

W912

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WCR VOL 1

SNAPPER-5 (W912)

**ESSO EXPLORATION AND PRODUCTION
AUSTRALIA INC.**

90 pages +
4 enclosures

**WELL COMPLETION REPORT
SNAPPER-5**

BASIC VOLUME 1 01 MAY 1986

PETROLEUM DIVISION

**GIPPSLAND BASIN
VICTORIA**

ESSO AUSTRALIA LIMITED

Compiled by: G.H.RODER

FEBRUARY.1986

SNAPPER-5

WELL COMPLETION REPORT

VOLUME 1

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(3264f83)

ESSO AUSTRALIA LTD

COMPLETION REPORT

WELL : SNAPPER-5

LOCATION : Latitude : 38° 13' 17.665" S
Longitude : 147° 59' 22.457" E
X = 586,621 mE
Y = 5,769,123 mE
Map Projection: UTM ZONE 55
Geographical Location: Gippsland Basin
Field: Snapper

PERMIT : Vic/L10

ELEVATION : 21m KB

WATER DEPTH : 56m

TOTAL DEPTH : 2990m KB (2969m SS)

PLUG BACK TYPE : Cement Plug

REASONS FOR PLUGGING BACK : Plug and Abandonment

MOVE IN : 1st July, 1985

SPUDDED : 2nd July, 1985

REACHED T.D. : 29th July, 1985

RIG RELEASED : 5th August, 1985

OPERATOR : EEPA

PERMITTEE OR LICENCEE : BHP Petroleum Pty. Ltd. and Esso Exploration and Production Australia Ltd.

ESSO INTEREST : 50%

OTHER INTEREST : 50%

CONTRACTOR : South Seas Drilling Company

RIG NAME : Southern Cross

EQUIPMENT TYPE : Semi Submersible Oilwell E-2000

TOTAL RIG DAYS : 29

TYPE COMPLETION : Plugged and Abandoned

WELL CLASSIFICATION : Before Drilling Field Outport/Deep Pool Test
After Drilling Deep Pool Discovery

27651/57

SNAPPER 5 CASING DATA

CSG O.D. in.	CSG WT. ppf	CSG GRADE	CSG CONN.	CSG LGTH mtrs.	CENTRALIZER POSITION.	SHOE DPTH mRKB	REMARKS
20	94	K-55	JV	12.75		199	Float Shoe Joint
20	94	K-55	JV	102.55	Across Collars on First Five Joints		7 Joints
20	129	K-55	JV/CC	12.55			Crossover Joint
24	670		CC	9.40			Wellhead Pile Joint No. EP7-1-2
13-3/8	54.5	K-55	Butt.	12.30		767	Float Shoe Joint
13-3/8	54.5	K-55	Butt.	12.51		764	Float Collar Joint
13-3/8	54.5	K-55	Butt.	751.91	Across Collars on First Six Joints		58 Joints
13-3/8			Butt.	9.98			Hanger Joint No. EH34-1-2. Seal Assy No. ES31-1

SNAPPER 5 CEMENT DATA

CEMENT JOB TYPE	CEMENT TOP mRKB	CEMENT BTM mRKB	CEMENT ADDITIVES	CEMENT VOLUME SKS	CEMENT WEIGHT PPG	REMARKS
20" Casing	77	124	2.2% Gel w/173 Bbls Seawater	750	13.4	Lead slurry. Divers confirm cmt returns.
20" Casing	124	199	42 Bbls Seawater	350	15.7	Tail slurry. Float held-OK.
13-3/8" Casing	287	787	125 Bbls Seawater	1,050	15.8	Displace w/ 330 Bbls. Bump plug w/ 1500 psi.
P&A Plug #1	2,815	2,990	1.0% HR6L w/49 Bbls Freshwater	415	15.8	Displace w/ 160 Bbls.
P&A Plug #2	2,640	2,815	1.0% HR6L w/50 Bbls Freshwater	424	15.8	Displace w/ 159 Bbls.
P&A Plug #3	2,495	2,640	0.9% HR6L w/43 Bbls Freshwater	363	15.8	Displace w/ 142 Bbls.
P&A Plug #4	2,320	2,470	0.9% HR6L w/41 Bbls Freshwater	347	15.8	Displace w/ 132 Bbls.
P&A Plug #5	2,220	2,320	0.8% HR6L w/28 Bbls Freshwater	234	15.8	Displace w/ 126 Bbls.
P&A Plug #6	1,985	2,135	0.7% HR6L w/42 Bbls Freshwater	350	15.8	Displace w/ 112 Bbls.
P&A Plug #7	1,810	1,985	0.6% HR6L w/49 Bbls Freshwater	409	15.8	Displace w/ 102 Bbls.

CLASS 'G' CEMENT USED ON ALL JOBS. GEL ADDITIVE IS PRE-HYDRATED.

SNAPPER 5 CEMENT DATA

CEMENT JOB TYPE	CEMENT TOP mRKB	CEMENT BTM mRKB	CEMENT ADDITIVES	CEMENT VOLUME SXS	CEMENT WEIGHT PPG	REMARKS
P&A Plug #8	1,635	1,810	0.4% HR6L w/49 Bbls Freshwater	415	15.8	Displace w/ 92 Bbls.
P&A Plug #9	1,350	1,450	28 Bbls Freshwater	234	15.8	Displace w/ 75 Bbls.
P&A Plug #10	1,266	1,350	26 Bbls Freshwater	220	15.8	Displace w/ 70 Bbls. Tagged w/ 30 Kips.
P&A Plug #11	1,214	1,266	19 Bbls Freshwater	159	15.8	Displace w/ 65 Bbls. Tagged w/ 30 Kips.
P&A Plug #12	717	825	37 Bbls Seawater	309	15.8	Displace w/ 39 Bbls. Tagged w/ 30 Kips.
P&A Plug #13	115	220	58 Bbls Seawater	485	15.8	Displace w/ 6 Bbls. Test to 500 psi.
Total:				6,514		

CLASS 'G' CEMENT USED ON ALL JOBS. GEL ADDITIVE IS PRE-HYDRATED.

SEQUENTIAL OPERATIONS

SNAPPER-5

Move and Moor

The Southern Cross departed the Whiting-2 location at 0740 hours July 1, 1985 and arrived at the Snapper-5 location at 1000 hours on the same day. The 10 nautical mile tow was completed in 2.25 hours at an average speed of 4.4 knots using the Atlas Dampier as the tow boat.

The anchors were run by the Atlas Dampier and Swan and Torrens Tides. The anchor running operation went smoothly other than the Swan Tide breaking the pendant line on No. 4 anchor. The operation was completed in 22 hours of which 11 hours was spent waiting on the workboats during their rest period. All anchors were pretensioned to 200 Kips.

Final rig location was Latitude : 38° 13' 17.665"S
Longitude : 147° 59' 22.457"E
X : 586,621 mE
Y : 5,769,123 mN

AMG Zone 55, Universal Transverse Mercator Projection, Australian Geodetic Datum.

The rig was located 5.8m at 300° from the called location and approximately 38km south of Lakes Entrance, Victoria.

Drill 26" Hole for 20" Casing

The drilling template was run and landed at a seafloor depth of 77m RKB. The 26" hole was drilled to 216m using seawater and high viscosity gel slugs to clean the hole. At TD a wiper trip was made and the hole displaced with high viscosity mud.

The 18-3/4" wellhead/pile joint and 20" casing were run and cemented with the casing shoe at 199m. The BOP stack and riser were run and the casing and collet connector tested to 500psi. During the rig up of the riser slip joint, a sledge hammer was dropped down the hole. After two unsuccessful attempts with a magnet followed by three runs of a reverse circulating basket and one run of an electromagnet, the fish was recovered by milling off the sledge hammer handle with a 17-1/2" bit and retrieving the head with a magnet. The fishing operation consumed 17-3/4 hours.

Drill 17-1/2" Hole for 13-3/8" Casing

The cement and casing shoe were drilled out and 17-1/2" hole drilled to 802m using a seawater/gel mud system. A wiper trip was made to the 20" casing shoe after tight spots were encountered from 742 to 304m. While running in the hole, a bridge was hit at 508m and the hole reamed from 508 to 802m. A sonic log was then run.

The 13-3/8" casing was run and cemented with the shoe at 787m. The plug was bumped with 1500psi. A Cameron 13-3/8" Lo Torque seal assembly was set and pressure tested to 200/5000psi. The BOP stack was then pressure tested.

Drill 12-1/4" Hole to 2990M

The float collar, cement and float shoe were drilled out and the rathole reamed to 802m. Five meters of new hole were drilled and a Phase II PIT was run to a leakoff at 875psi (EMW - 15.5ppg at casing shoe).

The 12-1/4" hole was drilled to 901m with a 9.0ppg seawater/gel mud. The mud weight was then raised to 10.2ppg while drilling to 1250m, in order to penetrate the Latrobe Formation with a 300psi overbalance.

Drilling continued to 1400m before two cores were cut from 1400 to 1419m in the N-1 sand. The first open hole PIT was then conducted to leakoff with a maximum pressure of 550psi. (EMW - 14.2ppg at the 13-3/8" casing shoe).

The 12-1/4" hole was drilled to 1728m before logs and RFT's 1-4 were run. RFT pretests showed the top of the N-1 sand to have a pressure of 8.8ppg EMW (10.2ppg mud gave an effective overbalance of 300psi). Since 200psi was considered sufficient overbalance at the top the N-1 sand, the mud weight was gradually reduced from 10.2ppg to 9.8ppg as the well was drilled from 1728 to 1932m. The well was deepened to the programmed TD of 2521m. After logs and RFT's No. 5 to 21 were run, the well was deepened upon the geologist's request.

The 12-1/4" hole was drilled to 2774m where the second open hole PIT was conducted to leakoff with a maximum of 250psi. (EMW - 11.7ppg at the 13-3/8" shoe).

Drilling continued to TD at 2990m without interruptions except for the cutting of core No. 3 from 2782 to 2788.3m. At 2990m, logs, RFT's No. 22 to 24, and CST's 1-3 were run.

PLUG AND ABANDONMENT

Using a diverting tool on 5" drillpipe, the well was plugged with 13 balanced cement plugs. Cement plugs No. 1 - 8 were set from 2990 - 1635m to cover hydrocarbon zones in the Intra Latrobe formation. The hole was circulated clean and gas units checked before each plug was set.

Cement plugs No. 9 - 11 were set from 1450 to 1214m to cover the Top of Latrobe (N-1 sand) hydrocarbons. Since gas migration was a problem on previous Snapper wells, the following special procedures were followed:

1. The Top of Latrobe gas zone was covered with cement in stages so that each plug would not set up at the same time.

Therefore, any hydrostatic reduction which occurred before the cement cured would be minimized.

2. After each of the three plugs were set, bottoms up was circulated to check gas units.
3. After plug No. 10 was set from 1350 to 1266m, the mud weight was raised from 9.8ppg to 10.5ppg to provide additional overbalance as the plug set up.
4. Both plug No. 10 and 11 were tagged with a bit to verify their tops. Bottoms up was circulated after both plugs were tagged. The gas units were compared to the readings recorded after the plugs were set to verify that no gas had migrated into the wellbore.

The 13-3/8" casing was sealed off from the wellbore with cement plug No. 12. The plug was tested to 1300psi before a bridge plug was set at 700m. The 13-3/8" casing was cut at 185m with a shaped explosive cutter and retrieved with a spear. The 13-3/8" x 20" casing annulus was sealed with cement from 185 to 115m and tested to 500 psi.

PULLING ANCHORS

Even though anchor pendant wires No. 7, 6 and 4 were fouled with their anchors, all anchors were retrieved in 12-3/4 hours using the Torrens Tide, Lady Sally and Swan Tide workboats. The rig departed the Snapper-5 location for the Whiptail-1 well location at 2115 hours on 5 August 1985 under tow by the Lady Sally.

WELL: SNAPPER-5

WIRELINE LOGS AND SURVEYS

<u>Type and Scale</u>	<u>From</u>	<u>To</u>
<u>Suite 1</u>		
BHC-GR 1:200 1:500	800.0	50.0m
<u>Suite 2</u>		
DLL-MSFL-GR 1:200 1:500	1753.0	787.0m
LDT-CNL-GR 1:200 1:500	1714.0	1240.0m
RFT-HP (PRESSURE RECORD) RUN 1 RFT-GR (PRESSURE RECORD) RUN 1		
RFT-HP (SAMPLE RECORD) RUNS 2, 3 & 4 RFT-GR (SAMPLE RECORD) RUNS 2, 3 & 4		
<u>Suite 3</u>		
DLL-MSFL-GR 1:200 1:500	2516.0	1650.0m
LDT-CNL-GR 1:200 1:500	2506.0	1650.0m
RFT-HP (PRESSURE RECORD) RUN 5 RFT-GR (PRESSURE RECORD) RUN 5		
RFT-HP (SAMPLE RECORD) RUNS 6 - 21 RFT-GR (SAMPLE RECORD) RUNS 6 - 21		
HDT-GR RUN 2 HDT-GR RUN 3 HDT-GR RUN 4	1:200 1:200 1:200	TOOL FAILURE
<u>Suite 4</u>		
DLL-MSFL-GR 1:200 1:500	2987.0	2440.0m
LDT-CNTH-GR 1:200 1:500	2981.0	2440.0m
BHC-GR 1:200 1:500	2990.0	787.0m
CST-GR (SIDE WALL CORES)		

Type and Scale

From

To

Suite 4

RFT-HP (PRESSURE RECORD) RUN 22
RFT-GR (PRESSURE RECORD) RUN 22

RFT-HP (SAMPLE RECORD) RUNS 23 & 24
RFT-GR (SAMPLE RECORD) RUNS 23 & 24

PLUG AND ABANDON

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST	SEAT	DEPTH (METRES) K.B.	CHAMBER	RECOVERY (LITRES)				HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS	
				OIL	COND.	GAS	FORMATION WATER	MUD FILTRATE	MPaa	Psia	MPaa		Psia
1	1	1459.0	Pretest					14.13	2048.6	17.62	2556.0	Valid	
1	2	1433.0	Pretest					14.01	2031.7	17.39	2522.0	Valid	
1	3	1421.0	Pretest					13.78	1998.0	17.11	2482.0	Valid	
1	4	1410.5	Pretest					13.67	1982.7	16.98	2463.0	Valid	
1	5	1404.0	Pretest					13.63	1976.3	16.90	2451.0	Valid	
1	6	1402.5	Pretest					13.61	1974.6	16.87	2446.0	Valid	
1	7	1398.5	Pretest					13.62	1974.7	16.82	2439.0	Possibly supercharged	
1	8	1394.0	Pretest					13.61	1973.2	16.75	2430.0	Valid	
1	9	1385.0	Pretest					13.60	1971.8	16.70	2422.0	Valid	
1	10	1375.0	Pretest					13.59	1970.8	16.55	2401.0	Valid	
1	11	1364.5	Pretest					13.57	1968.5	16.42	2382.0	Valid	
1	12	1357.0	Pretest					13.56	1967.2	16.33	2368.0	Valid	
1	13	1338.0	Pretest					13.54	1964.2	16.10	2335.0	Valid	
1	14	1323.0	Pretest					13.53	1963.0	15.92	2309.0	Valid	
1	15	1302.0	Pretest					13.52	1960.2	15.67	2273.0	Valid	
2	16	1402.5	45.4	-	0.30	4.630	0.80	-	13.61	1974.2	16.92	2454.0	Valid
			10.4	-	0.055	1.025	0.05	-			(MPag)	(Psig)	
3	17	1404.5	45.4	42.50	-	2.349	-	-	13.63	1976.5	16.93	2456.0	Valid
			10.4	8.50	-	0.600	-	-			(MPag)	(Psig)	
4	18	1410.5	45.4	35.00	-	2.312	5.00	-	13.66	1981.8	16.96	2460.0	Valid
			10.4	6.00	-	0.741	2.00	-			(MPag)	(Psig)	
5	19	2482.0	Pretest					24.46	3547.9	28.62	4151.3	Valid	
5	20	2474.0	Pretest					24.40	3538.7	28.54	4138.8	Valid	
5	21	2440.5	Pretest					24.01	3481.9	28.14	4080.7	Valid	
5	22	2415.0	Pretest					-	-	27.86	4040.2	Tight	
5	23	2365.0	Pretest					23.31	3381.1	27.27	3955.3	Valid	
5	24	2360.0	Pretest					23.36	3388.1	27.24	3951.5	Supercharged	
5	25	2313.5	Pretest					24.02	3483.3	26.70	3872.6	Supercharged	
5	26	2309.0	Pretest					22.96	3330.5	26.66	3866.2	Valid	
5	27	2302.5	Pretest					22.94	3327.7	26.62	3860.6	Valid	

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST	SEAT	DEPTH (METRES) K.B.	CHAMBER	RECOVERY (LITRES)				HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS	
				OIL	COND.	GAS	FORMATION	MUD	MPaa	Psia	MPaa		Psia
							WATER	FILTRATE					
				Litres	Litres	Litres	m ³	Litres	Litres				
5	28	2297.0	Pretest						22.92	3323.8	26.55	3850.9	Valid
5	29	2291.5	Pretest						22.95	3328.9	26.48	3840.1	Possibly Supercharged
5	30	2285.5	Pretest						-	-	26.43	3833.5	Seal Failure
5	31	2285.4	Pretest						25.16	3648.8	26.42	3832.5	Supercharged
5	32	2281.5	Pretest						22.66	3286.0	26.39	3826.9	Possibly Supercharged
5	33	2251.5	Pretest						-	-	26.04	3776.6	Tight
5	34	2251.0	Pretest						22.42	3251.8	26.04	3776.6	Possibly Supercharged
5	35	2240.5	Pretest						22.12	3208.3	25.93	3760.6	Valid
5	36	2229.0	Pretest						22.01	3192.5	25.80	3741.3	Valid
5	37	2190.5	Pretest						21.59	3131.8	25.36	3678.3	Valid
5	38	2125.5	Pretest						21.11	3061.8	24.62	3571.0	Valid
5	39	2113.5	Pretest						20.98	3043.3	24.51	3555.5	Valid
5	40	2107.0	Pretest						21.48	3114.8	24.44	3545.3	Supercharged
5	41	2102.5	Pretest						20.82	3019.0	24.38	3536.3	Valid
5	42	2093.0	Pretest						-	-	24.25	3517.8	Tight
5	43	2092.8	Pretest						20.72	3004.8	24.29	3521.3	Valid
5	44	2084.5	Pretest						21.05	3052.3	24.18	3507.2	Supercharged
5	45	2081.0	Pretest						20.94	3036.4	24.13	3500.4	Supercharged
5	46	2080.8	Pretest						20.74	3007.5	24.14	3500.5	Possibly supercharged
5	47	2053.0	Pretest						20.55	2981.2	23.83	3455.6	Valid
5	48	2046.5	Pretest						20.51	2974.8	23.75	3444.9	Valid
5	49	2028.5	Pretest						20.17	2925.2	23.53	3413.1	Valid
5	50	2019.0	Pretest						20.04	2907.0	23.44	3399.1	Valid
5	51	2011.0	Pretest						20.00	2900.5	23.36	3387.5	Valid
5	52	1994.0	Pretest						19.74	2863.1	23.17	3360.4	Valid
5	53	1981.0	Pretest						19.66	2850.7	23.01	3337.3	Valid
5	54	1961.5	Pretest						19.31	2800.6	22.80	3306.7	Valid
5	55	1950.5	Pretest						19.23	2789.4	22.67	3287.8	Valid
5	56	1943.0	Pretest						19.22	2788.2	22.59	3275.9	Valid
5	57	1924.0	Pretest						19.19	2783.2	22.36	3243.5	Valid

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST SEAT	DEPTH (METRES) K.B.	CHAMBER	RECOVERY (LITRES)				HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS		
			OIL	COND.	GAS	FORMATION WATER	MUD FILTRATE	MPaa	Psia	MPaa		Psia	
		Litres	Litres	Litres	m ³	Litres	Litres						
7	88	1789.2	22.7	21.5	-	1.386	-	-	17.43	2528.0	20.71	3003.0	Valid
			10.4	10.0	-	0.843	-	-			(MPag)	(Psig)	
8	89	1765.2	22.7	18.5	-	0.883	-	-	17.21	2496.7	20.49	2972.5	Valid
			10.4	8.0	-	0.496	-	-					
9	90	1755.5	22.7	-	-	0.039	23.0	-	17.09	2479.4	20.38	2956.2	Valid
			10.4	-	-	0.026	9.75	-					
10	91	1716.7							16.74	2427.4	19.91	2887.6	Valid Pretest, Tight, Sample Aborted
10	92	1716.5	22.7	11.75	-	0.569	-	9.75	16.69	2421.0	19.91	2888.3	Valid
			10.4	6.75	-	0.492	-	2.00					
11	93	1702.7	22.7	3.25	-	0.254	-	18.75	16.61	2409.5	19.68	2854.0	Valid
			3.8	Preserved							(MPag)	(Psig)	
WIPER TRIP													
12	94	2309.5	22.7	Film	-	1.457	-	12.75	22.98	3333.0	26.66	3866.0	Valid
			10.4	-	Scum	1.354	-	2.00			(MPag)	(Psig)	
13	95	2296.5	22.7	-	Scum	1.981	-	9.75	22.97	3331.0	26.56	3851.8	Valid
			10.4	-	Scum	1.370	-	1.75					
14	96	2102.4	22.7	-	Scum	3.181	-	3.00	20.83	3021.5	24.34	3530.8	Valid
			10.4	-	Scum	1.455	-	0.75					
15	97	1994.0							19.74	2862.9	23.11	3351.7	Valid Pretest Tight, Sample Aborted
15	98	1994.0							-				Seal Failure
15	99	1994.0							-				Seal Failure
15	100	1993.8	22.7	-	Scum	1.169	-	15.00	19.74	2862.5	23.11	3352.3	Valid
			10.4	-	Scum	1.148	-	2.25					
16	101	1833.5							17.82	2585.1	21.19	3073.0	Valid Pretest, Seal Failure whilst Sampling
											(MPag)	(Psig)	
16	102	1833.5	22.7	-	Trace	0.038	-	21.00	17.79	2580.5	21.28	3086.2	Valid
			10.4	-	Trace	0.028	-	10.00					
17	103	1837.3							17.89	2595.3	21.32	3091.8	Valid Pretest, Tight, Sample Aborted

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST	SEAT	DEPTH (METRES)	CHAMBER	RECOVERY (LITRES)				HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS	
				OIL	COND.	GAS	FORMATION WATER	MUD FILTRATE	MPaa	Psia	MPaa		Psia
		K.B.	Litres	Litres	Litres	m ³	Litres	Litres					
17	104	1837.0	22.7	0.50	-	0.090	-	18.50	17.89	2594.1	21.32	3092.4	Valid
			10.4	1.50	-	0.133	-	3.25					
18	105	1693.5	Pretest						16.48	2390.6	19.67	2852.7	Valid, too Tight for Sample
18	106	1693.3	Pretest						16.48	2390.3	19.67	2852.5	Valid, Opened Chamber, Tight for 18/106
18	107	1693.1	Pretest						16.43	2383.2	19.68	2853.6	Valid, too Tight for Sample
18	108	1693.6	Pretest						16.45	2385.9	19.67	2853.5	Valid, too Tight for Sample
18	109	1693.7	Pretest						16.46	2387.9	19.68	2854.3	Valid, too Tight for Sample
18	110	1684.5	Pretest						16.36	2373.3	19.57	2838.2	Valid, Opened Chamber, Tight for 18/110
18	111	1681.1	Pretest						16.36	2373.4	19.54	2833.4	Valid, Opened Chamber, Tight for 18/111
18	112	1680.9	22.7	-	Scum	0.685	-	17.00	16.35	2371.4	19.54	2833.5	Valid
			10.4	-	0.01	1.162	-	1.50					
19	113	2053.0	22.7	-	0.05	0.938	-	5.40	20.55	2979.9	23.77	3447.3	Valid
			10.4	-	0.02	1.334	-	1.00					
20	114	1787.5	22.7	-	0.08	2.737	-	1.70	17.41	2524.7	20.72	3004.9	Valid, Slow Build Up
			3.8	Preserved									
21	115	1751.7	22.7	-	0.05	2.184	-	6.00	17.06	2474.9	20.32	2947.3	Valid
			3.8	-	Scum	0.456	-	0.50					
22	116	2864.0	Pretest						-	-	33.11	4801.8	Tight, Seal Failure
22	117	2863.8	Pretest						-	-	33.11	4801.6	Tight
22	118	2864.0	Pretest						-	-	33.12	4804.1	Tight
22	119	2782.0	Pretest						-	-	32.12	4658.6	Tight
22	120	2705.0	Pretest						27.42	3976.5	31.20	4525.4	Valid
22	121	2482.0	Pretest						24.46	3547.2	28.62	4151.3	Valid
22	122	2502.5	Pretest						24.67	3577.5	28.90	4191.7	Valid
22	123	2864.0	Pretest						-	-	33.11	4802.1	Tight
22	124	2782.0	Pretest						-	-	32.11	4656.7	Tight
22	125	2705.0	Pretest						27.49	3986.5	31.19	4523.5	Valid, Tight

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST	SEAT	DEPTH (METRES) K.B.	CHAMBER	RECOVERY (LITRES)					HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS	
				OIL	COND.	GAS	FORMATION	MUD	MPaa	Psla	MPaa	Psla		
							WATER	FILTRATE						Litres
				Litres	Litres	Litres	m ³	Litres	Litres					
22	126	2700.0	Pretest						27.21	3946.1	31.14	4515.8	Valid	
22	127	2704.5	Pretest						27.42	3976.2	31.19	4524.4	Valid	
22	128	2678.5	Pretest						27.15	3937.3	30.87	4477.2	Valid	
22	129	2640.0	Pretest						26.10	3785.5	30.41	4410.0	Probably Valid	
22	130	2636.5	Pretest						27.15	3813.5	30.39	4407.7	Valid	
22	131	2621.9	Pretest						26.15	3792.8	30.24	4385.7	Valid	
22	132	2617.5	Pretest						26.06	3779.2	30.18	4377.7	Valid	
22	133	2611.8	Pretest						25.94	3762.3	30.01	4352.0	Valid	
22	134	2606.7	Pretest						25.94	3762.0	30.05	4358.9	Valid	
22	135	2593.5	Pretest						25.91	3758.4	29.90	4336.0	Valid	
22	136	2583.0	Pretest						25.92	3759.0	29.81	4323.6	Valid	Possibly Supercharged
22	137	2570.0	Pretest						25.55	3706.1	29.64	4299.4	Valid	
22	138	2564.0	Pretest						25.55	3705.6	29.60	4292.5	Valid	
22	139	2552.0	Pretest						25.80	3742.2	29.45	4271.6	Valid	
22	140	2542.5	Pretest						25.76	3736.1	29.35	4257.5	Valid	
22	141	2533.5	Pretest						25.68	3724.9	29.23	4238.8	Probably Valid	
22	142	2529.0	Pretest						25.04	3631.1	29.21	4236.6	Probably Valid	
22	143	2521.5	Pretest						24.84	3602.4	29.13	4225.2	Valid	
22	144	2513.0	Pretest						24.75	3590.3	29.02	4209.5	Valid	
22	145	2508.5	Pretest						24.72	3585.5	28.99	4204.4	Valid	
22	146	1724.0	Pretest						16.73	2426.6	20.04	2906.7	Valid	
22	147	1716.5	Pretest						16.68	2419.4	19.98	2897.8	Valid	
22	148	1714.0	Pretest						16.73	2426.9	19.97	2896.9	Valid	
22	149	1703.0	Pretest						16.63	2411.2	19.84	2877.5	Valid	
23	150	2864.0	Pretest						-	-	33.04	4792.2	Seal Failure	
23	151	2864.0	Pretest						-	-	33.05	4792.9	Seal Failure	
23	152	2863.8	Pretest						32.57	4723.6	33.01	4787.8	Tight	
23	153	2782.0	Pretest						29.50	4279.1	31.97	4637.3	Tight	
23	154	2705.0	Pretest						27.49	3987.4	31.15	4518.6	Tight	
23	155	2700.0	Pretest						-	-	31.11	4511.5	Tight	

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME - SNAPPER-5

TEST	SEAT	DEPTH (METRES) K.B.	CHAMBER	RECOVERY (LITRES)				HEWLETT-PACKARD FORMATION PRESSURE		HEWLETT-PACKARD HYDROSTATIC PRESSURE		REMARKS	
				OIL	COND.	GAS	FORMATION WATER	MUD FILTRATE	MPaa	Psia	MPaa		Psia
			Litres	Litres	Litres	m ³	Litres	Litres					
23	156	2700.0	Pretest						27.21	3946.4	-	-	Tight, Sample Aborted
23	157	2700.3	45.4	-	-	0.103	42.50	-	27.22	3948.5	31.12	4513.9	Valid
			3.8	-	-	Trace	3.50	-					
24	158	2636.5							-	-	30.58	4435.2	Seal Failure
24	159	2636.5							-	-	30.57	4434.2	Seal Failure
24	160	2636.6							26.36	3822.8	30.57	4434.2	Tight, Sample Aborted
24	161	2637.0							-	-	30.55	4431.2	Tight
24	162	2636.9							26.26	3808.7	30.54	4429.7	Tight, Sample Aborted
24	163	2636.4							26.11	3786.4	30.53	4427.6	Tight, Sample Aborted
24	164	2637.2							26.19	3799.0	30.63	4443.0	Tight, Sample Aborted
165	2639.8	2639.8	45.4	-	-	0.012	-	34.0	26.10	3785.4	30.53	4427.3	Valid
			10.4	Not Opened									

WELL: SNAPPER-5

SAMPLES, CONVENTIONAL CORES, SIDEWALL CORES

<u>INTERVAL</u>	<u>TYPE</u>
210.0-1180.0m	3 sets of washed and oven dried, 1 set of washed and air dried cuttings samples every 10m. One geochemical tin containing a composite of lightly washed samples from each 5 metre interval every 15m.
1180.0-2990.0m	3 sets of washed and oven dried, 1 set of washed and air dried cuttings samples every 5m. One geochemical tin containing a composite of lightly washed samples from each 5 metre interval every 15m. Also two tins of lightly washed air dried cuttings every 30m for fission track analysis.
1400.0-1409.4m	Plastic sleeve core #1
1409.4-1418.9m	Plastic sleeve core #2
2782.0-2788.3m	Conventional core #3.
2960.0-1285.0m	Sidewall cores (shot 102, Rec. 94) Also 32 shot off depth (Rec. 32).
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TEMPERATURE RECORD - SNAPPER-5

LOGGING RUN	THERMOMETER DEPTH (m)	MAX. RECORDED TEMPERATURE (C°)	CIRCULATION TIME (t _k) (hours)	TIME AFTER CIRCULATION STOPPED (t)	HORNER TEMPERATURE (C°)	GEO THERMAL GRADIENT (C°/km)
<u>Suite 1</u>						
BHC-GR	800.0	44.5	0.75	2.75	--	--
<u>Suite 2</u>						
DLL-MSFL-GR LDTC/CNL-GR (Combination)	1727.0	71.1	0.75	5.00)	Reliable but incompatible data - no horner plot.	
RFT-GR	1421.0	67.3	0.75	10.00)		
<u>Suite 3</u>						
DLL-MSFL-GR LDTC-CNL-GR (Combination)	2516.0	86.6	1.00	6.00	108.4	40.26
RFT-GR	2482.0	97.9	1.00	12.00		
<u>Suite 4</u>						
DLL-MSFL-GR LDTC-CNTH-GR (Combination)	2987.0	92.2	1.25	6.50)	113	35.36
RFT-GR	2864.0	102.8	1.25	14.00)		
BHC-GR	2990.0	138.0	2.25	15.67)	155	49.78
RFT-GR	2863.8	101.3	2.25	11.25)	(probably more reliable)	
CST-GR	2960.0	147.0	2.25	40.80)		

Weather alert - recirculation

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FIGURES

LOCALITY MAP

SNAPPER-5

SCALE 1:250 000

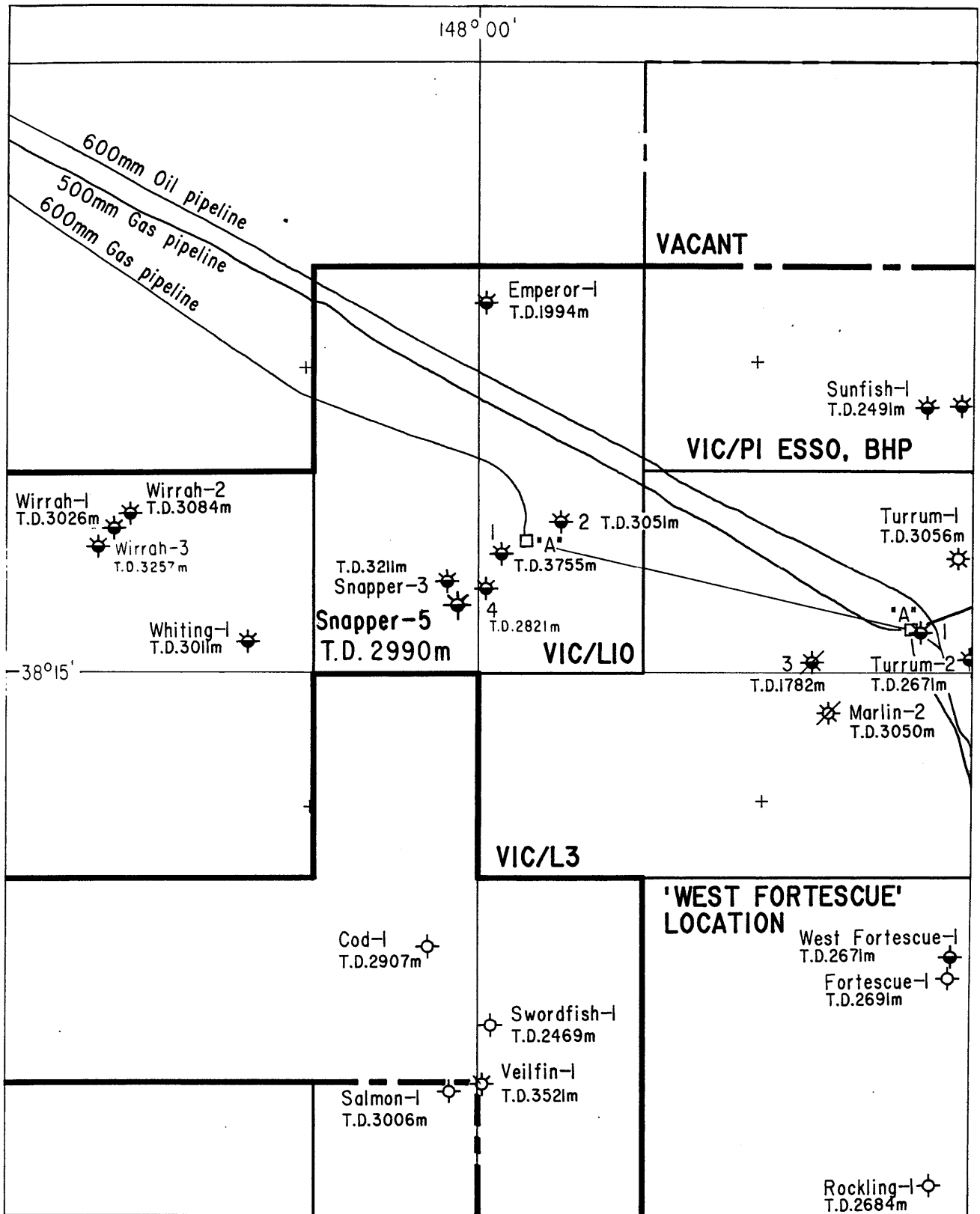


Fig 1

WELL PROGRESS CURVE

WELL: SNAPPER-5

RIG: SOUTHERN CROSS

CASING SEAT

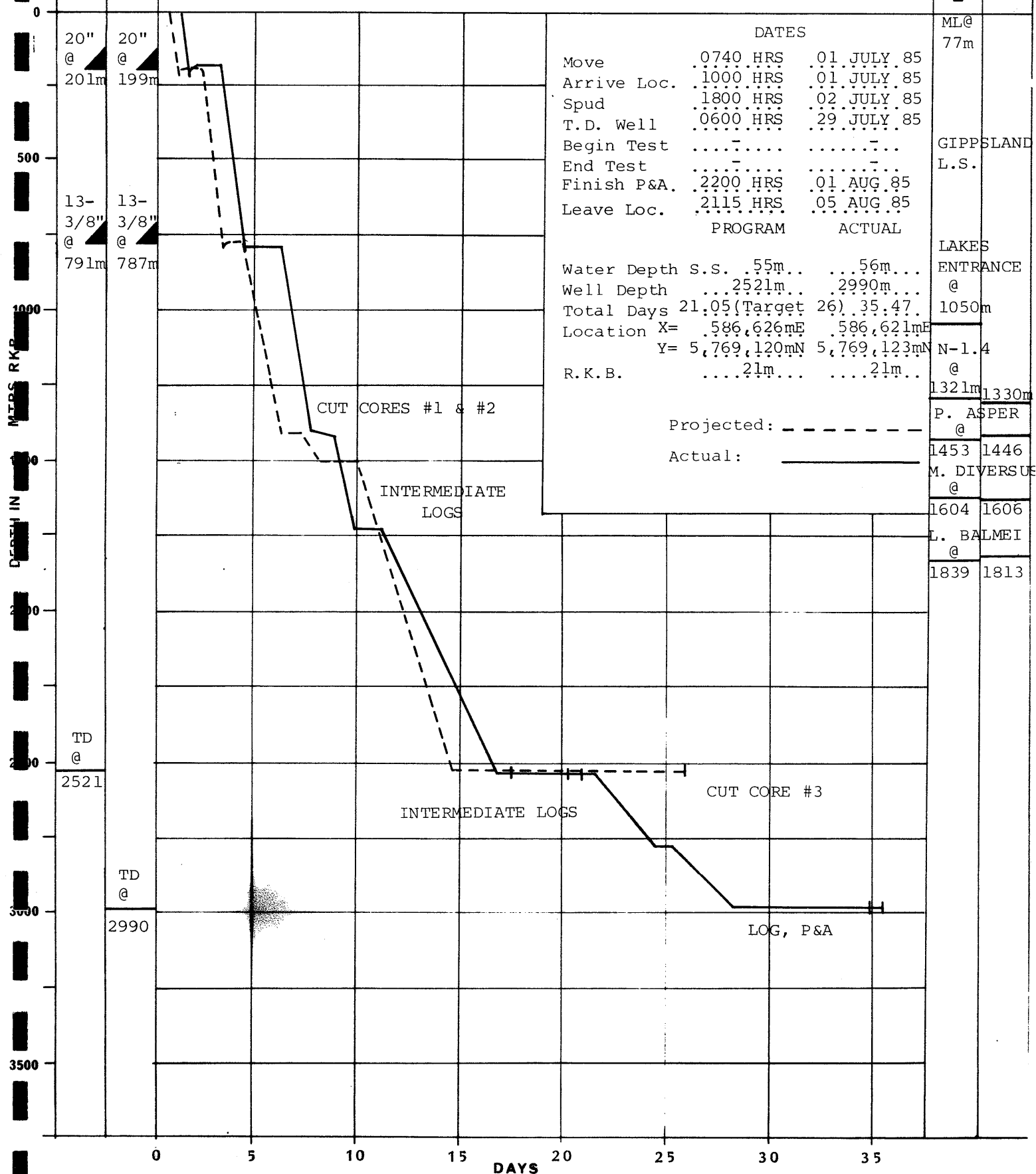
LITHOLOGY

DESIGN

ACTUAL

PROJECTED

ACTUAL



MTRS R.K.P.

DEPTH IN

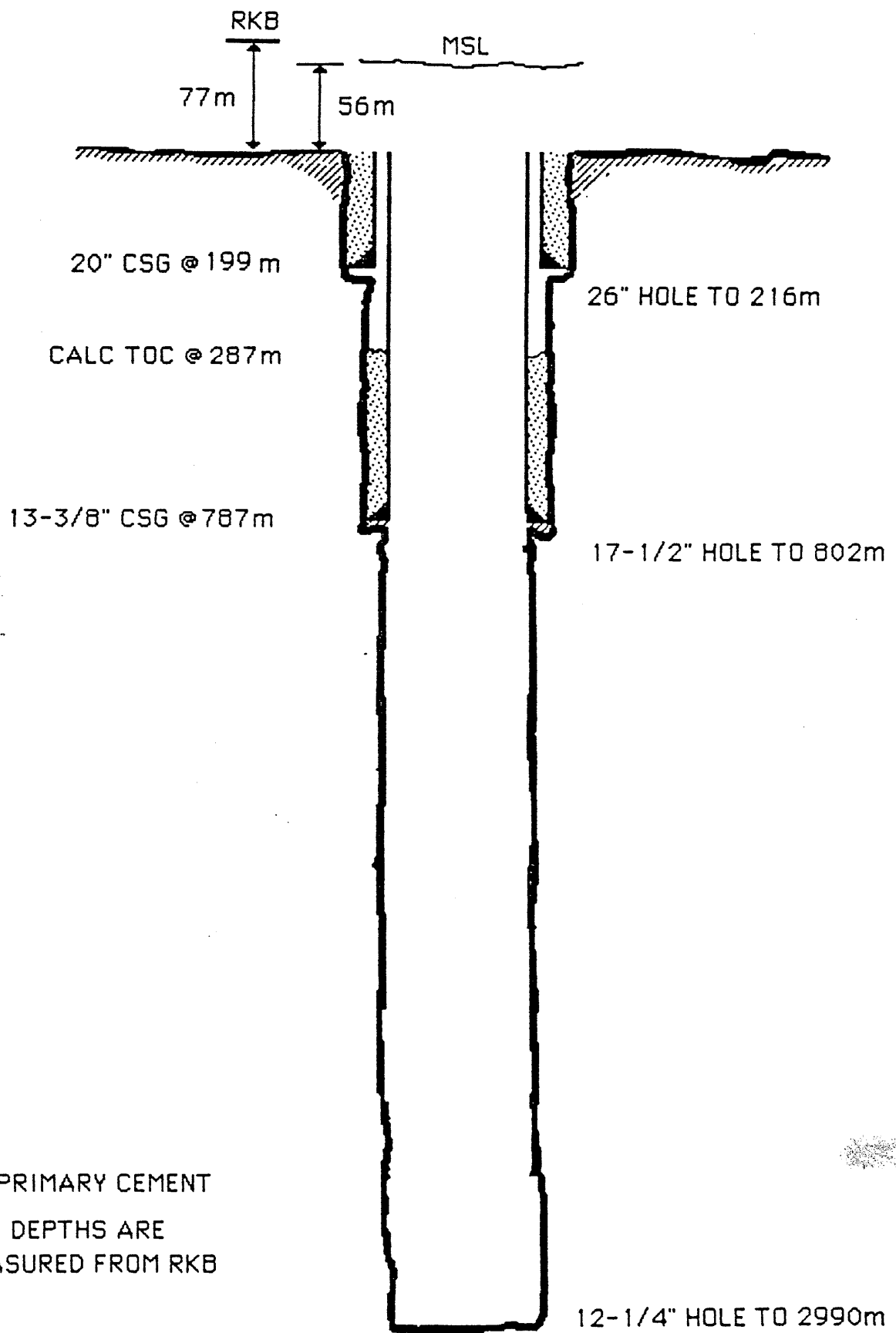
TD @

TD @

3500

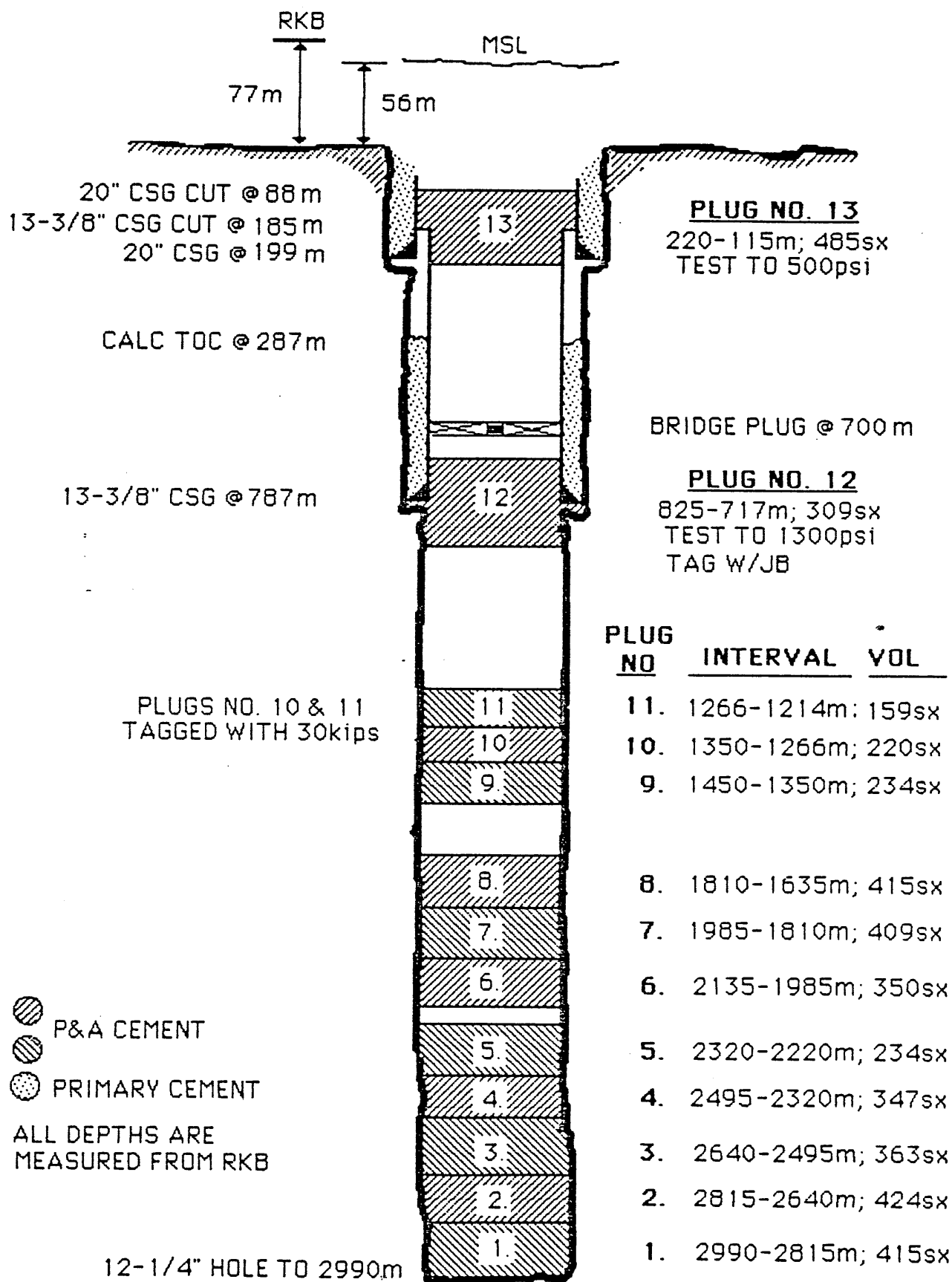
DAYS

SNAPPER 5 WELLBORE SCHEMATIC



● PRIMARY CEMENT
ALL DEPTHS ARE
MEASURED FROM RKB

SNAPPER 5 ABANDONMENT SCHEMATIC



SNAPPER-5

HORNER TEMPERATURE PLOT

WIRELINE LOGGING SUITE 3

tk = circulation time

Δt = time since circulation

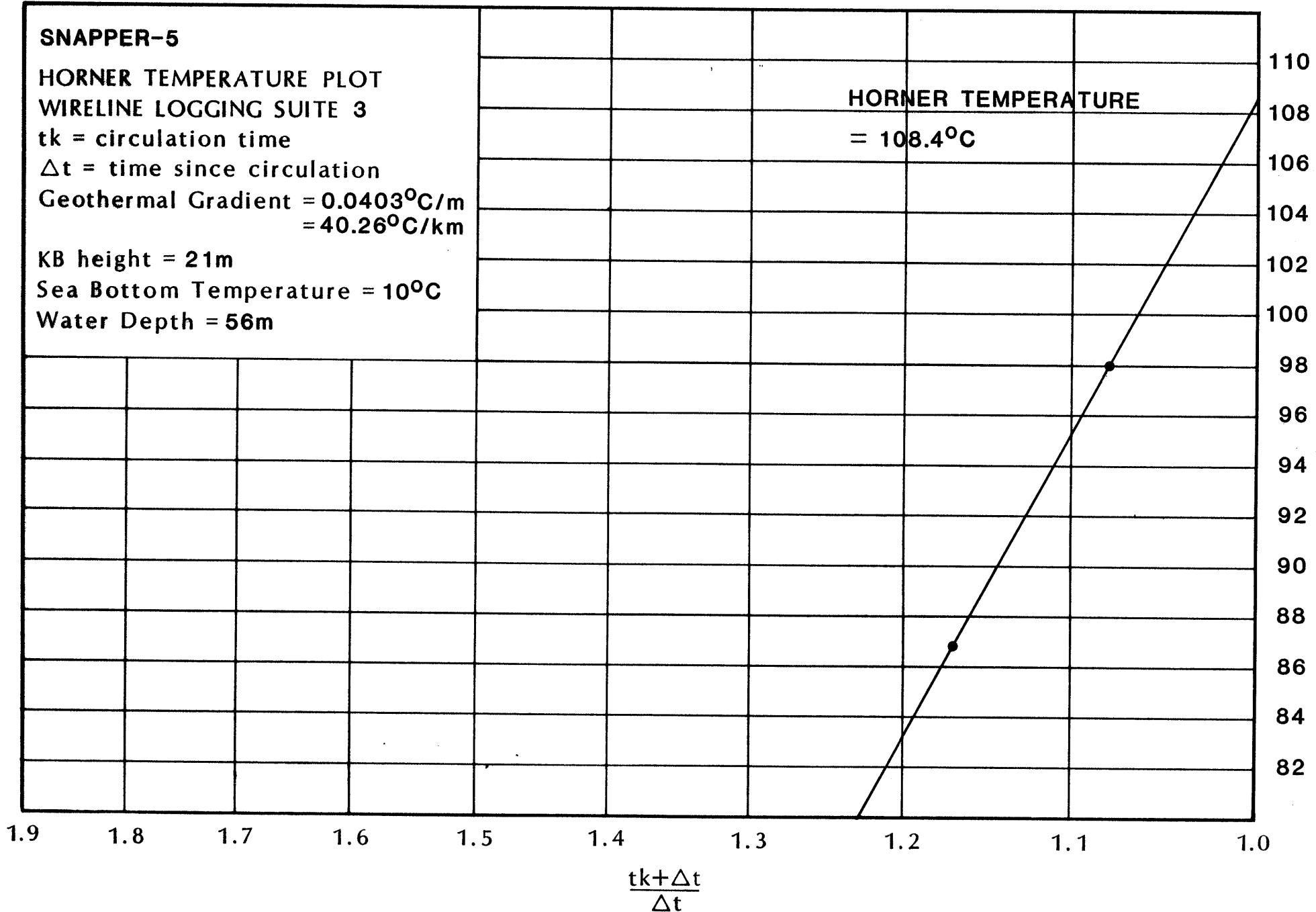
Geothermal Gradient = 0.0403°C/m
= 40.26°C/km

KB height = 21m

Sea Bottom Temperature = 10°C

Water Depth = 56m

TEMPERATURE°C



SNAPPER-5

HORNER TEMPERATURE PLOT

WIRELINE LOGGING SUITE 4

tk = circulation time

Δt = time since circulation

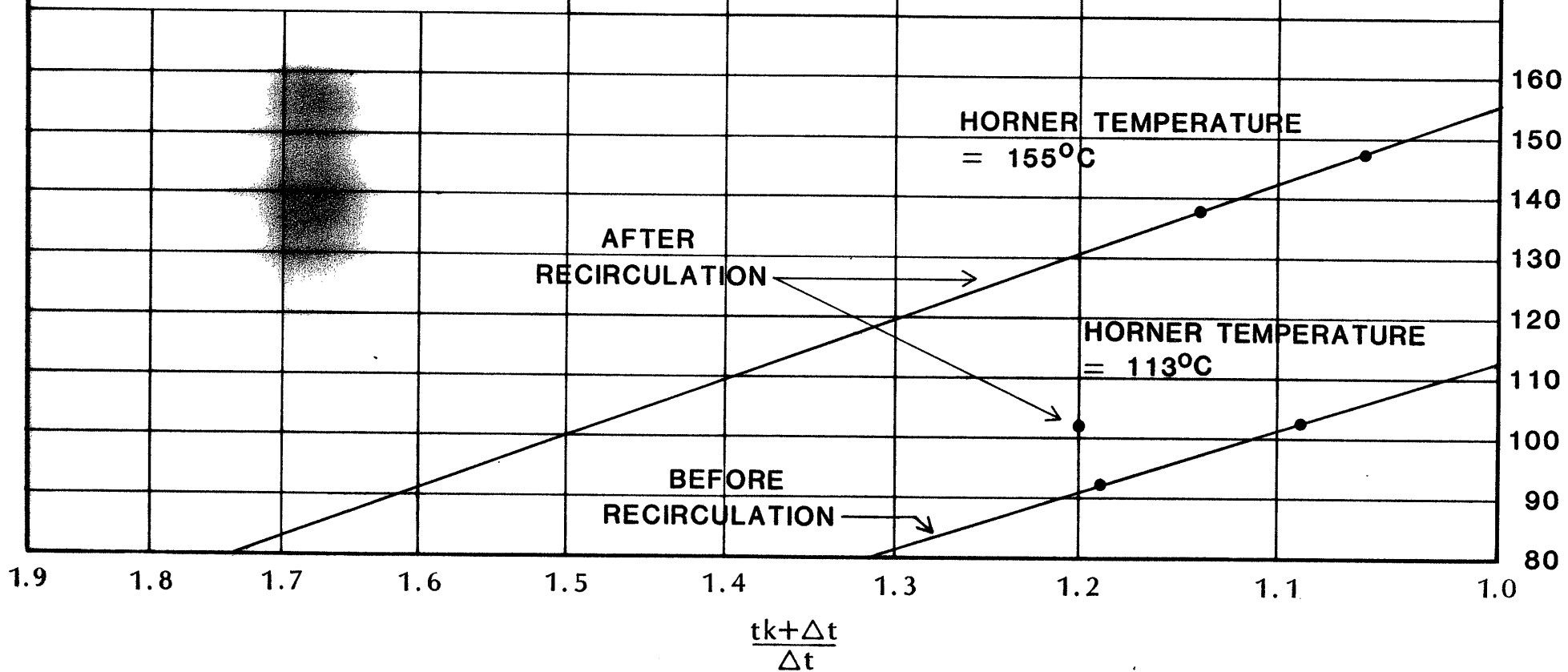
Geothermal Gradient = $35.36^{\circ}\text{C}/\text{m}$
or = $49.78^{\circ}\text{C}/\text{km}$

KB height = 21m

Sea Bottom Temperature = 10°C

Water Depth = 56m

TEMPERATURE $^{\circ}\text{C}$



APPENDIX 1

APPENDIX 1

LITHOLOGY DESCRIPTIONS

SNAPPER-5

Lithology Descriptions

<u>Depth</u>	<u>%</u>	<u>Descriptions</u>
210 - 220m	100	LIMESTONE: Calcarenite: brown-grey, friable to moderately hard, coarse grained, poorly sorted, abundant shell fragments, bryozoans, occasional fossil aggregates, probable coral, forams.
220 - 230m	100	LIMESTONE: Calcarenite: brown-grey, translucent, friable to moderately hard, coarse grained, poor to moderately sorted, abundant fossil fragments, shell fragments, coral stems, bryozoans, forams.
230 - 240m	100	LIMESTONE: Calcarenite: as above, fossils more abundant.
240 - 250m	100	LIMESTONE: Calcarenite: as above; except light grey and more fossiliferous aggregates with calcareous cement.
250 - 260m	100	LIMESTONE: Calcarenite: light grey, moderately friable to moderately hard, coarse grained, poorly sorted, fossiliferous aggregates well cemented, presence of clay indicates tending to calcisiltite; abundant fossils.
260 - 270m	100	LIMESTONE: Calcarenite/Calcisiltite: light grey, as above; except increased presence of silt causing fossiliferous aggregates.
270 - 280m	100	LIMESTONE: Calcisiltite: as above.
280 - 290m	100	LIMESTONE: Calcisiltite: light grey, in parts friable, moderately hard, coarse grained, poorly sorted, tending to become argillaceous in part, fossils less abundant, predominantly shells and coral.
290 - 300m	100	LIMESTONE: Calcisiltite: as above; except fossils less abundant.
300 - 310m	100	LIMESTONE: Calcisiltite: as above.
310 - 320m	100	LIMESTONE: Calcisiltite: as above.
320 - 330m	100	LIMESTONE: Calcisiltite: as above; soft in parts.
330 - 340m	100	LIMESTONE: Calcisiltite: as above.
340 - 350m	100	LIMESTONE: Calcisiltite: light grey, moderately hard, moderately sorted, occasionally coarse grained, argillaceous matrix, fossil fragments becoming less common, predominantly coral fragments.

350 - 360m	100	LIMESTONE: Calcisiltite: light grey, brown grey, moderately hard, moderately sorted, occasional calcarenite, argillaceous in parts, common fossil fragments - coral.
360 - 370m	100	LIMESTONE: Calcisiltite: as above.
370 - 380m	100	LIMESTONE: Calcisiltite: as above.
380 - 390m	100	LIMESTONE: Calcisiltite: as above.
390 - 400m	100	LIMESTONE: Calcisiltite: as above; abundant coral forams.
400 - 410m	100	LIMESTONE: tending towards Calcilutite: light grey, moderately hard aggregates, translucent to occasionally coarse grained fossil fragments; shell fragments, forams, coral, argillaceous in parts.
410 - 420m	100	LIMESTONE: as above; ranges between Calcilutite and Calcisiltite; abundant fossils.
420 - 430m	100	LIMESTONE: as above.
430 - 440m	100	LIMESTONE: as above; predominantly Calcisiltite; 40% Calcilutite - soft, light grey brown, argillaceous, occasional calcarenite, occasionally coral, forams.
440 - 450m	100	LIMESTONE: as above; less fossil fragments.
450 - 460m	100	LIMESTONE: as above; glauconitic in parts.
460 - 470m	100	LIMESTONE: as above.
470 - 480m	100	LIMESTONE: Calcilutite: light grey, fine grained, moderately to well sorted, predominantly silt/argillaceous matrix, only occasional fossil fragments, calcite cement.
480 - 490m	100	LIMESTONE: Calcilutite: light grey, fine grained, moderately sorted, silt/argillaceous matrix, occasional fossil possibly Cephalopod, calcite cement.
490 - 500m	100	LIMESTONE: Calcilutite: as above.
500 - 510m	100	LIMESTONE: 50% Calcilutite: as above. 50% Calcisiltite: light grey, moderately sorted.
510 - 520m	100	LIMESTONE: as above; but poorly sorted.
520 - 530m	100	LIMESTONE: Calcisiltite: light grey, moderately sorted, calcite cement, silt/argillaceous matrix, fossil becoming more abundant, coral fragments.
530 - 540m	100	LIMESTONE: Calcisiltite: as above; well sorted.
540 - 550m	100	LIMESTONE: Calcisiltite: as above; fragments of shells appearing along with coral.

550 - 560m	100	LIMESTONE: as above.
560 - 570m	100	LIMESTONE: as above.
570 - 580m	100	LIMESTONE: 70% Calcilutite; 30% Calcisiltite - light grey, fine grained, well sorted, calcite cement, calcareous/argillaceous matrix, coral.
580 - 590m	100	LIMESTONE: as above.
590 - 600m	100	LIMESTONE: Calcilutite: light grey, moderately hard, calcite cement, mainly calcareous with some argillaceous matrix, some silty inclusions, coral and shells - fossils.
600 - 610m	100	LIMESTONE: as above.
610 - 620m	100	LIMESTONE: as above.
620 - 630m	100	LIMESTONE: as above.
630 - 640m	100	LIMESTONE: 90% Calcilutite, 10% Calcisiltite: as above; but fewer fossils.
640 - 650m	100	LIMESTONE: as above.
650 - 660m	100	LIMESTONE: 90% Calcilutite, 10% Calcisiltite: fossils include coral, gastropods, Cephalopods.
660 - 670m	100	LIMESTONE: as above; fewer fossils, traces of pyrite.
670 - 680m	100	LIMESTONE: 90% Calcilutite, 10% Calcisiltite: light to medium grey, moderately hard, calcite cement, mainly calcareous matrix and some argillaceous, numerous fossils - corals, gastropods, brachiopods. PYRITE.
	trace	
680 - 690m	100	LIMESTONE: 95% Calcilutite, 5% Calcisiltite: as above.
690 - 700m	100	LIMESTONE: as above.
700 - 710m	100	LIMESTONE: 70% Calcilutite, 30% Calcisiltite: light to medium grey, moderately hard, calcite cement, mainly calcite with some argillaceous matrix, coral, pyrite becoming more abundant, occasional quartz grains.
710 - 720m	100	LIMESTONE: 50% Calcilutite, 50% Calcisiltite: medium grey, moderately hard, calcite cement, calcareous/argillaceous matrix, fossils becoming less abundant, trace quartz grains. PYRITE.
	trace	
720 - 730m	100	LIMESTONE: 65% Calcisiltite, 35% Calcilutite: light to medium grey, otherwise as above.
730 - 740m	100	LIMESTONE: 50% Calcisiltite, 50% Calcilutite: as above.

740 - 750m	100	LIMESTONE: 60% Calcisiltite, 40% Calcilutite: light to medium grey, otherwise as above; trace quartz grains.
750 - 760m	100	LIMESTONE: 60% Calcilutite, 40% Calcisiltite: light grey, fossils less abundant, otherwise as above.
760 - 770m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: light grey, otherwise as above.
770 - 780m	100	LIMESTONE: 80% Calcisiltite, 20% Calcilutite: grey, moderately hard, calcite cement, calcareous/argillaceous matrix, occasional fossils.
780 - 790m	100	LIMESTONE: 90% predominantly Calcilutite: medium dark grey, moderately hard, calcite cement, calcareous/argillaceous matrix.
790 - 800m	100	LIMESTONE: as above; soft to moderately hard, occasional fossils.
800 - 810m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: light grey to grey, firm to moderately hard, silty, occasional very fine quartz grains, calcareous matrix, argillaceous in part, fossil fragments.
	trace	PYRITE.
810 - 820m	100	LIMESTONE: 60% Calcisiltite, 40% Calcilutite: as above.
820 - 830m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: as above; grey to light grey.
830 - 840m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: as above.
840 - 850m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: light grey to grey, predominantly grey, soft to firm, occasionally moderately hard, occasional fine quartz grains, calcareous matrix, argillaceous in part.
	trace	FOSSIL FRAGMENTS.
	trace	FORAMS.
	trace	PYRITE.
850 - 860m	100	LIMESTONE: as above.
860 - 870m	100	LIMESTONE: as above.
870 - 880m	100	LIMESTONE: 50% Calcisiltite, 50% Calcilutite: light grey to grey, firm to moderately hard, predominantly firm, occasional fine quartz grains, calcareous matrix, argillaceous in part.
	trace	FOSSIL FRAGMENTS.
	trace	PYRITE.
880 - 890m	100	LIMESTONE: 60% Calcisiltite, 40% Calcilutite: light to medium grey, firm to soft, occasional loose quartz grains, argillaceous.
	trace	PYRITE.
	trace	GLAUCONITE.

890 - 900m	100	LIMESTONE: 80% Calcisiltite, 20% Calcilutite: as above, blocky.
900 - 910m	100	LIMESTONE: 80% Calcisiltite, 20% Calcilutite: as above.
910 - 920m	100	LIMESTONE: 70% Calcisiltite, 30% Calcilutite: occasional large, coarse, angular quartz granules, occasional fossils.
920 - 930m	100	LIMESTONE: 60% Calcisiltite, 40% Calcilutite: as above.
930 - 940m	100	LIMESTONE: 50% Calcisiltite: medium grey, firm, blocky, occasionally subfissile, calcareous matrix, occasional coarse, angular quartz grains. 50% Calcilutite: light grey, soft to very soft, sticky, argillaceous, occasional quartz inclusions.
940 - 950m	100	LIMESTONE: 50% Calcisiltite, 50% Calcilutite: as above.
950 - 960m	100 trace trace trace	LIMESTONE: as above; becoming firmer. FOSSILS. CORAL. FORAMS.
960 - 970m	100	LIMESTONE: as above; common quartz grains.
970 - 980m	100	LIMESTONE: 70% Calcilutite: as above; very soft, dispersive in part. 30% Calcisiltite: medium grey, firm to moderately hard, very silty to occasionally sandy, grading to calcareous siltstone in part, occasional very fine to coarse quartz grains, occasional fossils with associated pyrite.
980 - 990m	100	LIMESTONE: Calcarenite: light grey, buff, water sensitive in part, occasionally firm, becoming less fossilifereous, grading in part to Calcisiltite.
990 - 1000m	100	LIMESTONE: Calcarenite: as above.
1000 - 1010m	100	LIMESTONE: 80% Calcarenite: as above. 20% Calcilutite: as above.
1010 - 1020m	100	LIMESTONE: 80% Calcarenite: as above. 20% Calcilutite: as above.
1020 - 1030m	100	LIMESTONE: 80% Calcarenite: as above. 20% Calcilutite: as above; very soft, water sensitive.
1030 - 1040m	100	LIMESTONE: 70% Calcarenite: as above. 30% Calcilutite: as above.
1040 - 1050m	100	LIMESTONE: 70% Calcarenite: as above. 30% Calcilutite: as above; becoming firmer.

1050 - 1060m	100	LIMESTONE: Calcarenite: light grey to medium grey, buff, firm to occasionally moderately hard, occasionally very soft, silty, blocky. Calcilutite: light grey, white, very soft, dispersive, occasional granular inclusions.
	trace	PYRITE.
	trace	FOSSILS.
1060 - 1070m	100	LIMESTONE: 90% Calcarenite: as above; occasional fine to coarse, subrounded quartz grains. 10% Calcilutite/Calcisiltite: as above; soft, dispersive.
1070 - 1080m	100	LIMESTONE: Calcarenite: as above; silty/sandy in part, occasional coarse quartz grains.
	trace	FOSSILS.
1080 - 1090m	100	LIMESTONE: Calcarenite: medium grey to light grey, firm to occasionally moderately hard, occasionally very soft, very silty/sandy in part, blocky.
	trace	CALCILUTITE/CALCISILTITE.
1090 - 1100m	100	LIMESTONE: Calcarenite: light grey to medium grey, predominantly soft, dispersive, occasionally firm, as above; very argillaceous, grading to Calcilutite.
1100 - 1110m	100	LIMESTONE: Calcarenite: as above; grading to Calcilutite, predominantly light grey, firm to soft, silty in part.
1110 - 1120m	100	LIMESTONE: 70% Calcarenite: light grey to grey, predominantly light grey, firm to occasionally moderately hard, occasionally very soft, grading to Calcisiltite in part, occasional fine quartz grains, blocky, argillaceous. 30% Calcisiltite: grey, occasionally light grey, firm to moderately hard, blocky, argillaceous in part.
	trace	PYRITE.
	trace	FOSSILS FRAGMENTS.
1120 - 1130m	100	LIMESTONE: 60% Calcarenite: as above; occasional quartz grains, medium grained, occasional fossils, argillaceous in part. 40% Calcisiltite: as above.
1130 - 1140m	100	LIMESTONE: 70% Calcarenite: as above; no pyrite, predominantly light grey, occasionally grey, firm to moderately hard, blocky, silty in part. 30% Calcilutite: as above; soft to very soft, silty in part.
1140 - 1150m	100	LIMESTONE: 80% Calcarenite: light grey to occasionally grey, firm to moderately hard, occasionally soft, blocky, silty, occasional medium quartz grains, argillaceous in part, occasional fossil fragments. 20% Calcilutite/Calcisiltite: grey to light grey, firm to moderately hard, blocky, silty to sandy.

1150 - 1160m	100	LIMESTONE: 80% Calcarenite, 20% Calcilutite/Calcisiltite: as above.
1160 - 1170m	100	LIMESTONE: 80% Calcarenite: light grey, very sandy, occasional coarse quartz grains, argillaceous in part, blocky; grading to 20% Calcilutite/Calcisiltite, argillaceous in part.
1170 - 1180m	100	LIMESTONE: 60% Calcisiltite: grey to occasionally light grey, blocky, firm to moderately hard, silty/sandy. 40% Calcilutite/Calcarenite: as above, argillaceous in part.
1180 - 1185m	100	LIMESTONE: 60% Calcisiltite: as above. 40% Calcarenite: as above.
1185 - 1190m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1190 - 1195m	100	LIMESTONE: 60% Calcisiltite: as above. 40% Calcarenite: as above.
1195 - 1200m	100	LIMESTONE: 60% Calcisiltite: grey, occasionally dark grey to light grey, blocky, firm to moderately hard, very silty, sandy in part with fine to coarse quartz grains, argillaceous in part. 40% Calcarenite: light grey to grey, predominantly light grey, blocky, soft to firm predominantly firm, argillaceous in part. CALCILUTITE.
	trace	
1200 - 1205m	100	LIMESTONE: 60% Calcisiltite: as above. 40% Calcarenite: as above.
1205 - 1210m	100	LIMESTONE: 60% Calcisiltite: as above. 40% Calcarenite: as above.
1210 - 1215m	100	LIMESTONE: 70% Calcisiltite: as above; grey, occasionally light to dark grey, blocky to subfissile, firm to moderately hard, silty, occasional coarse quartz grains, occasional fossil fragments. 30% Calcarenite: light grey to grey, buff, soft to firm, blocky, argillaceous in part.
1215 - 1220m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1220 - 1225m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1225 - 1230m	100	LIMESTONE: 60% Calcisiltite: grey to occasionally light grey, blocky, subfissile, firm to moderately hard, silty, occasional coarse quartz grains. 40% Calcarenite: light grey, buff, firm to occasionally soft, blocky, argillaceous in part. FOSSIL FRAGMENTS. BRYOZOANS.
	trace	
	trace	

1230 - 1235m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1235 - 1240m	100	LIMESTONE: 60% Calcisiltite: grey, blocky, occasionally subfissile, firm to moderately hard, very silty, occasional coarse quartz grains. 40% Calcarenite: grey to light grey, soft to firm, blocky, argillaceous in part.
	trace trace	FOSSIL FRAGMENTS. BRYOZOANS.
1240 - 1245m	100	LIMESTONE: 60% Calcisiltite: as above; increase in coarse quartz grains, subangular to angular, translucent. 40% Calcarenite: as above.
1245 - 1250m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1250 - 1255m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1255 - 1260m	100	LIMESTONE: 70% Calcisiltite: as above. 30% Calcarenite: as above.
1260 - 1265m	100	LIMESTONE: 70% Calcisiltite: as above, grading in part to siltstone. 30% Calcarenite: as above.
1265 - 1270m	100	LIMESTONE: Calcarenite: as above; minor yellow mineral fluorescence.
1270 - 1275m	100	LIMESTONE: Calcarenite: as above.
1275 - 1280m	100	LIMESTONE: Calcarenite: as above, occasional forams throughout.
1280 - 1285m	100	LIMESTONE: Calcarenite: as above.
1285 - 1290m	100	LIMESTONE: Calcarenite: as above.
1290 - 1295m	100	LIMESTONE: Calcarenite: trace coarse dark green glauconite, occasional fossils, very sticky, water sensitive, grading in part to siltstone.
1295 - 1300m	50	SANDSTONE: dark brown to brown, predominantly medium grained, subangular to subrounded quartz grains; dominantly calcareous cement; carbonaceous grained; common subrounded glauconite pellets; occasional biotite scattered throughout; trace forams; minor, clear, very fine to fine quartz in a silica matrix, hard, firm; no visible fluorescence or cut.
	50	SILTSTONE: pale grey, micromicaceous, subfissile to fissile, firm, slightly calcareous; no shows.
1300 - 1305m	50	SANDSTONE: occasional scattered pyrite, occasional mollusca and forams, otherwise as above.
	50	SILTSTONE: as above.

1305 - 1310m	80	SANDSTONE: predominantly brown, medium to coarse grained, subrounded to subangular quartz grains; very carbonaceous, dominantly argillaceous, slightly calcareous matrix; common dark green discrete coarse, subangular glauconite pellets throughout, occasional glauconitic amalgamations, some pyrite, firm to hard; occasional subrounded, clear quartz granules, occasional clear, yellow/orange, mineralised, coarse to very coarse grained, subrounded quartz aggregates in a silica matrix; no shows.
	20	SILTSTONE: pale grey, subfissile, blocky, calcareous, micromicaceous.
1310 - 1315m	90	SANDSTONE: as above; greater abundance of yellow altered quartz.
	10	SILTSTONE: as above.
1315 - 1320m	100	SANDSTONE: discrete, clear, very coarse to granule size, subrounded quartz becoming abundant, otherwise as above.
1320 - 1325m	100	SANDSTONE: predominantly discrete, clear, very coarse to granule, subrounded quartz clasts, trace medium grained, subangular to subrounded quartz aggregates, well sorted, abundant pyrite with diminishing glauconite; no shows.
1325 - 1330m	100	SANDSTONE: as above.
1330 - 1335m	100	SANDSTONE: as above.
1335 - 1340m	100	SANDSTONE: as above.
1340 - 1345m	100	SANDSTONE: as above.
1345 - 1350m	100	SANDSTONE: as above.
1350 - 1355m	100	SANDSTONE: clear, coarse to granular grained, angular to subrounded quartz clasts, occasional calcite cement associated with the medium grained, subangular to subrounded quartz aggregates; 10% bright, yellow, mineral fluorescence; no crush cut; good visible porosity; occasional pyrite.
1355 - 1360m	90	SANDSTONE: abundant calcite cement with coarse, angular, dolomite rhombs; 30% associated, bright, yellow mineral fluorescence; no associated crush cut; otherwise as above.
	10	COAL: dark brown to black, subfissile, blocky, grading in part to shale.
1360 - 1365m	100	SANDSTONE: trace calcite/dolomite, otherwise as above.
	trace	COAL: as above.
1365 - 1370m	90	SANDSTONE: as above.
	10	COAL: as above.

1370 - 1375m	60	COAL: as above.
	40	SANDSTONE: as above.
1375 - 1380m	60	COAL: as above.
	40	SANDSTONE: as above.
1380 - 1385m	50	SANDSTONE: as above.
	50	COAL: as above.
1385 - 1390m	70	SANDSTONE: as above.
	30	COAL: as above.
1390 - 1395m	100	COAL: dark brown to black, subfissile, blocky, herbaceous.
1395 - 1400m	90	COAL: as above.
	10	SANDSTONE: as above.
1400 - 1418.9		SEE CORE #1 DESCRIPTION.
1419 - 1420m	60	SANDSTONE: clear, frosted, unconsolidated, subrounded to subangular quartz fragments, hard, poorly sorted; no shows.
	30	SILTSTONE: brown to light grey, micromicaceous, blocky, subfissile, argillaceous.
	10	COAL: as above.
1420 - 1425m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: as above.
1425 - 1430m	60	SILTSTONE: as above.
	30	SANDSTONE: as above.
	10	COAL: as above.
1430 - 1435m	60	SANDSTONE: as above.
	40	SILTSTONE: as above.
1435 - 1440m	80	SANDSTONE: white, clear, frosted, friable, subrounded to subangular quartz fragments, hard, well sorted, scattered well cemented dolomite rhombs; dull, yellow gold mineral fluorescence; no shows.
	20	COAL: as above.
1440 - 1445m	80	SANDSTONE: as above.
	20	COAL: as above.
1445 - 1450m	70	COAL: as above.
	30	SANDSTONE: as above.
1450 - 1455m	100	COAL: as above.
1455 - 1460m	40	SANDSTONE: as above.
	30	SILTSTONE: as above.
	30	COAL: as above.
1460 - 1465m	90	SANDSTONE: clean, clear, opaque, milky white, yellow, unconsolidated, grains with internal facets, angular quartz fragments, hard, moderately to well sorted; no shows.
	10	COAL: as above.

1465 - 1470m	90	SANDSTONE: as above.
	10	COAL: as above.
1470 - 1475m	80	SANDSTONE: 30% dull, gold, mineral, dolomite fluorescence, otherwise as above.
	20	COAL: as above.
1475 - 1480m	100	SANDSTONE: as above.
1480 - 1485m	100	SANDSTONE: clean, white, frosted, clear, opaque, highly dolomitised, well angled rhombs, with medium to coarse grained, subrounded to subangular quartz grains in a dolomitic calcite cement; very coarse to granule quartz fragments; 60% even, dull, yellow, mineral fluorescence.
1485 - 1490m	100	SANDSTONE: as above.
1490 - 1495m	100	SANDSTONE: dolomitised fraction is decreasing with about 20% mineral fluorescence, otherwise as above.
1495 - 1500m	100	SANDSTONE: as above.
1500 - 1505m	80	SANDSTONE: as above; no mineral fluorescence.
	20	COAL: as above.
1505 - 1510m	100	SANDSTONE: as above.
1510 - 1515m	100	SANDSTONE: as above.
1515 - 1520m	100	SANDSTONE: as above.
1520 - 1525m	100	SANDSTONE: as above.
1525 - 1530m	100	SANDSTONE: becoming increasingly dolomitic with associated dull, yellow, mineral fluorescence.
1530 - 1535m	100	SANDSTONE: as above.
1535 - 1540m	100	SANDSTONE: clean, clear, frosted, opaque, unconsolidated, well angled, immature granule quartz fragments, grains have internal facets, dominantly dolomitic cement; common, well cemented, coarse to very coarse dolomite rhombs, well sorted; very good porosity; 30% random, dull, yellow, gold mineral fluorescence; no shows.
1540 - 1545m	100	SANDSTONE: as above.
1545 - 1550m	100	SANDSTONE: as above.
1550 - 1555m	100	SANDSTONE: as above.
1555 - 1560m	90	SANDSTONE: as above.
	10	COAL: as above.
1560 - 1565m	100	SANDSTONE: as above; 10% mineral fluorescence.
1565 - 1570m	100	SANDSTONE: as above.

1570 - 1575m	100	SANDSTONE: as above.
1575 - 1580m	100 trace	SANDSTONE: trace dolomite, otherwise as above. COAL: as above.
1580 - 1585m	100	SANDSTONE: occasional pyrite, otherwise as above.
1585 - 1590m	100	SANDSTONE: as above.
1590 - 1595m	100	SANDSTONE: as above.
1595 - 1600m	100	SANDSTONE: as above.
1600 - 1605m	100	SANDSTONE: clean, clear, frosted, opaque, angular, granule quartz fragments, immature, excellent sorting; very good porosity; no shows.
1605 - 1610m	60 40	COAL: as above. SANDSTONE: as above.
1610 - 1615m	100	COAL: as above.
1615 - 1620m	100	COAL: as above.
1620 - 1625m	100	COAL: as above.
1625 - 1630m	100	COAL: as above.
1630 - 1635m	70 30	COAL: as above. SANDSTONE: as above.
1635 - 1640m	70 20 10	COAL: as above. SILTSTONE: pale brown, argillaceous, water sensitive, soft; no shows. SANDSTONE: as above.
1640 - 1645m	50 50	SANDSTONE: as above. COAL: as above.
1645 - 1650m	80 20	SANDSTONE: as above. COAL: as above.
1650 - 1655m	100	SANDSTONE: as above.
1655 - 1660m	100	SANDSTONE: as above.
1660 - 1665m	90 10	SANDSTONE: clean, frosted, clear, translucent, subrounded to subangular quartz granules, immature, well sorted; good porosity; no shows. COAL: as above.
1665 - 1670m	100	COAL: as above.
1670 - 1675m	100	COAL: as above.
1675 - 1680m	100	COAL: as above.
1680 - 1685m	70 30	COAL: as above. SILTSTONE: argillaceous, carbonaceous, blocky, very hard, occasional pyrite, grading in part to very fine, white sandstone.

1685 - 1690m	50	COAL: as above.
	50	SILTSTONE: as above.
1690 - 1695m	70	COAL: as above.
	30	SILTSTONE: as above.
1695 - 1700m	50	COAL: as above.
	40	SILTSTONE: as above.
	10	SANDSTONE: as above.
1700 - 1705m	70	COAL: as above.
	30	SILTSTONE: as above.
1705 - 1710m	100	SILTSTONE: as above.
1710 - 1715m	60	SILTSTONE: as above.
	40	COAL: as above.
1715 - 1720m	50	COAL: as above.
	50	SILTSTONE: as above.
1720 - 1725m	80	SILTSTONE: as above.
	20	COAL: as above.
		INTERMEDIATE LOGGING JOB AT 1728m
1728 - 1730m	100	SILTSTONE: predominantly light grey, water sensitive, clay, occasional quartzose, predominantly argillaceous; no shows.
	trace	COAL: as above.
	trace	SANDSTONE: clear granules, rounded; no shows.
1730 - 1735m	100	SILTSTONE: becoming increasingly water sensitive, grading to very fine quartz sandstone in a white clay matrix.
1735 - 1740m	50	SILTSTONE: as above.
	50	COAL: as above.
1740 - 1745m	80	COAL: as above.
	20	SILTSTONE: as above.
1745 - 1750m	70	COAL: as above.
	20	SILTSTONE: as above.
	10	SANDSTONE: as above.
1750 - 1755m	100	COAL: as above.
1755 - 1760m	100	COAL: as above.
1760 - 1765m	70	COAL: as above.
	30	SANDSTONE: as above.
1765 - 1770m	70	SANDSTONE: clear white, very fine to fine grained, subrounded to subangular quartz grains in a dominantly white clay water sensitive matrix, sticky, very soft, moderately sorted; occasional coarse, light brown, carbonaceous, silt fragments, trace very coarse to granular, translucent, angular quartz fragments; no shows.
	30	COAL: as above.
1770 - 1775m	50	SANDSTONE: as above.
	50	COAL: as above.

1775 - 1780m	50	SANDSTONE: as above.
	50	COAL: as above.
1780 - 1785m	50	SANDSTONE: as above.
	50	COAL: as above.
1785 - 1790m	50	SANDSTONE: as above.
	50	COAL: as above.
1790 - 1795m	80	COAL: as above.
	20	SANDSTONE: as above.
1795 - 1800m	100	COAL: as above.
1800 - 1805m	80	COAL: as above.
	20	SANDSTONE: as above.
1805 - 1810m	50	COAL: as above.
	50	SANDSTONE: as above.
1810 - 1815m	50	COAL: as above.
	50	SANDSTONE: as above.
1815 - 1820m	40	SANDSTONE: as above.
	30	SILTSTONE: as above.
	30	COAL: as above.
1820 - 1825m	70	SANDSTONE: white, very fine to fine grained, subrounded to subangular quartz aggregates in a dominantly soft water sensitive, colloidal, white clay; minor siliceous cement; common translucent, angular quartz granule fragments; carbonaceous, argillaceous, poorly sorted; no shows.
	20	SILTSTONE: pale brown, carbonaceous, firm, occasional coal stringers.
	10	COAL: as above.
1825 - 1830m	70	SANDSTONE: predominantly clear, unconsolidated, translucent, angular granule, quartz fragments, hard; no shows; occasionally very fine to fine quartz aggregates in a clay matrix, minor dolomitic cement, becoming slightly cleaner, poorly sorted; good porosity; no shows.
	30	SILTSTONE: as above.
1830 - 1835m	50	SILTSTONE: as above.
	50	COAL: as above.
1835 - 1840m	60	SILTSTONE: as above; pyritic.
	20	SANDSTONE: as above; 20% yellow mineral fluorescence; no cut.
	20	COAL: as above.
1840 - 1845m	90	COAL: black, vitreous, blocky, earthy in part.
	10	SILTSTONE: as above; grading to coal, grey to dark grey, blocky to subfissile in part, very carbonaceous.

1845 - 1850m	40	SILTSTONE: brown grey to light grey, predominantly grey, blocky to subfissile, firm to moderately hard, carbonaceous in part, very pyritic.
	30	SANDSTONE: clear, white, translucent, unconsolidated quartz grains, fine to medium grained, predominantly fine grained, occasionally coarse grained, subrounded to subangular, carbonaceous in part, very poorly sorted; no shows.
	30	COAL: as above; occasional sub conchoidal fracture.
1850 - 1855m	70	SILTSTONE: as above; brown grey, grey to dark grey, very carbonaceous in part.
	20	COAL: as above.
	10	SANDSTONE: as above.
1855 - 1860m	80	SILTSTONE: light grey to grey, occasionally grey brown, soft to firm, occasionally moderately hard, carbonaceous flecks, pyritic in part, blocky, argillaceous, grading to very fine sandstone in part; no shows.
	10	SANDSTONE: as above.
	10	COAL: as above.
1860 - 1865m	90	SILTSTONE: grey to grey brown, firm to hard, very hard in part, carbonaceous in part, pyritic, blocky to subfissile, argillaceous in part, calcareous in part; no shows.
	10	COAL: as above.
	trace	SANDSTONE: as above.
1865 - 1870m	70	SILTSTONE: as above.
	20	COAL: as above.
	10	SANDSTONE: as above.
1870 - 1875m	60	COAL: as above.
	40	SILTSTONE: as above.
1875 - 1880m	60	COAL: as above.
	40	SILTSTONE: as above.
1880 - 1885m	50	SILTSTONE: as above.
	40	COAL: as above.
	10	SANDSTONE: as above.
1885 - 1890m	70	COAL: as above.
	30	SILTSTONE: grading in part to very fine sandstone.
1890 - 1895m	50	SANDSTONE: white to clear, very fine to fine grained, subangular to subrounded quartz aggregates in a white water sensitive, soft, colloidal, clay matrix, poorly sorted; no shows.
	50	COAL: as above.
1895 - 1900m	40	SANDSTONE: as above.
	40	COAL: as above.
	20	SILTSTONE: as above.
1900 - 1905m	40	SANDSTONE: as above.
	40	COAL: as above.
	20	SILTSTONE: as above.

1905 - 1910m	40	SANDSTONE: as above.
	40	COAL: as above.
	20	SILTSTONE: as above.
1910 - 1915m	40	SANDSTONE: as above.
	40	COAL: as above.
	20	SILTSTONE: as above.
1915 - 1920m	70	SANDSTONE: as above.
	30	COAL: as above.
1920 - 1925m	90	SANDSTONE: grading in part to siltstone, otherwise as above.
	10	SILTSTONE: as above.
1925 - 1930m	90	SANDSTONE: white, buff, very fine to fine grained, occasionally medium grained, subrounded to subangular quartz aggregates in a dominantly water sensitive, white, colloidal clay to siltstone matrix, poorly sorted; good porosity; no shows.
	10	COAL: as above.
1930 - 1935m	50	SANDSTONE: as above.
	50	COAL: as above.
1935 - 1940m	60	SANDSTONE: slightly argillaceous, otherwise as above.
	30	SILTSTONE: brown, micromicaceous, blocky, firm.
	10	COAL: as above.
1940 - 1945m	60	SANDSTONE: becoming increasingly cleaner with a siliceous, firm matrix with less swelling clay matrix; fair to good porosity; no shows.
	30	SILTSTONE: as above.
	10	COAL: as above.
1945 - 1950m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: as above.
1950 - 1955m	90	SANDSTONE: as above.
	10	SILTSTONE: as above.
1955 - 1960m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: as above.
1960 - 1965m	90	SILTSTONE: light brown grey, very carbonaceous, soft, argillaceous, grades in part to very fine grained sandstone.
	10	SANDSTONE: as above.
1965 - 1970m	80	SILTSTONE: as above.
	20	COAL: as above.
1970 - 1975m	50	SILTSTONE: as above.
	50	COAL: as above.
1975 - 1980m	60	SILTSTONE: as above.
	20	SANDSTONE: as above.
	20	COAL: as above.

1980 - 1985m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
1985 - 1990m	100	SILTSTONE: as above.
1990 - 1995m	60	SILTSTONE: as above.
	30	COAL: as above.
	10	SANDSTONE: as above.
1995 - 2000m	60	SILTSTONE: as above.
	40	SANDSTONE: as above.
2000 - 2005m	80	COAL: as above.
	20	SANDSTONE: as above.
2005 - 2010m	50	SILTSTONE: light grey, brown, micromicaceous, siliceous in part, very carbonaceous, blocky, firm; no shows.
	50	COAL: as above.
2010 - 2015m	90	SILTSTONE: as above.
	10	COAL: as above.
2015 - 2020m	60	COAL: as above.
	40	SILTSTONE: as above.
2020 - 2025m	50	SILTSTONE: light grey to brown to dark brown, carbonaceous, micromicaceous, coal stringers, blocky, firm.
	40	SANDSTONE: buff, white, very fine to fine grained, clear quartz in a silica matrix, with abundant very hard, tight, blocky, cryptocrystalline dolomite; 30% very dull, gold, mineral fluorescence; no shows.
	10	COAL: as above.
2025 - 2030m	50	SANDSTONE: as above.
	50	COAL: as above.
2030 - 2035m	50	SANDSTONE: buff, white, very fine to fine grained, clear quartz aggregates in a dolomitic, siliceous cement, hard, occasional biotite, micaceous, tight; no shows.
	50	COAL: as above.
2035 - 2040m	40	SILTSTONE: as above.
	30	SANDSTONE: as above.
	30	COAL: as above.
2040 - 2045m	100	SILTSTONE: as above.
2045 - 2050m	90	SILTSTONE: light grey, brown, micromicaceous, siliceous in part, very carbonaceous, blocky, firm; no shows.
	10	SANDSTONE: very fine to fine grained, subangular and subrounded, clear quartz aggregates in a dominantly hard, siliceous matrix, very carbonaceous/argillaceous, poorly sorted; no shows.
2050 - 2055m	60	SILTSTONE: as above.
	40	SANDSTONE: as above.

2055 - 2060m	60	SILTSTONE: as above.
	30	SANDSTONE: as above.
	10	COAL: as above.
2060 - 2065m	50	SANDSTONE: clear, white, fine to medium grained, subrounded to subangular, quartz grains in a dominantly silica matrix, firm; no shows.
	50	SILTSTONE: as above.
2065 - 2070m	40	SANDSTONE: as above.
	40	SILTSTONE: as above.
	20	COAL: as above.
2070 - 2075m	50	SANDSTONE: as above.
	40	SILTSTONE: as above.
	10	COAL: as above.
2075 - 2080m	50	SILTSTONE: as above.
	30	SANDSTONE: as above.
	20	COAL: as above.
2080 - 2085m	50	SANDSTONE: about 20% dolomitic, very hard; dull, yellow fluorescence, otherwise as above.
	30	SILTSTONE: as above.
	20	COAL: as above.
2085 - 2090m	50	SANDSTONE: as above.
	40	SILTSTONE: as above.
	10	COAL: as above.
2090 - 2095m	50	SILTSTONE: as above.
	30	SANDSTONE: as above.
	20	COAL: as above.
2095 - 2100m	70	SILTSTONE: as above.
	20	SANDSTONE: as above.
	10	COAL: as above.
2100 - 2105m	60	SILTSTONE: as above.
	30	SANDSTONE: as above.
	10	COAL: as above.
2105 - 2110m	50	COAL: as above.
	40	SILTSTONE: as above.
	10	SANDSTONE: as above.
2110 - 2115m	80	SILTSTONE: grey brown to dark brown, carbonaceous/argillaceous, micromicaceous in part, blocky, hard; no shows.
	10	SANDSTONE: as above.
	10	COAL: as above.
2115 - 2120m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
2120 - 2125m	40	SILTSTONE: as above.
	40	COAL: as above.
	20	SANDSTONE: as above.
2125 - 2130m	80	COAL: as above.
	20	SANDSTONE: as above.

2130 - 2135m	40	SANDSTONE: white, clear, fine to medium grained, subangular to subrounded quartz aggregates in a silica, partly argillaceous, matrix, occasional clay, soft, water sensitive; no shows.
	30	SILTSTONE: light brown, micromicaceous, argillaceous and carbonaceous, firm to hard.
	30	COAL: as above.
2135 - 2140m	50	SANDSTONE: as above.
	40	SILTSTONE: as above.
	10	COAL: as above.
2140 - 2145m	60	COAL: as above.
	20	SANDSTONE: as above.
	20	SILTSTONE: as above.
2145 - 2150m	70	COAL: as above.
	20	SILTSTONE: as above.
	10	SANDSTONE: as above.
2150 - 2155m	60	SILTSTONE: grey to brown, dark grey, soft to firm, occasionally hard, argillaceous, micromicaceous in part, pyritic, grading to claystone in part, carbonaceous.
2150 - 2155m cont'd	30	SANDSTONE: white, clear, very fine to fine grained, occasionally medium grained, firm to moderately hard, subangular to subrounded quartz aggregates, predominantly silica matrix, argillaceous in part; occasional soft, white, clay matrix; 10% dull, yellow, mineral fluorescence; no cut; no shows; dolomitic in part.
	10	COAL: as above.
2155 - 2160m	60	SANDSTONE: as above; white to light grey; 10% dull, yellow, mineral fluorescence as above.
	40	SILTSTONE: as above; firm to moderately hard.
	trace	COAL: as above.
2160 - 2165m	70	SILTSTONE: brown to grey to dark grey, moderately hard to hard, occasionally firm, carbonaceous, siliceous, argillaceous in part, pyrite, carbonaceous laminations in part.
	30	SANDSTONE: as above; predominantly soft, clay matrix; 10% dull, yellow fluorescence.
2165 - 2170m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.
2170 - 2175m	90	SANDSTONE: trace pyrite, otherwise as above.
	10	SILTSTONE: as above.
2175 - 2180m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
2180 - 2185m	80	SILTSTONE: as above.
	20	SANDSTONE: as above; 10% mineral fluorescence.

2185 - 2190m	60	SILTSTONE: grey to dark brown, mainly carbonaceous, grading in part to very fine grained sandstone.
	40	SANDSTONE: white/light grey to pale brown, very fine to fine grained, subrounded to subangular quartz aggregates in a predominantly dirty, carbonaceous, argillaceous, siltstone matrix, occasional dolomitic cement, scattered pyrite, poorly sorted; poor porosity; no shows.
2190 - 2195m	50	SANDSTONE: white, clear, medium grained, subrounded, to subangular quartz aggregates in a predominantly siliceous cement, otherwise as above.
	50	SILTSTONE: as above.
2195 - 2200m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2200 - 2205m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2205 - 2210m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: as above.
2210 - 2215m	60	SILTSTONE: as above.
	20	SANDSTONE: as above.
	20	COAL: as above.
2215 - 2220m	70	SILTSTONE: as above.
	30	SANDSTONE: as above.
		POOH FOR BIT CHANGE.
2220 - 2225m	70	SILTSTONE: as above.
	30	SANDSTONE: as above.
2225 - 2230m	60	SANDSTONE: white, clear, subrounded to subangular, medium grained quartz aggregates in a dominantly siliceous cement; trace muscovite, biotite; trace clear, angular quartz granules; no shows.
	30	SILTSTONE: pale grey to dark brown, micromicaceous, silica, firm, hard, blocky, occasionally subfissile.
	10	COAL: as above.
2230 - 2235m	60	SILTSTONE: as above.
	30	SANDSTONE: as above.
	10	COAL: as above.
2235 - 2240m	50	SILTSTONE: as above.
	30	SANDSTONE: as above.
	20	COAL: as above.
2240 - 2245m	50	SILTSTONE: as above.
	40	SANDSTONE: as above; becoming increasingly dolomitic; 30% yellow, gold, mineral fluorescence.
	10	COAL: as above.
2245 - 2250m	60	SANDSTONE: as above.
	40	SILTSTONE: as above.

2250 - 2255m	60	SANDSTONE: white, clear, fine to medium grained, subrounded to subangular quartz aggregates in a dominantly silica matrix, common dolomitic cement, scattered pyrite, very carbonaceous, argillaceous, poorly sorted; 30% gold, yellow, mineral fluorescence; poor porosity; no shows.
	40	SILTSTONE: grey, dark brown, micromicaceous, carbonaceous filaments, argillaceous, grading in part to very fine grained, carbonaceous sandstone.
2255 - 2260m	60	SANDSTONE: as above.
	40	SILTSTONE: as above.
2260 - 2265m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
2265 - 2270m	70	SANDSTONE: as above.
	30	SILTSTONE: as above.
2270 - 2275m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
2275 - 2280m	50	SANDSTONE: as above.
	40	SILTSTONE: as above.
	10	COAL: as above.
2280 - 2285m	60	SANDSTONE: as above.
	30	SILTSTONE: as above.
	10	COAL: as above.
2285 - 2290m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2290 - 2295m	80	SANDSTONE: white, buff, pale brown, very fine to medium grained, subrounded to subangular quartz aggregates in a dominantly silica, occasionally argillaceous, colloidal, water sensitive clay matrix, soft to firm, micromicaceous, dolomitic in part, overall very clean, well sorted, tight; 10% gold, yellow, mineral fluorescence; no shows.
	20	SILTSTONE: pale brown to dark grey-brown, black carbonaceous streaks, partly argillaceous, blocky, firm, subfissile in part, grading in part to very fine grained sandstone as above.
	trace	COAL: as above.
2295 - 2300m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
2300 - 2305m	70	SANDSTONE: as above.
	20	SILTSTONE: as above.
	10	COAL: as above.
2305 - 2310m	60	COAL: as above.
	20	SANDSTONE: as above.
	20	SILTSTONE: as above.

2310 - 2315m	60	SANDSTONE: brown, white to translucent, medium to fine grained, subangular quartz, argillaceous matrix; friable, loose, firm in part, siliceous cement; poor porosity; no shows.
	40	SILTSTONE: as above; carbonaceous, micromicaceous, trace pyrite.
2315 - 2320m	70	SANDSTONE: white, clear, brown, fine to medium grained, subangular to subrounded quartz aggregates in a siliceous, hard matrix; carbonaceous in part, tight; no shows.
	30	SILTSTONE: brown, grey, micromicaceous, carbonaceous, argillaceous, blocky, firm; no shows.
2320 - 2325m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
2325 - 2330m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
2330 - 2335m	60	SANDSTONE: white to translucent, brown grey, medium to dominantly fine grained, argillaceous in part, friable, occasional siliceous cement, carbonaceous in part; no shows.
	40	SILTSTONE: dark brown to light brown to white, argillaceous, carbonaceous, soft to friable, trace pyrite.
2335 - 2340m	50	SANDSTONE: as above.
	30	SILTSTONE: as above.
	20	COAL: as above.
2340 - 2345m	40	SANDSTONE: as above.
	40	SILTSTONE: as above.
	20	COAL: as above.
2345 - 2350m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2350 - 2355m	70	SILTSTONE: as above.
	30	SANDSTONE: as above.
2355 - 2360m	60	SILTSTONE: as above.
	40	SANDSTONE: as above.
2360 - 2365m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2365 - 2370m	40	SILTSTONE: as above.
	30	SANDSTONE: as above.
	30	COAL: as above.
2370 - 2375m	50	SILTSTONE: as above.
	30	COAL: as above.
	20	SANDSTONE: as above.
2375 - 2380m	50	SILTSTONE: grey to dark brown, carbonaceous, argillaceous, blocky, firm, subfissile, grading to very fine, carbonaceous sandstone.
	30	COAL: black to very dark brown, grading to fissile, very carbonaceous shale, blocky, conchoidal fracture.

2375 - 2380m cont'd	20	SANDSTONE: white, buff, fine to medium grained, subrounded to subangular quartz aggregates in a silica, partly dolomite matrix, hard to firm, trace pyrite, occasionally carbonaceous, tight; no shows.
2380 - 2385m	60 40	SILTSTONE: as above. SANDSTONE: as above.
2385 - 2390m	60 30 10	SILTSTONE: as above. SANDSTONE: as above. COAL: as above.
2390 - 2395m	60 40	SILTSTONE: as above. SANDSTONE: as above.
2395 - 2400m	60 20 20	SILTSTONE: dark grey to dark brown, occasionally light grey-brown, carbonaceous, friable to firm, pyrite, fissile to blocky, arenaceous in part. SANDSTONE: light brown, white to translucent, occasionally dark grey, medium to dominantly fine grained, argillaceous matrix in part, friable to loose, siliceous cement, moderately to well sorted; poor visible porosity; no shows. COAL: black, fissile, brittle.
2400 - 2405m	60 20 20	SILTSTONE: as above. SANDSTONE: as above. COAL: as above.
2405 - 2410m	70 20 10	SILTSTONE: medium grey to brownish grey, minor light grey to medium light grey, firm to occasionally moderately hard, blocky cuttings grading in parts to subfissile shale, carbonaceous to occasionally very carbonaceous in shaly cuttings; 5% moderately bright, yellowish-white fluorescence; slow to moderately fast diffuse to streaming white cut; fast strong streaming, white crush cut. SANDSTONE: quartzose aggregates: very light to light grey, friable, very fine to occasionally fine grained, very well sorted, rounded, trace argillaceous matrix, occasional carbonaceous inclusions; poor visible porosity; no shows. COAL: as above.
2410 - 2415m	70 30 trace	SILTSTONE: as above; no shows, grading to claystone in parts. SANDSTONE: occasionally fine to medium grained, otherwise as above. COAL: as above.
2415 - 2420m	80 20	SANDSTONE: argillaceous in parts, otherwise as above; no shows. SILTSTONE: as above.
2420 - 2425m	50 40 10	COAL: black, brittle, angular cuttings, subvitreous. SANDSTONE: quartzose aggregates: as above; no shows. SILTSTONE: as above.

2425 - 2430m	80	COAL: subvitreous to vitreous, otherwise as above.
	10	SANDSTONE: as above.
	10	SILTSTONE: as above.
2430 - 2435m	60	SILTSTONE: as above.
	40	SANDSTONE: light grey to light brown, argillaceous matrix, medium to fine grained, moderately sorted, friable; no shows.
	trace	COAL: as above.
2435 - 2440m	50	SANDSTONE: as above.
	40	SILTSTONE: as above.
	10	COAL: as above.
2440 - 2445m	50	SANDSTONE: as above.
	50	SILTSTONE: as above.
2445 - 2450m	50	COAL: as above.
	30	SILTSTONE: medium grey to dark grey, brownish grey, occasionally medium light grey, firm, blocky cuttings, carbonaceous; grades in parts to brownish grey to dark grey, firm, subfissile to fissile, very carbonaceous shale.
	20	SANDSTONE: quartzose aggregates: light to medium light grey, friable, very fine grained, occasionally fine to medium grained, subrounded to rounded, well sorted, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows.
2450 - 2455m	40	COAL: as above.
	40	SILTSTONE: as above.
	20	SANDSTONE: quartzose aggregates: as above.
2455 - 2460m	80	SILTSTONE: as above; also commonly light grey to medium light grey, firm, blocky cuttings; occasional very small carbonaceous inclusions; occasional carbonaceous cuttings have patchy fluorescence and cut.
	20	SANDSTONE: as above.
	trace	COAL: as above.
2460 - 2465m	75	SILTSTONE: predominantly light grey, only slightly carbonaceous.
	20	SANDSTONE: as above; 5% moderately bright, whitish fluorescence and slow diffuse to very slowly streaming white cut and instant white crush cut.
	5	COAL: as above; grades into very carbonaceous shale.
2465 - 2470m	70	SILTSTONE: as above; trace dull, orange, mineral (dolomite) fluorescence.
	30	SANDSTONE: quartzose aggregates: as above; with 5% moderately bright, white fluorescence; moderately fast, streaming white cut; weak, white, crush cut.

2470 - 2475m	55	SILTSTONE: as above; dolomitic in parts; 5% dull, orange, mineral fluorescence, occasional pyrite inclusions.
	40	SANDSTONE: quartzose aggregates: light grey, friable, very fine grained, less commonly fine to medium grained, subrounded, very fine grained aggregates; very fine grained aggregates are very well sorted; fine to medium grained aggregates are moderately well sorted to well sorted; trace argillaceous matrix, trace siliceous cement in parts, occasional carbonaceous inclusions; poor visible porosity; trace moderately bright, white fluorescence; slow, weak, diffuse, white cut; weak crush cut; minor (approximately 10%) loose quartz, translucent, medium to very coarse grained, predominantly coarse to very coarse, angular to subangular, poorly sorted; no shows.
	5	COAL: grading to carbonaceous shale.
2475 - 2480m	60	SILTSTONE: very argillaceous grading to soft claystone in parts, occasionally medium dark grey to dark grey, carbonaceous, otherwise as above; with trace mineral (dolomitic) fluorescence.
	40	SANDSTONE: aggregates as above; occasional cuttings have dull, patchy, whitish fluorescence; no cut with instant weak crush cut; minor (approximately 15%) loose quartz; subangular to subrounded, otherwise as above; no shows.
2480 - 2485m	60	SANDSTONE: 20% quartzose aggregates as above; dominantly medium to fine grained, argillaceous, moderately well sorted, argillaceous matrix; occasional siliceous cement; no shows.
	40	SILTSTONE: as above.
2485 - 2490m	50	SILTSTONE: as above.
	40	SANDSTONE: as above; (5% aggregates), no shows; predominantly mineral fluorescence; trace fluorescence; slow crush cut.
	10	COAL: as above.
2490 - 2495m	70	SILTSTONE: as above.
	30	SANDSTONE: light grey to light brown, occasionally clear to translucent, argillaceous matrix; carbonaceous laminations in part, dominantly medium to fine grained, moderately sorted, occasional quartz aggregates and loose coarse quartz grains, friable to loose; 10% yellow/orange, mineral fluorescence; trace moderately bright fluorescence; crush cut only; diffuse, weak, thin, residual ring.
2495 - 2500m	60	SANDSTONE: light grey to light brown, very argillaceous, dominantly medium to fine grained, mineral fluorescence only.
	40	SILTSTONE: light grey to light brown, occasionally dark brown, less carbonaceous, argillaceous, grading to sandstone.
	trace	COAL: as above.

2500 - 2505m	70	SANDSTONE: light grey to light brown, translucent in part, dominantly argillaceous matrix, medium to fine grained, occasional loose quartz aggregates, occasional dolomitic cement, mineral fluorescence, silica matrix in part, friable to loose; poor visible porosity; no shows.
	30	SILTSTONE: light grey to light brown, argillaceous, soft to occasionally friable, grading to sandstone, trace carbonaceous, arenaceous, trace pyrite.
2505 - 2510m	80	SANDSTONE: as above; trace mineral fluorescence; no shows.
	20	SILTSTONE: as above.
2510 - 2515m	80	SANDSTONE: as above.
	20	SILTSTONE: as above.
2515 - 2520m	80	SANDSTONE: 3 types: Type (1) - aggregates, approximately 30%: very light grey to light grey, friable, very fine grained, subrounded, well sorted, trace argillaceous matrix, small carbonaceous inclusions; poor visible porosity; no shows. Type (2) - aggregates, approximately 30%: very light grey, moderately hard, fine to medium grained, subrounded, moderately well sorted, well cemented - dolomite cement; very poor visible porosity; approximately 20% bright, white, mineral fluorescence; no shows. Type (3) - loose quartz, approximately 20%: translucent, medium to very coarse grained, subangular to subrounded, poor to moderately sorted; no shows.
	20	SILTSTONE: light grey to medium dark grey, firm, blocky cuttings, carbonaceous inclusions, sandy in parts, grading to very fine grained sandstone.
2520 - 2521m	90	SANDSTONE: Type (1) aggregates, approximately 20% as above. Type (2) aggregates, approximately 50% as above. Type (3) aggregates, approximately 20% as above.
	10	SILTSTONE: as above.
2521 - 2525m	100	SILTSTONE: medium light grey to medium dark grey, firm to moderately hard, predominantly firm, blocky cutting; calcareous, carbonaceous and pyritic in parts
	trace	SANDSTONE: aggregates: very fine grained, argillaceous, as above; no shows.
	trace	COAL: as above; probably cavings.
2525 - 2530m	80	SILTSTONE: as above.
	20	SANDSTONE: loose quartz: translucent, medium to very coarse grained, angular to subangular, poorly sorted; no shows. Aggregates: Type (1) - light grey, friable to very friable, very fine grained, subrounded, very well sorted, argillaceous matrix, small carbonaceous inclusions; poor visual porosity; no shows.

2525 - 2530m cont'd		Type (2) - very light grey, very friable, medium to coarse grained, occasionally very coarse, angular to subrounded, predominantly angular to subangular, moderately well sorted, argillaceous matrix; poor visible porosity; no shows. trace PYRITE: microcrystalline aggregates.
2530 - 2535m	60 30 10	SILTSTONE: as above. SANDSTONE: as above. COAL: as above.
2535 - 2540m	50 30 20	SILTSTONE: as above; very carbonaceous, grading to coal. COAL: as above; grading to carbonaceous siltstone. SANDSTONE: as above.
2540 - 2545m	70 30 trace	SILTSTONE: dark brown to dark grey-brown, very carbonaceous, argillaceous, friable to firm, occasionally soft to unconsolidated, arenaceous in part, trace pyrite. SANDSTONE: clear to translucent, brown, dominantly loose quartz, coarse to very coarse grained, occasionally fine to medium grained, argillaceous matrix, siliceous cement, poorly sorted; no shows. COAL: black, angular, brittle, vitreous in part, grading to siltstone.
2545 - 2550m	70 30 trace	SILTSTONE: as above. SANDSTONE: dark brown to light brown, occasionally translucent, dominantly fine to medium grained, very argillaceous, carbonaceous specks in part; trace coarse quartz, loose; dominantly friable; no shows. COAL: as above.
2550 - 2555m	70 30	SANDSTONE: clear to translucent, occasionally light brown, dominantly coarse grained, occasionally fine to medium grained, loose quartz, subrounded, argillaceous, carbonaceous; no shows. SILTSTONE: as above.
2555 - 2560m	50 50	SANDSTONE: as above; no shows. SILTSTONE: as above; (becoming more arenaceous).
2560 - 2565m	60 40	SANDSTONE: light grey-brown to dark brown, occasionally translucent to clear, dominantly argillaceous, fine to medium grained, occasionally coarse grained quartz, carbonaceous specks; no shows. SILTSTONE: dark brown to brown-grey, arenaceous, carbonaceous, firm, trace pyrite.
2565 - 2570m	60 40	SANDSTONE: as above. SILTSTONE: as above.
2570 - 2575m	60 40	SILTSTONE: as above. SANDSTONE: as above.

2575 - 2580m	70	SILTSTONE: dark brown to dark grey, very carbonaceous, arenaceous, friable to firm, grading to coal.
	30	SANDSTONE: dominantly brown to dark grey-brown in part, occasionally translucent to clear, carbonaceous, argillaceous, dominantly fine to medium grained, grading to siltstone, friable; occasional loose, coarse quartz; no shows.
2580 - 2585m	60	SILTSTONE: medium grey to medium dark grey, firm, blocky cuttings, carbonaceous, sandy in parts; grades to subfissile, carbonaceous shale in parts; grades to very fine grained sandstone in parts.
	40	SANDSTONE: loose quartz: translucent, medium to very coarse grained, predominantly coarse to very coarse grained, subangular to subrounded, moderately well sorted; no shows. Aggregates: light grey to pale brown, friable, fine to medium grained, subrounded, moderately well sorted, weak siliceous cement, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows.
2585 - 2590m	80	SANDSTONE: loose quartz: predominantly subrounded, otherwise as above. Aggregates: 2 types: predominantly Type (1) - light grey to pale brown, friable, fine to medium grained, subrounded, moderately well sorted, weak siliceous cement, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows. Type (2) - light to medium light grey, very friable, very fine grained, well sorted, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows; grades to arenaceous siltstone.
	20	SILTSTONE: as above.
	trace	PYRITE: microcrystalline aggregates or as cement surrounding quartz grains.
2590 - 2595m	60	SILTSTONE: brownish grey to medium dark grey, firm, blocky to subfissile, grades to shale, carbonaceous.
	40	SANDSTONE: loose quartz: subangular to subrounded as above. Aggregates: Type (1) and Type (2) as above.
2595 - 2600m	80	SILTSTONE: as above.
	20	SANDSTONE: predominantly loose quartz, as above. Aggregates: Type (1) and Type (2) as above.
2660 - 2605m	60	SILTSTONE: as above.
	40	SANDSTONE: loose quartz: subrounded, otherwise as above. Aggregates: predominantly Type (2) - very fine to fine grained, otherwise as above. Type (1) - as above.

2605 - 2610m	60	SANDSTONE: clear to translucent, medium to coarse grained quartz, dominantly siliceous/dolomitic cement, carbonaceous inclusions; no shows.
	40	SILTSTONE: as above.
	trace	COAL: as above.
2610 - 2615m	80	SILTSTONE: dark brown to light brown-grey, carbonaceous, arenaceous in parts, friable to firm, argillaceous in parts, soft.
	20	SANDSTONE: dominantly medium grained, clear with argillaceous matrix, carbonaceous, slight siliceous cement; trace dull, yellow fluorescence; instant to slow cut; thin residual ring.
2615 - 2620m	80	SILTSTONE: as above.
	20	SANDSTONE: dominantly clear to translucent, coarse to very coarse grained quartz, loose; no shows.
2620 - 2625m	80	SILTSTONE: sandy in parts, otherwise as above.
	20	SANDSTONE: minor loose quartz grains as above; predominantly aggregates Type (1) and Type (2) as above; trace Type (1) aggregates have very dull, weak, spotty, yellow fluorescence; slow, weak, streaming white cut; white crush cut.
2625 - 2630m	70	SILTSTONE: medium light grey to medium dark grey, firm to occasionally moderately hard, blocky cutting; carbonaceous to very carbonaceous, sandy in parts.
	30	SHALE: medium to fissile, very carbonaceous.
	trace	SANDSTONE: loose quartz and aggregates Type (1) and Type (2), as above; rare Type (1) cuttings with very dull, weak, whitish fluorescence; very slow, very weak streaming cut (cavings?).
2630 - 2635m	85	SILTSTONE: as above; grading to carbonaceous shale in parts.
	15	SANDSTONE: trace loose quartz: translucent, medium to coarse grained, subrounded, moderately well sorted; no shows. Predominantly aggregates: very light to light grey, friable, very fine to medium grained, subrounded, moderately sorted, argillaceous matrix, carbonaceous and siltstone fragment inclusions; poor visible porosity; approximately 10% bright, spotty, white fluorescence; slow to moderately fast, streaming white cut; instant, white, crush cut.
2635 - 2640m	70	SILTSTONE: as above; grading to carbonaceous shale; sandy in parts, grading to very fine grained sandstone.
	30	SANDSTONE: trace loose quartz: as above. Aggregates: friable to moderately hard, otherwise as above; 30% bright, spotty, white fluorescence; slow to moderately fast, streaming white cut; instant white crush cut.

2640 - 2645m	90	SILTSTONE: as above; grading to carbonaceous shale; sandy in parts, as above.
	10	SANDSTONE: occasional loose quartz grains: as above. Aggregates: as above; 10% bright, spotty, white fluorescence; slow to moderately fast, streaming white cut; white crush cut.
2645 - 2650m	100	SILTSTONE: medium grey to dark grey, occasionally brownish grey, predominantly firm to occasionally moderately hard, blocky cuttings, carbonaceous to very carbonaceous, very argillaceous in parts; grades to subfissile, carbonaceous shale in parts; arenaceous in parts.
	trace	SANDSTONE: occasional loose quartz grains: as above. Trace aggregates: as above; occasional fine to medium grained aggregates; fluorescence and cut as above.
	trace	PYRITE: microcrystalline aggregates and cement as in sandstone aggregates.
2650 - 2655m	100	SILTSTONE: pyritic in parts, very argillaceous in parts; grades to claystone, otherwise as above.
	trace	SANDSTONE: occasional loose quartz grains and aggregates as above.
2655 - 2660m	90	SILTSTONE: as above.
	10	SANDSTONE: aggregates: light grey, very friable, very fine grained, well sorted, argillaceous matrix, very fine grained carbonaceous inclusions; poor visible porosity; no shows.
2660 - 2665m	80	SILTSTONE: commonly sandy, dolomitic in parts.
	20	SANDSTONE: aggregates: very fine to occasionally fine grained, otherwise as above; trace cuttings have weak white fluorescence; very slow, weak, diffuse white cut; white crush cut.
2665 - 2670m	90	SILTSTONE: occasionally dolomitic, otherwise as above; grades to carbonaceous shale.
	10	SANDSTONE: aggregates: very light to light grey, very friable to friable, very fine to fine grained, subrounded, well sorted, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows.
2670 - 2675m	80	SILTSTONE: dolomitic in parts, sandy in parts, pyritic, argillaceous.
	20	SANDSTONE: aggregates: sometimes very carbonaceous, otherwise as above; no shows.
		C.B.U. at 2678m.
2675 - 2680m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
2680 - 2685m	90	SILTSTONE: as above.
	10	SANDSTONE: as above.

2685 - 2690m	90	SILTSTONE: dark brown to dark grey-brown, very carbonaceous, arenaceous in parts, friable to firm, argillaceous, trace dolomite.
	10	SANDSTONE: 2 types: Type (1) - brown to dark brown, fine to very fine grained, well sorted, argillaceous matrix, carbonaceous inclusions, silty, friable, poorly cemented, grading to siltstone; no shows. Type (2) - translucent to clear, coarse grained, loose to friable, poorly sorted, quartz; no matrix; no shows.
	trace	COAL: black, argillaceous, brittle, vitreous.
2690 - 2695m	80	SILTSTONE: as above.
	20	SANDSTONE: as above.
2695 - 2700m	60	SANDSTONE: 3 types: Type (1) - loose quartz grains: translucent, medium to very coarse grained, predominantly medium to coarse grained, subangular to subrounded, moderately well sorted; no shows. Type (2) - aggregates: clear, translucent to light brown, friable to occasionally very friable, medium to coarse grained, subangular to subrounded, carbonaceous specks; trace dolomite and siliceous cement; poor visible porosity; 30% bright, spotty, whitish fluorescence; slow streaming to very slow to slow, diffuse, white cut; white crush cut; thick white residue ring; trace mineral fluorescence. Type (3) - aggregates: light brown to light grey, friable, fine to medium grained, argillaceous matrix, carbonaceous inclusions; poor visible porosity; no shows.
	40	SILTSTONE: dark brown to grey-brown, firm, arenaceous, carbonaceous inclusions, trace pyrite.
	90	SANDSTONE: 2 types: Type (1) - loose quartz grains: predominantly very coarse, otherwise as above. Type (2) - aggregates: very light grey, friable, fine to medium grained, occasionally coarse grained, subangular to subrounded, moderately well sorted, trace siliceous, occasionally dolomite cement, carbonaceous and carbonaceous siltstone inclusions, poor to occasionally moderate visual porosity, trace mineral fluorescence, 40% bright to moderately bright spotty white fluorescence, slow diffuse to slow streaming white cut, instant white crush cut, trace brown oil staining.
2700 - 2705m	10	SILTSTONE: as above.
	60	SILTSTONE: dark grey brown, firm, argillaceous, carbonaceous, arenaceous.
2705 - 2710m	40	SANDSTONE: 2 types: Type (1) - Loose quartz: as above. Type (2) - aggregates: light brown to translucent, medium grained, slight argillaceous matrix, trace siliceous/dolomitic cement, well sorted, 25% bright spotty white fluorescence, slow streaming white cut, instant moderately bright white crush cut, thin ring residue.

2710 - 2715m	90	SILTSTONE: light grey to dark brown, firm, blocky to fissile cuttings; carbonaceous, arenaceous in parts, trace pyrite.
	10	SANDSTONE: light grey, translucent to white, medium grey, friable, coarse grained in parts, otherwise medium, moderately well sorted, siliceous cement in parts, 10% mineral fluorescence, no shows.
2715 - 2720m	90	SILTSTONE: medium light grey to medium dark grey, firm to moderately hard, occasionally hard, blocky cuttings, commonly sandy, carbonaceous, with carbonaceous inclusions very common, dolomitic in parts.
	10	SANDSTONE: 2 types: Type (1) - Loose quartz grains: as above. Type (2) - aggregates: light grey, friable to moderately hard, very fine to occasionally medium grained, predominantly very fine to fine grained, subrounded, well sorted, argillaceous matrix, also dolomitic cement, carbonaceous inclusions, poor visual porosity, no shows.
2720 - 2725m	80	SILTSTONE: brownish grey, very carbonaceous in parts. Grades to shale below, otherwise as above.
	10	SHALE: brownish grey to dark grey, firm to soft, fissile to subfissile; carbonaceous to very carbonaceous.
	10	SANDSTONE: aggregates: as above, with fine to medium grains more common (some probably cavings).
	trace	COAL: black, brittle, angular cuttings, vitreous.
2725 - 2730m	100	SILTSTONE: very carbonaceous, becoming more dolomitic, otherwise as above.
	trace	SANDSTONE: aggregates: as above (some probably cavings).
	trace	SHALE: very carbonaceous in parts, grades to argillaceous coal.
2730 - 2735m	100	SILTSTONE: as above.
	trace	SANDSTONE: aggregates: fine to very fine grained, argillaceous, otherwise as above.
	trace	SHALE: as above and grading to siltstone.
2735 - 2740m	100	SILTSTONE: as above.
	trace	SANDSTONE: aggregates: as above.
2740 - 2745m	100	SILTSTONE: as above, grading to carbonaceous shale.
	trace	SANDSTONE: aggregates: as above.
2745 - 2750m	80	SILTSTONE: as above.
	10	SHALE: brownish grey, firm, subfissile to fissile, carbonaceous to very carbonaceous.
	10	SANDSTONE: aggregates: as above.
2750 - 2755m	90	SILTSTONE: as above.
	10	SHALE: as above.
	trace	SANDSTONE: aggregates: as above.

2755 - 2760m	100	SILTSTONE: medium grey to medium dark grey, brownish grey, firm, predominantly blocky to less commonly subfissile cuttings, carbonaceous to very carbonaceous, dolomitic in parts.
2760 - 2765m	90 10 trace	SILTSTONE: as above. COAL: black, brittle, angular cuttings, vitreous, conchoidal fracture in parts. SANDSTONE: aggregates: as above.
2765 - 2770m	100 trace trace	SILTSTONE: as above. COAL: as above. SANDSTONE: aggregates: as above. POOH to change bit. RIH.
2770 - 2775m	100 trace trace trace	SILTSTONE: as above. COAL: as above. SANDSTONE: loose quartz aggregates: as above. SHALE: as above.
2775 - 2780m	60 40	SANDSTONE: 2 types: Type (1) - aggregates: 30%, light grey, friable to very friable, very fine grained, very well sorted, argillaceous matrix, carbonaceous inclusions, poor visual porosity, no fluorescence, occasional cuttings have very weak, very slow, diffuse cut. Type (2) - aggregates: 30%, light grey, friable, fine to coarse grained, predominantly medium grained, subangular to subrounded, moderately well sorted, argillaceous matrix, trace siliceous cement, carbonaceous inclusions, poor to moderate visible porosity, 30% bright to moderately bright occasionally dull spotty white fluorescence, slow (especially the cuttings with dull fluorescence) to moderately fast streaming white cut, instant white crush cut. Pale brown oil staining, white ring residue.
2780 - 2782m	70	SILTSTONE: medium grey to medium dark grey, also brownish grey, firm to occasionally moderately hard, carbonaceous to very carbonaceous in parts, dolomitic in parts, grading to subfissile shale.
		SANDSTONE: 3 types: Type (1) - aggregates: 30%, light grey, friable to very friable, very fine grained, very well sorted, argillaceous matrix, carbonaceous inclusions, poor visual porosity, no fluorescence, occasional cuttings have very weak, very slow, diffuse cut. Type (2) - loose quartz: translucent to clear, medium to coarse grained, predominantly medium grained, subangular to subrounded, moderately well sorted; no shows. Type (3) - aggregates: 40%, light grey, friable, fine to coarse grained, predominantly medium grained, subangular to subrounded, moderately well sorted, argillaceous matrix, trace siliceous cement, carbonaceous inclusions; poor to moderate visual porosity;

2780 - 2782m cont'd	30	40% bright to moderately bright, occasionally dull, spotty white fluorescence; slow to moderately fast streaming to diffuse, moderately strong white cut; instant white crush cut; pale brown oil staining; white residual ring SILTSTONE: as above.
		Core No. 3 from 2782.0m to 2788.29m - see Core Description.
2788 - 2790m	100	SILTSTONE: light grey to occasionally dark grey, dominantly friable to soft, occasionally hard, dolomitic cement, arenaceous in part, argillaceous, trace carbonaceous inclusions, strong reaction of cuttings to HCl suggest they are more calcareous than dolomitic.
	trace	SANDSTONE: translucent to light grey, medium to coarse grained, friable, slightly argillaceous matrix, occasionally carbonaceous flecks, poorly sorted; moderate to poor visible porosity; no shows.
2790 - 2795m	100	SILTSTONE: light grey to medium dark grey, light green, friable, soft, (green portion very calcareous), carbonaceous inclusions in part, arenaceous in part, argillaceous.
	trace	SANDSTONE: as above; no shows.
2795 - 2800m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above.
2800 - 2805m	100	SILTSTONE: as above.
	trace	SANDSTONE: as above; no shows.
2805 - 2810m	100	SILTSTONE: light grey to occasionally dark grey, argillaceous in part, carbonaceous inclusions in part, friable to soft to occasionally hard, calcareous in part.
2810 - 2815m	80	SILTSTONE: as above.
	20	SANDSTONE: light grey-brown to translucent, medium grained, angular, moderately well sorted, argillaceous matrix, occasional carbonaceous matrix, friable; poor visible porosity; 10-15% moderate, yellow/white fluorescence; slow instant cut; slow streaming cut; moderate to poor residual ring.
2815 - 2820m	80	SILTSTONE: light grey to medium dark grey brown, arenaceous, carbonaceous inclusions in part, argillaceous, trace calcareous/dolomitic cement, friable to soft, occasionally soft, grading to very fine grained sandstone in part.
	20	SANDSTONE: light brown to translucent to light grey, medium grained, dominantly angular to subrounded, friable, argillaceous matrix in parts; 15-20% moderately bright, yellow/white fluorescence; slow milky cut; instant crush cut; brown oil staining; thin residual ring; moderate to poor visible porosity.

2820 - 2825m	70	SILTSTONE: as above.
	30	SANDSTONE: light brown-grey to occasionally medium dark grey-brown, occasionally carbonaceous flecks, argillaceous matrix, medium to fine grained; 10% spotty, moderately bright, yellow/white fluorescence; slow milky white cut; instant crush cut; moderate residual ring; poor visible porosity.
2825 - 2830m	70	SILTSTONE: as above; grading to very fine sandstone.
	30	SANDSTONE: light brown to light grey to occasionally grey brown, argillaceous matrix, dominantly medium to very fine grained, moderately to well sorted, carbonaceous inclusions; 5% spotty, moderately yellow/white fluorescence; slow streaming cut; milky white; thin residual ring; dominantly poor visible porosity.
2830 - 2835m	70	SILTSTONE: as above; grading to very fine sandstone.
	30	SANDSTONE: as above; becoming very argillaceous, carbonaceous matrix; trace fluorescence (possible cavings?).
2835 - 2840m	80	SILTSTONE: medium light to medium dark grey, firm to very soft, blocky cuttings, very argillaceous in parts, grades to claystone, carbonaceous inclusions very common, arenaceous in parts.
	20	SANDSTONE: aggregates: very light to light grey, friable to moderately hard, very fine to fine grained, well sorted, subrounded grains, siliceous cement, trace argillaceous matrix, siltstone and carbonaceous inclusions, poor to very poor visual porosity, rare (4) cuttings (probably cavings?) have dull, spotty, yellowish fluorescence; diffuse white cut.
	trace	COAL: black, brittle, angular to subrounded cuttings, vitreous (cavings?).
2840 - 2845m	70	SILTSTONE: brownish grey, less carbonaceous, less argillaceous, soft to firm, otherwise as above.
	30	SANDSTONE: aggregates: fine to medium grained, otherwise as above; trace dull to moderately bright, spotty, yellowish fluorescence; slow weak diffuse to streaming white cut; weak white crush cut.
2845 - 2850m	80	SILTSTONE: commonly brownish grey, otherwise as above.
	20	SANDSTONE: aggregates as above; occasional mica inclusions; trace-5% fluorescence as above; slow to moderately fast, white, diffuse to streaming cut; instant white, crush cut.
2850 - 2855m	70	SILTSTONE: medium light to medium dark grey, predominantly medium to medium dark grey, soft to very hard, predominantly firm to soft, blocky cuttings; argillaceous, carbonaceous, common carbonaceous inclusions, sandy in parts, dolomitic in parts (these cuttings are very hard).

2850 - 2855m cont'd	20	CLAYSTONE: medium light grey to medium dark grey, very soft, blocky cuttings, carbonaceous, sticky.
	10	SANDSTONE: aggregates as above; no shows.
2855 - 2860m	70	SILTSTONE: as above; very carbonaceous in parts.
	20	SANDSTONE: aggregates as above; argillaceous in parts; no shows; otherwise as above.
	10	CLAYSTONE: as above.
2860 - 2865m	60	SILTSTONE: as above.
	30	SANDSTONE: aggregates as above; trace dull, yellowish fluorescence, slow to occasionally moderately fast, generally weak, diffuse to occasionally streaming, white cut; instant white crush cut.
	10	CLAYSTONE: as above.
2865 - 2870m	45	SILTSTONE: as above; less argillaceous.
	40	SANDSTONE: aggregates as above; dull yellowish fluorescence; weak diffuse to streaming white cut; weak white crush cut.
	15	SHALE: brownish grey, firm to soft, subfissile to fissile, carbonaceous.
	trace	CLAYSTONE: as above.
2870 - 2875m	50	SANDSTONE: aggregates: predominantly Type (1) (i.e. as above) - light to medium light grey, friable, very fine to medium grained, predominantly fine to very fine grained, subangular to subrounded, moderately well sorted, siliceous cement, argillaceous matrix in parts, carbonaceous inclusions; poor visible porosity; 5% dull to moderately bright, spotty, whitish fluorescence; slow to moderately fast, diffuse, white cut; instant white crush cut; shows are moderately strong in intensity. Trace Type (2) - very light grey, friable to moderately hard, fine to medium grained, subrounded, moderately well sorted, dolomite cement, carbonaceous inclusions; very poor visible porosity; no shows.
	40	SILTSTONE: as above.
	10	SHALE: as above.
2875 - 2880m	70	SILTSTONE: as above.
	30	SANDSTONE: aggregates: Type (1) - predominantly very fine to fine grained, otherwise as above; 10% dull to moderately bright, white, spotty fluorescence; slow milky, white, diffuse cut; white crush cut. Type (2) - as above; 10% moderately bright, yellow, mineral fluorescence; no shows.
	trace	SHALE: as above.
2880 - 2885m	90	SANDSTONE: approximately 10% Type (1) aggregates as above; trace-5% shows as above. Approximately 80% Type (2) dolomitic aggregates; generally tabloid cuttings, as above; 10% yellow mineral fluorescence as above.
	10	SILTSTONE: as above.

2885 - 2890m	95	SANDSTONE: approximately 20% Type (1) aggregates; trace cuttings with shows, as above. Approximately 75% Type (2) aggregates as above; yellow mineral fluorescence; no shows as above.
	5	SILTSTONE: as above.
2890 - 2895m	90	SANDSTONE: approximately 5% Type (1) aggregates, as above.
	10	Approximately 85% Type (2) aggregates, as above. SILTSTONE: as above.
2895 - 2900m	50	SILTSTONE: medium light to medium dark grey, firm to hard, carbonaceous to very carbonaceous, dolomitic in parts (the hard cuttings), argillaceous in parts.
	50	SANDSTONE: aggregates Type (1) (slightly greater %) and Type (2) as above; Type (1) aggregates have weak shows, as above.
2900 - 2905m	50	SANDSTONE: 2 types: Type (1) - 20% white to clear to translucent, quartz aggregates, siliceous/dolomitic cement, coarse grained, angular, well sorted, firm to hard, trace pyritic cement.
	50	Type (2) - 80% light grey to medium grey brown, fine to medium grained, slightly argillaceous, slightly carbonaceous, moderately well sorted; 25% moderately bright, spotty fluorescence; slow diffuse cut; milky, white, instant crush cut; brown oil staining; thin residual ring. SILTSTONE: dark brown to light grey-brown, carbonaceous, arenaceous, firm to soft, occasionally soft, blocky to fissile, trace pyrite.
2905 - 2910m	60	SANDSTONE: Type (2), as above; 20% spotty, white/yellow, moderately bright fluorescence; slow, diffuse, milky, white cut; instant crush cut.
	40	SILTSTONE: as above.
2910 - 2915m	60	SILTSTONE: as above.
	40	SANDSTONE: Type (1), as above; trace fluorescence; dominantly mineral fluorescence; dolomitic cement.
2915 - 2920m	90	SILTSTONE: medium dark grey to brown, carbonaceous, arenaceous, firm to moderately hard, blocky to poorly indurated.
	10	SANDSTONE: medium to light grey-brown, argillaceous, friable to firm, carbonaceous specks in parts, very fine to medium grained, dominantly fine grained; poor visible porosity; no shows.
2920 - 2925m	90	SILTSTONE: as above; grading to shale in parts.
	10	SANDSTONE: argillaceous, very fine to fine grained aggregates as above; no shows.
	trace	COAL: black, brittle, angular cuttings, vitreous (also some subrounded cuttings - possibly cavings).

2925 - 2930m	80	SILTSTONE: medium light grey to medium dark grey, soft (very argillaceous, grades to claystone) to firm to hard (dolomitic cuttings), blocky cuttings, carbonaceous to very carbonaceous, arenaceous in parts, pyritic in parts.
	10	SANDSTONE: aggregates: very light to medium light grey, friable to moderately hard, predominantly friable, very fine to fine grained, occasional medium grains, predominantly subrounded grains, well to very well sorted, argillaceous, siliceous and trace dolomitic cement, common carbonaceous inclusions, mica inclusions; poor visible porosity; generally no shows; occasional cuttings with shows as above (weak) - possible cavings?.
	10	SHALE: brownish grey, firm, subfissile to fissile cuttings, carbonaceous to very carbonaceous.
2930 - 2935m	trace	COAL: as above.
	90	SILTSTONE: as above.
	10	SANDSTONE: aggregates: more commonly medium grained than previously, otherwise as above; no shows.
2935 - 2940m	trace	SHALE: as above.
	100	SILTSTONE: as above.
2940 - 2945m	trace	SANDSTONE: aggregates: as above.
	90	SILTSTONE: very argillaceous in parts, otherwise as above.
	10	SANDSTONE: only occasional medium grains, predominantly very fine to fine grained, otherwise as above.
2945 - 2950m	trace	CLAYSTONE: light grey to medium grey and pale brown, very soft, sticky, blocky, well rounded cuttings, carbonaceous inclusions.
	trace	COAL/CARBONACEOUS SHALE: as above.
	80	SILTSTONE: carbonaceous inclusions very common, very carbonaceous (dark grey) in parts, otherwise as above.
2950 - 2955m	10	SANDSTONE: aggregates: as above.
	10	SHALE: brownish grey to brownish red, soft to firm, fissile, carbonaceous to very carbonaceous; grades to argillaceous coal in parts.
	trace	CLAYSTONE: as above.
2955 - 2960m	90	SILTSTONE: as above.
	10	SHALE: as above.
	trace	SANDSTONE: as above.
2955 - 2960m	80	SILTSTONE: light grey to medium dark grey-brown to dark grey, carbonaceous inclusions, arenaceous in parts, argillaceous, firm, trace pyrite.
	20	SHALE: medium grey brown, fissile, firm, carbonaceous in parts, grades to coal.

2960 - 2965m	90	SILTSTONE: dark grey to brown, arenaceous, carbonaceous, firm, fissile to blocky, argillaceous.
	10 trace	SANDSTONE: as above; no shows. SHALE: as above.
2965 - 2970	60	SILTSTONE: as above.
	30	SANDSTONE: as above; dull yellow fluorescence; approximately 15% very dull, spotty, white fluorescence with very weak, very slow, faint, diffuse, white cut.
	10 trace	COAL: as above. SHALE: as above.
2970 - 2975m	80	SILTSTONE: as above.
	10	COAL: black to dark brown, brittle, vitreous.
	10	SANDSTONE: light brown to light grey to translucent, siliceous cement, medium to occasionally coarse grained, friable, angular to subrounded, moderately to poorly sorted; poor visible porosity; trace shows, as above (i.e. very weak).
2975 - 2980m	80	SILTSTONE: medium to dark grey, arenaceous, carbonaceous, firm.
	10	SANDSTONE: light grey to brown, medium to coarse grained, argillaceous matrix, moderately to poorly sorted, trace pyrite, angular to subrounded; poor visible porosity; no shows.
	10	COAL: black, vitreous, fissile, brittle.
2980 - 2985m	80	SILTSTONE: dominantly medium to dark grey-brown, arenaceous, carbonaceous inclusions throughout, grading to fine grained sandstone, firm, argillaceous, blocky.
	20	SANDSTONE: dominantly fine to medium grained, argillaceous matrix, carbonaceous, moderately well sorted, friable to occasional coarse grained aggregates, siliceous cemented, friable; poor general porosity; trace shows, as above (i.e. very weak).
2985 - 2990m	70	SILTSTONE: medium light grey to predominantly medium dark to dark grey, firm to moderately hard, blocky to subfissile cuttings, arenaceous, carbonaceous to very carbonaceous in parts.
	10	SHALE: brownish grey to dark grey, firm, fissile, carbonaceous to very carbonaceous, grading to coal in parts.
	10	COAL: black, brittle, angular cuttings, vitreous to subvitreous, conchoidal fracture in parts.
	10	SANDSTONE: aggregates: light grey, friable to moderately hard, very fine to medium grained, predominantly very fine to fine grained, subangular to subrounded, well sorted, argillaceous matrix with trace siliceous and dolomitic cement in parts, common carbonaceous inclusions; poor visible porosity; no shows.

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APPENDIX 2

APPENDIX 2

CONVENTIONAL CORE RECORD

Core No. 1

Well : SNAPPER-5

Interval Cored : 1400-1409.4m

Cut : 9.4m

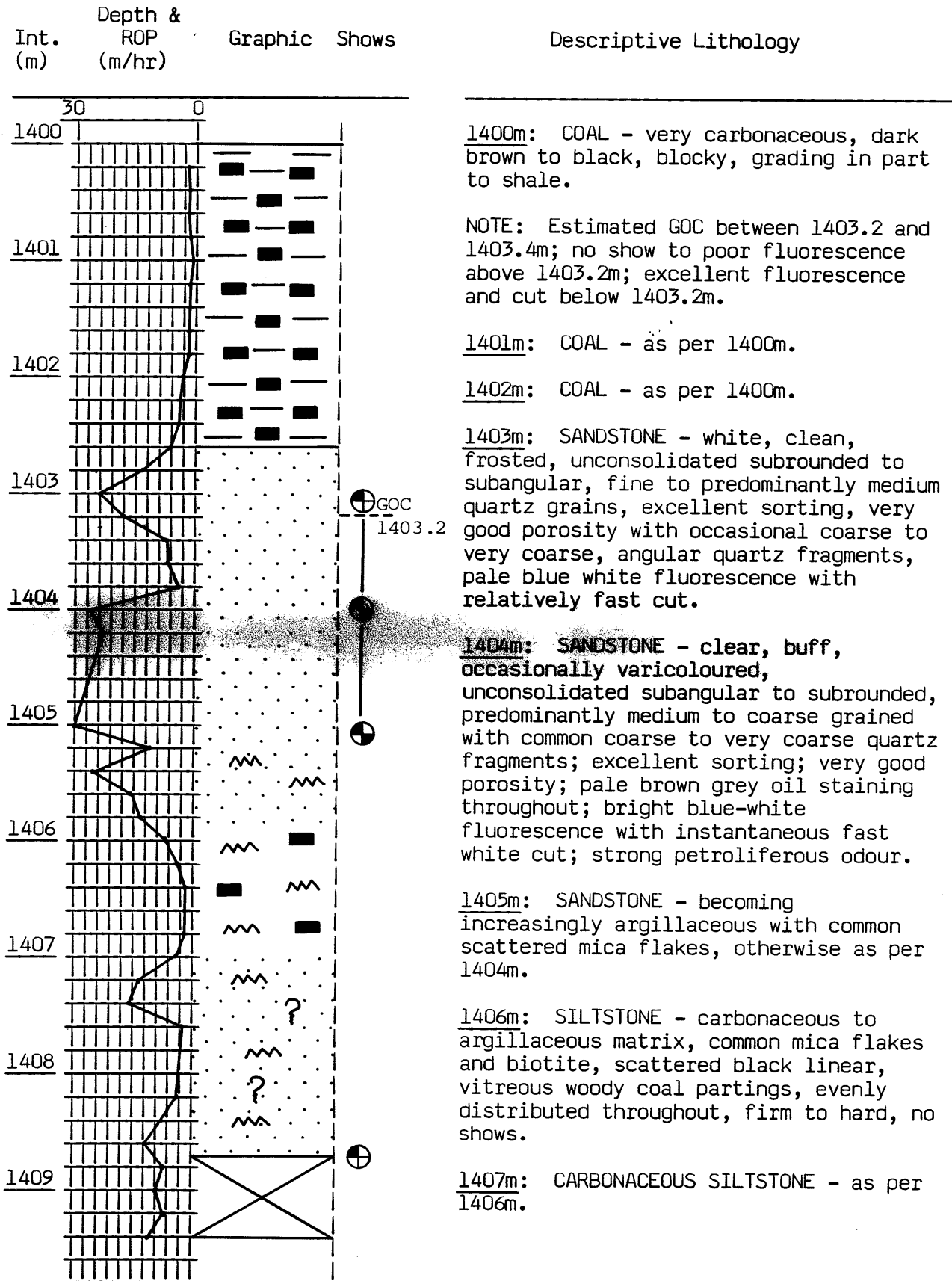
Bit Type : RC-4-PVC

Described by : Jeff Roche

Recovered : 8.75m (93%)

Bit Size : 8-1/2" x 4-3/4"

Date : 9/7/85



Core No. 1 cont'd

Well : SNAPPER-5

Interval Cored : 1480-1409.4m

Cut : 9.4m

Bit Type : RC-4-PVC

Described by : Jeff Roche

Recovered : 8.75m (93%)

Bit Size : 8-1/2" x 4-3/4"

Date : 9/7/85

Descriptive Lithology

1408m: SANDSTONE - dark brown grey medium to coarse grained with occasional granules and subrounded quartz grains in a dominantly carbonaceous/argillaceous matrix, occasional broken coal fragments and mica throughout, very poor sorting, poor porosity with no shows.

1408.75m: SANDSTONE - slightly cleaner sandstone with pale blue white fluorescence with relatively fast cut; otherwise as per 1408m.

1408.75-1409.4m: No recovery.

Core No. 2

Well : SNAPPER-5

Interval Cored : 1409.4m-1418.9m

Cut : 9.5m

Bit Type : RC-4-PVC

Described by : Jeff Roche

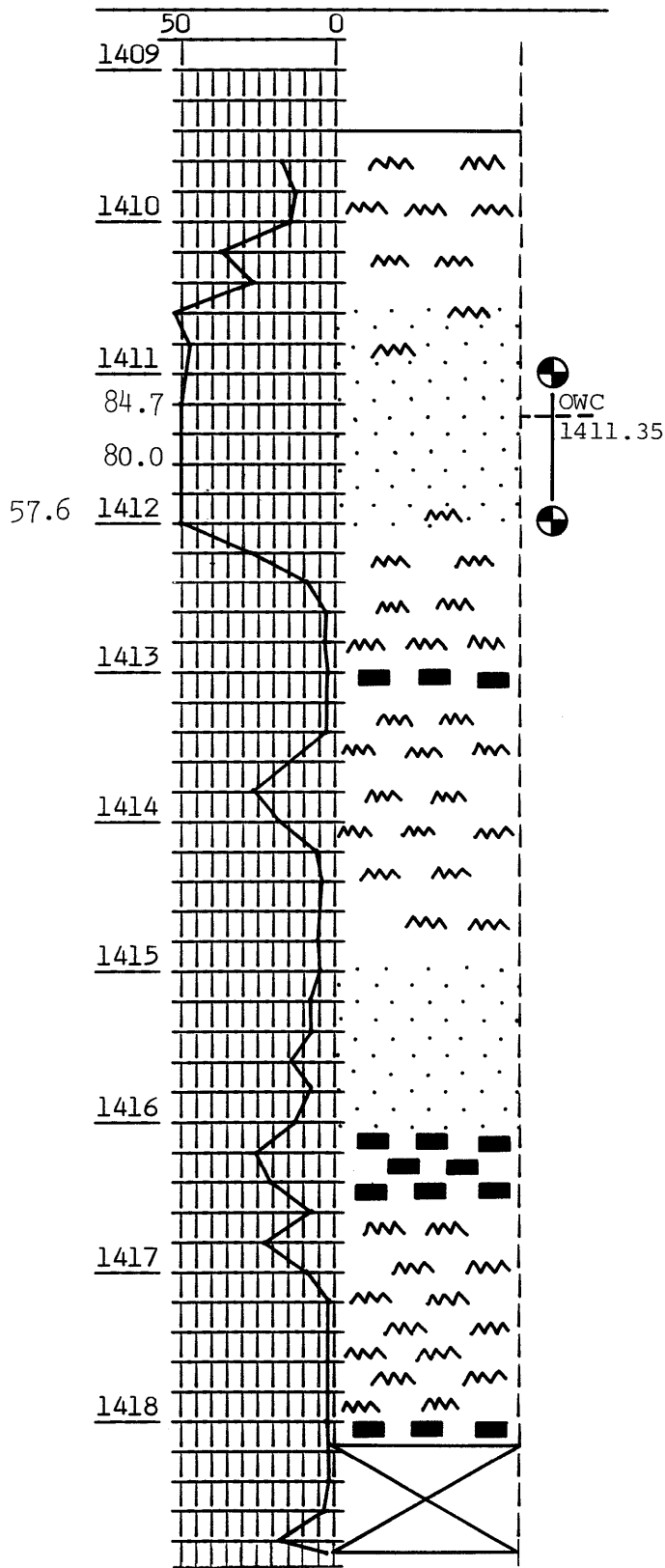
Recovered : 8.78m (92%)

Bit Size : 8-1/2" x 4-3/4"

Date : 9/7/85

Int. (m)	Depth & ROP (m/hr)	Graphic Shows
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Descriptive Lithology



1409.4m: SILTSTONE - very carbonaceous to argillaceous matrix, commonly micaceous, abundant biotite, common clear subrounded quartz, hard, blocky with no shows.

1410m: SILTSTONE - as per 1409.4m.

1411m: SANDSTONE - clear, varicoloured, unconsolidated subangular to subrounded quartz, mainly coarse with occasional subrounded granules, excellent sorting, very good porosity, a relatively mature sand; clear oil staining throughout, bright blue-white fluorescence with instant white cut, very strong petroliferous odour.

NOTE:- OWC estimated to be between 1411.35 and 1411.6m. Bright fluorescence above 1411.35 and dull/diminishing fluorescence below 1411.6m.

1412m: SILTSTONE - dark chocolate brown, very carbonaceous, micromicaceous, subfissile to blocky, hard, no shows.

1413m: COAL - black, vitreous with conchoidal fracture.

1414m: SILTSTONE - very carbonaceous to argillaceous matrix, micaceous, common biotite and quartz, hard, blocky with no shows.

1415m: SANDSTONE - dark brown grey, medium to coarse with occasional subrounded granular quartz grains, carbonaceous/argillaceous matrix, poor sorting, micaceous, relatively immature, poor porosity with no shows.

1416m: COAL

1417m: SILTSTONE - very carbonaceous, with abundant feldspar and mica, blocky, hard; no shows.

1418m: SILTSTONE - as per 1417m.

1418.18m: COAL

1418.18-1418.9m: No recovery.

Core No. 3

Well : SNAPPER-5

Interval Cored : 2782.0-2788.29m

Cut : 6.29m

Bit Type : C201

Described by : P. Priest

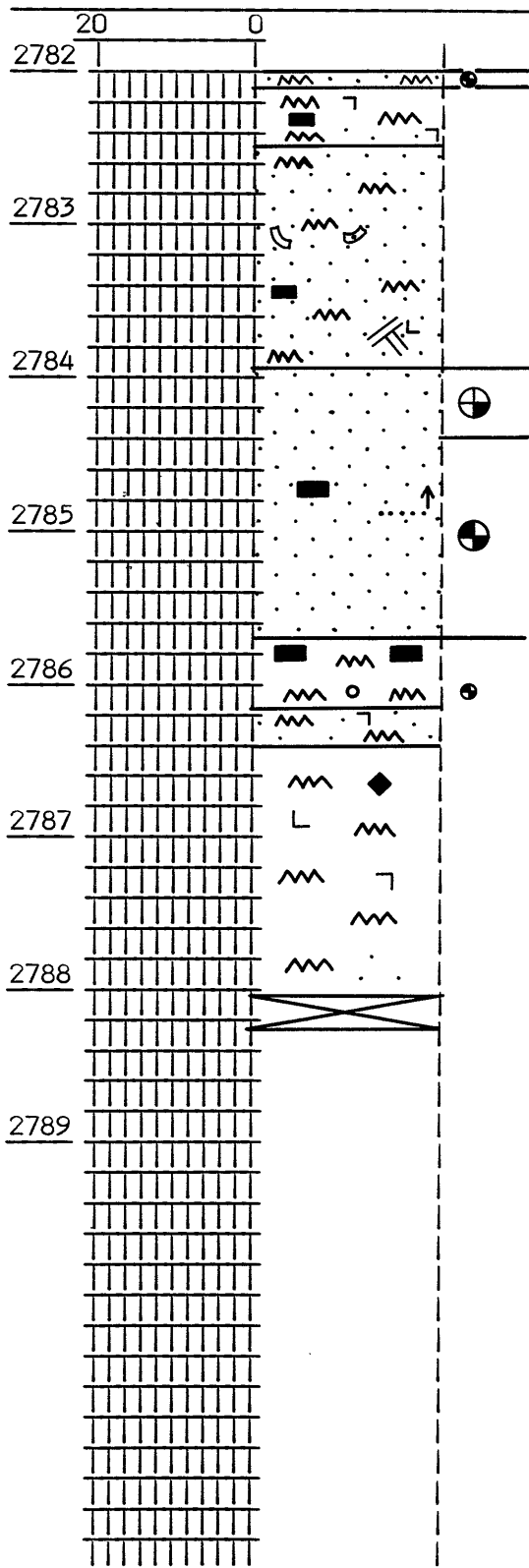
Recovered : 6.05m (96.18%)

Bit Size : 9-27/32" x 5-1/4"

Date : 26/7/85

Int. (m)	Depth & ROP (m/hr)	Graphic Shows
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Descriptive Lithology



2782.0-2782.10m: SANDSTONE with Siltstone laminations - Sandstone: light grey, moderately hard, very fine to fine grained, well sorted, siliceous cement, micaceous siltstone inclusions, mica inclusions, very poor visual porosity, dominantly dull orange fluorescence, trace white fluorescence, very slow, very weak diffuse white cut, instant moderately strong white crush cut.

2782.10-2782.48m: SILTSTONE - medium dark grey, moderately hard to very hard, micaceous, becomes sandy towards base, occasional carbonaceous inclusions.

2782.48-2783.95m: SANDSTONE with frequent siltstone laminations becoming less numerous towards base. Sandstone: light grey, moderately hard, very fine to medium grained, predominantly very fine to fine grained, subangular, well to moderately well sorted, siliceous cement, micaceous inclusions, carbonaceous inclusions, poor visual porosity, approximately 10% dull to moderately bright orange fluorescence, no shows. Micaceous siltstone layers at 2783.46m, 2783.6m, 2783.82-2783.9m in addition to siltstone laminations above. Siltstone rip up clasts, cross bedding in sandstone.

2783.95-2785.69m: SANDSTONE - medium light grey, friable, fine to granule sized, predominantly medium grained, grading through medium to coarse grained at base of interval, subangular to subrounded, moderately well sorted, siliceous cement, carbonaceous inclusions, mica inclusions, pyritic in parts, poor to occasionally moderate visual porosity towards base; 2784.40-2785.69m has 20-40% bright whitish-yellow fluorescence, moderate fast-fast strong streaming white cut, instant white crush cut; 2783.95-2784.4m has no fluorescence, slow white cut and instant white crush cut; fining upward sequences from base to 2784.80m.

Core No. 3 cont'd

Well : SNAPPER-5

Interval Cored : 2782.0-2788.29m

Cut : 6.29m

Bit Type : C201

Described by : P. Priest

Recovered : 6.05m (96.18%)

Bit Size : 9-27/32" x 5-1/4"

Date : 26/7/85

Descriptive Lithology

2785.69-2786.17m: SILTSTONE - medium dark grey to dark grey, medium hard, uniform, micaceous, coaly inclusions, coal laminations at top of interval.

2786.17-2786.40m: SILTSTONE with thin Sandstone interbeds.
Siltstone: medium dark grey, medium hard, micaceous, carbonaceous inclusions.
Sandstone layers: medium light grey, medium hard, very fine to fine grained, well sorted, siliceous cement, carbonaceous plus mica inclusions no fluorescence, no cut. 2786.17-2786.19m white fluorescence and cut.

2786.40-2788.05m: SILTSTONE - medium dark grey to medium light grey, moderately hard, micaceous, carbonaceous inclusions, pyritic in parts, sandy in parts.

2788.05-2788.29m: No recovery.

APPENDIX 3

APPENDIX 3

SIDEWALL CORE DESCRIPTIONS

SNAPPER-5

SIDEWALL CORE DESCRIPTIONS

<u>No.</u>	<u>Depth</u>	<u>Rec.</u> (mm)	<u>Rock</u> <u>Type</u>	<u>Description</u>
1	2960.0	25	SILTSTONE	medium light to medium grey, moderately hard; arenaceous, carbonaceous.
2	2946.9	15	SILTSTONE	medium light to medium grey, firm to moderately hard; common very fine to fine grained quartz grains, carbonaceous.
3	2926.4	15	SILTSTONE	dark grey, firm to moderately hard; arenaceous, common carbonaceous inclusions.
4	2899.5	15	SILTSTONE	medium dark grey to dark grey, moderately hard to firm; carbonaceous, micaceous, arenaceous in part.
5	2886.0	30	SANDSTONE	light to medium light grey, fine to medium grained, moderately well sorted, subangular to subrounded, friable; minor siliceous cement, carbonaceous inclusions, poor visual porosity; 30% spotty to even, moderately bright to bright, yellow fluorescence; moderately fast, streaming to diffuse white cut.
6	2871.4	25	SHALE	brown grey to brown red, firm; carbonaceous.
7	2863.8	5	SILTSTONE	medium grey, soft; very argillaceous, sticky.
8	2848.0		NO RECOVERY	
9	2817.4	15	SILTSTONE	moderately dark grey, soft to firm; carbonaceous.
10	2757.0	35	SHALE	brownish grey, firm; fissile, carbonaceous.
11	2753.4	25	SILTSTONE	medium dark grey, firm; carbonaceous, arenaceous in part.
12	2723.6	30	SHALE	medium dark grey to dark grey, firm; slightly carbonaceous.
13	2710.0	40	SILTSTONE	medium dark grey, firm to moderately hard in parts; carbonaceous, dolomitic in parts.
14	2701.5	20	SANDSTONE	light to moderately light grey, fine to coarse grained dominantly medium to coarse grained, poorly sorted, sub-rounded, friable; argillaceous, matrix; 50% spotty to even, moderately bright to bright white fluorescence; fast to medium fast streaming white cut; carbonaceous and mica inclusions.

15	2700.0	35	SANDSTONE	light grey, very fine to coarse grained dominantly fine to medium grained, poorly sorted, subrounded, friable; argillaceous matrix, inclusions; 50% spotty to even, moderately bright to bright white fluorescence; very slow, weak diffuse white cut; weak white crush cut.
16	2689.0	35	SHALE	brownish grey, firm, fissile, carbonaceous; thin coal lamination in parts.
17	2678.3	30	SANDSTONE	light to medium light grey, fine to medium grained, poorly sorted, subrounded, friable; argillaceous matrix; no fluorescence shows; carbonaceous inclusions, also very carbonaceous laminations.
18	2669.2	25	SILTSTONE	medium light to medium dark grey, soft to firm; very argillaceous in parts.
19	2653.0	40	SILTSTONE	medium light to medium dark grey, firm; sub-fissile, carbonaceous; grading to shale in parts.
20	2636.40	40	SANDSTONE	light grey, fine to medium grained, poorly sorted, subrounded, friable; argillaceous matrix, carbonaceous inclusions; 20% spotty, bright white fluorescence; slow, very weak diffuse white cut; instantaneously moderately bright white crush cut.
21	2627.0		NO RECOVERY	
22	2621.8	45	SANDSTONE	light grey, fine to medium grained, poorly sorted, subrounded; argillaceous matrix; no fluorescence shows; occasional carbonaceous inclusions.
23	2617.5		NO RECOVERY	
24	2597.5	10	SILTSTONE	medium to dark grey, hard; sub-fissile, dolomitic.
25	2559.9	20	SILTSTONE	medium dark grey, moderately hard to hard; arenaceous in parts; common coal laminations.
26	2540.0		MISFIRE	
27	2524.0	20	SANDSTONE	light grey to medium light grey, very fine to fine grained, well sorted, subrounded, friable; common thin carbonaceous laminations; no fluorescence shows; poor visual porosity.
28	2508.9	20	SANDSTONE	light grey, very fine to medium grained, poorly sorted, subrounded, friable; argillaceous matrix; common pyritic/carbonaceous inclusions.

29	2502.0	30	SANDSTONE	light grey, fine to medium grained, poorly sorted, subrounded, friable; argillaceous matrix, carbonaceous; no fluorescence shows; carbonaceous inclusions.
30	2493.0		NO RECOVERY	
31	2462.0	35	SILTSTONE	light to medium light grey, soft to firm.
32	2458.4	30	SILTSTONE	medium light grey, soft to firm; argillaceous, sticky; very thin carbonaceous laminae.
33	2437.8	10	SANDSTONE	light grey, very fine to fine grained, well sorted, friable; argillaceous matrix; no fluorescence shows.
34	2423.9	15	SILTSTONE	medium dark grey to brown grey, firm, pyritic in parts.
35	2414.9	20	SILTSTONE	light grey, soft to firm; argillaceous, sticky; arenaceous, carbonaceous.
36	2403.9	10	SILTSTONE	light grey to medium dark grey, firm; light and dark bands; dark bands are pyritic and micaceous.
37	2390.3		NO RECOVERY	
38	2385.4	10	SHALE	medium dark grey, firm; fissile.
39	2347.4	25	SHALE	brownish grey, firm; sub-fissile.
40	2315.0		NO RECOVERY	
41	2313.1	20	SILTSTONE	medium light grey, firm; arenaceous, with carbonaceous laminations.
42	2294.2	10	SANDSTONE	light grey, very fine grained, well sorted, friable; argillaceous matrix; no fluorescence shows; carbonaceous laminations.
43	2280.2	35	SANDSTONE	light grey, very fine grained, well sorted, very friable, argillaceous matrix; no fluorescence shows.
44	2248.1	25	SILTSTONE	greyish to red, soft to firm; micaceous and carbonaceous inclusions.
45	2218.0	30	CLAYSTONE	light grey, soft; slightly sticky.
46	2187.0	20	CLAYSTONE	medium to light grey, soft; sticky, silky.
47	2160.5	25	SILTSTONE	medium dark to dark grey, soft to firm; sub-fissile.
48	2129.4	25	SILTSTONE	light to medium light grey, soft to firm; very arenaceous.
49	2099.0	30	SILTSTONE	pale brown, firm; occasionally carbonaceous and micaceous inclusions.

50	2081.0	25	SILTSTONE	medium to light grey, firm, occasionally thin carbonaceous laminae.
51	2073.5	20	SHALE	brown grey to brown red, firm; fissile.
52	2049.9	10	SHALE	medium dark to dark grey, firm; fissile, carbonaceous and mica inclusions.
53	2028.4	20	SANDSTONE	light grey, very fine to fine grained, moderately sorted, subrounded, friable; carbonaceous inclusions, poor visible porosity.
54	2024.0	25	SILTSTONE	light grey, firm; argillaceous, carbonaceous inclusions.
55	1997.0	10	SILTSTONE	medium dark grey to dark grey, firm, moderately hard; sub-fissile.
56	1969.0	25	SILTSTONE	medium to light grey, firm, moderately hard; occasionally carbonaceous & pyrite inclusions.
57	1939.5	20	SILTSTONE	light to medium light grey, firm; very argillaceous, sticky.
58	1923.8	20	SANDSTONE	light grey, very fine to fine grained, well sorted, subrounded; argillaceous; no fluorescence shows.
59	1920.0	25	SILTSTONE	yellow grey, firm; argillaceous.
60	1892.5	30	CLAYSTONE	light grey to yellow grey, soft; sticky.
61	1873.0	25	SILTSTONE	light to medium light grey, soft to firm; argillaceous, carbonaceous inclusions and laminations.
62	1854.1	25	SANDSTONE	medium to light grey, very fine to fine grained well sorted, subrounded; very friable; argillaceous, matrix, carbonaceous; 30% spotty to even, dull to moderate bright white fluorescence; with a slow, diffuse white cut, instantaneous crush cut; inclusions and laminations.
63	1848.6	40	SHALE	medium dark grey to brown grey, moderately hard; fissile, inclusions common.
64	1846.7	30	COAL	black, hard; vitreous.
65	1834.5	20	SILTSTONE	medium to dark grey, moderately hard; mica inclusions.
66	1818.4	20	CLAYSTONE	medium light grey, firm; uniform.
67	1803.0	40	CLAYSTONE	light to medium light grey, firm; uniform.
68	1781.0	20	CLAYSTONE	medium light grey, firm; uniform.
69	1779.7	25	SANDSTONE	light to medium light grey, very fine to medium grained, moderately sorted, subangular; carbonaceous inclusions and laminae, no fluorescence show.

70	1770.8	45	CLAYSTONE	pale brown, firm; occasionally carbonaceous inclusions otherwise uniform.
71	1759.4	30	CLAYSTONE	light grey, firm to hard; uniform.
72	1758.0	30	COAL	black, hard; brittle, vitreous.
73	1756.0	25	SANDSTONE	light grey, fine to coarse grained dominantly medium to coarse grained, poorly sorted, sub-rounded, very friable; argillaceous matrix to no matrix; 40%, even, moderately bright, white fluorescence; diffuse white, instantaneously milky cut to moderately fast white crush cut, good visual porosity.
74	1740.9	30	SILTSTONE	medium dark grey, firm to moderately hard; micaceous inclusions.
75	1721.0	25	CLAYSTONE	pale brown, firm; sticky.
76	1711.2	30	SANDSTONE	light to medium light grey, very fine to fine grained well sorted, subrounded; trace siliceous cement, carbonaceous inclusions; 20% dull white fluorescence; fast white crush cut; inclusions.
77	1708.9	25	SANDSTONE	light grey, very fine grained very well sorted, friable; carbonaceous inclusions; 10% spotty, dull yellowish white fluorescence; moderately fast streaming white cut; instantaneously strong white crush cut; laminations.
78	1701.9	20	SILTSTONE	medium grey to brown grey, firm; fissile, coal laminations.
79	1693.0	20	SANDSTONE	light to medium light grey, very fine grained, very well sorted, friable; carbonaceous laminations; 20% dull to moderately bright white fluorescence; moderately fast streaming white cut; instantaneously strong white crush cut; mica inclusions, poor visual porosity.
80	1685.3	25	SANDSTONE	light to medium grey, very fine grained, very well sorted, friable; common carbonaceous laminations, poor visual porosity; 10% moderately bright white fluorescence; slow to moderately fast diffuse white cut; instantaneous white crush cut.
81	1666.9	20	CLAYSTONE	light grey firm; uniform.
82	1647.0	10	CLAYSTONE	light grey, firm.
83	1622.9	10	SANDSTONE	very light grey, very fine grained, very well sorted, friable; silty; no fluorescence shows; poor visual porosity.
84	1575.9	20	SILTSTONE	light grey, firm, occasionally carbonaceous inclusions.

86	1546.0	35	SHALE	brown grey to brown red, firm; fissile.
87	1507.9	45	CLAYSTONE	medium light grey, firm; uniform.
88	1495.9	40	SILTSTONE	brown, firm; micaceous.
89	1468.5	15	SILTSTONE	light to medium light grey, firm; occasionally carbonaceous inclusions.
90	1430.0	25	SANDSTONE	medium grey, very fine grained, very well sorted, friable; common carbonaceous inclusions; no fluorescence shows.
91	1380.0	25	SILTSTONE	brownish red, firm; occasionally small carbonaceous inclusions.
92	1358.5	30	SILTSTONE	brown, firm; moderately calcareous; mica inclusions; pyritic.
93	1341.0	35	SILTSTONE	brown, firm to moderately hard; moderately calcareous; abundant coarse to very coarse grained,; rounded to well rounded quartz grains.
94	1332.0	20	SANDSTONE	medium to medium dark grey, very fine to fine grained well sorted, subrounded, friable; common carbonaceous inclusions; no fluorescence shows; silty, poor visual porosity.
95	1329.1	30	SANDSTONE	medium to medium dark grey, very fine to fine grained, well sorted, subrounded; common carbonaceous inclusions; occasionally very coarse well rounded sandstone inclusions.
96	1325.9	40	SILTSTONE	red brown, firm, moderately calcareous; common fine grained quartz inclusions; pyritic in parts, glauconite inclusions.
97	1315.9	35	SILTSTONE	medium grey to red brown, firm to moderately hard; moderately calcareous; fine to medium grained quartz grains inclusions; commonly pyritic.
98	1309.0	35	SILTSTONE	medium dark grey to rust brown, firm to moderately hard; moderately calcareous; medium to very coarse grained quartz grains inclusions; pyritic, glauconite inclusions, mica inclusions.
99	1297.9	25	SILTSTONE	medium dark grey to red brown, firm to moderately hard; moderately calcareous; glauconite inclusions; pyritic.
100	1293.9	40	SILTSTONE	brown, firm; moderately calcareous; mica inclusions.
101	1290.0	35	CALCAREOUS CLAYSTONE	medium grey, firm; very calcareous; pyrite sand and mica inclusions.
102	1285.0	25	CALCAREOUS CLAYSTONE	medium grey to medium dark grey, firm; very calcareous; occasionally quartz grains inclusions; occasionally pyrite.

SNAPPER #5
SIDEWALL CORE GAS ANALYSIS

NO.	DEPTH	C1	C2	C3	C4	C5	C6	
5	2886.0	54	63	123	68	27	20	
7	2863.8	43	42	47	27	10	7	
14	2701.5	356	360	187	98	67	55	
15	2700.0	122	96	72	52	33	35	
17	2678.3	217	84	32	12	TR	TR	
20	2636.4	217	36	41	19	TR	TR	
22	2621.8	295	36	26	15	TR	TR	
28	2508.9	329	36	44	22	TR	TR	
29	2502.0	364	30	44	13	TR	TR	
33	2437.8	56	9	TR	TR	TR	--	
35	2414.9	203	18	16	TR	TR	--	
36	2403.9	342	73	15	6	TR	--	
41	2313.1	269	57	18	6	TR	--	
42	2294.2	91	48	18	8	TR	--	
50	2081.0	271	73	20	10	5	--	
53	2028.4	190	21	18	8	TR	TR	
58	1923.8	225	21	18	7	TR	7	
62	1854.1	2000	1555	3328	3857	2351	1600	
73	1756.0	624	72	104	98	53	57	C7+
76	1711.2	1805	408	624	1578	935	640	C7+
77	1708.9	234	42	62	131	146	200	C7+
79	1693.3	290	480	682	515	267	200	
94	1332.0	1388	360	353	372	400	480	
98	1309.0	312	408	412	212	146	200	

APPENDIX 4

APPENDIX 4

VELOCITY SURVEY REPORT

ENCLOSURES

1. Schlumberger Seismic Calibration Log
2. Schlumberger WST-RAW SHOTS
3. Schlumberger GEOGRAM
4. Time-Depth Curve

VELOCITY SURVEY REPORT

SNAPPER-5

1. PROCESSING PARAMETERS

Seismic Reference Datum (SRD)	:	Mean Sea Level
Elevation SRD	:	0m
Elevation Kelly Bushing	:	20.7m
Elevation Ground Level	:	-56.0
Well Deviation	:	0 degrees
Total Depth	:	2989m KB
Sonic Log Interval	:	2989m-200m KB
Density Log Interval	:	2989m-1240m KB

2. DATA PROCESSING INFORMATION

OPEN HOLE LOGS

Sonic (2989m-200m KB) and density (2989m-1240m KB) logs were used in the construction of the seismogram. The sonic drift is high and part of this can be attributed to the lack of resolution of the sonic tool across thin coal beds.

SOURCE OFFSET

The transit time from the moonpool shot was not needed to calculate the source offset. This was because of uncertainty in the hydrophone positions resulting from adverse weather conditions during the survey. A source offset of 32.5m was used, this being the calculated source offset for the second checkshot survey for Whiting-2. All transit times have been corrected for the source offset.

CORRECTION TO DATUM

The seismic reference datum is at Mean Sea Level. The airgun was positioned 9 metres below MSL. Using a water velocity of 1480m/sec, a correction of 6.08 milliseconds has been applied to all transit times.

IMPOSED SHOTS

Two imposed shots were used in addition to the checkshot data to calibrate the sonic log.

- 1) Sea floor: Depth 56 metres, water velocity 1480m/sec.
- 2) Top Sonic: Depth 200m. The velocities above and below this level were chosen to maintain a linear sonic drift curve from this level down to lower check levels.

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VELOCITY MODELLING

An interval velocity of 1480 m/sec has been used between MSL AND GL. From GL to the top of the sonic an interval velocity of 2003m/sec is used.

SONIC CALIBRATION RESULTS

The top of the sonic log (200m KB) was chosen as the origin for the calibration drift curve. All drift measurements are relative to this point.

3. CHECK SHOT DATA

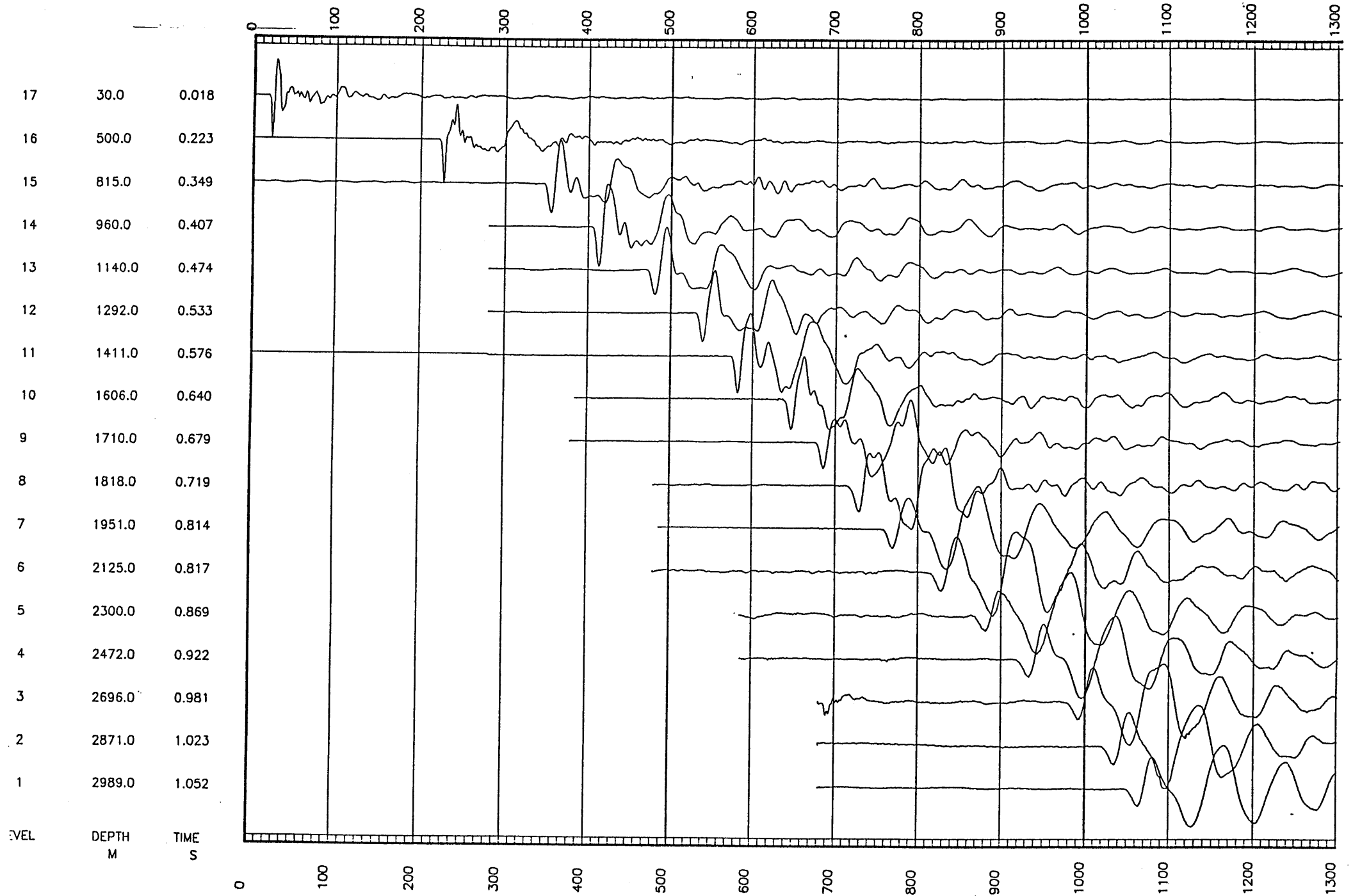
A total of 16 check levels were used to calibrate the sonic log, the general data quality was good.

Level Depth (m KB)	Stacked Shots	Rejected Shots	Quality	Comments
30	3	0	Good	Moonpool Hydrophone
500	3	0	Good	
815	3	0	Good	
960	3	0	Good	
1140	3	0	Good	
1292	3	0	Good	
1411	7	0	Good	
1606	3	0	Good	
1710	3	0	Good	
1818	3	0	Good	
1951	3	0	Good	
2125	5	5	Good	
2300	6	2	Good	
2472	5	1	Good	
2696	6	2	Good	
2871	5	0	Good	
2989	6	2	Good	

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STACKED CHECK SHOT DATA

Fig. 1



Schlumberger

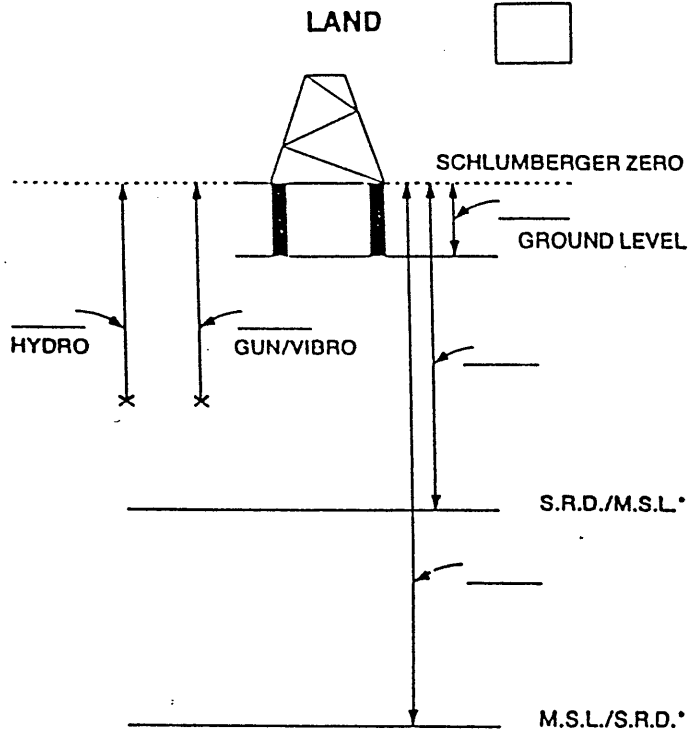
GUN GEOMETRY SKETCH

CLIENT:

ESSO AUSTRALIA LTD.

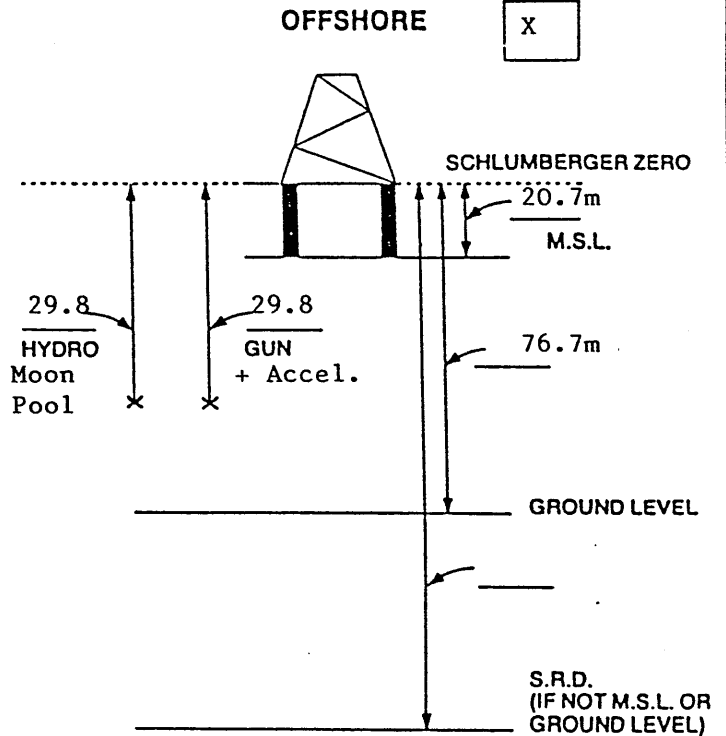
WELL: SNAPPER #5

DATE: 1/8/85



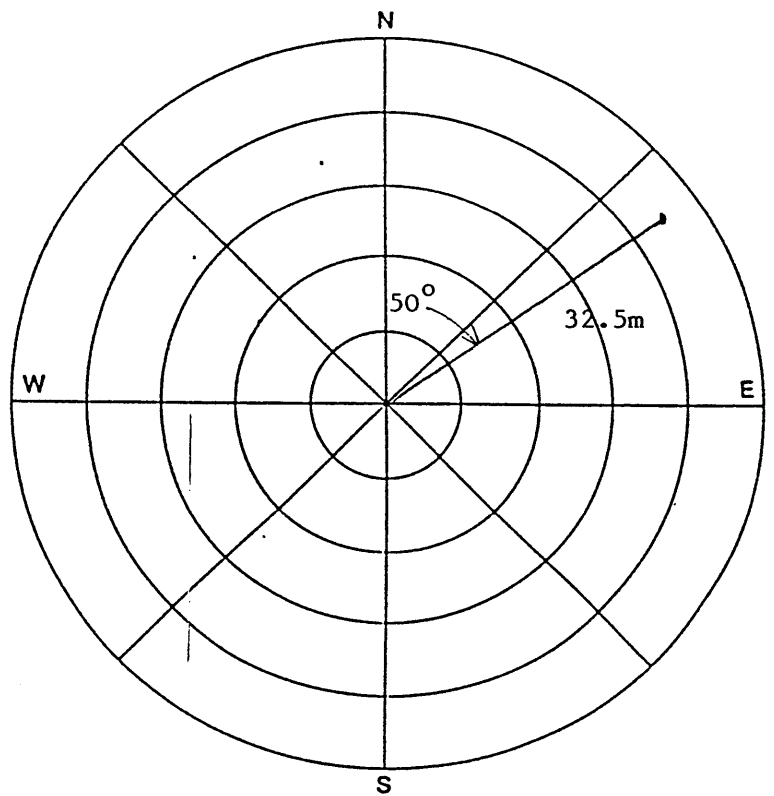
INDICATE ALL DISTANCES RELATIVE TO SCHLUMBERGER ZERO

* DELETE AS APPLICABLE



INDICATE ALL DISTANCES RELATIVE TO SCHLUMBERGER ZERO

SHOT POS'N	GUN OFFSET	Accel OFFSET	GUN DEPTH	Accel DEPTH
1	32.5m	32.5m	9m	9m
2				
3				
4				
5				
6				
7				



INDICATE GUN/VIBRO AND HYDROPHONE OFFSET AND AZIMUTH RELATIVE TO NORTH

DRIFT COMPUTATION

Level Number	Measured Depth From KB (m)	Vertical Depth From MSL (m)	Vertical Travel Time MSL/ Geophone (MS)	Integrated Raw Sonic Time (MS)	Computed Drift At Level (MS)	Computed Blk-Shft Correction (US/M)
1	76.7	56.0	37.83	37.83	0	0
2	200.0	179.3	99.40	99.40	0	0
3	500.0	479.3	228.55	222.34	6.21	20.71
4	815.0	794.3	354.78	340.44	14.34	25.84
5	960.0	939.3	412.83	397.56	15.27	6.40
6	1140.0	1119.3	479.88	462.39	17.48	12.30
7	1292.0	1271.3	538.90	520.25	18.66	7.72
8	1411.0	1391.3	581.92	562.68	19.24	4.90
9	1606.0	1585.3	645.95	626.65	19.29	0.27
10	1710.0	1689.3	684.95	664.54	20.42	10.80
11	1818.0	1797.3	724.96	700.30	24.67	39.35
12	1951.0	1930.3	764.97	740.45	24.52	-1.06
13	2125.0	2104.3	822.98	792.24	30.74	35.74
14	2300.0	2279.3	874.99	840.54	34.45	21.21
						33.31

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Level Number	Measured Depth From KB (m)	Vertical Depth From MSL (m)	Vertical Travel Time MSL/ Geophone (MS)	Integrated Raw Sonic Time (MS)	Computed Drift At Level (MS)	Computed Blk-Shift Correction (US/M)
15	2472.0	2451.3	928.00	887.82	40.18	(33.31)
16	2696.0	2675.3	987.01	947.47	39.54	-2.89
17	2871.0	2850.3	1029.01	990.72	38.29	-7.09
18	2989.0	2968.3	1058.02	1018.17	39.85	13.20

CHECK SHOT DATA

Level Number	Measured Depth From KB (m)	Vertical Depth From MSL (m)	Observed Travel Time (MS)	Vertical Travel Time MSL/Geophone (MS)	Average Velocity MSL/Geophone (MS)	Delta Depth Between Shots (m)	Delta Time Between Shots (MS)	Interval Velocity Between Shots (M/S)
1	76.7	56.0	38.6	37.83	1480			
2	200.0	179.3	95.0	99.40	1804	123.3	61.57	2003
3	500.0	479.3	223.0	228.55	2097	300.0	129.15	2323
4	815.0	794.3	349.0	354.78	2239	315.0	126.23	2495
5	960.0	939.3	407.0	412.83	2275	145.0	58.05	2498
6	1140.0	1119.3	474.0	479.88	2332	180.0	67.05	2685
7	1292.0	1271.3	533.0	538.90	2359	152.0	59.03	2575
8	1411.0	1390.3	576.0	581.92	2389	119.0	43.02	2766
9	1606.0	1585.3	640.0	645.95	2454	195.0	64.02	3046
10	1710.0	1689.3	679.0	684.95	2466	104.0	39.01	2666
11	1818.0	1797.3	719.0	724.96	2479	108.0	40.01	2699
12	1951.0	1930.3	759.0	764.97	2523	133.0	40.01	3324
13	2125.0	2104.3	817.0	822.98	2557	174.0	58.01	2999
						175.0	52.01	3365

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Level Number	Measured Depth From KB (m)	Vertical Depth From MSL (m)	Observed Travel Time (MS)	Vertical Travel Time MSL/ Geophone (MS)	Average Velocity MSL/Geophone (MS)	Delta Depth Between Shots (m)	Delta Time Between Shots (MS)	Interval Velocity Between Shots (M/S)
14	2300.0	2279.3	869.0	874.99	2605			
15	2472.0	2451.3	922.0	928.00	2641	172.0	53.01	3245
16	2696.0	2675.3	981.0	987.01	2711	224.0	59.01	3796
17	2871.0	2850.3	1023.0	1029.01	2770	175.0	42.01	4166
18	2989.0	2968.3	1052.0	1058.02	2806	118.0	29.0	4068

PE902389

This is an enclosure indicator page.
The enclosure PE902389 is enclosed within the
container PE902388 at this location in this
document.

The enclosure PE902389 has the following characteristics:

ITEM_BARCODE = PE902389
CONTAINER_BARCODE = PE902388
NAME = Time Depth Curve
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = VELOCITY_CHART
DESCRIPTION = Time Depth Curve
REMARKS =
DATE_CREATED = 1/08/85
DATE_RECEIVED = 1/05/86
W_NO = W912
WELL_NAME = Snapper-5
CONTRACTOR = Schlumberger
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)