000	100	MARL: medium grey to olive grey, predominantly medium grey to medium dark grey, 30 to 40% non calcareous clay, grading to CALCAREOUS CLAYSTONE, firm to moderately hard, subblocky to subtabular, 5% calcareous silt, trace disseminated very fine glauconite, trace to 2% micromica.
3000	3030	100	MARL: as above.
3030	3060	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: predominantly medium dark grey, 20 to 30% calcareous, grading to MARL, firm to moderately hard, trace to 1% very fine carbonaceous material, trace micromica.
3060	3090	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3090	3120	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3120	3150	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3150	3180	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3180	3210	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3210	3240	95	MARL: as above.
		5	CALCAREOUS CLAYSTONE: as above.
3240	3270	90	MARL: as above.
		10	CALCAREOUS CLAYSTONE: as above, firm to predominantly moderately hard.
3270	3300	90	MARL: as above.
		10	CALCAREOUS CLAYSTONE: as above.
3300	3330	90	MARL: as above.
		10	CALCAREOUS CLAYSTONE: as above.
3330	3360	90	MARL: as above.

Flounder A3A Lithology / Show Descriptions

Interval (m) From To		%	Lithology / Show Description
3360	3390	10	CALCAREOUS CLAYSTONE: as above.
		90	MARL: as above, firm.
3390	3420	10	CALCAREOUS CLAYSTONE: as above, firm to moderately hard.
		90	MARL: as above.
3420	3450	10	CALCAREOUS CLAYSTONE: as above, medium dark grey to dark grey.
		90	MARL: as above, medium grey.
3450	3480	10	CALCAREOUS CLAYSTONE: as above.
		90	MARL: predominantly medium grey to medium dark grey, predominantly medium grey to medium dark grey, 30 to 40% non calcareous clay, grading to CALCAREOUS CLAYSTONE , firm to moderately hard, subblocky to subtabular, 5% calcareous silt, trace disseminated very fine glauconite, trace to 2% micromica.
3480	3510	10	CALCAREOUS CLAYSTONE: predominantly medium dark grey, 20 to 30% calcareous, grading to MARL , firm to moderately hard, trace to 1% very fine carbonaceous material, trace micromica.
		85	MARL: as above, soft to predominantly firm.
3510	3540	15	CALCAREOUS CLAYSTONE: as above, firm.
		85	MARL: as above.
3540	3570	15	CALCAREOUS CLAYSTONE: as above.
		85	MARL: as above.
3570	3600	15	CALCAREOUS CLAYSTONE: as above.
		85	MARL: as above.
3600	3630	15	CALCAREOUS CLAYSTONE: as above.
		80	MARL: as above.
3630	3660	20	CALCAREOUS CLAYSTONE: as above, medium dark grey to dark grey.
		80	MARL: as above, 5% light grey to very light grey and soft.
3660	3690	20	CALCAREOUS CLAYSTONE: as above.
		70	MARL: as above.
3690	3720	30	CALCAREOUS CLAYSTONE: as above.
		50	MARL: as above.
3720	3730	50	CALCAREOUS CLAYSTONE: as above, dark grey. 10m samples from 3720 to 3920 mMDRT
		60	MARL: medium grey to medium dark grey, 40 to 60% non calcareous clay, grading to CALCAREOUS CLAYSTONE , firm to moderately hard, subblocky to subtabular, 5% calcareous silt, trace disseminated very fine glauconite, trace to 2% micromica.
3730	3740	40	CALCAREOUS CLAYSTONE: medium dark grey to predominantly dark grey, 20 to 30% calcareous, grading to MARL , firm to moderately hard, trace to 1% very fine carbonaceous material, trace micromica.
		50	MARL: as above.
3740	3750	50	CALCAREOUS CLAYSTONE: as above.
		50	MARL: as above.
3750	3760	50	CALCAREOUS CLAYSTONE: as above.
		50	MARL: as above, medium grey to medium light grey, soft to firm.
3760	3770	50	CALCAREOUS CLAYSTONE: as above, medium grey to medium dark grey, firm.
		60	CALCAREOUS CLAYSTONE: as above, commonly soft to firm and plastic.
3770	3780	30	MARL: as above.
		70	CALCAREOUS CLAYSTONE: as above.
3780	3790	30	MARL: as above.
		70	CALCAREOUS CLAYSTONE: as above.
3790		30	MARL: as above.

Flounder A3A Lithology / Show Descriptions

Interval (m)		%	Lithology / Show Description
From	To		
3790	3800	75	CALCAREOUS CLAYSTONE: as above, medium dark grey to olive grey.
		25	MARL: as above.
3800	3810	80	CALCAREOUS CLAYSTONE: as above, dark grey, 2% very fine disseminated carbonaceous material.
		20	MARL: as above.
3810	3820	80	CALCAREOUS CLAYSTONE: as above.
		20	MARL: as above, soft to predominantly firm, plastic.
3820	3820	85	CALCAREOUS CLAYSTONE: as above.
		15	MARL: as above.
3820	3830	85	CALCAREOUS CLAYSTONE: medium dark grey to predominantly dark grey, 20 to 30% calcareous, grading to MARL, firm to moderately hard, trace to 1% very fine carbonaceous material, trace micromica.
		15	MARL: medium grey to medium dark grey, 40 to 60% non calcareous clay, grading to CALCAREOUS CLAYSTONE , soft to firm, subblocky to subtabular, trace calcareous silt, trace disseminated very fine glauconite, trace to 2% micromica.
3830	3840	90	CALCAREOUS CLAYSTONE: as above.
		10	MARL: as above.
3840	3850	90	CALCAREOUS CLAYSTONE: as above, 2% glauconite.
		10	MARL: as above.
3850	3860	100	CALCAREOUS CLAYSTONE: as above, 5% dark green glauconite.
3860	3870	100	CALCAREOUS CLAYSTONE: as above.
3870	3880	100	ARGILLACEOUS SILTSTONE: medium grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE , trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, 2 to 5% dark green glauconite, soft to firm, subfissile to subblocky.
3880	3890	100	ARGILLACEOUS SILTSTONE: as above.
3890	3900	100	ARGILLACEOUS SILTSTONE: as above, 2 to 5% micromica.
3900	3910	100	ARGILLACEOUS SILTSTONE: as above, 5% micromica.
3910	3920	100	ARGILLACEOUS SILTSTONE: as above.
			5m samples from 3920 to 4170 mMDRT
3920	3925	100	ARGILLACEOUS SILTSTONE: as above.
3925	3930	100	ARGILLACEOUS SILTSTONE: as above.
3930	3940	100	ARGILLACEOUS SILTSTONE: as above.
3940	3945	100	ARGILLACEOUS SILTSTONE: as above.
3945	3950	100	ARGILLACEOUS SILTSTONE: as above, soft predominantly firm, trace dolomite.
3950	3955	100	ARGILLACEOUS SILTSTONE: as above.
3955	3960	100	ARGILLACEOUS SILTSTONE: as above.
3960	3965	100	ARGILLACEOUS SILTSTONE: as above.
3965	3970	100	ARGILLACEOUS SILTSTONE: as above, trace to 1% dolomite.
3970	3975	100	ARGILLACEOUS SILTSTONE: as above.
3975	3980	100	ARGILLACEOUS SILTSTONE: as above, trace dolomite.
3980	3985	100	ARGILLACEOUS SILTSTONE: as above.
3985	3990	100	ARGILLACEOUS SILTSTONE: as above.
3990	3995	100	ARGILLACEOUS SILTSTONE: as above.
3995	4000	100	ARGILLACEOUS SILTSTONE: as above.
4000	4005	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4005	4010	100	ARGILLACEOUS SILTSTONE: as above, firm to predominantly soft.
4010	4015	100	ARGILLACEOUS SILTSTONE: as above.
4015	4020	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.

Flounder A3A Lithology / Show Descriptions

Interval (m)		%	Lithology / Show Description
From	To		
4020	4025	100	ARGILLACEOUS SILTSTONE: as above.
4025	4030	100	ARGILLACEOUS SILTSTONE: as above.
4030	4035	100	ARGILLACEOUS SILTSTONE: as above.
4035	4040	100	ARGILLACEOUS SILTSTONE: as above, firm to predominantly soft.
4040	4045	100	ARGILLACEOUS SILTSTONE: as above.
4045	4050	100	ARGILLACEOUS SILTSTONE: as above.
4050	4055	100	ARGILLACEOUS SILTSTONE: as above.
4055	4060	100	ARGILLACEOUS SILTSTONE: as above.
4060	4065	100	ARGILLACEOUS SILTSTONE: as above.
4065	4070	100	ARGILLACEOUS SILTSTONE: as above.
4070	4075	100	ARGILLACEOUS SILTSTONE: as above.
4075	4080	100	ARGILLACEOUS SILTSTONE: light brownish grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, 2 to 5% dark green glauconite, soft to firm, subfissile to subblocky.
4080	4085	100	ARGILLACEOUS SILTSTONE: as above.
4085	4090	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4090	4095	100	ARGILLACEOUS SILTSTONE: as above, soft.
4095	4100	100	ARGILLACEOUS SILTSTONE: as above.
4100	4105	100	ARGILLACEOUS SILTSTONE: as above.
4105	4110	100	ARGILLACEOUS SILTSTONE: as above.
4110	4115	100	ARGILLACEOUS SILTSTONE: as above.
4115	4120	100	ARGILLACEOUS SILTSTONE: as above.
4120	4125	100	ARGILLACEOUS SILTSTONE: as above.
4125	4130	100	ARGILLACEOUS SILTSTONE: as above.
4130	4135	100	ARGILLACEOUS SILTSTONE: as above, firm to predominantly soft.
4135	4140	100	ARGILLACEOUS SILTSTONE: as above.
4140	4145	100	ARGILLACEOUS SILTSTONE: as above.
4145	4150	100	ARGILLACEOUS SILTSTONE: as above.
4150	4155	100	ARGILLACEOUS SILTSTONE: as above.
4155	4160	100	ARGILLACEOUS SILTSTONE: as above.
4160	4165	100	ARGILLACEOUS SILTSTONE: as above.
4165	4170	100	ARGILLACEOUS SILTSTONE: as above.
			Back to 10m samples from 4170 to 4450 mMDRT due to high ROP.
4170	4180	100	ARGILLACEOUS SILTSTONE: as above.
4180	4190	100	ARGILLACEOUS SILTSTONE: as above.
4190	4200	100	ARGILLACEOUS SILTSTONE: light brownish grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, 2 to 5% dark green glauconite, soft to predominantly firm, subblocky to predominantly subfissile.
4200	4210	100	ARGILLACEOUS SILTSTONE: as above.
4210	4220	100	ARGILLACEOUS SILTSTONE: as above.
4220	4230	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4230	4240	100	ARGILLACEOUS SILTSTONE: as above.
4240	4250	100	ARGILLACEOUS SILTSTONE: as above, firm to predominantly soft.
4250	4260	100	ARGILLACEOUS SILTSTONE: as above.
4260	4270	100	ARGILLACEOUS SILTSTONE: as above, trace to 1% dolomite.
4270	4280	100	ARGILLACEOUS SILTSTONE: as above.
4280	4290	100	ARGILLACEOUS SILTSTONE: as above, trace to nil dolomite.

Flounder A3A Lithology / Show Descriptions

Interval (m)		%	Lithology / Show Description
From	To		
4290	4300	100	ARGILLACEOUS SILTSTONE: as above.
4300	4310	100	ARGILLACEOUS SILTSTONE: as above.
4310	4320	100	ARGILLACEOUS SILTSTONE: as above.
4320	4330	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4330	4340	100	ARGILLACEOUS SILTSTONE: as above.
4340	4350	100	ARGILLACEOUS SILTSTONE: as above, trace to 1% dolomite.
4350	4360	100	ARGILLACEOUS SILTSTONE: as above, firm to predominantly soft, trace dolomite.
4360	4370	100	ARGILLACEOUS SILTSTONE: as above.
4370	4380	100	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4380	4390	100	ARGILLACEOUS SILTSTONE: as above.
4390	4400	100	ARGILLACEOUS SILTSTONE: as above.
4400	4410	100	ARGILLACEOUS SILTSTONE: as above.
4410	4420	100	ARGILLACEOUS SILTSTONE: light brownish grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, trace dolomite, soft to predominantly firm, subblocky to predominantly subfissile.
4420	4430	99 1	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: quartzose, very light grey to pale yellowish brown, very fine grained grading to silt, 10% siliceous/dolomitic cement, 15% argillaceous matrix, sand predominantly pulverised into rock flour by bit, 1% hard aggregates, tight visual and inferred porosity. FLUORESCENCE: 10%, dim, yellow fluorescence, trace direct cut, moderately fast diffuse yellowish white crush cut, trace dim yellow film residue
4430	4440	100 Tr	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: 5% as above.
4440	4450	99 1	ARGILLACEOUS SILTSTONE: as above, firm to moderately hard. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: Trace as above. 5m samples from 4450 mMDRT
4450	4455	99 1	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4455	4460	99 1	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4460	4465	95 5	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4465	4470	98 2	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4470	4475	95 5	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, 50% rock flour, 50% hard aggregates, tight visual porosity. FLUORESCENCE: trace as above.
4475	4480	95 5	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4480	4485	95 5	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4485	4490	98 2	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4490	4495	98 2	ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, tight visual porosity. FLUORESCENCE: trace as above.
4495	4500	90	ARGILLACEOUS SILTSTONE: light brownish grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE,

Flounder A3A Lithology / Show Descriptions

Interval (m) From To		%	Lithology / Show Description
			trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, trace dolomite, soft to predominantly firm, subblocky to predominantly subfissile.
		10	SANDSTONE: quartzose, clear to translucent, fine to medium grained, moderately sorted, subangular, predominantly loose grains, trace weak siliceous cement and argillaceous matrix, very poor inferred porosity, no fluorescence.
4500	4505	90	ARGILLACEOUS SILTSTONE: as above.
		10	SANDSTONE: as above, translucent, coarse to very coarse, subangular to angular, poor visual porosity, no fluorescence.
4505	4510	95	ARGILLACEOUS SILTSTONE: as above.
		5	SANDSTONE: as above, poor inferred porosity, no fluorescence.
4510	4515	90	ARGILLACEOUS SILTSTONE: as above.
		10	SANDSTONE: as above, poor inferred porosity, no fluorescence.
4515	4520	70	ARGILLACEOUS SILTSTONE: as above.
		30	SANDSTONE: as above, subrounded, poor inferred porosity, no fluorescence.
4520	4525	60	ARGILLACEOUS SILTSTONE: light brownish grey to predominantly brownish grey, trace to 5% calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 2% micromica, trace to 2% disseminated fine carbonaceous material, trace dolomite, soft to predominantly firm, subblocky to predominantly subfissile.
		40	SANDSTONE: quartzose, clear to translucent, coarse to very coarse grained, moderately sorted, subangular to subrounded, predominantly loose grains, trace weak siliceous cement and argillaceous matrix, poor inferred porosity, no fluorescence.
4525	4530	50	ARGILLACEOUS SILTSTONE: as above.
		50	SANDSTONE: as above, medium to coarse grained, fair inferred porosity, no fluorescence.
4530	4535	75	ARGILLACEOUS SILTSTONE: as above.
		10	SANDSTONE: as above, medium to coarse grained, poor inferred porosity, no fluorescence.
		15	COAL: greyish black to black, dull lustre, 10% quartz silt, grading to CARBONACEOUS SILTSTONE, firm, subfissile.
4535	4540	90	ARGILLACEOUS SILTSTONE: as above, 15% carbonaceous material, grading in part to CARBONACEOUS SILTSTONE.
		10	SANDSTONE: as above, poor inferred porosity, no fluorescence.
		10	COAL: as above.
4540	4545	90	ARGILLACEOUS SILTSTONE: as above.
		5	SANDSTONE: as above, predominantly medium grained, very poor inferred porosity, no fluorescence.
		5	COAL: as above.
4545	4550	96	ARGILLACEOUS SILTSTONE: as above.
		2	SANDSTONE: as above, very poor inferred porosity, no fluorescence.
		2	COAL: as above.
4550	4555	98	ARGILLACEOUS SILTSTONE: as above.
		2	SANDSTONE: as above, very poor inferred porosity, no fluorescence.
4555	4560	98	ARGILLACEOUS SILTSTONE: as above.
		2	SANDSTONE: as above, very poor inferred porosity, no fluorescence.
4560	4565	100	ARGILLACEOUS SILTSTONE: brownish grey, trace to nil calcareous, 35% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 15% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4565	4570	100	ARGILLACEOUS SILTSTONE: as above.

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Interval (m) From To		%	Lithology / Show Description
4570	4575	100	ARGILLACEOUS SILTSTONE: as above.
4575	4580	80	SANDSTONE: quartzose, clear to translucent, medium to predominantly coarse grained, moderately sorted, subangular to subrounded, 90% loose grains, 10% friable aggregates, trace weak siliceous cement and argillaceous matrix, poor to fair inferred porosity, no fluorescence.
		20	ARGILLACEOUS SILTSTONE: as above.
4580	4585	60	SANDSTONE: as above, poor to fair inferred porosity, no fluorescence.
		40	ARGILLACEOUS SILTSTONE: as above.
4585	4590	80	SANDSTONE: as above, poor to fair inferred porosity, no fluorescence.
		20	ARGILLACEOUS SILTSTONE: as above.
4590	4595	80	SANDSTONE: as above, fine to coarse grained, predominantly medium to coarse grained, poor to fair inferred porosity, no fluorescence.
		20	ARGILLACEOUS SILTSTONE: as above.
4595	4600	90	SANDSTONE: as above, coarse to very coarse grained, fair inferred porosity, no fluorescence.
		10	ARGILLACEOUS SILTSTONE: as above.
4600	4605	50	ARGILLACEOUS SILTSTONE: brownish grey, trace to nil calcareous, 35% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 5% carbonaceous material, trace dolomite, soft to firm, subblocky to predominantly subfissile.
		50	SANDSTONE: quartzose, clear to translucent, medium to predominantly coarse grained, moderately sorted, subangular to subrounded, 60% loose grains, 40% moderately hard aggregates, trace to 5% weak siliceous cement, 5% argillaceous/silty matrix, poor visual and inferred porosity, no fluorescence.
4605	4610	80	ARGILLACEOUS SILTSTONE: as above.
		20	SANDSTONE: as above, very poor inferred and visual porosity, no fluorescence.
4610	4615	90	ARGILLACEOUS SILTSTONE: as above.
		10	SANDSTONE: as above, very poor to tight inferred and visual porosity, no fluorescence.
4615	4620	20	ARGILLACEOUS SILTSTONE: as above, predominantly soft.
		80	SANDSTONE: as above, very poor to tight inferred and visual porosity, no fluorescence.
4620	4625	25	ARGILLACEOUS SILTSTONE: as above.
		75	SANDSTONE: as above, very poor inferred and visual porosity, no fluorescence.
4625	4630	90	SANDSTONE: as above, medium to predominantly coarse grained, 80% loose grains, fair inferred and visual porosity, no fluorescence.
		10	ARGILLACEOUS SILTSTONE: as above.
4630	4635	50	SANDSTONE: as above, medium to predominantly coarse grained, 70% loose grains, 30% loose grains, poor inferred and visual porosity, no fluorescence.
		50	ARGILLACEOUS SILTSTONE: as above.
4635	4640	50	SANDSTONE: as above, medium to coarse grained, 80% loose grains, 20% loose grains, poor inferred and visual porosity, no fluorescence.
		50	ARGILLACEOUS SILTSTONE: as above.
4640	4645	75	ARGILLACEOUS SILTSTONE: as above.
		25	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
4645	4650	50	ARGILLACEOUS SILTSTONE: as above.
		50	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
4650	4655	70	ARGILLACEOUS SILTSTONE: as above.
		30	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
4655	4660	90	ARGILLACEOUS SILTSTONE: as above.

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Interval (m) From To		%	Lithology / Show Description
4660	4665	10	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
		60	ARGILLACEOUS SILTSTONE: as above, brownish grey to medium brown.
		40	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
4665	4670	80	ARGILLACEOUS SILTSTONE: as above.
		20	SANDSTONE: as above, medium grained, poor to fair inferred and visual porosity, no fluorescence.
		80	ARGILLACEOUS SILTSTONE: as above.
4670	4675	20	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
		90	ARGILLACEOUS SILTSTONE: as above.
		10	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
4675	4680	70	ARGILLACEOUS SILTSTONE: as above.
		20	SANDSTONE: as above, poor to fair inferred and visual porosity, no fluorescence.
		10	COAL: greyish black to black, dull lustre, 10% quartz silt, grading to CARBONACEOUS SILTSTONE, firm, subfissile.

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Interval (m) From To		%	Lithology / Show Description
4685	4690	60	SANDSTONE: clear to translucent, medium to coarse grained, predominantly medium grained, moderately sorted, subangular to subrounded, trace siliceous cement, trace to 2% argillaceous matrix, loose grains, fair inferred porosity, no fluorescence.
		40	ARGILLACEOUS SILTSTONE: brownish grey, trace to nil calcareous, 35% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 15% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4690	4695	80	ARGILLACEOUS SILTSTONE: as above.
		20	SANDSTONE: as above, fair inferred porosity, no fluorescence.
4695	4700	70	ARGILLACEOUS SILTSTONE: as above.
		30	SANDSTONE: as above, fair inferred porosity, no fluorescence.
4700	4705	50	ARGILLACEOUS SILTSTONE: as above.
		40	SANDSTONE: as above, fair inferred porosity, no fluorescence.
		10	COAL: as above.
4705	4710	30	ARGILLACEOUS SILTSTONE: as above.
		50	SANDSTONE: as above, fair inferred porosity, no fluorescence.
		20	COAL: as above.
4710	4715	80	SANDSTONE: as above,
		20	ARGILLACEOUS SILTSTONE: as above.
4715	4720	100	SANDSTONE: clear to translucent, medium to coarse grained, moderately sorted, subangular to subrounded, trace siliceous cement, trace to 2% argillaceous matrix, loose grains, fair inferred porosity, no fluorescence.
4720	4725	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4725	4730	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4730	4735	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4735	4740	100	SANDSTONE: as above, coarse to very coarse grained, fair to good inferred porosity, no fluorescence.
4740	4745	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4745	4750	100	SANDSTONE: as above, coarse to predominantly very coarse grained, fair to good inferred porosity, no fluorescence.
4750	4755	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4755	4760	100	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
4760	4765	100	SANDSTONE: as above, coarse to very coarse grained, fair to good inferred porosity, no fluorescence.
4765	4770	100	SANDSTONE: as above, medium to very coarse grained, predominantly coarse grained, 80% loose grains, 20% friable to moderately hard aggregates, fair inferred porosity, no fluorescence.
4770	4775	100	SANDSTONE: as above, coarse to very coarse grained, subrounded, fair to good inferred porosity, no fluorescence.
4775	4780	95	SANDSTONE: as above, fair to good inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: brownish grey to medium brown, non calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 15% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4780	4785	95	SANDSTONE: as above, medium to very coarse grained, predominantly coarse to very coarse grained, fair inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: as above.
4785	4790	100	SANDSTONE: as above, fair inferred porosity, no fluorescence.

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Interval (m) From To		%	Lithology / Show Description
4790	4795	95	SANDSTONE: clear to translucent, medium to very coarse grained, predominantly coarse grained, moderately sorted, subangular to subrounded, trace siliceous cement, trace to 2% argillaceous matrix, loose grains, fair inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: brownish grey to medium brown, non calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 15% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4795	4800	95	SANDSTONE: as above, predominantly coarse grained, poor to fair inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: as above.
4800	4805	60	SANDSTONE: as above, predominantly coarse grained, poor to fair inferred porosity, no fluorescence.
		40	ARGILLACEOUS SILTSTONE: as above.
4805	4810	90	SANDSTONE: as above, medium to predominantly coarse grained, very poor to fair porosity, no fluorescence.
		10	ARGILLACEOUS SILTSTONE: as above.
4810	4815	100	SANDSTONE: as above, coarse to very coarse grained, trace to 5% dolomite cement – much of cement is being pulverised by bit and washed out, tight inferred porosity, no fluorescence.
4815	4820	100	SANDSTONE: as above, coarse to very coarse grained, tight inferred porosity, no fluorescence.
4820	4825	100	SANDSTONE: as above, medium to coarse grained, tight inferred porosity, no fluorescence.
			Trip for bit change at 4828 mMDRT.
4825	4830	95	Drill from 4828 to 4855 mMDRT with PDC bit on steerable rotary assembly.
		5	ARGILLACEOUS SILTSTONE: as above. Poor quality sample.
4830	4835	95	SANDSTONE: as above, tight inferred porosity, no fluorescence.
		5	ARGILLACEOUS SILTSTONE: as above.
4835	4840	80	SANDSTONE: as above, 15% dolomite – largely as soft amorphous masses of pulverised material, tight inferred porosity, tight fluorescence.
		20	ARGILLACEOUS SILTSTONE: as above, soft to firm.
4840	4845	80	SANDSTONE: as above, tight inferred porosity, no fluorescence
		80	SANDSTONE: translucent to predominantly clear, medium to coarse grained, moderately sorted, subangular, predominantly dolomitic cement (cement predominantly appearing as rock flour in samples), trace argillaceous matrix, loose grains, tight inferred porosity, no fluorescence.
4845	4850	20	ARGILLACEOUS SILTSTONE: brownish grey to medium brown, non calcareous, 30% clay, commonly dispersive, grading to SILTY CLAYSTONE, trace to 10% micromica, trace to 15% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
		80	SANDSTONE: as above, tight inferred porosity, no fluorescence.
4850	4855	20	ARGILLACEOUS SILTSTONE: as above.
		100	SANDSTONE: as above, tight inferred porosity, no fluorescence.
4855	4860		Trip for bit change at 4855 mMDRT.
			Drill from 4855 to 4886 mMDRT with PDC bit on steerable rotary assembly.
4855	4860	80	SANDSTONE: as above, 30% bit pulverised dolomite, tight inferred porosity, no fluorescence.
		20	ARGILLACEOUS SILTSTONE: as above, grading to SILTSTONE.

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Interval (m) From To		%	Lithology / Show Description
4860	4865	80 20	SANDSTONE: as above, tight inferred porosity, no fluorescence. ARGILLACEOUS SILTSTONE: as above, grading to SILTSTONE.
4865	4870	100	SANDSTONE: quartzose, predominantly clear, predominantly fine grained, moderately sorted, subangular, 50% loose grains, 50% rock flour, strong dolomite cement – appearing in samples as rock flour, tight inferred porosity, no fluorescence.
4870	4875	100	SANDSTONE: as above, medium to coarse grained, predominantly siliceous cement, loose grains, tight to very poor inferred porosity, no fluorescence.
4875	4880	90	SANDSTONE: quartzose, predominantly clear, dark yellowish orange, fine to coarse grained, predominantly medium to coarse grained, moderately sorted, subangular, trace to 2% siliceous cement, trace to 5% argillaceous/limonitic matrix, 90% loose grains, 10% friable to moderately hard aggregates, tight to very poor visual and inferred porosity, no fluorescence.
		10	COAL: black to brownish black, dull lustre, firm, subfissile to subblocky, trace micromica, trace to 2% quartz silt.
4880	4885	100	SANDSTONE: as above, predominantly medium grained, moderately to well sorted, tight to very poor inferred porosity, no fluorescence. Trip for bit change at 4886 mMDRT. Drill from 4886 to TD of 5267 mMDRT with PDC bit on steerable rotary assembly.
4885	4890	95	SANDSTONE: quartzose, predominantly clear, predominantly coarse to very coarse grained, moderately sorted, subangular to subrounded, trace to 2% siliceous cement, trace to 5% argillaceous matrix, loose grains, very poor to poor inferred porosity, no fluorescence.
		5	COAL: black to brownish black, dull lustre, firm, subfissile to subblocky, trace micromica, trace to 2% quartz silt.
4890	4895	90	SANDSTONE: as above, poor inferred porosity, no fluorescence.
		10	SILTSTONE: brownish grey to predominantly medium grey, non calcareous, 10% clay, 15% very fine quartz sand, grading to very fine grained, SANDSTONE, trace to 2% micromica, trace to 5% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4895	4900	50	SILTSTONE: as above.
		50	SANDSTONE: as above, very poor inferred porosity, no fluorescence.
4900	4905	90	SILTSTONE: as above,
		10	SANDSTONE: as above, strong dolomite cement in part, tight to very poor inferred porosity, no fluorescence.
4905	4910	90	SILTSTONE: as above, medium grey to medium dark grey.
		10	SANDSTONE: as above, tight inferred porosity, no fluorescence.
4910	4915	90	SILTSTONE: as above.
		10	SANDSTONE: as above, tight inferred porosity, no fluorescence.
4915	4920	100	SILTSTONE: as above, soft to firm.
4920	4925	100	SILTSTONE: as above.
4925	4930	90	SILTSTONE: as above.
		10	SANDSTONE: as above, medium grained, strong dolomitic cement, tight inferred porosity, no fluorescence.
4930	4935	100	SILTSTONE: as above.
4935	4940	100	SILTSTONE: as above.
4940	4945	100	SILTSTONE: as above.
4945	4950	100	SILTSTONE: as above.
4955	4960	100	SILTSTONE: as above.
4960	4965	100	SILTSTONE: as above.

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Interval (m)		%	Lithology / Show Description
From	To		
4965	4970	100	SILTSTONE: as above, medium grey to predominantly brownish grey.
4970	4975	100	SILTSTONE: as above.
4975	4980	100	SILTSTONE: as above.
4975	4980		SILTSTONE: medium grey to predominantly brownish grey, non calcareous, 5 to 10% clay, 5 to 5% very fine quartz sand, grading to very fine grained, SANDSTONE, trace to 2% micromica, trace to 5% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
4980	4985	100	SILTSTONE: as above.
4985	4990	100	SILTSTONE: as above.
4990	4995	100	SILTSTONE: as above.
4995	5000	100	SILTSTONE: as above.
5000	5005	100	SILTSTONE: as above.
5005	5010	100	SILTSTONE: as above.
5010	5015	100	SILTSTONE: as above.
		95	SILTSTONE: as above.
		5	SANDSTONE: quartzose, clear, dark yellowish orange, fine to predominantly medium grained, moderately sorted, subrounded, predopminantly dolomitic cement, trace to 5% argillaceous matrix, loose grains, tight inferred porosity, no fluorescence.
5015	5020	95	SILTSTONE: as above.
		5	SANDSTONE: as above, tight inferred porosity, no fluorescence.
5020	5025	95	SILTSTONE: as above.
		5	SANDSTONE: as above, tight inferred porosity, no fluorescence.
5025	5030	100	SILTSTONE: as above, firm to moderately hard.
5030	5035	100	SILTSTONE: as above.
5035	5040	100	SILTSTONE: as above.
5040	5045	100	SILTSTONE: as above.
5045	5050	100	SILTSTONE: as above.
5050	5055	100	SILTSTONE: as above.
5055	5060	100	SILTSTONE: as above.
5060	5065	50	SILTSTONE: medium grey to predominantly brownish grey, non calcareous, 5 to 10% clay, 5 to 5% very fine quartz sand, grading to very fine grained, SANDSTONE, trace to 2% micromica, trace to 5% carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
		50	SANDSTONE: quartzose, clear to translucent, medium to coarse grained, moderately sorted, subrounded to subangular, 2% weak siliceous cement, trace to 2% argillaceous/silty matrix, fair inferred porosity, no fluorescence.
5065	5070	100	SANDSTONE: as above, coarse to very coarse grained, fair to good inferred porosity, no fluorescence.
5070	5075	70	SANDSTONE: as above, predominantly coarse grained, fair inferred porosity, no fluorescence, no fluorescence.
		30	SILTSTONE: as above.
5075	5080	80	SANDSTONE: as above, predominantly coarse grained, fair inferred porosity, no fluorescence, no fluorescence.
		20	SILTSTONE: as above.
5080	5085	90	SANDSTONE: as above, predominantly dolomite cement (predominantly pulverised into rock flour by bit and washing out), poor inferred porosity, no fluorescence.
		10	SILTSTONE: as above, soft to firm.
5085	5090	100	SANDSTONE: as above, medium to predominantly coarse grained, siliceous/dolomitic cement, poor to fair inferred porosity, no fluorescence.
5090	5095	100	SANDSTONE: as above, predominantly coarse to very coarse grained, 95% loose grains,

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Interval (m)		%	Lithology / Show Description
From	To		
			5% moderately hard aggregates with predominantly siliceous cement and 5% argillaceous matrix, poor to fair inferred porosity, no fluorescence.

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Interval (m) From To		%	Lithology / Show Description
5095	5100	100	SANDSTONE: as above, medium to very coarse grained, predominantly coarse to very coarse grained, aggregates have strong dolomite cement, very poor to poor inferred porosity, no fluorescence.
5100	5105	100	SANDSTONE: as above, predominantly dolomite cement, trace pyrite cement, very poor inferred porosity, no fluorescence.
5105	5110	100	SANDSTONE: as above, medium to very coarse grained, predominantly medium grained, very poor inferred porosity, no fluorescence.
		Tr	COAL: black to brownish black, dull lustre, firm, subfissile to subblocky, trace micromica, trace quartz silt.
5110	5115	100	SANDSTONE: as above, coarse to very coarse grained, very poor inferred porosity.
5115	5120	100	SANDSTONE: as above, predominantly coarse grained, very poor inferred porosity, no fluorescence.
5120	5125	95	SANDSTONE: quartzose, clear to translucent, very fine to medium grained, predominantly fine, moderately sorted, subangular to subrounded, strong dolomitic cement, weak siliceous cement, trace argillaceous/silty matrix, poor to very poor inferred porosity, no fluorescence.
		5	SILTSTONE: medium grey to brownish grey, non calcareous, 10% clay, 5% very fine quartz sand, grading to very fine grained SANDSTONE, trace to 2% micromica, trace carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
5125	5130	100	SANDSTONE: generally as above, trace to common carbonaceous material, poor inferred porosity, no fluorescence.
		Trace	COAL: black, sub vitreous, brittle, sub blocky, uneven.
5130	5135	85	SILTSTONE: medium grey to medium dark grey, non calcareous, 10% clay, 5% very fine quartz sand, grading to very fine grained SANDSTONE, trace to 2% micromica, trace carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.
		10	SANDSTONE: clear to translucent, medium to very coarse, dominantly coarse, moderately well sorted, sub rounded to occasionally sub angular, strong dolomitic cement, predominantly loose, occasionally hard aggregates, poor to very poor inferred porosity, no fluorescence.
		5	CLAYSTONE: pale blue to light blueish grey, occasionally greenish grey, trace glauconite, trace micromica, weakly calcareous, moderately hard to hard, blocky.
5135	5140	90	SANDSTONE: generally as above.
		10	SILTSTONE: generally as above.
5140	5145	70	SANDSTONE: clear to translucent, predominantly fine to medium, occasionally coarse to very coarse, moderately well sorted, sub rounded to sub angular, occasionally angular, strong dolomitic cement, predominantly loose, occasionally hard aggregates, poor to very poor inferred porosity, no fluorescence.
		30	SILTSTONE: generally as above.
5145	5150	80	SANDSTONE: clear to translucent, occasionally light brownish grey, predominantly fine to occasionally very coarse, poorly sorted, sub angular to sub rounded, strong dolomitic cement, weak siliceous cement, predominantly hard aggregates, occasionally loose, poor to very poor inferred porosity, no fluorescence.
		20	SILTSTONE: medium grey to medium dark grey, non calcareous, 5% clay, 10% very fine quartz sand, grading to very fine grained SANDSTONE, trace to 2% micromica, trace carbonaceous material, trace dolomite, predominantly firm, subblocky to predominantly subfissile.

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Interval (m) From To		%	Lithology / Show Description
5150	5155	95	SILTSTONE: medium grey to medium blueish grey, non calcareous, very arenaceous, 10% very fine quartz sand, grading to very fine grained SANDSTONE, trace micromica, trace dolomite, trace carbonaceous material, predominantly firm, subblocky to predominantly subfissile.
5155	5160	5	SANDSTONE: generally as above.
		90	SILTSTONE: generally as above.
		10	SANDSTONE: clear to translucent, coarse to predominantly very coarse, moderately well sorted, sub angular to sub rounded, moderate dolomitic cement, weak siliceous cement, predominantly loose grains, occasionally hard aggregates, poor to fair inferred porosity, no fluorescence.
5160	5165	95	SILTSTONE: generally as above.
		5	SANDSTONE: clear to translucent, medium to occasionally very coarse, poorly sorted, sub angular to sub rounded, moderate dolomitic cement, weak siliceous cement, predominantly loose grains, occasionally hard aggregates, poor to fair inferred porosity, no fluorescence.
5165	5170	70	SILTSTONE: generally as above, common carbonaceous specks.
		30	SANDSTONE: clear to translucent, occasionally smoky grey, coarse to predominantly very coarse, moderately well sorted,, sub rounded to sub angular, weak dolomitic cement, weak siliceous cement, commonly loose grains, occasionally hard aggregates, poor to fair inferred porosity, no fluorescence.
5170	5175	90	SANDSTONE: clear to translucent, medium to very coarse, poorly sorted, sub angular to sub rounded, weak dolomitic cement, weak siliceous cement, predominantly loose grains, occasionally hard aggregates, poor to fair inferred porosity. Dull greenish yellow fluorescence from the OBM. No cut
5175	5180	10	SILTSTONE: generally as above, trace carbonaceous specks.
		80	SANDSTONE: clear to translucent, coarse to predominantly very coarse, moderately well sorted,, sub rounded to sub angular, weak dolomitic cement, weak siliceous cement, predominantly loose grains, trace hard aggregates, fair inferred porosity. Dull greenish yellow fluorescence from the OBM. No cut
		20	SILTSTONE: generally as above.
5180	5185	65	SANDSTONE: clear to translucent, occasionally yellowish grey, coarse to predominantly very coarse, moderately well sorted,, sub rounded to sub angular, weak dolomitic cement, weak siliceous cement, predominantly loose grains, trace hard aggregates, fair inferred porosity. Dull greenish yellow fluorescence from the OBM. No cut
		35	SILTSTONE: generally as above.
5185	5190	60	SANDSTONE: clear to translucent, medium to predominantly very coarse, moderately well sorted,, sub rounded, trace dolomitic cement, predominantly clean loose grains, good inferred porosity. FLUORESCENCE (5185 to 5190m): 5-10% dull to moderately bright patchy greenish yellow fluorescence, slow diffusive direct cut, thick ring residue.
		40	SILTSTONE: generally as above.
		70	SILTSTONE: generally as above.
5190	5195	30	SANDSTONE: generally as above, no fluorescence.
		100	SILTSTONE: generally as above.
5195	5200	Trace	SANDSTONE: Trace, as above.
5200	5205	90	SILTSTONE: generally as above.
		10	SANDSTONE: clear to translucent, medium to occasionally very coarse, poorly sorted,, sub angular to sub rounded, weak dolomitic cement, weak siliceous cement, predominantly

Flounder A3A Lithology / Show Descriptions

Interval (m) From To		%	Lithology / Show Description
5205	5210	70	loose grains, poor to fair inferred porosity, no fluorescence. SANDSTONE: clear to translucent, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, moderate dolomitic cement, weak siliceous cement, predominantly hard aggregates, poor to very poor inferred porosity, no fluorescence.
5210	5215	30	SILTSTONE: generally as above.
		80	SILTSTONE: medium dark grey to dark grey, occasionally brownish grey, very arenaceous, grading to very fine SANDSTONE, trace dolomite, trace micromica, predominantly firm, sub blocky to predominantly sub fissile.
		20	SANDSTONE: generally as above, poor to very poor inferred porosity, predominantly hard aggregates, no fluorescence.
5215	5220	80	SANDSTONE: clear to translucent, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, weak dolomitic cement, weak siliceous cement, predominantly hard aggregates, occasionally loose grains, poor to very poor inferred porosity, no fluorescence.
5220	5225	20	SILTSTONE: generally as above.
		90	SANDSTONE: clear to translucent, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, weak dolomitic cement, weak siliceous cement, predominantly loose grains, occasionally hard aggregates, poor inferred porosity, no fluorescence.
		10	SILTSTONE: generally as above.
5225	5230	60	SILTSTONE: generally as above.
		40	SANDSTONE: clear to translucent, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, weak dolomitic cement, weak siliceous cement, predominantly loose grains, occasionally hard aggregates, poor inferred porosity, no fluorescence.
		90	SILTSTONE: medium dark grey to dark grey, occasionally brownish grey, very arenaceous, grading to very fine SANDSTONE, trace dolomite, trace micromica, predominantly firm, sub blocky to predominantly sub fissile.
5230	5235	10	SANDSTONE: generally as above, no fluorescence.
5235	5240	80	SILTSTONE: generally as above.
		20	SANDSTONE: clear to translucent, very fine to occasionally very coarse, predominantly fine, moderately well sorted, sub angular to sub rounded, weak dolomitic cement, predominantly loose grains, occasionally hard aggregates, poor inferred porosity, no fluorescence.
		70	SILTSTONE: generally as above.
5240	5245	30	SANDSTONE: generally as above, fine to occasionally very coarse, dominantly fine, poor inferred porosity, no fluorescence.
5245	5250	95	SILTSTONE: medium dark grey to dark grey, occasionally brownish grey, very arenaceous, grading to very fine SANDSTONE, trace dolomite, trace micromica, predominantly firm, sub blocky to predominantly sub fissile.
5250	5255	5	SANDSTONE: generally as above, very fine to medium, dominantly fine, no fluorescence.
		90	SILTSTONE: generally as above.
		10	SANDSTONE: generally as above, no fluorescence.
5255	5260	95	SILTSTONE: generally as above.
5260	5265	5	SANDSTONE: generally as above, no fluorescence.
		95	SILTSTONE: generally as above.
		5	SANDSTONE: generally as above, no fluorescence.
5265	5267	95	SILTSTONE: generally as above.
(TD)		5	SANDSTONE: generally as above, no fluorescence.

Flounder A3A Lithology / Show Descriptions

Interval		%	Lithology / Show Description
(m)			
From	To		

TD FLA A3A at 5267.0 mMDRT = 2608.1 mTVDRT (-2557.6 mTVDSS), at 1140 hrs on 03 June 2005.

Wiper trip gas at 1100 hrs 04 June 2005 = 1081 units.

APPENDIX 4a
FLOUNDER A3A
Mud Log

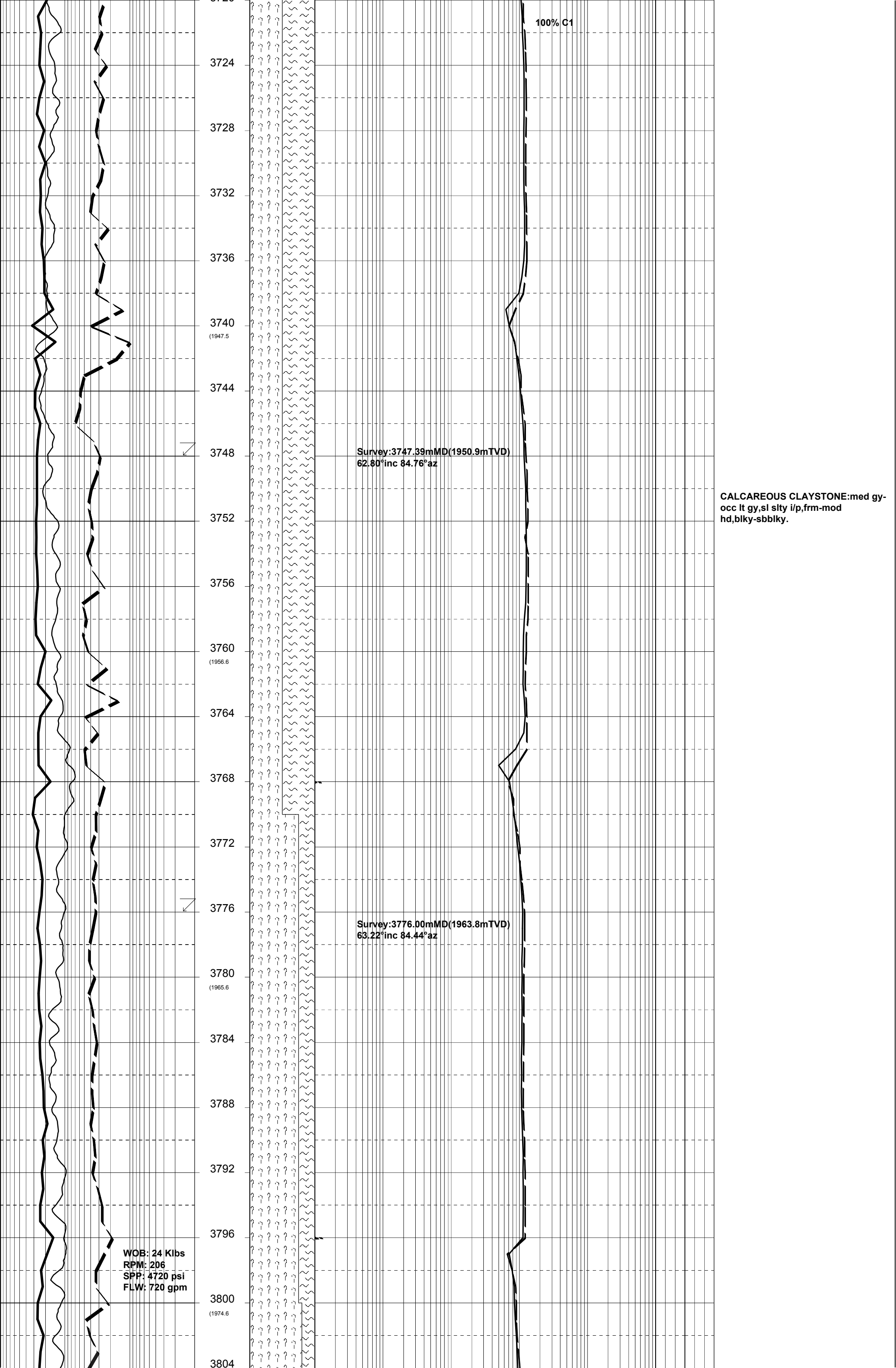


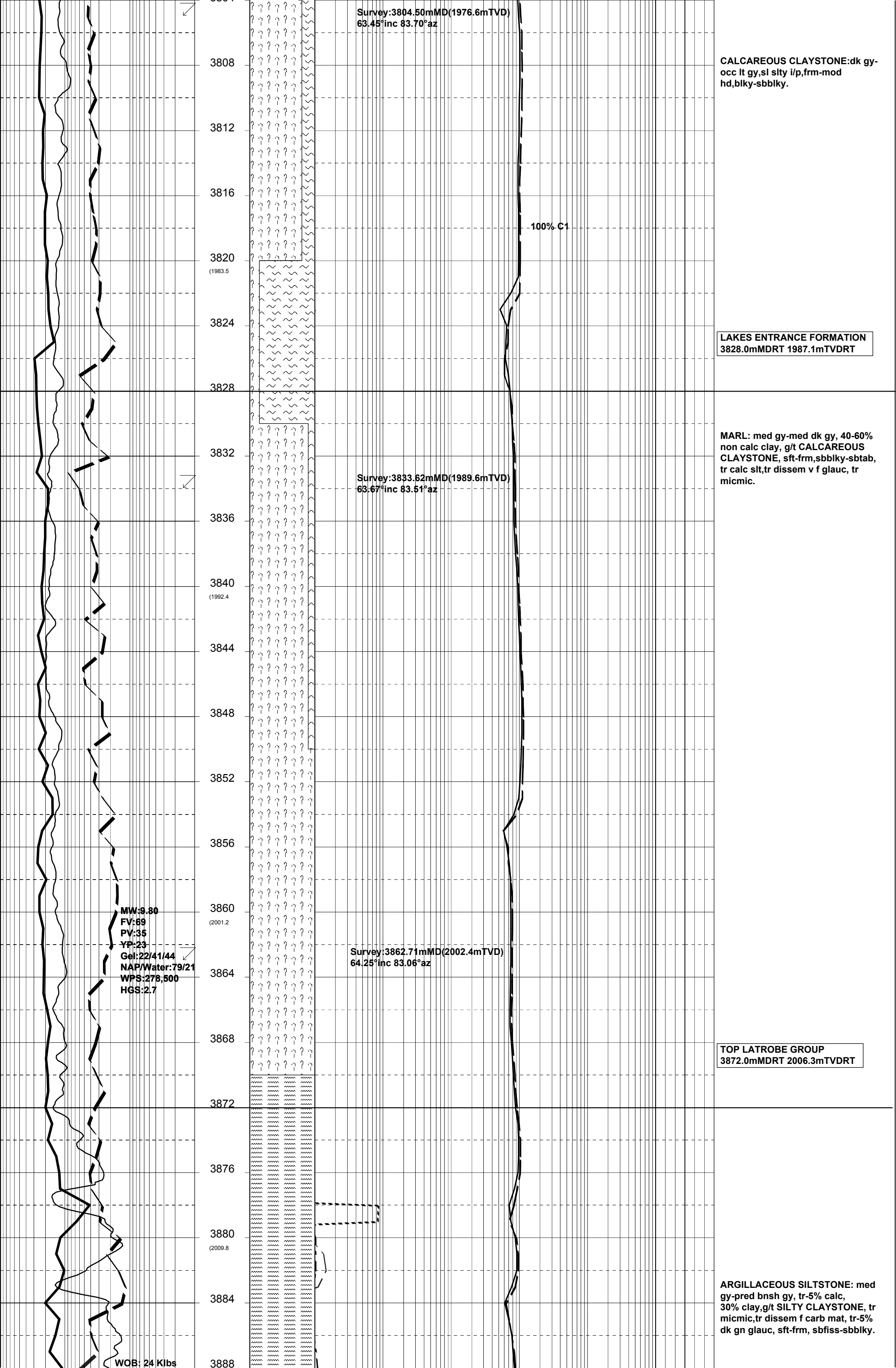
ROP (m/hr)			DEPTH (m) (RT) (TVD) (m)(RT)	CUTTINGS LITHOLOGY	TOTAL GAS & CHROMATOGRAPH DATA							CUT FLUOR	DIRECT FLUOR	LITHOLOGICAL DESCRIPTIONS and REMARKS	
WOB (klbs)					%	C1	C2	C3	iC4	nC4	iC5				TG
MWD Gamma Ray (api)						Total Gas in Units Chromatograph in PPM									
500	50	5	.5	0	100	.05 10	.5 100	5 1K	50 10K	500 100K	5K 1000K	good fair poor	good fair poor		
				3700											
				3704											
				3708											
				3712											
				3716											
				3720											

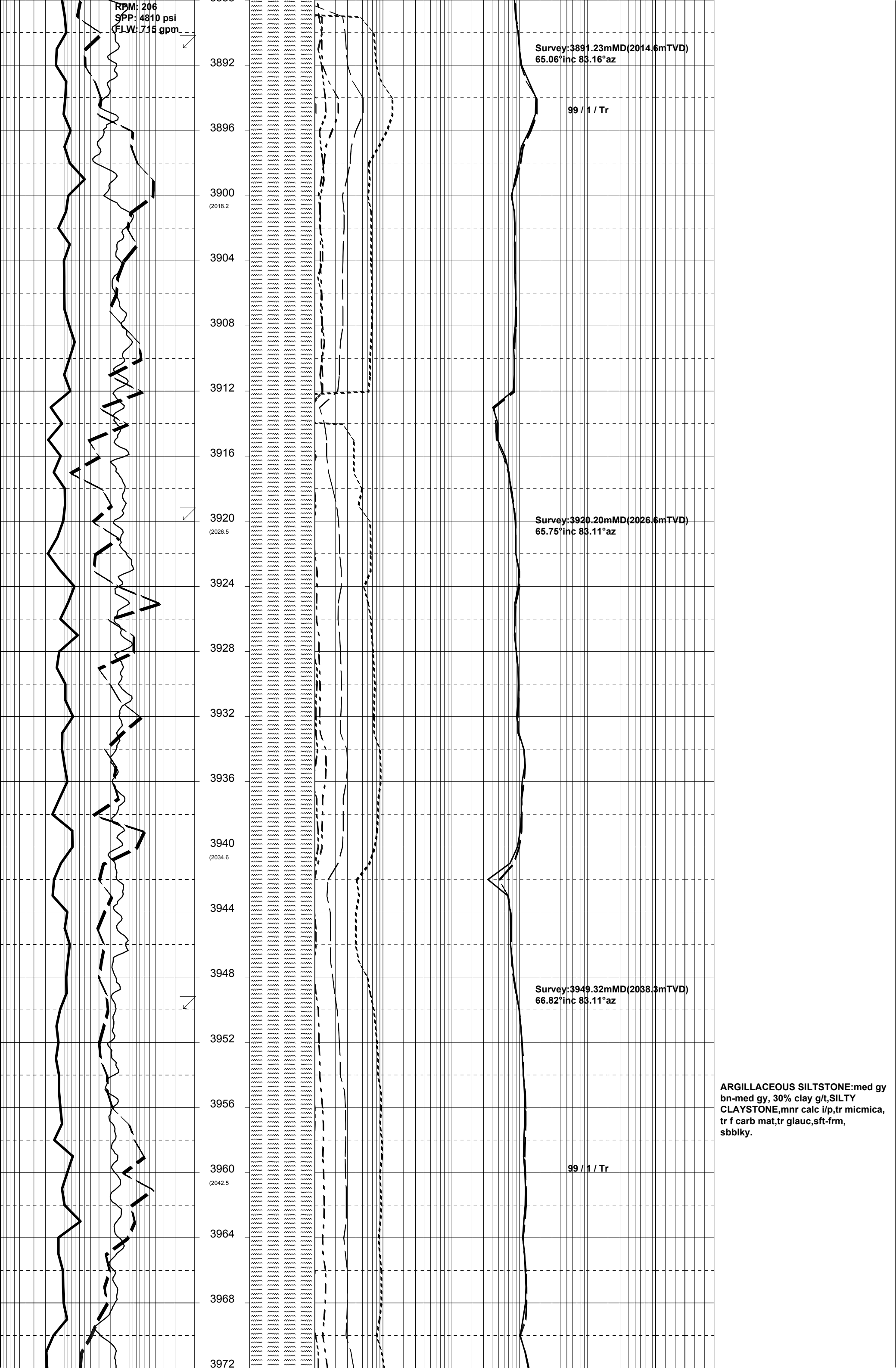
WOB: 22 Klbs
RPM: 207
SPP: 4740 psi
FLW: 735 gpm

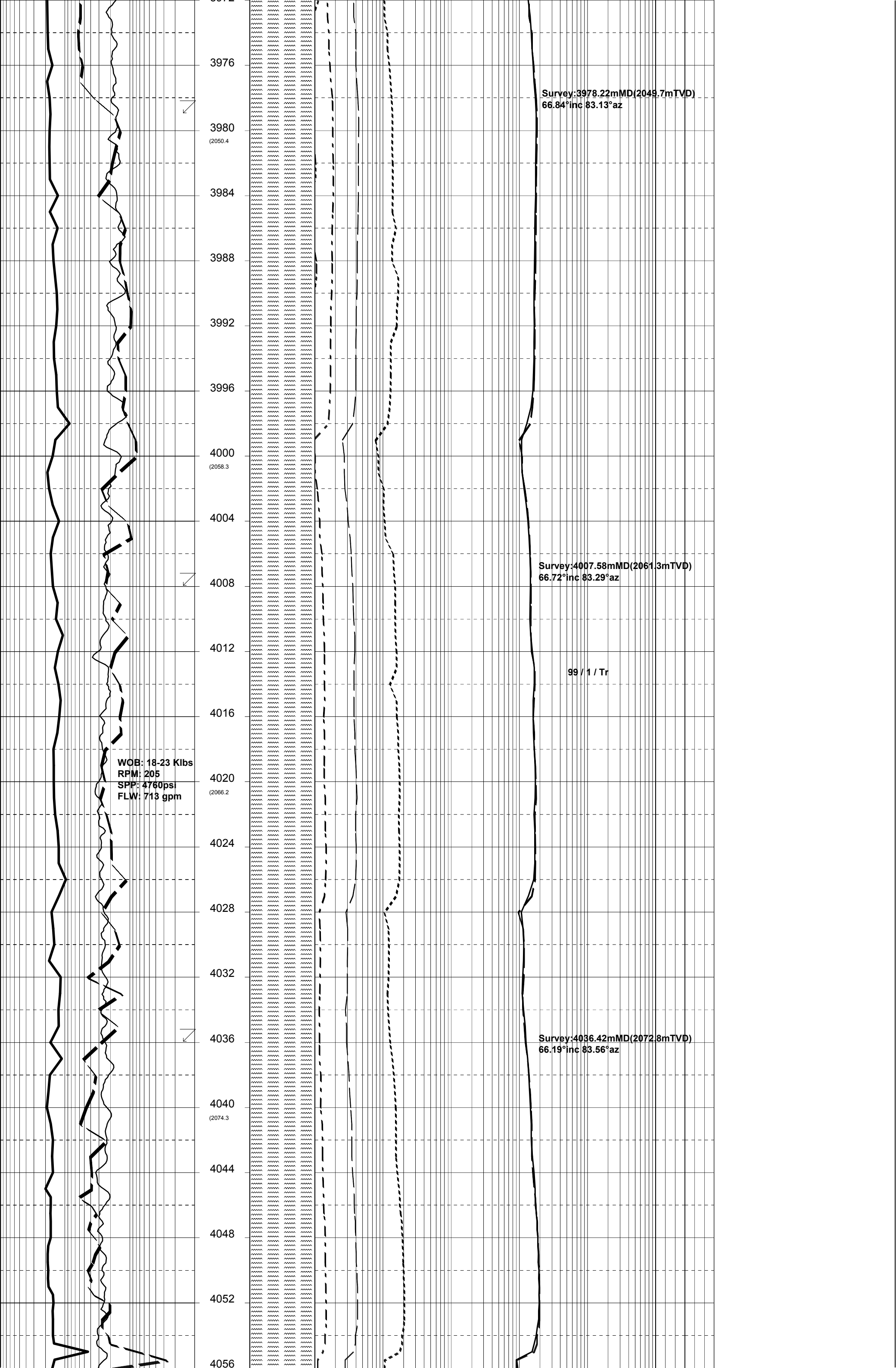
Survey: 3717.23mMD(1937.1mTVD)
62.82°inc 85.39°az

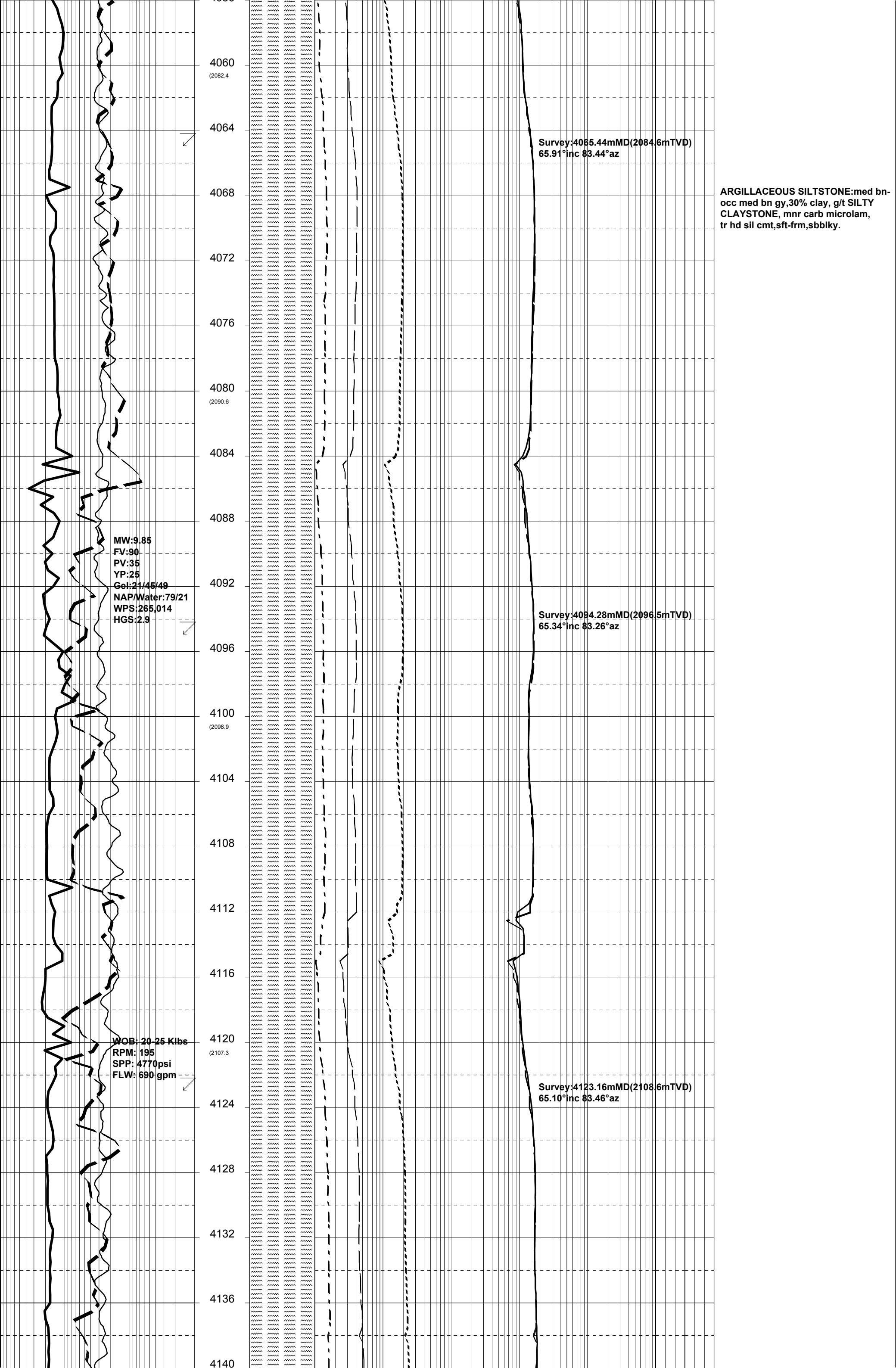
MARL:lt gy-med gy,g/t CALCAREOUS
CLAYSTONE,slty i/p,rr pyr,qtz
grns,frm-mod hd,blky-sbbiky.

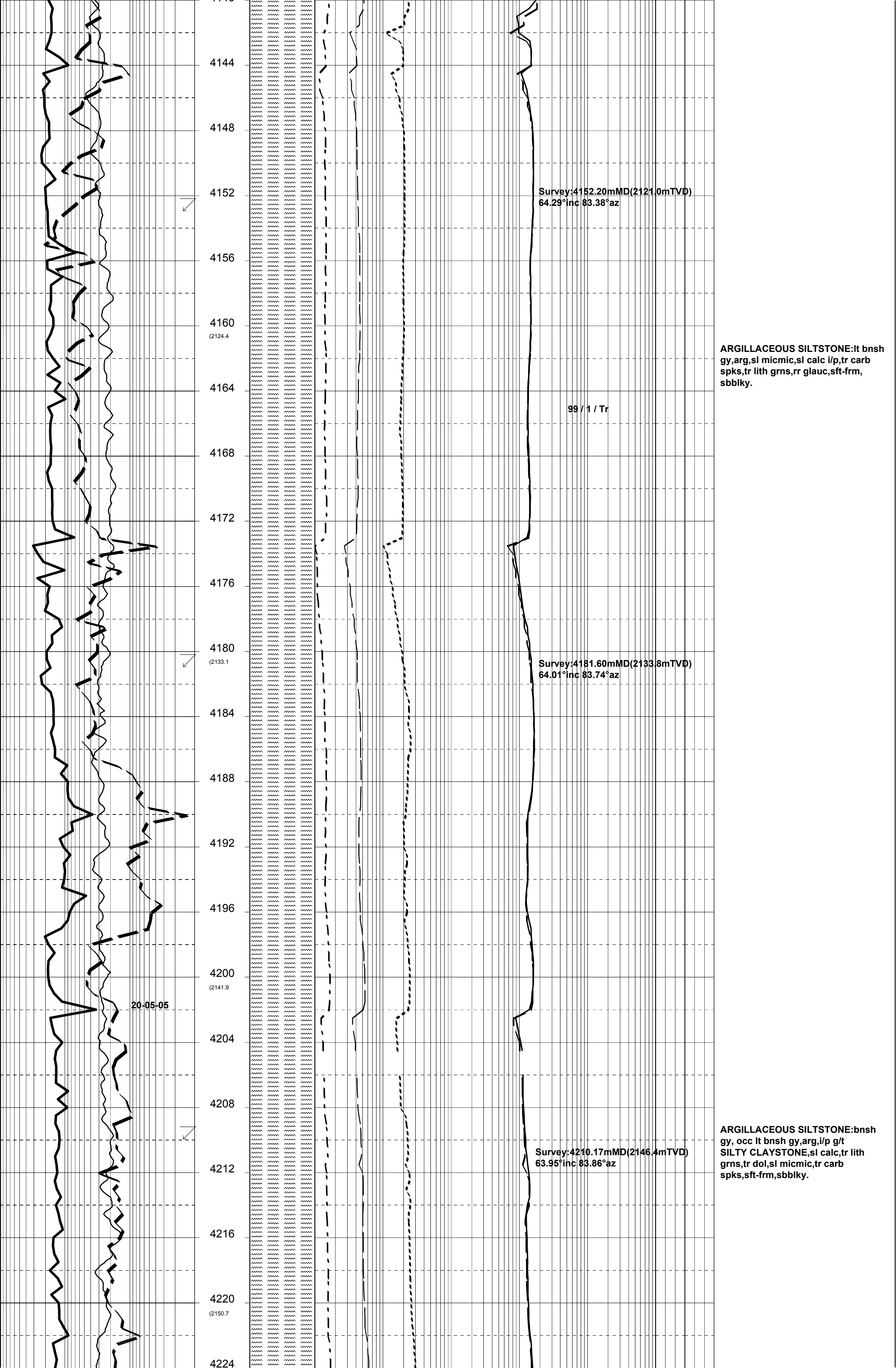


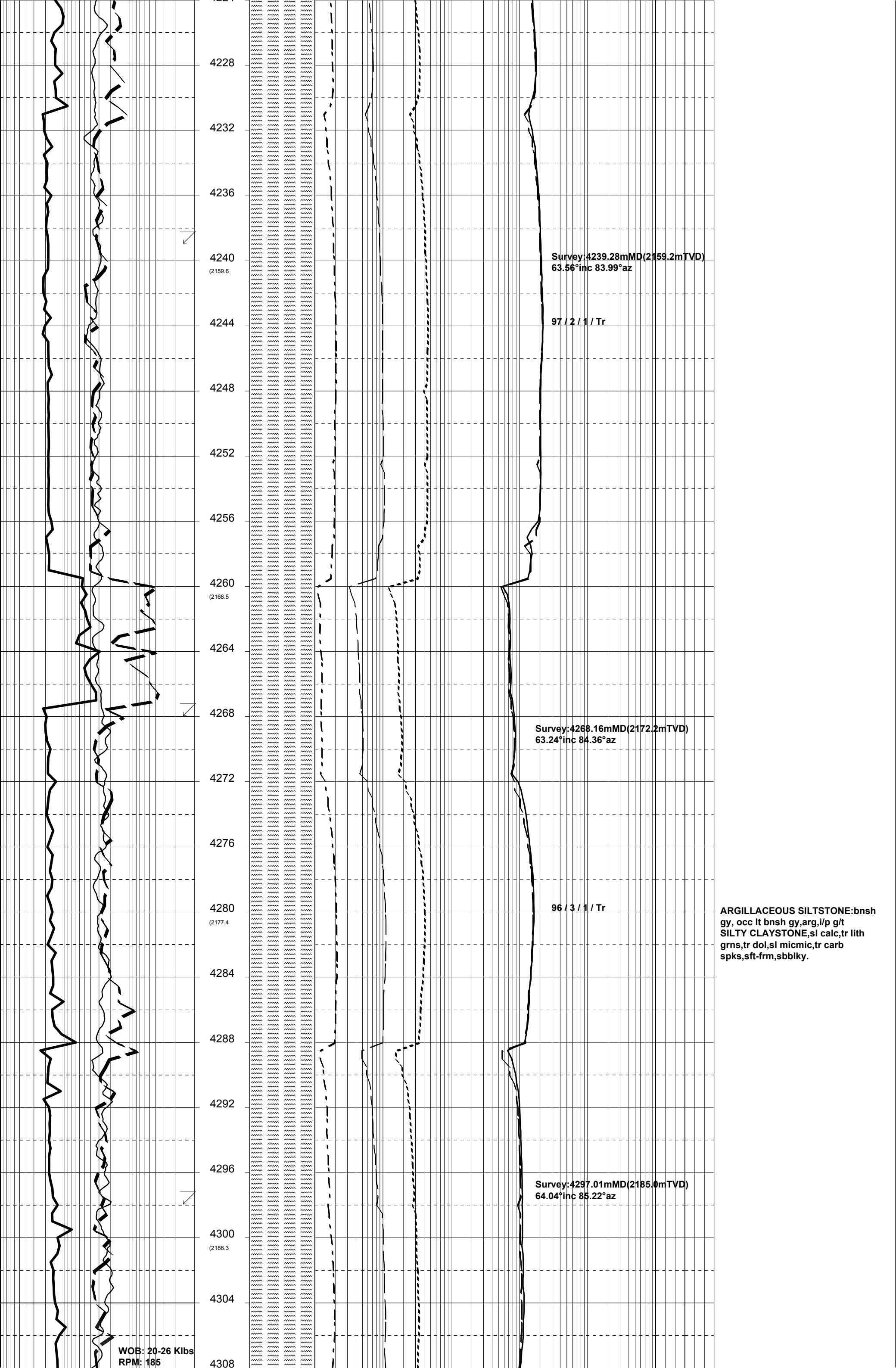


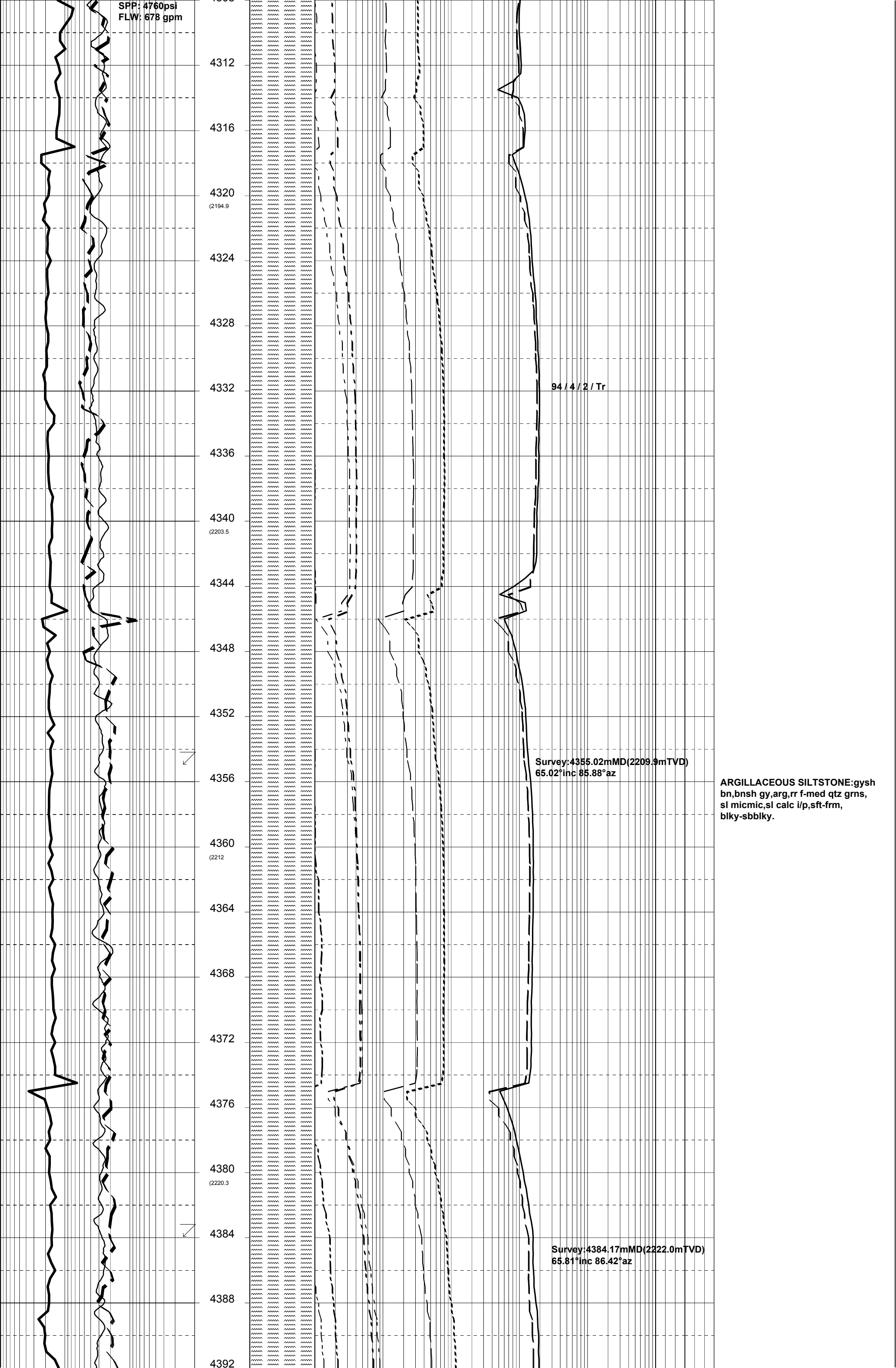


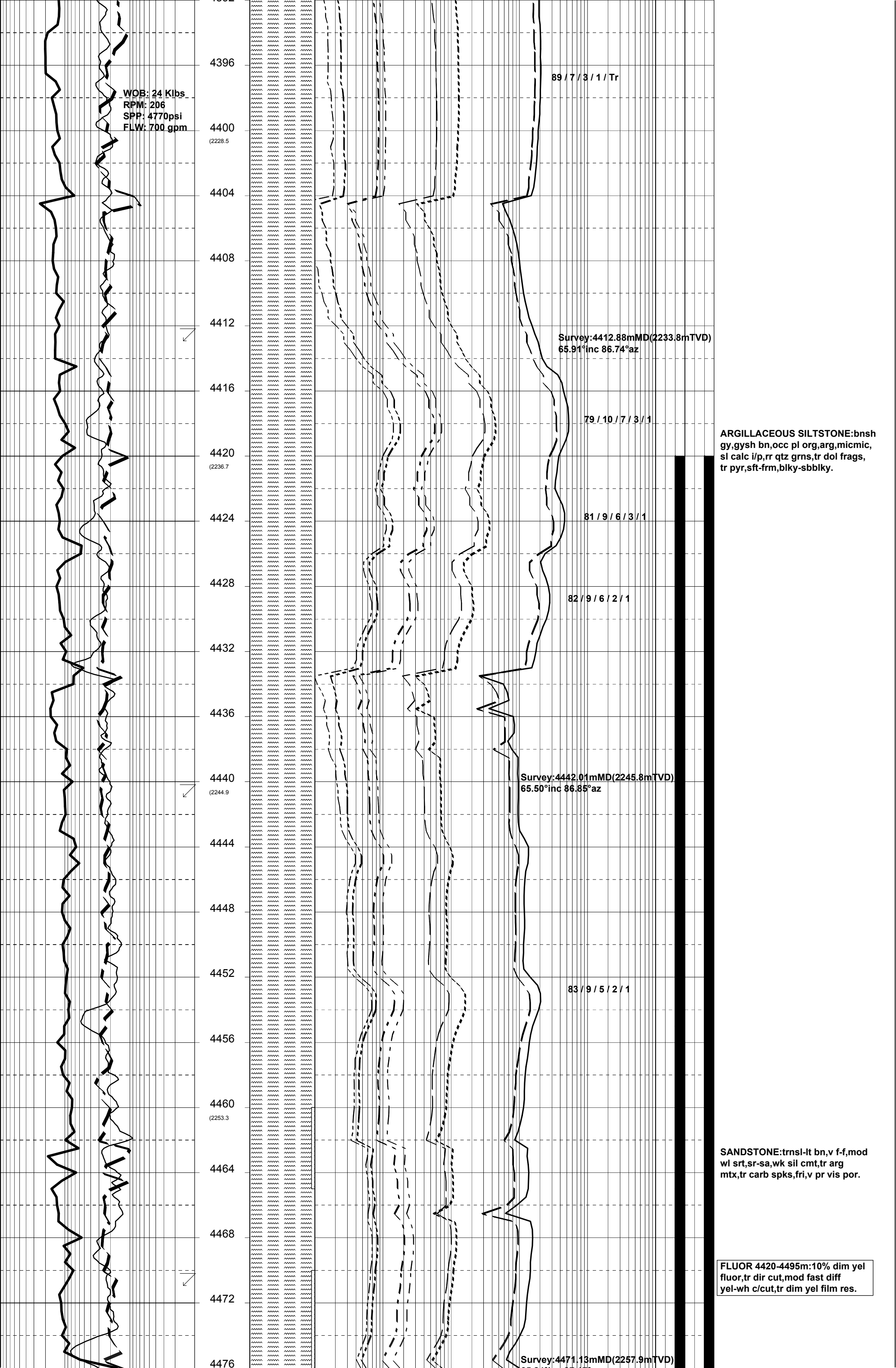












WOB: 24 Klbs
RPM: 206
SPP: 4770psi
FLW: 700 gpm

4396

4400

4404

4408

4412

4416

4420

4424

4428

4432

4436

4440

4444

4448

4452

4456

4460

4464

4468

4472

4476

89 / 7 / 3 / 1 / Tr

Survey: 4412.88mMD(2233.8mTVD)
65.91°inc 86.74°az

79 / 10 / 7 / 3 / 1

81 / 9 / 6 / 3 / 1

82 / 9 / 6 / 2 / 1

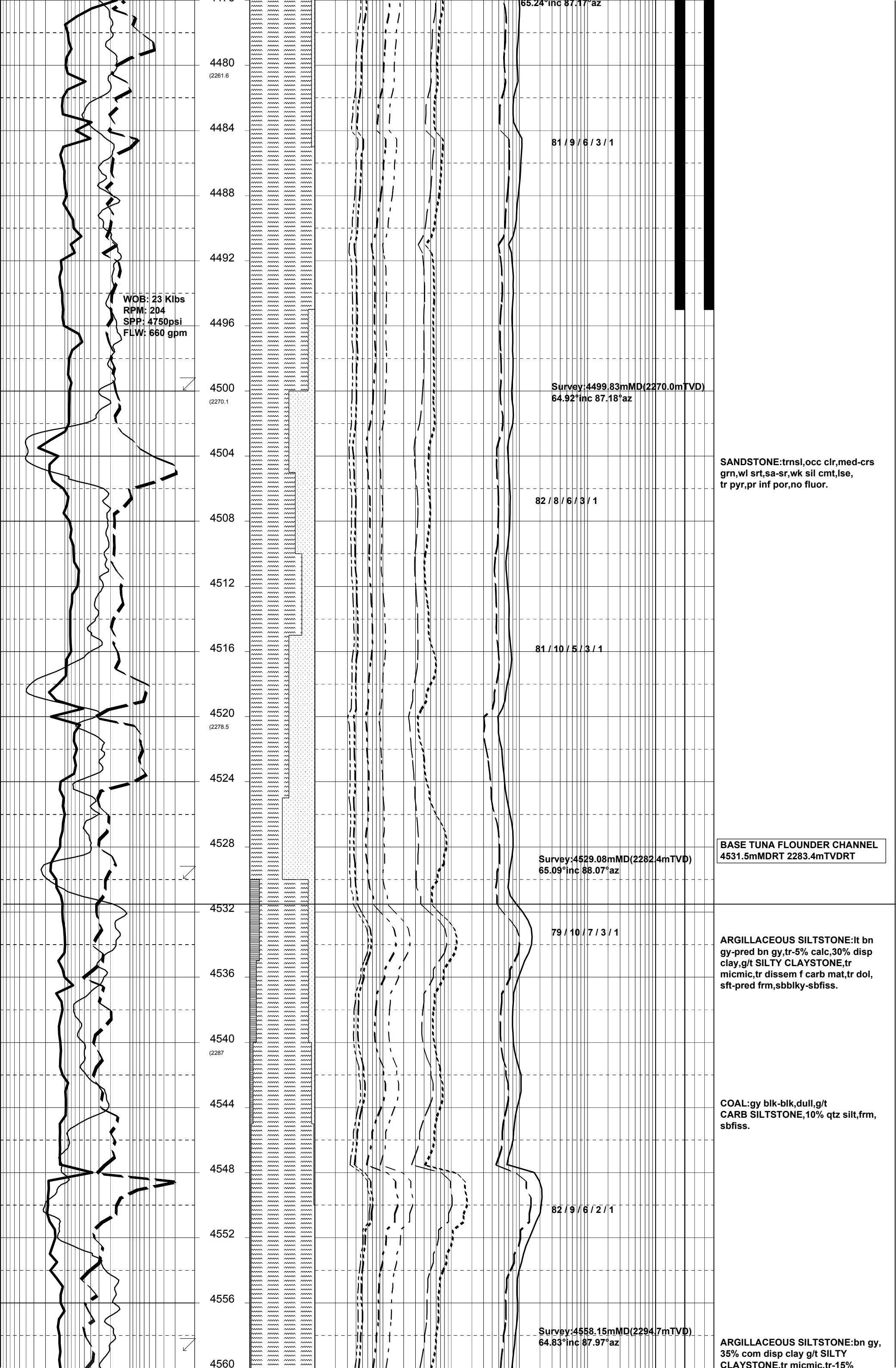
Survey: 4442.01mMD(2245.8mTVD)
65.50°inc 86.85°az

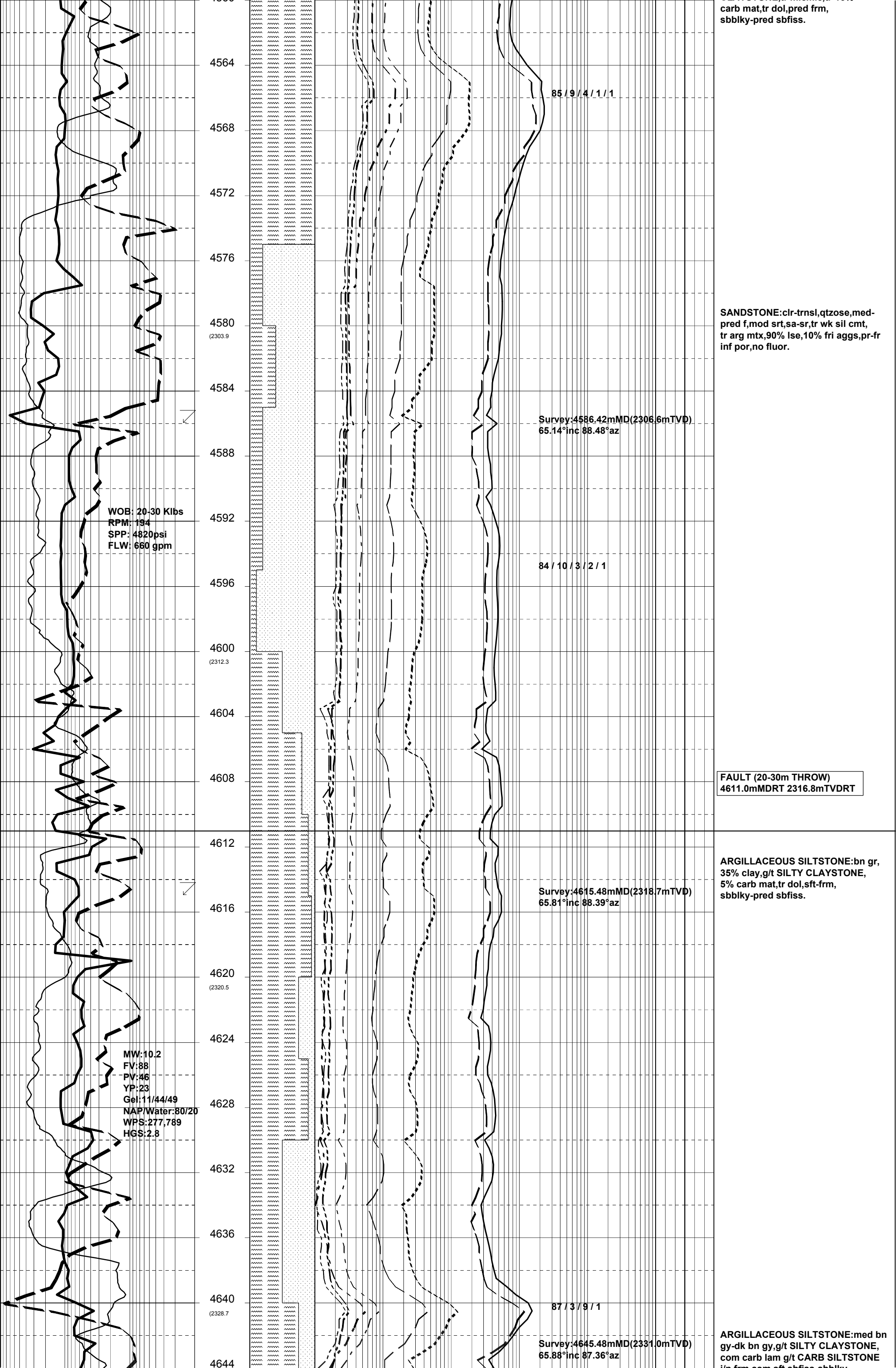
83 / 9 / 5 / 2 / 1

ARGILLACEOUS SILTSTONE:bnsh gy,gysh bn,occ pl org,arg,micmic, sl calc i/p,rr qtz grns,tr dol frags, tr pyr,sft-frn,blky-sbblky.

SANDSTONE:trnsi-lt bn,v f-f,mod wl srt,sr-sa,wk sil cmt,tr arg mtz,tr carb spks,fri,v pr vis por.

FLUOR 4420-4495m:10% dim yel fluor,tr dir cut,mod fast diff yel-wh c/cut,tr dim yel film res.





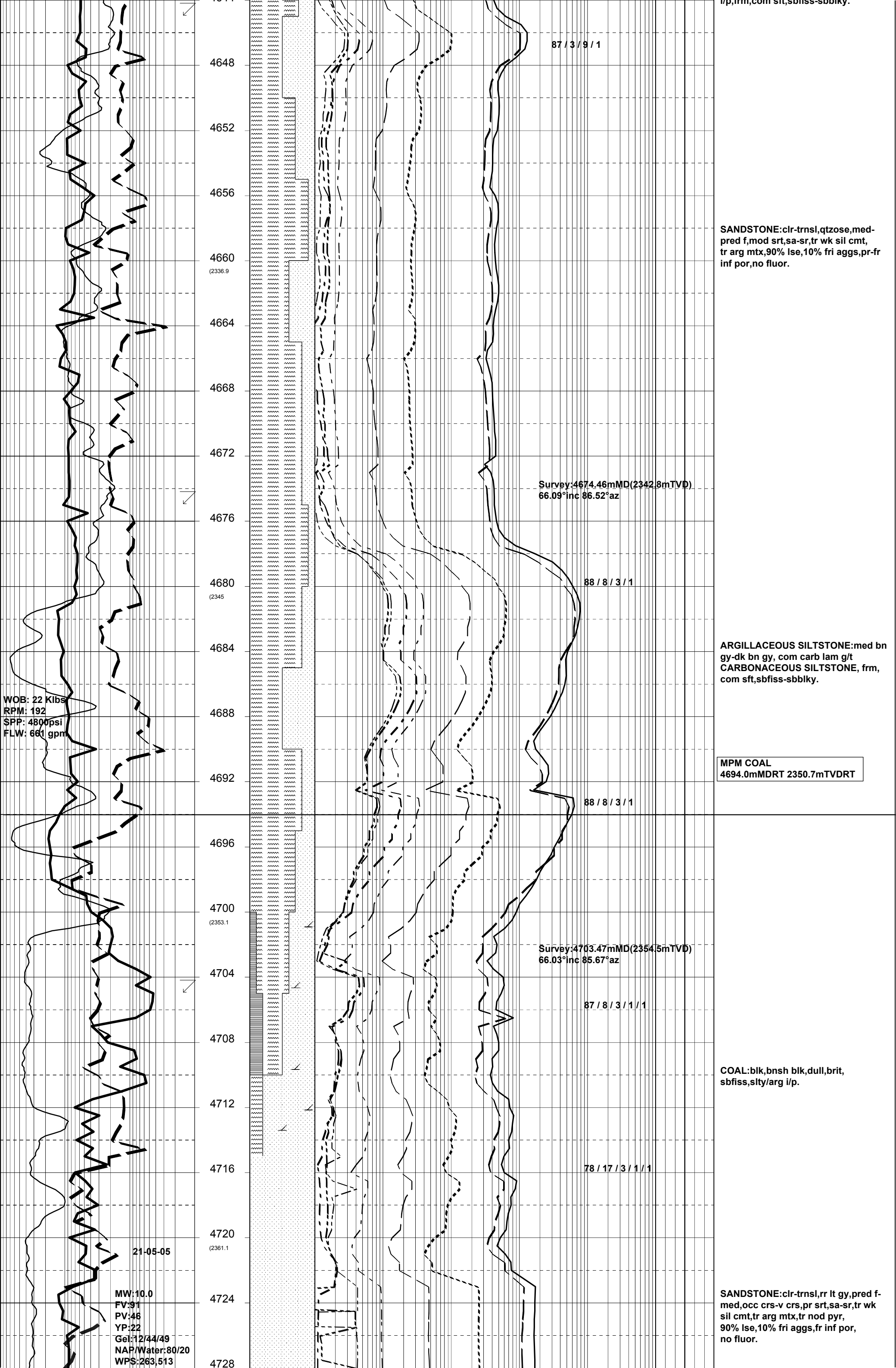
carb mat, tr dol, pred frm, sbblky-pred sbfiss.

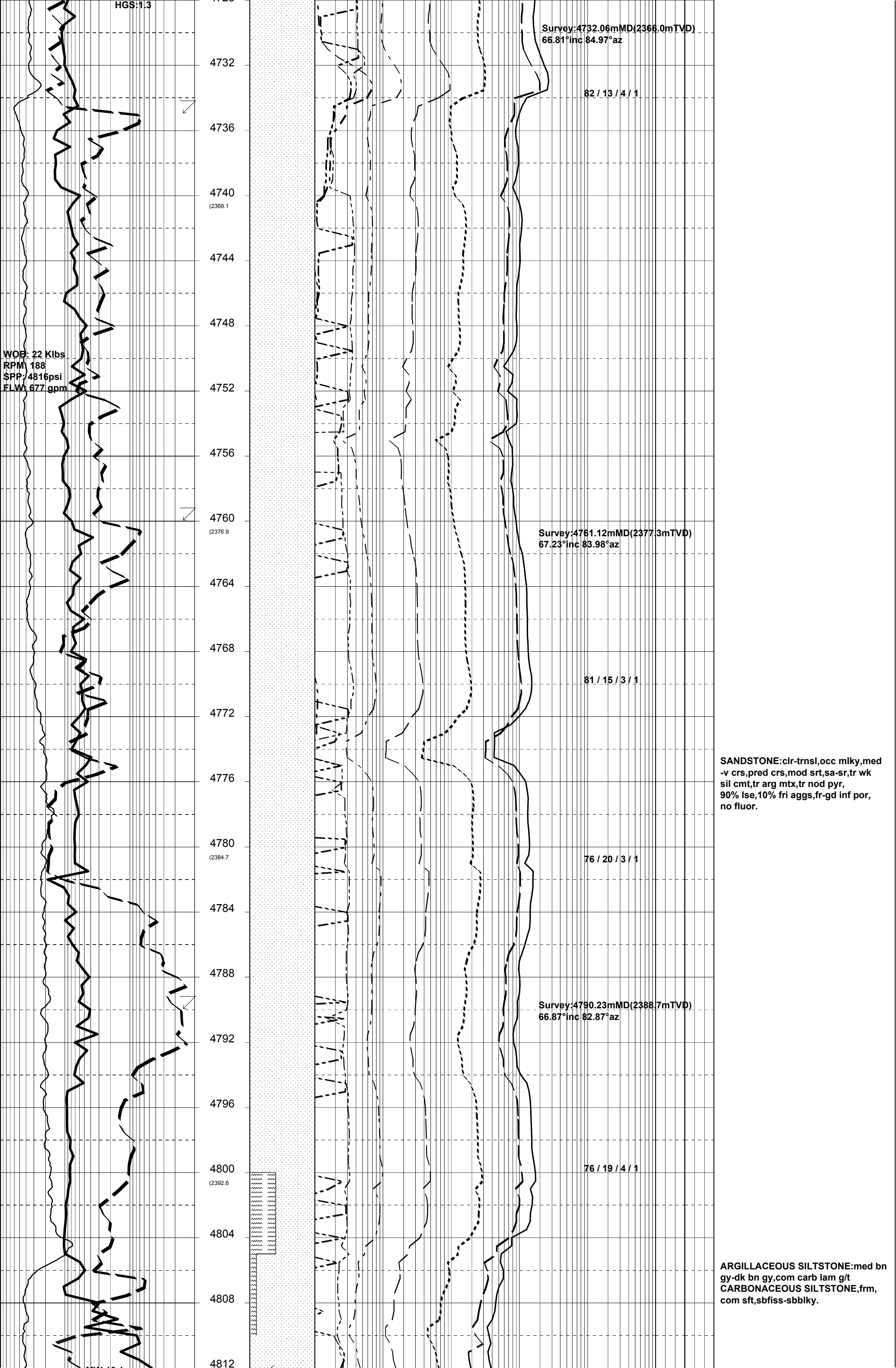
SANDSTONE: clr-trnsi, qtzose, med-pred f, mod srt, sa-sr, tr wk sil cmt, tr arg mtx, 90% lse, 10% fri aggs, pr-fr inf por, no fluor.

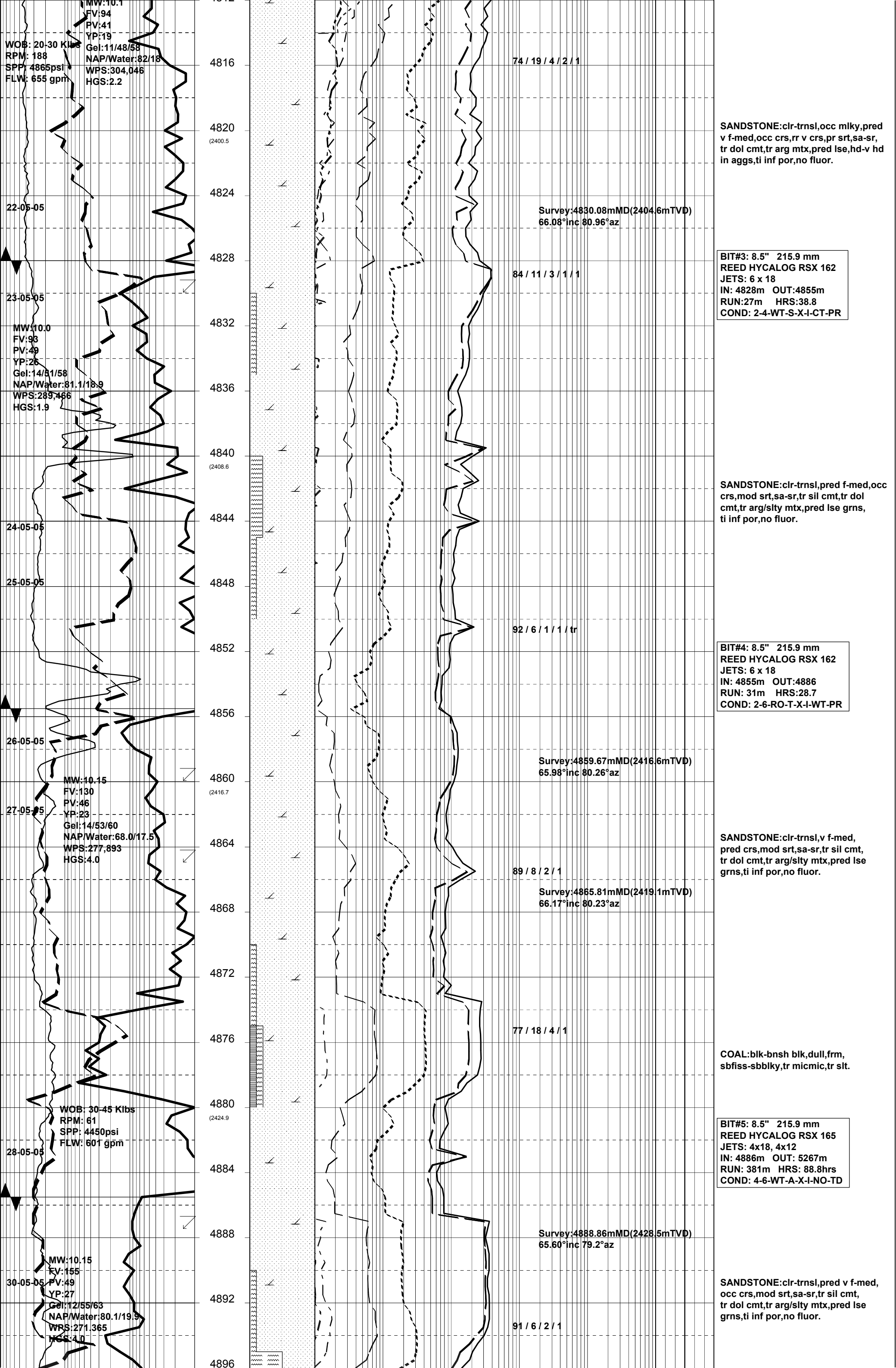
FAULT (20-30m THROW)
4611.0mMDRT 2316.8mTVDRT

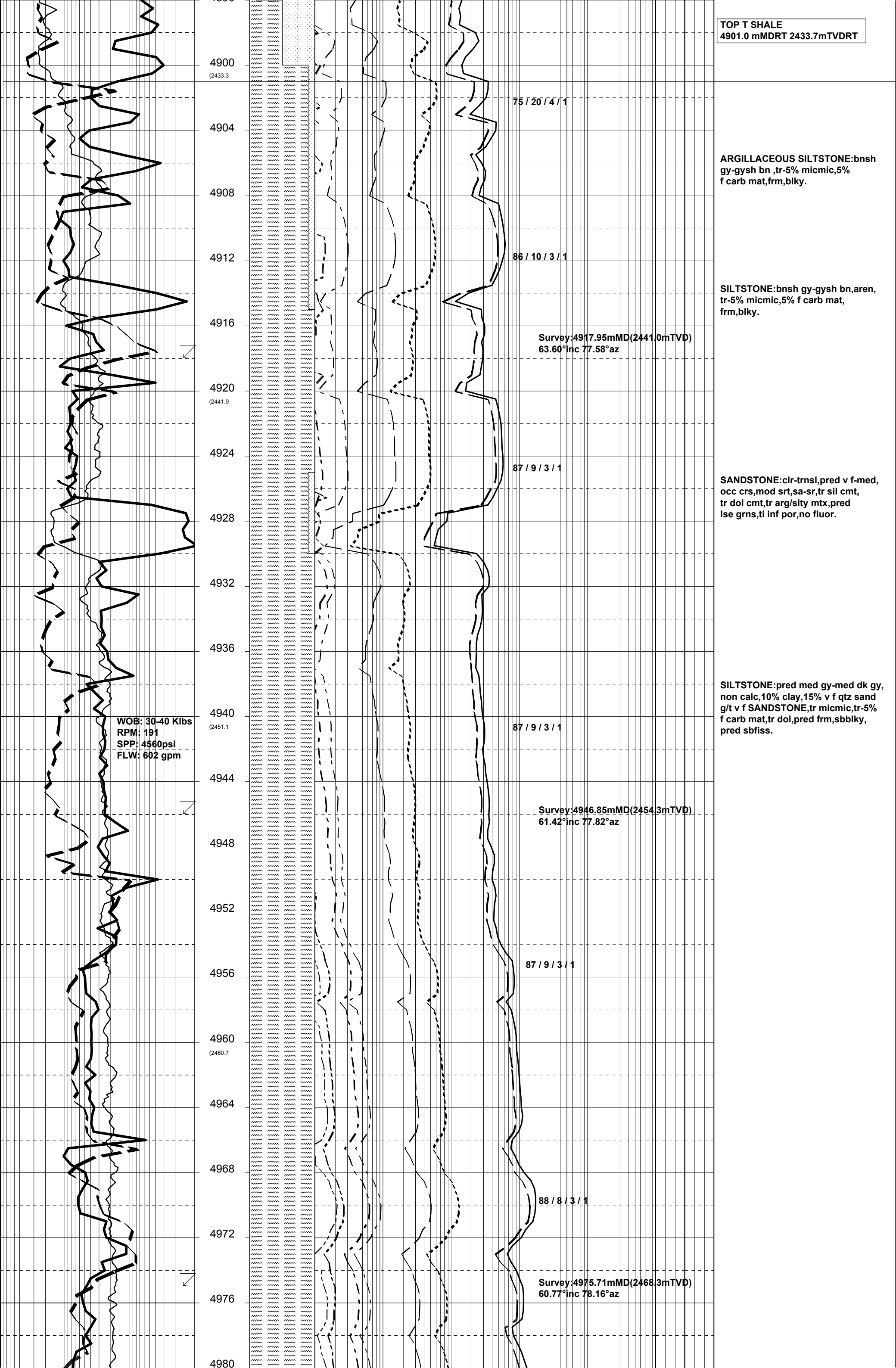
ARGILLACEOUS SILTSTONE: bn gr, 35% clay, g/t SILTY CLAYSTONE, 5% carb mat, tr dol, sft-frm, sbblky-pred sbfiss.

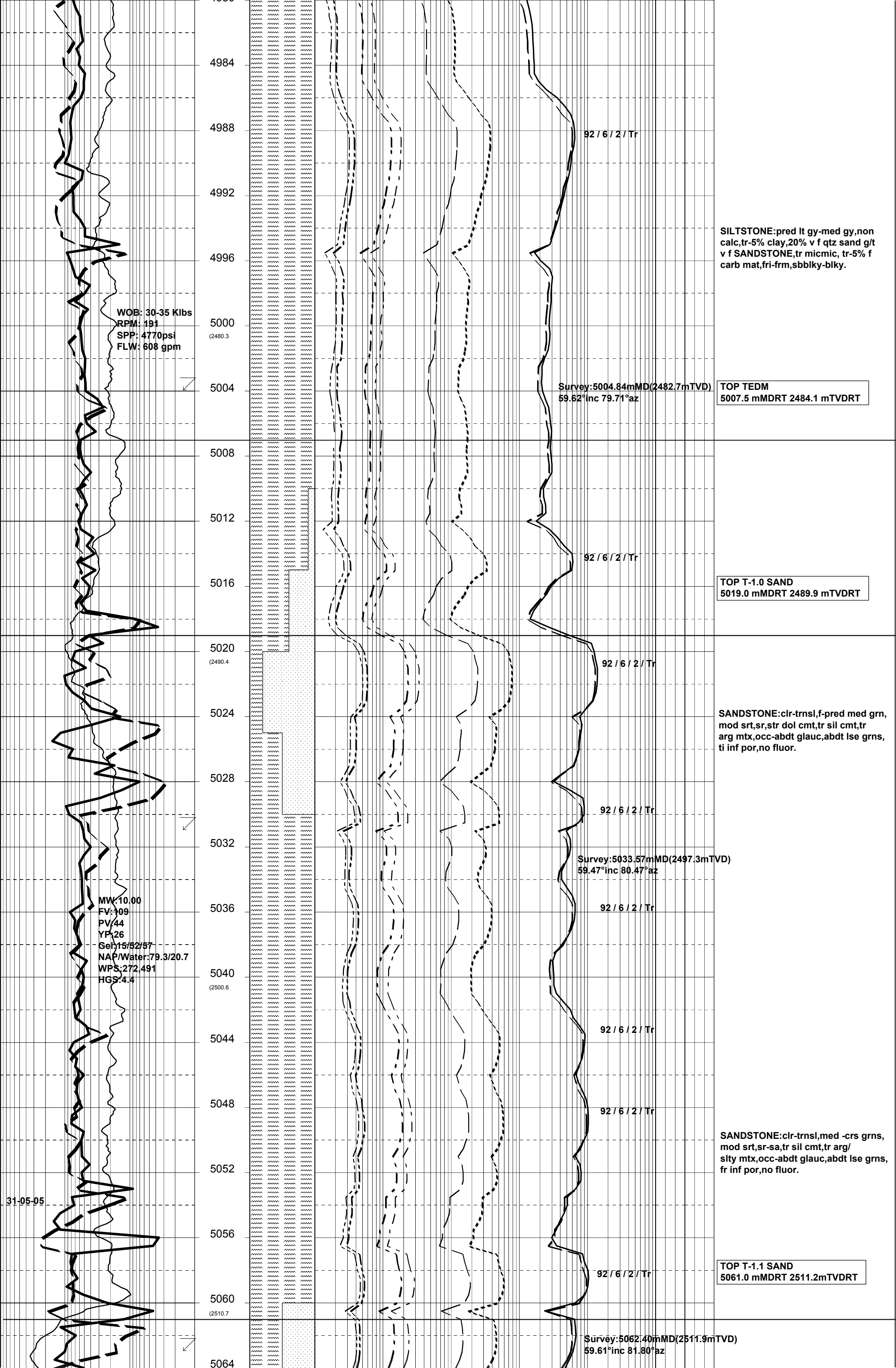
ARGILLACEOUS SILTSTONE: med bn gy-dk bn gy, g/t SILTY CLAYSTONE, com carb lam g/t CARB SILTSTONE

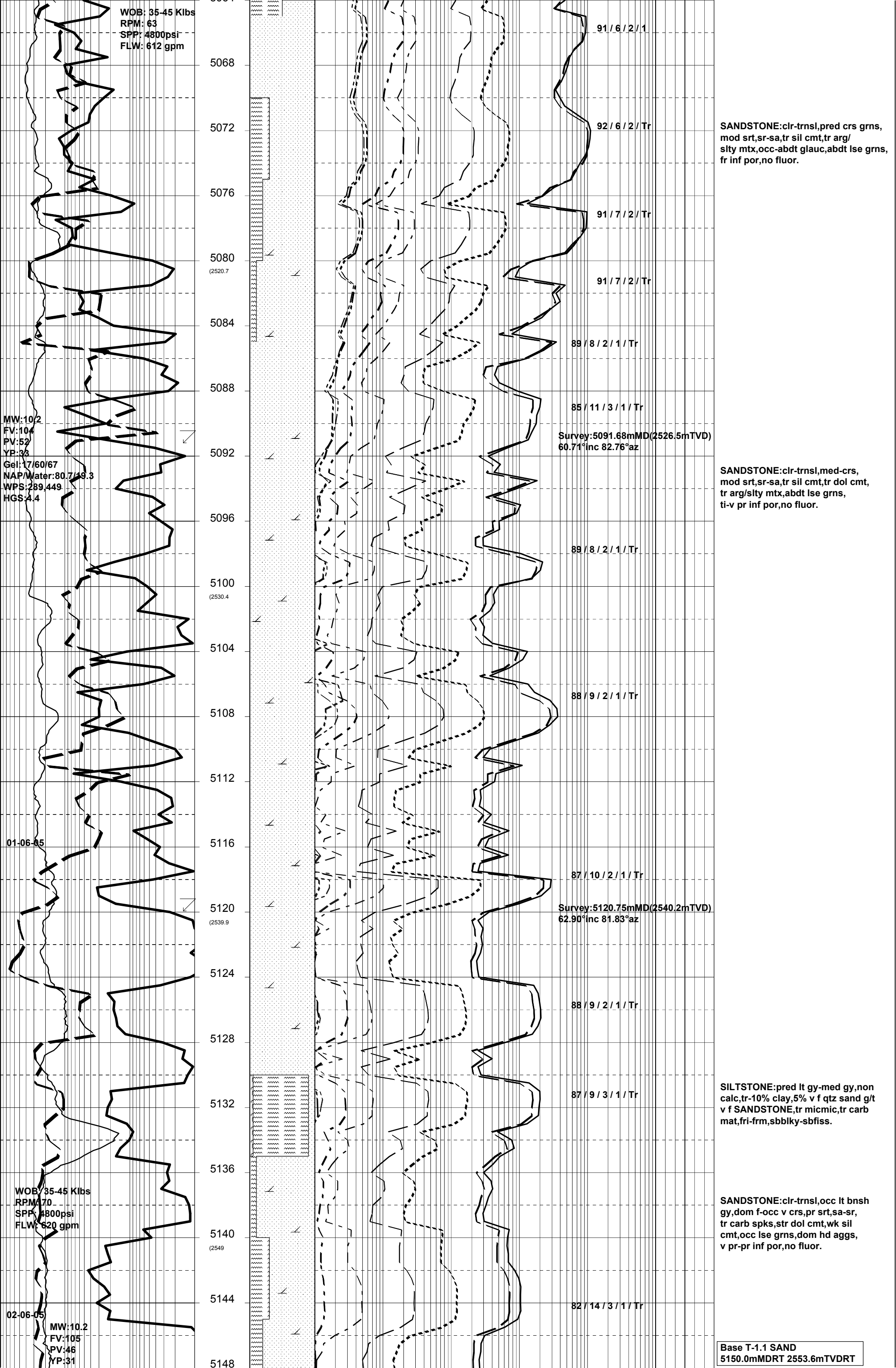


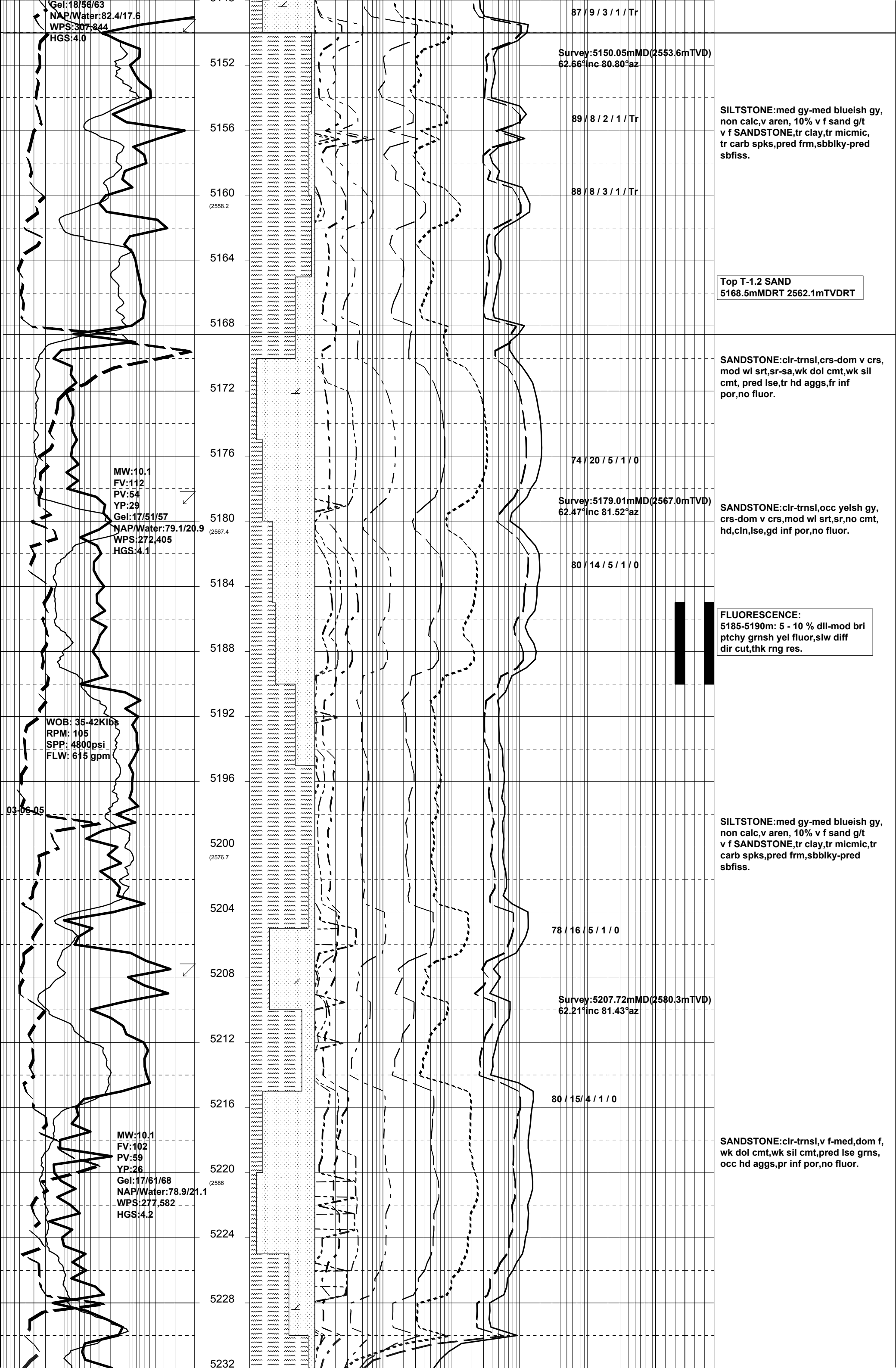


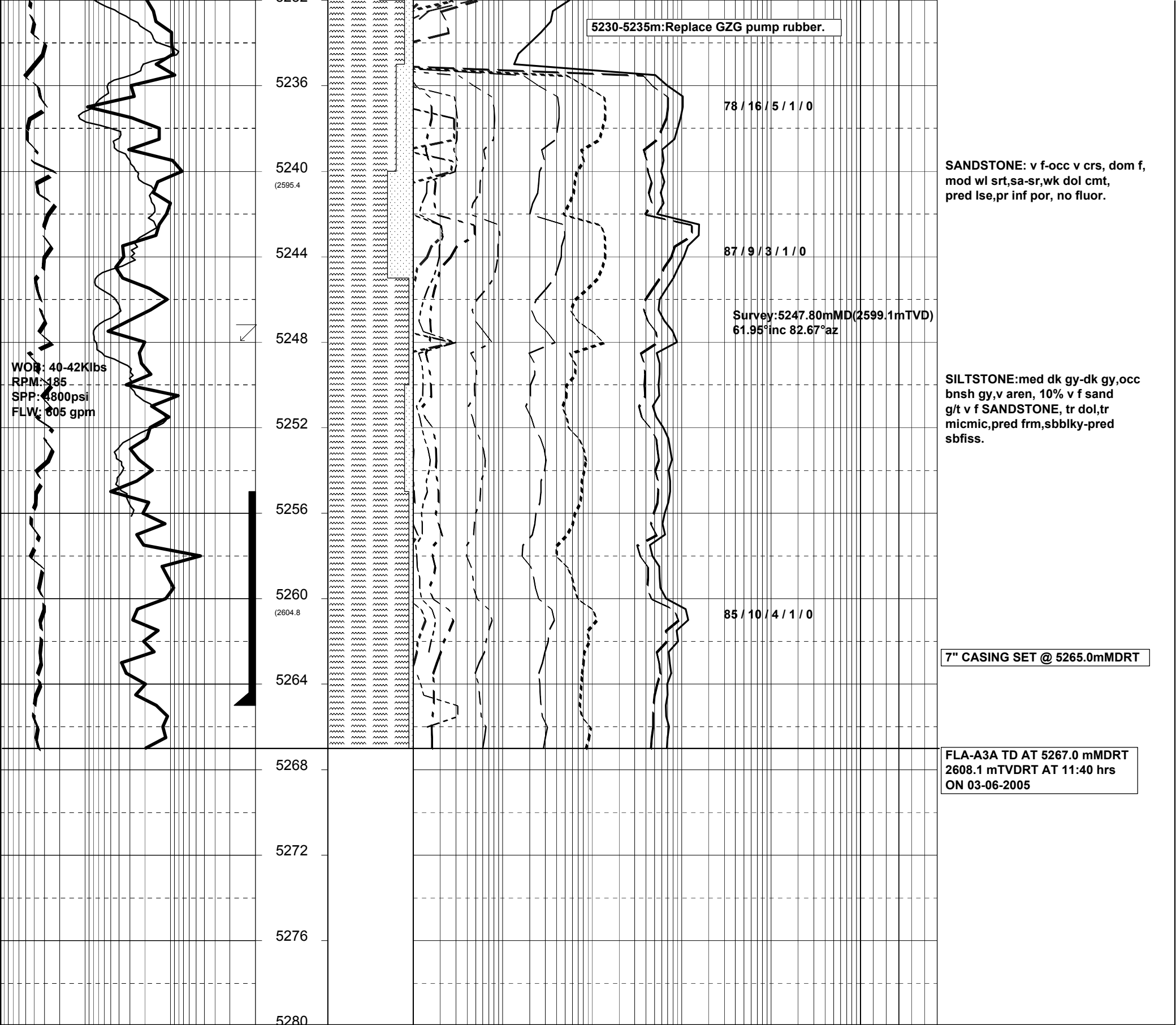


















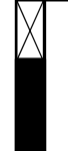




















APPENDIX 4b
FLOUNDER A3A
Well Completion Log

WELL COMPLETION LOG
Scale – 1:200
FLOUNDER A-3A

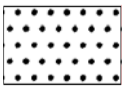
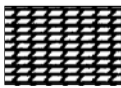


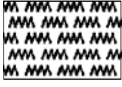
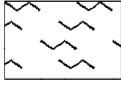


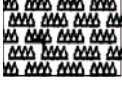
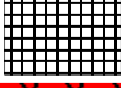

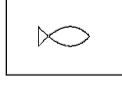
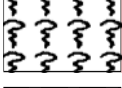

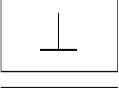
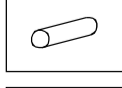
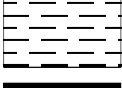

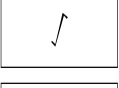
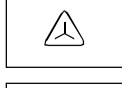

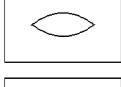
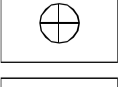


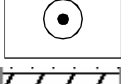
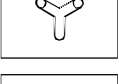
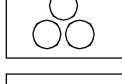
Gippsland Basin, Victoria
Concession: VIC/L11

POST-DRILL LOCATION: <i>Top of Latrobe:</i>	Latitude:	38° 18' 26.857" S	COMPILED BY:	Sheryl Sazenis		
	Longitude:	148° 28' 25.807" E				
	MGA X:	628860.01 mE		DRAFTED BY:	Arnaldo Ribeiro	
	MGA Y:	5759043.22 mN				
	Depth:	3872.2 MDRT (-1955.9mTVDSS)				
T-1.1 Sand	Latitude:	38° 18' 22.624"S	ELEVATION:	G.L.:	-94.0	
	Longitude:	148° 29' 09.689" E		R.T.:	50.52 m above MSL	
	MGA X:	629927.9 mE		Water Depth:	94.0 m	
	MGA Y:	5759156.7 mN		Datum:	GDA94 (GRS80)	
	Depth:	5060.6 MDRT (-2460.5mTVDSS)		Projection:	MGA/ UTM Zone 55 (S)	
DATES:	Spudded:	24/04/2005	TOTAL DEPTH:	5267.0 m MDRT / 2608.1 mTVDRT		
	Rig Released:	07/06/2005				
	I.P Established:	15/07/2005				
CLASSIFICATION:	Development		STATUS:	Cased and Completed		
SERVICE COMPANIES:						
DRILLING CONTRACTOR:	ENSCO International Rig 102		PRODUCTION TESTING:	n/a		
MWD/DIRECT. DRLG:	Schlumberger Anadrill		ROV:	Total Marine Services		
GYRO SURVEYING:	n/a		MUD LOGGING:	Geoservices Overseas S.A.		
CORING:	n/a		PRESSURE RECORDING:	n/a		
CEMENTING:	Halliburton		WELL VELOCITY SURVEY:	n/a		
CASING:	Weatherford		MUD ENGINEERING:	Baroid		
LWD LOGGING:	Schlumberger Anadrill		LINER:	n/a		

LEGEND

<div>2.7m NOS </div> <div>Ø = 17%</div> <div>Sw = 32%</div>		LOG ANALYSIS DATA		 SHOW OR STAIN	
		NS - Net Sand		 HYDROCARBON CUT	
		NOS - Net Oil Sand		 FLUORESCENCE	
		NGS - Net Gas Sand		 GAS SHOW	
		Sw - Water Saturation		 OIL PRODUCTIVE	
<div> CORE</div> <div><i>No Rec.</i></div> <div><i>Rec.</i></div>		MUD DATA		 GAS PRODUCTIVE	
		Ø - Porosity		 INTERPRETED OIL PRODUCTION	
		Snd - Sand		 INTERPRETED GAS PRODUCTION	
		MW - Mud Weight		 INTERPRETED WATER PRODUCTION	
		FV - Funnel Velocity		 WATER PRODUCTIVE	
		PV - Plastic Velocity		 CONDENSATE PRODUCTION	
		YP - Yield Point		 INTEPRETED CONDENSATE BEARING	
		Gel - Gel Strength		 DST WITH GAS RECOVERED	
		pH - Acidity/Alkalinity		 DSTO	
		WL - Water Loss		 SURVEY POINT	
		Cl - Chloride		 13-3/8" CASING SHOE	
		Ca - Calcium		 MUD	
		Sol - Solids			
		H2O - Water			
		Oil -Oil			
 SST		RECOVERED SIDE WALL CORE LITHOLOGY			
		SST - Sandstone			
		CLST - Claystone			
		SLST - Siltstone			
		LMST - Limestone			
		MST - Mudstone			
		ML - Marl			
		SH - Shale			
		COAL - Coal			
 SIDE WALL CORE - NO RECOVERY					
 FIT					
 P2/11		MDT/RFT PRETEST RUN/SEAT NUMBER			
 S11/2		MDT/RFT SAMPLE RUN/SAMPLE NUMBER			
 P2/40		MDT VERTICAL/HORIZONTAL PERMEABILITY TEST			
 PACKER					
 BRIDGE PLUG					

LITHOLOGICAL SYMBOLS

	Sandstone		Dolomite		Mica		Pelecypods
	Siltstone		Marl		Chert		Echinoids
	Mudstone		Anhydrite		Carbonaceous Matter		Fish Remains
	Claystone		Volcanics		Calcareous		Plant Remains
	Shale		Basement		Glauconite		Spores
	Coal		Granule		Corals		Leaves
	Limestone		Oolites		Bryozoans		Foram

M

M

M

A

M

M

Micritic Limestone

G

G

G

G

G

G

Grain Limestone

S

S

S

S

S

S

Skeletal Limestone

Dolomitic

T

◆

Pyrite

Brachiopods

Gastropods

Cephalopods

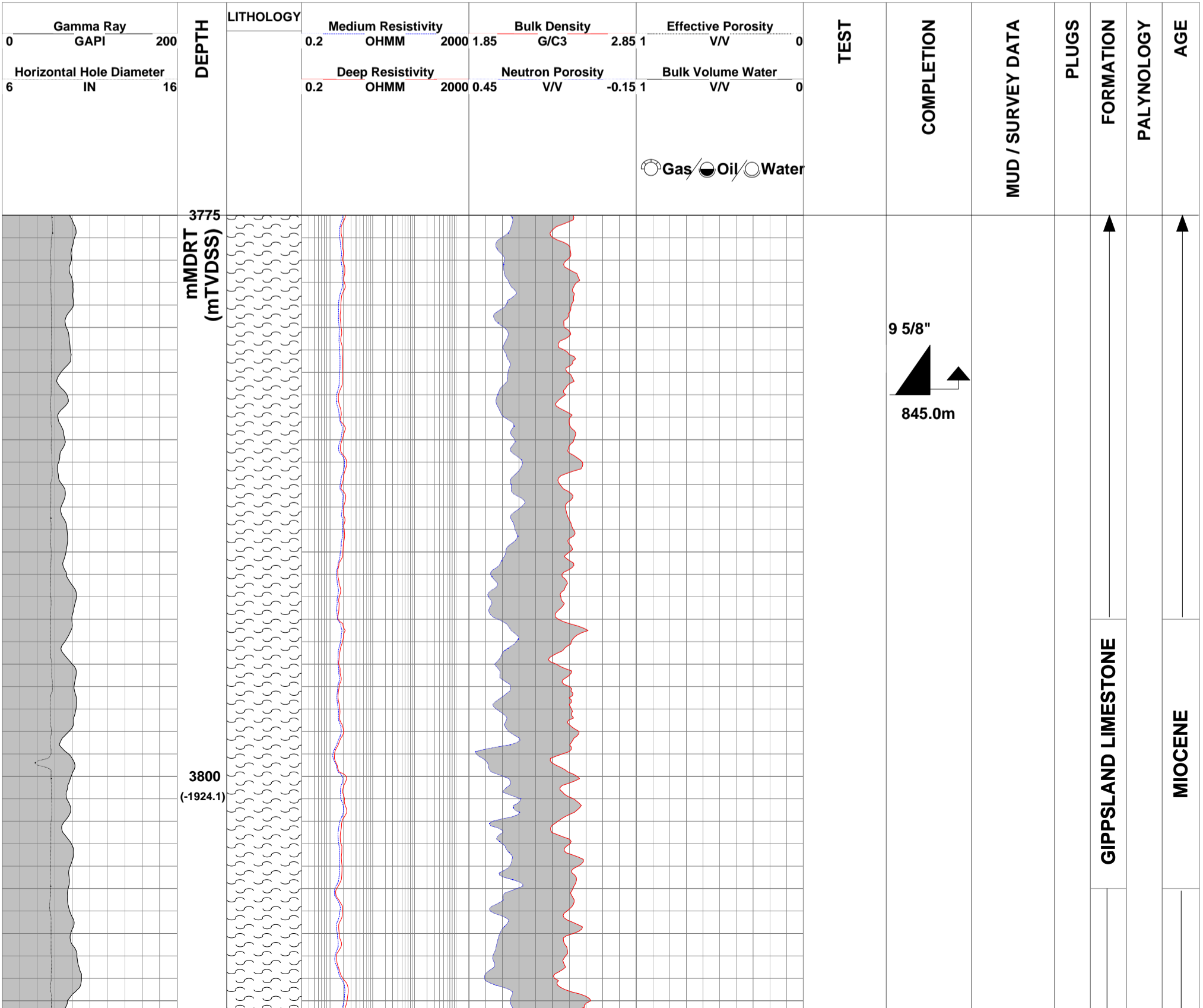
Fossils

LOGGING AND SURVEYING			
Company/Log	Interval (mMDRT)		
Schlumberger Anadrill/ Powerpulse (Dir)	405.98 – 5247.8mMDRT		
Schlumberger Anadrill/ ARC6 (Res & GR)	845 - 5267 mMDRT		
Schlumberger Anadrill/ ADN6 (Dens & Neutron)	845 - 5267 mMDRT		

WELL DATA				
Date	15 - 22 May 2005	22 - 25 May 2005	26 - 28 May 2005	29 May- 03 June 2005
Run	MWD3/LWD 1	MWD4/LWD 2	MWD5/LWD 3	MWD6/LWD 4
Log	Powerpulse-ARC6-ADN6	Powerpulse-ARC6-ADN6	Powerpulse-ARC6-ADN6	Powerpulse-ARC6-ADN6
Depth Driller	4828 mMDRT	4855 mMDRT	4886 mMDRT	5267 mMDRT
Depth Logger	4828 mMDRT	4855 mMDRT	4886 mMDRT	5267 mMDRT
Bottom Log Interval	4828 mMDRT	4855 mMDRT	4886 mMDRT	5267 mMDRT
Top Log Interval	845 mMDRT	4828 mMDRT	4855 mMDRT	4886 mMDRT
Casing Driller	845 mMDRT	845 mMDRT	845 mMDRT	845 mMDRT
Casing Logger	845 mMDRT	845 mMDRT	845 mMDRT	845 mMDRT
Casing Size	9 5/8"	9 5/8"	9 5/8"	9 5/8"
Casing Weight	47ppf	47ppf	47ppf	47ppf
Bit Size	8.5"	8.5"	8.5"	8.5"
Type of Fluid in Hole	Petrofree NAF	Petrofree NAF	Petrofree NAF	Petrofree NAF
Density	10.1 ppg	10.0 ppg	10.1 ppg	10.1 ppg
Rm @ Measured Temp.	N/A	N/A	N/A	N/A
Rmf @ Measured Temp.	N/A	N/A	N/A	N/A
Rmc @ Measured Temp.	N/A	N/A	N/A	N/A
Max. Recorded Temp.	105°C	100°C	101°C	116°C
Equipment / Location	OLU-JA-9602/Sale	OLU-JA-9602/Sale	OLU-JA-9602/Sale	OLU-JA-9602/Sale
Recorded By	J.Dolan, M.Y.Tan, R. Borjas, D. Hastie.	J.Dolan, M.Y.Tan, R. Borjas, D. Hastie.	J.Dolan, M.Y.Tan, R. Borjas, D. Hastie.	J.Dolan, M.Y.Tan, R. Borjas, D. Hastie.
Witnessed By	M Turner	M Turner	M Turner	M Turner / T Lobo

CORES			PERFORATIONS		
From (mMDRT)	To (mMDRT)	Rec %	From (mMDRT)	To (mMDRT)	S/PF
----	----	---	5181.8	5189.0	12

CASING				PLUGS		
Size	Set @ (mMDRT)	SX Cmt	Formation	From (mMDRT)	To (mMDRT)	SXCmt
9.625"	845.0	959				
7"	5265.0	1418		PBTD	5238.0	



TEST

Gas

Oil

Water

COMPLETION

MUD / SURVEY DATA

PLUGS

FORMATION

GIPPSLAND LIMESTONE

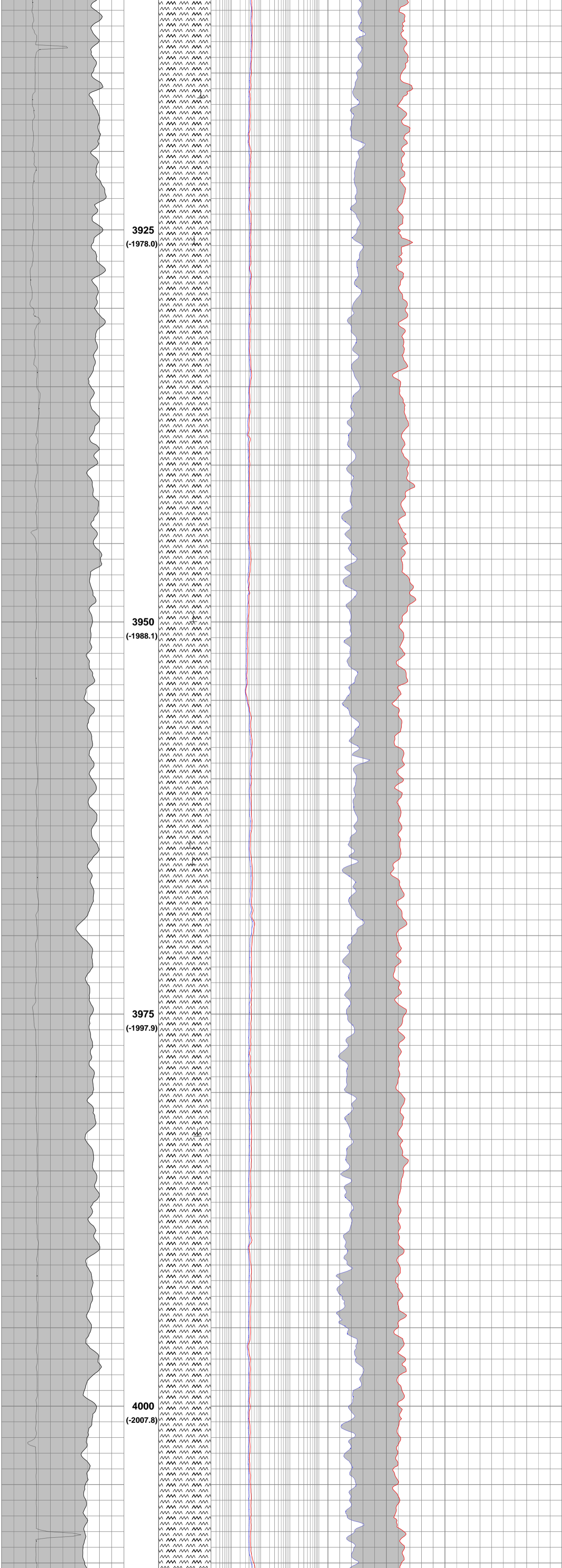
PALYNOLOGY

MIOCENE

AGE

9 5/8"

845.0m



3949.32
ANG 66.82
DIR 83.11
(-1987.83)

LATROBE GROUP

LOWER EOCENE

4025
(-2017.7)

4050
(-2027.8)

4075
(-2038.0)

4100
(-2048.4)

4065.44
ANG 65.91
DIR 83.44
(-2034.08)

4089.0
MW 9.9ppg
FV 90sec/qt
PV 35cP
YP 25

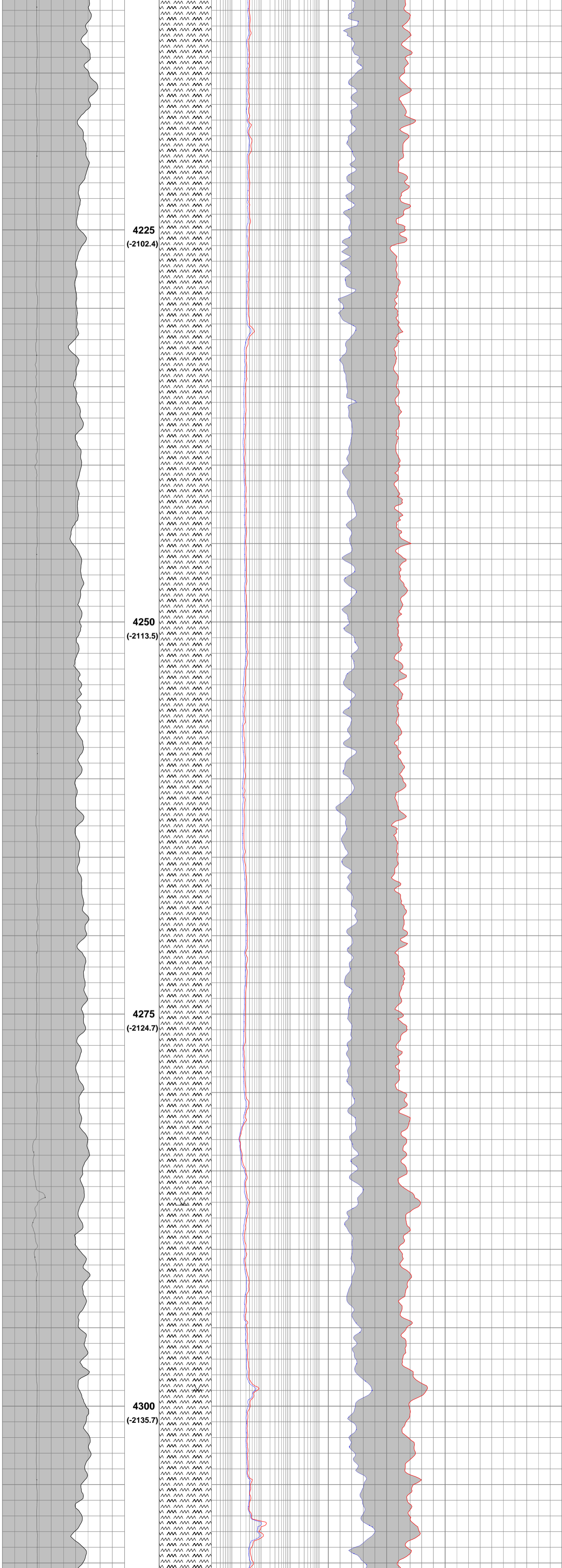
4125
(-2058.9)

4150
(-2069.5)

4175
(-2080.4)

4200
(-2091.4)

4152.20
ANG 64.29
DIR 83.38
(-2070.5)



4268.16
ANG 63.24
DIR 84.36
(-2121.66)

LATROBE GROUP	
LOWER EOCENE	

4325
(-2146.5)

4350
(-2157.2)

4375
(-2167.7)

4400
(-2178.0)

4384.17
ANG 65.81
DIR 86.42
(-2171.54)

4425
(-2188.2)

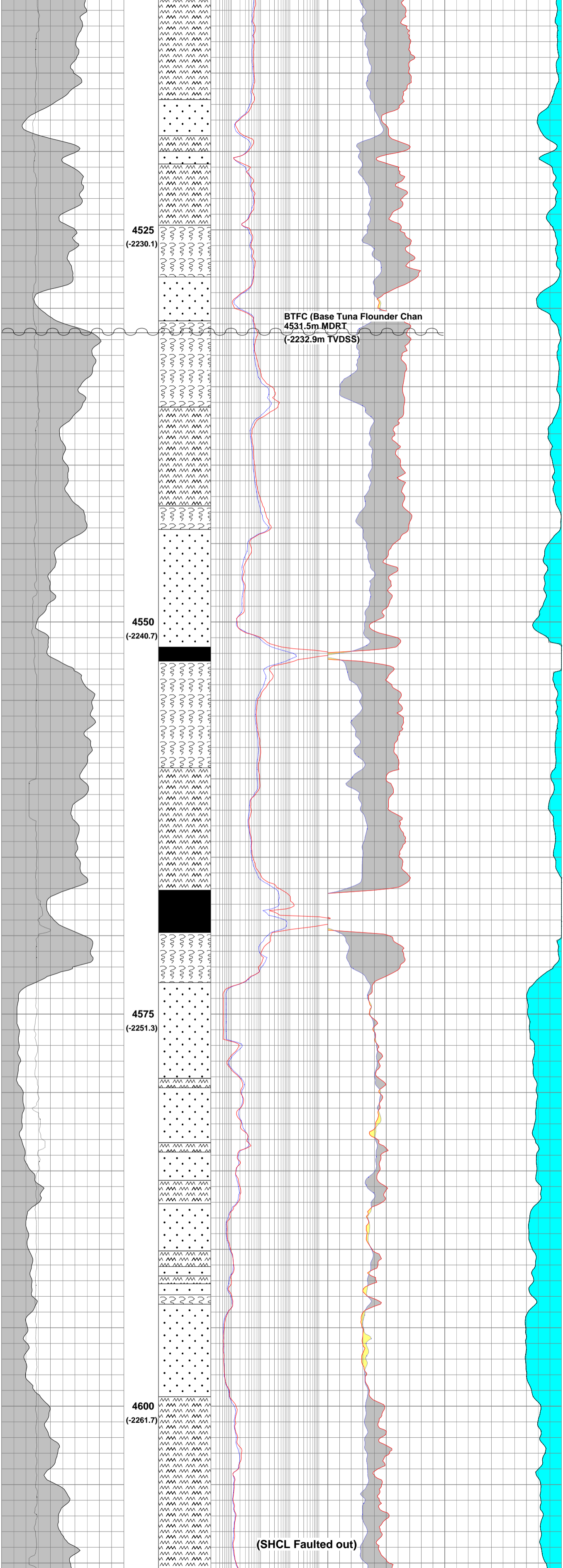
4450
(-2198.6)

4475
(-2209.0)

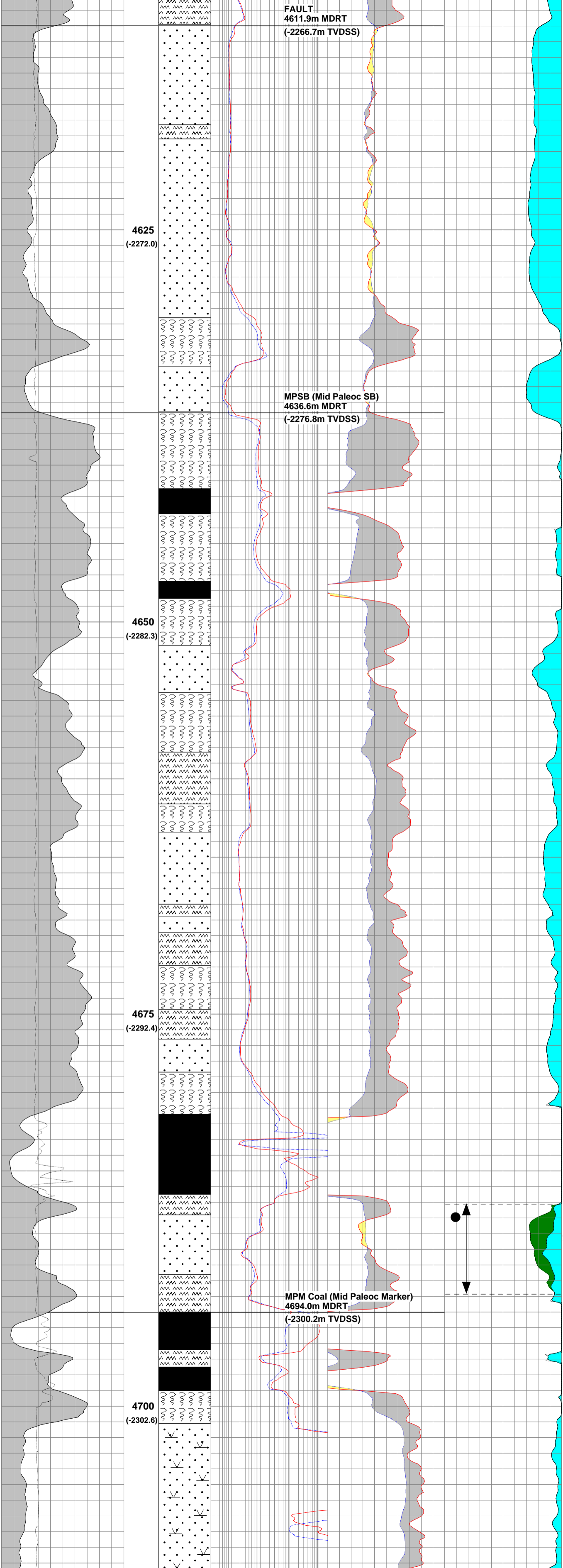
4500
(-2219.5)

FLUOR 4420-4495m:10% dim
yelfluor,tr dir cut,mod fast diff
yel-wh c/cut,tr dim yel film res.

4499.83
ANG 64.92
DIR 87.18
(-2219.5)



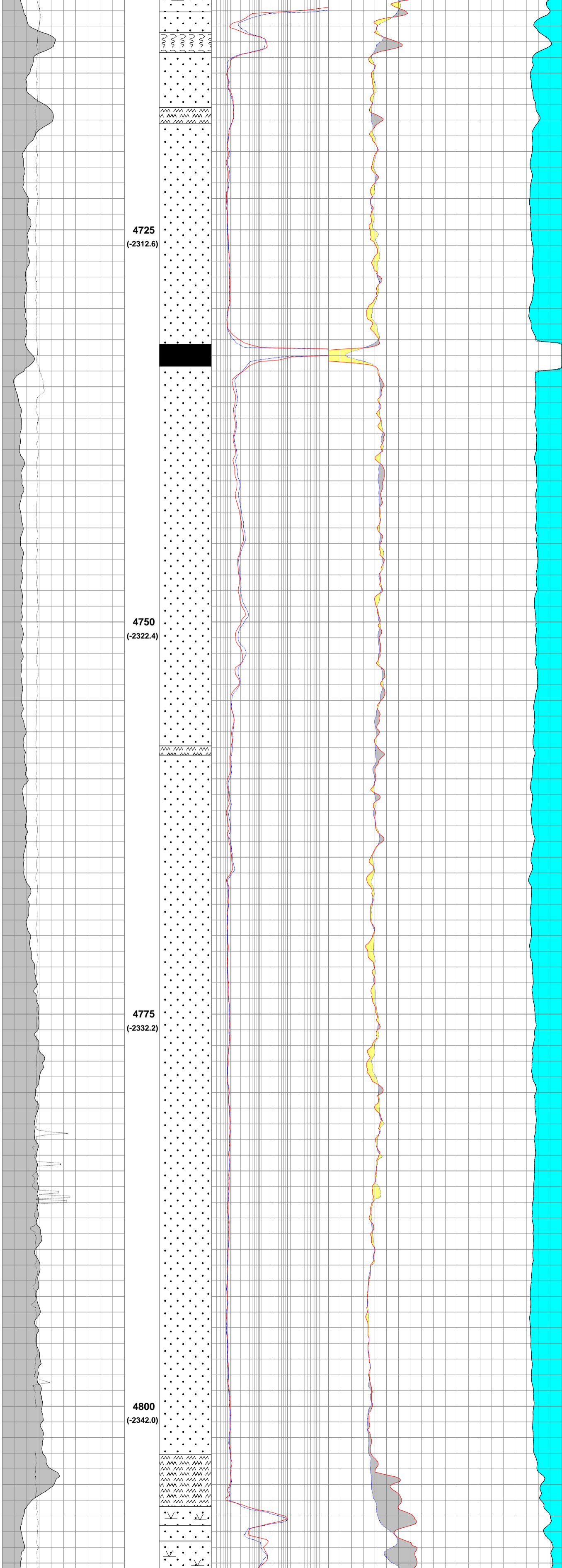
PALEOCENE



4615.48
ANG 65.81
DIR 88.39
(-2268.18)

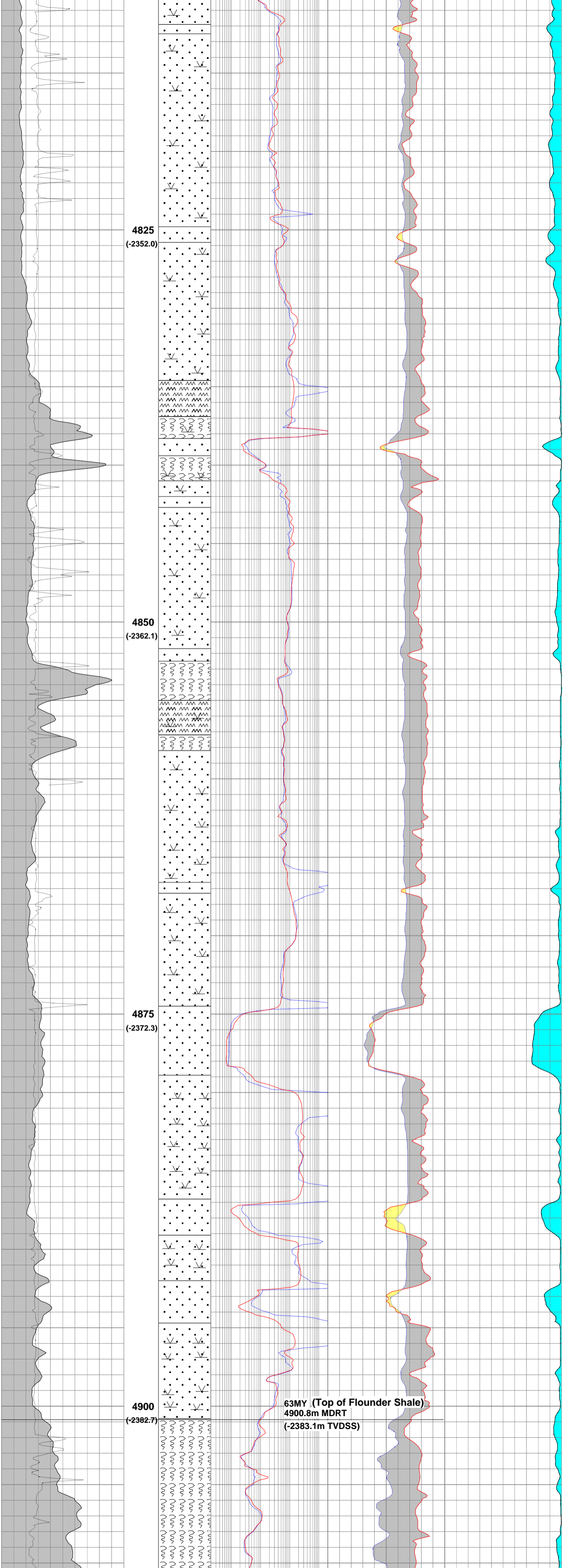
4624.0
MW 102.0ppg
FV 88sec/qt
PV 46cP
YP 23

Probably oil bearing
4.0 MD Net
1.6 TVD Net
Ø = 23 %
Sw= 43 %



4723.0
MW 10.0ppg
FV 91sec/qt
PV 46cP
YP 22

4732.06
ANG 66.81
DIR 84.97
(-2315.46)



4825
(-2352.0)

4850
(-2362.1)

4875
(-2372.3)

4900
(-2382.7)

63MY (Top of Flounder Shale)
4900.8m MDRT
(-2383.1m TVDSS)

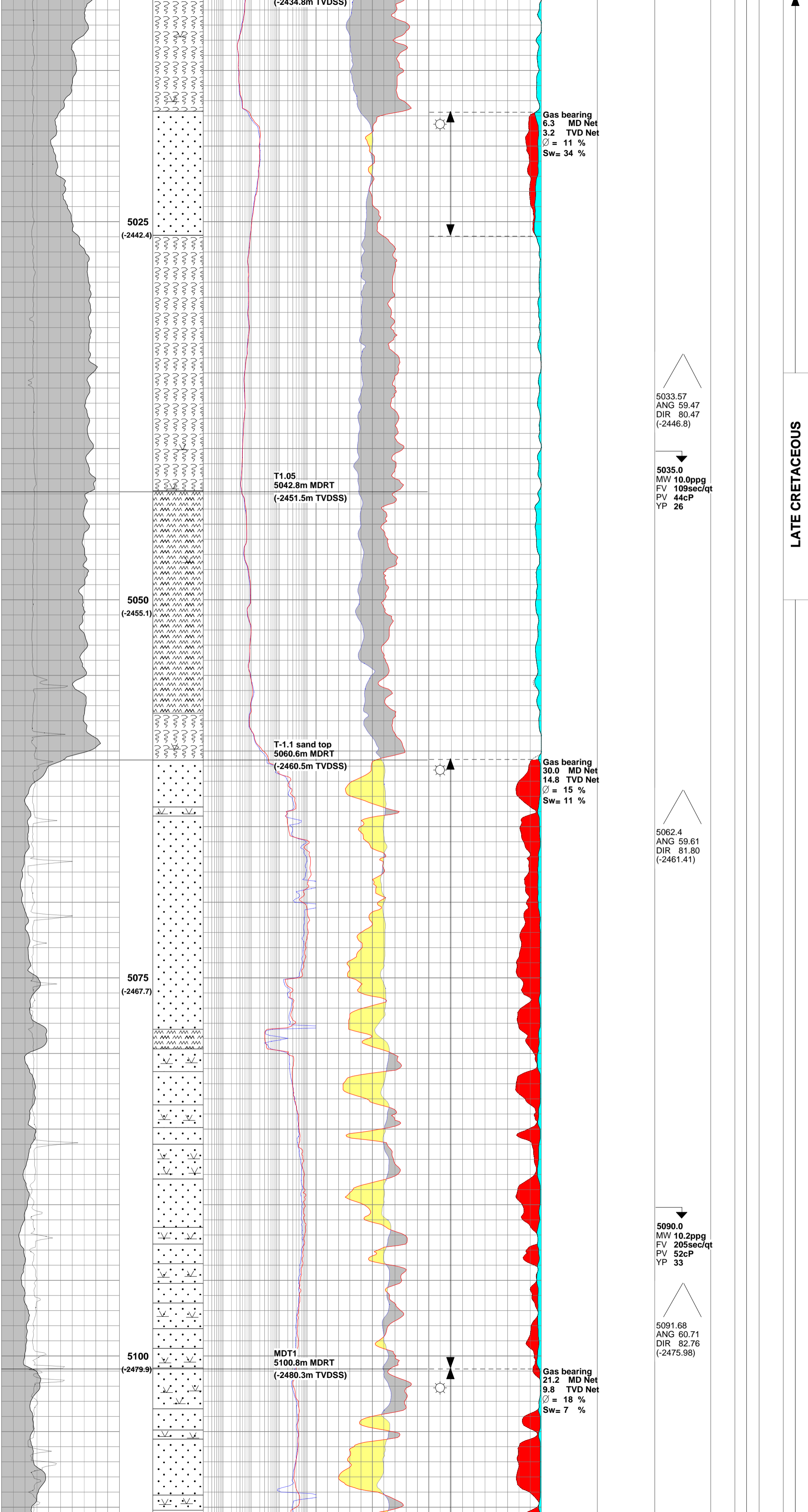
4812.0
MW 10.1ppg
FV 94sec/qt
PV 41cP
YP 19

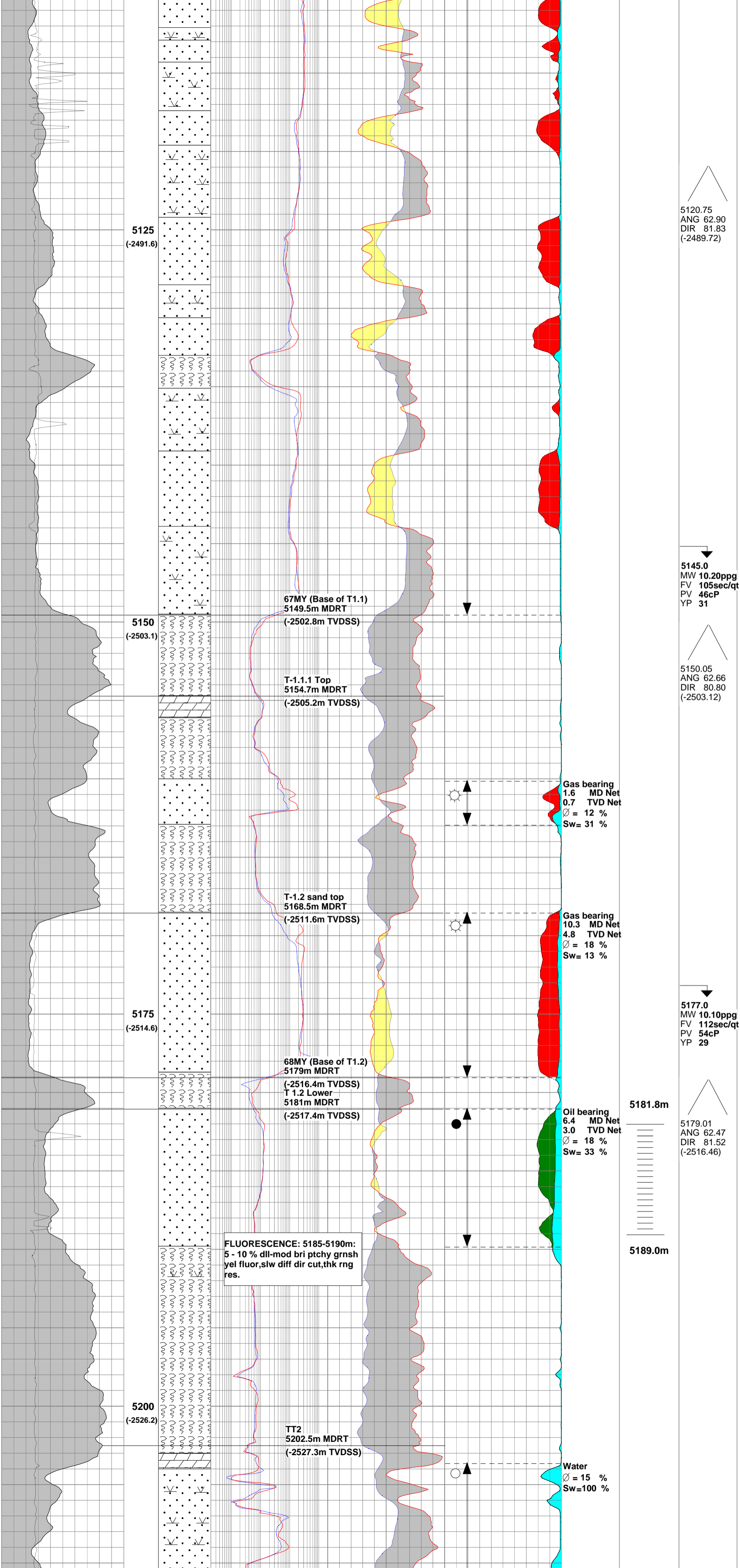
4832.0
MW 10.0ppg
FV 93sec/qt
PV 49cP
YP 26

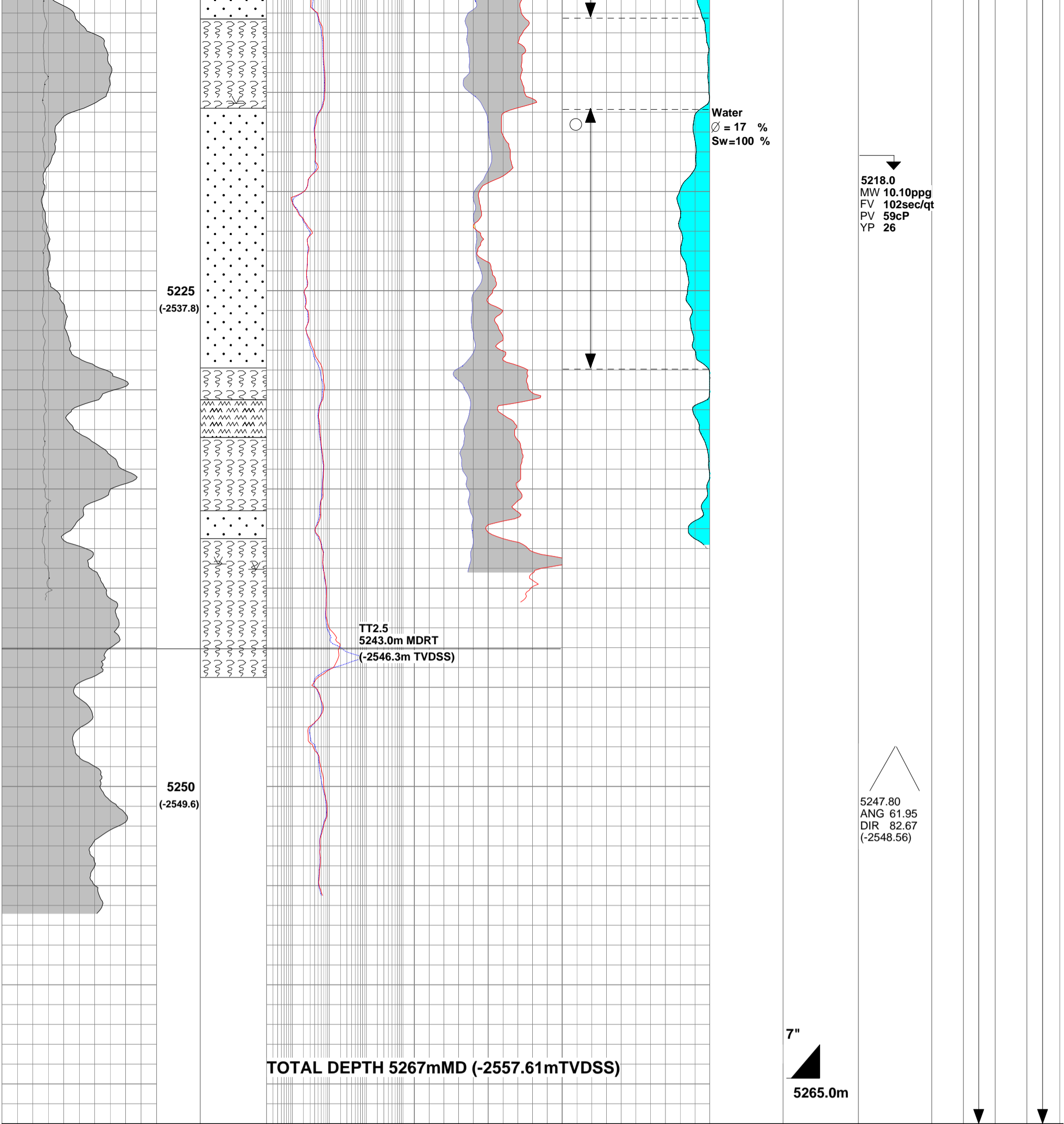
4859.67
ANG 65.98
DIR 80.26
(-2366.08)

4860.0
MW 10.15ppg
FV 130sec/qt
PV 46cP
YP 23

4890.0
MW 10.2ppg
FV 155sec/qt
PV 49cP
YP 27







GR_ARC	Gamma Ray
HORD	Horizontal hole diameter
P40H	Deep Resistivity
P28H	Medium Resistivity
ROBB	Bulk Density_Bottom
TNPH	Thermal Neutron Porosity
PIGN	Effective Porosity
VUWA	Bulk Volume Water

Flounder A3A
Initial Production Date: 15/07/2005
Production Zone T-1.2 Lower
Initial Total Liquid Rate 230 kL/day, 0%watercut
Oil Rate 230 kL/d