EXPLORATION & GAS DIVISION

SNAPPER A-21

28 FEB 1984

WELL COMPLETION REPORT

GIPPSLAND BASIN, VICTORIA

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SNAPPER A-21

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SNAPPER A-21

WELL COMPLETION REPORT

CONTENTS

APPENDICES

ESSO AUSTRALIA LTD.

WELL COMPLETION REPORT

I. Well Data Record

WELL NAME	STATE	PERMIT OR LICENCE	GEOLOGICAL BASIN	FIELD
SNAPPER A-21	Vic.	Vic. L/10	Gippsland	SNAPPER

Location

CO-ORDINATES:

Surface		Bottom Hole	
Latitude	38° 11' 44" S	Latitude	38° 11' 43" S
Longitude	148° 01' 27" E	Longitude	148° 01' 24" E
X =	589 673.5m E	X=	589,620.1m E
Y =	5 771 988.3m N	Y=	5,772,023.6m N

Elevations and Depths

ELEVATIONS (Relative MSL)	WATER DEPTH (MSL)	TOTAL DEPTH	AVG ANGLE
KB 34.7m RT	55.0m	3291m MDKB 3288m TVDKB	Vertical

BRADENHEAD	PLUG BACK DEPTH	REASONS FOR PLUG BACK
MAIN DECK	2713m MD	Squeeze Packer Set at 2760m

Dates

MOVE IN	RIG-UP	SPUDDED
June 16, 1981	June 16, 1981	June 16, 1981

RIG DOWN COMPLETE	RIG RELEASED	I.P. ESTABLISHED
August 30, 1981	August 30, 1981	N-1700 (Long string) 27/2/82 N-1 (Short string) 22/3/82

PRODUCTION UNIT - RIG DOWN

March 17, 1982

Miscellaneous

OPERATOR	PERMITEE/LICENCEE	ESSO INTEREST	OTHER INTEREST
Esso Australia Ltd	EEPA/Hematite	50%	50% Hematite 2 1/2% overriding royalty

TOTAL RIG DAYS	DRILLING AFE NO.	COMPLETION NO.	TYPE COMPLETION
81.9	339-306 (Development) 231-004 (Exploration)		Dual

CONTRACTOR	RIG NAME	EQUIPMENT TYPE
Loffland Bros.	Rig No. 95	Mid Continent U-1220-B

LAHEE WELL CLASSIFICATION

BEFORE DRILLING: Primary Development/ Exploration

AFTER DRILLING: Oil Producer

WELL: SNAPPER A-21

II

INITIAL WELL PERFORMANCE

Date 5/5/82

Well Completed as: DUAL

Oil Well X

Gas Well

Dry Hole

SAND UNIT	N-1.8	L-1 (M-1700)
Choke Size	18/64	13/64
Oil, kL/d	151	131
Water, kL/d		
Gas, K.m3/d		
Gas Liquids, kL/d		
Gas-Oil Ratio m3/kL	430	465
Gravity		
Perforations	1422.5-1424.5	1692.5-1697
Shut-in Tubing Pressure, kPa	5000	13700
Flowing-Tubing Pressure, kPa	4850	6400
Flowing Temp, ^{o}C	44	N/A

III

PERFORATING RECORD (Production test, Completion, DST, FIT)

INTERVAL	SPM	TOTAL SHOTS	SERVICE COMPANY	DIFF. PRESSURE (OVER BALANCE)	PERFORATION FLUID	SIZE & TYPE OF GUN
1422.5-1424.5	13	26	Schlumberger	2000	Brine	2 1/8"Enerjet
1692.5-1697.5	13	65	Schlumberger	2240	Brine & Diesel	"

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IV CASING RECORD

TYPE	SIZE	WEIGHT	GRADE	THREAD	NO. OF JOINTS	LENGTH m	DEPTH-MDRKB m
Surface	13-3/8"	54.5#	K-55	BUTT	52 (plus FS & FC)	604.4	620.0
Intermediate	9-5/8"	47#	N-80	BUTT	132 (plus FS, FC & 2 pup jts)	1534.6	1550.0
Production	7"	26#	N-80	HYDRIL SFJP	85 jts (plus 2 xovers & liner hanger)	981.6	2447.4
	7"	29#	N-80	BUTT	34 (plus xover)	408.0	2855.4
	7"	26#	N-80	HYDRIL SFJP	2 joints (plus FS, Ball catcher & Latch down collar)	25.6	2881
Tubing							
Long String	3-1/2"	9.3#	L-80	EUE	143 jts (plus pup jts, xover, Packer, etc)	1439.9	1454.4
	2-7/8"	6.5#	J-55	EUE	19 jts (plus pup jt, XN nipple, Packer, etc.)	195.6	1650.4
Short String	3-1/2"	9.3#	L-80	EUE	139 jts (plus pup jts, xover, Packer etc.)	1380.6	1395.1

V CEMENTING RECORD

STRING	13-3/8" Surface Casing	9-5/8" Intermediate Casing	7" Production Liner
TYPE OF CEMENT	Aust 'N' + 6% gel tailed with Aust 'N' neat	Aust 'N' + 6% gel + additives tailed with Aust 'N' neat	Aust 'N' + additives
DRY CEMENT VOLUME	1061 sx Aust 'N' + gel. 470 sx Aust 'N' neat	331 sx Aust 'N' + gel + additives 230 sx Aust 'N' neat	870 sx Aust 'N' + additives
CEMENT ADDITIVES	Surface grout, + 4% CaI_2	0.5% CFR-2 0.8% HALAD 22A	35% Silica Flour 0.75% CFR-2 0.8% HALAD 22A 0.6% HR-12
MIX WATER	Seawater - lead Freshwater - tail	Seawater - lead Freshwater - tail	Freshwater
SLURRY VOLUME	67.7 m^3	23.9 m^3	41.4m^3
SLURRY DENSITY	1.64 SG lead 1.87 SG tail	1.63 SG lead 1.87 SG tail	1.81 SG
CEMENT TOP	Surface	940 m MD (est)	1468 m MD
CASING TEST PRESSURE	10340 kPa	25512 kPa	25512 kPa
NO. OF CENTRALISERS	20	44	65
REMARKS	Cement returns at surface after 40.8m^3 displacement mud pumped. Plug bumped with 10340 kPa. Cement conductor annulus with 56 sx neat cement.	Plug did not bump Returns of heavy 11.8 ppg lead mud to surface	Plug did not bump

VI PLUGGING RECORD

PLUG NUMBER	1	2	3	4
TYPE OF CEMENT	Aust. 'N' + additives	Aust. 'N' + additives	Aust. 'N' + additives	Aust. 'N' neat
DRY CEMENT VOLUME	156 sx	107 sx	149 sx	36 sx
MIX WATER	Freshwater	Freshwater	Freshwater	Freshwater
CEMENT ADDITIVES	35% Silica Flour .75% CFR-2 .8% HALAD 22A .6% HR-12	35% Silica Flour .75% CFR-2 .8% HALAD 22A .6% HR-12	35% Silica Flour .75% CFR-2 .8% HALAD 22A .6% HR-12	Nil
SLURRY VOLUME	7.42 m^3	5.10 m^3	7.08 m^3	1.72 m^3
SLURRY DENSITY	SG 1.81	SG 1.81	SG 1.81	SG 1.81
CEMENT TOP	3160 m MD	3035 m MD	2881 m MD	2713 MD
CEMENT BOTTOM	3291 m MD	3125 m MD	3000 m MD	2760 MD
REMARKS	Top not tagged	Top not tagged	Top tagged with 15 kips.	Top tagged wi 20 kips.

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J.H. Blackmor
Drilling Engi

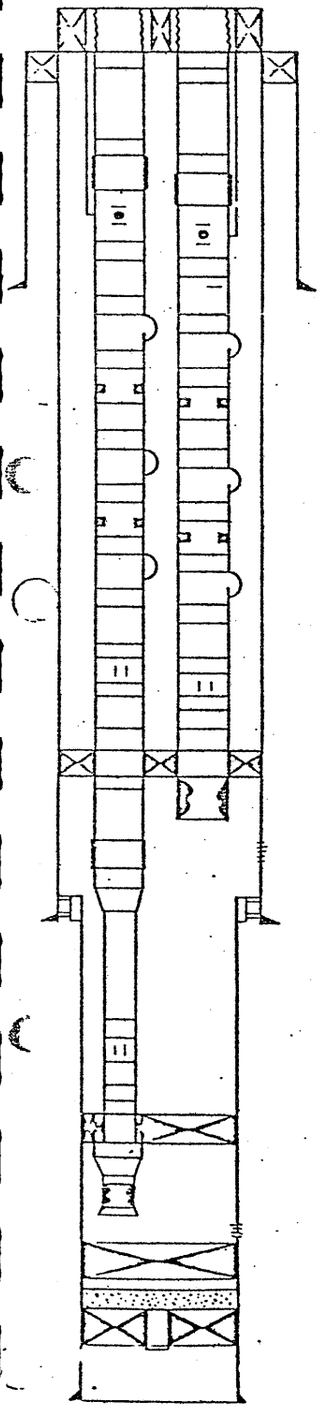
(5453A)

VII a)

ESSO AUSTRALIA LTD

SUBSURFACE COMPLETION EQUIPMENT

WELL NAME SNAPPER A-21 SHORT STRING — DATE COMPLETED — 19/1/82



DESCRIPTION	OD mm (in)	ID mm (in)	LENGTH m	MEASURED DEPTH m FROM	MEASURED DEPTH m TO	TRUE VERT DEPTH FROM	TRUE VERT DEPTH T
CIW 'DC-B' tubing hanger 3-1/2" Hycril 'CS' box x box (Part 665444-1-ET)	279.4 (11.000)	74.93 (2.950)	0.22	14.5	14.72	14.5	1
Xover 3-1/2" Hycril 'CS' pin x 3-1/2" EUE box, L-80	114.3 (4.500)	74.17 (2.920)	0.12	14.72	14.84	14.72	1
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9 (3.500)	76.0 (2.992)	1.09	14.84	15.93	14.84	1
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (46 joints)	88.9	76.0	441.12	15.93	457.05	15.93	45
1/4" Hydraulic control line (Part 22SAW31160)							
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.86	457.05	458.91	455.40	45
Otis flow coupling, 3-1/2", EUE (Part 11FM787)	114.3 (4.500)	73.0 (2.875)	0.87	458.91	459.78	457.26	45
Otis 'XEL' safety valve landing nipple, 3-1/2", EUE (for Otis 'DK' ball type safety valve) with Otis 'XO' lock mandrel (Part 11XL27507, 22DK27503, 11XO113)	119.4 (4.700)	69.9 (2.750)	0.57	459.78	460.35	458.12	458
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.87	460.35	462.22	458.69	46
SURFACE CASING 13-3/8", K-55, 54.4 lb/ft, Buttress							
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (18 joints)	88.9	76.0	173.24	462.22	635.46	460.56	63
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	3.88	635.46	639.34	633.63	63
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 210R03)	151.2 (5.953)	73.0 (2.875)	2.74	639.34	642.08	637.51	64
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.70	642.08	643.78	640.25	64
Otis 'X' landing nipple 3-1/2" EUE (Part 11X33)	95.3	69.9	0.41	643.78	644.19	641.95	64
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (44 joints)	88.9	76.0	422.74	644.19	1066.93	642.36	106
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	3.67	1066.93	1070.60	1065.06	106
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 210R03)	151.2 (5.953)	73.0 (2.875)	2.75	1070.60	1073.35	1068.73	107
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.69	1073.35	1075.04	1071.48	107
Otis 'X' landing nipple 3-1/2" EUE (Part 11X33)	95.3	69.9	0.41	1075.04	1075.45	1073.17	107
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (4 joints)	88.9	76.0	38.59	1075.45	1114.04	1073.58	111
Tubing pup joint, L-80, 9.3 lb/ft, EUE	88.9	76.0	3.68	1114.04	1117.72	1112.17	111
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 210R03)	151.2 (5.953)	73.0 (2.875)	2.74	1117.72	1120.45	1115.85	111
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.69	1120.45	1122.15	1118.58	112
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (26 joints)	88.9	76.0	250.15	1122.15	1372.3	1120.28	137
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	2.01	1372.3	1374.31	1370.39	137
Otis 'XA' sliding sleeve, 3-1/2", EUE (Part no. 121XA27580)	108.7 (4.280)	69.9 (2.750)	0.97	1374.31	1375.28	1372.40	137
Tubing pup joint, 3-1/2", L 80, 9.3 lb/ft, EUE	88.9	76.0	3.65	1375.28	1378.93	1373.37	137
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (1 joint)	88.9	76.0	9.65	1378.93	1388.58	1377.02	138
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	2.71	1388.58	1391.29	1386.67	138
Baker left hand safety joint, 3-1/2" EUE (Part 799-21)			0.12	1391.29	1391.41	1389.38	138
Baker type 'A-5' model 518 double grip hydrostatic dual packer, 9-5/8" OD.	214.30 (8.437)	76.3 (3.00)	3.15	1391.41	1394.56	1389.50	139
Xover 3-1/2" NU IORo box X 3-1/2" EUE 8Ro pin			0.34	1394.56	1394.90	1392.65	139
Otis 'RN' landing nipple - 3-1/2", EUE	95.76 (3.77)	59.26 (2.329)	0.23	1394.90	1395.13	1392.99	139
N-1 PERFORATION INTERVAL							
Otis 9-5/8" hydraulic set liner hanger (Part 231 PHA 7004)				1422.5	1424.5	1420.59	142
INTERMEDIATE CASING - 9-5/8", K-55, 40-47 lb/ft, Buttress							
Bridge Plug				2020		2018.04	
Top of Cement Plug				2660		2657.84	
Baker Model 'D' packer with flapper valve				2760		2757.76	
Perforations				2793.5	2803.5	2791.22	280
PRODUCTION LINER - 7", K-55, 23.0 lb/ft, XL				1468	2855		

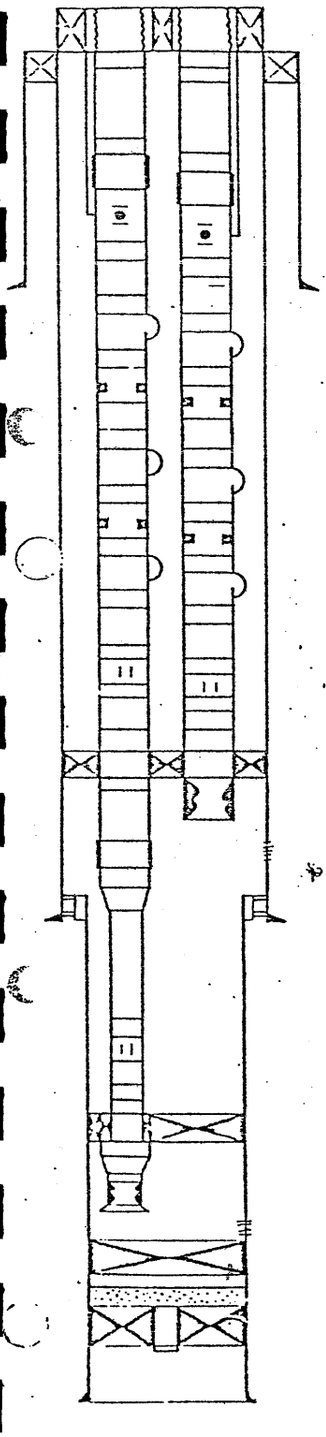
(4012A/11)

VII b)

ESSO AUSTRALIA LTD

SUBSURFACE COMPLETION EQUIPMENT

WELL NAME SNAPPER A-21 LONG STRING DATE COMPLETED – 22/1/82



SCHEMATIC / DESCRIPTION	OD mm (in)	ID mm (in)	LENGTH m	MEASURED DEPTH m FROM	MEASURED DEPTH m TO	TRUE VERTICAL DEPTH FROM	TRUE VERTICAL DEPTH T
CIW 'DC-B' tubing hanger 3-1/2" Hycril 'CS' box x box (Part No. 6b5446-1-27)	279.40 (11.000)	74.93 (2.950)	0.22	14.5	14.72	14.5	14
Xover 3-1/2" Hycril 'CS' pin x 3-1/2" EUE box, L-80	114.3 (4.500)	74.17 (2.920)	0.33	14.72	15.05	14.72	15
Tubing, 3-1/2", L-80, 9.3 lb/ft EUE (45 joints)	88.9	76.0	432.38	15.05	447.43	15.05	44
1/4" Hydraulic control line (Part 22SAW31160)	(3.500)	(2.992)					
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.86	447.43	449.29	445.79	44
Otis flow coupling, 3-1/2" EUE (Part 11FN767)	114.3 (4.500)	73.0 (2.875)	0.96	449.29	450.25	447.65	44
Otis 'XL' safety valve landing nipple, 3-1/2" EUE (for Otis 'DK' ball type safety valve) with Otis 'XO' lock mandrel (Part 11XL27507, 22DK27503, 11XO113)	119.4 (4.700)	69.9 (2.750)	0.84	450.25	451.09	448.61	44
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.86	451.09	452.95	449.45	45
SURFACE CASING 13-3/8", K-55, 54.4 lb/ft, Buttress							
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (18 joints)	88.9	76.0	173.09	452.95	626.04	451.31	62
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.80	626.04	627.84	624.21	62
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 21OR03)	151.2 (5.953)	73.0 (2.875)	2.73	627.84	630.57	626.01	62
Tubing pup joint, 3-1/2" L-80, 9.3 lb/ft, EUE	88.9	76.0	2.90	630.57	633.67	628.74	63
Otis 'X' landing nipple, 3-1/2" EUE (Part 11X33)	95.3 (3.75)	69.9 (2.75)	0.41	633.47	633.88	631.64	63
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (44 joints)	88.9	76.0	422.98	633.88	1056.86	632.05	105
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	3.67	1056.86	1060.53	1054.99	105
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 21OR03)	151.2 (5.953)	73.0 (2.875)	2.75	1060.53	1063.28	1058.66	106
Tubing pup joint, 3-1/2" L-80, 9.3 lb/ft, EUE	88.9	76.0	1.70	1063.28	1064.98	1061.41	106
Otis 'X' landing nipple, 3-1/2" EUE (Part 11X33)	95.3 (3.75)	69.9 (2.75)	0.41	1064.98	1065.39	1063.11	106
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (4 joints)	88.9	76.0	38.60	1065.39	1103.99	1063.52	110
Tubing pup joint, 3-1/2" L-80, 9.3 lb/ft, EUE	88.9	76.0	3.67	1103.99	1107.66	1102.12	110
Otis 'RL' 3-1/2" gas lift mandrel with dummy valve, EUE (Part 21IRL30221-4, 22IRD1500, 21OR03)	151.2 (5.953)	73.0 (2.875)	2.74	1107.66	1110.40	1105.79	110
Tubing pup joint, 3-1/2" L-80, 9.3 lb/ft, EUE	88.9	76.0	1.70	1110.40	1112.10	1108.53	111
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (28 joints)	88.9	76.0	269.85	1112.10	1381.95	1110.23	138
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	5.50	1381.95	1387.45	1380.04	138
Otis 'XD' sliding sleeve - 3-1/2" EUE (Part 121XC54)	108.7 (4.281)	69.9 (2.750)	1.09	1387.45	1388.54	1385.54	138
Tubing pup joints, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	3.04	1388.54	1391.58	1386.63	138
Baker Type 'A-5' model 518 double grip hydro-static dual packer, 9-5/8" OD, with Xover to 3-1/2" EUE.	214.30 (8.437)	76.2 (3.00)	3.88	1391.58	1395.46	1389.67	139
Tubing pup joint, 3-1/2", L-80, 9.3 lb/ft, EUE	88.9	76.0	1.89	1395.46	1397.35	1393.55	139
Tubing, 3-1/2", L-80, 9.3 lb/ft, EUE (2 joints)	88.9	76.0	19.29	1397.35	1416.64	1395.44	141
N-1 PERFORATION INTERVAL				1422.5	1424.5	1420.59	142
Otis blast joints, 3-1/2", EUE (Part no. 11BN174) (3 joints)	114.3 (4.500)	76.2 (3.00)	18.25	1416.64	1434.89	1422.58	143
Otis 9-5/8" hydraulic set liner hanger (Part 231 PHA 7004)							
INTERMEDIATE CASING - 9-5/8", K-55, 40-47 lb/ft, Buttress							
Tubing, 3-1/2", J-55 L-80, 9.3 lb/ft, EUE (2 joints)	88.9	76.0	19.29	1434.89	1454.18	1432.97	145
Xover, 3-1/2" EUE box x 2-7/8" EUE pin	95.3 (3.750)	62.0 (2.375)	0.20	1454.18	1454.38	1452.26	145
Tubing , 2-7/8", J-55, 6.5 lb/ft, EUE (18 joints)	73.0	62.0	173.9	1454.38	1628.28	1452.46	162
Tubing pup joint, 2-7/8", J-55, 6.5 lb/ft, EUE	73.0	62.0	1.99	1628.28	1630.27	1626.34	162
Otis 'XA' sliding sleeve - 2-7/8" EUE (Part No. 121XA7)	95.3	58.7	0.97	1630.27	1631.24	1628.33	162
Tubing, pup joint, 2-7/8", J-55, 6.5 lb/ft, EUE	73.0	62.0	1.24	1631.24	1632.48	1629.30	163
Tubing, 2-7/8", J-55, 6.5 lb/ft, EUE (1 joint)	73.0	62.0	9.66	1632.48	1642.14	1630.54	164
Tubing pup joint, 2-7/8", J-55, 6.5 lb/ft, EUE	73.0 (2.875)	62.0 (2.441)	2.27	1642.14	1644.41	1640.20	164
Baker 7" type 'S-2' hydroset retainer production packer w/ shear release snap-out seal, millout ext. and xover to 2-7/8" EUE	144.4 (5.667)	60.3 (2.375)	3.09	1644.41	1647.50	1642.47	164
Tubing pup joint, 2-7/8", J-55, 6.5 lb/ft, EUE	73.0	62.0	1.85	1647.50	1649.35	1645.56	164
Otis 'XN' landing nipple - 2-7/8" EUE (Part 11XN23101)	78.6	57.2	0.40	1649.35	1649.75	1647.41	164
Wireline guide - 2-7/8" EUE Box	146.1 (5.750)	62.0 (2.440)	0.21	1649.75	1649.96	1647.81	164
"1700 m SAND" PERFORATION INTERVAL				1692	1697	1690.05	169
Bridge - plug				2020		2018.04	
Top of Cement Plug				2660		2657.84	
Baker Model 'D' packer with flapper valve				2760		2757.76	
Perforations				2793.5	2803.5	2791.22	280
PRODUCTION LINER - 7", K-55, 23.0 lb/ft, XL				1468	2855	1466.08	285

(4012A/10)

WELL SNAPPER A-21

VIII Samples, Conventional Cores, Sidewall Cores

INTERVAL	TYPE
1220m-3290m	Cuttings samples at 5m intervals, (lagged).
	Conventional Cores
1326.5m-1332m no recovery	Core #1
1332.1m-1338.2m recovered 4.9m (80.3%)	Core #2
1338.2m-1344m no recovery	Core #3 (rubber sleeve)
1412m-1415.2m recovered 1.06m (33%)	Core #4
1415.2m-1424.24m recovered 9.04m (100%)	Core #5
1424.24m-1432.4m recovered 7.16m (88%)	Core #6
1699m-1717.3m recovered 17.8m (97.3%)	Core #7
1919m-1938m recovered 19m (100%)	Core #8
2164m-2171m recovered 5.95m (85%)	Core #9
2342m-2351.1m recovered 8.85m (96.8%)	Core #10
	Sidewall Cores
2497.5m-3270m recovered 88%	SWC #1 Run 1
1551m-2481.5m recovered 66%	SWC #2 Run 2
1551m-2475m recovered 90%	SWC #3 Run 3

IX Wireline Logs & Surveys

Type & Scale	From	To
ISF-SONIC 1:200 & 1:500	1548.2m	619m
	2684m	1547.6m
	3280m	2620m
FDC-CNL 1:200 & 1:500	1546m	1170m
	2685.3m	1547.6m
	3281m	2620m
BGT 1:200 & 1:500	1546.6	619m
	2850m	1547.6m
DIPMETER (& 1:20) 1:200 & 1:500	1543m	629m
	2682m	1551m
DLL 1:200 & 1: 500	1542.3m	1170m
	3277.6m	1547m
CNL (Cased Hole) 1:200 & 1:500	1500m	1175m
BHC - Sonic Log 1:200 only	1537m	619
CCL & Perforating	2530m	2520m

Type & Scale	From	To
RFT Runs 1 & 2	Tests	1 - 28
RFT Runs 3 & 4	Tests	1 - 25
RFT Runs 5, 6 & 7	Tests	26 - 59
RFT Runs 8, 9 & 10	Tests	1 - 42

3264f11

J. Lau
Geologist

WELL: SNAPPER A-2I

X

FORMATION TOPS / ZONES

NAME	TOPS M.D.	TOPS T.V.D.	SUBSEA T.V.D.	Gross Interval T.V.D.	NET PAY GAS M.D.	NET PAY GAS T.V.D.	NET PAY OIL M.D.	NET PAY OIL T.V.D.	REMARKS
Top of Unit									
N-1.0	1222	1220	-1185	14	-	-	-	-	
N-1.1	1236	1234	-1199	26	4.5	4.5	-	-	
N-1.2	1262	1260	-1225	20	20.5	20.0	-	-	
N-1.3	1282	1280	-1245	33	16.5	15.8	-	-	
N-1.4 Unit	1315	1313	-1278	32	-	-	-	-	
N-1.4 Sand	1325	1323	-1289		16.5	16.0	-	-	
N-1.5	1347	1345	-1310	19	15.5	15.0	-	-	
N-1.6 Unit	1366	1364	-1329	36	-	-	-	-	
N-1.6 Sand	1373	1371	-1336		24.5	24.3			
N-1.7	1402	1400	-1365	14	6.0	5.5	-	-	
N-1.8	1416	1414	-1379	34	-	-	6.5	6.3	
N-1.9	1450	1448	-1413	46	-	-	-	-	
M-1	1497	1494	-1459	71	-	-	-	-	
M-2	1568	1565	-1530	117	4.5	4.3	-	-	
L-1 Unit	1685	1682	-1647	56	-	-	-	-	
L-1 Oil Sand (Top)	1693	1690	-1655	9	-	-	9.5	9.3	
L-1 Oil Sand (Base)	1702	1699	-1664						
L-2	1741	1738	-1703						
Total Depth	3291	3288	-3253						

XI

GEOLOGIC ANALYSIS (Pre-Drilling Prognosis Vs Actual Results)

Snapper A-2I was drilled vertically below the platform. The well was designed as a development well to the base of the N-1 reservoir, thence as an exploration well to planned T.D. at 3334m TVDKB. The development target was the oil zone in the N-1 reservoir. Exploration objectives were to investigate potential hydrocarbon-bearing intra-Latrobe 'M' & 'L' sands, previously encountered in the Snapper 1 & 2 exploration wells. In addition, the well would allow a more accurate evaluation of reservoir characteristics and possible performance.

The Top of Latrobe was penetrated at 1220m TVDKB, 29m higher than predicted. A 6.5m MD oil leg was found towards the top of the N-1.8.

Several hydrocarbon shows were encountered in the deeper intra-Latrobe sands. These included a 9.5m proven oil column in the L-1 oil sand. Other thin columns of oil and net gas were intersected at depth. Production tests performed between 2793.5m & 2803.5m MDKB concluded that porosities were too low to warrant their development. In fact below 2600m, high water and low porosities renders any development an uneconomic proposition.

Drilling ceased 46m short of the proposed T.D. of 3334m TVDKB, as a result of abnormal pressures and poor hole conditions.

3264f66

Geologist, S. Shoghi

PALYNOLOGY DATA SHEET

XII

PROVISIONAL REPORT

BASIN: GIPPSLAND ELEVATION: KB: 34.7m GL: 55

WELL NAME: SNAPPER-A21 TOTAL DEPTH: 3281metres.

AGE	PALYNOLOGICAL ZONES	HIGHEST DATA					LOWEST DATA				
		Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time
NEOGENE	*T. pleistocenicus*										
	M. lipsis										
	C. bifurcatus										
	T. bellus										
PALEOGENE	*P. tuberculatus*										
	Upper *N. asperus*										
	Mid *N. asperus*										
	Lower *N. asperus*										
	P. asperopolus										
	Upper *M. diversus*										
	Mid *M. diversus*										
	Lower *M. diversus*	1634.3	0				1723.5	1			
	Upper *L. balmei*	1796.5	1				1955.6	1			
	Lower *L. balmei*	1994	1				2102.5	2	2060	1	
LATE CRETACEOUS	*T. longus*	2169.28	2				2618	2			
	T. lilliei	2673	2				3126	2			
	N. senectus	3184	2				3270	2			
	U. *T. pachyexinus*										
	L. *T. pachyexinus*										
	C. triplex										
	A. distocarinatus										
EARLY CRET.	*C. paradoxus*										
	C. striatus										
	F. asymmetricus										
	F. wonthaggiensis										
	C. australiensis										
PRE-CRETACEOUS											

COMMENTS: W. hypercantha at 1634.3. Separation between Upper and Lower L. balmei not clear cut. Poor recovery from most samples below L. balmei makes determination questionable. Reprocessing of present samples and additional sample fill-in hopefully will give a cleaner delineation of the stratigraphic tops.

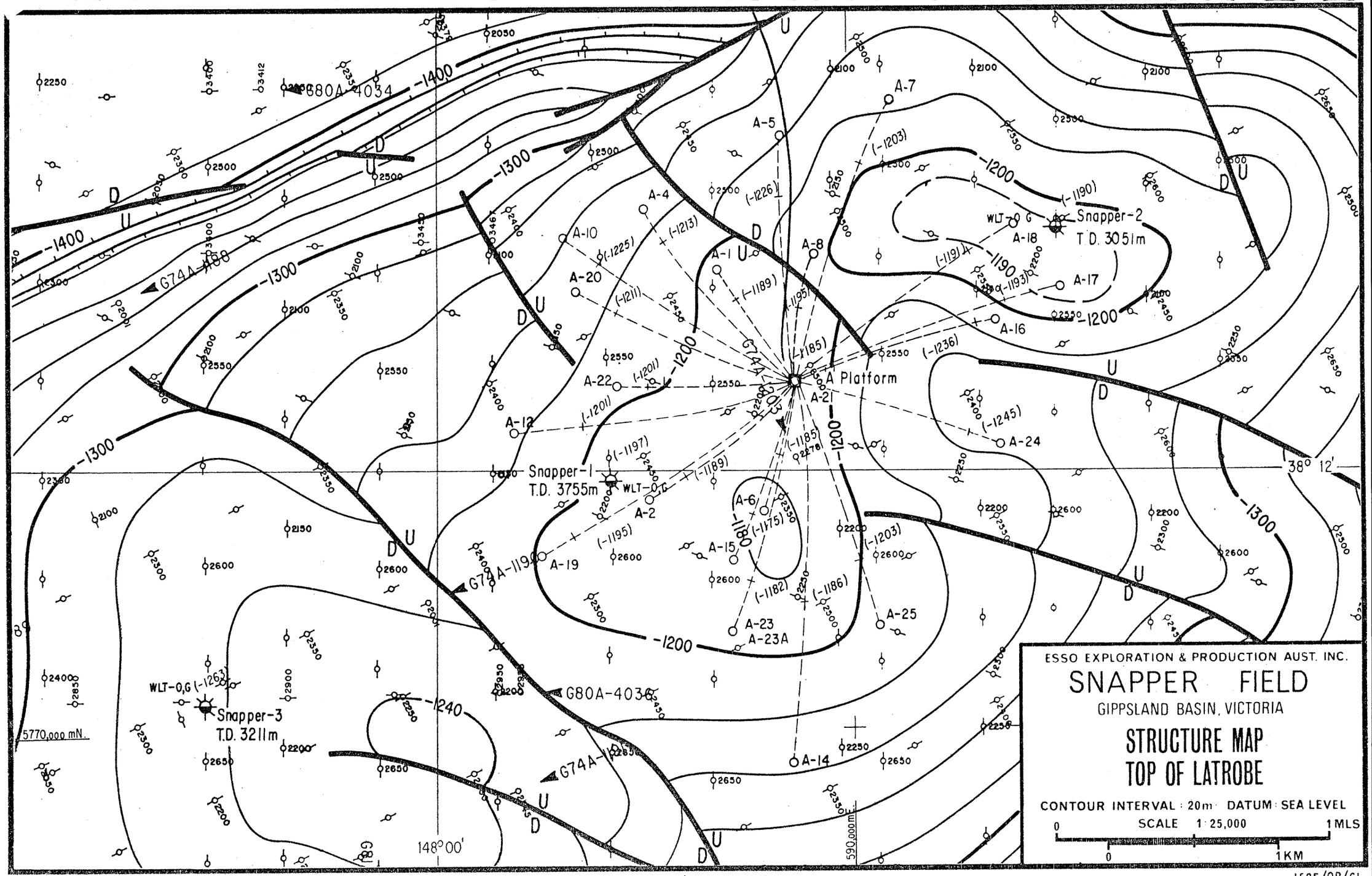
CONFIDENCE RATING:

0: SWC or Core, Excellent Confidence, assemblage with zone species of spores, pollen and microplankton.
1: SWC or Core, Good Confidence, assemblage with zone species of spores and pollen or microplankton.
2: SWC or Core, Poor Confidence, assemblage with non-diagnostic spores, pollen and/or microplankton.
3: Cuttings, Fair Confidence, assemblage with zone species of either spores and pollen or microplankton, or both.
4: Cuttings, No Confidence, assemblage with non-diagnostic spores, pollen and/or microplankton.

NOTE: If an entry is given a 3 or 4 confidence rating, an alternative depth with a better confidence rating should be entered, if possible. If a sample cannot be assigned to one particular zone, then no entry should be made, unless a range of zones is given where the highest possible limit will appear in one zone and the lowest possible limit in another.

DATA RECORDED BY: H.E. Stacy DATE: November 12, 1981

DATA REVISED BY: _____ DATE: _____


ESSO EXPLORATION & PRODUCTION AUST. INC.
SNAPPER FIELD
GIPPSLAND BASIN, VICTORIA
STRUCTURE MAP
TOP OF LATROBE
CONTOUR INTERVAL : 20m DATUM : SEA LEVEL
SCALE 1:25,000
0 1MLS
0 1KM
A Platform
Snapper-1
T.D. 3755m
Snapper-2
T.D. 3051m
Snapper-3
T.D. 3211m
G74A-1400
G74A-1300
G74A-1200
G74A-1190
G74A-1180
G74A-1240
G80A-4034
G80A-4036
148°00'
38° 12'
5770,000 mN.
590,000mE
JUNE, 1983
1585/OP/61

EASTMAN

SURVEY

PE905084

This is an enclosure indicator page.
The enclosure PE905084 is enclosed within the container PE902705 at this location in this document.

The enclosure PE905084 has the following characteristics:

ITEM_BARCODE	= PE905084
CONTAINER_BARCODE	= PE902705
NAME	= Directional Survey Plan View
BASIN	= GIPPSLAND
PERMIT	= VIC/L10
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Directional Survey, Plan View (enclosure from WCR) for Snapper-A21
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W748
WELL_NAME	= SNAPPER-A21
CONTRACTOR	= EASTMAN WHIPSTOCK
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

Eastman Whipstock
A PETROLANE COMPANY

REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY

ESSO AUST. LTD.
COMPANY

SNAPPER A-21
WELL NAME

BASS STRAIT
LOCATION

JOB NUMBER

TYPE OF SURVEY

DATE

SURVEY BY

OFFICE
SALE VIC.

RM D-362 R2

RECORD OF SURVEY

SNAPPER CONDUCTOR 21

JOB NO._____ DATE MAY 1980

	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST	REMARKS
	9 45	0	9 45		0					
	24 69	55'	24 69		S79W		02		12	
	39 91	40'	39 91		S65W		09		32	
	55 17	50'	55 17		S61W		18		50	
5	70 41	45'	70 41		S75W		26		69	
	85 65	50'	85 64		S53W		35		88	
	100 89	40'	100 88		S77W		43		1 06	
	116 13	55'	116 12		N53W		39		1 26	
	131 37	1°45'	131 36		N24W		12		1 48	
	146 61	2°40'	146 59		N15W	44			1 67	
11	155 14	3°15'	155 10		N17W	86			1 79	
				CLOSURE 1.99M N64°20'W						
				FROM CONDUCTOR No. 1			2 88	2 97		

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

SHEET 1 of 1

JOB NO._____ DATE 19.6.81 CHECKED BY_____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	172 95	4½	172 87							
	182 19	5½	182 07			N2½W		1 70	2 77	
	191 49	6	191 33			N0E		89	2 75	
15	200 78	6	200 57			N2E	04		2 77	
	227 59	5½	227 24			N9E	1 01			
	255 43	6	254 94			N23E	3 58		2 86	
	283 27	6¾	282 61			N18W	6 31		3 60	
	311 11	7	310 25			N10E	9 36		3 72	
20	338 95	7¼	337 87			N13W	12 67		3 50	
	365 01	7	363 73			N6W	16 07		3 42	
	391 07	6	389 62			N8W	19 28		2 85	
	417 13	4¾	415 57			N10W	22 20		2 45	
	443 19	3½	441 56			N9W	24 60		1 99	
25	469 25	3¼	467 58			N12W	26 45		1 59	
	495 31	3	493 60			N13W	27 94		1 25	
	521 37	2¾	519 62			N14W	29 33		91	
	547 43	2½	545 66			N14W	30 59		58	
	573 49	2	571 70			N13W	31 75		27	
30	615 09	1¾	613 27			N33W	32 69			01
						N24W	33 89			41
										1 06

FORM NO. D-303E

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO. _____ DATE 30.6.81 CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
	629 66	1½	627 83			N3W	34 29			1 16
	655 70	1	653 87			N3W	34 86			1 19
	681 74	1	679 90			N11E	35 31			1 15
35	707 78	¾	705 94			N12E	35 70			1 07
	733 82	¾	731 98			N16E	36 03			99
	759 86	¾	758 02			N18E	36 36			89
	785 90	¾	784 05			N8E	36 69			82
	811 94	¾	810 09			N1W	37 03			80
40	837 98	¾	836 13			N7W	37 37			82
	864 02	¾	862 17			N17W	37 70			89
	890 06	¾	888 21			N17W	38 03			99
	916 10	¾	914 24			N37W	38 33			1 14
	942 14	¾	940 28			N32W	38 61			1 34
45	968 18	¾	966 32			N37W	38 89			1 53
	994 22	¾	992 36			N60W	39 11			1 78
	1020 26	¾	1018 39			N72W	39 25			2 09
	1046 30	¾	1044 43			N71W	39 36			2 42
	1072 34	¾	1070 47			N74W	39 46			2 74
50	1098 38	½	1096 51			N74W	39 54			3 02

FORM NO. D—303E

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO. _____ DATE 30.6.81 CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
	1124 42	½	1122 55			N70W	39 61			3 23
	1150 46	¾	1148 59			N83W	39 68			3 51
	1176 50	¾	1174 62			S63W	39 62			3 84
	1202 54	¾	1200 66			S55W	39 44			4 13
55	1228 58	1	1226 70			S53W	39 21			4 45
	1254 62	1	1252 73			S51W	38 93			4 81
	1280 66	1	1278 77			S23W	38 57			5 08
	1306 70	1¼	1304 80			S18W	38 09			5 26
	1332 74	1	1330 84			S16W	37 60			5 41
60	1358 78	1¼	1356 87			S41W	37 16			5 65
	1384 82	1	1382 91			S45W	36 78			6 00
	1410 86	¾	1408 95			S42W	36 50			6 27
	1436 90	1¼	1434 98			S53W	36 19			6 61
	1462 94	½	1461 02			S58W	35 96			6 94
65	1488 98	¾	1487 06			S61W	35 82			7 18
	1515 02	1	1513 09			S47W	35 59			7 50
67	1541 06	¾	1539 13			S58W	35 34			7 82

FORM NO. D—303E

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO. _____ DATE 18.8.81 CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
	1561 45	¾	1559 52			S53W	35 19			8 04
	1587 47	¾	1585 54			S65W	35 01			8 33
70	1613 49	1	1611 55			S61W	34 83			8 69
	1639 51	1	1637 57			S66W	34 63			9 09
	1665 53	¾	1663 59			S81W	34 52			9 47
	1691 55	½	1689 60			S73W	34 45			9 75
	1717 57	¼	1715 62			S47W	34 37			9 89
75	1743 59	0	1741 64			0	34 33			9 94
	1769 61	¼	1767 66			S65W	34 31			9 99
	1795 63	½	1793 68			S28W	34 19			10 11
	1821 65	½	1819 70			S43W	34 01			10 24
	1847 67	¼	1845 72			S21E	33 85			10 27
80	1873 69	¼	1871 74			S39E	33 75			10 21
	1899 71	¾	1897 76			S74E	33 63			10 03
	1925 73	1	1923 78			S89E	33 57			9 64
	1951 75	¾	1949 79			S82E	33 54			9 24
	1977 77	½	1975 81			S42E	33 41			8 99
85	2003 79	½	2001 83			S41E	33 24			8 84
	2029 81	¾	2027 85			S37E	33 02			8 67

FORM NO. D—303E

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO._____ DATE 18.8.81 CHECKED BY_____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	2055 83	¾	2023 87			S32E	33 06			8 69
	2081 85	¾	2079 89			S29E	32 43			8 32
	2107 87	½	2105 90			S41E	32 20			8 16
90	2133 89	¾	2131 92			S50E	32 00			7 96
	2159 91	¾	2157 94			S34E	31 75			7 73
	2185 93	½	2183 96			S33E	31 51			7 57
	2211 95	½	2209 98			S34E	31 32			7 45
	2237 91	¼	2235 94			S73W	31 18			7 50
95	2263 99	1	2262 02			S63W	31 07			7 76
	2290 01	1	2288 03			S71W	30 90			8 18
	2316 03	1	2314 05			S68W	30 74			8 60
	2342 05	1¼	2340 06			S55W	30 50			9 05
	2368 07	1¼	2366 08			S43W	30 12			9 48
100	2394 09	1½	2392 09			S65W	29 76			9 98
	2420 11	1½	2418 10			S78W	29 54			10 63
	2446 13	1½	2444 13			S74W	29 38			11 29
	2472 15	1¾	2470 12			N89W	29 28			12 02
	2498 17	2	2496 13			S81W	29 22			12 86
105	2524 19	2¼	2522 13			S80W	29 06			13 82
	2550 21	2½	2548 13			S75W	28 83			14 87

FORM NO. D—303E

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO. _____ DATE 18.8.81 CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	2576 23	2¼	2574 12			S85W	28 64			15 93
	2602 25	2¼	2600 12			S87W	28 57			16 95
	2628 27	2	2626 13			S89W	28 54			17 91
110	2654 29	2	2652 13			S88W	28 51			18 82
	2680 31	2¼	2678 13			S78W	28 40			19 78
	2706 33	2¼	2704 13			S63W	28 06			20 74
	2732 35	2¼	2730 13			S63W	27 59			21 65
	2758 37	2¾	2756 13			S75W	27 19			22 70
115	2784 39	2¾	2782 12			S81W	26 93			23 92
	2810 41	2½	2808 11			S76W	26 69			25 09
	2836 43	2½	2834 10			S77W	26 43			26 20
	2862 45	2¼	2860 10			S84W	26 25			27 26
	2888 47	2¼	2886 10			S87W	26 17			28 28
120	2914 49	2½	2912 10			S85W	26 09			29 35
	2940 51	2¾	2938 09			S86W	26 00			30 54
	2966 53	2¾	2964 08			S86W	25 91			31 79
	2992 55	3	2990 07			S87W	25 83			33 09
	3018 57	3	3016 05			S88W	25 77			34 45
125	3044 59	3	3042 04			N89W	25 76			35 81
	3070 61	3¼	3068 02			N83W	25 86			37 22

EASTMAN WHIPSTOCK, INC.

RECORD OF SURVEY

SNAPPER A-21 MAGNETIC MULTISHOT

JOB NO._____ DATE 18.8.81 CHECKED BY_____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
	3096 63	3¼	3094 00			N74W	26 15			38 67
	3122 65	3½	3119 97			N72W	26 60			40 13
	3148 67	3½	3145 94			N67W	27 16			41 62
130	3174 69	3½	3171 92			N67W	27 78			43 08
	3200 71	3½	3197 89			N60W	28 49			44 50
	3226 73	3¾	3223 86			N54W	29 38			45 88
	3252 75	4	3249 82			N49W	30 48			47 26
134	3278 77	4	3275 77			N57W	31 57			48 71
				CLOSURE	58.05M	N 57° 03' W				

FORM NO. D—303E

MDTVD Computer Printout

MD TVD

COMPUTER

PRINTOUT

SNAPPER A-21 MULTISHOT SURVEY

WELL COMPLETION REPORT

ZONE STATE	COUNTRY AREA	WELL REF NUMBER	SIDETRACK NUMBER	SURVEYING COMPANY	TYPE OF SURVEY	ORIGIN CODE	INPUT UNITS	TARGET BEARING
55	160	A-21		EAST	MS		M	N 0. 0. E

BOTTOM HOLE LOCATION CALCULATIONS USING RADIUS OF CURVATURE

COURSE LENGTH	MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG MIN	DIRECTION DEG MIN	RECTANGULAR COORDINATES NORTH/SOUTH	EAST/WEST	POLAR COORDINATES DISTANCE	DEG MIN	VERTICAL SECTION
	24.69	24.69	C. 55.	S 79. 0. W	0.02 S	0.12 W	0.1	S 80. 32. W	-0.0
15.22	39.91	39.91	C. 40.	S 65. 0. W	0.08 S	0.32 W	0.3	S 75. 8. W	-0.1
15.26	55.17	55.17	0. 50.	S 61. 0. W	0.18 S	0.50 W	0.5	S 70. 34. W	-0.2
15.24	70.41	70.41	0. 45.	S 75. 0. W	0.25 S	0.69 W	0.7	S 69. 50. W	-0.3
15.24	85.65	85.64	C. 50.	S 53. 0. W	0.35 S	0.88 W	0.9	S 68. 33. W	-0.3
15.24	100.89	100.88	C. 40.	S 77. 0. W	0.43 S	1.06 W	1.1	S 67. 56. W	-0.4
15.24	116.13	116.12	0. 55.	N 53. 0. W	0.39 S	1.26 W	1.3	S 72. 55. W	-0.4
15.24	131.37	131.36	1. 45.	N 24. 0. W	0.11 S	1.48 W	1.5	S 85. 38. W	-0.1
15.24	146.61	146.59	2. 40.	N 15. 0. W	0.44 N	1.67 W	1.7	N 75. 16. W	0.4
8.53	155.14	155.10	3. 15.	N 17. 0. W	0.86 N	1.79 W	2.0	N 64. 19. W	0.9
17.81	172.95	172.87	4. 30.	N 2. 30. W	2.05 N	2.00 W	2.9	N 44. 19. W	2.0
9.24	182.19	182.08	5. 30.	N 0. 1. E	2.85 N	2.02 W	3.5	N 35. 15. W	2.9
9.30	191.49	191.33	6. C.	N 2. C. E	3.78 N	2.00 W	4.3	N 27. 51. W	3.8
9.29	200.78	200.57	6. 0.	N 9. 0. E	4.75 N	1.91 W	5.1	N 21. 52. W	4.7
26.81	227.59	227.25	5. 30.	N 23. 0. E	7.32 N	1.17 W	7.4	N 9. 4. W	7.3
27.84	255.43	254.94	6. 0.	N 18. 0. W	10.05 N	1.05 W	10.1	N 5. 57. W	10.1
27.84	283.27	282.61	6. 45.	N 10. 0. E	13.10 N	1.26 W	13.2	N 5. 30. W	13.1
27.84	311.11	310.25	7. C.	N 13. C. W	16.41 N	1.35 W	16.5	N 4. 42. W	16.4
27.84	338.95	337.88	7. 15.	N 6. 0. W	19.82 N	1.92 W	19.9	N 5. 32. W	19.8
26.06	365.01	363.73	7. C.	N 8. 0. W	23.03 N	2.31 W	23.1	N 5. 44. W	23.0
26.06	391.07	389.63	6. C.	N 10. C. W	25.94 N	2.77 W	26.1	N 6. 6. W	25.9
26.06	417.13	415.57	4. 45.	N 9. 0. W	28.35 N	3.18 W	28.5	N 6. 24. W	28.3
26.06	443.19	441.56	3. 30.	N 12. 0. W	30.19 N	3.52 W	30.4	N 6. 39. W	30.2
26.39	469.58	467.91	3. 15.	N 13. C. W	31.71 N	3.86 W	31.9	N 6. 56. W	31.7
25.73	495.31	493.60	3. C.	N 14. C. W	33.07 N	4.18 W	33.3	N 7. 13. W	33.1
26.06	521.37	519.63	2. 45.	N 14. 0. W	34.34 N	4.50 W	34.6	N 7. 28. W	34.3
26.06	547.43	545.66	2. 30.	N 13. 0. W	35.50 N	4.78 W	35.8	N 7. 40. W	35.5
26.06	573.49	571.70	2. C.	N 33. 0. W	36.44 N	5.18 W	36.8	N 8. 5. W	36.4
41.60	615.09	613.28	1. 45.	N 24. 0. W	37.63 N	5.82 W	38.1	N 8. 48. W	37.6
14.57	629.66	627.84	1. 30.	N 3. 0. W	38.03 N	5.92 W	38.5	N 8. 51. W	38.0
26.04	655.70	653.87	1. C.	N 3. C. W	38.60 N	5.95 W	39.1	N 8. 46. W	38.6
26.04	681.74	679.91	1. C.	N 11. 0. E	39.05 N	5.92 W	39.5	N 8. 37. W	39.0
26.04	707.78	705.95	C. 45.	N 12. C. E	39.44 N	5.84 W	39.9	N 8. 25. W	39.4
26.04	733.82	731.98	0. 45.	N 16. 0. E	39.77 N	5.76 W	40.2	N 8. 14. W	39.8
26.04	759.86	758.02	C. 45.	N 18. C. E	40.10 N	5.66 W	40.5	N 8. 2. W	40.1
26.04	785.90	784.06	C. 45.	N 8. C. E	40.43 N	5.58 W	40.8	N 7. 52. W	40.4
26.04	811.94	810.10	C. 45.	N 1. 0. W	40.77 N	5.56 W	41.1	N 7. 46. W	40.8
26.04	837.98	836.13	C. 45.	N 7. 0. W	41.11 N	5.58 W	41.5	N 7. 44. W	41.1
26.04	864.02	862.17	C. 45.	N 17. 0. W	41.44 N	5.65 W	41.8	N 7. 46. W	41.4
26.04	890.06	888.21	C. 45.	N 17. 0. W	41.77 N	5.75 W	42.2	N 7. 51. W	41.8

SNAPPER A-21 MULTISHOT SURVEY

BOTTOM HOLE LOCATION CALCULATIONS USING RADIUS OF CURVATURE

	COURSE LENGTH	MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG MIN	DIRECTION DEG MIN	RECTANGULAR COORDINATES NORTH/SOUTH	EAST/WEST	POLAR COORDINATES DISTANCE	DEG MIN	VERTICAL SECTION
	26.04	916.10	914.25	C. 45.	N 37. O. W	42.07 N	5.91 W	42.5	N 7. 6C. W	42.1
	26.04	942.14	940.28	C. 45.	N 32. O. W	42.35 N	6.1C W	42.8	N 8. 12. W	42.3
	26.04	968.18	966.32	C. 45.	N 37. O. W	42.63 N	6.29 W	43.1	N 8. 24. W	42.6
	26.04	994.22	992.36	C. 45.	N 60. O. W	42.85 N	6.55 W	43.4	N 8. 41. W	42.9
	26.04	1C20.26	1018.40	O. 45.	N 72. C. W	42.99 N	6.86 W	43.5	N 9. 4. W	43.0
	26.04	1046.3C	1044.43	C. 45.	N 71. O. W	43.10 N	7.18 W	43.7	N 9. 28. W	43.1
	26.04	1C72.34	1C70.47	C. 45.	N 74. C. W	43.20 N	7.51 W	43.9	N 9. 51. W	43.2
	26.04	1C98.33	1C9o.51	O. 30.	N 74. O. W	43.28 N	7.78 W	44.C	N 1C. 11. W	43.3
	26.04	1124.42	1122.55	C. 3C.	N 7C. C. W	43.35 N	8.0C W	44.1	N 1C. 27. W	43.4
	26.04	1150.46	1143.59	C. 45.	N 83. O. W	43.42 N	8.27 W	44.2	N 1C. 47. W	43.4
	26.04	1176.5C	1174.62	O. 45.	S 63. O. W	43.36 N	8.6C W	44.2	N 11. 13. W	43.4
	26.04	1202.54	1200.66	C. 45.	S 55. O. W	43.18 N	8.89 W	44.1	N 11. 38. W	43.2
**		1222.00	1220.12	TOP LATROBE/N-1.0		43.02 N	9.13 W	44.0	N 11. 59. W	43.0
	26.04	1228.58	1226.70	1. C.	S 53. O. W	42.95 N	9.22 W	43.9	N 12. 7. W	43.C
**		1236.00	1234.12	TOP N-1.1		42.87 N	9.32 W	43.9	N 12. 16. W	42.9
	26.04	1254.62	1252.74	1. C.	S 51. C. W	42.67 N	9.57 W	43.7	N 12. 39. W	42.7
**		1262.CC	1260.11	TOP N-1.2		42.58 N	9.67 W	43.7	N 12. 48. W	42.6
	26.04	1280.66	1278.77	1. C.	S 23. C. W	42.31 N	9.84 W	43.4	N 13. 6. W	42.3
**		1282.00	1280.11	TOP N-1.3		42.29 N	9.85 W	43.4	N 13. 7. W	42.3
	26.04	1306.7C	1304.81	1. 15.	S 18. O. W	41.83 N	1C.02 W	43.0	N 13. 29. W	41.8
**		1314.5C	1312.60	TOP N 1.4		41.68 N	10.07 W	42.9	N 13. 35. W	41.7
	26.04	1332.74	1330.84	1. O.	S 16. O. W	41.34 N	1C.17 W	42.6	N 13. 49. W	41.3
**		1347.CC	1345.10	TOP N-1.5		41.10 N	1C.28 W	42.4	N 14. 2. W	41.1
	26.04	1356.78	1356.88	1. 15.	S 41. C. W	40.90 N	10.42 W	42.2	N 14. 17. W	40.9
**		1366.00	1364.09	TOP N-1.6		40.78 N	10.52 W	42.1	N 14. 28. W	40.8
	26.04	1384.82	1382.91	1. C.	S 45. O. W	40.52 N	10.76 W	41.9	N 14. 53. W	40.5
**		1402.CC	1400.09	TOP N-1.7		40.33 N	10.95 W	41.8	N 15. 12. W	40.3
	26.04	1410.86	1408.95	C. 45.	S 42. O. W	40.24 N	11.04 W	41.7	N 15. 2C. W	40.2
**		1416.CC	1414.09	TOP N-1.8		40.18 N	11.09 W	41.7	N 15. 25. W	40.2
	26.04	1436.9C	1434.98	1. 15.	S 53. C. W	39.93 N	11.37 W	41.5	N 15. 54. W	39.9
**		1449.5C	1447.58	TOP N-1.9		39.79 N	11.56 W	41.4	N 16. 12. W	39.8
	26.04	1462.94	1461.02	O. 3C.	S 58. O. W	39.70 N	11.7C W	41.4	N 16. 25. W	39.7
	26.04	1488.98	1487.06	C. 45.	S 61. C. W	39.56 N	11.94 W	41.3	N 16. 48. W	39.6
	26.04	1515.02	1513.09	1. O.	S 47. O. W	39.33 N	12.27 W	41.2	N 17. 19. W	39.3
	26.04	1541.06	1539.13	C. 45.	S 58. O. W	39.08 N	12.58 W	41.1	N 17. 51. W	39.1
	2C.39	1561.45	1559.52	C. 45.	S 53. O. W	38.93 N	12.8C W	41.0	N 18. 12. W	38.9
	26.02	1587.47	1585.54	C. 45.	S 65. O. W	38.76 N	13.09 W	40.9	N 18. 4C. W	38.8
	26.02	1613.49	1611.55	1. O.	S 61. O. W	38.58 N	13.45 W	40.9	N 19. 13. W	38.6
	26.02	1639.51	1637.57	1. O.	S 66. O. W	38.38 N	13.65 W	40.8	N 19. 51. W	38.4
	26.02	1665.53	1663.59	C. 45.	S 81. O. W	38.26 N	14.23 W	40.8	N 2C. 24. W	38.3
	26.02	1691.55	1689.60	O. 3O.	S 73. C. W	38.20 N	14.51 W	40.9	N 2C. 48. W	38.2
	26.02	1717.57	1715.62	O. 15.	S 47. O. W	38.11 N	14.65 W	40.8	N 21. 2. W	38.1
	26.02	1743.59	1741.64	O. C.	S C. O. E	38.06 N	14.68 W	40.8	N 21. 5. W	38.1
	26.02	1769.61	1767.66	C. 15.	S 65. O. W	38.C2 N	14.71 W	40.8	N 21. 9. W	38.0
	26.02	1795.63	1793.68	O. 3C.	S 28. O. W	37.90 N	14.83 W	40.7	N 21. 22. W	37.9

SNAPPER A-21 MULTISHOT SURVEY

BOTTOM HOLE LOCATION CALCULATIONS USING RADIUS OF CURVATURE

COURSE LENGTH	MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
26.02	1821.65	1819.70	0.	30.	S 43.	0. W	37.72 N	14.96 W	40.6	N 21.	38. W	37.7
26.02	1847.67	1845.72	0.	15.	S 21.	0. E	37.56 N	14.99 W	40.4	N 21.	45. W	37.6
26.02	1873.69	1871.74	0.	15.	S 39.	0. E	37.46 N	14.93 W	40.3	N 21.	44. W	37.5
26.02	1899.71	1897.76	0.	45.	S 74.	0. E	37.34 N	14.75 W	40.1	N 21.	33. W	37.3
26.02	1925.73	1923.78	1.	0.	S 89.	0. E	37.28 N	14.35 W	39.9	N 21.	3. W	37.3
26.02	1951.75	1949.79	0.	45.	S 82.	0. E	37.25 N	13.96 W	39.8	N 20.	33. W	37.3
26.02	1977.77	1975.81	0.	30.	S 42.	0. E	37.12 N	13.71 W	39.6	N 20.	16. W	37.1
26.02	2003.79	2001.83	0.	30.	S 41.	0. E	36.95 N	13.56 W	39.4	N 20.	9. W	36.9
26.02	2029.81	2027.85	0.	45.	S 37.	0. E	36.73 N	13.38 W	39.1	N 20.	1. W	36.7
26.02	2055.83	2053.87	0.	45.	S 32.	0. E	36.45 N	13.19 W	38.8	N 19.	54. W	36.4
26.02	2081.85	2079.88	0.	45.	S 29.	0. E	36.15 N	13.02 W	38.4	N 19.	48. W	36.2
26.02	2107.87	2105.90	0.	30.	S 41.	0. E	35.92 N	12.85 W	38.2	N 19.	41. W	35.9
26.02	2133.89	2131.92	0.	45.	S 50.	0. E	35.72 N	12.65 W	37.9	N 19.	30. W	35.7
26.02	2159.91	2157.94	0.	45.	S 34.	0. E	35.47 N	12.43 W	37.6	N 19.	18. W	35.5
26.02	2185.93	2183.96	0.	30.	S 33.	0. E	35.23 N	12.27 W	37.3	N 19.	12. W	35.2
26.02	2211.95	2209.97	0.	30.	S 34.	0. E	35.05 N	12.14 W	37.1	N 19.	7. W	35.0
25.96	2237.91	2235.93	0.	15.	S 73.	0. W	34.91 N	12.19 W	37.0	N 19.	15. W	34.9
26.08	2263.99	2262.01	1.	0.	S 63.	0. W	34.80 N	12.46 W	37.0	N 19.	42. W	34.8
26.02	2290.01	2288.03	1.	0.	S 71.	0. W	34.62 N	12.87 W	36.9	N 20.	24. W	34.6
26.02	2316.03	2314.04	1.	0.	S 68.	0. W	34.46 N	13.30 W	36.9	N 21.	6. W	34.5
26.02	2342.05	2340.06	1.	15.	S 55.	0. W	34.22 N	13.75 W	36.9	N 21.	53. W	34.2
26.02	2368.07	2366.07	1.	15.	S 43.	0. W	33.85 N	14.17 W	36.7	N 22.	43. W	33.8
26.02	2394.09	2392.08	1.	30.	S 65.	0. W	33.48 N	14.68 W	36.6	N 23.	40. W	33.5
26.02	2420.11	2418.10	1.	30.	S 78.	0. W	33.27 N	15.32 W	36.6	N 24.	44. W	33.3
26.02	2446.13	2444.11	1.	30.	S 74.	0. W	33.10 N	15.98 W	36.8	N 25.	46. W	33.1
26.02	2472.15	2470.12	1.	45.	N 39.	0. W	33.01 N	16.71 W	37.0	N 26.	51. W	33.0
26.02	2498.17	2496.12	2.	0.	S 81.	0. W	32.95 N	17.56 W	37.3	N 28.	3. W	32.9
26.02	2524.19	2522.12	2.	15.	S 80.	0. W	32.79 N	18.51 W	37.7	N 29.	27. W	32.8
26.02	2550.21	2548.12	2.	30.	S 75.	0. W	32.56 N	19.56 W	38.0	N 31.	0. W	32.6
26.02	2576.23	2574.12	2.	15.	S 85.	0. W	32.37 N	20.62 W	38.4	N 32.	30. W	32.4
26.02	2602.25	2600.12	2.	15.	S 87.	0. W	32.30 N	21.64 W	38.9	N 33.	50. W	32.3
26.02	2628.27	2626.12	2.	0.	S 89.	0. W	32.26 N	22.61 W	39.4	N 35.	1. W	32.3
26.02	2654.29	2652.12	2.	0.	S 88.	0. W	32.24 N	23.51 W	39.9	N 36.	6. W	32.2
26.02	2680.31	2678.13	2.	15.	S 78.	0. W	32.12 N	24.47 W	40.4	N 37.	18. W	32.1
26.02	2706.33	2704.13	2.	15.	S 63.	0. W	31.78 N	25.43 W	40.7	N 38.	40. W	31.8
26.02	2732.35	2730.13	2.	15.	S 63.	0. W	31.32 N	26.34 W	40.9	N 40.	4. W	31.3
26.02	2758.37	2756.12	2.	45.	S 75.	0. W	30.91 N	27.40 W	41.3	N 41.	33. W	30.9
26.02	2784.39	2782.11	2.	45.	S 81.	0. W	30.65 N	28.62 W	41.9	N 43.	2. W	30.7
26.02	2810.41	2808.10	2.	30.	S 76.	0. W	30.42 N	29.79 W	42.6	N 44.	24. W	30.4
26.02	2836.43	2834.10	2.	30.	S 77.	0. W	30.15 N	30.89 W	43.2	N 45.	42. W	30.2
26.02	2862.45	2860.10	2.	15.	S 84.	0. W	29.97 N	31.95 W	43.8	N 46.	50. W	30.0
26.02	2888.47	2886.10	2.	15.	S 87.	0. W	29.89 N	32.97 W	44.5	N 47.	48. W	29.9
26.02	2914.49	2912.09	2.	30.	S 85.	0. W	29.82 N	34.05 W	45.3	N 48.	47. W	29.8
26.02	2940.51	2938.09	2.	45.	S 86.	0. W	29.72 N	35.23 W	46.1	N 49.	51. W	29.7
26.02	2966.53	2964.08	2.	45.	S 86.	0. W	29.64 N	36.48 W	47.0	N 50.	55. W	29.6

SNAPPER A-21 MULTISHOT SURVEY

BOTTOM HOLE LOCATION CALCULATIONS USING RADIUS OF CURVATURE

	COURSE LENGTH	MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
	26.02	2992.55	2990.06	3.	0.	S 87.	0. W	29.56 N	37.78 W	48.0	N 51.	58. W	29.6
	26.02	3018.57	3016.05	3.	0.	S 88.	0. W	29.50 N	39.14 W	49.0	N 52.	60. W	29.5
	26.02	3044.59	3042.03	3.	0.	N 89.	0. W	29.49 N	40.50 W	50.1	N 53.	57. W	29.5
	26.02	3070.61	3068.01	3.	15.	N 83.	0. W	29.59 N	41.92 W	51.3	N 54.	47. W	29.6
	26.02	3096.63	3093.99	3.	15.	N 74.	0. W	29.88 N	43.36 W	52.7	N 55.	26. W	29.9
	26.02	3122.65	3119.97	3.	30.	N 72.	0. W	30.33 N	44.83 W	54.1	N 55.	55. W	30.3
	26.02	3148.67	3145.94	3.	30.	N 67.	0. W	30.88 N	46.31 W	55.7	N 56.	18. W	30.9
	26.02	3174.69	3171.91	3.	30.	N 67.	0. W	31.50 N	47.78 W	57.2	N 56.	36. W	31.5
	26.02	3200.71	3197.88	3.	30.	N 60.	0. W	32.21 N	49.20 W	58.8	N 56.	47. W	32.2
	26.02	3226.73	3223.85	3.	45.	N 54.	0. W	33.11 N	50.58 W	60.4	N 56.	48. W	33.1
	26.02	3252.75	3249.81	4.	0.	N 49.	0. W	34.20 N	51.95 W	62.2	N 56.	39. W	34.2
**		3278.77	3275.76	T.D.				35.29 N	53.40 W	64.0	N 56.	32. W	35.3
	26.02	3278.77	3275.76	4.	0.	N 57.	0. W	35.29 N	53.40 W	64.0	N 56.	32. W	35.3

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1222.00	1220.12	0.	56.	S	53.	30. W	43.02 N	9.13 W	44.0	N 11.	59. W	43.0
1223.00	1221.12	0.	57.	S	53.	26. W	43.01 N	9.14 W	44.0	N 11.	60. W	43.0
1224.00	1222.12	0.	57.	S	53.	21. W	43.00 N	9.15 W	44.0	N 12.	1. W	43.0
1225.00	1223.12	0.	58.	S	53.	16. W	42.99 N	9.17 W	44.0	N 12.	2. W	43.0
1226.00	1224.12	0.	59.	S	53.	12. W	42.98 N	9.18 W	43.9	N 12.	3. W	43.0
1227.00	1225.12	0.	59.	S	53.	7. W	42.97 N	9.19 W	43.9	N 12.	5. W	43.0
1228.00	1226.12	0.	60.	S	53.	3. W	42.96 N	9.21 W	43.9	N 12.	6. W	43.0
1229.00	1227.12	1.	0.	S	52.	58. W	42.95 N	9.22 W	43.9	N 12.	7. W	42.9
1230.00	1228.12	1.	0.	S	52.	53. W	42.94 N	9.24 W	43.9	N 12.	8. W	42.9
1231.00	1229.12	1.	0.	S	52.	49. W	42.92 N	9.25 W	43.9	N 12.	10. W	42.9
1232.00	1230.12	1.	0.	S	52.	44. W	42.91 N	9.26 W	43.9	N 12.	11. W	42.9
1233.00	1231.12	1.	0.	S	52.	40. W	42.90 N	9.28 W	43.9	N 12.	12. W	42.9
1234.00	1232.12	1.	0.	S	52.	35. W	42.89 N	9.29 W	43.9	N 12.	13. W	42.9
1235.00	1233.12	1.	0.	S	52.	30. W	42.88 N	9.31 W	43.9	N 12.	15. W	42.9
1236.00	1234.12	1.	0.	S	52.	26. W	42.87 N	9.32 W	43.9	N 12.	16. W	42.9
1237.00	1235.12	1.	0.	S	52.	21. W	42.86 N	9.33 W	43.9	N 12.	17. W	42.9
1238.00	1236.12	1.	0.	S	52.	17. W	42.85 N	9.35 W	43.9	N 12.	18. W	42.9
1239.00	1237.12	1.	0.	S	52.	12. W	42.84 N	9.36 W	43.9	N 12.	20. W	42.8
1240.00	1238.12	1.	0.	S	52.	7. W	42.83 N	9.37 W	43.8	N 12.	21. W	42.8
1241.00	1239.12	1.	0.	S	52.	3. W	42.82 N	9.39 W	43.8	N 12.	22. W	42.8
1242.00	1240.12	1.	0.	S	51.	58. W	42.81 N	9.40 W	43.8	N 12.	23. W	42.8
1243.00	1241.12	1.	0.	S	51.	54. W	42.80 N	9.42 W	43.8	N 12.	24. W	42.8
1244.00	1242.12	1.	0.	S	51.	49. W	42.79 N	9.43 W	43.8	N 12.	26. W	42.8
1245.00	1243.12	1.	0.	S	51.	44. W	42.78 N	9.44 W	43.8	N 12.	27. W	42.8
1246.00	1244.12	1.	0.	S	51.	40. W	42.76 N	9.46 W	43.8	N 12.	28. W	42.8
1247.00	1245.12	1.	0.	S	51.	35. W	42.75 N	9.47 W	43.8	N 12.	29. W	42.8
1248.00	1246.12	1.	0.	S	51.	31. W	42.74 N	9.48 W	43.8	N 12.	31. W	42.7
1249.00	1247.12	1.	0.	S	51.	26. W	42.73 N	9.50 W	43.8	N 12.	32. W	42.7
1250.00	1248.12	1.	0.	S	51.	21. W	42.72 N	9.51 W	43.8	N 12.	33. W	42.7
1251.00	1249.12	1.	0.	S	51.	17. W	42.71 N	9.52 W	43.8	N 12.	34. W	42.7
1252.00	1250.12	1.	0.	S	51.	12. W	42.70 N	9.54 W	43.8	N 12.	36. W	42.7
1253.00	1251.12	1.	0.	S	51.	7. W	42.69 N	9.55 W	43.7	N 12.	37. W	42.7
1254.00	1252.12	1.	0.	S	51.	3. W	42.68 N	9.57 W	43.7	N 12.	38. W	42.7
1255.00	1253.11	1.	0.	S	50.	35. W	42.67 N	9.58 W	43.7	N 12.	39. W	42.7
1256.00	1254.11	1.	0.	S	49.	31. W	42.66 N	9.59 W	43.7	N 12.	40. W	42.7
1257.00	1255.11	1.	0.	S	48.	26. W	42.64 N	9.61 W	43.7	N 12.	42. W	42.6
1258.00	1256.11	1.	0.	S	47.	22. W	42.63 N	9.62 W	43.7	N 12.	43. W	42.6
1259.00	1257.11	1.	0.	S	46.	17. W	42.62 N	9.63 W	43.7	N 12.	44. W	42.6
1260.00	1258.11	1.	0.	S	45.	13. W	42.61 N	9.64 W	43.7	N 12.	45. W	42.6
1261.00	1259.11	1.	0.	S	44.	8. W	42.60 N	9.66 W	43.7	N 12.	46. W	42.6
1262.00	1260.11	1.	0.	S	43.	4. W	42.58 N	9.67 W	43.7	N 12.	48. W	42.6
1263.00	1261.11	1.	0.	S	41.	59. W	42.57 N	9.68 W	43.7	N 12.	49. W	42.6
1264.00	1262.11	1.	0.	S	40.	55. W	42.56 N	9.69 W	43.6	N 12.	50. W	42.6
1265.00	1263.11	1.	0.	S	39.	50. W	42.54 N	9.70 W	43.6	N 12.	51. W	42.5
1266.00	1264.11	1.	0.	S	38.	46. W	42.53 N	9.71 W	43.6	N 12.	52. W	42.5
1267.00	1265.11	1.	0.	S	37.	41. W	42.52 N	9.72 W	43.6	N 12.	53. W	42.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	MIN	DIRECTION	DEG	MIN	RECTANGULAR COORDINATES NORTH/SOUTH	EAST/WEST	POLAR COORDINATES DISTANCE	DEG	MIN	VERTICAL SECTION
1268.00	1266.11	1.	0.	S	36.	37. W	42.50 N	9.74 W	43.6	N 12.	54. W	42.5
1269.00	1267.11	1.	0.	S	35.	32. W	42.49 N	9.75 W	43.6	N 12.	55. W	42.5
1270.00	1268.11	1.	0.	S	34.	28. W	42.47 N	9.76 W	43.6	N 12.	56. W	42.5
1271.00	1269.11	1.	0.	S	33.	23. W	42.46 N	9.77 W	43.6	N 12.	57. W	42.5
1272.00	1270.11	1.	0.	S	32.	19. W	42.44 N	9.77 W	43.6	N 12.	58. W	42.4
1273.00	1271.11	1.	0.	S	31.	14. W	42.43 N	9.78 W	43.5	N 12.	59. W	42.4
1274.00	1272.11	1.	0.	S	30.	10. W	42.42 N	9.79 W	43.5	N 13.	0. W	42.4
1275.00	1273.11	1.	0.	S	29.	5. W	42.40 N	9.80 W	43.5	N 13.	1. W	42.4
1276.00	1274.11	1.	0.	S	28.	1. W	42.38 N	9.81 W	43.5	N 13.	2. W	42.4
1277.00	1275.11	1.	0.	S	26.	56. W	42.37 N	9.82 W	43.5	N 13.	3. W	42.4
1278.00	1276.11	1.	0.	S	25.	52. W	42.35 N	9.83 W	43.5	N 13.	4. W	42.4
1279.00	1277.11	1.	0.	S	24.	47. W	42.34 N	9.83 W	43.5	N 13.	5. W	42.3
1280.00	1278.11	1.	0.	S	23.	43. W	42.32 N	9.84 W	43.5	N 13.	5. W	42.3
1281.00	1279.11	1.	0.	S	22.	56. W	42.31 N	9.85 W	43.4	N 13.	6. W	42.3
1282.00	1280.11	1.	1.	S	22.	45. W	42.29 N	9.85 W	43.4	N 13.	7. W	42.3
1283.00	1281.11	1.	1.	S	22.	33. W	42.27 N	9.86 W	43.4	N 13.	8. W	42.3
1284.00	1282.11	1.	2.	S	22.	22. W	42.26 N	9.87 W	43.4	N 13.	9. W	42.3
1285.00	1283.11	1.	3.	S	22.	10. W	42.24 N	9.87 W	43.4	N 13.	9. W	42.2
1286.00	1284.11	1.	3.	S	21.	58. W	42.22 N	9.88 W	43.4	N 13.	10. W	42.2
1287.00	1285.11	1.	4.	S	21.	47. W	42.21 N	9.89 W	43.3	N 13.	11. W	42.2
1288.00	1286.11	1.	4.	S	21.	35. W	42.19 N	9.90 W	43.3	N 13.	12. W	42.2
1289.00	1287.11	1.	5.	S	21.	24. W	42.17 N	9.90 W	43.3	N 13.	13. W	42.2
1290.00	1288.11	1.	5.	S	21.	12. W	42.15 N	9.91 W	43.3	N 13.	14. W	42.2
1291.00	1289.11	1.	6.	S	21.	1. W	42.14 N	9.92 W	43.3	N 13.	15. W	42.1
1292.00	1290.11	1.	7.	S	20.	49. W	42.12 N	9.92 W	43.3	N 13.	15. W	42.1
1293.00	1291.11	1.	7.	S	20.	38. W	42.10 N	9.93 W	43.3	N 13.	16. W	42.1
1294.00	1292.11	1.	8.	S	20.	26. W	42.08 N	9.94 W	43.2	N 13.	17. W	42.1
1295.00	1293.11	1.	8.	S	20.	15. W	42.06 N	9.94 W	43.2	N 13.	18. W	42.1
1296.00	1294.11	1.	9.	S	20.	3. W	42.04 N	9.95 W	43.2	N 13.	19. W	42.0
1297.00	1295.11	1.	9.	S	19.	52. W	42.03 N	9.96 W	43.2	N 13.	20. W	42.0
1298.00	1296.11	1.	10.	S	19.	40. W	42.01 N	9.96 W	43.2	N 13.	21. W	42.0
1299.00	1297.11	1.	11.	S	19.	29. W	41.99 N	9.97 W	43.2	N 13.	22. W	42.0
1300.00	1298.11	1.	11.	S	19.	17. W	41.97 N	9.98 W	43.1	N 13.	22. W	42.0
1301.00	1299.11	1.	12.	S	19.	6. W	41.95 N	9.98 W	43.1	N 13.	23. W	41.9
1302.00	1300.11	1.	12.	S	18.	54. W	41.93 N	9.99 W	43.1	N 13.	24. W	41.9
1303.00	1301.11	1.	13.	S	18.	43. W	41.91 N	10.00 W	43.1	N 13.	25. W	41.9
1304.00	1302.11	1.	13.	S	18.	31. W	41.89 N	10.01 W	43.1	N 13.	26. W	41.9
1305.00	1303.11	1.	14.	S	18.	20. W	41.87 N	10.01 W	43.0	N 13.	27. W	41.9
1306.00	1304.11	1.	15.	S	18.	8. W	41.85 N	10.02 W	43.0	N 13.	28. W	41.8
1307.00	1305.11	1.	15.	S	17.	59. W	41.83 N	10.03 W	43.0	N 13.	29. W	41.8
1308.00	1306.11	1.	14.	S	17.	54. W	41.81 N	10.03 W	43.0	N 13.	30. W	41.8
1309.00	1307.11	1.	14.	S	17.	49. W	41.79 N	10.04 W	43.0	N 13.	31. W	41.8
1310.00	1308.10	1.	13.	S	17.	45. W	41.76 N	10.05 W	43.0	N 13.	31. W	41.8
1311.00	1309.10	1.	13.	S	17.	40. W	41.74 N	10.05 W	42.9	N 13.	32. W	41.7
1312.00	1310.10	1.	12.	S	17.	36. W	41.72 N	10.06 W	42.9	N 13.	33. W	41.7
1313.00	1311.10	1.	11.	S	17.	31. W	41.70 N	10.06 W	42.9	N 13.	34. W	41.7

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1314.00	1312.10	1.	11.	S	17.	26. W	41.69 N	10.07 W	42.9	N 13.	35. W	41.7
1315.00	1313.10	1.	10.	S	17.	22. W	41.67 N	10.08 W	42.9	N 13.	36. W	41.7
1316.00	1314.10	1.	10.	S	17.	17. W	41.65 N	10.08 W	42.8	N 13.	37. W	41.6
1317.00	1315.10	1.	9.	S	17.	13. W	41.63 N	10.09 W	42.8	N 13.	37. W	41.6
1318.00	1316.10	1.	8.	S	17.	8. W	41.61 N	10.09 W	42.8	N 13.	38. W	41.6
1319.00	1317.10	1.	8.	S	17.	3. W	41.59 N	10.10 W	42.8	N 13.	39. W	41.6
1320.00	1318.10	1.	7.	S	16.	59. W	41.57 N	10.11 W	42.8	N 13.	40. W	41.6
1321.00	1319.10	1.	7.	S	16.	54. W	41.55 N	10.11 W	42.8	N 13.	41. W	41.6
1322.00	1320.10	1.	6.	S	16.	49. W	41.53 N	10.12 W	42.7	N 13.	41. W	41.5
1323.00	1321.10	1.	6.	S	16.	45. W	41.51 N	10.12 W	42.7	N 13.	42. W	41.5
1324.00	1322.10	1.	5.	S	16.	40. W	41.50 N	10.13 W	42.7	N 13.	43. W	41.5
1325.00	1323.10	1.	4.	S	16.	36. W	41.48 N	10.13 W	42.7	N 13.	44. W	41.5
1326.00	1324.10	1.	4.	S	16.	31. W	41.46 N	10.14 W	42.7	N 13.	45. W	41.5
1327.00	1325.10	1.	3.	S	16.	26. W	41.44 N	10.14 W	42.7	N 13.	45. W	41.4
1328.00	1326.10	1.	3.	S	16.	22. W	41.43 N	10.15 W	42.7	N 13.	46. W	41.4
1329.00	1327.10	1.	2.	S	16.	17. W	41.41 N	10.15 W	42.6	N 13.	47. W	41.4
1330.00	1328.10	1.	2.	S	16.	13. W	41.39 N	10.16 W	42.6	N 13.	47. W	41.4
1331.00	1329.10	1.	1.	S	16.	8. W	41.37 N	10.16 W	42.6	N 13.	48. W	41.4
1332.00	1330.10	1.	0.	S	16.	3. W	41.36 N	10.17 W	42.6	N 13.	49. W	41.4
1333.00	1331.10	1.	0.	S	16.	15. W	41.34 N	10.17 W	42.6	N 13.	50. W	41.3
1334.00	1332.10	1.	1.	S	17.	13. W	41.32 N	10.18 W	42.6	N 13.	50. W	41.3
1335.00	1333.10	1.	1.	S	18.	10. W	41.31 N	10.18 W	42.5	N 13.	51. W	41.3
1336.00	1334.10	1.	2.	S	19.	8. W	41.29 N	10.19 W	42.5	N 13.	52. W	41.3
1337.00	1335.10	1.	2.	S	20.	5. W	41.27 N	10.20 W	42.5	N 13.	53. W	41.3
1338.00	1336.10	1.	3.	S	21.	3. W	41.25 N	10.20 W	42.5	N 13.	53. W	41.3
1339.00	1337.10	1.	4.	S	22.	1. W	41.24 N	10.21 W	42.5	N 13.	54. W	41.2
1340.00	1338.10	1.	4.	S	22.	58. W	41.22 N	10.22 W	42.5	N 13.	55. W	41.2
1341.00	1339.10	1.	5.	S	23.	56. W	41.20 N	10.22 W	42.5	N 13.	56. W	41.2
1342.00	1340.10	1.	5.	S	24.	53. W	41.19 N	10.23 W	42.4	N 13.	57. W	41.2
1343.00	1341.10	1.	6.	S	25.	51. W	41.17 N	10.24 W	42.4	N 13.	58. W	41.2
1344.00	1342.10	1.	6.	S	26.	49. W	41.15 N	10.25 W	42.4	N 13.	59. W	41.2
1345.00	1343.10	1.	7.	S	27.	46. W	41.13 N	10.26 W	42.4	N 14.	0. W	41.1
1346.00	1344.10	1.	8.	S	28.	44. W	41.12 N	10.27 W	42.4	N 14.	1. W	41.1
1347.00	1345.10	1.	8.	S	29.	41. W	41.10 N	10.28 W	42.4	N 14.	2. W	41.1
1348.00	1346.10	1.	9.	S	30.	39. W	41.08 N	10.29 W	42.4	N 14.	3. W	41.1
1349.00	1347.10	1.	9.	S	31.	37. W	41.06 N	10.30 W	42.3	N 14.	5. W	41.1
1350.00	1348.10	1.	10.	S	32.	34. W	41.05 N	10.31 W	42.3	N 14.	6. W	41.0
1351.00	1349.10	1.	11.	S	33.	32. W	41.03 N	10.32 W	42.3	N 14.	7. W	41.0
1352.00	1350.10	1.	11.	S	34.	29. W	41.01 N	10.33 W	42.3	N 14.	8. W	41.0
1353.00	1351.10	1.	12.	S	35.	27. W	41.00 N	10.34 W	42.3	N 14.	9. W	41.0
1354.00	1352.10	1.	12.	S	36.	25. W	40.98 N	10.35 W	42.3	N 14.	11. W	41.0
1355.00	1353.10	1.	13.	S	37.	22. W	40.96 N	10.37 W	42.3	N 14.	12. W	41.0
1356.00	1354.10	1.	13.	S	38.	20. W	40.94 N	10.38 W	42.2	N 14.	13. W	40.9
1357.00	1355.10	1.	14.	S	39.	17. W	40.93 N	10.39 W	42.2	N 14.	15. W	40.9
1358.00	1356.10	1.	15.	S	40.	15. W	40.91 N	10.40 W	42.2	N 14.	16. W	40.9
1359.00	1357.10	1.	15.	S	41.	2. W	40.89 N	10.42 W	42.2	N 14.	18. W	40.9

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1360.00	1358.10	1.	14.	S 41.	11. W	40.88 N	10.43 W	42.2	N 14.	19. W	40.9
1361.00	1359.09	1.	14.	S 41.	20. W	40.86 N	10.45 W	42.2	N 14.	20. W	40.9
1362.00	1360.09	1.	13.	S 41.	30. W	40.85 N	10.46 W	42.2	N 14.	22. W	40.8
1363.00	1361.09	1.	13.	S 41.	39. W	40.83 N	10.48 W	42.2	N 14.	23. W	40.8
1364.00	1362.09	1.	12.	S 41.	48. W	40.81 N	10.49 W	42.1	N 14.	25. W	40.8
1365.00	1363.09	1.	11.	S 41.	57. W	40.80 N	10.50 W	42.1	N 14.	26. W	40.8
1366.00	1364.09	1.	11.	S 42.	7. W	40.78 N	10.52 W	42.1	N 14.	28. W	40.8
1367.00	1365.09	1.	10.	S 42.	16. W	40.77 N	10.53 W	42.1	N 14.	29. W	40.8
1368.00	1366.09	1.	10.	S 42.	25. W	40.75 N	10.54 W	42.1	N 14.	30. W	40.8
1369.00	1367.09	1.	9.	S 42.	34. W	40.74 N	10.56 W	42.1	N 14.	32. W	40.7
1370.00	1368.09	1.	9.	S 42.	43. W	40.72 N	10.57 W	42.1	N 14.	33. W	40.7
1371.00	1369.09	1.	8.	S 42.	53. W	40.71 N	10.58 W	42.1	N 14.	34. W	40.7
1372.00	1370.09	1.	7.	S 43.	2. W	40.69 N	10.60 W	42.1	N 14.	36. W	40.7
1373.00	1371.09	1.	7.	S 43.	11. W	40.68 N	10.61 W	42.0	N 14.	37. W	40.7
1374.00	1372.09	1.	6.	S 43.	20. W	40.67 N	10.62 W	42.0	N 14.	39. W	40.7
1375.00	1373.09	1.	6.	S 43.	29. W	40.65 N	10.64 W	42.0	N 14.	40. W	40.7
1376.00	1374.09	1.	5.	S 43.	39. W	40.64 N	10.65 W	42.0	N 14.	41. W	40.6
1377.00	1375.09	1.	5.	S 43.	48. W	40.63 N	10.66 W	42.0	N 14.	43. W	40.6
1378.00	1376.09	1.	4.	S 43.	57. W	40.61 N	10.68 W	42.0	N 14.	44. W	40.6
1379.00	1377.09	1.	3.	S 44.	6. W	40.60 N	10.69 W	42.0	N 14.	45. W	40.6
1380.00	1378.09	1.	3.	S 44.	16. W	40.59 N	10.70 W	42.0	N 14.	46. W	40.6
1381.00	1379.09	1.	2.	S 44.	25. W	40.57 N	10.72 W	42.0	N 14.	48. W	40.6
1382.00	1380.09	1.	2.	S 44.	34. W	40.56 N	10.73 W	42.0	N 14.	49. W	40.6
1383.00	1381.09	1.	1.	S 44.	43. W	40.55 N	10.74 W	41.9	N 14.	50. W	40.5
1384.00	1382.09	1.	0.	S 44.	52. W	40.53 N	10.75 W	41.9	N 14.	51. W	40.5
1385.00	1383.09	0.	60.	S 44.	59. W	40.52 N	10.77 W	41.9	N 14.	53. W	40.5
1386.00	1384.09	0.	59.	S 44.	52. W	40.51 N	10.78 W	41.9	N 14.	54. W	40.5
1387.00	1385.09	0.	59.	S 44.	45. W	40.50 N	10.79 W	41.9	N 14.	55. W	40.5
1388.00	1386.09	0.	58.	S 44.	38. W	40.49 N	10.80 W	41.9	N 14.	56. W	40.5
1389.00	1387.09	0.	58.	S 44.	31. W	40.47 N	10.81 W	41.9	N 14.	58. W	40.5
1390.00	1388.09	0.	57.	S 44.	24. W	40.46 N	10.83 W	41.9	N 14.	59. W	40.5
1391.00	1389.09	0.	56.	S 44.	17. W	40.45 N	10.84 W	41.9	N 14.	60. W	40.4
1392.00	1390.09	0.	56.	S 44.	10. W	40.44 N	10.85 W	41.9	N 15.	1. W	40.4
1393.00	1391.09	0.	55.	S 44.	3. W	40.43 N	10.86 W	41.9	N 15.	2. W	40.4
1394.00	1392.09	0.	55.	S 43.	57. W	40.41 N	10.87 W	41.9	N 15.	3. W	40.4
1395.00	1393.09	0.	54.	S 43.	50. W	40.40 N	10.88 W	41.8	N 15.	4. W	40.4
1396.00	1394.09	0.	54.	S 43.	43. W	40.39 N	10.89 W	41.8	N 15.	6. W	40.4
1397.00	1395.09	0.	53.	S 43.	36. W	40.38 N	10.90 W	41.8	N 15.	7. W	40.4
1398.00	1396.09	0.	52.	S 43.	29. W	40.37 N	10.91 W	41.8	N 15.	8. W	40.4
1399.00	1397.09	0.	52.	S 43.	22. W	40.36 N	10.92 W	41.8	N 15.	9. W	40.4
1400.00	1398.09	0.	51.	S 43.	15. W	40.35 N	10.93 W	41.8	N 15.	10. W	40.3
1401.00	1399.09	0.	51.	S 43.	8. W	40.34 N	10.94 W	41.8	N 15.	11. W	40.3
1402.00	1400.09	0.	50.	S 43.	1. W	40.33 N	10.95 W	41.8	N 15.	12. W	40.3
1403.00	1401.09	0.	50.	S 42.	54. W	40.32 N	10.96 W	41.8	N 15.	13. W	40.3
1404.00	1402.09	0.	49.	S 42.	47. W	40.31 N	10.97 W	41.8	N 15.	14. W	40.3
1405.00	1403.09	0.	48.	S 42.	41. W	40.29 N	10.98 W	41.8	N 15.	15. W	40.3

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1406.00	1404.09	0.	48.	S 42.	34. W	40.28 N	10.99 W	41.8	N 15.	16. W	40.3
1407.00	1405.09	0.	47.	S 42.	27. W	40.27 N	11.00 W	41.8	N 15.	17. W	40.3
1408.00	1406.09	0.	47.	S 42.	20. W	40.26 N	11.01 W	41.7	N 15.	18. W	40.3
1409.00	1407.09	0.	46.	S 42.	13. W	40.25 N	11.02 W	41.7	N 15.	19. W	40.3
1410.00	1408.09	0.	45.	S 42.	6. W	40.24 N	11.03 W	41.7	N 15.	20. W	40.2
1411.00	1409.09	0.	45.	S 42.	4. W	40.23 N	11.04 W	41.7	N 15.	21. W	40.2
1412.00	1410.09	0.	46.	S 42.	29. W	40.22 N	11.05 W	41.7	N 15.	21. W	40.2
1413.00	1411.09	0.	47.	S 42.	54. W	40.21 N	11.06 W	41.7	N 15.	22. W	40.2
1414.00	1412.09	0.	49.	S 43.	20. W	40.20 N	11.07 W	41.7	N 15.	23. W	40.2
1415.00	1413.09	0.	50.	S 43.	45. W	40.19 N	11.08 W	41.7	N 15.	24. W	40.2
1416.00	1414.09	0.	51.	S 44.	10. W	40.18 N	11.09 W	41.7	N 15.	25. W	40.2
1417.00	1415.09	0.	52.	S 44.	36. W	40.17 N	11.10 W	41.7	N 15.	26. W	40.2
1418.00	1416.09	0.	53.	S 45.	1. W	40.16 N	11.11 W	41.7	N 15.	28. W	40.2
1419.00	1417.09	0.	54.	S 45.	26. W	40.15 N	11.12 W	41.7	N 15.	29. W	40.2
1420.00	1418.09	0.	56.	S 45.	52. W	40.14 N	11.13 W	41.7	N 15.	30. W	40.1
1421.00	1419.09	0.	57.	S 46.	17. W	40.13 N	11.14 W	41.6	N 15.	31. W	40.1
1422.00	1420.09	0.	58.	S 46.	42. W	40.12 N	11.15 W	41.6	N 15.	32. W	40.1
1423.00	1421.09	0.	59.	S 47.	8. W	40.11 N	11.17 W	41.6	N 15.	34. W	40.1
1424.00	1422.09	1.	0.	S 47.	33. W	40.09 N	11.18 W	41.6	N 15.	35. W	40.1
1425.00	1423.09	1.	1.	S 47.	58. W	40.08 N	11.19 W	41.6	N 15.	36. W	40.1
1426.00	1424.09	1.	2.	S 48.	24. W	40.07 N	11.21 W	41.6	N 15.	37. W	40.1
1427.00	1425.09	1.	4.	S 48.	49. W	40.06 N	11.22 W	41.6	N 15.	39. W	40.1
1428.00	1426.08	1.	5.	S 49.	14. W	40.04 N	11.23 W	41.6	N 15.	40. W	40.0
1429.00	1427.08	1.	6.	S 49.	40. W	40.03 N	11.25 W	41.6	N 15.	42. W	40.0
1430.00	1428.08	1.	7.	S 50.	5. W	40.02 N	11.26 W	41.6	N 15.	43. W	40.0
1431.00	1429.08	1.	8.	S 50.	30. W	40.01 N	11.28 W	41.6	N 15.	45. W	40.0
1432.00	1430.08	1.	9.	S 50.	56. W	39.99 N	11.29 W	41.6	N 15.	46. W	40.0
1433.00	1431.08	1.	11.	S 51.	21. W	39.98 N	11.31 W	41.5	N 15.	48. W	40.0
1434.00	1432.08	1.	12.	S 51.	46. W	39.97 N	11.32 W	41.5	N 15.	49. W	40.0
1435.00	1433.08	1.	13.	S 52.	12. W	39.95 N	11.34 W	41.5	N 15.	51. W	40.0
1436.00	1434.08	1.	14.	S 52.	37. W	39.94 N	11.36 W	41.5	N 15.	52. W	39.9
1437.00	1435.08	1.	15.	S 53.	1. W	39.93 N	11.37 W	41.5	N 15.	54. W	39.9
1438.00	1436.08	1.	13.	S 53.	13. W	39.92 N	11.39 W	41.5	N 15.	56. W	39.9
1439.00	1437.08	1.	11.	S 53.	24. W	39.90 N	11.41 W	41.5	N 15.	57. W	39.9
1440.00	1438.08	1.	10.	S 53.	36. W	39.89 N	11.42 W	41.5	N 15.	59. W	39.9
1441.00	1439.08	1.	8.	S 53.	47. W	39.88 N	11.44 W	41.5	N 16.	0. W	39.9
1442.00	1440.08	1.	6.	S 53.	59. W	39.87 N	11.46 W	41.5	N 16.	2. W	39.9
1443.00	1441.08	1.	4.	S 54.	10. W	39.86 N	11.47 W	41.5	N 16.	3. W	39.9
1444.00	1442.08	1.	3.	S 54.	22. W	39.85 N	11.49 W	41.5	N 16.	5. W	39.8
1445.00	1443.08	1.	1.	S 54.	33. W	39.83 N	11.50 W	41.5	N 16.	6. W	39.8
1446.00	1444.08	0.	59.	S 54.	45. W	39.82 N	11.52 W	41.5	N 16.	8. W	39.8
1447.00	1445.08	0.	58.	S 54.	56. W	39.81 N	11.53 W	41.5	N 16.	9. W	39.8
1448.00	1446.08	0.	56.	S 55.	8. W	39.81 N	11.54 W	41.4	N 16.	10. W	39.8
1449.00	1447.08	0.	54.	S 55.	19. W	39.80 N	11.56 W	41.4	N 16.	12. W	39.8
1450.00	1448.08	0.	52.	S 55.	31. W	39.79 N	11.57 W	41.4	N 16.	13. W	39.8
1451.00	1449.08	0.	51.	S 55.	42. W	39.78 N	11.58 W	41.4	N 16.	14. W	39.8

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1452.00	1450.08	0.	49.	S	55.	54. W	39.77 N	11.59 W	41.4	N	16. 15. W	39.8
1453.00	1451.08	0.	47.	S	56.	5. W	39.76 N	11.60 W	41.4	N	16. 16. W	39.8
1454.00	1452.08	0.	45.	S	56.	17. W	39.76 N	11.62 W	41.4	N	16. 17. W	39.8
1455.00	1453.08	0.	44.	S	56.	29. W	39.75 N	11.63 W	41.4	N	16. 18. W	39.7
1456.00	1454.08	0.	42.	S	56.	40. W	39.74 N	11.64 W	41.4	N	16. 19. W	39.7
1457.00	1455.08	0.	40.	S	56.	52. W	39.74 N	11.65 W	41.4	N	16. 20. W	39.7
1458.00	1456.08	0.	39.	S	57.	3. W	39.73 N	11.66 W	41.4	N	16. 21. W	39.7
1459.00	1457.08	0.	37.	S	57.	15. W	39.72 N	11.67 W	41.4	N	16. 22. W	39.7
1460.00	1458.08	0.	35.	S	57.	26. W	39.72 N	11.68 W	41.4	N	16. 23. W	39.7
1461.00	1459.08	0.	33.	S	57.	38. W	39.71 N	11.68 W	41.4	N	16. 24. W	39.7
1462.00	1460.08	0.	32.	S	57.	49. W	39.71 N	11.69 W	41.4	N	16. 24. W	39.7
1463.00	1461.08	0.	30.	S	58.	0. W	39.70 N	11.70 W	41.4	N	16. 25. W	39.7
1464.00	1462.08	0.	31.	S	58.	7. W	39.70 N	11.71 W	41.4	N	16. 26. W	39.7
1465.00	1463.08	0.	31.	S	58.	14. W	39.69 N	11.72 W	41.4	N	16. 27. W	39.7
1466.00	1464.08	0.	32.	S	58.	21. W	39.69 N	11.72 W	41.4	N	16. 27. W	39.7
1467.00	1465.08	0.	32.	S	58.	28. W	39.68 N	11.73 W	41.4	N	16. 28. W	39.7
1468.00	1466.08	0.	33.	S	58.	35. W	39.68 N	11.74 W	41.4	N	16. 29. W	39.7
1469.00	1467.08	0.	33.	S	58.	42. W	39.67 N	11.75 W	41.4	N	16. 30. W	39.7
1470.00	1468.08	0.	34.	S	58.	49. W	39.67 N	11.76 W	41.4	N	16. 30. W	39.7
1471.00	1469.08	0.	35.	S	58.	56. W	39.66 N	11.76 W	41.4	N	16. 31. W	39.7
1472.00	1470.08	0.	35.	S	59.	3. W	39.66 N	11.77 W	41.4	N	16. 32. W	39.7
1473.00	1471.08	0.	36.	S	59.	10. W	39.65 N	11.78 W	41.4	N	16. 33. W	39.7
1474.00	1472.08	0.	36.	S	59.	16. W	39.65 N	11.79 W	41.4	N	16. 34. W	39.6
1475.00	1473.08	0.	37.	S	59.	23. W	39.64 N	11.80 W	41.4	N	16. 35. W	39.6
1476.00	1474.08	0.	38.	S	59.	30. W	39.64 N	11.81 W	41.4	N	16. 35. W	39.6
1477.00	1475.08	0.	38.	S	59.	37. W	39.63 N	11.82 W	41.4	N	16. 36. W	39.6
1478.00	1476.08	0.	39.	S	59.	44. W	39.63 N	11.83 W	41.4	N	16. 37. W	39.6
1479.00	1477.08	0.	39.	S	59.	51. W	39.62 N	11.84 W	41.4	N	16. 38. W	39.6
1480.00	1478.08	0.	40.	S	59.	58. W	39.61 N	11.85 W	41.3	N	16. 39. W	39.6
1481.00	1479.08	0.	40.	S	60.	5. W	39.61 N	11.86 W	41.3	N	16. 40. W	39.6
1482.00	1480.08	0.	41.	S	60.	12. W	39.60 N	11.87 W	41.3	N	16. 41. W	39.6
1483.00	1481.08	0.	42.	S	60.	19. W	39.60 N	11.88 W	41.3	N	16. 42. W	39.6
1484.00	1482.08	0.	42.	S	60.	26. W	39.59 N	11.89 W	41.3	N	16. 43. W	39.6
1485.00	1483.08	0.	43.	S	60.	32. W	39.58 N	11.90 W	41.3	N	16. 44. W	39.6
1486.00	1484.08	0.	43.	S	60.	39. W	39.58 N	11.91 W	41.3	N	16. 45. W	39.6
1487.00	1485.08	0.	44.	S	60.	46. W	39.57 N	11.92 W	41.3	N	16. 46. W	39.6
1488.00	1486.08	0.	44.	S	60.	53. W	39.57 N	11.93 W	41.3	N	16. 47. W	39.6
1489.00	1487.08	0.	45.	S	60.	59. W	39.56 N	11.94 W	41.3	N	16. 48. W	39.6
1490.00	1488.08	0.	46.	S	60.	27. W	39.55 N	11.96 W	41.3	N	16. 49. W	39.6
1491.00	1489.08	0.	46.	S	59.	55. W	39.55 N	11.97 W	41.3	N	16. 50. W	39.5
1492.00	1490.08	0.	47.	S	59.	23. W	39.54 N	11.98 W	41.3	N	16. 51. W	39.5
1493.00	1491.08	0.	47.	S	58.	50. W	39.53 N	11.99 W	41.3	N	16. 52. W	39.5
1494.00	1492.08	0.	48.	S	58.	18. W	39.53 N	12.00 W	41.3	N	16. 54. W	39.5
1495.00	1493.08	0.	48.	S	57.	46. W	39.52 N	12.01 W	41.3	N	16. 55. W	39.5
1496.00	1494.08	0.	49.	S	57.	14. W	39.51 N	12.03 W	41.3	N	16. 56. W	39.5
1497.00	1495.08	0.	50.	S	56.	41. W	39.50 N	12.04 W	41.3	N	16. 57. W	39.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1498.00	1496.08	0.	50.	S	56.	9. W	39.49 N	12.05 W	41.3	N	16.	58. W	39.5
1499.00	1497.08	0.	51.	S	55.	37. W	39.49 N	12.06 W	41.3	N	16.	59. W	39.5
1500.00	1498.08	0.	51.	S	55.	5. W	39.48 N	12.08 W	41.3	N	17.	0. W	39.5
1501.00	1499.08	0.	52.	S	54.	32. W	39.47 N	12.09 W	41.3	N	17.	2. W	39.5
1502.00	1500.08	0.	53.	S	53.	60. W	39.46 N	12.10 W	41.3	N	17.	3. W	39.5
1503.00	1501.08	0.	53.	S	53.	28. W	39.45 N	12.11 W	41.3	N	17.	4. W	39.5
1504.00	1502.08	0.	54.	S	52.	55. W	39.44 N	12.12 W	41.3	N	17.	5. W	39.4
1505.00	1503.08	0.	54.	S	52.	23. W	39.43 N	12.14 W	41.3	N	17.	7. W	39.4
1506.00	1504.08	0.	55.	S	51.	51. W	39.42 N	12.15 W	41.3	N	17.	8. W	39.4
1507.00	1505.08	0.	55.	S	51.	19. W	39.41 N	12.16 W	41.2	N	17.	9. W	39.4
1508.00	1506.08	0.	56.	S	50.	46. W	39.40 N	12.18 W	41.2	N	17.	10. W	39.4
1509.00	1507.08	0.	57.	S	50.	14. W	39.39 N	12.19 W	41.2	N	17.	12. W	39.4
1510.00	1508.08	0.	57.	S	49.	42. W	39.38 N	12.20 W	41.2	N	17.	13. W	39.4
1511.00	1509.08	0.	58.	S	49.	10. W	39.37 N	12.21 W	41.2	N	17.	14. W	39.4
1512.00	1510.08	0.	58.	S	48.	37. W	39.36 N	12.23 W	41.2	N	17.	15. W	39.4
1513.00	1511.08	0.	59.	S	48.	5. W	39.35 N	12.24 W	41.2	N	17.	17. W	39.3
1514.00	1512.08	0.	59.	S	47.	33. W	39.34 N	12.25 W	41.2	N	17.	18. W	39.3
1515.00	1513.07	0.	60.	S	47.	1. W	39.33 N	12.27 W	41.2	N	17.	19. W	39.3
1516.00	1514.07	0.	59.	S	47.	25. W	39.32 N	12.28 W	41.2	N	17.	21. W	39.3
1517.00	1515.07	0.	59.	S	47.	50. W	39.30 N	12.29 W	41.2	N	17.	22. W	39.3
1518.00	1516.07	0.	58.	S	48.	16. W	39.29 N	12.30 W	41.2	N	17.	23. W	39.3
1519.00	1517.07	0.	58.	S	48.	41. W	39.28 N	12.32 W	41.2	N	17.	24. W	39.3
1520.00	1518.07	0.	57.	S	49.	6. W	39.27 N	12.33 W	41.2	N	17.	26. W	39.3
1521.00	1519.07	0.	57.	S	49.	32. W	39.26 N	12.34 W	41.2	N	17.	27. W	39.3
1522.00	1520.07	0.	56.	S	49.	57. W	39.25 N	12.35 W	41.1	N	17.	28. W	39.2
1523.00	1521.07	0.	55.	S	50.	22. W	39.24 N	12.37 W	41.1	N	17.	30. W	39.2
1524.00	1522.07	0.	55.	S	50.	48. W	39.23 N	12.38 W	41.1	N	17.	31. W	39.2
1525.00	1523.07	0.	54.	S	51.	13. W	39.22 N	12.39 W	41.1	N	17.	32. W	39.2
1526.00	1524.07	0.	54.	S	51.	38. W	39.21 N	12.40 W	41.1	N	17.	33. W	39.2
1527.00	1525.07	0.	53.	S	52.	4. W	39.20 N	12.42 W	41.1	N	17.	34. W	39.2
1528.00	1526.07	0.	53.	S	52.	29. W	39.19 N	12.43 W	41.1	N	17.	36. W	39.2
1529.00	1527.07	0.	52.	S	52.	54. W	39.18 N	12.44 W	41.1	N	17.	37. W	39.2
1530.00	1528.07	0.	51.	S	53.	20. W	39.17 N	12.45 W	41.1	N	17.	38. W	39.2
1531.00	1529.07	0.	51.	S	53.	45. W	39.16 N	12.46 W	41.1	N	17.	39. W	39.2
1532.00	1530.07	0.	50.	S	54.	10. W	39.15 N	12.48 W	41.1	N	17.	40. W	39.2
1533.00	1531.07	0.	50.	S	54.	36. W	39.15 N	12.49 W	41.1	N	17.	42. W	39.1
1534.00	1532.07	0.	49.	S	55.	1 W	39.14 N	12.50 W	41.1	N	17.	43. W	39.1
1535.00	1533.07	0.	48.	S	55.	26. W	39.13 N	12.51 W	41.1	N	17.	44. W	39.1
1536.00	1534.07	0.	48.	S	55.	52. W	39.12 N	12.52 W	41.1	N	17.	45. W	39.1
1537.00	1535.07	0.	47.	S	56.	17. W	39.11 N	12.53 W	41.1	N	17.	46. W	39.1
1538.00	1536.07	0.	47.	S	56.	42. W	39.11 N	12.55 W	41.1	N	17.	47. W	39.1
1539.00	1537.07	0.	46.	S	57.	8. W	39.10 N	12.56 W	41.1	N	17.	48. W	39.1
1540.00	1538.07	0.	46.	S	57.	33. W	39.09 N	12.57 W	41.1	N	17.	49. W	39.1
1541.00	1539.07	0.	45.	S	57.	58. W	39.09 N	12.58 W	41.1	N	17.	50. W	39.1
1542.00	1540.07	0.	45.	S	57.	46. W	39.08 N	12.59 W	41.1	N	17.	52. W	39.1
1543.00	1541.07	0.	45.	S	57.	31. W	39.07 N	12.60 W	41.1	N	17.	53. W	39.1

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1544.00	1542.07	0.	45.	S	57.	17. W	39.06 N	12.61 W	41.0	N 17.	54. W	39.1
1545.00	1543.07	0.	45.	S	57.	2. W	39.06 N	12.62 W	41.0	N 17.	55. W	39.1
1546.00	1544.07	0.	45.	S	56.	47. W	39.05 N	12.63 W	41.0	N 17.	56. W	39.1
1547.00	1545.07	0.	45.	S	56.	33. W	39.04 N	12.65 W	41.0	N 17.	57. W	39.0
1548.00	1546.07	0.	45.	S	56.	18. W	39.04 N	12.66 W	41.0	N 17.	58. W	39.0
1549.00	1547.07	0.	45.	S	56.	3. W	39.03 N	12.67 W	41.0	N 17.	59. W	39.0
1550.00	1548.07	0.	45.	S	55.	48. W	39.02 N	12.68 W	41.0	N 17.	60. W	39.0
1551.00	1549.07	0.	45.	S	55.	34. W	39.01 N	12.69 W	41.0	N 18.	1. W	39.0
1552.00	1550.07	0.	45.	S	55.	19. W	39.01 N	12.70 W	41.0	N 18.	2. W	39.0
1553.00	1551.07	0.	45.	S	55.	4. W	39.00 N	12.71 W	41.0	N 18.	3. W	39.0
1554.00	1552.07	0.	45.	S	54.	50. W	38.99 N	12.72 W	41.0	N 18.	4. W	39.0
1555.00	1553.07	0.	45.	S	54.	35. W	38.98 N	12.73 W	41.0	N 18.	5. W	39.0
1556.00	1554.07	0.	45.	S	54.	20. W	38.98 N	12.74 W	41.0	N 18.	6. W	39.0
1557.00	1555.07	0.	45.	S	54.	5. W	38.97 N	12.75 W	41.0	N 18.	7. W	39.0
1558.00	1556.07	0.	45.	S	53.	51. W	38.96 N	12.76 W	41.0	N 18.	8. W	39.0
1559.00	1557.07	0.	45.	S	53.	36. W	38.95 N	12.77 W	41.0	N 18.	9. W	39.0
1560.00	1558.07	0.	45.	S	53.	21. W	38.95 N	12.79 W	41.0	N 18.	10. W	38.9
1561.00	1559.07	0.	45.	S	53.	7. W	38.94 N	12.80 W	41.0	N 18.	11. W	38.9
1562.00	1560.07	0.	45.	S	53.	15. W	38.93 N	12.81 W	41.0	N 18.	13. W	38.9
1563.00	1561.07	0.	45.	S	53.	43. W	38.92 N	12.82 W	41.0	N 18.	14. W	38.9
1564.00	1562.07	0.	45.	S	54.	11. W	38.91 N	12.83 W	41.0	N 18.	15. W	38.9
1565.00	1563.07	0.	45.	S	54.	38. W	38.91 N	12.84 W	41.0	N 18.	16. W	38.9
1566.00	1564.07	0.	45.	S	55.	6. W	38.90 N	12.85 W	41.0	N 18.	17. W	38.9
1567.00	1565.07	0.	45.	S	55.	34. W	38.89 N	12.86 W	41.0	N 18.	18. W	38.9
1568.00	1566.07	0.	45.	S	56.	1. W	38.88 N	12.87 W	41.0	N 18.	19. W	38.9
1569.00	1567.07	0.	45.	S	56.	29. W	38.88 N	12.88 W	41.0	N 18.	20. W	38.9
1570.00	1568.07	0.	45.	S	56.	57. W	38.87 N	12.89 W	41.0	N 18.	21. W	38.9
1571.00	1569.07	0.	45.	S	57.	24. W	38.86 N	12.90 W	40.9	N 18.	22. W	38.9
1572.00	1570.07	0.	45.	S	57.	52. W	38.86 N	12.91 W	40.9	N 18.	23. W	38.9
1573.00	1571.07	0.	45.	S	58.	20. W	38.85 N	12.93 W	40.9	N 18.	24. W	38.8
1574.00	1572.07	0.	45.	S	58.	47. W	38.84 N	12.94 W	40.9	N 18.	25. W	38.8
1575.00	1573.07	0.	45.	S	59.	15. W	38.83 N	12.95 W	40.9	N 18.	26. W	38.8
1576.00	1574.07	0.	45.	S	59.	43. W	38.83 N	12.96 W	40.9	N 18.	27. W	38.9
1577.00	1575.07	0.	45.	S	60.	10. W	38.82 N	12.97 W	40.9	N 18.	28. W	38.8
1578.00	1576.07	0.	45.	S	60.	38. W	38.82 N	12.98 W	40.9	N 18.	30. W	38.8
1579.00	1577.07	0.	45.	S	61.	6. W	38.81 N	12.99 W	40.9	N 18.	31. W	38.8
1580.00	1578.07	0.	45.	S	61.	33. W	38.80 N	13.00 W	40.9	N 18.	32. W	38.8
1581.00	1579.07	0.	45.	S	62.	1. W	38.80 N	13.02 W	40.9	N 18.	33. W	38.8
1582.00	1580.07	0.	45.	S	62.	29. W	38.79 N	13.03 W	40.9	N 18.	34. W	38.8
1583.00	1581.07	0.	45.	S	62.	56. W	38.78 N	13.04 W	40.9	N 18.	35. W	38.8
1584.00	1582.07	0.	45.	S	63.	24. W	38.78 N	13.05 W	40.9	N 18.	36. W	38.8
1585.00	1583.07	0.	45.	S	63.	52. W	38.77 N	13.06 W	40.9	N 18.	37. W	38.8
1586.00	1584.07	0.	45.	S	64.	19. W	38.77 N	13.07 W	40.9	N 18.	38. W	38.8
1587.00	1585.07	0.	45.	S	64.	47. W	38.76 N	13.09 W	40.9	N 18.	39. W	38.8
1588.00	1586.07	0.	45.	S	64.	55. W	38.76 N	13.10 W	40.9	N 18.	40. W	38.8
1589.00	1587.07	0.	46.	S	64.	46. W	38.75 N	13.11 W	40.9	N 18.	42. W	38.8

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1590.00	1583.07	0.	46.	S	64.	37. W	38.74 N	13.12 W	40.9	N	18. 43. W	38.7
1591.00	1589.07	0.	47.	S	64.	27. W	38.74 N	13.13 W	40.9	N	18. 44. W	38.7
1592.00	1590.07	0.	48.	S	64.	18. W	38.73 N	13.15 W	40.9	N	18. 45. W	38.7
1593.00	1591.07	0.	48.	S	64.	9. W	38.73 N	13.16 W	40.9	N	18. 46. W	38.7
1594.00	1592.07	0.	49.	S	63.	60. W	38.72 N	13.17 W	40.9	N	18. 47. W	38.7
1595.00	1593.07	0.	49.	S	63.	51. W	38.71 N	13.18 W	40.9	N	18. 48. W	38.7
1596.00	1594.07	0.	50.	S	63.	41. W	38.71 N	13.20 W	40.9	N	18. 50. W	38.7
1597.00	1595.07	0.	50.	S	63.	32. W	38.70 N	13.21 W	40.9	N	18. 51. W	38.7
1598.00	1596.07	0.	51.	S	63.	23. W	38.69 N	13.22 W	40.9	N	18. 52. W	38.7
1599.00	1597.07	0.	52.	S	63.	14. W	38.69 N	13.24 W	40.9	N	18. 53. W	38.7
1600.00	1598.07	0.	52.	S	63.	4. W	38.68 N	13.25 W	40.9	N	18. 55. W	38.7
1601.00	1599.07	0.	53.	S	62.	55. W	38.67 N	13.26 W	40.9	N	18. 56. W	38.7
1602.00	1600.07	0.	53.	S	62.	46. W	38.67 N	13.28 W	40.9	N	18. 57. W	38.7
1603.00	1601.07	0.	54.	S	62.	37. W	38.66 N	13.29 W	40.9	N	18. 58. W	38.7
1604.00	1602.07	0.	55.	S	62.	28. W	38.65 N	13.31 W	40.9	N	18. 60. W	38.7
1605.00	1603.07	0.	55.	S	62.	18. W	38.65 N	13.32 W	40.9	N	19. 1. W	38.6
1606.00	1604.07	0.	56.	S	62.	9. W	38.64 N	13.33 W	40.9	N	19. 2. W	38.6
1607.00	1605.07	0.	56.	S	61.	60. W	38.63 N	13.35 W	40.9	N	19. 4. W	38.6
1608.00	1606.06	0.	57.	S	61.	51. W	38.62 N	13.36 W	40.9	N	19. 5. W	38.6
1609.00	1607.06	0.	57.	S	61.	41. W	38.61 N	13.38 W	40.9	N	19. 7. W	38.6
1610.00	1608.06	0.	58.	S	61.	32. W	38.61 N	13.39 W	40.9	N	19. 8. W	38.6
1611.00	1609.06	0.	59.	S	61.	23. W	38.60 N	13.41 W	40.9	N	19. 9. W	38.6
1612.00	1610.06	0.	59.	S	61.	14. W	38.59 N	13.42 W	40.9	N	19. 11. W	38.6
1613.00	1611.06	0.	60.	S	61.	5. W	38.58 N	13.44 W	40.9	N	19. 12. W	38.6
1614.00	1612.06	1.	0.	S	61.	6. W	38.57 N	13.45 W	40.9	N	19. 14. W	38.6
1615.00	1613.06	1.	0.	S	61.	17. W	38.57 N	13.47 W	40.8	N	19. 15. W	38.6
1616.00	1614.06	1.	0.	S	61.	29. W	38.56 N	13.48 W	40.8	N	19. 17. W	38.6
1617.00	1615.06	1.	0.	S	61.	40. W	38.55 N	13.50 W	40.8	N	19. 18. W	38.5
1618.00	1616.06	1.	0.	S	61.	52. W	38.54 N	13.51 W	40.8	N	19. 19. W	38.5
1619.00	1617.06	1.	0.	S	62.	4. W	38.53 N	13.53 W	40.8	N	19. 21. W	38.5
1620.00	1618.06	1.	0.	S	62.	15. W	38.52 N	13.55 W	40.8	N	19. 22. W	38.5
1621.00	1619.06	1.	0.	S	62.	27. W	38.52 N	13.56 W	40.8	N	19. 24. W	38.5
1622.00	1620.06	1.	0.	S	62.	38. W	38.51 N	13.58 W	40.8	N	19. 25. W	38.5
1623.00	1621.06	1.	0.	S	62.	50. W	38.50 N	13.59 W	40.8	N	19. 27. W	38.5
1624.00	1622.06	1.	0.	S	63.	1. W	38.49 N	13.61 W	40.8	N	19. 28. W	38.5
1625.00	1623.06	1.	0.	S	63.	13. W	38.48 N	13.62 W	40.8	N	19. 30. W	38.5
1626.00	1624.06	1.	0.	S	63.	24. W	38.48 N	13.64 W	40.8	N	19. 31. W	38.5
1627.00	1625.06	1.	0.	S	63.	36. W	38.47 N	13.65 W	40.8	N	19. 33. W	38.5
1628.00	1626.06	1.	0.	S	63.	47. W	38.46 N	13.67 W	40.8	N	19. 34. W	38.5
1629.00	1627.06	1.	0.	S	63.	59. W	38.45 N	13.69 W	40.8	N	19. 35. W	38.5
1630.00	1628.06	1.	0.	S	64.	10. W	38.45 N	13.70 W	40.8	N	19. 37. W	38.4
1631.00	1629.06	1.	0.	S	64.	22. W	38.44 N	13.72 W	40.8	N	19. 38. W	38.4
1632.00	1630.06	1.	0.	S	64.	33. W	38.43 N	13.73 W	40.8	N	19. 40. W	38.4
1633.00	1631.06	1.	0.	S	64.	45. W	38.42 N	13.75 W	40.8	N	19. 41. W	38.4
1634.00	1632.06	1.	0.	S	64.	56. W	38.42 N	13.76 W	40.8	N	19. 43. W	38.4
1635.00	1633.06	1.	0.	S	65.	8. W	38.41 N	13.78 W	40.8	N	19. 44. W	38.4

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1636.00	1634.06	1.	0.	S	65.	20. W	38.40 N	13.80 W	40.8	N 19.	46. W	38.4
1637.00	1635.06	1.	0.	S	65.	31. W	38.39 N	13.81 W	40.8	N 19.	47. W	38.4
1638.00	1636.06	1.	0.	S	65.	43. W	38.39 N	13.83 W	40.8	N 19.	49. W	38.4
1639.00	1637.06	1.	0.	S	65.	54. W	38.38 N	13.84 W	40.8	N 19.	50. W	38.4
1640.00	1638.06	0.	60.	S	66.	17. W	38.37 N	13.86 W	40.8	N 19.	52. W	38.4
1641.00	1639.06	0.	59.	S	66.	52. W	38.37 N	13.88 W	40.8	N 19.	53. W	38.4
1642.00	1640.06	0.	59.	S	67.	26. W	38.36 N	13.89 W	40.8	N 19.	54. W	38.4
1643.00	1641.06	0.	58.	S	68.	1. W	38.35 N	13.91 W	40.8	N 19.	56. W	38.4
1644.00	1642.06	0.	57.	S	68.	35. W	38.35 N	13.92 W	40.8	N 19.	57. W	38.3
1645.00	1643.06	0.	57.	S	69.	10. W	38.34 N	13.94 W	40.8	N 19.	59. W	38.3
1646.00	1644.06	0.	56.	S	69.	44. W	38.33 N	13.95 W	40.8	N 20.	0. W	38.3
1647.00	1645.06	0.	56.	S	70.	19. W	38.33 N	13.97 W	40.8	N 20.	1. W	38.3
1648.00	1646.06	0.	55.	S	70.	54. W	38.32 N	13.98 W	40.8	N 20.	3. W	38.3
1649.00	1647.06	0.	55.	S	71.	28. W	38.32 N	14.00 W	40.8	N 20.	4. W	38.3
1650.00	1648.06	0.	54.	S	72.	3. W	38.31 N	14.01 W	40.8	N 20.	5. W	38.3
1651.00	1649.06	0.	53.	S	72.	37. W	38.31 N	14.03 W	40.8	N 20.	7. W	38.3
1652.00	1650.06	0.	53.	S	73.	12. W	38.30 N	14.04 W	40.8	N 20.	8. W	38.3
1653.00	1651.06	0.	52.	S	73.	47. W	38.30 N	14.06 W	40.8	N 20.	9. W	38.3
1654.00	1652.06	0.	52.	S	74.	21. W	38.30 N	14.07 W	40.8	N 20.	11. W	38.3
1655.00	1653.06	0.	51.	S	74.	56. W	38.29 N	14.09 W	40.8	N 20.	12. W	38.3
1656.00	1654.06	0.	50.	S	75.	30. W	38.29 N	14.10 W	40.8	N 20.	13. W	38.3
1657.00	1655.06	0.	50.	S	76.	5. W	38.28 N	14.12 W	40.8	N 20.	14. W	38.3
1658.00	1656.06	0.	49.	S	76.	40. W	38.28 N	14.13 W	40.8	N 20.	16. W	38.3
1659.00	1657.06	0.	49.	S	77.	14. W	38.28 N	14.14 W	40.8	N 20.	17. W	38.3
1660.00	1658.06	0.	48.	S	77.	49. W	38.28 N	14.16 W	40.8	N 20.	18. W	38.3
1661.00	1659.06	0.	48.	S	78.	23. W	38.27 N	14.17 W	40.8	N 20.	19. W	38.3
1662.00	1660.06	0.	47.	S	78.	58. W	38.27 N	14.19 W	40.8	N 20.	20. W	38.3
1663.00	1661.06	0.	46.	S	79.	32. W	38.27 N	14.20 W	40.8	N 20.	21. W	38.3
1664.00	1662.06	0.	46.	S	80.	7. W	38.27 N	14.21 W	40.8	N 20.	22. W	38.3
1665.00	1663.06	0.	45.	S	80.	42. W	38.26 N	14.23 W	40.8	N 20.	24. W	38.3
1666.00	1664.06	0.	45.	S	80.	51. W	38.26 N	14.24 W	40.8	N 20.	25. W	38.3
1667.00	1665.06	0.	44.	S	80.	33. W	38.26 N	14.25 W	40.8	N 20.	26. W	38.3
1668.00	1666.06	0.	44.	S	80.	14. W	38.26 N	14.26 W	40.8	N 20.	27. W	38.3
1669.00	1667.06	0.	43.	S	79.	56. W	38.26 N	14.28 W	40.8	N 20.	28. W	38.3
1670.00	1668.06	0.	42.	S	79.	38. W	38.25 N	14.29 W	40.8	N 20.	29. W	38.3
1671.00	1669.06	0.	42.	S	79.	19. W	38.25 N	14.30 W	40.8	N 20.	30. W	38.3
1672.00	1670.06	0.	41.	S	79.	1. W	38.25 N	14.31 W	40.8	N 20.	31. W	38.2
1673.00	1671.06	0.	41.	S	78.	42. W	38.25 N	14.32 W	40.8	N 20.	32. W	38.2
1674.00	1672.06	0.	40.	S	78.	24. W	38.24 N	14.33 W	40.8	N 20.	33. W	38.2
1675.00	1673.06	0.	40.	S	78.	5. W	38.24 N	14.35 W	40.8	N 20.	34. W	38.2
1676.00	1674.06	0.	39.	S	77.	47. W	38.24 N	14.36 W	40.8	N 20.	35. W	38.2
1677.00	1675.06	0.	38.	S	77.	28. W	38.24 N	14.37 W	40.8	N 20.	36. W	38.2
1678.00	1676.06	0.	38.	S	77.	10. W	38.23 N	14.38 W	40.8	N 20.	37. W	38.2
1679.00	1677.06	0.	37.	S	76.	52. W	38.23 N	14.39 W	40.9	N 20.	38. W	38.2
1680.00	1678.06	0.	37.	S	76.	33. W	38.23 N	14.40 W	40.9	N 20.	38. W	38.2
1681.00	1679.06	0.	36.	S	76.	15. W	38.23 N	14.41 W	40.9	N 20.	39. W	38.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1682.00	1680.06	0.	36.	S 75.	56. W	38.22 N	14.42 W	40.9	N 20.	40. W	38.2
1683.00	1681.06	0.	35.	S 75.	38. W	38.22 N	14.43 W	40.9	N 20.	41. W	38.2
1684.00	1682.06	0.	34.	S 75.	19. W	38.22 N	14.44 W	40.9	N 20.	42. W	38.2
1685.00	1683.06	0.	34.	S 75.	1. W	38.22 N	14.45 W	40.9	N 20.	43. W	38.2
1686.00	1684.06	0.	33.	S 74.	42. W	38.21 N	14.46 W	40.9	N 20.	44. W	38.2
1687.00	1685.06	0.	33.	S 74.	24. W	38.21 N	14.47 W	40.9	N 20.	44. W	38.2
1688.00	1686.06	0.	32.	S 74.	5. W	38.21 N	14.48 W	40.9	N 20.	45. W	38.2
1689.00	1687.06	0.	31.	S 73.	47. W	38.21 N	14.49 W	40.9	N 20.	46. W	38.2
1690.00	1688.06	0.	31.	S 73.	29. W	38.20 N	14.50 W	40.9	N 20.	47. W	38.2
1691.00	1689.06	0.	30.	S 73.	10. W	38.20 N	14.50 W	40.9	N 20.	47. W	38.2
1692.00	1690.05	0.	30.	S 72.	33. W	38.20 N	14.51 W	40.9	N 20.	48. W	38.2
1693.00	1691.05	0.	29.	S 71.	33. W	38.20 N	14.52 W	40.9	N 20.	49. W	38.2
1694.00	1692.05	0.	29.	S 70.	33. W	38.19 N	14.53 W	40.9	N 20.	50. W	38.2
1695.00	1693.05	0.	28.	S 69.	33. W	38.19 N	14.54 W	40.9	N 20.	50. W	38.2
1696.00	1694.05	0.	27.	S 68.	33. W	38.19 N	14.54 W	40.9	N 20.	51. W	38.2
1697.00	1695.05	0.	27.	S 67.	33. W	38.18 N	14.55 W	40.9	N 20.	52. W	38.2
1698.00	1696.05	0.	26.	S 66.	33. W	38.18 N	14.56 W	40.9	N 20.	52. W	38.2
1699.00	1697.05	0.	26.	S 65.	33. W	38.18 N	14.56 W	40.9	N 20.	53. W	38.2
1700.00	1698.05	0.	25.	S 64.	33. W	38.17 N	14.57 W	40.9	N 20.	54. W	38.2
1701.00	1699.05	0.	25.	S 63.	33. W	38.17 N	14.58 W	40.9	N 20.	54. W	38.2
1702.00	1700.05	0.	24.	S 62.	33. W	38.17 N	14.58 W	40.9	N 20.	55. W	38.2
1703.00	1701.05	0.	23.	S 61.	34. W	38.16 N	14.59 W	40.9	N 20.	55. W	38.2
1704.00	1702.05	0.	23.	S 60.	34. W	38.16 N	14.60 W	40.9	N 20.	56. W	38.2
1705.00	1703.05	0.	22.	S 59.	34. W	38.16 N	14.60 W	40.9	N 20.	56. W	38.2
1706.00	1704.05	0.	22.	S 58.	34. W	38.15 N	14.61 W	40.9	N 20.	57. W	38.2
1707.00	1705.05	0.	21.	S 57.	34. W	38.15 N	14.61 W	40.9	N 20.	57. W	38.2
1708.00	1706.05	0.	21.	S 56.	34. W	38.15 N	14.62 W	40.9	N 20.	58. W	38.1
1709.00	1707.05	0.	20.	S 55.	34. W	38.14 N	14.62 W	40.9	N 20.	58. W	38.1
1710.00	1708.05	0.	19.	S 54.	34. W	38.14 N	14.63 W	40.8	N 20.	59. W	38.1
1711.00	1709.05	0.	19.	S 53.	34. W	38.14 N	14.63 W	40.8	N 20.	59. W	38.1
1712.00	1710.05	0.	18.	S 52.	34. W	38.13 N	14.64 W	40.8	N 20.	60. W	38.1
1713.00	1711.05	0.	18.	S 51.	34. W	38.13 N	14.64 W	40.8	N 21.	0. W	38.1
1714.00	1712.05	0.	17.	S 50.	34. W	38.13 N	14.64 W	40.8	N 21.	1. W	38.1
1715.00	1713.05	0.	16.	S 49.	34. W	38.12 N	14.65 W	40.8	N 21.	1. W	38.1
1716.00	1714.05	0.	16.	S 48.	34. W	38.12 N	14.65 W	40.8	N 21.	1. W	38.1
1717.00	1715.05	0.	15.	S 47.	34. W	38.12 N	14.65 W	40.8	N 21.	2. W	38.1
1718.00	1716.05	0.	15.	S 46.	13. W	38.11 N	14.66 W	40.8	N 21.	2. W	38.1
1719.00	1717.05	0.	14.	S 44.	25. W	38.11 N	14.66 W	40.8	N 21.	2. W	38.1
1720.00	1718.05	0.	14.	S 42.	37. W	38.11 N	14.66 W	40.8	N 21.	3. W	38.1
1721.00	1719.05	0.	13.	S 40.	48. W	38.10 N	14.66 W	40.8	N 21.	3. W	38.1
1722.00	1720.05	0.	12.	S 38.	60. W	38.10 N	14.67 W	40.8	N 21.	3. W	38.1
1723.00	1721.05	0.	12.	S 37.	11. W	38.10 N	14.67 W	40.8	N 21.	3. W	38.1
1724.00	1722.05	0.	11.	S 35.	23. W	38.10 N	14.67 W	40.8	N 21.	4. W	38.1
1725.00	1723.05	0.	11.	S 33.	35. W	38.09 N	14.67 W	40.8	N 21.	4. W	38.1
1726.00	1724.05	0.	10.	S 31.	46. W	38.09 N	14.67 W	40.8	N 21.	4. W	38.1
1727.00	1725.05	0.	10.	S 29.	58. W	38.09 N	14.68 W	40.8	N 21.	4. W	38.1

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1728.00	1726.05	0.	9.	S 28.	10. W	38.09 N	14.68 W	40.8	N 21.	4. W	38.1
1729.00	1727.05	0.	8.	S 26.	21. W	38.08 N	14.68 W	40.8	N 21.	5. W	38.1
1730.00	1728.05	0.	8.	S 24.	33. W	38.08 N	14.68 W	40.8	N 21.	5. W	38.1
1731.00	1729.05	0.	7.	S 22.	44. W	38.08 N	14.68 W	40.8	N 21.	5. W	38.1
1732.00	1730.05	0.	7.	S 20.	56. W	38.08 N	14.69 W	40.8	N 21.	5. W	38.1
1733.00	1731.05	0.	6.	S 19.	8. W	38.08 N	14.68 W	40.8	N 21.	5. W	38.1
1734.00	1732.05	0.	6.	S 17.	19. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1735.00	1733.05	0.	5.	S 15.	31. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1736.00	1734.05	0.	4.	S 13.	43. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1737.00	1735.05	0.	4.	S 11.	54. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1738.00	1736.05	0.	3.	S 10.	6. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1739.00	1737.05	0.	3.	S 8.	17. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1740.00	1738.05	0.	2.	S 6.	29. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1741.00	1739.05	0.	1.	S 4.	41. W	38.07 N	14.68 W	40.8	N 21.	5. W	38.1
1742.00	1740.05	0.	1.	S 2.	52. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1743.00	1741.05	0.	0.	S 1.	4. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1744.00	1742.05	0.	0.	S 1.	1. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1745.00	1743.05	0.	1.	S 3.	31. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1746.00	1744.05	0.	1.	S 6.	1. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1747.00	1745.05	0.	2.	S 8.	31. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1748.00	1746.05	0.	3.	S 11.	1. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1749.00	1747.05	0.	3.	S 13.	31. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1750.00	1748.05	0.	4.	S 16.	1. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1751.00	1749.05	0.	4.	S 18.	31. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1752.00	1750.05	0.	5.	S 21.	1. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1753.00	1751.05	0.	5.	S 23.	30. W	38.06 N	14.68 W	40.8	N 21.	5. W	38.1
1754.00	1752.05	0.	6.	S 26.	0. W	38.06 N	14.68 W	40.8	N 21.	6. W	38.1
1755.00	1753.05	0.	7.	S 28.	30. W	38.05 N	14.68 W	40.8	N 21.	6. W	38.1
1756.00	1754.05	0.	7.	S 31.	0. W	38.05 N	14.68 W	40.8	N 21.	6. W	38.1
1757.00	1755.05	0.	8.	S 33.	30. W	38.05 N	14.68 W	40.8	N 21.	6. W	38.1
1758.00	1756.05	0.	8.	S 35.	60. W	38.05 N	14.68 W	40.8	N 21.	6. W	38.0
1759.00	1757.05	0.	9.	S 38.	30. W	38.05 N	14.68 W	40.8	N 21.	6. W	38.0
1760.00	1758.05	0.	9.	S 40.	60. W	38.04 N	14.68 W	40.8	N 21.	6. W	38.0
1761.00	1759.05	0.	10.	S 43.	30. W	38.04 N	14.69 W	40.8	N 21.	7. W	38.0
1762.00	1760.05	0.	11.	S 45.	59. W	38.04 N	14.69 W	40.8	N 21.	7. W	38.0
1763.00	1761.05	0.	11.	S 48.	29. W	38.04 N	14.69 W	40.8	N 21.	7. W	38.0
1764.00	1762.05	0.	12.	S 50.	59. W	38.03 N	14.69 W	40.8	N 21.	7. W	38.0
1765.00	1763.05	0.	12.	S 53.	29. W	38.03 N	14.69 W	40.8	N 21.	7. W	38.0
1766.00	1764.05	0.	13.	S 55.	59. W	38.03 N	14.70 W	40.8	N 21.	8. W	38.0
1767.00	1765.05	0.	13.	S 58.	29. W	38.03 N	14.70 W	40.8	N 21.	8. W	38.0
1768.00	1766.05	0.	14.	S 60.	59. W	38.02 N	14.70 W	40.8	N 21.	8. W	38.0
1769.00	1767.05	0.	15.	S 63.	29. W	38.02 N	14.70 W	40.8	N 21.	9. W	38.0
1770.00	1768.05	0.	15.	S 64.	27. W	38.02 N	14.71 W	40.8	N 21.	9. W	38.0
1771.00	1769.05	0.	16.	S 63.	1. W	38.02 N	14.71 W	40.8	N 21.	9. W	38.0
1772.00	1770.05	0.	16.	S 61.	36. W	38.01 N	14.72 W	40.8	N 21.	10. W	38.0
1773.00	1771.05	0.	17.	S 60.	11. W	38.01 N	14.72 W	40.8	N 21.	10. W	38.0

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1774.00	1772.05	0.	18.	S 58.	45. W	38.01 N	14.72 W	40.8	N 21.	11. W	38.0
1775.00	1773.05	0.	18.	S 57.	20. W	38.01 N	14.73 W	40.8	N 21.	11. W	38.0
1776.00	1774.05	0.	19.	S 55.	55. W	38.00 N	14.73 W	40.8	N 21.	11. W	38.0
1777.00	1775.05	0.	19.	S 54.	29. W	38.00 N	14.74 W	40.8	N 21.	12. W	38.0
1778.00	1776.05	0.	20.	S 53.	4. W	38.00 N	14.74 W	40.8	N 21.	12. W	38.0
1779.00	1777.05	0.	20.	S 51.	39. W	37.99 N	14.75 W	40.8	N 21.	13. W	38.0
1780.00	1778.05	0.	21.	S 50.	14. W	37.99 N	14.75 W	40.8	N 21.	13. W	38.0
1781.00	1779.05	0.	22.	S 48.	48. W	37.99 N	14.76 W	40.8	N 21.	14. W	38.0
1782.00	1780.05	0.	22.	S 47.	23. W	37.98 N	14.76 W	40.7	N 21.	14. W	38.0
1783.00	1781.05	0.	23.	S 45.	58. W	37.98 N	14.77 W	40.7	N 21.	15. W	38.0
1784.00	1782.05	0.	23.	S 44.	32. W	37.97 N	14.77 W	40.7	N 21.	15. W	38.0
1785.00	1783.05	0.	24.	S 43.	7. W	37.97 N	14.78 W	40.7	N 21.	16. W	38.0
1786.00	1784.05	0.	24.	S 41.	42. W	37.96 N	14.78 W	40.7	N 21.	16. W	38.0
1787.00	1785.05	0.	25.	S 40.	16. W	37.96 N	14.79 W	40.7	N 21.	17. W	38.0
1788.00	1786.05	0.	26.	S 38.	51. W	37.95 N	14.79 W	40.7	N 21.	17. W	38.0
1789.00	1787.05	0.	26.	S 37.	26. W	37.95 N	14.79 W	40.7	N 21.	18. W	37.9
1790.00	1788.05	0.	27.	S 36.	0. W	37.94 N	14.80 W	40.7	N 21.	19. W	37.9
1791.00	1789.05	0.	27.	S 34.	35. W	37.94 N	14.80 W	40.7	N 21.	19. W	37.9
1792.00	1790.05	0.	28.	S 33.	10. W	37.93 N	14.81 W	40.7	N 21.	20. W	37.9
1793.00	1791.05	0.	28.	S 31.	44. W	37.92 N	14.81 W	40.7	N 21.	20. W	37.9
1794.00	1792.05	0.	29.	S 30.	19. W	37.92 N	14.82 W	40.7	N 21.	21. W	37.9
1795.00	1793.05	0.	30.	S 28.	54. W	37.91 N	14.82 W	40.7	N 21.	21. W	37.9
1796.00	1794.05	0.	30.	S 28.	13. W	37.90 N	14.83 W	40.7	N 21.	22. W	37.9
1797.00	1795.05	0.	30.	S 28.	47. W	37.89 N	14.83 W	40.7	N 21.	23. W	37.9
1798.00	1796.05	0.	30.	S 29.	22. W	37.89 N	14.84 W	40.7	N 21.	23. W	37.9
1799.00	1797.05	0.	30.	S 29.	57. W	37.88 N	14.84 W	40.7	N 21.	24. W	37.9
1800.00	1798.05	0.	30.	S 30.	31. W	37.87 N	14.85 W	40.7	N 21.	24. W	37.9
1801.00	1799.05	0.	30.	S 31.	6. W	37.86 N	14.85 W	40.7	N 21.	25. W	37.9
1802.00	1800.05	0.	30.	S 31.	40. W	37.86 N	14.85 W	40.7	N 21.	25. W	37.9
1803.00	1801.05	0.	30.	S 32.	15. W	37.85 N	14.86 W	40.7	N 21.	26. W	37.8
1804.00	1802.05	0.	30.	S 32.	50. W	37.84 N	14.86 W	40.7	N 21.	27. W	37.8
1805.00	1803.05	0.	30.	S 33.	24. W	37.83 N	14.87 W	40.7	N 21.	27. W	37.8
1806.00	1804.05	0.	30.	S 33.	59. W	37.83 N	14.87 W	40.6	N 21.	28. W	37.8
1807.00	1805.05	0.	30.	S 34.	33. W	37.82 N	14.88 W	40.6	N 21.	28. W	37.8
1808.00	1806.05	0.	30.	S 35.	8. W	37.81 N	14.88 W	40.6	N 21.	29. W	37.8
1809.00	1807.05	0.	30.	S 35.	42. W	37.81 N	14.89 W	40.6	N 21.	30. W	37.8
1810.00	1808.05	0.	30.	S 36.	17. W	37.80 N	14.89 W	40.6	N 21.	30. W	37.8
1811.00	1809.05	0.	30.	S 36.	52. W	37.79 N	14.90 W	40.6	N 21.	31. W	37.8
1812.00	1810.05	0.	30.	S 37.	26. W	37.78 N	14.90 W	40.6	N 21.	32. W	37.8
1813.00	1811.05	0.	30.	S 38.	1. W	37.78 N	14.91 W	40.6	N 21.	32. W	37.8
1814.00	1812.05	0.	30.	S 38.	35. W	37.77 N	14.91 W	40.6	N 21.	33. W	37.8
1815.00	1813.05	0.	30.	S 39.	10. W	37.76 N	14.92 W	40.6	N 21.	34. W	37.8
1816.00	1814.05	0.	30.	S 39.	45. W	37.76 N	14.93 W	40.6	N 21.	34. W	37.8
1817.00	1815.05	0.	30.	S 40.	19. W	37.75 N	14.93 W	40.6	N 21.	35. W	37.8
1818.00	1816.05	0.	30.	S 40.	54. W	37.74 N	14.94 W	40.6	N 21.	35. W	37.7
1819.00	1817.05	0.	30.	S 41.	28. W	37.74 N	14.94 W	40.6	N 21.	36. W	37.7

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1820.00	1818.05	0.	30.	S 42.	3. W	37.73 N	14.95 W.	40.6	N 21.	37. W	37.7
1821.00	1819.05	0.	30.	S 42.	38. W	37.72 N	14.95 W	40.6	N 21.	37. W	37.7
1822.00	1820.05	0.	30.	S 42.	8. W	37.72 N	14.96 W	40.6	N 21.	38. W	37.7
1823.00	1821.05	0.	29.	S 39.	41. W	37.71 N	14.97 W	40.6	N 21.	39. W	37.7
1824.00	1822.05	0.	29.	S 37.	13. W	37.70 N	14.97 W	40.6	N 21.	39. W	37.7
1825.00	1823.05	0.	28.	S 34.	46. W	37.70 N	14.98 W	40.6	N 21.	40. W	37.7
1826.00	1824.05	0.	27.	S 32.	18. W	37.69 N	14.98 W	40.6	N 21.	41. W	37.7
1827.00	1825.05	0.	27.	S 29.	50. W	37.68 N	14.98 W	40.6	N 21.	41. W	37.7
1828.00	1826.05	0.	26.	S 27.	23. W	37.68 N	14.99 W	40.5	N 21.	42. W	37.7
1829.00	1827.05	0.	26.	S 24.	55. W	37.67 N	14.99 W	40.5	N 21.	42. W	37.7
1830.00	1828.05	0.	25.	S 22.	28. W	37.66 N	14.99 W	40.5	N 21.	42. W	37.7
1831.00	1829.05	0.	25.	S 20.	0. W	37.66 N	15.00 W	40.5	N 21.	43. W	37.7
1832.00	1830.05	0.	24.	S 17.	33. W	37.65 N	15.00 W	40.5	N 21.	43. W	37.7
1833.00	1831.05	0.	23.	S 15.	5. W	37.64 N	15.00 W	40.5	N 21.	44. W	37.6
1834.00	1832.05	0.	23.	S 12.	37. W	37.64 N	15.00 W	40.5	N 21.	44. W	37.6
1835.00	1833.05	0.	22.	S 10.	10. W	37.63 N	15.00 W	40.5	N 21.	44. W	37.6
1836.00	1834.05	0.	22.	S 7.	42. W	37.62 N	15.00 W	40.5	N 21.	44. W	37.6
1837.00	1835.05	0.	21.	S 5.	15. W	37.62 N	15.00 W	40.5	N 21.	45. W	37.6
1838.00	1836.05	0.	21.	S 2.	47. W	37.61 N	15.00 W	40.5	N 21.	45. W	37.6
1839.00	1837.05	0.	20.	S 0.	19. W	37.61 N	15.00 W	40.5	N 21.	45. W	37.6
1840.00	1838.05	0.	19.	S 2.	8. E	37.60 N	15.00 W	40.5	N 21.	45. W	37.6
1841.00	1839.05	0.	19.	S 4.	36. E	37.59 N	15.00 W	40.5	N 21.	45. W	37.6
1842.00	1840.05	0.	18.	S 7.	3. E	37.59 N	15.00 W	40.5	N 21.	45. W	37.6
1843.00	1841.05	0.	18.	S 9.	31. E	37.58 N	15.00 W	40.5	N 21.	45. W	37.6
1844.00	1842.05	0.	17.	S 11.	58. E	37.58 N	15.00 W	40.5	N 21.	45. W	37.6
1845.00	1843.05	0.	17.	S 14.	26. E	37.57 N	15.00 W	40.5	N 21.	45. W	37.6
1846.00	1844.05	0.	16.	S 16.	54. E	37.57 N	14.99 W	40.4	N 21.	45. W	37.6
1847.00	1845.05	0.	15.	S 19.	21. E	37.56 N	14.99 W	40.4	N 21.	45. W	37.6
1848.00	1846.05	0.	15.	S 21.	14. E	37.56 N	14.99 W	40.4	N 21.	45. W	37.6
1849.00	1847.05	0.	15.	S 21.	55. E	37.56 N	14.99 W	40.4	N 21.	45. W	37.6
1850.00	1848.05	0.	15.	S 22.	37. E	37.55 N	14.99 W	40.4	N 21.	45. W	37.6
1851.00	1849.05	0.	15.	S 23.	18. E	37.55 N	14.98 W	40.4	N 21.	45. W	37.5
1852.00	1850.05	0.	15.	S 23.	60. E	37.54 N	14.98 W	40.4	N 21.	45. W	37.5
1853.00	1851.05	0.	15.	S 24.	41. E	37.54 N	14.98 W	40.4	N 21.	45. W	37.5
1854.00	1852.05	0.	15.	S 25.	23. E	37.54 N	14.98 W	40.4	N 21.	45. W	37.5
1855.00	1853.05	0.	15.	S 26.	4. E	37.53 N	14.98 W	40.4	N 21.	45. W	37.5
1856.00	1854.05	0.	15.	S 26.	46. E	37.53 N	14.97 W	40.4	N 21.	45. W	37.5
1857.00	1855.05	0.	15.	S 27.	27. E	37.52 N	14.97 W	40.4	N 21.	45. W	37.5
1858.00	1856.05	0.	15.	S 28.	9. E	37.52 N	14.97 W	40.4	N 21.	45. W	37.5
1859.00	1857.05	0.	15.	S 28.	50. E	37.52 N	14.97 W	40.4	N 21.	45. W	37.5
1860.00	1858.05	0.	15.	S 29.	32. E	37.51 N	14.97 W	40.4	N 21.	45. W	37.5
1861.00	1859.05	0.	15.	S 30.	13. E	37.51 N	14.96 W	40.4	N 21.	45. W	37.5
1862.00	1860.05	0.	15.	S 30.	55. E	37.51 N	14.96 W	40.4	N 21.	45. W	37.5
1863.00	1861.05	0.	15.	S 31.	36. E	37.50 N	14.96 W	40.4	N 21.	45. W	37.5
1864.00	1862.05	0.	15.	S 32.	18. E	37.50 N	14.96 W	40.4	N 21.	45. W	37.5
1865.00	1863.05	0.	15.	S 32.	59. E	37.49 N	14.95 W	40.4	N 21.	45. W	37.5

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MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1866.00	1864.05	0.	15.	S 33.	41. E	37.49 N	14.95 W	40.4	N 21.	45. W	37.5
1867.00	1865.05	0.	15.	S 34.	22. E	37.49 N	14.95 W	40.4	N 21.	45. W	37.5
1868.00	1866.05	0.	15.	S 35.	4. E	37.48 N	14.95 W	40.4	N 21.	44. W	37.5
1869.00	1867.05	0.	15.	S 35.	45. E	37.48 N	14.94 W	40.3	N 21.	44. W	37.5
1870.00	1868.05	0.	15.	S 36.	27. E	37.48 N	14.94 W	40.3	N 21.	44. W	37.5
1871.00	1869.05	0.	15.	S 37.	8. E	37.47 N	14.94 W	40.3	N 21.	44. W	37.5
1872.00	1870.05	0.	15.	S 37.	50. E	37.47 N	14.94 W	40.3	N 21.	44. W	37.5
1873.00	1871.05	0.	15.	S 38.	31. E	37.47 N	14.93 W	40.3	N 21.	44. W	37.5
1874.00	1872.05	0.	15.	S 39.	25. E	37.46 N	14.93 W	40.3	N 21.	44. W	37.5
1875.00	1873.05	0.	17.	S 40.	46. E	37.46 N	14.93 W	40.3	N 21.	44. W	37.5
1876.00	1874.05	0.	18.	S 42.	6. E	37.45 N	14.93 W	40.3	N 21.	44. W	37.5
1877.00	1875.05	0.	19.	S 43.	27. E	37.45 N	14.92 W	40.3	N 21.	43. W	37.5
1878.00	1876.05	0.	20.	S 44.	48. E	37.45 N	14.92 W	40.3	N 21.	43. W	37.4
1879.00	1877.05	0.	21.	S 46.	9. E	37.44 N	14.91 W	40.3	N 21.	43. W	37.4
1880.00	1878.05	0.	22.	S 47.	29. E	37.44 N	14.91 W	40.3	N 21.	43. W	37.4
1881.00	1879.05	0.	23.	S 48.	50. E	37.43 N	14.90 W	40.3	N 21.	43. W	37.4
1882.00	1880.05	0.	25.	S 50.	11. E	37.43 N	14.90 W	40.3	N 21.	42. W	37.4
1883.00	1881.05	0.	26.	S 51.	31. E	37.42 N	14.89 W	40.3	N 21.	42. W	37.4
1884.00	1882.05	0.	27.	S 52.	52. E	37.42 N	14.89 W	40.3	N 21.	42. W	37.4
1885.00	1883.05	0.	28.	S 54.	13. E	37.41 N	14.88 W	40.3	N 21.	41. W	37.4
1886.00	1884.05	0.	29.	S 55.	34. E	37.41 N	14.87 W	40.3	N 21.	41. W	37.4
1887.00	1885.05	0.	30.	S 56.	54. E	37.40 N	14.87 W	40.3	N 21.	41. W	37.4
1888.00	1886.05	0.	31.	S 58.	15. E	37.40 N	14.86 W	40.2	N 21.	40. W	37.4
1889.00	1887.05	0.	33.	S 59.	36. E	37.39 N	14.85 W	40.2	N 21.	40. W	37.4
1890.00	1888.05	0.	34.	S 60.	56. E	37.39 N	14.84 W	40.2	N 21.	39. W	37.4
1891.00	1889.05	0.	35.	S 62.	17. E	37.38 N	14.84 W	40.2	N 21.	39. W	37.4
1892.00	1890.05	0.	36.	S 63.	38. E	37.38 N	14.83 W	40.2	N 21.	38. W	37.4
1893.00	1891.05	0.	37.	S 64.	58. E	37.37 N	14.82 W	40.2	N 21.	38. W	37.4
1894.00	1892.05	0.	38.	S 66.	19. E	37.37 N	14.81 W	40.2	N 21.	37. W	37.4
1895.00	1893.05	0.	40.	S 67.	40. E	37.36 N	14.80 W	40.2	N 21.	36. W	37.4
1896.00	1894.05	0.	41.	S 69.	1. E	37.36 N	14.79 W	40.2	N 21.	36. W	37.4
1897.00	1895.05	0.	42.	S 70.	21. E	37.35 N	14.78 W	40.2	N 21.	35. W	37.4
1898.00	1896.05	0.	43.	S 71.	42. E	37.35 N	14.77 W	40.2	N 21.	34. W	37.3
1899.00	1897.05	0.	44.	S 73.	3. E	37.34 N	14.75 W	40.2	N 21.	34. W	37.3
1900.00	1898.05	0.	45.	S 74.	10. E	37.34 N	14.74 W	40.1	N 21.	33. W	37.3
1901.00	1899.05	0.	46.	S 74.	45. E	37.34 N	14.73 W	40.1	N 21.	32. W	37.3
1902.00	1900.05	0.	46.	S 75.	10. E	37.33 N	14.72 W	40.1	N 21.	31. W	37.3
1903.00	1901.05	0.	47.	S 75.	54. E	37.33 N	14.70 W	40.1	N 21.	30. W	37.3
1904.00	1902.05	0.	47.	S 76.	28. E	37.33 N	14.69 W	40.1	N 21.	29. W	37.3
1905.00	1903.05	0.	48.	S 77.	3. E	37.32 N	14.68 W	40.1	N 21.	28. W	37.3
1906.00	1904.05	0.	49.	S 77.	38. E	37.32 N	14.66 W	40.1	N 21.	27. W	37.3
1907.00	1905.05	0.	49.	S 78.	12. E	37.32 N	14.65 W	40.1	N 21.	26. W	37.3
1908.00	1906.05	0.	50.	S 78.	47. E	37.31 N	14.63 W	40.1	N 21.	25. W	37.3
1909.00	1907.05	0.	50.	S 79.	21. E	37.31 N	14.62 W	40.1	N 21.	24. W	37.3
1910.00	1908.05	0.	51.	S 79.	56. E	37.31 N	14.61 W	40.1	N 21.	23. W	37.3
1911.00	1909.05	0.	52.	S 80.	31. E	37.30 N	14.59 W	40.1	N 21.	22. W	37.3

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1912.00	1910.05	0.	52.	S 81.	5. E	37.30 N	14.58 W	40.0	N 21.	21. W	37.3
1913.00	1911.05	0.	53.	S 81.	40. E	37.30 N	14.56 W	40.0	N 21.	20. W	37.3
1914.00	1912.05	0.	53.	S 82.	14. E	37.30 N	14.55 W	40.0	N 21.	18. W	37.3
1915.00	1913.05	0.	54.	S 82.	49. E	37.30 N	14.53 W	40.0	N 21.	17. W	37.3
1916.00	1914.05	0.	54.	S 83.	23. E	37.29 N	14.52 W	40.0	N 21.	16. W	37.3
1917.00	1915.05	0.	55.	S 83.	58. E	37.29 N	14.50 W	40.0	N 21.	15. W	37.3
1918.00	1916.05	0.	56.	S 84.	33. E	37.29 N	14.48 W	40.0	N 21.	14. W	37.3
1919.00	1917.05	0.	56.	S 85.	7. E	37.29 N	14.47 W	40.0	N 21.	12. W	37.3
1920.00	1918.05	0.	57.	S 85.	42. E	37.29 N	14.45 W	40.0	N 21.	11. W	37.3
1921.00	1919.05	0.	57.	S 86.	16. E	37.29 N	14.43 W	40.0	N 21.	10. W	37.3
1922.00	1920.05	0.	58.	S 86.	51. E	37.28 N	14.42 W	40.0	N 21.	8. W	37.3
1923.00	1921.05	0.	58.	S 87.	26. E	37.28 N	14.40 W	40.0	N 21.	7. W	37.3
1924.00	1922.05	0.	59.	S 88.	0. E	37.28 N	14.38 W	40.0	N 21.	6. W	37.3
1925.00	1923.05	0.	60.	S 88.	35. E	37.28 N	14.37 W	40.0	N 21.	4. W	37.3
1926.00	1924.05	0.	60.	S 88.	56. E	37.28 N	14.35 W	39.9	N 21.	3. W	37.3
1927.00	1925.05	0.	59.	S 88.	40. E	37.28 N	14.33 W	39.9	N 21.	2. W	37.3
1928.00	1926.05	0.	59.	S 88.	23. E	37.28 N	14.31 W	39.9	N 21.	0. W	37.3
1929.00	1927.05	0.	58.	S 88.	7. E	37.28 N	14.30 W	39.9	N 20.	59. W	37.3
1930.00	1928.05	0.	58.	S 87.	51. E	37.28 N	14.28 W	39.9	N 20.	58. W	37.3
1931.00	1929.05	0.	57.	S 87.	35. E	37.28 N	14.26 W	39.9	N 20.	56. W	37.3
1932.00	1930.05	0.	56.	S 87.	19. E	37.28 N	14.25 W	39.9	N 20.	55. W	37.3
1933.00	1931.05	0.	56.	S 87.	3. E	37.28 N	14.23 W	39.9	N 20.	54. W	37.3
1934.00	1932.05	0.	55.	S 86.	47. E	37.28 N	14.22 W	39.9	N 20.	52. W	37.3
1935.00	1933.04	0.	55.	S 86.	30. E	37.28 N	14.20 W	39.9	N 20.	51. W	37.3
1936.00	1934.04	0.	54.	S 86.	14. E	37.27 N	14.18 W	39.9	N 20.	50. W	37.3
1937.00	1935.04	0.	54.	S 85.	58. E	37.27 N	14.17 W	39.9	N 20.	49. W	37.3
1938.00	1936.04	0.	53.	S 85.	42. E	37.27 N	14.15 W	39.9	N 20.	48. W	37.3
1939.00	1937.04	0.	52.	S 85.	26. E	37.27 N	14.14 W	39.9	N 20.	46. W	37.3
1940.00	1938.04	0.	52.	S 85.	10. E	37.27 N	14.12 W	39.9	N 20.	45. W	37.3
1941.00	1939.04	0.	51.	S 84.	54. E	37.27 N	14.11 W	39.8	N 20.	44. W	37.3
1942.00	1940.04	0.	51.	S 84.	37. E	37.27 N	14.09 W	39.8	N 20.	43. W	37.3
1943.00	1941.04	0.	50.	S 84.	21. E	37.27 N	14.08 W	39.8	N 20.	42. W	37.3
1944.00	1942.04	0.	49.	S 84.	5. E	37.26 N	14.06 W	39.8	N 20.	41. W	37.3
1945.00	1943.04	0.	49.	S 83.	49. E	37.26 N	14.05 W	39.8	N 20.	40. W	37.3
1946.00	1944.04	0.	48.	S 83.	33. E	37.26 N	14.04 W	39.8	N 20.	38. W	37.3
1947.00	1945.04	0.	48.	S 83.	17. E	37.26 N	14.02 W	39.8	N 20.	37. W	37.3
1948.00	1946.04	0.	47.	S 83.	1. E	37.26 N	14.01 W	39.8	N 20.	36. W	37.3
1949.00	1947.04	0.	47.	S 82.	44. E	37.26 N	13.99 W	39.8	N 20.	35. W	37.3
1950.00	1948.04	0.	46.	S 82.	28. E	37.25 N	13.98 W	39.8	N 20.	34. W	37.3
1951.00	1949.04	0.	45.	S 82.	12. E	37.25 N	13.97 W	39.8	N 20.	33. W	37.3
1952.00	1950.04	0.	45.	S 81.	37. E	37.25 N	13.95 W	39.8	N 20.	32. W	37.2
1953.00	1951.04	0.	44.	S 80.	5. E	37.25 N	13.94 W	39.8	N 20.	31. W	37.2
1954.00	1952.04	0.	44.	S 78.	32. E	37.25 N	13.93 W	39.8	N 20.	30. W	37.2
1955.00	1953.04	0.	43.	S 77.	0. E	37.24 N	13.92 W	39.8	N 20.	29. W	37.2
1956.00	1954.04	0.	43.	S 75.	28. E	37.24 N	13.91 W	39.8	N 20.	29. W	37.2
1957.00	1955.04	0.	42.	S 73.	56. E	37.24 N	13.89 W	39.7	N 20.	28. W	37.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
1958.00	1956.04	0.	41.	S 72.	24. E	37.23 N	13.88 W	39.7 N	20.	27. W	37.2
1959.00	1957.04	0.	41.	S 70.	51. E	37.23 N	13.87 W	39.7 N	20.	26. W	37.2
1960.00	1958.04	0.	40.	S 69.	19. E	37.22 N	13.86 W	39.7 N	20.	25. W	37.2
1961.00	1959.04	0.	40.	S 67.	47. E	37.22 N	13.85 W	39.7 N	20.	24. W	37.2
1962.00	1960.04	0.	39.	S 66.	15. E	37.22 N	13.84 W	39.7 N	20.	24. W	37.2
1963.00	1961.04	0.	39.	S 64.	42. E	37.21 N	13.83 W	39.7 N	20.	23. W	37.2
1964.00	1962.04	0.	38.	S 63.	10. E	37.21 N	13.82 W	39.7 N	20.	22. W	37.2
1965.00	1963.04	0.	37.	S 61.	38. E	37.20 N	13.81 W	39.7 N	20.	22. W	37.2
1966.00	1964.04	0.	37.	S 60.	6. E	37.20 N	13.80 W	39.7 N	20.	21. W	37.2
1967.00	1965.04	0.	36.	S 58.	33. E	37.19 N	13.79 W	39.7 N	20.	21. W	37.2
1968.00	1966.04	0.	36.	S 57.	1. E	37.18 N	13.78 W	39.7 N	20.	20. W	37.2
1969.00	1967.04	0.	35.	S 55.	29. E	37.18 N	13.77 W	39.6 N	20.	20. W	37.2
1970.00	1968.04	0.	34.	S 53.	57. E	37.17 N	13.76 W	39.6 N	20.	19. W	37.2
1971.00	1969.04	0.	34.	S 52.	24. E	37.17 N	13.76 W	39.6 N	20.	19. W	37.2
1972.00	1970.04	0.	33.	S 50.	52. E	37.16 N	13.75 W	39.6 N	20.	18. W	37.2
1973.00	1971.04	0.	33.	S 49.	20. E	37.15 N	13.74 W	39.6 N	20.	18. W	37.2
1974.00	1972.04	0.	32.	S 47.	48. E	37.15 N	13.74 W	39.6 N	20.	18. W	37.1
1975.00	1973.04	0.	32.	S 46.	15. E	37.14 N	13.73 W	39.6 N	20.	17. W	37.1
1976.00	1974.04	0.	31.	S 44.	43. E	37.13 N	13.72 W	39.6 N	20.	17. W	37.1
1977.00	1975.04	0.	30.	S 43.	11. E	37.12 N	13.72 W	39.6 N	20.	17. W	37.1
1978.00	1976.04	0.	30.	S 41.	59. E	37.12 N	13.71 W	39.6 N	20.	16. W	37.1
1979.00	1977.04	0.	30.	S 41.	57. E	37.11 N	13.71 W	39.6 N	20.	16. W	37.1
1980.00	1978.04	0.	30.	S 41.	55. E	37.10 N	13.70 W	39.6 N	20.	16. W	37.1
1981.00	1979.04	0.	30.	S 41.	53. E	37.10 N	13.69 W	39.5 N	20.	16. W	37.1
1982.00	1980.04	0.	30.	S 41.	50. E	37.09 N	13.69 W	39.5 N	20.	15. W	37.1
1983.00	1981.04	0.	30.	S 41.	48. E	37.09 N	13.68 W	39.5 N	20.	15. W	37.1
1984.00	1982.04	0.	30.	S 41.	46. E	37.08 N	13.68 W	39.5 N	20.	15. W	37.1
1985.00	1983.04	0.	30.	S 41.	43. E	37.07 N	13.67 W	39.5 N	20.	14. W	37.1
1986.00	1984.04	0.	30.	S 41.	41. E	37.07 N	13.66 W	39.5 N	20.	14. W	37.1
1987.00	1985.04	0.	30.	S 41.	39. E	37.06 N	13.66 W	39.5 N	20.	14. W	37.1
1988.00	1986.04	0.	30.	S 41.	36. E	37.05 N	13.65 W	39.5 N	20.	14. W	37.1
1989.00	1987.04	0.	30.	S 41.	34. E	37.05 N	13.65 W	39.5 N	20.	13. W	37.0
1990.00	1988.04	0.	30.	S 41.	32. E	37.04 N	13.64 W	39.5 N	20.	13. W	37.0
1991.00	1989.04	0.	30.	S 41.	29. E	37.03 N	13.64 W	39.5 N	20.	13. W	37.0
1992.00	1990.04	0.	30.	S 41.	27. E	37.03 N	13.63 W	39.5 N	20.	13. W	37.0
1993.00	1991.04	0.	30.	S 41.	25. E	37.02 N	13.62 W	39.4 N	20.	12. W	37.0
1994.00	1992.04	0.	30.	S 41.	23. E	37.01 N	13.62 W	39.4 N	20.	12. W	37.0
1995.00	1993.04	0.	30.	S 41.	20. E	37.01 N	13.61 W	39.4 N	20.	12. W	37.0
1996.00	1994.04	0.	30.	S 41.	18. E	37.00 N	13.61 W	39.4 N	20.	11. W	37.0
1997.00	1995.04	0.	30.	S 41.	16. E	36.99 N	13.60 W	39.4 N	20.	11. W	37.0
1998.00	1996.04	0.	30.	S 41.	13. E	36.99 N	13.60 W	39.4 N	20.	11. W	37.0
1999.00	1997.04	0.	30.	S 41.	11. E	36.98 N	13.59 W	39.4 N	20.	11. W	37.0
2000.00	1998.04	0.	30.	S 41.	9. E	36.97 N	13.58 W	39.4 N	20.	10. W	37.0
2001.00	1999.04	0.	30.	S 41.	6. E	36.97 N	13.58 W	39.4 N	20.	10. W	37.0
2002.00	2000.04	0.	30.	S 41.	4. E	36.96 N	13.57 W	39.4 N	20.	10. W	37.0
2003.00	2001.04	0.	30.	S 41.	2. E	36.95 N	13.57 W	39.4 N	20.	10. W	37.0

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	DIRECTION	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	POLAR COORDINATES	VERTICAL SECTION
2004.00	2002.04	0.	30.	S	40.	58.	E	36.95 N	13.56 W	39.4	N	20.	9.	W	36.9
2005.00	2003.04	0.	31.	S	40.	49.	E	36.94 N	13.55 W	39.3	N	20.	9.	W	36.9
2006.00	2004.04	0.	31.	S	40.	40.	E	36.93 N	13.55 W	39.3	N	20.	9.	W	36.9
2007.00	2005.04	0.	32.	S	40.	30.	E	36.93 N	13.54 W	39.3	N	20.	8.	W	36.9
2008.00	2006.04	0.	32.	S	40.	21.	E	36.92 N	13.54 W	39.3	N	20.	8.	W	36.9
2009.00	2007.04	0.	33.	S	40.	12.	E	36.91 N	13.53 W	39.3	N	20.	8.	W	36.9
2010.00	2008.04	0.	34.	S	40.	3.	E	36.91 N	13.52 W	39.3	N	20.	8.	W	36.9
2011.00	2009.04	0.	34.	S	39.	53.	E	36.90 N	13.52 W	39.3	N	20.	7.	W	36.9
2012.00	2010.04	0.	35.	S	39.	44.	E	36.89 N	13.51 W	39.3	N	20.	7.	W	36.9
2013.00	2011.04	0.	35.	S	39.	35.	E	36.88 N	13.51 W	39.3	N	20.	7.	W	36.9
2014.00	2012.04	0.	36.	S	39.	26.	E	36.87 N	13.50 W	39.3	N	20.	6.	W	36.9
2015.00	2013.04	0.	36.	S	39.	17.	E	36.87 N	13.49 W	39.3	N	20.	6.	W	36.9
2016.00	2014.04	0.	37.	S	39.	7.	E	36.86 N	13.49 W	39.2	N	20.	6.	W	36.9
2017.00	2015.04	0.	38.	S	38.	58.	E	36.85 N	13.48 W	39.2	N	20.	5.	W	36.8
2018.00	2016.04	0.	38.	S	38.	49.	E	36.84 N	13.47 W	39.2	N	20.	5.	W	36.8
2019.00	2017.04	0.	39.	S	38.	40.	E	36.83 N	13.46 W	39.2	N	20.	5.	W	36.8
2020.00	2018.04	0.	39.	S	38.	30.	E	36.82 N	13.46 W	39.2	N	20.	5.	W	36.8
2021.00	2019.04	0.	40.	S	38.	21.	E	36.81 N	13.45 W	39.2	N	20.	4.	W	36.8
2022.00	2020.04	0.	40.	S	38.	12.	E	36.81 N	13.44 W	39.2	N	20.	4.	W	36.8
2023.00	2021.04	0.	41.	S	38.	3.	E	36.80 N	13.44 W	39.2	N	20.	4.	W	36.8
2024.00	2022.04	0.	42.	S	37.	54.	E	36.79 N	13.43 W	39.2	N	20.	3.	W	36.8
2025.00	2023.04	0.	42.	S	37.	44.	E	36.78 N	13.42 W	39.1	N	20.	3.	W	36.8
2026.00	2024.04	0.	43.	S	37.	35.	E	36.77 N	13.41 W	39.1	N	20.	3.	W	36.8
2027.00	2025.04	0.	43.	S	37.	26.	E	36.76 N	13.41 W	39.1	N	20.	2.	W	36.8
2028.00	2026.04	0.	44.	S	37.	17.	E	36.75 N	13.40 W	39.1	N	20.	2.	W	36.7
2029.00	2027.04	0.	45.	S	37.	7.	E	36.74 N	13.39 W	39.1	N	20.	2.	W	36.7
2030.00	2028.04	0.	45.	S	36.	58.	E	36.73 N	13.38 W	39.1	N	20.	1.	W	36.7
2031.00	2029.04	0.	45.	S	36.	46.	E	36.72 N	13.37 W	39.1	N	20.	1.	W	36.7
2032.00	2030.04	0.	45.	S	36.	35.	E	36.71 N	13.37 W	39.1	N	20.	1.	W	36.7
2033.00	2031.04	0.	45.	S	36.	23.	E	36.70 N	13.36 W	39.1	N	20.	0.	W	36.7
2034.00	2032.04	0.	45.	S	36.	12.	E	36.68 N	13.35 W	39.0	N	19.	60.	W	36.7
2035.00	2033.04	0.	45.	S	36.	0.	E	36.67 N	13.34 W	39.0	N	19.	60.	W	36.7
2036.00	2034.04	0.	45.	S	35.	49.	E	36.66 N	13.34 W	39.0	N	19.	59.	W	36.7
2037.00	2035.04	0.	45.	S	35.	37.	E	36.65 N	13.33 W	39.0	N	19.	59.	W	36.7
2038.00	2036.04	0.	45.	S	35.	26.	E	36.64 N	13.32 W	39.0	N	19.	59.	W	36.6
2039.00	2037.04	0.	45.	S	35.	14.	E	36.63 N	13.31 W	39.0	N	19.	58.	W	36.6
2040.00	2038.04	0.	45.	S	35.	3.	E	36.62 N	13.30 W	39.0	N	19.	58.	W	36.6
2041.00	2039.04	0.	45.	S	34.	51.	E	36.61 N	13.30 W	39.0	N	19.	58.	W	36.6
2042.00	2040.04	0.	45.	S	34.	39.	E	36.60 N	13.29 W	38.9	N	19.	57.	W	36.6
2043.00	2041.04	0.	45.	S	34.	28.	E	36.59 N	13.28 W	38.9	N	19.	57.	W	36.6
2044.00	2042.04	0.	45.	S	34.	16.	E	36.58 N	13.27 W	38.9	N	19.	57.	W	36.6
2045.00	2043.04	0.	45.	S	34.	5.	E	36.57 N	13.27 W	38.9	N	19.	57.	W	36.6
2046.00	2044.04	0.	45.	S	33.	53.	E	36.56 N	13.26 W	38.9	N	19.	56.	W	36.6
2047.00	2045.04	0.	45.	S	33.	42.	E	36.55 N	13.25 W	38.9	N	19.	56.	W	36.5
2048.00	2046.04	0.	45.	S	33.	30.	E	36.53 N	13.25 W	38.9	N	19.	56.	W	36.5
2049.00	2047.04	0.	45.	S	33.	19.	E	36.52 N	13.24 W	38.8	N	19.	55.	W	36.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2050.00	2048.04	0.	45.	S 33.	7. E	36.51 N	13.23 W	38.8	N 19.	55. W	36.5
2051.00	2049.04	0.	45.	S 32.	56. E	36.50 N	13.22 W	38.8	N 19.	55. W	36.5
2052.00	2050.04	0.	45.	S 32.	44. E	36.49 N	13.22 W	38.8	N 19.	55. W	36.5
2053.00	2051.04	0.	45.	S 32.	33. E	36.48 N	13.21 W	38.8	N 19.	54. W	36.5
2054.00	2052.04	0.	45.	S 32.	21. E	36.47 N	13.20 W	38.8	N 19.	54. W	36.5
2055.00	2053.04	0.	45.	S 32.	10. E	36.46 N	13.20 W	38.8	N 19.	54. W	36.5
2056.00	2054.04	0.	45.	S 31.	59. E	36.45 N	13.19 W	38.8	N 19.	54. W	36.4
2057.00	2055.04	0.	45.	S 31.	52. E	36.44 N	13.18 W	38.7	N 19.	53. W	36.4
2058.00	2056.04	0.	45.	S 31.	45. E	36.42 N	13.18 W	38.7	N 19.	53. W	36.4
2059.00	2057.04	0.	45.	S 31.	38. E	36.41 N	13.17 W	38.7	N 19.	53. W	36.4
2060.00	2058.04	0.	45.	S 31.	31. E	36.40 N	13.16 W	38.7	N 19.	53. W	36.4
2061.00	2059.04	0.	45.	S 31.	24. E	36.39 N	13.15 W	38.7	N 19.	52. W	36.4
2062.00	2060.04	0.	45.	S 31.	17. E	36.38 N	13.15 W	38.7	N 19.	52. W	36.4
2063.00	2061.04	0.	45.	S 31.	10. E	36.37 N	13.14 W	38.7	N 19.	52. W	36.4
2064.00	2062.04	0.	45.	S 31.	3. E	36.36 N	13.13 W	38.7	N 19.	52. W	36.4
2065.00	2063.04	0.	45.	S 30.	57. E	36.35 N	13.13 W	38.6	N 19.	52. W	36.3
2066.00	2064.04	0.	45.	S 30.	50. E	36.33 N	13.12 W	38.6	N 19.	51. W	36.3
2067.00	2065.04	0.	45.	S 30.	43. E	36.32 N	13.11 W	38.6	N 19.	51. W	36.3
2068.00	2066.03	0.	45.	S 30.	36. E	36.31 N	13.11 W	38.6	N 19.	51. W	36.3
2069.00	2067.03	0.	45.	S 30.	29. E	36.30 N	13.10 W	38.6	N 19.	51. W	36.3
2070.00	2068.03	0.	45.	S 30.	22. E	36.29 N	13.09 W	38.6	N 19.	50. W	36.3
2071.00	2069.03	0.	45.	S 30.	15. E	36.28 N	13.09 W	38.6	N 19.	50. W	36.3
2072.00	2070.03	0.	45.	S 30.	8. E	36.27 N	13.08 W	38.6	N 19.	50. W	36.3
2073.00	2071.03	0.	45.	S 30.	1. E	36.26 N	13.07 W	38.5	N 19.	50. W	36.3
2074.00	2072.03	0.	45.	S 29.	54. E	36.24 N	13.07 W	38.5	N 19.	50. W	36.2
2075.00	2073.03	0.	45.	S 29.	47. E	36.23 N	13.06 W	38.5	N 19.	49. W	36.2
2076.00	2074.03	0.	45.	S 29.	40. E	36.22 N	13.05 W	38.5	N 19.	49. W	36.2
2077.00	2075.03	0.	45.	S 29.	34. E	36.21 N	13.05 W	38.5	N 19.	49. W	36.2
2078.00	2076.03	0.	45.	S 29.	27. E	36.20 N	13.04 W	38.5	N 19.	49. W	36.2
2079.00	2077.03	0.	45.	S 29.	20. E	36.19 N	13.04 W	38.5	N 19.	49. W	36.2
2080.00	2078.03	0.	45.	S 29.	13. E	36.18 N	13.03 W	38.5	N 19.	48. W	36.2
2081.00	2079.03	0.	45.	S 29.	6. E	36.16 N	13.02 W	38.4	N 19.	48. W	36.2
2082.00	2080.03	0.	45.	S 29.	4. E	36.15 N	13.02 W	38.4	N 19.	48. W	36.2
2083.00	2081.03	0.	44.	S 29.	32. E	36.14 N	13.01 W	38.4	N 19.	48. W	36.1
2084.00	2082.03	0.	44.	S 29.	59. E	36.13 N	13.00 W	38.4	N 19.	48. W	36.1
2085.00	2083.03	0.	43.	S 30.	27. E	36.12 N	13.00 W	38.4	N 19.	47. W	36.1
2086.00	2084.03	0.	43.	S 30.	55. E	36.11 N	12.99 W	38.4	N 19.	47. W	36.1
2087.00	2085.03	0.	42.	S 31.	23. E	36.10 N	12.98 W	38.4	N 19.	47. W	36.1
2088.00	2086.03	0.	41.	S 31.	50. E	36.09 N	12.98 W	38.4	N 19.	47. W	36.1
2089.00	2087.03	0.	41.	S 32.	18. E	36.08 N	12.97 W	38.3	N 19.	47. W	36.1
2090.00	2088.03	0.	40.	S 32.	46. E	36.07 N	12.97 W	38.3	N 19.	46. W	36.1
2091.00	2089.03	0.	40.	S 33.	13. E	36.06 N	12.96 W	38.3	N 19.	46. W	36.1
2092.00	2090.03	0.	39.	S 33.	41. E	36.05 N	12.95 W	38.3	N 19.	46. W	36.0
2093.00	2091.03	0.	39.	S 34.	9. E	36.04 N	12.95 W	38.3	N 19.	46. W	36.0
2094.00	2092.03	0.	38.	S 34.	36. E	36.03 N	12.94 W	38.3	N 19.	45. W	36.0
2095.00	2093.03	0.	37.	S 35.	4. E	36.02 N	12.93 W	38.3	N 19.	45. W	36.0

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MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2096.00	2094.03	0.	37.	S 35.	32. E	36.01 N	12.93 W	38.3	N 19.	45. W	36.0
2097.00	2095.03	0.	36.	S 35.	59. E	36.00 N	12.92 W	38.3	N 19.	45. W	36.0
2098.00	2096.03	0.	36.	S 36.	27. E	36.00 N	12.92 W	38.2	N 19.	44. W	36.0
2099.00	2097.03	0.	35.	S 36.	55. E	35.99 N	12.91 W	38.2	N 19.	44. W	36.0
2100.00	2098.03	0.	35.	S 37.	22. E	35.98 N	12.90 W	38.2	N 19.	44. W	36.0
2101.00	2099.03	0.	34.	S 37.	50. E	35.97 N	12.90 W	38.2	N 19.	43. W	36.0
2102.00	2100.03	0.	33.	S 38.	18. E	35.96 N	12.89 W	38.2	N 19.	43. W	36.0
2103.00	2101.03	0.	33.	S 38.	45. E	35.96 N	12.88 W	38.2	N 19.	43. W	36.0
2104.00	2102.03	0.	32.	S 39.	13. E	35.95 N	12.88 W	38.2	N 19.	43. W	35.9
2105.00	2103.03	0.	32.	S 39.	41. E	35.94 N	12.87 W	38.2	N 19.	42. W	35.9
2106.00	2104.03	0.	31.	S 40.	8. E	35.93 N	12.87 W	38.2	N 19.	42. W	35.9
2107.00	2105.03	0.	31.	S 40.	36. E	35.93 N	12.86 W	38.2	N 19.	42. W	35.9
2108.00	2106.03	0.	30.	S 41.	3. E	35.92 N	12.85 W	38.2	N 19.	41. W	35.9
2109.00	2107.03	0.	31.	S 41.	23. E	35.91 N	12.85 W	38.1	N 19.	41. W	35.9
2110.00	2108.03	0.	31.	S 41.	44. E	35.91 N	12.84 W	38.1	N 19.	41. W	35.9
2111.00	2109.03	0.	32.	S 42.	5. E	35.90 N	12.84 W	38.1	N 19.	40. W	35.9
2112.00	2110.03	0.	32.	S 42.	26. E	35.89 N	12.83 W	38.1	N 19.	40. W	35.9
2113.00	2111.03	0.	33.	S 42.	46. E	35.89 N	12.82 W	38.1	N 19.	40. W	35.9
2114.00	2112.03	0.	34.	S 43.	7. E	35.88 N	12.82 W	38.1	N 19.	39. W	35.9
2115.00	2113.03	0.	34.	S 43.	28. E	35.87 N	12.81 W	38.1	N 19.	39. W	35.9
2116.00	2114.03	0.	35.	S 43.	49. E	35.87 N	12.80 W	38.1	N 19.	39. W	35.9
2117.00	2115.03	0.	35.	S 44.	9. E	35.86 N	12.80 W	38.1	N 19.	38. W	35.9
2118.00	2116.03	0.	36.	S 44.	30. E	35.85 N	12.79 W	38.1	N 19.	38. W	35.9
2119.00	2117.03	0.	36.	S 44.	51. E	35.84 N	12.78 W	38.1	N 19.	38. W	35.8
2120.00	2118.03	0.	37.	S 45.	12. E	35.84 N	12.77 W	38.0	N 19.	37. W	35.8
2121.00	2119.03	0.	38.	S 45.	32. E	35.83 N	12.77 W	38.0	N 19.	37. W	35.8
2122.00	2120.03	0.	38.	S 45.	53. E	35.82 N	12.76 W	38.0	N 19.	36. W	35.8
2123.00	2121.03	0.	39.	S 46.	14. E	35.81 N	12.75 W	38.0	N 19.	36. W	35.8
2124.00	2122.03	0.	39.	S 46.	35. E	35.80 N	12.74 W	38.0	N 19.	35. W	35.8
2125.00	2123.03	0.	40.	S 46.	56. E	35.80 N	12.73 W	38.0	N 19.	35. W	35.8
2126.00	2124.03	0.	40.	S 47.	16. E	35.79 N	12.73 W	38.0	N 19.	34. W	35.8
2127.00	2125.03	0.	41.	S 47.	37. E	35.78 N	12.72 W	38.0	N 19.	34. W	35.8
2128.00	2126.03	0.	42.	S 47.	58. E	35.77 N	12.71 W	38.0	N 19.	33. W	35.8
2129.00	2127.03	0.	42.	S 48.	19. E	35.76 N	12.70 W	38.0	N 19.	33. W	35.8
2130.00	2128.03	0.	43.	S 48.	39. E	35.76 N	12.69 W	37.9	N 19.	32. W	35.8
2131.00	2129.03	0.	43.	S 49.	0. E	35.75 N	12.68 W	37.9	N 19.	32. W	35.7
2132.00	2130.03	0.	44.	S 49.	21. E	35.74 N	12.67 W	37.9	N 19.	31. W	35.7
2133.00	2131.03	0.	44.	S 49.	42. E	35.73 N	12.66 W	37.9	N 19.	31. W	35.7
2134.00	2132.03	0.	45.	S 49.	56. E	35.72 N	12.65 W	37.9	N 19.	30. W	35.7
2135.00	2133.03	0.	45.	S 49.	19. E	35.71 N	12.64 W	37.9	N 19.	30. W	35.7
2136.00	2134.03	0.	45.	S 48.	42. E	35.71 N	12.63 W	37.9	N 19.	29. W	35.7
2137.00	2135.03	0.	45.	S 48.	5. E	35.70 N	12.62 W	37.9	N 19.	28. W	35.7
2138.00	2136.03	0.	45.	S 47.	28. E	35.69 N	12.61 W	37.9	N 19.	29. W	35.7
2139.00	2137.03	0.	45.	S 46.	51. E	35.68 N	12.60 W	37.8	N 19.	27. W	35.7
2140.00	2138.03	0.	45.	S 46.	15. E	35.67 N	12.59 W	37.8	N 19.	27. W	35.7
2141.00	2139.03	0.	45.	S 45.	38. E	35.66 N	12.58 W	37.8	N 19.	26. W	35.7

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2142.00	2140.03	0.	45.	S 45.	1. E	35.65 N	12.57 W	37.8	N 19.	26. W	35.7
2143.00	2141.03	0.	45.	S 44.	24. E	35.64 N	12.57 W	37.8	N 19.	25. W	35.6
2144.00	2142.03	0.	45.	S 43.	47. E	35.63 N	12.56 W	37.8	N 19.	25. W	35.6
2145.00	2143.03	0.	45.	S 43.	10. E	35.62 N	12.55 W	37.8	N 19.	24. W	35.6
2146.00	2144.03	0.	45.	S 42.	33. E	35.61 N	12.54 W	37.8	N 19.	24. W	35.6
2147.00	2145.03	0.	45.	S 41.	56. E	35.60 N	12.53 W	37.7	N 19.	23. W	35.6
2148.00	2146.03	0.	45.	S 41.	19. E	35.59 N	12.52 W	37.7	N 19.	23. W	35.6
2149.00	2147.03	0.	45.	S 40.	43. E	35.58 N	12.51 W	37.7	N 19.	22. W	35.6
2150.00	2148.03	0.	45.	S 40.	6. E	35.57 N	12.50 W	37.7	N 19.	22. W	35.6
2151.00	2149.03	0.	45.	S 39.	29. E	35.56 N	12.50 W	37.7	N 19.	21. W	35.6
2152.00	2150.03	0.	45.	S 38.	52. E	35.55 N	12.49 W	37.7	N 19.	21. W	35.6
2153.00	2151.03	0.	45.	S 38.	15. E	35.54 N	12.48 W	37.7	N 19.	21. W	35.5
2154.00	2152.03	0.	45.	S 37.	38. E	35.53 N	12.47 W	37.7	N 19.	20. W	35.5
2155.00	2153.03	0.	45.	S 37.	1. E	35.52 N	12.46 W	37.6	N 19.	20. W	35.5
2156.00	2154.03	0.	45.	S 36.	24. E	35.51 N	12.45 W	37.6	N 19.	20. W	35.5
2157.00	2155.03	0.	45.	S 35.	47. E	35.50 N	12.45 W	37.6	N 19.	19. W	35.5
2158.00	2156.03	0.	45.	S 35.	10. E	35.49 N	12.44 W	37.6	N 19.	19. W	35.5
2159.00	2157.03	0.	45.	S 34.	34. E	35.48 N	12.43 W	37.6	N 19.	19. W	35.5
2160.00	2158.03	0.	45.	S 33.	60. E	35.47 N	12.42 W	37.6	N 19.	18. W	35.5
2161.00	2159.03	0.	44.	S 33.	57. E	35.46 N	12.42 W	37.6	N 19.	18. W	35.5
2162.00	2160.03	0.	44.	S 33.	55. E	35.45 N	12.41 W	37.6	N 19.	18. W	35.4
2163.00	2161.03	0.	43.	S 33.	53. E	35.44 N	12.40 W	37.5	N 19.	17. W	35.4
2164.00	2162.03	0.	43.	S 33.	51. E	35.43 N	12.40 W	37.5	N 19.	17. W	35.4
2165.00	2163.03	0.	42.	S 33.	48. E	35.42 N	12.39 W	37.5	N 19.	17. W	35.4
2166.00	2164.03	0.	41.	S 33.	46. E	35.41 N	12.38 W	37.5	N 19.	17. W	35.4
2167.00	2165.03	0.	41.	S 33.	44. E	35.40 N	12.38 W	37.5	N 19.	16. W	35.4
2168.00	2166.03	0.	40.	S 33.	41. E	35.39 N	12.37 W	37.5	N 19.	16. W	35.4
2169.00	2167.03	0.	40.	S 33.	39. E	35.38 N	12.36 W	37.5	N 19.	16. W	35.4
2170.00	2168.03	0.	39.	S 33.	37. E	35.37 N	12.36 W	37.5	N 19.	15. W	35.4
2171.00	2169.03	0.	39.	S 33.	34. E	35.36 N	12.35 W	37.5	N 19.	15. W	35.4
2172.00	2170.03	0.	38.	S 33.	32. E	35.35 N	12.34 W	37.4	N 19.	15. W	35.3
2173.00	2171.03	0.	37.	S 33.	30. E	35.34 N	12.34 W	37.4	N 19.	15. W	35.3
2174.00	2172.03	0.	37.	S 33.	28. E	35.33 N	12.33 W	37.4	N 19.	14. W	35.3
2175.00	2173.03	0.	36.	S 33.	25. E	35.32 N	12.33 W	37.4	N 19.	14. W	35.3
2176.00	2174.03	0.	36.	S 33.	23. E	35.31 N	12.32 W	37.4	N 19.	14. W	35.3
2177.00	2175.03	0.	35.	S 33.	21. E	35.31 N	12.31 W	37.4	N 19.	14. W	35.3
2178.00	2176.03	0.	35.	S 33.	18. E	35.30 N	12.31 W	37.4	N 19.	14. W	35.3
2179.00	2177.03	0.	34.	S 33.	16. E	35.29 N	12.30 W	37.4	N 19.	13. W	35.3
2180.00	2178.03	0.	33.	S 33.	14. E	35.28 N	12.30 W	37.4	N 19.	13. W	35.3
2181.00	2179.03	0.	33.	S 33.	11. E	35.27 N	12.29 W	37.4	N 19.	13. W	35.3
2182.00	2180.03	0.	32.	S 33.	9. E	35.26 N	12.29 W	37.3	N 19.	13. W	35.3
2183.00	2181.03	0.	32.	S 33.	7. E	35.26 N	12.28 W	37.3	N 19.	12. W	35.3
2184.00	2182.03	0.	31.	S 33.	4. E	35.25 N	12.28 W	37.3	N 19.	12. W	35.2
2185.00	2183.03	0.	31.	S 33.	2. E	35.24 N	12.27 W	37.3	N 19.	12. W	35.2
2186.00	2184.03	0.	30.	S 33.	0. E	35.23 N	12.27 W	37.3	N 19.	12. W	35.2
2187.00	2185.03	0.	30.	S 33.	2. E	35.23 N	12.26 W	37.3	N 19.	12. W	35.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2188.00	2186.03	0.	30.	S 33.	5. E	35.22 N	12.26 W	37.3	N 19.	11. W	35.2
2189.00	2187.03	0.	30.	S 33.	7. E	35.21 N	12.25 W	37.3	N 19.	11. W	35.2
2190.00	2188.03	0.	30.	S 33.	9. E	35.20 N	12.25 W	37.3	N 19.	11. W	35.2
2191.00	2189.03	0.	30.	S 33.	12. E	35.20 N	12.24 W	37.3	N 19.	11. W	35.2
2192.00	2190.03	0.	30.	S 33.	14. E	35.19 N	12.24 W	37.3	N 19.	11. W	35.2
2193.00	2191.03	0.	30.	S 33.	16. E	35.18 N	12.23 W	37.2	N 19.	11. W	35.2
2194.00	2192.03	0.	30.	S 33.	19. E	35.18 N	12.23 W	37.2	N 19.	10. W	35.2
2195.00	2193.03	0.	30.	S 33.	21. E	35.17 N	12.23 W	37.2	N 19.	10. W	35.2
2196.00	2194.03	0.	30.	S 33.	23. E	35.16 N	12.22 W	37.2	N 19.	10. W	35.2
2197.00	2195.03	0.	30.	S 33.	26. E	35.15 N	12.22 W	37.2	N 19.	10. W	35.2
2198.00	2196.03	0.	30.	S 33.	28. E	35.15 N	12.21 W	37.2	N 19.	10. W	35.1
2199.00	2197.03	0.	30.	S 33.	30. E	35.14 N	12.21 W	37.2	N 19.	9. W	35.1
2200.00	2198.03	0.	30.	S 33.	32. E	35.13 N	12.20 W	37.2	N 19.	9. W	35.1
2201.00	2199.03	0.	30.	S 33.	35. E	35.12 N	12.20 W	37.2	N 19.	9. W	35.1
2202.00	2200.03	0.	30.	S 33.	37. E	35.12 N	12.19 W	37.2	N 19.	9. W	35.1
2203.00	2201.03	0.	30.	S 33.	39. E	35.11 N	12.19 W	37.2	N 19.	9. W	35.1
2204.00	2202.03	0.	30.	S 33.	42. E	35.10 N	12.18 W	37.2	N 19.	8. W	35.1
2205.00	2203.03	0.	30.	S 33.	44. E	35.10 N	12.18 W	37.1	N 19.	8. W	35.1
2206.00	2204.03	0.	30.	S 33.	46. E	35.09 N	12.17 W	37.1	N 19.	8. W	35.1
2207.00	2205.03	0.	30.	S 33.	49. E	35.08 N	12.17 W	37.1	N 19.	8. W	35.1
2208.00	2206.03	0.	30.	S 33.	51. E	35.07 N	12.16 W	37.1	N 19.	8. W	35.1
2209.00	2207.03	0.	30.	S 33.	53. E	35.07 N	12.16 W	37.1	N 19.	7. W	35.1
2210.00	2208.03	0.	30.	S 33.	56. E	35.06 N	12.15 W	37.1	N 19.	7. W	35.1
2211.00	2209.03	0.	30.	S 33.	58. E	35.05 N	12.15 W	37.1	N 19.	7. W	35.1
2212.00	2210.02	0.	30.	S 33.	48. E	35.04 N	12.14 W	37.1	N 19.	7. W	35.0
2213.00	2211.02	0.	29.	S 29.	40. E	35.04 N	12.14 W	37.1	N 19.	7. W	35.0
2214.00	2212.02	0.	29.	S 25.	33. E	35.03 N	12.13 W	37.1	N 19.	6. W	35.0
2215.00	2213.02	0.	28.	S 21.	26. E	35.02 N	12.13 W	37.1	N 19.	6. W	35.0
2216.00	2214.02	0.	28.	S 17.	18. E	35.01 N	12.13 W	37.1	N 19.	6. W	35.0
2217.00	2215.02	0.	27.	S 13.	11. E	35.01 N	12.13 W	37.0	N 19.	6. W	35.0
2218.00	2216.02	0.	27.	S 9.	4. E	35.00 N	12.13 W	37.0	N 19.	7. W	35.0
2219.00	2217.02	0.	26.	S 4.	56. E	34.99 N	12.12 W	37.0	N 19.	7. W	35.0
2220.00	2218.02	0.	25.	S 0.	49. E	34.98 N	12.12 W	37.0	N 19.	7. W	35.0
2221.00	2219.02	0.	25.	S 3.	18. W	34.98 N	12.12 W	37.0	N 19.	7. W	35.0
2222.00	2220.02	0.	24.	S 7.	25. W	34.97 N	12.13 W	37.0	N 19.	7. W	35.0
2223.00	2221.02	0.	24.	S 11.	33. W	34.96 N	12.13 W	37.0	N 19.	8. W	35.0
2224.00	2222.02	0.	23.	S 15.	40. W	34.96 N	12.13 W	37.0	N 19.	8. W	35.0
2225.00	2223.02	0.	22.	S 19.	47. W	34.95 N	12.13 W	37.0	N 19.	9. W	35.0
2226.00	2224.02	0.	22.	S 23.	55. W	34.94 N	12.13 W	37.0	N 19.	9. W	34.9
2227.00	2225.02	0.	21.	S 28.	2. W	34.94 N	12.14 W	37.0	N 19.	9. W	34.9
2228.00	2226.02	0.	21.	S 32.	9. W	34.93 N	12.14 W	37.0	N 19.	10. W	34.9
2229.00	2227.02	0.	20.	S 36.	17. W	34.93 N	12.15 W	37.0	N 19.	10. W	34.9
2230.00	2228.02	0.	20.	S 40.	24. W	34.92 N	12.15 W	37.0	N 19.	11. W	34.9
2231.00	2229.02	0.	19.	S 44.	31. W	34.92 N	12.15 W	37.0	N 19.	11. W	34.9
2232.00	2230.02	0.	18.	S 48.	38. W	34.92 N	12.16 W	37.0	N 19.	12. W	34.9
2233.00	2231.02	0.	18.	S 52.	46. W	34.91 N	12.16 W	37.0	N 19.	13. W	34.9

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2234.00	2232.02	0.	17.	S	56.	53. W	34.91 N	12.17 W	37.0	N 19.	13. W	34.9
2235.00	2233.02	0.	17.	S	61.	0. W	34.91 N	12.18 W	37.0	N 19.	14. W	34.9
2236.00	2234.02	0.	16.	S	65.	8. W	34.91 N	12.18 W	37.0	N 19.	14. W	34.9
2237.00	2235.02	0.	16.	S	69.	15. W	34.91 N	12.19 W	37.0	N 19.	15. W	34.9
2238.00	2236.02	0.	15.	S	72.	58. W	34.91 N	12.19 W	37.0	N 19.	15. W	34.9
2239.00	2237.02	0.	17.	S	72.	35. W	34.91 N	12.20 W	37.0	N 19.	16. W	34.9
2240.00	2238.02	0.	19.	S	72.	12. W	34.90 N	12.20 W	37.0	N 19.	16. W	34.9
2241.00	2239.02	0.	20.	S	71.	49. W	34.90 N	12.21 W	37.0	N 19.	17. W	34.9
2242.00	2240.02	0.	22.	S	71.	26. W	34.90 N	12.21 W	37.0	N 19.	17. W	34.9
2243.00	2241.02	0.	24.	S	71.	3. W	34.90 N	12.22 W	37.0	N 19.	18. W	34.9
2244.00	2242.02	0.	26.	S	70.	40. W	34.90 N	12.23 W	37.0	N 19.	19. W	34.9
2245.00	2243.02	0.	27.	S	70.	17. W	34.89 N	12.23 W	37.0	N 19.	19. W	34.9
2246.00	2244.02	0.	29.	S	69.	54. W	34.89 N	12.24 W	37.0	N 19.	20. W	34.9
2247.00	2245.02	0.	31.	S	69.	31. W	34.89 N	12.25 W	37.0	N 19.	21. W	34.9
2248.00	2246.02	0.	32.	S	69.	8. W	34.88 N	12.26 W	37.0	N 19.	22. W	34.9
2249.00	2247.02	0.	34.	S	68.	45. W	34.88 N	12.27 W	37.0	N 19.	23. W	34.9
2250.00	2248.02	0.	36.	S	68.	22. W	34.88 N	12.28 W	37.0	N 19.	23. W	34.9
2251.00	2249.02	0.	38.	S	67.	59. W	34.87 N	12.29 W	37.0	N 19.	24. W	34.9
2252.00	2250.02	0.	39.	S	67.	36. W	34.87 N	12.30 W	37.0	N 19.	26. W	34.9
2253.00	2251.02	0.	41.	S	67.	13. W	34.87 N	12.31 W	37.0	N 19.	27. W	34.9
2254.00	2252.02	0.	43.	S	66.	50. W	34.86 N	12.32 W	37.0	N 19.	28. W	34.9
2255.00	2253.02	0.	44.	S	66.	27. W	34.86 N	12.33 W	37.0	N 19.	29. W	34.9
2256.00	2254.02	0.	46.	S	66.	4. W	34.85 N	12.34 W	37.0	N 19.	30. W	34.9
2257.00	2255.02	0.	48.	S	65.	41. W	34.85 N	12.36 W	37.0	N 19.	31. W	34.8
2258.00	2256.02	0.	50.	S	65.	18. W	34.84 N	12.37 W	37.0	N 19.	33. W	34.8
2259.00	2257.02	0.	51.	S	64.	55. W	34.83 N	12.38 W	37.0	N 19.	34. W	34.8
2260.00	2258.02	0.	53.	S	64.	32. W	34.83 N	12.40 W	37.0	N 19.	36. W	34.8
2261.00	2259.02	0.	55.	S	64.	9. W	34.82 N	12.41 W	37.0	N 19.	37. W	34.8
2262.00	2260.02	0.	57.	S	63.	46. W	34.81 N	12.42 W	37.0	N 19.	38. W	34.8
2263.00	2261.02	0.	58.	S	63.	23. W	34.81 N	12.44 W	37.0	N 19.	40. W	34.8
2264.00	2262.02	1.	0.	S	63.	0. W	34.80 N	12.46 W	37.0	N 19.	42. W	34.8
2265.00	2263.02	1.	0.	S	63.	19. W	34.79 N	12.47 W	37.0	N 19.	43. W	34.8
2266.00	2264.02	1.	0.	S	63.	37. W	34.79 N	12.49 W	37.0	N 19.	45. W	34.8
2267.00	2265.02	1.	0.	S	63.	56. W	34.78 N	12.50 W	37.0	N 19.	46. W	34.8
2268.00	2266.02	1.	0.	S	64.	14. W	34.77 N	12.52 W	37.0	N 19.	48. W	34.8
2269.00	2267.02	1.	0.	S	64.	32. W	34.76 N	12.53 W	37.0	N 19.	50. W	34.8
2270.00	2268.02	1.	0.	S	64.	51. W	34.75 N	12.55 W	37.0	N 19.	51. W	34.8
2271.00	2269.02	1.	0.	S	65.	9. W	34.75 N	12.57 W	36.9	N 19.	53. W	34.7
2272.00	2270.02	1.	0.	S	65.	28. W	34.74 N	12.58 W	36.9	N 19.	55. W	34.7
2273.00	2271.02	1.	0.	S	65.	46. W	34.73 N	12.60 W	36.9	N 19.	56. W	34.7
2274.00	2272.02	1.	0.	S	66.	5. W	34.73 N	12.61 W	36.9	N 19.	58. W	34.7
2275.00	2273.02	1.	0.	S	66.	23. W	34.72 N	12.63 W	36.9	N 19.	59. W	34.7
2276.00	2274.02	1.	0.	S	66.	42. W	34.71 N	12.65 W	36.9	N 20.	1. W	34.7
2277.00	2275.02	1.	0.	S	67.	0. W	34.70 N	12.66 W	36.9	N 20.	3. W	34.7
2278.00	2276.02	1.	0.	S	67.	18. W	34.70 N	12.68 W	36.9	N 20.	4. W	34.7
2279.00	2277.02	1.	0.	S	67.	37. W	34.69 N	12.69 W	36.9	N 20.	6. W	34.7

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	MIN	DIRECTION	DEG	MIN	RECTANGULAR COORDINATES NORTH/SOUTH	EAST/WEST	POLAR COORDINATES DISTANCE	DEG	MIN	VERTICAL SECTION
2280.00	2278.02	1.	0.	S	67.	55. W	34.68 N	12.71 W	36.9	N 20.	7. W	34.7
2281.00	2279.02	1.	0.	S	68.	14. W	34.68 N	12.73 W	36.9	N 20.	9. W	34.7
2282.00	2280.02	1.	0.	S	68.	32. W	34.67 N	12.74 W	36.9	N 20.	11. W	34.7
2283.00	2281.02	1.	0.	S	68.	51. W	34.67 N	12.76 W	36.9	N 20.	12. W	34.7
2284.00	2282.02	1.	0.	S	69.	9. W	34.66 N	12.77 W	36.9	N 20.	14. W	34.7
2285.00	2283.02	1.	0.	S	69.	28. W	34.65 N	12.79 W	36.9	N 20.	16. W	34.7
2286.00	2284.02	1.	0.	S	69.	46. W	34.65 N	12.81 W	36.9	N 20.	17. W	34.6
2287.00	2285.02	1.	0.	S	70.	4. W	34.64 N	12.82 W	36.9	N 20.	19. W	34.6
2288.00	2286.02	1.	0.	S	70.	23. W	34.64 N	12.84 W	36.9	N 20.	20. W	34.6
2289.00	2287.02	1.	0.	S	70.	41. W	34.63 N	12.86 W	36.9	N 20.	22. W	34.6
2290.00	2288.02	1.	0.	S	70.	60. W	34.62 N	12.87 W	36.9	N 20.	24. W	34.6
2291.00	2289.02	1.	0.	S	70.	53. W	34.62 N	12.89 W	36.9	N 20.	25. W	34.6
2292.00	2290.02	1.	0.	S	70.	46. W	34.61 N	12.91 W	36.9	N 20.	27. W	34.6
2293.00	2291.02	1.	0.	S	70.	39. W	34.61 N	12.92 W	36.9	N 20.	29. W	34.6
2294.00	2292.02	1.	0.	S	70.	32. W	34.60 N	12.94 W	36.9	N 20.	30. W	34.6
2295.00	2293.02	1.	0.	S	70.	25. W	34.59 N	12.96 W	36.9	N 20.	32. W	34.6
2296.00	2294.02	1.	0.	S	70.	19. W	34.59 N	12.97 W	36.9	N 20.	33. W	34.6
2297.00	2295.02	1.	0.	S	70.	12. W	34.58 N	12.99 W	36.9	N 20.	35. W	34.6
2298.00	2296.02	1.	0.	S	70.	5. W	34.58 N	13.00 W	36.9	N 20.	37. W	34.6
2299.00	2297.02	1.	0.	S	69.	58. W	34.57 N	13.02 W	36.9	N 20.	38. W	34.6
2300.00	2298.02	1.	0.	S	69.	51. W	34.57 N	13.04 W	36.9	N 20.	40. W	34.6
2301.00	2299.02	1.	0.	S	69.	44. W	34.56 N	13.05 W	36.9	N 20.	42. W	34.6
2302.00	2300.02	1.	0.	S	69.	37. W	34.55 N	13.07 W	36.9	N 20.	43. W	34.6
2303.00	2301.02	1.	0.	S	69.	30. W	34.55 N	13.09 W	36.9	N 20.	45. W	34.5
2304.00	2302.02	1.	0.	S	69.	23. W	34.54 N	13.10 W	36.9	N 20.	46. W	34.5
2305.00	2303.02	1.	0.	S	69.	16. W	34.53 N	13.12 W	36.9	N 20.	48. W	34.5
2306.00	2304.02	1.	0.	S	69.	9. W	34.53 N	13.14 W	36.9	N 20.	50. W	34.5
2307.00	2305.02	1.	0.	S	69.	2. W	34.52 N	13.15 W	36.9	N 20.	51. W	34.5
2308.00	2306.02	1.	0.	S	68.	56. W	34.52 N	13.17 W	36.9	N 20.	53. W	34.5
2309.00	2307.02	1.	0.	S	68.	49. W	34.51 N	13.18 W	36.9	N 20.	55. W	34.5
2310.00	2308.01	1.	0.	S	68.	42. W	34.50 N	13.20 W	36.9	N 20.	56. W	34.5
2311.00	2309.01	1.	0.	S	68.	35. W	34.50 N	13.22 W	36.9	N 20.	58. W	34.5
2312.00	2310.01	1.	0.	S	68.	28. W	34.49 N	13.23 W	36.9	N 20.	59. W	34.5
2313.00	2311.01	1.	0.	S	68.	21. W	34.48 N	13.25 W	36.9	N 21.	1. W	34.5
2314.00	2312.01	1.	0.	S	68.	14. W	34.48 N	13.27 W	36.9	N 21.	3. W	34.5
2315.00	2313.01	1.	0.	S	68.	7. W	34.47 N	13.28 W	36.9	N 21.	4. W	34.5
2316.00	2314.01	1.	0.	S	68.	0. W	34.46 N	13.30 W	36.9	N 21.	6. W	34.5
2317.00	2315.01	1.	1.	S	67.	31. W	34.46 N	13.31 W	36.9	N 21.	8. W	34.5
2318.00	2316.01	1.	1.	S	67.	1. W	34.45 N	13.33 W	36.9	N 21.	9. W	34.5
2319.00	2317.01	1.	2.	S	66.	31. W	34.44 N	13.35 W	36.9	N 21.	11. W	34.4
2320.00	2318.01	1.	2.	S	66.	1. W	34.44 N	13.36 W	36.9	N 21.	13. W	34.4
2321.00	2319.01	1.	3.	S	65.	31. W	34.43 N	13.38 W	36.9	N 21.	14. W	34.4
2322.00	2320.01	1.	3.	S	65.	1. W	34.42 N	13.40 W	36.9	N 21.	16. W	34.4
2323.00	2321.01	1.	4.	S	64.	31. W	34.41 N	13.41 W	36.9	N 21.	18. W	34.4
2324.00	2322.01	1.	5.	S	64.	1. W	34.41 N	13.43 W	36.9	N 21.	19. W	34.4
2325.00	2323.01	1.	5.	S	63.	31. W	34.40 N	13.45 W	36.9	N 21.	21. W	34.4

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2326.00	2324.01	1.	6.	S 63.	1. W	34.39 N	13.46 W	36.9	N 21.	23. W	34.4
2327.00	2325.01	1.	6.	S 62.	31. W	34.38 N	13.48 W	36.9	N 21.	25. W	34.4
2328.00	2326.01	1.	7.	S 62.	1. W	34.37 N	13.50 W	36.9	N 21.	26. W	34.4
2329.00	2327.01	1.	7.	S 61.	31. W	34.36 N	13.52 W	36.9	N 21.	28. W	34.4
2330.00	2328.01	1.	8.	S 61.	1. W	34.35 N	13.53 W	36.9	N 21.	30. W	34.4
2331.00	2329.01	1.	9.	S 60.	31. W	34.34 N	13.55 W	36.9	N 21.	32. W	34.3
2332.00	2330.01	1.	9.	S 60.	1. W	34.33 N	13.57 W	36.9	N 21.	34. W	34.3
2333.00	2331.01	1.	10.	S 59.	31. W	34.32 N	13.59 W	36.9	N 21.	36. W	34.3
2334.00	2332.01	1.	10.	S 59.	1. W	34.31 N	13.60 W	36.9	N 21.	38. W	34.3
2335.00	2333.01	1.	11.	S 58.	31. W	34.30 N	13.62 W	36.9	N 21.	39. W	34.3
2336.00	2334.01	1.	12.	S 58.	1. W	34.29 N	13.64 W	36.9	N 21.	41. W	34.3
2337.00	2335.01	1.	12.	S 57.	31. W	34.28 N	13.66 W	36.9	N 21.	43. W	34.3
2338.00	2336.01	1.	13.	S 57.	1. W	34.27 N	13.67 W	36.9	N 21.	45. W	34.3
2339.00	2337.01	1.	13.	S 56.	31. W	34.26 N	13.69 W	36.9	N 21.	47. W	34.3
2340.00	2338.01	1.	14.	S 56.	1. W	34.25 N	13.71 W	36.9	N 21.	49. W	34.2
2341.00	2339.01	1.	14.	S 55.	31. W	34.23 N	13.73 W	36.9	N 21.	51. W	34.2
2342.00	2340.01	1.	15.	S 55.	1. W	34.22 N	13.75 W	36.9	N 21.	53. W	34.2
2343.00	2341.01	1.	15.	S 54.	34. W	34.21 N	13.76 W	36.9	N 21.	55. W	34.2
2344.00	2342.01	1.	15.	S 54.	6. W	34.20 N	13.78 W	36.9	N 21.	57. W	34.2
2345.00	2343.01	1.	15.	S 53.	38. W	34.18 N	13.80 W	36.9	N 21.	59. W	34.2
2346.00	2344.01	1.	15.	S 53.	11. W	34.17 N	13.82 W	36.9	N 22.	1. W	34.2
2347.00	2345.01	1.	15.	S 52.	43. W	34.16 N	13.83 W	36.9	N 22.	3. W	34.2
2348.00	2346.01	1.	15.	S 52.	15. W	34.14 N	13.85 W	36.8	N 22.	5. W	34.1
2349.00	2347.01	1.	15.	S 51.	48. W	34.13 N	13.87 W	36.8	N 22.	7. W	34.1
2350.00	2348.01	1.	15.	S 51.	20. W	34.12 N	13.89 W	36.8	N 22.	9. W	34.1
2351.00	2349.01	1.	15.	S 50.	52. W	34.10 N	13.90 W	36.8	N 22.	11. W	34.1
2352.00	2350.01	1.	15.	S 50.	25. W	34.09 N	13.92 W	36.8	N 22.	13. W	34.1
2353.00	2351.01	1.	15.	S 49.	57. W	34.08 N	13.94 W	36.8	N 22.	15. W	34.1
2354.00	2352.01	1.	15.	S 49.	29. W	34.06 N	13.95 W	36.8	N 22.	17. W	34.1
2355.00	2353.01	1.	15.	S 49.	2. W	34.05 N	13.97 W	36.8	N 22.	18. W	34.0
2356.00	2354.01	1.	15.	S 48.	34. W	34.03 N	13.99 W	36.8	N 22.	20. W	34.0
2357.00	2355.01	1.	15.	S 48.	6. W	34.02 N	14.00 W	36.8	N 22.	22. W	34.0
2358.00	2356.00	1.	15.	S 47.	39. W	34.00 N	14.02 W	36.8	N 22.	24. W	34.0
2359.00	2357.00	1.	15.	S 47.	11. W	33.99 N	14.03 W	36.8	N 22.	26. W	34.0
2360.00	2358.00	1.	15.	S 46.	43. W	33.97 N	14.05 W	36.8	N 22.	28. W	34.0
2361.00	2359.00	1.	15.	S 46.	16. W	33.96 N	14.07 W	36.8	N 22.	30. W	34.0
2362.00	2360.00	1.	15.	S 45.	48. W	33.94 N	14.08 W	36.7	N 22.	32. W	33.9
2363.00	2361.00	1.	15.	S 45.	20. W	33.93 N	14.10 W	36.7	N 22.	34. W	33.9
2364.00	2362.00	1.	15.	S 44.	53. W	33.91 N	14.11 W	36.7	N 22.	36. W	33.9
2365.00	2363.00	1.	15.	S 44.	25. W	33.90 N	14.13 W	36.7	N 22.	38. W	33.9
2366.00	2364.00	1.	15.	S 43.	57. W	33.88 N	14.14 W	36.7	N 22.	39. W	33.9
2367.00	2365.00	1.	15.	S 43.	30. W	33.87 N	14.16 W	36.7	N 22.	41. W	33.9
2368.00	2366.00	1.	15.	S 43.	2. W	33.85 N	14.17 W	36.7	N 22.	43. W	33.9
2369.00	2367.00	1.	16.	S 43.	47. W	33.83 N	14.19 W	36.7	N 22.	45. W	33.8
2370.00	2368.00	1.	16.	S 44.	38. W	33.82 N	14.20 W	36.7	N 22.	47. W	33.8
2371.00	2369.00	1.	17.	S 45.	29. W	33.80 N	14.22 W	36.7	N 22.	49. W	33.8

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2372.00	2370.00	1.	17.	S 46.	19. W	33.79 N	14.24 W	36.7	N 22.	51. W	33.8
2373.00	2371.00	1.	18.	S 47.	10. W	33.77 N	14.25 W	36.7	N 22.	53. W	33.8
2374.00	2372.00	1.	18.	S 48.	1. W	33.76 N	14.27 W	36.6	N 22.	55. W	33.8
2375.00	2373.00	1.	19.	S 48.	52. W	33.74 N	14.29 W	36.6	N 22.	57. W	33.7
2376.00	2374.00	1.	20.	S 49.	42. W	33.73 N	14.30 W	36.6	N 22.	59. W	33.7
2377.00	2375.00	1.	20.	S 50.	33. W	33.71 N	14.32 W	36.6	N 23.	1. W	33.7
2378.00	2376.00	1.	21.	S 51.	24. W	33.70 N	14.34 W	36.6	N 23.	3. W	33.7
2379.00	2377.00	1.	21.	S 52.	14. W	33.68 N	14.36 W	36.6	N 23.	5. W	33.7
2380.00	2378.00	1.	22.	S 53.	5. W	33.67 N	14.38 W	36.6	N 23.	7. W	33.7
2381.00	2379.00	1.	22.	S 53.	56. W	33.65 N	14.40 W	36.6	N 23.	10. W	33.7
2382.00	2380.00	1.	23.	S 54.	47. W	33.64 N	14.41 W	36.6	N 23.	12. W	33.6
2383.00	2381.00	1.	24.	S 55.	37. W	33.63 N	14.43 W	36.6	N 23.	14. W	33.6
2384.00	2382.00	1.	24.	S 56.	28. W	33.61 N	14.45 W	36.6	N 23.	16. W	33.6
2385.00	2383.00	1.	25.	S 57.	19. W	33.60 N	14.48 W	36.6	N 23.	19. W	33.6
2386.00	2384.00	1.	25.	S 58.	10. W	33.58 N	14.50 W	36.6	N 23.	21. W	33.6
2387.00	2385.00	1.	26.	S 59.	0. W	33.57 N	14.52 W	36.6	N 23.	23. W	33.6
2388.00	2386.00	1.	26.	S 59.	51. W	33.56 N	14.54 W	36.6	N 23.	25. W	33.6
2389.00	2387.00	1.	27.	S 60.	42. W	33.55 N	14.56 W	36.6	N 23.	28. W	33.5
2390.00	2388.00	1.	28.	S 61.	33. W	33.53 N	14.58 W	36.6	N 23.	30. W	33.5
2391.00	2389.00	1.	28.	S 62.	23. W	33.52 N	14.60 W	36.6	N 23.	33. W	33.5
2392.00	2390.00	1.	29.	S 63.	14. W	33.51 N	14.63 W	36.6	N 23.	35. W	33.5
2393.00	2391.00	1.	29.	S 64.	5. W	33.50 N	14.65 W	36.6	N 23.	37. W	33.5
2394.00	2391.99	1.	30.	S 64.	55. W	33.49 N	14.67 W	36.6	N 23.	40. W	33.5
2395.00	2392.99	1.	30.	S 65.	27. W	33.47 N	14.70 W	36.6	N 23.	42. W	33.5
2396.00	2393.99	1.	30.	S 65.	57. W	33.46 N	14.72 W	36.6	N 23.	45. W	33.5
2397.00	2394.99	1.	30.	S 66.	27. W	33.45 N	14.75 W	36.6	N 23.	47. W	33.5
2398.00	2395.99	1.	30.	S 66.	57. W	33.44 N	14.77 W	36.6	N 23.	50. W	33.4
2399.00	2396.99	1.	30.	S 67.	27. W	33.43 N	14.79 W	36.6	N 23.	52. W	33.4
2400.00	2397.99	1.	30.	S 67.	57. W	33.42 N	14.82 W	36.6	N 23.	55. W	33.4
2401.00	2398.99	1.	30.	S 68.	27. W	33.41 N	14.84 W	36.6	N 23.	57. W	33.4
2402.00	2399.99	1.	30.	S 68.	57. W	33.40 N	14.87 W	36.6	N 23.	60. W	33.4
2403.00	2400.99	1.	30.	S 69.	27. W	33.39 N	14.89 W	36.6	N 24.	2. W	33.4
2404.00	2401.99	1.	30.	S 69.	57. W	33.39 N	14.92 W	36.6	N 24.	4. W	33.4
2405.00	2402.99	1.	30.	S 70.	27. W	33.38 N	14.94 W	36.6	N 24.	7. W	33.4
2406.00	2403.99	1.	30.	S 70.	57. W	33.37 N	14.97 W	36.6	N 24.	9. W	33.4
2407.00	2404.99	1.	30.	S 71.	27. W	33.36 N	14.99 W	36.6	N 24.	12. W	33.4
2408.00	2405.99	1.	30.	S 71.	57. W	33.35 N	15.01 W	36.6	N 24.	14. W	33.4
2409.00	2406.99	1.	30.	S 72.	27. W	33.34 N	15.04 W	36.6	N 24.	17. W	33.3
2410.00	2407.99	1.	30.	S 72.	57. W	33.34 N	15.06 W	36.6	N 24.	19. W	33.3
2411.00	2408.99	1.	30.	S 73.	27. W	33.33 N	15.09 W	36.6	N 24.	22. W	33.3
2412.00	2409.99	1.	30.	S 73.	57. W	33.32 N	15.11 W	36.6	N 24.	24. W	33.3
2413.00	2410.99	1.	30.	S 74.	27. W	33.31 N	15.14 W	36.6	N 24.	26. W	33.3
2414.00	2411.99	1.	30.	S 74.	57. W	33.31 N	15.17 W	36.6	N 24.	29. W	33.3
2415.00	2412.99	1.	30.	S 75.	27. W	33.30 N	15.19 W	36.6	N 24.	31. W	33.3
2416.00	2413.99	1.	30.	S 75.	57. W	33.29 N	15.22 W	36.6	N 24.	34. W	33.3
2417.00	2414.99	1.	30.	S 76.	27. W	33.29 N	15.24 W	36.6	N 24.	36. W	33.3

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2418.00	2415.99	1.	30.	S 76.	57. W	33.28 N	15.27 W	36.6	N 24.	39. W	33.3
2419.00	2416.99	1.	30.	S 77.	27. W	33.28 N	15.29 W	36.6	N 24.	41. W	33.3
2420.00	2417.99	1.	30.	S 77.	57. W	33.27 N	15.32 W	36.6	N 24.	43. W	33.3
2421.00	2418.99	1.	30.	S 77.	52. W	33.26 N	15.34 W	36.6	N 24.	46. W	33.3
2422.00	2419.99	1.	30.	S 77.	43. W	33.26 N	15.37 W	36.6	N 24.	48. W	33.3
2423.00	2420.98	1.	30.	S 77.	33. W	33.25 N	15.39 W	36.6	N 24.	51. W	33.3
2424.00	2421.98	1.	30.	S 77.	24. W	33.25 N	15.42 W	36.6	N 24.	53. W	33.2
2425.00	2422.98	1.	30.	S 77.	15. W	33.24 N	15.45 W	36.7	N 24.	55. W	33.2
2426.00	2423.98	1.	30.	S 77.	6. W	33.24 N	15.47 W	36.7	N 24.	58. W	33.2
2427.00	2424.98	1.	30.	S 76.	56. W	33.23 N	15.50 W	36.7	N 25.	0. W	33.2
2428.00	2425.98	1.	30.	S 76.	47. W	33.22 N	15.52 W	36.7	N 25.	3. W	33.2
2429.00	2426.98	1.	30.	S 76.	38. W	33.22 N	15.55 W	36.7	N 25.	5. W	33.2
2430.00	2427.98	1.	30.	S 76.	29. W	33.21 N	15.57 W	36.7	N 25.	7. W	33.2
2431.00	2428.98	1.	30.	S 76.	20. W	33.21 N	15.60 W	36.7	N 25.	10. W	33.2
2432.00	2429.98	1.	30.	S 76.	10. W	33.20 N	15.62 W	36.7	N 25.	12. W	33.2
2433.00	2430.98	1.	30.	S 76.	1. W	33.19 N	15.65 W	36.7	N 25.	15. W	33.2
2434.00	2431.98	1.	30.	S 75.	52. W	33.19 N	15.67 W	36.7	N 25.	17. W	33.2
2435.00	2432.98	1.	30.	S 75.	43. W	33.18 N	15.70 W	36.7	N 25.	19. W	33.2
2436.00	2433.98	1.	30.	S 75.	33. W	33.17 N	15.73 W	36.7	N 25.	22. W	33.2
2437.00	2434.98	1.	30.	S 75.	24. W	33.17 N	15.75 W	36.7	N 25.	24. W	33.2
2438.00	2435.98	1.	30.	S 75.	15. W	33.16 N	15.78 W	36.7	N 25.	27. W	33.2
2439.00	2436.98	1.	30.	S 75.	6. W	33.15 N	15.80 W	36.7	N 25.	29. W	33.2
2440.00	2437.98	1.	30.	S 74.	57. W	33.15 N	15.83 W	36.7	N 25.	31. W	33.1
2441.00	2438.98	1.	30.	S 74.	47. W	33.14 N	15.85 W	36.7	N 25.	34. W	33.1
2442.00	2439.98	1.	30.	S 74.	38. W	33.13 N	15.88 W	36.7	N 25.	36. W	33.1
2443.00	2440.98	1.	30.	S 74.	29. W	33.13 N	15.90 W	36.7	N 25.	39. W	33.1
2444.00	2441.98	1.	30.	S 74.	20. W	33.12 N	15.93 W	36.8	N 25.	41. W	33.1
2445.00	2442.98	1.	30.	S 74.	10. W	33.11 N	15.95 W	36.8	N 25.	43. W	33.1
2446.00	2443.98	1.	30.	S 74.	1. W	33.11 N	15.98 W	36.8	N 25.	46. W	33.1
2447.00	2444.98	1.	31.	S 74.	34. W	33.10 N	16.00 W	36.8	N 25.	48. W	33.1
2448.00	2445.98	1.	31.	S 75.	13. W	33.09 N	16.03 W	36.8	N 25.	51. W	33.1
2449.00	2446.98	1.	32.	S 75.	53. W	33.08 N	16.05 W	36.8	N 25.	53. W	33.1
2450.00	2447.98	1.	32.	S 76.	32. W	33.08 N	16.08 W	36.8	N 25.	56. W	33.1
2451.00	2448.97	1.	33.	S 77.	11. W	33.07 N	16.11 W	36.8	N 25.	58. W	33.1
2452.00	2449.97	1.	33.	S 77.	50. W	33.07 N	16.13 W	36.8	N 26.	0. W	33.1
2453.00	2450.97	1.	34.	S 78.	29. W	33.06 N	16.16 W	36.8	N 26.	3. W	33.1
2454.00	2451.97	1.	35.	S 79.	9. W	33.06 N	16.19 W	36.8	N 26.	5. W	33.1
2455.00	2452.97	1.	35.	S 79.	48. W	33.05 N	16.21 W	36.8	N 26.	8. W	33.1
2456.00	2453.97	1.	36.	S 80.	27. W	33.05 N	16.24 W	36.8	N 26.	10. W	33.0
2457.00	2454.97	1.	36.	S 81.	6. W	33.04 N	16.27 W	36.8	N 26.	13. W	33.0
2458.00	2455.97	1.	37.	S 81.	45. W	33.04 N	16.30 W	36.8	N 26.	15. W	33.0
2459.00	2456.97	1.	37.	S 82.	25. W	33.03 N	16.32 W	36.8	N 26.	18. W	33.0
2460.00	2457.97	1.	38.	S 83.	4. W	33.03 N	16.35 W	36.9	N 26.	20. W	33.0
2461.00	2458.97	1.	39.	S 83.	43. W	33.03 N	16.38 W	36.9	N 26.	23. W	33.0
2462.00	2459.97	1.	39.	S 84.	22. W	33.02 N	16.41 W	36.9	N 26.	25. W	33.0
2463.00	2460.97	1.	40.	S 85.	1. W	33.02 N	16.44 W	36.9	N 26.	28. W	33.0

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2464.00	2461.97	1.	40.	S	85.	41. W	33.02 N	16.47 W	36.9	N 26.	30. W	33.0
2465.00	2462.97	1.	41.	S	86.	20. W	33.01 N	16.50 W	36.9	N 26.	33. W	33.0
2466.00	2463.97	1.	41.	S	86.	59. W	33.01 N	16.53 W	36.9	N 26.	36. W	33.0
2467.00	2464.97	1.	42.	S	87.	38. W	33.01 N	16.56 W	36.9	N 26.	38. W	33.0
2468.00	2465.97	1.	43.	S	88.	17. W	33.01 N	16.58 W	36.9	N 26.	41. W	33.0
2469.00	2466.97	1.	43.	S	88.	57. W	33.01 N	16.61 W	37.0	N 26.	43. W	33.0
2470.00	2467.97	1.	44.	S	89.	36. W	33.01 N	16.64 W	37.0	N 26.	46. W	33.0
2471.00	2468.97	1.	44.	N	89.	45. W	33.01 N	16.68 W	37.0	N 26.	48. W	33.0
2472.00	2469.97	1.	45.	N	89.	6. W	33.01 N	16.71 W	37.0	N 26.	51. W	33.0
2473.00	2470.97	1.	45.	N	89.	20. W	33.01 N	16.74 W	37.0	N 26.	53. W	33.0
2474.00	2471.97	1.	46.	N	89.	43. W	33.01 N	16.77 W	37.0	N 26.	56. W	33.0
2475.00	2472.96	1.	47.	S	89.	54. W	33.01 N	16.80 W	37.0	N 26.	58. W	33.0
2476.00	2473.96	1.	47.	S	89.	31. W	33.01 N	16.83 W	37.1	N 27.	1. W	33.0
2477.00	2474.96	1.	48.	S	89.	8. W	33.01 N	16.86 W	37.1	N 27.	3. W	33.0
2478.00	2475.96	1.	48.	S	88.	45. W	33.01 N	16.89 W	37.1	N 27.	6. W	33.0
2479.00	2476.96	1.	49.	S	88.	22. W	33.01 N	16.92 W	37.1	N 27.	9. W	33.0
2480.00	2477.96	1.	50.	S	87.	59. W	33.01 N	16.95 W	37.1	N 27.	11. W	33.0
2481.00	2478.96	1.	50.	S	87.	36. W	33.00 N	16.99 W	37.1	N 27.	14. W	33.0
2482.00	2479.96	1.	51.	S	87.	13. W	33.00 N	17.02 W	37.1	N 27.	17. W	33.0
2483.00	2480.96	1.	51.	S	86.	50. W	33.00 N	17.05 W	37.1	N 27.	19. W	33.0
2484.00	2481.96	1.	52.	S	86.	27. W	33.00 N	17.08 W	37.2	N 27.	22. W	33.0
2485.00	2482.96	1.	52.	S	86.	4. W	33.00 N	17.12 W	37.2	N 27.	25. W	33.0
2486.00	2483.96	1.	53.	S	85.	41. W	33.00 N	17.15 W	37.2	N 27.	28. W	33.0
2487.00	2484.96	1.	54.	S	85.	18. W	32.99 N	17.18 W	37.2	N 27.	31. W	33.0
2488.00	2485.96	1.	54.	S	84.	55. W	32.99 N	17.21 W	37.2	N 27.	33. W	33.0
2489.00	2486.96	1.	55.	S	84.	31. W	32.99 N	17.25 W	37.2	N 27.	36. W	33.0
2490.00	2487.96	1.	55.	S	84.	8. W	32.98 N	17.28 W	37.2	N 27.	39. W	33.0
2491.00	2488.96	1.	56.	S	83.	45. W	32.98 N	17.31 W	37.2	N 27.	42. W	33.0
2492.00	2489.96	1.	56.	S	83.	22. W	32.98 N	17.35 W	37.3	N 27.	45. W	33.0
2493.00	2490.96	1.	57.	S	82.	59. W	32.97 N	17.38 W	37.3	N 27.	48. W	33.0
2494.00	2491.95	1.	58.	S	82.	36. W	32.97 N	17.42 W	37.3	N 27.	51. W	33.0
2495.00	2492.95	1.	58.	S	82.	13. W	32.96 N	17.45 W	37.3	N 27.	54. W	33.0
2496.00	2493.95	1.	59.	S	81.	50. W	32.96 N	17.48 W	37.3	N 27.	57. W	33.0
2497.00	2494.95	1.	59.	S	81.	27. W	32.95 N	17.52 W	37.3	N 27.	60. W	33.0
2498.00	2495.95	1.	60.	S	81.	4. W	32.95 N	17.55 W	37.3	N 28.	3. W	32.9
2499.00	2496.95	2.	0.	S	80.	58. W	32.94 N	17.59 W	37.3	N 28.	6. W	32.9
2500.00	2497.95	2.	1.	S	80.	56. W	32.94 N	17.62 W	37.4	N 28.	9. W	32.9
2501.00	2498.95	2.	2.	S	80.	53. W	32.93 N	17.66 W	37.4	N 28.	12. W	32.9
2502.00	2499.95	2.	2.	S	80.	51. W	32.93 N	17.69 W	37.4	N 28.	15. W	32.9
2503.00	2500.95	2.	3.	S	80.	49. W	32.92 N	17.73 W	37.4	N 28.	18. W	32.9
2504.00	2501.95	2.	3.	S	80.	47. W	32.92 N	17.76 W	37.4	N 28.	21. W	32.9
2505.00	2502.95	2.	4.	S	80.	44. W	32.91 N	17.80 W	37.4	N 28.	24. W	32.9
2506.00	2503.95	2.	5.	S	80.	42. W	32.90 N	17.83 W	37.4	N 28.	27. W	32.9
2507.00	2504.95	2.	5.	S	80.	40. W	32.90 N	17.87 W	37.4	N 28.	31. W	32.9
2508.00	2505.95	2.	6.	S	80.	37. W	32.89 N	17.91 W	37.5	N 28.	34. W	32.9
2509.00	2506.95	2.	6.	S	80.	35. W	32.89 N	17.94 W	37.5	N 28.	37. W	32.9

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2510.00	2507.94	2.	7.	S 80.	33. W	32.88 N	17.98 W	37.5	N 28.	40. W	32.9
2511.00	2508.94	2.	7.	S 80.	30. W	32.87 N	18.01 W	37.5	N 28.	43. W	32.9
2512.00	2509.94	2.	8.	S 80.	28. W	32.87 N	18.05 W	37.5	N 28.	46. W	32.9
2513.00	2510.94	2.	9.	S 80.	26. W	32.86 N	18.09 W	37.5	N 28.	50. W	32.9
2514.00	2511.94	2.	9.	S 80.	23. W	32.86 N	18.12 W	37.5	N 28.	53. W	32.9
2515.00	2512.94	2.	10.	S 80.	21. W	32.85 N	18.16 W	37.5	N 28.	56. W	32.8
2516.00	2513.94	2.	10.	S 80.	19. W	32.84 N	18.20 W	37.5	N 28.	59. W	32.8
2517.00	2514.94	2.	11.	S 80.	17. W	32.84 N	18.24 W	37.6	N 29.	3. W	32.8
2518.00	2515.94	2.	11.	S 80.	14. W	32.83 N	18.27 W	37.6	N 29.	6. W	32.8
2519.00	2516.94	2.	12.	S 80.	12. W	32.82 N	18.31 W	37.6	N 29.	9. W	32.8
2520.00	2517.94	2.	13.	S 80.	10. W	32.82 N	18.35 W	37.6	N 29.	13. W	32.8
2521.00	2518.94	2.	13.	S 80.	7. W	32.81 N	18.39 W	37.6	N 29.	16. W	32.8
2522.00	2519.94	2.	14.	S 80.	5. W	32.80 N	18.43 W	37.6	N 29.	19. W	32.8
2523.00	2520.94	2.	14.	S 80.	3. W	32.80 N	18.46 W	37.6	N 29.	23. W	32.8
2524.00	2521.93	2.	15.	S 80.	0. W	32.79 N	18.50 W	37.7	N 29.	26. W	32.8
2525.00	2522.93	2.	15.	S 79.	51. W	32.78 N	18.54 W	37.7	N 29.	29. W	32.8
2526.00	2523.93	2.	16.	S 79.	39. W	32.78 N	18.58 W	37.7	N 29.	33. W	32.8
2527.00	2524.93	2.	17.	S 79.	28. W	32.77 N	18.62 W	37.7	N 29.	36. W	32.8
2528.00	2525.93	2.	17.	S 79.	16. W	32.76 N	18.66 W	37.7	N 29.	40. W	32.8
2529.00	2526.93	2.	18.	S 79.	5. W	32.76 N	18.70 W	37.7	N 29.	43. W	32.8
2530.00	2527.93	2.	18.	S 78.	53. W	32.75 N	18.74 W	37.7	N 29.	47. W	32.7
2531.00	2528.93	2.	19.	S 78.	41. W	32.74 N	18.78 W	37.7	N 29.	50. W	32.7
2532.00	2529.93	2.	20.	S 78.	30. W	32.73 N	18.82 W	37.8	N 29.	54. W	32.7
2533.00	2530.93	2.	20.	S 78.	18. W	32.72 N	18.86 W	37.8	N 29.	57. W	32.7
2534.00	2531.93	2.	21.	S 78.	7. W	32.72 N	18.90 W	37.8	N 30.	1. W	32.7
2535.00	2532.93	2.	21.	S 77.	55. W	32.71 N	18.94 W	37.8	N 30.	4. W	32.7
2536.00	2533.92	2.	22.	S 77.	44. W	32.70 N	18.98 W	37.8	N 30.	8. W	32.7
2537.00	2534.92	2.	22.	S 77.	32. W	32.69 N	19.02 W	37.8	N 30.	11. W	32.7
2538.00	2535.92	2.	23.	S 77.	21. W	32.68 N	19.06 W	37.8	N 30.	15. W	32.7
2539.00	2536.92	2.	24.	S 77.	9. W	32.67 N	19.10 W	37.8	N 30.	19. W	32.7
2540.00	2537.92	2.	24.	S 76.	58. W	32.66 N	19.14 W	37.9	N 30.	22. W	32.7
2541.00	2538.92	2.	25.	S 76.	46. W	32.65 N	19.18 W	37.9	N 30.	26. W	32.7
2542.00	2539.92	2.	25.	S 76.	35. W	32.64 N	19.22 W	37.9	N 30.	29. W	32.6
2543.00	2540.92	2.	26.	S 76.	23. W	32.63 N	19.26 W	37.9	N 30.	33. W	32.6
2544.00	2541.92	2.	26.	S 76.	12. W	32.62 N	19.30 W	37.9	N 30.	37. W	32.6
2545.00	2542.92	2.	27.	S 76.	0. W	32.61 N	19.34 W	37.9	N 30.	41. W	32.6
2546.00	2543.92	2.	28.	S 75.	49. W	32.60 N	19.39 W	37.9	N 30.	44. W	32.6
2547.00	2544.91	2.	28.	S 75.	37. W	32.59 N	19.43 W	37.9	N 30.	48. W	32.6
2548.00	2545.91	2.	29.	S 75.	25. W	32.58 N	19.47 W	38.0	N 30.	52. W	32.6
2549.00	2546.91	2.	29.	S 75.	14. W	32.57 N	19.51 W	38.0	N 30.	55. W	32.6
2550.00	2547.91	2.	30.	S 75.	2. W	32.56 N	19.55 W	38.0	N 30.	59. W	32.6
2551.00	2548.91	2.	30.	S 75.	18. W	32.55 N	19.60 W	38.0	N 31.	3. W	32.5
2552.00	2549.91	2.	29.	S 75.	41. W	32.54 N	19.64 W	38.0	N 31.	7. W	32.5
2553.00	2550.91	2.	28.	S 76.	4. W	32.53 N	19.68 W	38.0	N 31.	11. W	32.5
2554.00	2551.91	2.	28.	S 76.	27. W	32.52 N	19.72 W	38.0	N 31.	14. W	32.5
2555.00	2552.91	2.	27.	S 76.	50. W	32.51 N	19.76 W	38.0	N 31.	18. W	32.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2556.00	2553.91	2.	27.	S	77.	14. W	32.50 N	19.80 W	38.1	N 31.	22. W	32.5
2557.00	2554.91	2.	26.	S	77.	37. W	32.49 N	19.85 W	38.1	N 31.	25. W	32.5
2558.00	2555.90	2.	26.	S	77.	60. W	32.48 N	19.89 W	38.1	N 31.	29. W	32.5
2559.00	2556.90	2.	25.	S	78.	23. W	32.47 N	19.93 W	38.1	N 31.	32. W	32.5
2560.00	2557.90	2.	24.	S	78.	46. W	32.46 N	19.97 W	38.1	N 31.	36. W	32.5
2561.00	2558.90	2.	24.	S	79.	9. W	32.45 N	20.01 W	38.1	N 31.	40. W	32.5
2562.00	2559.90	2.	23.	S	79.	32. W	32.45 N	20.05 W	38.1	N 31.	43. W	32.4
2563.00	2560.90	2.	23.	S	79.	55. W	32.44 N	20.09 W	38.2	N 31.	47. W	32.4
2564.00	2561.90	2.	22.	S	80.	18. W	32.43 N	20.13 W	38.2	N 31.	50. W	32.4
2565.00	2562.90	2.	21.	S	80.	41. W	32.42 N	20.18 W	38.2	N 31.	53. W	32.4
2566.00	2563.90	2.	21.	S	81.	4. W	32.42 N	20.22 W	38.2	N 31.	57. W	32.4
2567.00	2564.90	2.	20.	S	81.	27. W	32.41 N	20.26 W	38.2	N 32.	0. W	32.4
2568.00	2565.90	2.	20.	S	81.	50. W	32.41 N	20.30 W	38.2	N 32.	4. W	32.4
2569.00	2566.89	2.	19.	S	82.	13. W	32.40 N	20.34 W	38.3	N 32.	7. W	32.4
2570.00	2567.89	2.	19.	S	82.	36. W	32.40 N	20.38 W	38.3	N 32.	10. W	32.4
2571.00	2568.89	2.	18.	S	82.	59. W	32.39 N	20.42 W	38.3	N 32.	13. W	32.4
2572.00	2569.89	2.	17.	S	83.	22. W	32.39 N	20.46 W	38.3	N 32.	17. W	32.4
2573.00	2570.89	2.	17.	S	83.	46. W	32.38 N	20.50 W	38.3	N 32.	20. W	32.4
2574.00	2571.89	2.	16.	S	84.	9. W	32.38 N	20.54 W	38.3	N 32.	23. W	32.4
2575.00	2572.89	2.	16.	S	84.	32. W	32.37 N	20.57 W	38.4	N 32.	26. W	32.4
2576.00	2573.89	2.	15.	S	84.	55. W	32.37 N	20.61 W	38.4	N 32.	29. W	32.4
2577.00	2574.89	2.	15.	S	85.	4. W	32.37 N	20.65 W	38.4	N 32.	33. W	32.4
2578.00	2575.89	2.	15.	S	85.	8. W	32.36 N	20.69 W	38.4	N 32.	36. W	32.4
2579.00	2576.89	2.	15.	S	85.	13. W	32.36 N	20.73 W	38.4	N 32.	39. W	32.4
2580.00	2577.89	2.	15.	S	85.	17. W	32.36 N	20.77 W	38.4	N 32.	42. W	32.4
2581.00	2578.89	2.	15.	S	85.	22. W	32.35 N	20.81 W	38.5	N 32.	45. W	32.4
2582.00	2579.88	2.	15.	S	85.	27. W	32.35 N	20.85 W	38.5	N 32.	48. W	32.4
2583.00	2580.88	2.	15.	S	85.	31. W	32.35 N	20.89 W	38.5	N 32.	51. W	32.3
2584.00	2581.88	2.	15.	S	85.	36. W	32.34 N	20.93 W	38.5	N 32.	54. W	32.3
2585.00	2582.88	2.	15.	S	85.	40. W	32.34 N	20.97 W	38.5	N 32.	57. W	32.3
2586.00	2583.88	2.	15.	S	85.	45. W	32.34 N	21.01 W	38.6	N 33.	0. W	32.3
2587.00	2584.88	2.	15.	S	85.	50. W	32.34 N	21.04 W	38.6	N 33.	3. W	32.3
2588.00	2585.88	2.	15.	S	85.	54. W	32.33 N	21.08 W	38.6	N 33.	6. W	32.3
2589.00	2586.88	2.	15.	S	85.	59. W	32.33 N	21.12 W	38.6	N 33.	10. W	32.3
2590.00	2587.88	2.	15.	S	86.	4. W	32.33 N	21.16 W	38.6	N 33.	13. W	32.3
2591.00	2588.88	2.	15.	S	86.	8. W	32.32 N	21.20 W	38.7	N 33.	16. W	32.3
2592.00	2589.88	2.	15.	S	86.	13. W	32.32 N	21.24 W	38.7	N 33.	19. W	32.3
2593.00	2590.88	2.	15.	S	86.	17. W	32.32 N	21.28 W	38.7	N 33.	22. W	32.3
2594.00	2591.88	2.	15.	S	86.	22. W	32.32 N	21.32 W	38.7	N 33.	25. W	32.3
2595.00	2592.87	2.	15.	S	86.	27. W	32.31 N	21.36 W	38.7	N 33.	29. W	32.3
2596.00	2593.87	2.	15.	S	86.	31. W	32.31 N	21.40 W	38.8	N 33.	31. W	32.3
2597.00	2594.87	2.	15.	S	86.	36. W	32.31 N	21.44 W	38.8	N 33.	34. W	32.3
2598.00	2595.87	2.	15.	S	86.	40. W	32.31 N	21.48 W	38.8	N 33.	37. W	32.3
2599.00	2596.87	2.	15.	S	86.	45. W	32.30 N	21.51 W	38.8	N 33.	40. W	32.3
2600.00	2597.87	2.	15.	S	86.	50. W	32.30 N	21.55 W	38.8	N 33.	43. W	32.3
2601.00	2598.87	2.	15.	S	86.	54. W	32.30 N	21.59 W	38.9	N 33.	46. W	32.3

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2602.00	2599.87	2.	15.	S 86.	59. W	32.30 N	21.63 W	38.9	N 33.	49. W	32.3
2603.00	2600.87	2.	15.	S 87.	3. W	32.30 N	21.67 W	38.9	N 33.	52. W	32.3
2604.00	2601.87	2.	14.	S 87.	8. W	32.29 N	21.71 W	38.9	N 33.	55. W	32.3
2605.00	2602.87	2.	13.	S 87.	13. W	32.29 N	21.75 W	38.9	N 33.	58. W	32.3
2606.00	2603.87	2.	13.	S 87.	17. W	32.29 N	21.79 W	39.0	N 34.	1. W	32.3
2607.00	2604.87	2.	12.	S 87.	22. W	32.29 N	21.83 W	39.0	N 34.	3. W	32.3
2608.00	2605.86	2.	12.	S 87.	27. W	32.29 N	21.86 W	39.0	N 34.	6. W	32.3
2609.00	2606.86	2.	11.	S 87.	31. W	32.29 N	21.90 W	39.0	N 34.	9. W	32.3
2610.00	2607.86	2.	11.	S 87.	36. W	32.28 N	21.94 W	39.0	N 34.	12. W	32.3
2611.00	2608.86	2.	10.	S 87.	40. W	32.28 N	21.98 W	39.1	N 34.	15. W	32.3
2612.00	2609.86	2.	9.	S 87.	45. W	32.28 N	22.02 W	39.1	N 34.	18. W	32.3
2613.00	2610.86	2.	9.	S 87.	50. W	32.28 N	22.05 W	39.1	N 34.	21. W	32.3
2614.00	2611.86	2.	8.	S 87.	54. W	32.28 N	22.09 W	39.1	N 34.	23. W	32.3
2615.00	2612.86	2.	8.	S 87.	59. W	32.28 N	22.13 W	39.1	N 34.	26. W	32.3
2616.00	2613.86	2.	7.	S 88.	3. W	32.28 N	22.17 W	39.2	N 34.	29. W	32.3
2617.00	2614.86	2.	6.	S 88.	8. W	32.27 N	22.20 W	39.2	N 34.	32. W	32.3
2618.00	2615.86	2.	6.	S 88.	13. W	32.27 N	22.24 W	39.2	N 34.	34. W	32.3
2619.00	2616.86	2.	5.	S 88.	17. W	32.27 N	22.28 W	39.2	N 34.	37. W	32.3
2620.00	2617.86	2.	5.	S 88.	22. W	32.27 N	22.31 W	39.2	N 34.	40. W	32.3
2621.00	2618.86	2.	4.	S 88.	26. W	32.27 N	22.35 W	39.3	N 34.	42. W	32.3
2622.00	2619.85	2.	4.	S 88.	31. W	32.27 N	22.38 W	39.3	N 34.	45. W	32.3
2623.00	2620.85	2.	3.	S 88.	36. W	32.27 N	22.42 W	39.3	N 34.	48. W	32.3
2624.00	2621.85	2.	2.	S 88.	40. W	32.27 N	22.46 W	39.3	N 34.	50. W	32.3
2625.00	2622.85	2.	2.	S 88.	45. W	32.27 N	22.49 W	39.3	N 34.	53. W	32.3
2626.00	2623.85	2.	1.	S 88.	50. W	32.27 N	22.53 W	39.4	N 34.	55. W	32.3
2627.00	2624.85	2.	1.	S 88.	54. W	32.27 N	22.56 W	39.4	N 34.	58. W	32.3
2628.00	2625.85	2.	0.	S 88.	59. W	32.26 N	22.60 W	39.4	N 35.	0. W	32.3
2629.00	2626.85	2.	0.	S 88.	58. W	32.26 N	22.63 W	39.4	N 35.	3. W	32.3
2630.00	2627.85	2.	0.	S 88.	56. W	32.26 N	22.67 W	39.4	N 35.	5. W	32.3
2631.00	2628.85	2.	0.	S 88.	54. W	32.26 N	22.70 W	39.4	N 35.	8. W	32.3
2632.00	2629.85	2.	0.	S 88.	51. W	32.26 N	22.74 W	39.5	N 35.	10. W	32.3
2633.00	2630.85	2.	0.	S 88.	49. W	32.26 N	22.77 W	39.5	N 35.	13. W	32.3
2634.00	2631.85	2.	0.	S 88.	47. W	32.26 N	22.81 W	39.5	N 35.	15. W	32.3
2635.00	2632.85	2.	0.	S 88.	44. W	32.26 N	22.84 W	39.5	N 35.	18. W	32.3
2636.00	2633.85	2.	0.	S 88.	42. W	32.26 N	22.88 W	39.5	N 35.	21. W	32.3
2637.00	2634.85	2.	0.	S 88.	40. W	32.26 N	22.91 W	39.6	N 35.	23. W	32.3
2638.00	2635.84	2.	0.	S 88.	38. W	32.26 N	22.95 W	39.6	N 35.	26. W	32.3
2639.00	2636.84	2.	0.	S 88.	35. W	32.26 N	22.98 W	39.6	N 35.	28. W	32.3
2640.00	2637.84	2.	0.	S 88.	33. W	32.26 N	23.02 W	39.6	N 35.	31. W	32.3
2641.00	2638.84	2.	0.	S 88.	31. W	32.25 N	23.05 W	39.6	N 35.	33. W	32.3
2642.00	2639.84	2.	0.	S 88.	28. W	32.25 N	23.09 W	39.7	N 35.	36. W	32.3
2643.00	2640.84	2.	0.	S 88.	26. W	32.25 N	23.12 W	39.7	N 35.	38. W	32.3
2644.00	2641.84	2.	0.	S 88.	24. W	32.25 N	23.15 W	39.7	N 35.	41. W	32.3
2645.00	2642.84	2.	0.	S 88.	21. W	32.25 N	23.19 W	39.7	N 35.	43. W	32.3
2646.00	2643.84	2.	0.	S 88.	19. W	32.25 N	23.22 W	39.7	N 35.	46. W	32.2
2647.00	2644.84	2.	0.	S 88.	17. W	32.25 N	23.26 W	39.8	N 35.	48. W	32.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	POLAR COORDINATES	VERTICAL SECTION
2648.00	2645.84	2.	0.	S	88.	15. W	32.25 N	23.29 W	39.8	N	35. 51.	W	32.2
2649.00	2646.84	2.	0.	S	88.	12. W	32.25 N	23.33 W	39.8	N	35. 53.	W	32.2
2650.00	2647.84	2.	0.	S	88.	10. W	32.25 N	23.36 W	39.8	N	35. 56.	W	32.2
2651.00	2648.84	2.	0.	S	88.	8. W	32.24 N	23.40 W	39.8	N	35. 58.	W	32.2
2652.00	2649.84	2.	0.	S	88.	5. W	32.24 N	23.43 W	39.9	N	36. 1.	W	32.2
2653.00	2650.84	2.	0.	S	88.	3. W	32.24 N	23.47 W	39.9	N	36. 3.	W	32.2
2654.00	2651.83	2.	0.	S	88.	1. W	32.24 N	23.50 W	39.9	N	36. 6.	W	32.2
2655.00	2652.83	2.	0.	S	87.	44. W	32.24 N	23.54 W	39.9	N	36. 8.	W	32.2
2656.00	2653.83	2.	1.	S	87.	21. W	32.24 N	23.57 W	39.9	N	36. 11.	W	32.2
2657.00	2654.83	2.	2.	S	86.	57. W	32.24 N	23.61 W	40.0	N	36. 13.	W	32.2
2658.00	2655.83	2.	2.	S	86.	34. W	32.23 N	23.64 W	40.0	N	36. 16.	W	32.2
2659.00	2656.83	2.	3.	S	86.	11. W	32.23 N	23.68 W	40.0	N	36. 18.	W	32.2
2660.00	2657.83	2.	3.	S	85.	48. W	32.23 N	23.72 W	40.0	N	36. 21.	W	32.2
2661.00	2658.83	2.	4.	S	85.	25. W	32.23 N	23.75 W	40.0	N	36. 23.	W	32.2
2662.00	2659.83	2.	4.	S	85.	2. W	32.22 N	23.79 W	40.1	N	36. 26.	W	32.2
2663.00	2660.83	2.	5.	S	84.	39. W	32.22 N	23.82 W	40.1	N	36. 29.	W	32.2
2664.00	2661.83	2.	6.	S	84.	16. W	32.22 N	23.86 W	40.1	N	36. 31.	W	32.2
2665.00	2662.83	2.	6.	S	83.	53. W	32.21 N	23.90 W	40.1	N	36. 34.	W	32.2
2666.00	2663.83	2.	7.	S	83.	30. W	32.21 N	23.93 W	40.1	N	36. 37.	W	32.2
2667.00	2664.83	2.	7.	S	83.	7. W	32.21 N	23.97 W	40.1	N	36. 40.	W	32.2
2668.00	2665.83	2.	8.	S	82.	44. W	32.20 N	24.01 W	40.2	N	36. 42.	W	32.2
2669.00	2666.83	2.	8.	S	82.	21. W	32.20 N	24.04 W	40.2	N	36. 45.	W	32.2
2670.00	2667.82	2.	9.	S	81.	58. W	32.19 N	24.08 W	40.2	N	36. 48.	W	32.2
2671.00	2668.82	2.	10.	S	81.	35. W	32.19 N	24.12 W	40.2	N	36. 51.	W	32.2
2672.00	2669.82	2.	10.	S	81.	12. W	32.18 N	24.15 W	40.2	N	36. 54.	W	32.2
2673.00	2670.82	2.	11.	S	80.	49. W	32.17 N	24.19 W	40.3	N	36. 56.	W	32.2
2674.00	2671.82	2.	11.	S	80.	25. W	32.17 N	24.23 W	40.3	N	36. 59.	W	32.2
2675.00	2672.82	2.	12.	S	80.	2. W	32.16 N	24.27 W	40.3	N	37. 2.	W	32.2
2676.00	2673.82	2.	13.	S	79.	39. W	32.15 N	24.31 W	40.3	N	37. 5.	W	32.2
2677.00	2674.82	2.	13.	S	79.	16. W	32.15 N	24.34 W	40.3	N	37. 8.	W	32.1
2678.00	2675.82	2.	14.	S	78.	53. W	32.14 N	24.38 W	40.3	N	37. 11.	W	32.1
2679.00	2676.82	2.	14.	S	78.	30. W	32.13 N	24.42 W	40.4	N	37. 14.	W	32.1
2680.00	2677.82	2.	15.	S	78.	7. W	32.13 N	24.46 W	40.4	N	37. 17.	W	32.1
2681.00	2678.82	2.	15.	S	77.	36. W	32.12 N	24.50 W	40.4	N	37. 20.	W	32.1
2682.00	2679.82	2.	15.	S	77.	2. W	32.11 N	24.53 W	40.4	N	37. 23.	W	32.1
2683.00	2680.81	2.	15.	S	76.	27. W	32.10 N	24.57 W	40.4	N	37. 26.	W	32.1
2684.00	2681.81	2.	15.	S	75.	52. W	32.09 N	24.61 W	40.4	N	37. 29.	W	32.1
2685.00	2682.81	2.	15.	S	75.	18. W	32.08 N	24.65 W	40.5	N	37. 32.	W	32.1
2686.00	2683.81	2.	15.	S	74.	43. W	32.07 N	24.69 W	40.5	N	37. 35.	W	32.1
2687.00	2684.81	2.	15.	S	74.	9. W	32.06 N	24.72 W	40.5	N	37. 38.	W	32.1
2688.00	2685.81	2.	15.	S	73.	34. W	32.05 N	24.76 W	40.5	N	37. 42.	W	32.0
2689.00	2686.81	2.	15.	S	72.	59. W	32.04 N	24.80 W	40.5	N	37. 45.	W	32.0
2690.00	2687.81	2.	15.	S	72.	25. W	32.03 N	24.84 W	40.5	N	37. 48.	W	32.0
2691.00	2688.81	2.	15.	S	71.	50. W	32.01 N	24.88 W	40.5	N	37. 51.	W	32.0
2692.00	2689.81	2.	15.	S	71.	16. W	32.00 N	24.91 W	40.6	N	37. 54.	W	32.0
2693.00	2690.81	2.	15.	S	70.	41. W	31.99 N	24.95 W	40.6	N	37. 57.	W	32.0

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2694.00	2691.81	2.	15.	S	70.	6. W	31.98 N	24.99 W	40.6	N 38.	0. W	32.0
2695.00	2692.81	2.	15.	S	69.	32. W	31.96 N	25.02 W	40.6	N 38.	3. W	32.0
2696.00	2693.80	2.	15.	S	68.	57. W	31.95 N	25.06 W	40.6	N 38.	7. W	31.9
2697.00	2694.80	2.	15.	S	68.	23. W	31.93 N	25.10 W	40.6	N 38.	10. W	31.9
2698.00	2695.80	2.	15.	S	67.	48. W	31.92 N	25.13 W	40.6	N 38.	13. W	31.9
2699.00	2696.80	2.	15.	S	67.	14. W	31.90 N	25.17 W	40.6	N 38.	16. W	31.9
2700.00	2697.80	2.	15.	S	66.	39. W	31.89 N	25.21 W	40.6	N 38.	19. W	31.9
2701.00	2698.80	2.	15.	S	66.	4. W	31.87 N	25.24 W	40.7	N 38.	23. W	31.9
2702.00	2699.80	2.	15.	S	65.	30. W	31.86 N	25.28 W	40.7	N 38.	26. W	31.9
2703.00	2700.80	2.	15.	S	64.	55. W	31.84 N	25.31 W	40.7	N 38.	29. W	31.8
2704.00	2701.80	2.	15.	S	64.	21. W	31.82 N	25.35 W	40.7	N 38.	32. W	31.8
2705.00	2702.80	2.	15.	S	63.	46. W	31.81 N	25.38 W	40.7	N 38.	36. W	31.8
2706.00	2703.80	2.	15.	S	63.	11. W	31.79 N	25.42 W	40.7	N 38.	39. W	31.8
2707.00	2704.80	2.	15.	S	63.	0. W	31.77 N	25.45 W	40.7	N 38.	42. W	31.8
2708.00	2705.80	2.	15.	S	63.	0. W	31.75 N	25.49 W	40.7	N 38.	45. W	31.8
2709.00	2706.79	2.	15.	S	63.	0. W	31.74 N	25.52 W	40.7	N 38.	49. W	31.7
2710.00	2707.79	2.	15.	S	63.	0. W	31.72 N	25.56 W	40.7	N 38.	52. W	31.7
2711.00	2708.79	2.	15.	S	63.	0. W	31.70 N	25.59 W	40.7	N 38.	55. W	31.7
2712.00	2709.79	2.	15.	S	63.	0. W	31.68 N	25.63 W	40.8	N 38.	58. W	31.7
2713.00	2710.79	2.	15.	S	63.	0. W	31.66 N	25.66 W	40.8	N 39.	1. W	31.7
2714.00	2711.79	2.	15.	S	63.	0. W	31.65 N	25.70 W	40.8	N 39.	5. W	31.6
2715.00	2712.79	2.	15.	S	63.	0. W	31.63 N	25.73 W	40.8	N 39.	8. W	31.6
2716.00	2713.79	2.	15.	S	63.	0. W	31.61 N	25.77 W	40.8	N 39.	11. W	31.6
2717.00	2714.79	2.	15.	S	63.	0. W	31.59 N	25.80 W	40.8	N 39.	14. W	31.6
2718.00	2715.79	2.	15.	S	63.	0. W	31.57 N	25.84 W	40.8	N 39.	18. W	31.6
2719.00	2716.79	2.	15.	S	63.	0. W	31.56 N	25.87 W	40.8	N 39.	21. W	31.6
2720.00	2717.79	2.	15.	S	63.	0. W	31.54 N	25.91 W	40.8	N 39.	24. W	31.5
2721.00	2718.79	2.	15.	S	63.	0. W	31.52 N	25.94 W	40.8	N 39.	27. W	31.5
2722.00	2719.78	2.	15.	S	63.	0. W	31.50 N	25.98 W	40.8	N 39.	31. W	31.5
2723.00	2720.78	2.	15.	S	63.	0. W	31.49 N	26.01 W	40.8	N 39.	34. W	31.5
2724.00	2721.78	2.	15.	S	63.	0. W	31.47 N	26.05 W	40.9	N 39.	37. W	31.5
2725.00	2722.78	2.	15.	S	63.	0. W	31.45 N	26.08 W	40.9	N 39.	40. W	31.5
2726.00	2723.78	2.	15.	S	63.	0. W	31.43 N	26.12 W	40.9	N 39.	43. W	31.4
2727.00	2724.78	2.	15.	S	63.	0. W	31.41 N	26.15 W	40.9	N 39.	47. W	31.4
2728.00	2725.78	2.	15.	S	63.	0. W	31.40 N	26.19 W	40.9	N 39.	50. W	31.4
2729.00	2726.78	2.	15.	S	63.	0. W	31.38 N	26.22 W	40.9	N 39.	53. W	31.4
2730.00	2727.78	2.	15.	S	63.	0. W	31.36 N	26.26 W	40.9	N 39.	56. W	31.4
2731.00	2728.78	2.	15.	S	63.	0. W	31.34 N	26.29 W	40.9	N 39.	60. W	31.3
2732.00	2729.78	2.	15.	S	63.	0. W	31.33 N	26.33 W	40.9	N 40.	3. W	31.3
2733.00	2730.78	2.	16.	S	63.	18. W	31.31 N	26.36 W	40.9	N 40.	6. W	31.3
2734.00	2731.77	2.	17.	S	63.	46. W	31.29 N	26.40 W	40.9	N 40.	9. W	31.3
2735.00	2732.77	2.	18.	S	64.	13. W	31.27 N	26.43 W	40.9	N 40.	12. W	31.3
2736.00	2733.77	2.	19.	S	64.	41. W	31.26 N	26.47 W	41.0	N 40.	16. W	31.3
2737.00	2734.77	2.	20.	S	65.	9. W	31.24 N	26.51 W	41.0	N 40.	19. W	31.2
2738.00	2735.77	2.	22.	S	65.	36. W	31.22 N	26.55 W	41.0	N 40.	22. W	31.2
2739.00	2736.77	2.	23.	S	66.	4. W	31.20 N	26.58 W	41.0	N 40.	26. W	31.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2740.00	2737.77	2.	24.	S	66.	32. W	31.19 N	26.62 W	41.0	N 40.	29. W	31.2
2741.00	2738.77	2.	25.	S	66.	59. W	31.17 N	26.66 W	41.0	N 40.	32. W	31.2
2742.00	2739.77	2.	26.	S	67.	27. W	31.15 N	26.70 W	41.0	N 40.	36. W	31.2
2743.00	2740.77	2.	27.	S	67.	55. W	31.14 N	26.74 W	41.0	N 40.	39. W	31.1
2744.00	2741.77	2.	28.	S	68.	22. W	31.12 N	26.78 W	41.1	N 40.	43. W	31.1
2745.00	2742.77	2.	30.	S	68.	50. W	31.11 N	26.82 W	41.1	N 40.	46. W	31.1
2746.00	2743.76	2.	31.	S	69.	18. W	31.09 N	26.86 W	41.1	N 40.	49. W	31.1
2747.00	2744.76	2.	32.	S	69.	45. W	31.07 N	26.90 W	41.1	N 40.	53. W	31.1
2748.00	2745.76	2.	33.	S	70.	13. W	31.06 N	26.94 W	41.1	N 40.	56. W	31.1
2749.00	2746.76	2.	34.	S	70.	41. W	31.04 N	26.98 W	41.1	N 40.	60. W	31.0
2750.00	2747.76	2.	35.	S	71.	8. W	31.03 N	27.03 W	41.1	N 41.	3. W	31.0
2751.00	2748.76	2.	37.	S	71.	36. W	31.01 N	27.07 W	41.2	N 41.	7. W	31.0
2752.00	2749.76	2.	38.	S	72.	4. W	31.00 N	27.11 W	41.2	N 41.	10. W	31.0
2753.00	2750.76	2.	39.	S	72.	31. W	30.99 N	27.16 W	41.2	N 41.	14. W	31.0
2754.00	2751.76	2.	40.	S	72.	59. W	30.97 N	27.20 W	41.2	N 41.	17. W	31.0
2755.00	2752.76	2.	41.	S	73.	27. W	30.96 N	27.24 W	41.2	N 41.	21. W	31.0
2756.00	2753.75	2.	42.	S	73.	54. W	30.94 N	27.29 W	41.3	N 41.	25. W	30.9
2757.00	2754.75	2.	43.	S	74.	22. W	30.93 N	27.34 W	41.3	N 41.	28. W	30.9
2758.00	2755.75	2.	45.	S	74.	50. W	30.92 N	27.38 W	41.3	N 41.	32. W	30.9
2759.00	2756.75	2.	45.	S	75.	9. W	30.91 N	27.43 W	41.3	N 41.	35. W	30.9
2760.00	2757.75	2.	45.	S	75.	23. W	30.89 N	27.47 W	41.3	N 41.	39. W	30.9
2761.00	2758.75	2.	45.	S	75.	36. W	30.88 N	27.52 W	41.4	N 41.	42. W	30.9
2762.00	2759.75	2.	45.	S	75.	50. W	30.87 N	27.57 W	41.4	N 41.	46. W	30.9
2763.00	2760.75	2.	45.	S	76.	4. W	30.86 N	27.61 W	41.4	N 41.	49. W	30.9
2764.00	2761.74	2.	45.	S	76.	18. W	30.85 N	27.66 W	41.4	N 41.	53. W	30.8
2765.00	2762.74	2.	45.	S	76.	32. W	30.83 N	27.71 W	41.5	N 41.	56. W	30.8
2766.00	2763.74	2.	45.	S	76.	46. W	30.82 N	27.75 W	41.5	N 41.	60. W	30.8
2767.00	2764.74	2.	45.	S	76.	59. W	30.81 N	27.80 W	41.5	N 42.	3. W	30.8
2768.00	2765.74	2.	45.	S	77.	13. W	30.80 N	27.85 W	41.5	N 42.	7. W	30.8
2769.00	2766.74	2.	45.	S	77.	27. W	30.79 N	27.89 W	41.5	N 42.	10. W	30.8
2770.00	2767.74	2.	45.	S	77.	41. W	30.78 N	27.94 W	41.6	N 42.	14. W	30.8
2771.00	2768.74	2.	45.	S	77.	55. W	30.77 N	27.99 W	41.6	N 42.	17. W	30.8
2772.00	2769.74	2.	45.	S	78.	9. W	30.76 N	28.03 W	41.6	N 42.	21. W	30.8
2773.00	2770.73	2.	45.	S	78.	22. W	30.75 N	28.08 W	41.6	N 42.	24. W	30.8
2774.00	2771.73	2.	45.	S	78.	36. W	30.74 N	28.13 W	41.7	N 42.	27. W	30.7
2775.00	2772.73	2.	45.	S	78.	50. W	30.73 N	28.18 W	41.7	N 42.	31. W	30.7
2776.00	2773.73	2.	45.	S	79.	4. W	30.72 N	28.22 W	41.7	N 42.	34. W	30.7
2777.00	2774.73	2.	45.	S	79.	18. W	30.71 N	28.27 W	41.7	N 42.	38. W	30.7
2778.00	2775.73	2.	45.	S	79.	32. W	30.71 N	28.32 W	41.8	N 42.	41. W	30.7
2779.00	2776.73	2.	45.	S	79.	45. W	30.70 N	28.36 W	41.8	N 42.	44. W	30.7
2780.00	2777.73	2.	45.	S	79.	59. W	30.69 N	28.41 W	41.8	N 42.	48. W	30.7
2781.00	2778.73	2.	45.	S	80.	13. W	30.68 N	28.46 W	41.8	N 42.	51. W	30.7
2782.00	2779.72	2.	45.	S	80.	27. W	30.67 N	28.51 W	41.9	N 42.	54. W	30.7
2783.00	2780.72	2.	45.	S	80.	41. W	30.66 N	28.55 W	41.9	N 42.	57. W	30.7
2784.00	2781.72	2.	45.	S	80.	55. W	30.66 N	28.60 W	41.9	N 43.	1. W	30.7
2785.00	2782.72	2.	45.	S	80.	53. W	30.65 N	28.65 W	42.0	N 43.	4. W	30.6

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2786.00	2783.72	2.	44.	S	80.	41. W	30.64 N	28.69 W	42.0	N	43. 7. W	30.6
2787.00	2784.72	2.	43.	S	80.	30. W	30.63 N	28.74 W	42.0	N	43. 11. W	30.6
2788.00	2785.72	2.	43.	S	80.	18. W	30.63 N	28.79 W	42.0	N	43. 14. W	30.6
2789.00	2786.72	2.	42.	S	80.	7. W	30.62 N	28.83 W	42.1	N	43. 17. W	30.6
2790.00	2787.72	2.	42.	S	79.	55. W	30.61 N	28.88 W	42.1	N	43. 20. W	30.6
2791.00	2788.71	2.	41.	S	79.	44. W	30.60 N	28.93 W	42.1	N	43. 23. W	30.6
2792.00	2789.71	2.	41.	S	79.	32. W	30.59 N	28.97 W	42.1	N	43. 27. W	30.6
2793.00	2790.71	2.	40.	S	79.	21. W	30.58 N	29.02 W	42.2	N	43. 30. W	30.6
2794.00	2791.71	2.	39.	S	79.	9. W	30.58 N	29.06 W	42.2	N	43. 33. W	30.6
2795.00	2792.71	2.	39.	S	78.	56. W	30.57 N	29.11 W	42.2	N	43. 36. W	30.6
2796.00	2793.71	2.	38.	S	78.	46. W	30.56 N	29.16 W	42.2	N	43. 39. W	30.6
2797.00	2794.71	2.	38.	S	78.	35. W	30.55 N	29.20 W	42.3	N	43. 42. W	30.5
2798.00	2795.71	2.	37.	S	78.	23. W	30.54 N	29.25 W	42.3	N	43. 46. W	30.5
2799.00	2796.71	2.	37.	S	78.	12. W	30.53 N	29.29 W	42.3	N	43. 49. W	30.5
2800.00	2797.70	2.	36.	S	78.	0. W	30.52 N	29.33 W	42.3	N	43. 52. W	30.5
2801.00	2798.70	2.	35.	S	77.	48. W	30.51 N	29.38 W	42.4	N	43. 55. W	30.5
2802.00	2799.70	2.	35.	S	77.	37. W	30.50 N	29.42 W	42.4	N	43. 58. W	30.5
2803.00	2800.70	2.	34.	S	77.	25. W	30.49 N	29.47 W	42.4	N	44. 1. W	30.5
2804.00	2801.70	2.	34.	S	77.	14. W	30.48 N	29.51 W	42.4	N	44. 4. W	30.5
2805.00	2802.70	2.	33.	S	77.	2. W	30.47 N	29.55 W	42.4	N	44. 7. W	30.5
2806.00	2803.70	2.	33.	S	76.	51. W	30.46 N	29.60 W	42.5	N	44. 11. W	30.5
2807.00	2804.70	2.	32.	S	76.	39. W	30.45 N	29.64 W	42.5	N	44. 14. W	30.5
2808.00	2805.70	2.	31.	S	76.	28. W	30.44 N	29.68 W	42.5	N	44. 17. W	30.4
2809.00	2806.70	2.	31.	S	76.	16. W	30.43 N	29.73 W	42.5	N	44. 20. W	30.4
2810.00	2807.69	2.	30.	S	76.	5. W	30.42 N	29.77 W	42.6	N	44. 23. W	30.4
2811.00	2808.69	2.	30.	S	76.	1. W	30.41 N	29.81 W	42.6	N	44. 26. W	30.4
2812.00	2809.69	2.	30.	S	76.	4. W	30.40 N	29.85 W	42.6	N	44. 29. W	30.4
2813.00	2810.69	2.	30.	S	76.	6. W	30.39 N	29.90 W	42.6	N	44. 32. W	30.4
2814.00	2811.69	2.	30.	S	76.	8. W	30.38 N	29.94 W	42.7	N	44. 35. W	30.4
2815.00	2812.69	2.	30.	S	76.	11. W	30.37 N	29.98 W	42.7	N	44. 38. W	30.4
2816.00	2813.69	2.	30.	S	76.	13. W	30.36 N	30.02 W	42.7	N	44. 41. W	30.4
2817.00	2814.69	2.	30.	S	76.	15. W	30.35 N	30.06 W	42.7	N	44. 44. W	30.3
2818.00	2815.69	2.	30.	S	76.	17. W	30.34 N	30.11 W	42.7	N	44. 47. W	30.3
2819.00	2816.69	2.	30.	S	76.	20. W	30.33 N	30.15 W	42.8	N	44. 50. W	30.3
2820.00	2817.68	2.	30.	S	76.	22. W	30.32 N	30.19 W	42.8	N	44. 53. W	30.3
2821.00	2818.68	2.	30.	S	76.	24. W	30.31 N	30.23 W	42.8	N	44. 56. W	30.3
2822.00	2819.68	2.	30.	S	76.	27. W	30.30 N	30.28 W	42.8	N	44. 59. W	30.3
2823.00	2820.68	2.	30.	S	76.	29. W	30.29 N	30.32 W	42.9	N	45. 2. W	30.3
2824.00	2821.68	2.	30.	S	76.	31. W	30.28 N	30.36 W	42.9	N	45. 5. W	30.3
2825.00	2822.68	2.	30.	S	76.	34. W	30.27 N	30.40 W	42.9	N	45. 8. W	30.3
2826.00	2823.68	2.	30.	S	76.	36. W	30.26 N	30.45 W	42.9	N	45. 11. W	30.3
2827.00	2824.68	2.	30.	S	76.	38. W	30.25 N	30.49 W	42.9	N	45. 14. W	30.2
2828.00	2825.68	2.	30.	S	76.	41. W	30.23 N	30.53 W	43.0	N	45. 17. W	30.2
2829.00	2826.68	2.	30.	S	76.	43. W	30.22 N	30.57 W	43.0	N	45. 20. W	30.2
2830.00	2827.68	2.	30.	S	76.	45. W	30.21 N	30.62 W	43.0	N	45. 23. W	30.2
2831.00	2828.67	2.	30.	S	76.	47. W	30.20 N	30.66 W	43.0	N	45. 26. W	30.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2832.00	2829.67	2.	30.	S	76.	50. W	30.19 N	30.70 W	43.1	N 45.	29. W	30.2
2833.00	2830.67	2.	30.	S	76.	52. W	30.19 N	30.74 W	43.1	N 45.	32. W	30.2
2834.00	2831.67	2.	30.	S	76.	54. W	30.18 N	30.79 W	43.1	N 45.	34. W	30.2
2835.00	2832.67	2.	30.	S	76.	57. W	30.17 N	30.83 W	43.1	N 45.	37. W	30.2
2836.00	2833.67	2.	30.	S	76.	59. W	30.16 N	30.87 W	43.2	N 45.	40. W	30.2
2837.00	2834.67	2.	30.	S	77.	9. W	30.15 N	30.91 W	43.2	N 45.	43. W	30.1
2838.00	2835.67	2.	29.	S	77.	25. W	30.14 N	30.96 W	43.2	N 45.	46. W	30.1
2839.00	2836.67	2.	29.	S	77.	41. W	30.13 N	31.00 W	43.2	N 45.	49. W	30.1
2840.00	2837.67	2.	28.	S	77.	58. W	30.12 N	31.04 W	43.3	N 45.	52. W	30.1
2841.00	2838.66	2.	27.	S	78.	14. W	30.11 N	31.08 W	43.3	N 45.	55. W	30.1
2842.00	2839.66	2.	27.	S	78.	30. W	30.10 N	31.12 W	43.3	N 45.	58. W	30.1
2843.00	2840.66	2.	26.	S	78.	46. W	30.09 N	31.17 W	43.3	N 46.	0. W	30.1
2844.00	2841.66	2.	26.	S	79.	2. W	30.08 N	31.21 W	43.3	N 46.	3. W	30.1
2845.00	2842.66	2.	25.	S	79.	18. W	30.08 N	31.25 W	43.4	N 46.	6. W	30.1
2846.00	2843.66	2.	24.	S	79.	34. W	30.07 N	31.29 W	43.4	N 46.	8. W	30.1
2847.00	2844.66	2.	24.	S	79.	51. W	30.06 N	31.33 W	43.4	N 46.	11. W	30.1
2848.00	2845.66	2.	23.	S	80.	7. W	30.05 N	31.37 W	43.4	N 46.	14. W	30.1
2849.00	2846.66	2.	23.	S	80.	23. W	30.05 N	31.41 W	43.5	N 46.	17. W	30.0
2850.00	2847.66	2.	22.	S	80.	39. W	30.04 N	31.45 W	43.5	N 46.	19. W	30.0
2851.00	2848.66	2.	22.	S	80.	55. W	30.03 N	31.50 W	43.5	N 46.	22. W	30.0
2852.00	2849.66	2.	21.	S	81.	11. W	30.03 N	31.54 W	43.5	N 46.	24. W	30.0
2853.00	2850.65	2.	20.	S	81.	27. W	30.02 N	31.58 W	43.6	N 46.	27. W	30.0
2854.00	2851.65	2.	20.	S	81.	44. W	30.01 N	31.62 W	43.6	N 46.	29. W	30.0
2855.00	2852.65	2.	19.	S	81.	60. W	30.01 N	31.66 W	43.6	N 46.	32. W	30.0
2856.00	2853.65	2.	19.	S	82.	16. W	30.00 N	31.70 W	43.6	N 46.	34. W	30.0
2857.00	2854.65	2.	18.	S	82.	32. W	30.00 N	31.74 W	43.7	N 46.	37. W	30.0
2858.00	2855.65	2.	18.	S	82.	48. W	29.99 N	31.78 W	43.7	N 46.	39. W	30.0
2859.00	2856.65	2.	17.	S	83.	4. W	29.99 N	31.82 W	43.7	N 46.	42. W	30.0
2860.00	2857.65	2.	16.	S	83.	20. W	29.98 N	31.86 W	43.7	N 46.	44. W	30.0
2861.00	2858.65	2.	16.	S	83.	37. W	29.98 N	31.90 W	43.8	N 46.	46. W	30.0
2862.00	2859.65	2.	15.	S	83.	53. W	29.98 N	31.93 W	43.8	N 46.	49. W	30.0
2863.00	2860.65	2.	15.	S	84.	4. W	29.97 N	31.97 W	43.8	N 46.	51. W	30.0
2864.00	2861.65	2.	15.	S	84.	11. W	29.97 N	32.01 W	43.9	N 46.	53. W	30.0
2865.00	2862.64	2.	15.	S	84.	18. W	29.96 N	32.05 W	43.9	N 46.	56. W	30.0
2866.00	2863.64	2.	15.	S	84.	25. W	29.96 N	32.09 W	43.9	N 46.	58. W	30.0
2867.00	2864.64	2.	15.	S	84.	31. W	29.96 N	32.13 W	43.9	N 47.	0. W	30.0
2868.00	2865.64	2.	15.	S	84.	38. W	29.95 N	32.17 W	44.0	N 47.	3. W	30.0
2869.00	2866.64	2.	15.	S	84.	45. W	29.95 N	32.21 W	44.0	N 47.	5. W	29.9
2870.00	2867.64	2.	15.	S	84.	52. W	29.94 N	32.25 W	44.0	N 47.	7. W	29.9
2871.00	2868.64	2.	15.	S	84.	59. W	29.94 N	32.29 W	44.0	N 47.	10. W	29.9
2872.00	2869.64	2.	15.	S	85.	6. W	29.94 N	32.33 W	44.1	N 47.	12. W	29.9
2873.00	2870.64	2.	15.	S	85.	13. W	29.93 N	32.36 W	44.1	N 47.	14. W	29.9
2874.00	2871.64	2.	15.	S	85.	20. W	29.93 N	32.40 W	44.1	N 47.	16. W	29.9
2875.00	2872.64	2.	15.	S	85.	27. W	29.93 N	32.44 W	44.1	N 47.	19. W	29.9
2876.00	2873.64	2.	15.	S	85.	34. W	29.92 N	32.48 W	44.2	N 47.	21. W	29.9
2877.00	2874.64	2.	15.	S	85.	41. W	29.92 N	32.52 W	44.2	N 47.	23. W	29.9

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2878.00	2875.63	2.	15.	S	85.	48. W	29.92 N	32.56 W	44.2	N 47.	25. W	29.9
2879.00	2876.63	2.	15.	S	85.	54. W	29.92 N	32.60 W	44.2	N 47.	27. W	29.9
2880.00	2877.63	2.	15.	S	86.	1. W	29.91 N	32.64 W	44.3	N 47.	30. W	29.9
2881.00	2878.63	2.	15.	S	86.	8. W	29.91 N	32.68 W	44.3	N 47.	32. W	29.9
2882.00	2879.63	2.	15.	S	86.	15. W	29.91 N	32.72 W	44.3	N 47.	34. W	29.9
2883.00	2880.63	2.	15.	S	86.	22. W	29.91 N	32.76 W	44.4	N 47.	36. W	29.9
2884.00	2881.63	2.	15.	S	86.	29. W	29.90 N	32.80 W	44.4	N 47.	38. W	29.9
2885.00	2882.63	2.	15.	S	86.	36. W	29.90 N	32.83 W	44.4	N 47.	41. W	29.9
2886.00	2883.63	2.	15.	S	86.	43. W	29.90 N	32.87 W	44.4	N 47.	43. W	29.9
2887.00	2884.63	2.	15.	S	86.	50. W	29.90 N	32.91 W	44.5	N 47.	45. W	29.9
2888.00	2885.63	2.	15.	S	86.	57. W	29.89 N	32.95 W	44.5	N 47.	47. W	29.9
2889.00	2886.63	2.	15.	S	86.	58. W	29.89 N	32.99 W	44.5	N 47.	49. W	29.9
2890.00	2887.63	2.	16.	S	86.	53. W	29.89 N	33.03 W	44.5	N 47.	51. W	29.9
2891.00	2888.62	2.	16.	S	86.	48. W	29.89 N	33.07 W	44.6	N 47.	54. W	29.9
2892.00	2889.62	2.	17.	S	86.	44. W	29.89 N	33.11 W	44.6	N 47.	56. W	29.9
2893.00	2890.62	2.	18.	S	86.	39. W	29.88 N	33.15 W	44.6	N 47.	58. W	29.9
2894.00	2891.62	2.	18.	S	86.	34. W	29.88 N	33.19 W	44.7	N 48.	0. W	29.9
2895.00	2892.62	2.	19.	S	86.	30. W	29.88 N	33.23 W	44.7	N 48.	2. W	29.9
2896.00	2893.62	2.	19.	S	86.	25. W	29.88 N	33.27 W	44.7	N 48.	5. W	29.9
2897.00	2894.62	2.	20.	S	86.	21. W	29.87 N	33.31 W	44.7	N 48.	7. W	29.9
2898.00	2895.62	2.	20.	S	86.	16. W	29.87 N	33.35 W	44.8	N 48.	9. W	29.9
2899.00	2896.62	2.	21.	S	86.	11. W	29.87 N	33.39 W	44.8	N 48.	11. W	29.9
2900.00	2897.62	2.	22.	S	86.	7. W	29.87 N	33.43 W	44.8	N 48.	14. W	29.9
2901.00	2898.62	2.	22.	S	86.	2. W	29.86 N	33.47 W	44.9	N 48.	16. W	29.9
2902.00	2899.62	2.	23.	S	85.	58. W	29.86 N	33.52 W	44.9	N 48.	18. W	29.9
2903.00	2900.61	2.	23.	S	85.	53. W	29.86 N	33.56 W	44.9	N 48.	20. W	29.9
2904.00	2901.61	2.	24.	S	85.	48. W	29.85 N	33.60 W	44.9	N 48.	23. W	29.9
2905.00	2902.61	2.	25.	S	85.	44. W	29.85 N	33.64 W	45.0	N 48.	25. W	29.9
2906.00	2903.61	2.	25.	S	85.	39. W	29.85 N	33.68 W	45.0	N 48.	27. W	29.8
2907.00	2904.61	2.	26.	S	85.	35. W	29.84 N	33.73 W	45.0	N 48.	30. W	29.8
2908.00	2905.61	2.	26.	S	85.	30. W	29.84 N	33.77 W	45.1	N 48.	32. W	29.8
2909.00	2906.61	2.	27.	S	85.	25. W	29.84 N	33.81 W	45.1	N 48.	34. W	29.8
2910.00	2907.61	2.	27.	S	85.	21. W	29.83 N	33.85 W	45.1	N 48.	37. W	29.8
2911.00	2908.61	2.	28.	S	85.	16. W	29.83 N	33.90 W	45.2	N 48.	39. W	29.8
2912.00	2909.61	2.	29.	S	85.	11. W	29.83 N	33.94 W	45.2	N 48.	41. W	29.8
2913.00	2910.61	2.	29.	S	85.	7. W	29.82 N	33.98 W	45.2	N 48.	44. W	29.8
2914.00	2911.60	2.	30.	S	85.	2. W	29.82 N	34.02 W	45.2	N 48.	46. W	29.8
2915.00	2912.60	2.	30.	S	85.	1. W	29.82 N	34.07 W	45.3	N 48.	49. W	29.8
2916.00	2913.60	2.	31.	S	85.	3. W	29.81 N	34.11 W	45.3	N 48.	51. W	29.8
2917.00	2914.60	2.	31.	S	85.	6. W	29.81 N	34.16 W	45.3	N 48.	53. W	29.8
2918.00	2915.60	2.	32.	S	85.	8. W	29.80 N	34.20 W	45.4	N 48.	56. W	29.8
2919.00	2916.60	2.	33.	S	85.	10. W	29.80 N	34.24 W	45.4	N 48.	58. W	29.8
2920.00	2917.60	2.	33.	S	85.	13. W	29.80 N	34.29 W	45.4	N 49.	1. W	29.8
2921.00	2918.60	2.	34.	S	85.	15. W	29.79 N	34.33 W	45.5	N 49.	3. W	29.8
2922.00	2919.60	2.	34.	S	85.	17. W	29.79 N	34.38 W	45.5	N 49.	5. W	29.8
2923.00	2920.60	2.	35.	S	85.	20. W	29.79 N	34.42 W	45.5	N 49.	8. W	29.8

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2924.00	2921.59	2.	35.	S	85.	22. W	29.78 N	34.47 W	45.6	N 49.	10. W	29.8
2925.00	2922.59	2.	36.	S	85.	24. W	29.78 N	34.51 W	45.6	N 49.	13. W	29.8
2926.00	2923.59	2.	37.	S	85.	27. W	29.78 N	34.56 W	45.6	N 49.	15. W	29.8
2927.00	2924.59	2.	37.	S	85.	29. W	29.77 N	34.60 W	45.6	N 49.	18. W	29.8
2928.00	2925.59	2.	38.	S	85.	31. W	29.77 N	34.65 W	45.7	N 49.	20. W	29.8
2929.00	2926.59	2.	38.	S	85.	33. W	29.76 N	34.69 W	45.7	N 49.	22. W	29.8
2930.00	2927.59	2.	39.	S	85.	36. W	29.76 N	34.74 W	45.7	N 49.	25. W	29.8
2931.00	2928.59	2.	40.	S	85.	38. W	29.76 N	34.79 W	45.8	N 49.	27. W	29.8
2932.00	2929.59	2.	40.	S	85.	40. W	29.75 N	34.83 W	45.8	N 49.	30. W	29.8
2933.00	2930.58	2.	41.	S	85.	43. W	29.75 N	34.88 W	45.8	N 49.	32. W	29.8
2934.00	2931.58	2.	41.	S	85.	45. W	29.75 N	34.93 W	45.9	N 49.	35. W	29.7
2935.00	2932.58	2.	42.	S	85.	47. W	29.74 N	34.97 W	45.9	N 49.	37. W	29.7
2936.00	2933.58	2.	42.	S	85.	50. W	29.74 N	35.02 W	45.9	N 49.	40. W	29.7
2937.00	2934.58	2.	43.	S	85.	52. W	29.74 N	35.07 W	46.0	N 49.	42. W	29.7
2938.00	2935.58	2.	44.	S	85.	54. W	29.73 N	35.11 W	46.0	N 49.	45. W	29.7
2939.00	2936.58	2.	44.	S	85.	57. W	29.73 N	35.16 W	46.0	N 49.	47. W	29.7
2940.00	2937.58	2.	45.	S	85.	59. W	29.73 N	35.21 W	46.1	N 49.	50. W	29.7
2941.00	2938.58	2.	45.	S	86.	0. W	29.72 N	35.26 W	46.1	N 49.	52. W	29.7
2942.00	2939.57	2.	45.	S	86.	0. W	29.72 N	35.31 W	46.1	N 49.	55. W	29.7
2943.00	2940.57	2.	45.	S	86.	0. W	29.72 N	35.35 W	46.2	N 49.	57. W	29.7
2944.00	2941.57	2.	45.	S	86.	0. W	29.71 N	35.40 W	46.2	N 49.	60. W	29.7
2945.00	2942.57	2.	45.	S	86.	0. W	29.71 N	35.45 W	46.3	N 50.	2. W	29.7
2946.00	2943.57	2.	45.	S	86.	0. W	29.71 N	35.50 W	46.3	N 50.	5. W	29.7
2947.00	2944.57	2.	45.	S	86.	0. W	29.70 N	35.54 W	46.3	N 50.	7. W	29.7
2948.00	2945.57	2.	45.	S	86.	0. W	29.70 N	35.59 W	46.4	N 50.	9. W	29.7
2949.00	2946.57	2.	45.	S	86.	0. W	29.70 N	35.64 W	46.4	N 50.	12. W	29.7
2950.00	2947.57	2.	45.	S	86.	0. W	29.69 N	35.69 W	46.4	N 50.	14. W	29.7
2951.00	2948.56	2.	45.	S	86.	0. W	29.69 N	35.74 W	46.5	N 50.	17. W	29.7
2952.00	2949.56	2.	45.	S	86.	0. W	29.69 N	35.78 W	46.5	N 50.	19. W	29.7
2953.00	2950.56	2.	45.	S	86.	0. W	29.68 N	35.83 W	46.5	N 50.	22. W	29.7
2954.00	2951.56	2.	45.	S	86.	0. W	29.68 N	35.88 W	46.6	N 50.	24. W	29.7
2955.00	2952.56	2.	45.	S	86.	0. W	29.68 N	35.93 W	46.6	N 50.	27. W	29.7
2956.00	2953.56	2.	45.	S	86.	0. W	29.67 N	35.98 W	46.6	N 50.	29. W	29.7
2957.00	2954.56	2.	45.	S	86.	0. W	29.67 N	36.02 W	46.7	N 50.	32. W	29.7
2958.00	2955.56	2.	45.	S	86.	0. W	29.67 N	36.07 W	46.7	N 50.	34. W	29.7
2959.00	2956.56	2.	45.	S	86.	0. W	29.66 N	36.12 W	46.7	N 50.	36. W	29.7
2960.00	2957.55	2.	45.	S	86.	0. W	29.66 N	36.17 W	46.8	N 50.	39. W	29.7
2961.00	2958.55	2.	45.	S	86.	0. W	29.66 N	36.21 W	46.8	N 50.	41. W	29.7
2962.00	2959.55	2.	45.	S	86.	0. W	29.65 N	36.26 W	46.8	N 50.	44. W	29.7
2963.00	2960.55	2.	45.	S	86.	0. W	29.65 N	36.31 W	46.9	N 50.	46. W	29.6
2964.00	2961.55	2.	45.	S	86.	0. W	29.65 N	36.36 W	46.9	N 50.	48. W	29.6
2965.00	2962.55	2.	45.	S	86.	0. W	29.64 N	36.41 W	46.9	N 50.	51. W	29.6
2966.00	2963.55	2.	45.	S	86.	0. W	29.64 N	36.45 W	47.0	N 50.	53. W	29.6
2967.00	2964.55	2.	45.	S	86.	1. W	29.64 N	36.50 W	47.0	N 50.	56. W	29.6
2968.00	2965.54	2.	46.	S	86.	3. W	29.63 N	36.55 W	47.1	N 50.	58. W	29.6
2969.00	2966.54	2.	46.	S	86.	6. W	29.63 N	36.60 W	47.1	N 51.	0. W	29.6

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
2970.00	2967.54	2.	47.	S	86.	8. W	29.63 N	36.65 W	47.1	N 51.	3. W	29.6
2971.00	2968.54	2.	48.	S	86.	10. W	29.62 N	36.69 W	47.2	N 51.	5. W	29.6
2972.00	2969.54	2.	48.	S	86.	13. W	29.62 N	36.74 W	47.2	N 51.	8. W	29.6
2973.00	2970.54	2.	49.	S	86.	15. W	29.62 N	36.79 W	47.2	N 51.	10. W	29.6
2974.00	2971.54	2.	49.	S	86.	17. W	29.61 N	36.84 W	47.3	N 51.	13. W	29.6
2975.00	2972.54	2.	50.	S	86.	20. W	29.61 N	36.89 W	47.3	N 51.	15. W	29.6
2976.00	2973.53	2.	50.	S	86.	22. W	29.61 N	36.94 W	47.3	N 51.	17. W	29.6
2977.00	2974.53	2.	51.	S	86.	24. W	29.60 N	36.99 W	47.4	N 51.	20. W	29.6
2978.00	2975.53	2.	52.	S	86.	26. W	29.60 N	37.04 W	47.4	N 51.	22. W	29.6
2979.00	2976.53	2.	52.	S	86.	29. W	29.60 N	37.09 W	47.5	N 51.	25. W	29.6
2980.00	2977.53	2.	53.	S	86.	31. W	29.59 N	37.14 W	47.5	N 51.	27. W	29.6
2981.00	2978.53	2.	53.	S	86.	33. W	29.59 N	37.19 W	47.5	N 51.	30. W	29.6
2982.00	2979.53	2.	54.	S	86.	36. W	29.59 N	37.24 W	47.6	N 51.	32. W	29.6
2983.00	2980.53	2.	54.	S	86.	38. W	29.58 N	37.29 W	47.6	N 51.	34. W	29.6
2984.00	2981.52	2.	55.	S	86.	40. W	29.58 N	37.34 W	47.6	N 51.	37. W	29.6
2985.00	2982.52	2.	56.	S	86.	43. W	29.58 N	37.39 W	47.7	N 51.	39. W	29.6
2986.00	2983.52	2.	56.	S	86.	45. W	29.58 N	37.44 W	47.7	N 51.	42. W	29.6
2987.00	2984.52	2.	57.	S	86.	47. W	29.57 N	37.49 W	47.8	N 51.	44. W	29.6
2988.00	2985.52	2.	57.	S	86.	49. W	29.57 N	37.55 W	47.8	N 51.	47. W	29.6
2989.00	2986.52	2.	58.	S	86.	52. W	29.57 N	37.60 W	47.8	N 51.	49. W	29.6
2990.00	2987.52	2.	59.	S	86.	54. W	29.56 N	37.65 W	47.9	N 51.	52. W	29.6
2991.00	2988.52	2.	59.	S	86.	56. W	29.56 N	37.70 W	47.9	N 51.	54. W	29.6
2992.00	2989.51	2.	60.	S	86.	59. W	29.56 N	37.75 W	47.9	N 51.	56. W	29.6
2993.00	2990.51	3.	0.	S	87.	1. W	29.56 N	37.81 W	48.0	N 51.	59. W	29.6
2994.00	2991.51	3.	0.	S	87.	3. W	29.55 N	37.86 W	48.0	N 52.	1. W	29.6
2995.00	2992.51	3.	0.	S	87.	6. W	29.55 N	37.91 W	48.1	N 52.	4. W	29.6
2996.00	2993.51	3.	0.	S	87.	8. W	29.55 N	37.96 W	48.1	N 52.	6. W	29.5
2997.00	2994.51	3.	0.	S	87.	10. W	29.55 N	38.01 W	48.1	N 52.	9. W	29.5
2998.00	2995.51	3.	0.	S	87.	13. W	29.54 N	38.07 W	48.2	N 52.	11. W	29.5
2999.00	2996.50	3.	0.	S	87.	15. W	29.54 N	38.12 W	48.2	N 52.	14. W	29.5
3000.00	2997.50	3.	0.	S	87.	17. W	29.54 N	38.17 W	48.3	N 52.	16. W	29.5
3001.00	2998.50	3.	0.	S	87.	19. W	29.54 N	38.22 W	48.3	N 52.	18. W	29.5
3002.00	2999.50	3.	0.	S	87.	22. W	29.53 N	38.28 W	48.3	N 52.	21. W	29.5
3003.00	3000.50	3.	0.	S	87.	24. W	29.53 N	38.33 W	48.4	N 52.	23. W	29.5
3004.00	3001.50	3.	0.	S	87.	26. W	29.53 N	38.38 W	48.4	N 52.	26. W	29.5
3005.00	3002.50	3.	0.	S	87.	29. W	29.53 N	38.43 W	48.5	N 52.	28. W	29.5
3006.00	3003.50	3.	0.	S	87.	31. W	29.52 N	38.49 W	48.5	N 52.	30. W	29.5
3007.00	3004.49	3.	0.	S	87.	33. W	29.52 N	38.54 W	48.5	N 52.	33. W	29.5
3008.00	3005.49	3.	0.	S	87.	36. W	29.52 N	38.59 W	48.6	N 52.	35. W	29.5
3009.00	3006.49	3.	0.	S	87.	38. W	29.52 N	38.64 W	48.6	N 52.	38. W	29.5
3010.00	3007.49	3.	0.	S	87.	40. W	29.52 N	38.69 W	48.7	N 52.	40. W	29.5
3011.00	3008.49	3.	0.	S	87.	43. W	29.51 N	38.75 W	48.7	N 52.	42. W	29.5
3012.00	3009.49	3.	0.	S	87.	45. W	29.51 N	38.80 W	48.7	N 52.	45. W	29.5
3013.00	3010.49	3.	0.	S	87.	47. W	29.51 N	38.85 W	48.8	N 52.	47. W	29.5
3014.00	3011.48	3.	0.	S	87.	49. W	29.51 N	38.90 W	48.8	N 52.	49. W	29.5
3015.00	3012.48	3.	0.	S	87.	52. W	29.50 N	38.96 W	48.9	N 52.	52. W	29.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3016.00	3013.48	3.	0.	S	87.	54. W	29.50 N	39.01 W	48.9	N 52.	54. W	29.5
3017.00	3014.48	3.	0.	S	87.	56. W	29.50 N	39.06 W	48.9	N 52.	56. W	29.5
3018.00	3015.48	3.	0.	S	87.	59. W	29.50 N	39.11 W	49.0	N 52.	59. W	29.5
3019.00	3016.48	3.	0.	S	88.	3. W	29.50 N	39.16 W	49.0	N 53.	1. W	29.5
3020.00	3017.48	3.	0.	S	88.	10. W	29.50 N	39.22 W	49.1	N 53.	3. W	29.5
3021.00	3018.47	3.	0.	S	88.	17. W	29.49 N	39.27 W	49.1	N 53.	5. W	29.5
3022.00	3019.47	3.	0.	S	88.	24. W	29.49 N	39.32 W	49.2	N 53.	8. W	29.5
3023.00	3020.47	3.	0.	S	88.	31. W	29.49 N	39.37 W	49.2	N 53.	10. W	29.5
3024.00	3021.47	3.	0.	S	88.	38. W	29.49 N	39.43 W	49.2	N 53.	12. W	29.5
3025.00	3022.47	3.	0.	S	88.	44. W	29.49 N	39.48 W	49.3	N 53.	15. W	29.5
3026.00	3023.47	3.	0.	S	88.	51. W	29.49 N	39.53 W	49.3	N 53.	17. W	29.5
3027.00	3024.47	3.	0.	S	88.	58. W	29.49 N	39.58 W	49.4	N 53.	19. W	29.5
3028.00	3025.46	3.	0.	S	89.	5. W	29.49 N	39.64 W	49.4	N 53.	21. W	29.5
3029.00	3026.46	3.	0.	S	89.	12. W	29.48 N	39.69 W	49.4	N 53.	23. W	29.5
3030.00	3027.46	3.	0.	S	89.	19. W	29.48 N	39.74 W	49.5	N 53.	26. W	29.5
3031.00	3028.46	3.	0.	S	89.	26. W	29.48 N	39.79 W	49.5	N 53.	28. W	29.5
3032.00	3029.46	3.	0.	S	89.	33. W	29.48 N	39.85 W	49.6	N 53.	30. W	29.5
3033.00	3030.46	3.	0.	S	89.	40. W	29.48 N	39.90 W	49.6	N 53.	32. W	29.5
3034.00	3031.46	3.	0.	S	89.	47. W	29.48 N	39.95 W	49.7	N 53.	34. W	29.5
3035.00	3032.46	3.	0.	S	89.	54. W	29.48 N	40.00 W	49.7	N 53.	37. W	29.5
3036.00	3033.45	3.	0.	N	89.	59. W	29.48 N	40.05 W	49.7	N 53.	39. W	29.5
3037.00	3034.45	3.	0.	N	89.	53. W	29.48 N	40.11 W	49.8	N 53.	41. W	29.5
3038.00	3035.45	3.	0.	N	89.	46. W	29.48 N	40.16 W	49.8	N 53.	43. W	29.5
3039.00	3036.45	3.	0.	N	89.	39. W	29.48 N	40.21 W	49.9	N 53.	45. W	29.5
3040.00	3037.45	3.	0.	N	89.	32. W	29.48 N	40.26 W	49.9	N 53.	47. W	29.5
3041.00	3038.45	3.	0.	N	89.	25. W	29.48 N	40.32 W	49.9	N 53.	49. W	29.5
3042.00	3039.45	3.	0.	N	89.	18. W	29.48 N	40.37 W	50.0	N 53.	51. W	29.5
3043.00	3040.44	3.	0.	N	89.	11. W	29.48 N	40.42 W	50.0	N 53.	53. W	29.5
3044.00	3041.44	3.	0.	N	89.	4. W	29.49 N	40.47 W	50.1	N 53.	56. W	29.5
3045.00	3042.44	3.	0.	N	88.	54. W	29.49 N	40.53 W	50.1	N 53.	58. W	29.5
3046.00	3043.44	3.	1.	N	88.	41. W	29.49 N	40.58 W	50.2	N 53.	60. W	29.5
3047.00	3044.44	3.	1.	N	88.	27. W	29.49 N	40.63 W	50.2	N 54.	2. W	29.5
3048.00	3045.44	3.	2.	N	88.	13. W	29.49 N	40.68 W	50.2	N 54.	4. W	29.5
3049.00	3046.44	3.	3.	N	87.	59. W	29.49 N	40.74 W	50.3	N 54.	6. W	29.5
3050.00	3047.43	3.	3.	N	87.	45. W	29.49 N	40.79 W	50.3	N 54.	8. W	29.5
3051.00	3048.43	3.	4.	N	87.	31. W	29.50 N	40.84 W	50.4	N 54.	10. W	29.5
3052.00	3049.43	3.	4.	N	87.	17. W	29.50 N	40.90 W	50.4	N 54.	12. W	29.5
3053.00	3050.43	3.	5.	N	87.	4. W	29.50 N	40.95 W	50.5	N 54.	14. W	29.5
3054.00	3051.43	3.	5.	N	86.	50. W	29.50 N	41.00 W	50.5	N 54.	16. W	29.5
3055.00	3052.43	3.	6.	N	86.	36. W	29.51 N	41.06 W	50.6	N 54.	18. W	29.5
3056.00	3053.43	3.	7.	N	86.	22. W	29.51 N	41.11 W	50.6	N 54.	20. W	29.5
3057.00	3054.42	3.	7.	N	86.	8. W	29.51 N	41.17 W	50.7	N 54.	22. W	29.5
3058.00	3055.42	3.	8.	N	85.	54. W	29.52 N	41.22 W	50.7	N 54.	24. W	29.5
3059.00	3056.42	3.	8.	N	85.	41. W	29.52 N	41.27 W	50.7	N 54.	26. W	29.5
3060.00	3057.42	3.	9.	N	85.	27. W	29.53 N	41.33 W	50.8	N 54.	27. W	29.5
3061.00	3058.42	3.	9.	N	85.	13. W	29.53 N	41.38 W	50.8	N 54.	29. W	29.5

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3062.00	3059.42	3.	10.	N	84.	59. W	29.54 N	41.44 W	50.9	N 54.	31. W	29.5
3063.00	3060.41	3.	11.	N	84.	45. W	29.54 N	41.49 W	50.9	N 54.	33. W	29.5
3064.00	3061.41	3.	11.	N	84.	31. W	29.55 N	41.55 W	51.0	N 54.	35. W	29.5
3065.00	3062.41	3.	12.	N	84.	18. W	29.55 N	41.60 W	51.0	N 54.	37. W	29.6
3066.00	3063.41	3.	12.	N	84.	4. W	29.56 N	41.66 W	51.1	N 54.	39. W	29.6
3067.00	3064.41	3.	13.	N	83.	50. W	29.56 N	41.72 W	51.1	N 54.	41. W	29.6
3068.00	3065.41	3.	13.	N	83.	36. W	29.57 N	41.77 W	51.2	N 54.	42. W	29.6
3069.00	3066.41	3.	14.	N	83.	22. W	29.57 N	41.83 W	51.2	N 54.	44. W	29.6
3070.00	3067.40	3.	15.	N	83.	8. W	29.58 N	41.88 W	51.3	N 54.	46. W	29.6
3071.00	3068.40	3.	15.	N	82.	52. W	29.59 N	41.94 W	51.3	N 54.	48. W	29.6
3072.00	3069.40	3.	15.	N	82.	31. W	29.59 N	42.00 W	51.4	N 54.	50. W	29.6
3073.00	3070.40	3.	15.	N	82.	10. W	29.60 N	42.05 W	51.4	N 54.	51. W	29.6
3074.00	3071.40	3.	15.	N	81.	50. W	29.61 N	42.11 W	51.5	N 54.	53. W	29.6
3075.00	3072.40	3.	15.	N	81.	29. W	29.62 N	42.16 W	51.5	N 54.	55. W	29.6
3076.00	3073.39	3.	15.	N	81.	8. W	29.63 N	42.22 W	51.6	N 54.	57. W	29.6
3077.00	3074.39	3.	15.	N	80.	47. W	29.64 N	42.28 W	51.6	N 54.	58. W	29.6
3078.00	3075.39	3.	15.	N	80.	27. W	29.65 N	42.33 W	51.7	N 54.	60. W	29.6
3079.00	3076.39	3.	15.	N	80.	6. W	29.65 N	42.39 W	51.7	N 55.	1. W	29.7
3080.00	3077.39	3.	15.	N	79.	45. W	29.66 N	42.44 W	51.8	N 55.	3. W	29.7
3081.00	3078.39	3.	15.	N	79.	24. W	29.68 N	42.50 W	51.8	N 55.	5. W	29.7
3082.00	3079.38	3.	15.	N	79.	4. W	29.69 N	42.56 W	51.9	N 55.	6. W	29.7
3083.00	3080.38	3.	15.	N	78.	43. W	29.70 N	42.61 W	51.9	N 55.	8. W	29.7
3084.00	3081.38	3.	15.	N	78.	22. W	29.71 N	42.67 W	52.0	N 55.	9. W	29.7
3085.00	3082.38	3.	15.	N	78.	1. W	29.72 N	42.72 W	52.0	N 55.	11. W	29.7
3086.00	3083.38	3.	15.	N	77.	41. W	29.73 N	42.78 W	52.1	N 55.	12. W	29.7
3087.00	3084.38	3.	15.	N	77.	20. W	29.74 N	42.83 W	52.1	N 55.	13. W	29.7
3088.00	3085.37	3.	15.	N	76.	59. W	29.76 N	42.89 W	52.2	N 55.	15. W	29.8
3089.00	3086.37	3.	15.	N	76.	38. W	29.77 N	42.94 W	52.3	N 55.	16. W	29.8
3090.00	3087.37	3.	15.	N	76.	18. W	29.78 N	43.00 W	52.3	N 55.	18. W	29.8
3091.00	3088.37	3.	15.	N	75.	57. W	29.80 N	43.05 W	52.4	N 55.	19. W	29.8
3092.00	3089.37	3.	15.	N	75.	36. W	29.81 N	43.11 W	52.4	N 55.	20. W	29.8
3093.00	3090.37	3.	15.	N	75.	15. W	29.82 N	43.16 W	52.5	N 55.	21. W	29.8
3094.00	3091.37	3.	15.	N	74.	55. W	29.84 N	43.22 W	52.5	N 55.	23. W	29.8
3095.00	3092.36	3.	15.	N	74.	34. W	29.85 N	43.27 W	52.6	N 55.	24. W	29.9
3096.00	3093.36	3.	15.	N	74.	13. W	29.87 N	43.33 W	52.6	N 55.	25. W	29.9
3097.00	3094.36	3.	15.	N	73.	58. W	29.88 N	43.38 W	52.7	N 55.	26. W	29.9
3098.00	3095.36	3.	16.	N	73.	54. W	29.90 N	43.44 W	52.7	N 55.	28. W	29.9
3099.00	3096.36	3.	16.	N	73.	49. W	29.92 N	43.49 W	52.8	N 55.	29. W	29.9
3100.00	3097.36	3.	17.	N	73.	44. W	29.93 N	43.55 W	52.8	N 55.	30. W	29.9
3101.00	3098.35	3.	18.	N	73.	40. W	29.95 N	43.60 W	52.9	N 55.	31. W	29.9
3102.00	3099.35	3.	18.	N	73.	35. W	29.96 N	43.66 W	53.0	N 55.	32. W	30.0
3103.00	3100.35	3.	19.	N	73.	31. W	29.98 N	43.71 W	53.0	N 55.	33. W	30.0
3104.00	3101.35	3.	19.	N	73.	26. W	30.00 N	43.77 W	53.1	N 55.	34. W	30.0
3105.00	3102.35	3.	20.	N	73.	21. W	30.01 N	43.82 W	53.1	N 55.	36. W	30.0
3106.00	3103.35	3.	20.	N	73.	17. W	30.03 N	43.88 W	53.2	N 55.	37. W	30.0
3107.00	3104.34	3.	21.	N	73.	12. W	30.05 N	43.94 W	53.2	N 55.	38. W	30.0

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3108.00	3105.34	3.	22.	N 73.	8. W	30.06 N	43.99 W	53.3	N 55.	39. W	30.1
3109.00	3106.34	3.	22.	N 73.	3. W	30.08 N	44.05 W	53.3	N 55.	40. W	30.1
3110.00	3107.34	3.	23.	N 72.	58. W	30.10 N	44.10 W	53.4	N 55.	41. W	30.1
3111.00	3108.34	3.	23.	N 72.	54. W	30.12 N	44.16 W	53.5	N 55.	42. W	30.1
3112.00	3109.33	3.	24.	N 72.	49. W	30.13 N	44.22 W	53.5	N 55.	44. W	30.1
3113.00	3110.33	3.	24.	N 72.	45. W	30.15 N	44.27 W	53.6	N 55.	45. W	30.2
3114.00	3111.33	3.	25.	N 72.	40. W	30.17 N	44.33 W	53.6	N 55.	46. W	30.2
3115.00	3112.33	3.	26.	N 72.	35. W	30.19 N	44.39 W	53.7	N 55.	47. W	30.2
3116.00	3113.33	3.	26.	N 72.	31. W	30.20 N	44.44 W	53.7	N 55.	48. W	30.2
3117.00	3114.33	3.	27.	N 72.	26. W	30.22 N	44.50 W	53.8	N 55.	49. W	30.2
3118.00	3115.32	3.	27.	N 72.	21. W	30.24 N	44.56 W	53.9	N 55.	50. W	30.2
3119.00	3116.32	3.	28.	N 72.	17. W	30.26 N	44.62 W	53.9	N 55.	51. W	30.3
3120.00	3117.32	3.	28.	N 72.	12. W	30.28 N	44.67 W	54.0	N 55.	52. W	30.3
3121.00	3118.32	3.	29.	N 72.	8. W	30.30 N	44.73 W	54.0	N 55.	53. W	30.3
3122.00	3119.32	3.	30.	N 72.	3. W	30.31 N	44.79 W	54.1	N 55.	55. W	30.3
3123.00	3120.31	3.	30.	N 71.	56. W	30.33 N	44.85 W	54.1	N 55.	56. W	30.3
3124.00	3121.31	3.	30.	N 71.	44. W	30.35 N	44.91 W	54.2	N 55.	57. W	30.4
3125.00	3122.31	3.	30.	N 71.	33. W	30.37 N	44.96 W	54.3	N 55.	58. W	30.4
3126.00	3123.31	3.	30.	N 71.	21. W	30.39 N	45.02 W	54.3	N 55.	59. W	30.4
3127.00	3124.31	3.	30.	N 71.	10. W	30.41 N	45.08 W	54.4	N 55.	60. W	30.4
3128.00	3125.31	3.	30.	N 70.	58. W	30.43 N	45.14 W	54.4	N 56.	1. W	30.4
3129.00	3126.30	3.	30.	N 70.	47. W	30.45 N	45.19 W	54.5	N 56.	2. W	30.5
3130.00	3127.30	3.	30.	N 70.	35. W	30.47 N	45.25 W	54.6	N 56.	3. W	30.5
3131.00	3128.30	3.	30.	N 70.	24. W	30.49 N	45.31 W	54.6	N 56.	4. W	30.5
3132.00	3129.30	3.	30.	N 70.	12. W	30.51 N	45.37 W	54.7	N 56.	5. W	30.5
3133.00	3130.30	3.	30.	N 70.	1. W	30.53 N	45.42 W	54.7	N 56.	6. W	30.5
3134.00	3131.29	3.	30.	N 69.	49. W	30.55 N	45.48 W	54.8	N 56.	7. W	30.6
3135.00	3132.29	3.	30.	N 69.	38. W	30.57 N	45.54 W	54.9	N 56.	7. W	30.6
3136.00	3133.29	3.	30.	N 69.	26. W	30.60 N	45.60 W	54.9	N 56.	8. W	30.6
3137.00	3134.29	3.	30.	N 69.	15. W	30.62 N	45.65 W	55.0	N 56.	9. W	30.6
3138.00	3135.29	3.	30.	N 69.	3. W	30.64 N	45.71 W	55.0	N 56.	10. W	30.6
3139.00	3136.29	3.	30.	N 68.	52. W	30.66 N	45.77 W	55.1	N 56.	11. W	30.7
3140.00	3137.28	3.	30.	N 68.	40. W	30.68 N	45.82 W	55.1	N 56.	12. W	30.7
3141.00	3138.28	3.	30.	N 68.	28. W	30.71 N	45.88 W	55.2	N 56.	13. W	30.7
3142.00	3139.28	3.	30.	N 68.	17. W	30.73 N	45.94 W	55.3	N 56.	13. W	30.7
3143.00	3140.28	3.	30.	N 68.	5. W	30.75 N	45.99 W	55.3	N 56.	14. W	30.8
3144.00	3141.28	3.	30.	N 67.	54. W	30.77 N	46.05 W	55.4	N 56.	15. W	30.8
3145.00	3142.27	3.	30.	N 67.	42. W	30.80 N	46.11 W	55.4	N 56.	16. W	30.8
3146.00	3143.27	3.	30.	N 67.	31. W	30.82 N	46.16 W	55.5	N 56.	16. W	30.8
3147.00	3144.27	3.	30.	N 67.	19. W	30.84 N	46.22 W	55.6	N 56.	17. W	30.8
3148.00	3145.27	3.	30.	N 67.	8. W	30.87 N	46.28 W	55.6	N 56.	18. W	30.9
3149.00	3146.27	3.	30.	N 67.	0. W	30.89 N	46.33 W	55.7	N 56.	19. W	30.9
3150.00	3147.26	3.	30.	N 67.	0. W	30.91 N	46.39 W	55.7	N 56.	19. W	30.9
3151.00	3148.26	3.	30.	N 67.	0. W	30.94 N	46.45 W	55.8	N 56.	20. W	30.9
3152.00	3149.26	3.	30.	N 67.	0. W	30.96 N	46.50 W	55.9	N 56.	21. W	31.0
3153.00	3150.26	3.	30.	N 67.	0. W	30.99 N	46.56 W	55.9	N 56.	21. W	31.0

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MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3154.00	3151.26	3.	30.	N 67.	0. W	31.01 N	46.61 W	56.0	N 56.	22. W	31.0
3155.00	3152.26	3.	30.	N 67.	0. W	31.03 N	46.67 W	56.0	N 56.	23. W	31.0
3156.00	3153.25	3.	30.	N 67.	0. W	31.06 N	46.73 W	56.1	N 56.	23. W	31.1
3157.00	3154.25	3.	30.	N 67.	0. W	31.08 N	46.78 W	56.2	N 56.	24. W	31.1
3158.00	3155.25	3.	30.	N 67.	0. W	31.11 N	46.84 W	56.2	N 56.	25. W	31.1
3159.00	3156.25	3.	30.	N 67.	0. W	31.13 N	46.90 W	56.3	N 56.	25. W	31.1
3160.00	3157.25	3.	30.	N 67.	0. W	31.15 N	46.95 W	56.3	N 56.	26. W	31.2
3161.00	3158.24	3.	30.	N 67.	0. W	31.18 N	47.01 W	56.4	N 56.	27. W	31.2
3162.00	3159.24	3.	30.	N 67.	0. W	31.20 N	47.06 W	56.5	N 56.	27. W	31.2
3163.00	3160.24	3.	30.	N 67.	0. W	31.22 N	47.12 W	56.5	N 56.	28. W	31.2
3164.00	3161.24	3.	30.	N 67.	0. W	31.25 N	47.18 W	56.6	N 56.	29. W	31.2
3165.00	3162.24	3.	30.	N 67.	0. W	31.27 N	47.23 W	56.6	N 56.	30. W	31.3
3166.00	3163.23	3.	30.	N 67.	0. W	31.30 N	47.29 W	56.7	N 56.	30. W	31.3
3167.00	3164.23	3.	30.	N 67.	0. W	31.32 N	47.34 W	56.8	N 56.	31. W	31.3
3168.00	3165.23	3.	30.	N 67.	0. W	31.34 N	47.40 W	56.8	N 56.	32. W	31.3
3169.00	3166.23	3.	30.	N 67.	0. W	31.37 N	47.46 W	56.9	N 56.	32. W	31.4
3170.00	3167.23	3.	30.	N 67.	0. W	31.39 N	47.51 W	56.9	N 56.	33. W	31.4
3171.00	3168.23	3.	30.	N 67.	0. W	31.42 N	47.57 W	57.0	N 56.	34. W	31.4
3172.00	3169.22	3.	30.	N 67.	0. W	31.44 N	47.63 W	57.1	N 56.	34. W	31.4
3173.00	3170.22	3.	30.	N 67.	0. W	31.46 N	47.68 W	57.1	N 56.	35. W	31.5
3174.00	3171.22	3.	30.	N 67.	0. W	31.49 N	47.74 W	57.2	N 56.	36. W	31.5
3175.00	3172.22	3.	30.	N 66.	55. W	31.51 N	47.79 W	57.2	N 56.	36. W	31.5
3176.00	3173.22	3.	30.	N 66.	39. W	31.53 N	47.85 W	57.3	N 56.	37. W	31.5
3177.00	3174.21	3.	30.	N 66.	23. W	31.56 N	47.91 W	57.4	N 56.	37. W	31.6
3178.00	3175.21	3.	30.	N 66.	7. W	31.58 N	47.96 W	57.4	N 56.	38. W	31.6
3179.00	3176.21	3.	30.	N 65.	50. W	31.61 N	48.02 W	57.5	N 56.	39. W	31.6
3180.00	3177.21	3.	30.	N 65.	34. W	31.63 N	48.07 W	57.5	N 56.	39. W	31.6
3181.00	3178.21	3.	30.	N 65.	18. W	31.66 N	48.13 W	57.6	N 56.	40. W	31.7
3182.00	3179.20	3.	30.	N 65.	2. W	31.68 N	48.18 W	57.7	N 56.	40. W	31.7
3183.00	3180.20	3.	30.	N 64.	46. W	31.71 N	48.24 W	57.7	N 56.	41. W	31.7
3184.00	3181.20	3.	30.	N 64.	30. W	31.74 N	48.29 W	57.8	N 56.	41. W	31.7
3185.00	3182.20	3.	30.	N 64.	14. W	31.76 N	48.35 W	57.8	N 56.	42. W	31.8
3186.00	3183.20	3.	30.	N 63.	57. W	31.79 N	48.40 W	57.9	N 56.	42. W	31.8
3187.00	3184.20	3.	30.	N 63.	41. W	31.82 N	48.46 W	58.0	N 56.	43. W	31.8
3188.00	3185.19	3.	30.	N 63.	25. W	31.84 N	48.51 W	58.0	N 56.	43. W	31.8
3189.00	3186.19	3.	30.	N 63.	9. W	31.87 N	48.57 W	58.1	N 56.	44. W	31.9
3190.00	3187.19	3.	30.	N 62.	53. W	31.90 N	48.62 W	58.2	N 56.	44. W	31.9
3191.00	3188.19	3.	30.	N 62.	37. W	31.93 N	48.68 W	58.2	N 56.	44. W	31.9
3192.00	3189.19	3.	30.	N 62.	21. W	31.96 N	48.73 W	58.3	N 56.	45. W	32.0
3193.00	3190.18	3.	30.	N 62.	4. W	31.98 N	48.79 W	58.3	N 56.	45. W	32.0
3194.00	3191.18	3.	30.	N 61.	48. W	32.01 N	48.84 W	58.4	N 56.	45. W	32.0
3195.00	3192.18	3.	30.	N 61.	32. W	32.04 N	48.89 W	58.5	N 56.	46. W	32.0
3196.00	3193.18	3.	30.	N 61.	16. W	32.07 N	48.95 W	58.5	N 56.	46. W	32.1
3197.00	3194.18	3.	30.	N 60.	60. W	32.10 N	49.00 W	58.6	N 56.	46. W	32.1
3198.00	3195.17	3.	30.	N 60.	44. W	32.13 N	49.05 W	58.6	N 56.	47. W	32.1
3199.00	3196.17	3.	30.	N 60.	28. W	32.16 N	49.11 W	58.7	N 56.	47. W	32.2

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3200.00	3197.17	3.	30.	N	60.	11. W	32.19 N	49.16 W	58.8	N 56.	47. W	32.2
3201.00	3198.17	3.	30.	N	59.	56. W	32.22 N	49.21 W	58.8	N 56.	47. W	32.2
3202.00	3199.17	3.	31.	N	59.	42. W	32.25 N	49.27 W	58.9	N 56.	47. W	32.3
3203.00	3200.17	3.	31.	N	59.	28. W	32.28 N	49.32 W	58.9	N 56.	48. W	32.3
3204.00	3201.16	3.	32.	N	59.	14. W	32.31 N	49.37 W	59.0	N 56.	48. W	32.3
3205.00	3202.16	3.	32.	N	59.	1. W	32.35 N	49.42 W	59.1	N 56.	48. W	32.3
3206.00	3203.16	3.	33.	N	58.	47. W	32.38 N	49.48 W	59.1	N 56.	48. W	32.4
3207.00	3204.16	3.	34.	N	58.	33. W	32.41 N	49.53 W	59.2	N 56.	48. W	32.4
3208.00	3205.16	3.	34.	N	58.	19. W	32.44 N	49.58 W	59.3	N 56.	48. W	32.4
3209.00	3206.15	3.	35.	N	58.	5. W	32.47 N	49.64 W	59.3	N 56.	48. W	32.5
3210.00	3207.15	3.	35.	N	57.	51. W	32.51 N	49.69 W	59.4	N 56.	48. W	32.5
3211.00	3208.15	3.	36.	N	57.	38. W	32.54 N	49.74 W	59.4	N 56.	48. W	32.5
3212.00	3209.15	3.	37.	N	57.	24. W	32.58 N	49.80 W	59.5	N 56.	49. W	32.6
3213.00	3210.15	3.	37.	N	57.	10. W	32.61 N	49.85 W	59.6	N 56.	49. W	32.6
3214.00	3211.14	3.	38.	N	56.	56. W	32.64 N	49.90 W	59.6	N 56.	49. W	32.6
3215.00	3212.14	3.	38.	N	56.	42. W	32.68 N	49.95 W	59.7	N 56.	49. W	32.7
3216.00	3213.14	3.	39.	N	56.	28. W	32.71 N	50.01 W	59.8	N 56.	49. W	32.7
3217.00	3214.14	3.	39.	N	56.	15. W	32.75 N	50.06 W	59.8	N 56.	49. W	32.7
3218.00	3215.14	3.	40.	N	56.	1. W	32.78 N	50.11 W	59.9	N 56.	48. W	32.8
3219.00	3216.13	3.	41.	N	55.	47. W	32.82 N	50.17 W	59.9	N 56.	48. W	32.8
3220.00	3217.13	3.	41.	N	55.	33. W	32.86 N	50.22 W	60.0	N 56.	48. W	32.9
3221.00	3218.13	3.	42.	N	55.	19. W	32.89 N	50.27 W	60.1	N 56.	48. W	32.9
3222.00	3219.13	3.	42.	N	55.	5. W	32.93 N	50.33 W	60.1	N 56.	48. W	32.9
3223.00	3220.13	3.	43.	N	54.	52. W	32.97 N	50.38 W	60.2	N 56.	48. W	33.0
3224.00	3221.12	3.	43.	N	54.	38. W	33.00 N	50.43 W	60.3	N 56.	48. W	33.0
3225.00	3222.12	3.	44.	N	54.	24. W	33.04 N	50.49 W	60.3	N 56.	48. W	33.0
3226.00	3223.12	3.	45.	N	54.	10. W	33.08 N	50.54 W	60.4	N 56.	48. W	33.1
3227.00	3224.12	3.	45.	N	53.	57. W	33.12 N	50.59 W	60.5	N 56.	47. W	33.1
3228.00	3225.11	3.	46.	N	53.	45. W	33.16 N	50.64 W	60.5	N 56.	47. W	33.2
3229.00	3226.11	3.	46.	N	53.	34. W	33.20 N	50.70 W	60.6	N 56.	47. W	33.2
3230.00	3227.11	3.	47.	N	53.	22. W	33.23 N	50.75 W	60.7	N 56.	47. W	33.2
3231.00	3228.11	3.	47.	N	53.	11. W	33.27 N	50.80 W	60.7	N 56.	47. W	33.3
3232.00	3229.11	3.	48.	N	52.	59. W	33.31 N	50.86 W	60.8	N 56.	46. W	33.3
3233.00	3230.10	3.	49.	N	52.	48. W	33.35 N	50.91 W	60.9	N 56.	46. W	33.4
3234.00	3231.10	3.	49.	N	52.	36. W	33.39 N	50.96 W	60.9	N 56.	46. W	33.4
3235.00	3232.10	3.	50.	N	52.	25. W	33.43 N	51.01 W	61.0	N 56.	46. W	33.4
3236.00	3233.10	3.	50.	N	52.	13. W	33.48 N	51.07 W	61.1	N 56.	45. W	33.5
3237.00	3234.09	3.	51.	N	52.	2. W	33.52 N	51.12 W	61.1	N 56.	45. W	33.5
3238.00	3235.09	3.	51.	N	51.	50. W	33.56 N	51.17 W	61.2	N 56.	45. W	33.6
3239.00	3236.09	3.	52.	N	51.	39. W	33.60 N	51.23 W	61.3	N 56.	44. W	33.6
3240.00	3237.09	3.	53.	N	51.	27. W	33.64 N	51.28 W	61.3	N 56.	44. W	33.6
3241.00	3238.09	3.	53.	N	51.	15. W	33.68 N	51.33 W	61.4	N 56.	44. W	33.7
3242.00	3239.08	3.	54.	N	51.	4. W	33.73 N	51.38 W	61.5	N 56.	43. W	33.7
3243.00	3240.08	3.	54.	N	50.	52. W	33.77 N	51.44 W	61.5	N 56.	43. W	33.8
3244.00	3241.08	3.	55.	N	50.	41. W	33.81 N	51.49 W	61.6	N 56.	43. W	33.8
3245.00	3242.08	3.	56.	N	50.	29. W	33.86 N	51.54 W	61.7	N 56.	42. W	33.9

SNAPPER A-21 MULTISHOT SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DIRECTION MIN	RECTANGULAR COORDINATES NORTH/SOUTH	RECTANGULAR COORDINATES EAST/WEST	POLAR COORDINATES DISTANCE	POLAR COORDINATES DEG	POLAR COORDINATES MIN	VERTICAL SECTION
3246.00	3243.07	3.	56.	N 50.	18. W	33.90 N	51.60 W	61.7	N 56.	42. W	33.9
3247.00	3244.07	3.	57.	N 50.	6. W	33.94 N	51.65 W	61.8	N 56.	41. W	33.9
3248.00	3245.07	3.	57.	N 49.	55. W	33.99 N	51.70 W	61.9	N 56.	41. W	34.0
3249.00	3246.07	3.	58.	N 49.	43. W	34.03 N	51.75 W	61.9	N 56.	40. W	34.0
3250.00	3247.06	3.	58.	N 49.	32. W	34.08 N	51.81 W	62.0	N 56.	40. W	34.1
3251.00	3248.06	3.	59.	N 49.	20. W	34.12 N	51.86 W	62.1	N 56.	39. W	34.1
3252.00	3249.06	3.	60.	N 49.	9. W	34.17 N	51.91 W	62.1	N 56.	39. W	34.2
3253.00	3250.06	4.	0.	N 49.	5. W	34.21 N	51.97 W	62.2	N 56.	38. W	34.2
3254.00	3251.05	4.	0.	N 49.	23. W	34.26 N	52.02 W	62.3	N 56.	38. W	34.3
3255.00	3252.05	4.	0.	N 49.	42. W	34.30 N	52.07 W	62.4	N 56.	37. W	34.3
3256.00	3253.05	4.	0.	N 49.	60. W	34.35 N	52.12 W	62.4	N 56.	37. W	34.3
3257.00	3254.05	4.	0.	N 50.	18. W	34.39 N	52.18 W	62.5	N 56.	37. W	34.4
3258.00	3255.04	4.	0.	N 50.	37. W	34.44 N	52.23 W	62.6	N 56.	36. W	34.4
3259.00	3256.04	4.	0.	N 50.	55. W	34.48 N	52.29 W	62.6	N 56.	36. W	34.5
3260.00	3257.04	4.	0.	N 51.	14. W	34.53 N	52.34 W	62.7	N 56.	35. W	34.5
3261.00	3258.04	4.	0.	N 51.	32. W	34.57 N	52.39 W	62.8	N 56.	35. W	34.6
3262.00	3259.04	4.	0.	N 51.	51. W	34.61 N	52.45 W	62.8	N 56.	35. W	34.6
3263.00	3260.03	4.	0.	N 52.	9. W	34.66 N	52.50 W	62.9	N 56.	34. W	34.7
3264.00	3261.03	4.	0.	N 52.	28. W	34.70 N	52.56 W	63.0	N 56.	34. W	34.7
3265.00	3262.03	4.	0.	N 52.	46. W	34.74 N	52.62 W	63.0	N 56.	34. W	34.7
3266.00	3263.03	4.	0.	N 53.	4. W	34.78 N	52.67 W	63.1	N 56.	34. W	34.8
3267.00	3264.02	4.	0.	N 53.	23. W	34.82 N	52.73 W	63.2	N 56.	33. W	34.8
3268.00	3265.02	4.	0.	N 53.	41. W	34.87 N	52.79 W	63.3	N 56.	33. W	34.9
3269.00	3266.02	4.	0.	N 53.	60. W	34.91 N	52.84 W	63.3	N 56.	33. W	34.9
3270.00	3267.02	4.	0.	N 54.	18. W	34.95 N	52.90 W	63.4	N 56.	33. W	34.9
3271.00	3268.01	4.	0.	N 54.	37. W	34.99 N	52.95 W	63.5	N 56.	33. W	35.0
3272.00	3269.01	4.	0.	N 54.	55. W	35.03 N	53.01 W	63.5	N 56.	33. W	35.0
3273.00	3270.01	4.	0.	N 55.	14. W	35.07 N	53.07 W	63.6	N 56.	33. W	35.1
3274.00	3271.01	4.	0.	N 55.	32. W	35.11 N	53.12 W	63.7	N 56.	32. W	35.1
3275.00	3272.00	4.	0.	N 55.	50. W	35.15 N	53.18 W	63.7	N 56.	32. W	35.1
3276.00	3273.00	4.	0.	N 56.	9. W	35.19 N	53.24 W	63.8	N 56.	32. W	35.2
3277.00	3274.00	4.	0.	N 56.	27. W	35.22 N	53.30 W	63.9	N 56.	32. W	35.2
3278.00	3275.00	4.	0.	N 56.	46. W	35.26 N	53.36 W	64.0	N 56.	32. W	35.3
3279.00	3275.99	4.	0.	N 57.	0. W	35.30 N	53.41 W	64.0	N 56.	32. W	35.3

WELL LOG ANALYSIS

Well Log Analysis

WELL COMPLETION REPORT

QUANTITATIVE LOG ANALYSIS

SNAPPER A-21

Interval Evaluated:

1170m-3285m MD. All depths are from the FDC-CNL logs. There is 1.5m (MD) depth discrepancy between computer printout and printed logs.

Logs Available:

ISF-MSFL-Sonic-GR; FDC-CNL-GR-; BGT.

Reservoir Parameters:

1) Clay fraction was calculated from the gamma ray log:

$$VCL = \frac{GR - GR\ min}{GR\ max - GR\ min} \times 0.77$$

where: GR max = 127, GR min = 15 for interval 1170m-1550m.
where: GR max = 150, GR min = 15 for interval 1550m-2625m.
where: GR max = 135, GR min = 15 for interval 2625m-3285m.

2) Shale density: 2.45 for interval 1170m-1550m.
2.55 for interval 1550m-2625m.
2.60 for interval 2625m-3285m.

3) Matrix density: 2.65.

4) Shale Neutron Porosity: 40 for interval 1170m-1550m.
27 for interval 1550m-2625m.
25 for interval 2625m-3285m.

5) Formation Factor: $F = a \phi^{-m}$, where a = .62, m = 2.15.

6) Desaturation exponent; n = 2.

7) Shale Resistivity = 10 for interval 1170m-1550m.
12 for interval 1550m-2625m.
50 for interval 2625m-3285m.

8) Formation Water Resistivity: Rw_1 = 0.8 @ 60 C° BHT - 1170m-1550m
Rw_2 =0.6 @104 C° BHT - 1550m-2625m
Rw_3 = .49 @ 116 C° BHT - 2625m-3285m

Net to Gross

Non productive intervals were interpreted where:

$VCLGR_1$	.41	from 1170m-1550m	$\emptyset ND_1$ 10
$VCLGR_2$	.34	from 1550m-2625m	$\emptyset ND_2$ 10
$VCLGR_3$	.38	from 1170m-1550m	$\emptyset ND_3$ 10

Comments:

The EALOG programme was used and the following corrections have been made to determine formation characteristics:

1) 0.02 g/cc was added to FD log readings for hole size correction from 1170m-1550m, and 0.01 g/cc was added to FD log from 1550m-3285m.

2) SXO was calculated by using Rmf and ØND for interval 1170m-1550m, and water saturation was then calculaterd by using the corrected density and corrected neutron values.

pbc = b (log) + [1.03 ØND (1-SXO)]
ØNC = ØN (log) + [134.6 ØND (1-SXO)]

4) From 1550m-3285m (TD) the formation is highly dolomitized, which affects the density and resistivity readings. Therefore, the Quicklog only was used to calculate the water saturation in this section.

5) There is 9.5m (MD) of proven oil in the section below N-1 reservoir (1700m sands).

6) Gas oil contact and oil water contact in N-1 reservoir is transitional and they occur in shale approximately at 1411.0m and 1424.5m.

Summary:

Net productive gas sand = 115.0m MD = 115.3m TVD
Net productive oil sand = 16.0m MD = 16.0m TVD

1333f54

SNAPPER A-21

QUANTATIVE LOG EVALUATION

Summary of Results:

Interval Evaluated 1241.5m-3206m

Depth Interval	Net Thickness	Porosity Range	Porosity Average	SW Range	Remarks
1241.5-1244.0	2.5	.147-.172	.161	.37	Gas sand
1253.0-1253.5	0.5	-	.253	.47	Gas sand
1257.5-1259.0	1.5	.262-.301	.281	.27	Gas sand
1261.5-1282.0	20.5	.080-.289	.241	.11	Gas sand
1288.5-1292.0	3.5	.112-.218	.164	.34	Gas sand
1295.0-1308.0	13.0	.094-.295	.246	.12	Gas sand
1324.5-1341.0	16.5	.052-.273	.173	.18	Gas sand (.176, from core
1347.0-1362.5	15.5	.132-.280	.198	.10	Gas sand analysis)
1373.5-1399.5	24.5	.089-.279	.200	.18	Gas sand
1402.5-1403.5	1.0	.196-.234	.215	.40	Gas sand
1406.0-1411.0	5.0	.115-.279	.213	.27	Gas sand (.248)
1418.0-1424.5	6.5	.113-.234	.183	.49	Shaley oil sand.(.227)
1426.5-1449.0	22.5	.080-.190	.160	1.00	Water (.161)
1667.0-1671.5	4.5	.185-.290	.245	.26	Gas sand
1693.0-1702.5	9.5	.183-.267	.233	.27	Oil sand (.223)
1954.0-1956.0	2.0	.223-.286	.261	.33	Gas sand
1965.5-1970.0	4.5	.199-.274	.240	.36	Gas and oil sand, recovered 32.2 c.f. gas 200 c.c. oil
2364.5-2367.0	2.5	.113-.140	.126	.72	Effective wet recovered 3.5 c.f. gas
2629.0-2630.5	1.5	.124-.228	.181	.47	Possible H.C.?
2634.5-2643.0	8.5	.112-.138	.126	.56	Effective wet recovered 1.0 c.f. gas
2645.0-2647.5	2.5	.113-.209	.173	.44	Wet sand

2657.0-2663.0	6.0	.057-.133	.104	1.00	From 2645.0m to T.D.
2716.5-2724.0	7.5	.188-.339	.263	.19	sandstones are effec-
2733.5-2739.0	5.5	.165-.274	.215	.32	tively wet and highly
2755.5-2758.5	3.0	.165-.316	.271	.18	dolomitic.The actual
2764.5-2773.0	8.5	.144-.253	.201	.18	water saturation should
2794.0-2803.0	9.0	.110-.150	.128	.70	read higher and porosity
2853.0-2856.0	3.0	.121-.181	.150	.40	are probabelylower than
2884.5-2894.0	9.5	.179-.300	.225	.23	calculated ones.
2976.5-2980.5	2.5	.116-.313	.237	.17	
2988.5-2992.5	3.5	.085-.246	.153	.25	
3001.0-3003.5	2.5	.133-.214	.180	.22	
3002.5-3024.5	2.0	.097-.132	.115	.41	
3032.5-3034.5	2.0	.126-.195	.150	.15	
3048.5-3063.5	14.5	.096-.250	.188	.29	

EXPL. LOGGING

MUDLOG

PE601393

This is an enclosure indicator page.
The enclosure PE601393 is enclosed within the container PE902705 at this location in this document.

The enclosure PE601393 has the following characteristics:

ITEM_BARCODE	= PE601393
CONTAINER_BARCODE	= PE902705
NAME	= Exploration Logging Mud Log
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Exploration Logging Mud Log (enclosure from WCR) for Snapper A-21
REMARKS	=
DATE_CREATED	= 17/06/81
DATE_RECEIVED	= 29/02/84
W_NO	= W748
WELL_NAME	= Snapper A-21
CONTRACTOR	= EXPLORATION LOGGING
CLIENT_OP_CO	= ESSO AUSTRALIA LTD.

(Inserted by DNRE - Vic Govt Mines Dept)

WELL COMPLETION

LOG

Well Compl.
Log

PE603646

This is an enclosure indicator page.
The enclosure PE603646 is enclosed within the container PE902705 at this location in this document.

The enclosure PE603646 has the following characteristics:

ITEM_BARCODE	= PE603646
CONTAINER_BARCODE	= PE902705
NAME	= Well Completion Log
BASIN	= GIPPSLAND
PERMIT	= VIC/L10
TYPE	= WELL
SUBTYPE	= COMPLETION_LOG
DESCRIPTION	= Well Completion Log (enclosure from WCR) for Snapper-A21
REMARKS	=
DATE_CREATED	= 22/03/82
DATE_RECEIVED	= 29/02/84
W_NO	= W748
WELL_NAME	= SNAPPER-A21
CONTRACTOR	=
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

VELOCITY SURVEY

VELOCITY SURVEY

Well SNAPPER A-21

Basin GIPPSLAND

INTRODUCTION

Esso personnel S. FALLOON

Contractor VELOCITY DATA PTY. LTD.

Supplied (1) Instruments.
(2) Personnel

Seismic Observer T. POOLEY

Marine Shooter M. O'DRISCOLL

Navigation N/A

(3) Licenced Shooting Boat

Name VICTORIA TIDE

Date Loaded 17/7/81

Date Released 19/7/81

Agent ESSO

(4) Seismic Source

Gas Gun

Gas Pressures 20 sec fill

Oxygen 90 psi

Propane 45 psi

Personnel and Instruments

assembled at MELBOURNE Date 17/7/81

Boarded (rig) SNAPPER Date 17/7/81

Date of survey 18/7/81

Casing Depth 20" @ 165m; 13 3/8" @ 620m

T.D. when shot 1627mKB

water depth 33.8 metres

SURVEY PROCEDURE

Weather:

Wind

Swell 1-2m

Sea SLIGHT

Rig Movement SLIGHT

Rig Noise LOW-MODERATE

Hydrophones: Number 1

Depth below sea level ..... 12.2 metres

Position ..... At top of Gun

.....

Gas Gun: number of shots per level .....

gun depth ..... 12.2 metres

Well phone positioning:

No of depths 8

Time: first shot 0930

last shot 1131

Total rig time ..... 3 hours

RESULTS

Quality of results (good .....

(fair 19

(poor 6

(not used 4

Comparison of Interval Times with Sonic Log

/ / average ..76.93..... microsec/metre

/ / max .....208.0..... microsec/metre

CONCLUSION

Reliability of T-D curve ..... Unreliable

COMMENTS

Commenced shooting at T.D. with a computed offset (hydrophone water time) of 90' + 70' edge of platform to conductor. Hydrophone placed at edge of platform to record a direct arrival free from the effects of the steel platform structure. Downhole arrivals were in the UP direction (reversed) and it was first thought to be caused by casing on cable arrivals. Vessel was then moved to new location and T.D. level reshot but reversed breaks persisted, thereby eliminating the casing break theory. (Offset was 570' + 70' for this location and remainder of survey).

It was later discovered straight hole geophone package is of opposite polarity to the gymbal, but was not changed to minimise confusion when interpreting results. Records were unsatisfactory on shallow levels because of casing band problems. (No cement behind the casing causing to resonate at 800m/900m and 600m. Where discrepancies occur between encoded and Sonabuoy time breaks use Sonabuoy - threshold level adjustments were made on earlier records.

VELOCITY SURVEY

Well .....SNAPPER A-21.....

Basin .....GIPPSLAND.....

INTRODUCTION

Esso personnel ..BRETT HARDIMAN.....

Contractor .....VELOCITY DATA PTY. LTD.....

Supplied (1) Instruments.
(2) Personnel

Seismic Observer ..T. POOLEY.....

Marine Shooter ....M. O'DRISCOLL.....

Navigation .....N/A.....

(3) Licenced Shooting Boat

Name .....N/A.....

Date Loaded .....

Date Released .....

Agent .....

(4) Seismic Source

Gas Gun

Gas Pressures .....20 SEC FILL.....

Oxygen .....90.....psi

Propane .....45.....psi

Personnel and Instruments

assembled at ....MELBOURNE..... Date ...17.1.82.....

Boarded (rig) ...SNAPPER..... Date ...17.1.82.....

Date of survey ..18.1.82.....

Casing Depth ....9 5/8" @ 1550m RKB...

T.D. when shot ..2690m RKB.....

water depth .....33.8.....metres

SURVEY PROCEDURE

Weather: Wind ..ESE.20/25;.G40.kn;.25/30;.G45.....

Swell .1.5/2m.MAX.4m,.2/2.5m.MAX.4.5m.....

Sea ...MODERATE.TO.ROUGH.....

Rig Movement .MODERATE.TO.HIGH.....

Rig Noise ....MODERATE.....

Hydrophones: Number .....TWO.....

Depth below sea level 12.2.....metres

Position ..ONE ON TOP OF GUN.....

..AND ONE AT SEA LEVEL.....

Gas Gun: number of shots per level .....2.....

gun depth ...12.2.....metres

Well phone positioning:

No of depths .....11.....

Time: first shot .....0445.....

last shot .....0746.....

Total rig time .....1½ HOURS.....

RESULTS

Quality of results (good.....3.....

(fair .....14.....

(poor .....5.....

(not used .....5.....

Comparison of Interval Times with Sonic Log

/ / average ....76.93.....microsec/metre

/ / max .....208.0.....microsec/metre

CONCLUSION

Reliability of T-D curve .....

COMMENTS

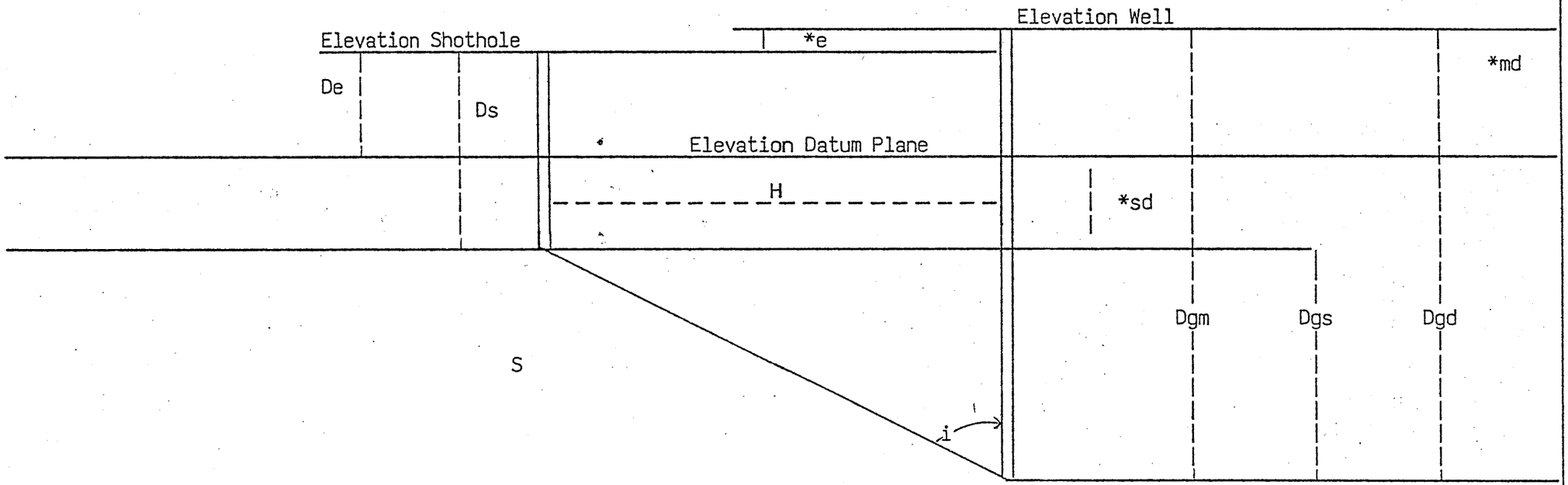
Gun malfunction before survey (carburettor had to be replaced). Survey commenced in fine weather and then moved to rough seas, high winds and rain.

Shots 1 and 2 of poor quality due to no stack was put into cable before shooting. First records have reverse polarities on the moonpool phone (this was rectified).

Shot 22 malfunctioned due to low gas pressures.
Shot 23 malfunctioned due to oscillograph running out of paper.

Believe lower levels were of poorer quality due to casing bond problems.

Shothole Information - Elevation, Distance and Direction from Well	Elevation (Derrick Floor)	Total Depth	Co-ordinates	Datum	Country - Area/Field
+25m for reference sensor offset ∴ 0.029 + 0.016 = 0.045 for run 2	34.7m	2690m RKB	Lat. 30°11'43"S Long. 148°01'27"E	Mean Sea Level	Gippsland



Dgm = Geophone depth measured from well elevation
Dgs = Geophone depth measured from shot elevation
Dgd = Geophone depth measured from datum elevation
*e = Difference in elevation between well and shotpoint
*sd = Difference in elevation between shot and datum plane
*sd = Ds - De
Dgs = Dgm - Dst *e; tan i = $\frac{H}{Dgs}$
Tgs = cos i T = Vert. travel time from shot elev. to geophone
Tgd = Tgs $\pm$ $\frac{*sd}{V}$ = Vert. travel time from datum plane to geophone
Dgd = Dgm = *md
Sn = Shothole number
Re = Reading

Ds = Depth of shot
De = Shothole elevation to datum plane
H = Horizontal distance from well to shotpoint
S = Straight line travel path from shot to well geophone
T = Observed time from shotpoint to well geophone
$\frac{*sd}{tr}$ = Is in milliseconds
tr = Observed time from shotpoint to reference geophone
Vi = Interval velocity = $\frac{*Dgd}{*Tgd}$
Va = Average = $\frac{Dgd}{Tgd}$
Rn = Record number
ToS = Time of shot
Gr = Grade

Surveyed by : Velocity Data Date : 18. 1.82; 18. 7.82 Run 1: 20" @ 165m; 13 3/8" @ 620m Run 2: 9 5/8" @ 1550m Casing Record

07420/Moz

Rn	Run	ToS	Dgm	Ds	Tr	Re	Gr	Dgs	H	Tan i	Cos i	Tgs	*sd	*sd/V	Tgd	Tgd/Av	Dgd	*Dgd	*Tgd	Vi	Va.
29	1	1131	600		.118	.221	VP	553	180	.3255	.9509	.2102	12.2	8	.2182	.2199	565.3				2571
28		1130			.109	.223			166	.3002	.9578	.2136			.2216						
55	2	0744	650		-	N.U		603	-	--	--	--			--	--	615.3				
56		0746			-	N.U			-	--	--	--			--			200	.1021	1959	
26	1	1112	800		.109	.268	NU	753	166	.2205	.9766	.2617			--	.322	765.3				2377
25		1110													--						
51	2	0720			-	--	-		-	--	--	--			--						
52		0725			-	--	-		-	--	--	--			--						
53		0728			-	N.U	VP		-	--	--	--			--						
50		0716			.029	.314	P		69	.0916	.9958	.313			.321			100	.064	1563	
54		0732			.029	.316						.315			.323		865.3				2242
27	1	1120	900		.113	.289	NU	853	172	.2016	.9803	.2833			--	.386					
48	2	0708			.029	.379	G		69	.0809	.9967	.378			.386			322	.1238	2601	
49		0709														.5098	1187.3				2329
24	1	1053	1222		.115	.508	F	1175	175	.1489	.9891	.5025			.5105.						
23		1052			.113	.507			172	.1464	.9895	.5017			.5097.						
22		--	N.R.		-	--	-	--	-	--	--	--			--						
21		1050	1222		.118	.507	F		180	.1532	.9885	.5012			.5092.			88.5	.0352	2514	
20		1043	1310.5			.541		1264		.1424	.9900	.5356			.5436	.5450	1275.8				2341
19		1042				.542						.5366			.5446						
18		1041				.541						.5356			.5436						
17		1040																			
46	2	0650			.029	.538			69	.0546	.9985	.5372			.5452						
47		0652																			
30		0445				.541	P					.5402			.5482						
31		0449				.539						.5382			.5462			114	.0396	2879	
16	1	1029	1424.5		.118	.580	F	1378	180	.1306	.9916	.5751			.5831	.5846	1389.8				2377

Rn	Run	ToS	Dgm	Ds	Tr	Re	Gr	Dgs	H	Tan i	Cos i	Tgs	*sd	*sd/V	Tgd	Tgd/Av	Dgd	*Dgd	*Tgd	Vi	Va
15	1	1028	1424.5		.118	.586	F	1378	180	.1306	.9916	.5811	12.2	8	.5891	.5846	1389.8				
14		1026				.580						.5751			.5831						
13		1025										.5751						25	.0062	4032	
12		1019	1449.5		.111	.587		1403	169	.1205	.9928	.5828			.5908	.5908	1414.8				2395
11		1018																			
10		1016			.110				168	.1197	.9929										
9		1014																100.5	.0335	3000	
44	2	0637	1550		.029	.625		1503	69	.0459	.999	.6243			.6243	.6243	1515.3				2427
45		0638					G														
8	1	1006	1626		.098	.649	F	1579	149	.0944	.9956	.6461			.6541	.6533	1591.3				2436
7		1004			.113	.648			172	.1089	.9941	.6442			.6522			76	.029	2621	
6		1002			.109				166	.1051	.9945	.6444			.6524						
5		1000																			
4		0934			.022	.646	VP		34	OFFSET	DOES	NOT			.654						
3		0933								AFFECT		TIME									
2		0931			.021				32												
1		0930			.023	.645			35						.653						
42	2	0626	1693		.029	.673	F	1646	69	.04192	.9991	.6724			.6804	.6799	1658.3	67	.0266	2519	
43		0627				.672						.6714			.6794						2439
40		0611	1980			.766		1933		.0357	.9994	.7655			.7735	.7735	1945.3	287	.0936	3066	
41		0612																			2515
38		0601	2150			.809		2103		.0328	.9995	.8086			.8166	.8176	2115.3	170	.0441	3855	
39		0602				.811						.8106			.8186						2587
36		0550	2300			.858		2253		.0306	.9995	.8576			.8656	.8656	2265.3	150	.048	3125	
37		0551																			2617
34		0539	2450			.897		2403		OFFSET	DOES	NOT			.905	.9045	2415.3	150	.0389	3856	
35		0540				.896				AFFECT		TIME			.904						2670
																		160	.0435	3678	

Rn	Run	ToS	Dgm	Ds	Tr	Re	Gr	Dgs	H	Tan i	Cos i	Tgs	*sd	$\frac{*sd}{V}$	Tgd	Tgd/Av	Dgd	*Dgd	*Tgd	Vi	Vá
32	2	0526	2610		.029	.940	P	2563	69	OFFSET	DOES	NOT	12.2	8	.948	.948	2575.3				2717
33		0528					F			AFFECT		TIME									

VELOCITY SURVEY ERROR CHECK

SNAPPER A-21

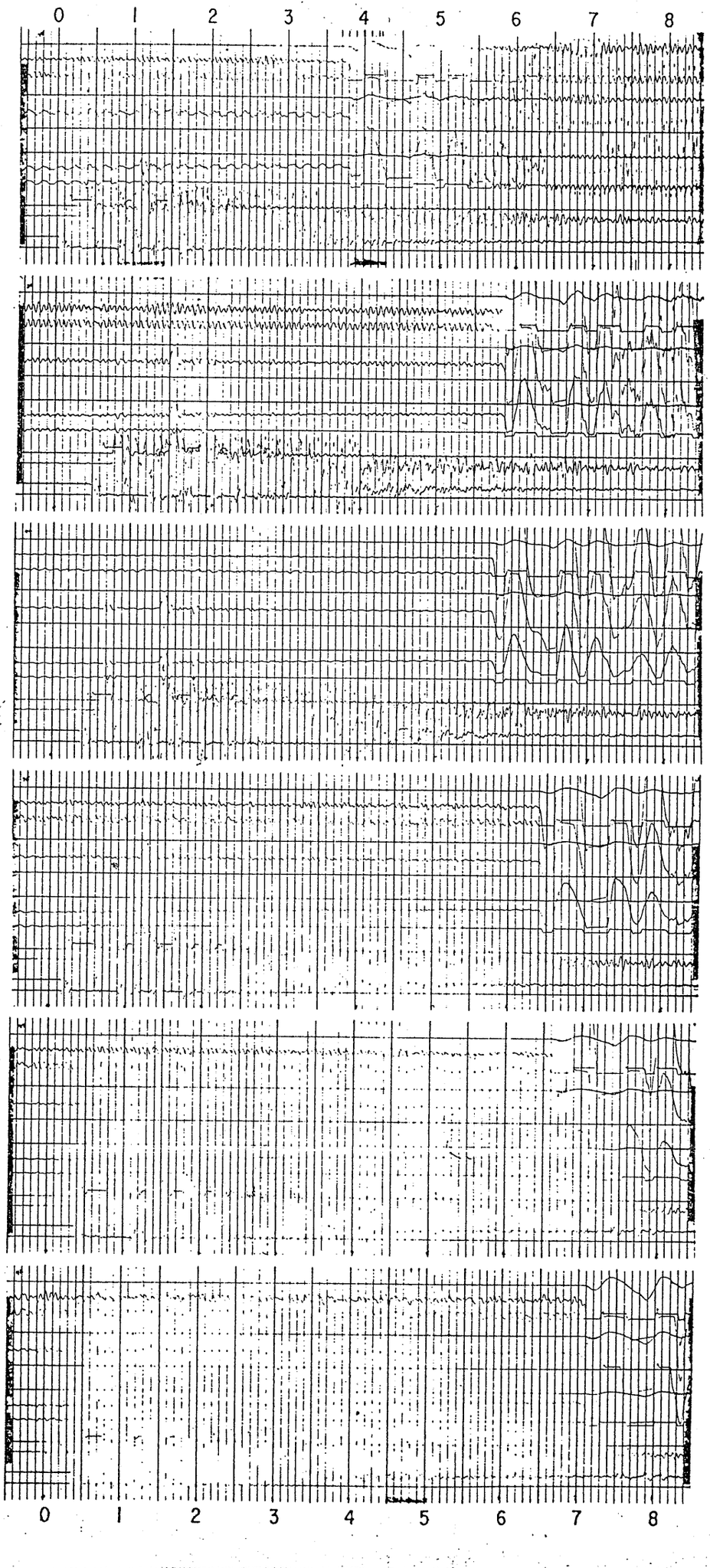
Depth Rel.S.L. (m)	Av. Vertical Travel Time (check shots)	Ti Check Shots (sec.)	Ti Sonic Log (sec.)	△ (Millisecs.) Ti Check — Ti Sonic	Depth Interval (m.)	Error (Microsec. per m.)
565.3	0.2199	.1021	.0704	31.7	200	158.5
765.3	0.322					
765.3	0.322	.064	.054	10.0	100	100.0
865.3	0.386					
865.3	0.386	.1238	.1455	-21.7	322	67.4
1187.3	0.5098					
1187.3	0.5098	.0352	.044	-8.8	88.5	99.4
1275.8	0.545					
1275.8	0.545	.0396	.0488	-9.2	114	80.7
1389.8	0.5846					
1389.8	0.5846	.0062	.0114	-5.2	25	208.0
1414.8	0.5908					
1414.8	0.5908	.0335	.0446	-11.1	100.5	110.4
1515.3	0.6243					
1515.3	0.6243	.029	.0243	4.7	76	61.8
1591.3	0.6533					
1591.3	0.6533	.0266	.0210	5.6	67	83.6
1658.3	0.6799					
1658.3	0.6799	.0936	.0871	6.5	287	22.6
1945.3	0.7735					
1945.3	0.7735	.0441	.0469	-2.8	170	16.5
2115.3	0.8176					
2115.3	0.8176	.048	.0411	6.9	150	46.0
2265.3	0.8656					
2265.3	0.8656	.0389	.0394	-0.5	150	3.3
2415.3	0.9045					
2415.3	0.9045	.0435	.0405	3.0	160	18.8
2575.3	0.948					
					AV	76.93

SNAPPER A-21

11 SEP 1986

WELL VELOCITY RECORD

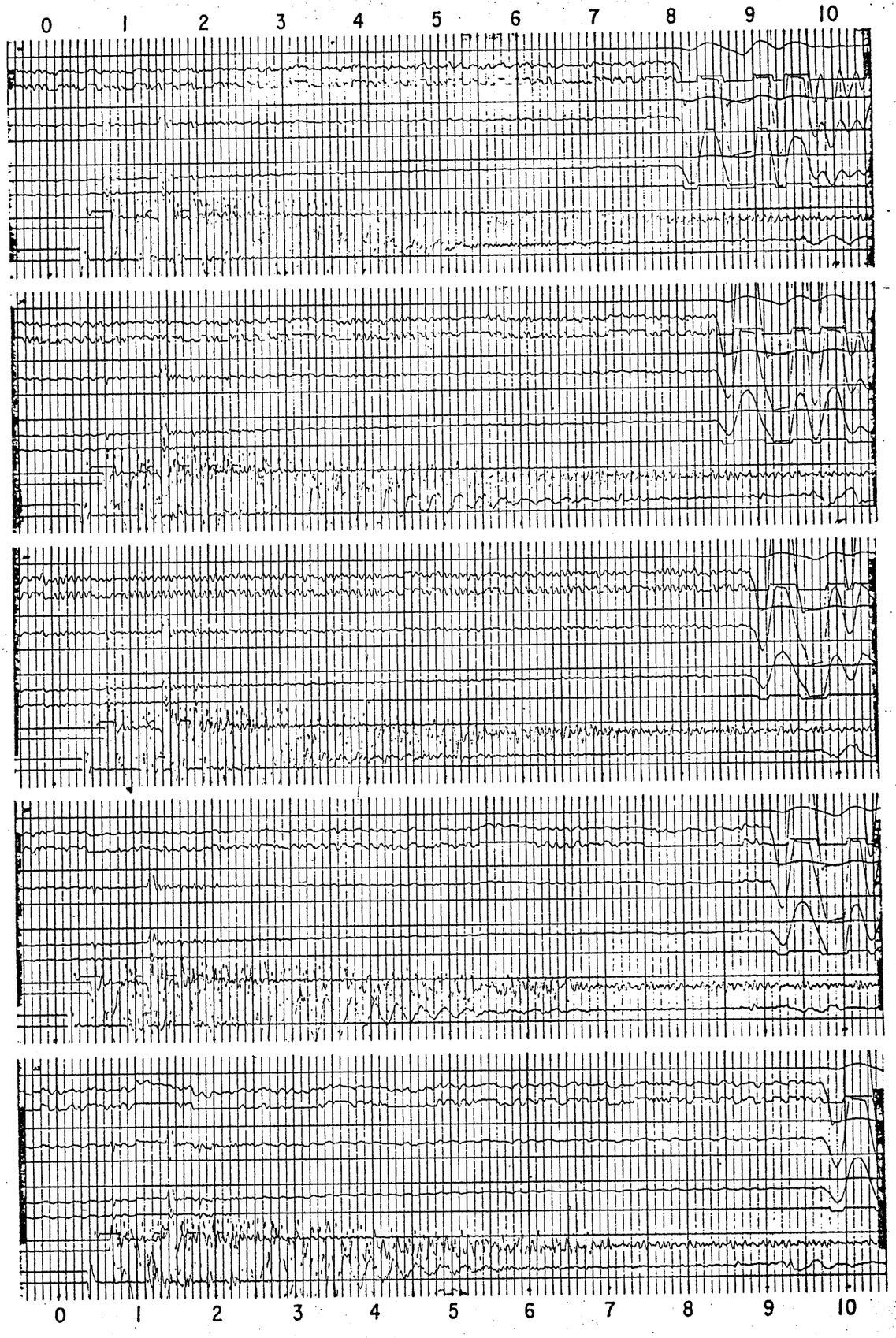
18-1-82



SNAPPER A-21

WELL VELOCITY RECORD

18-1-82



Rec. No. 40
1980 m RKB

Rec. No. 39
2150 m RKB

Rec. No. 36
2300 m RKB

Rec. No. 35
2450 m RKB

Rec. No. 33
2610 m RKB

SNAPPER A-21 11 SEP 1986

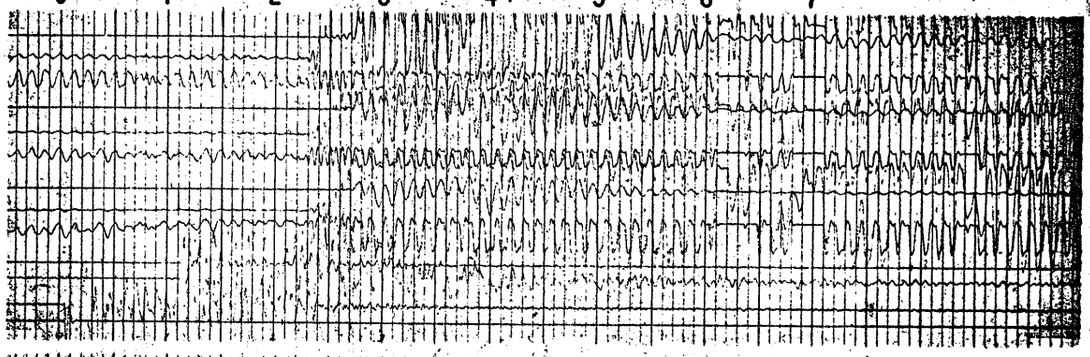
WELL VELOCITY RECORD

SHEET 1/5

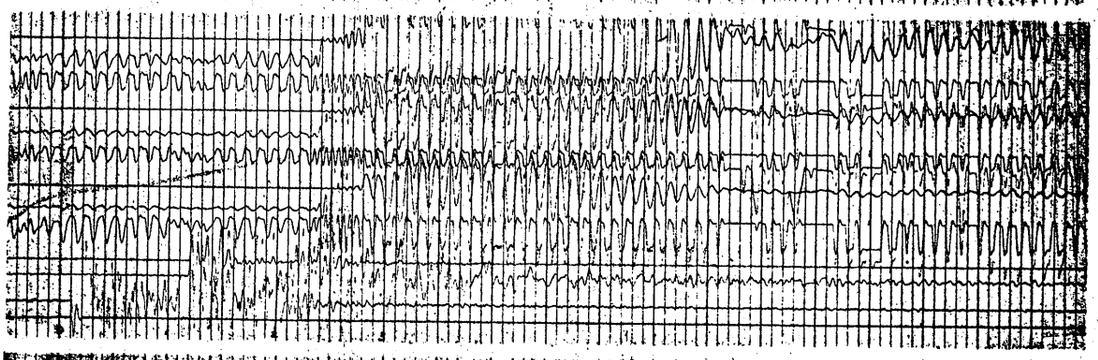
18-7-81

0 1 2 3 4 5 6 7

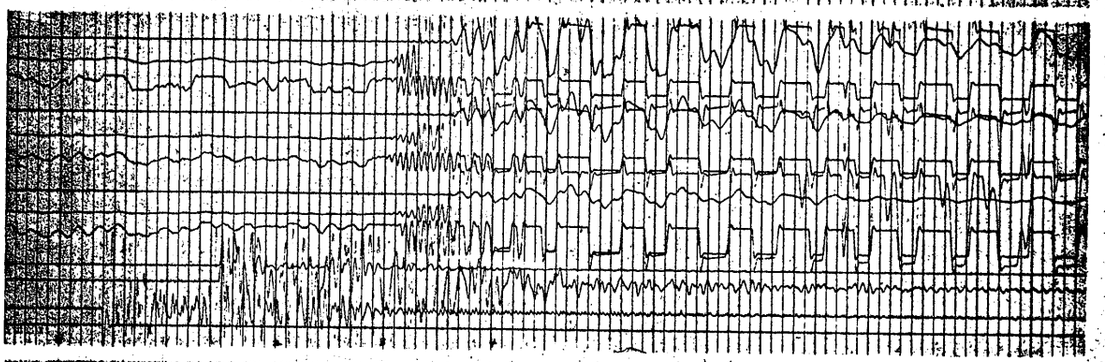
Rec. No. 28
600 m. KB.
Time : 1130 hrs.



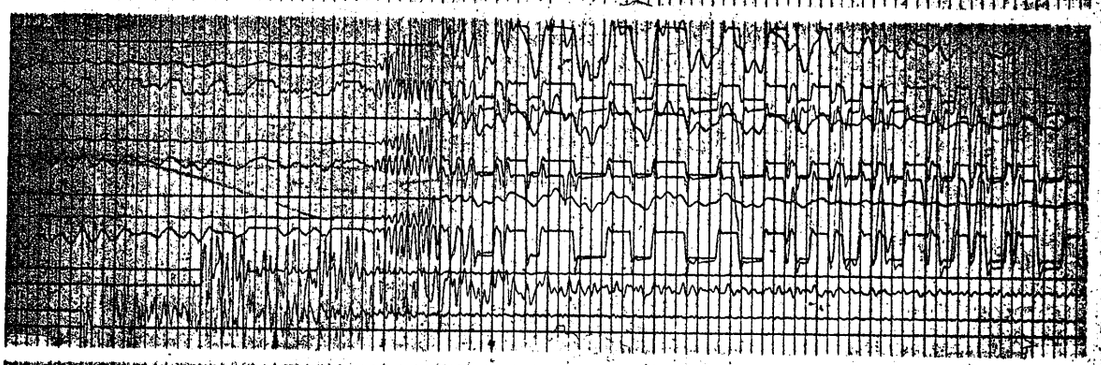
Rec. No. 29
600 m. KB.
Time : 1131 hrs.



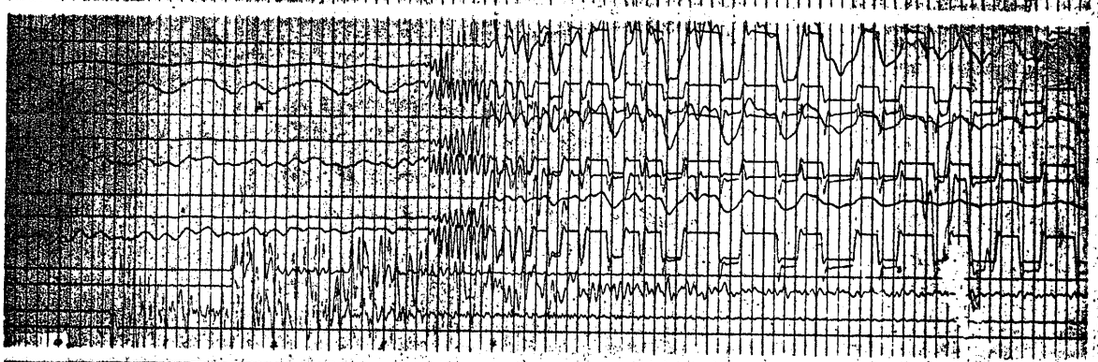
Rec. No. 25
800 m. KB.
Time : 1110 hrs.



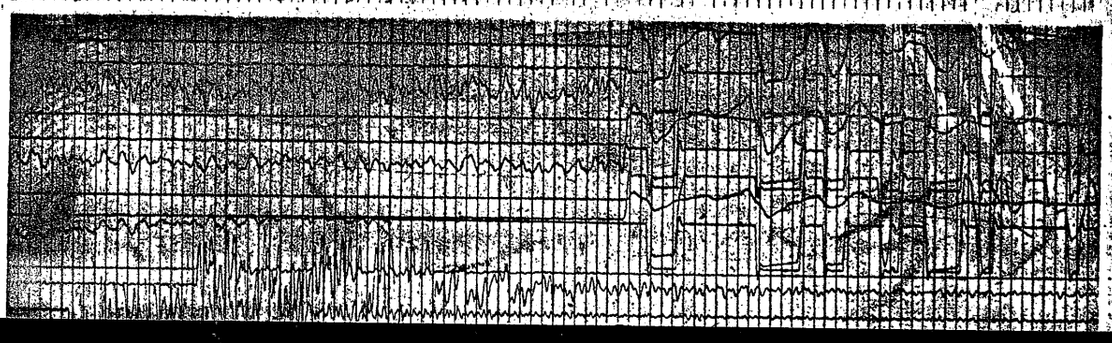
Rec. No. 26
800 m. KB.
Time : 1110 hrs.



Rec. No. 27
900 m. KB.
Time : 1120 hrs.



Rec. No. 21
1222 m. KB.
Time : 1050 hrs.



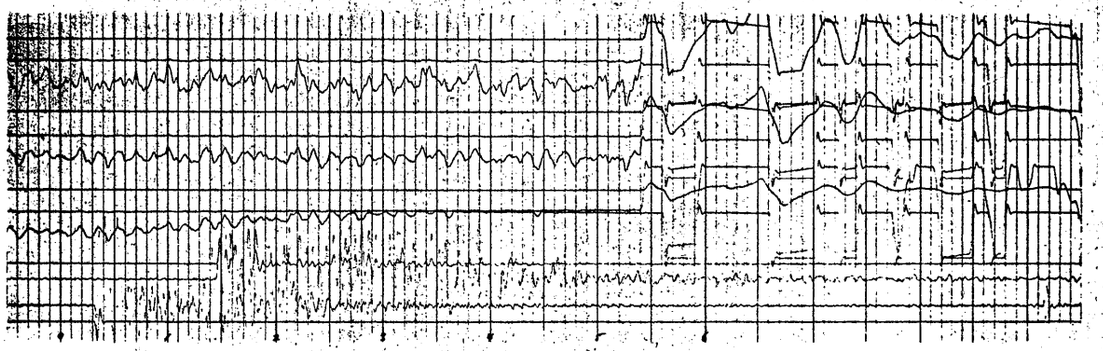
SNAPPER A-21

WELL VELOCITY RECORD

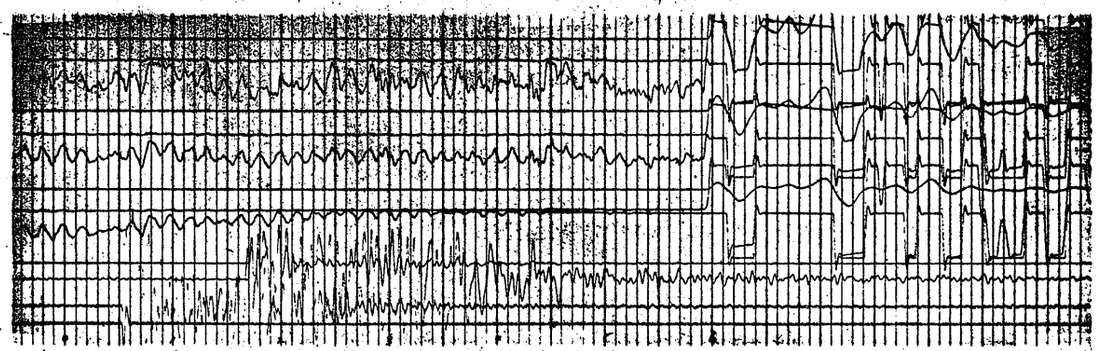
18-7-81

0 1 2 3 4 5 6 7

Rec. No. 23
1222 m. KB.
Time : 1050 hrs.



Rec. No. 24
1222 m. KB.
Time : 1050 hrs.



Rec. No. 17
1310·5 m. KB.
Time : 1040 hrs.

Rec. No. 18
1310·5 m. KB.
Time : 1040 hrs.

Rec. No. 19
1310·5 m. KB.
Time —

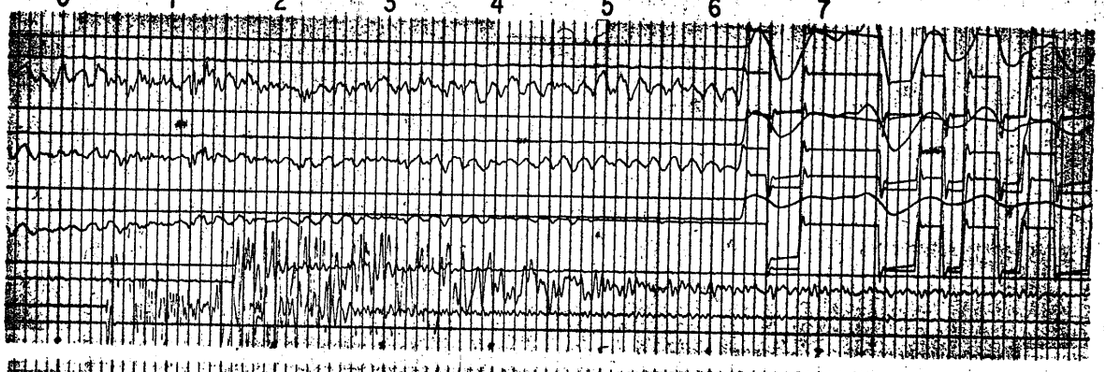
Rec. No. 20
1310·5 m. KB.
Time 1040 hrs.

SNAPPER A-21

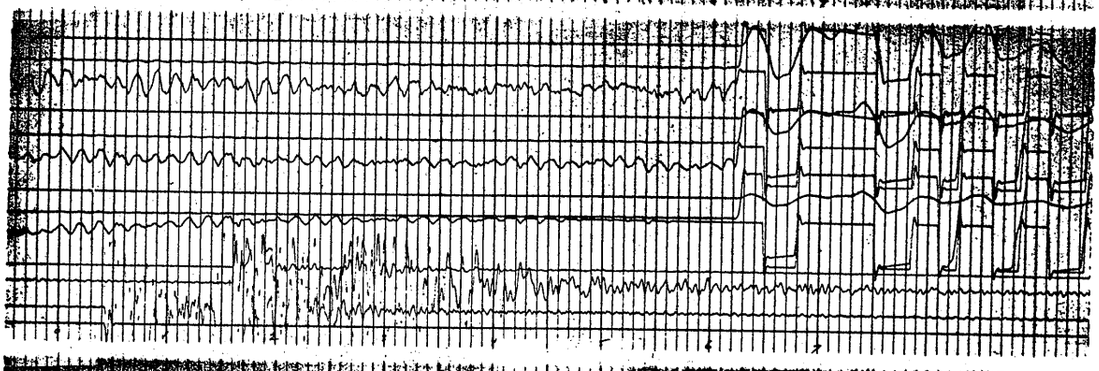
WELL VELOCITY RECORD

18-7-81

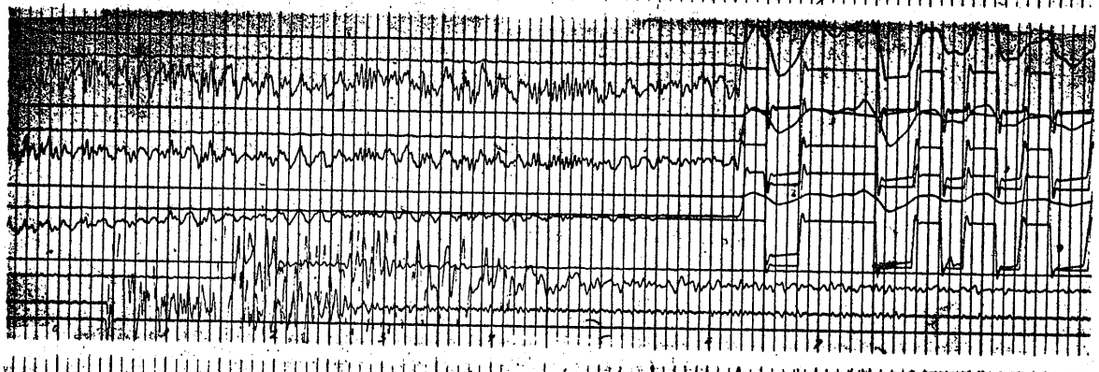
0 1 2 3 4 5 6 7



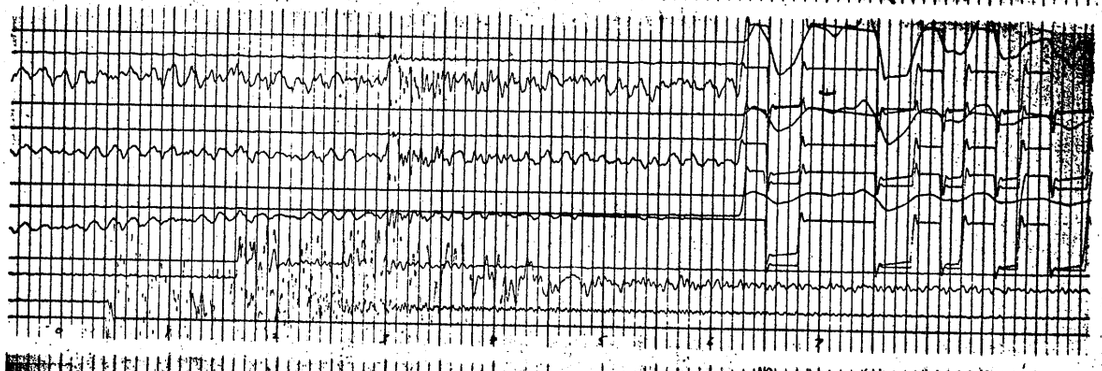
Rec. No. 13
1424·5 m. KB.
Time : 1025 hrs.



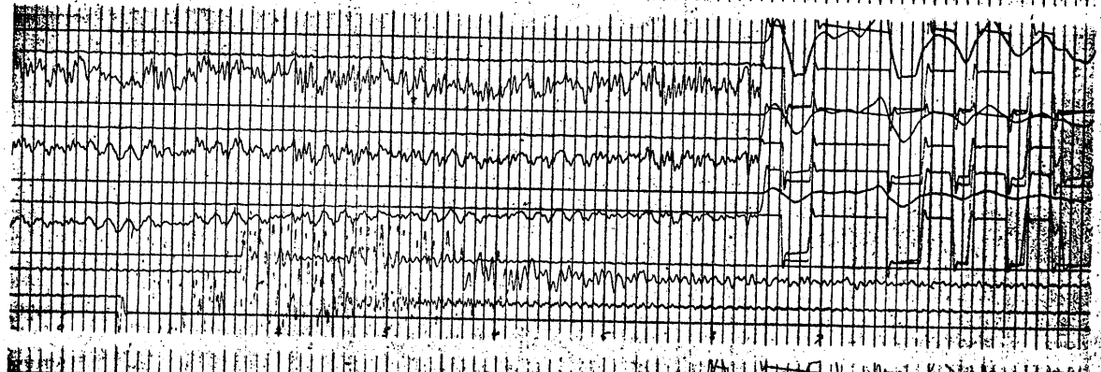
Rec. No. 14
1424·5m. KB.
Time : 1026 hrs.



Rec. No. 15
1424·5m. KB.
Time : 1028 hrs.



Rec. No. 16
1424·5m. KB.
Time : 1029 hrs.



Rec. No. 9
1449·5m. KB.
Time —

Rec. No. 10
1449·5 m. KB.
Time: 1016 hrs.

SNAPPER A-21

WELL VELOCITY RECORD

18-7-81

Rec. No. 11
1449·5 m KB.
Time : 1018 hrs.

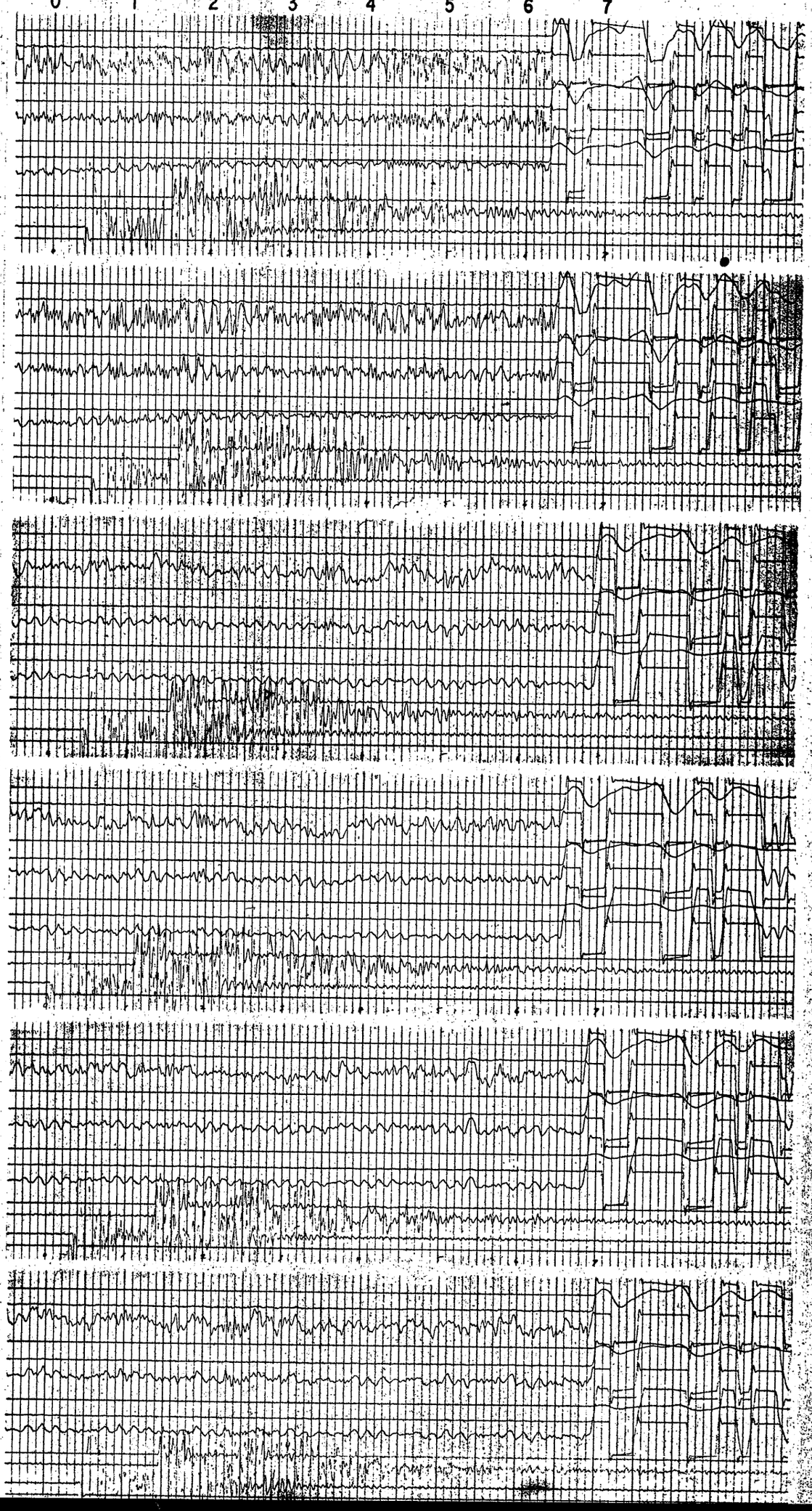
Rec. No. 12
1449·5 m KB.
Time : 1019 hrs.

Rec. No. 5
1626 m. KB.
Time : 1000 hrs.

Rec. No. 6
1626 m. KB.
Time : ——

Rec. No. 7
1626 m. KB.
Time : 1004 hrs.

Rec. No. 8
1626 m. KB.
Time : ——



SNAPPER A-21

WELL VELOCITY RECORD

18-7-81

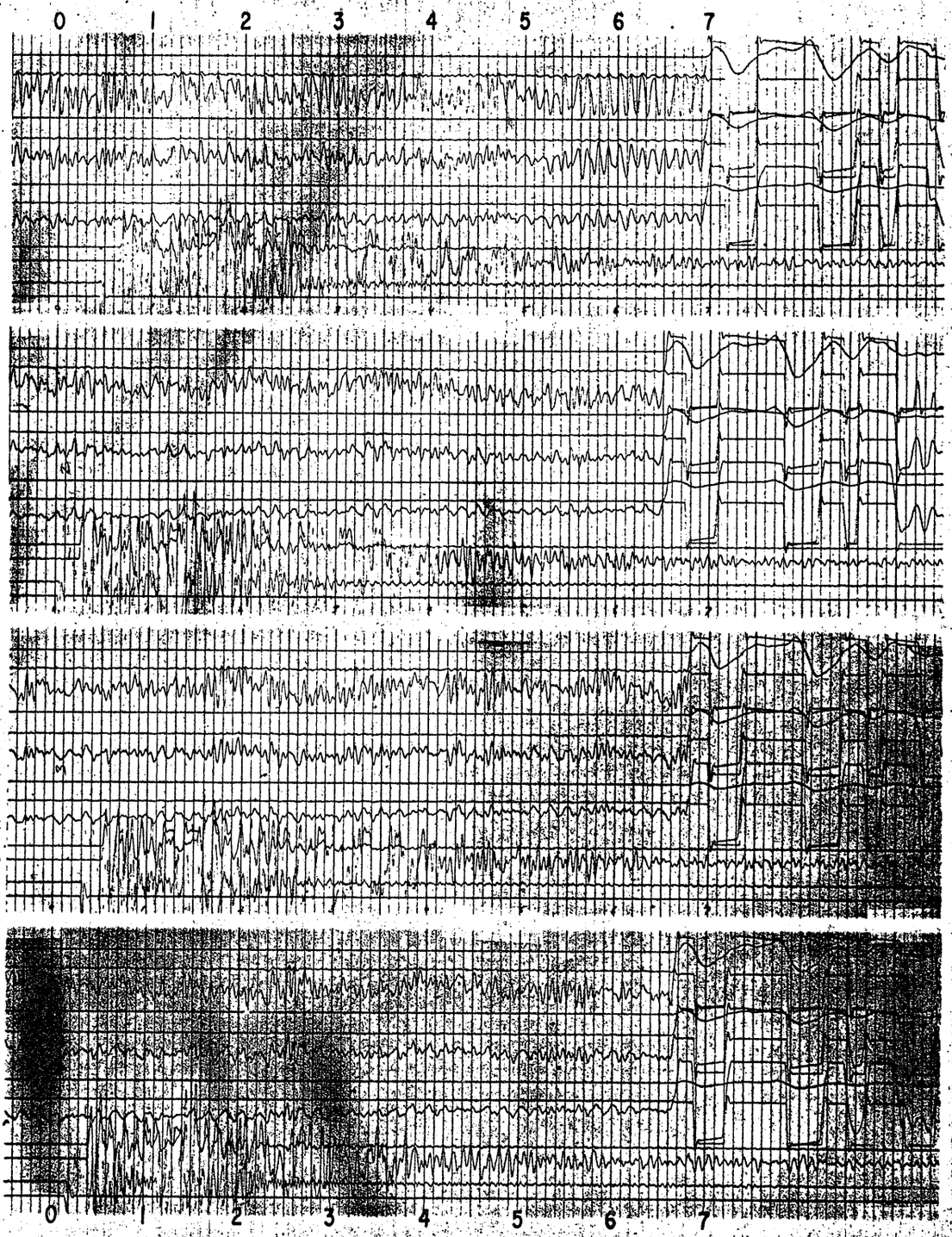
SHEET 5/5

Rec. No. 1
1626 m. KB.
Time : 0930 hrs.

Rec. No. 2
1626 m. KB.
Time : ——

Rec. No. 3
1626 m. KB.
Time : 0933 hrs.

Rec. No. 4
1626 m. KB.
Time : 0936 hrs.



PE905085

This is an enclosure indicator page.
The enclosure PE905085 is enclosed within the container PE902705 at this location in this document.

The enclosure PE905085 has the following characteristics:

ITEM_BARCODE	= PE905085
CONTAINER_BARCODE	= PE902705
NAME	= Time-Depth Curve
BASIN	= GIPPSLAND
PERMIT	= VIC/L10
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Time Depth Curve(enclosure from WCR) for Snapper-A21
REMARKS	=
DATE_CREATED	= 24/07/84
DATE_RECEIVED	= 11/09/86
W_NO	= W748
WELL_NAME	= SNAPPER-A21
CONTRACTOR	=
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

RFT Test Program

RFT TEST PROGRAM

WELL COMPLETION REPORT

SNAPPER A-21 RFT TEST PROGRAM

(N-1 RESERVOIR)

Plots & table in Sn A-21 well file

N.W. SEAGE
R.S. PRASSER

SEPTEMBER 1981

SNAPPER A-21 RFT TESTS **INTERPRETATIVE**

(N-1 RESERVOIR)

An RFT program was run in the N-1 Reservoir section of Snapper A-21 well on 2.7.81-3.7.81.

The aims of the program were:

(1) Confirm the baseline N-1 reservoir pressures obtained in Snapper A-1.

(2) Establish GOC and OWC (this could not be done in Snapper A-1 due to very poor section in the oil zone.

(3) Obtain RFT samples in the N-1 oil and gas zones for PVT and compositional analysis.

The main results were:

(1) Reservoir Pressures

Figure 1 and Table 1 show reservoir pressure versus depth TVDKB. Figure 2 shows a comparison of the A-21 data with the A-1 data. The data shows a good agreement between the two wells.

In the aquifer in A-21 the pressures lie on a gradient of 0.44 psi/ft. In the gas zone the gradient is 0.048 psi/ft. It was possible to take three pressure readings in the oil zone and a gradient of 0.30 psi/ft was established. An expanded plot of the data in the region of the oil zone is shown in Figure 3.

Figure 1 shows the measured gradient at the bottom of the gas zone to be anomalously low (0.036 psi/ft). This phenomenon was also observed in Snapper A-1.

(2) Fluid Contacts

The oil column was encountered mostly in good quality sand in A-21 which enabled an oil column thickness to be estimated. As shown in Figure 3 the gas gradient extends down to 1417m TVDKB. This GOC was confirmed by a gas sample taken at 1414.5m TVDKB and an oil sample taken at 1418m TVDKB.

The pressure data suggests an OWC at 1425m TVDKB although the pressure reading at 1425m TVDKB is about 1 psi above the water gradient line. This may have been due to a tight RFT seat. Confirming fluid samples could not be taken because of failure of the RFT test tool. If the column is placed between 1417 and 1425m TVDKB, then no column movement due to reservoir pressure decline is implied.

(3) RFT Fluid Samples

Details of sample recovery are set out in Table 2.

A segregated RFT gas sample was taken at 1280m MDKB (1278.1m TVDKB) at a shut-in sample pressure of 1965 psig. A full PVT and compositional analysis will be run on this sample.

Because of mechanical problems with the RFT tool, the test program had to be stopped before a segregated oil sample could be taken.

TABLE 1

SNAPPER A-21 RFT RESULTS

(N-1 RESERVOIR)

JULY 2-3, 1981

BASIC

Depth (m)		Formation Pressure	Hydrostatic Pressure	
MDKB	TVDKB	(psig)	(psig)	(ppg)
1447	1445.1	2022.2	2837	11.51
1438	1436.1	2009.6	2818	11.50
1431	1429.1	1999.2	2805	11.50
1429	1427.1	1996.1	2800	11.50
1427	1425.1	1993.8 (tight)	2796	11.50
1424	1422.1	1990.2	2790	11.50
1422	1420.1	1988.2	2786	11.50
1420	1418.1	1986.3	2782	11.50
1418	1416.1	1985.0	2778	11.50
1417	1415.1	(too tight)	2776	11.50
1410.5	1408.6	1984.1	2763	11.50
1407	1405.1	1983.6	2756	11.50
1398	1396.1	1983.1	2738	11.50
1394	1392.1	1982.2	2731	11.50
1380.5	1378.6	1980.3	2705	11.50
1358.5	1356.6	1977.1	2662	11.50
1327.5	1325.6	1972.6	2602	11.51
1299	1297.1	1968.5	2546	11.51
1280	1278.1	1964.5	2509	11.51
1242.5	1240.6	1958.9	2435	11.50

RSP: 29/7/81
(1295f)

TABLE 2

SNAPPER A-21 RFT SAMPLE RECOVERIES

BASIC

(N-1 RESERVOIR)

JULY 2-3, 1981

	Depth mTVDKB		
	1278.1	1414.6	1418.1
Chamber Size mL	10000	10000	3600
Recovery mL			
Oil mL	-	-	2750
Gas m^3	3.5	4.3	0.5
Filtrate mL	-	1500	-

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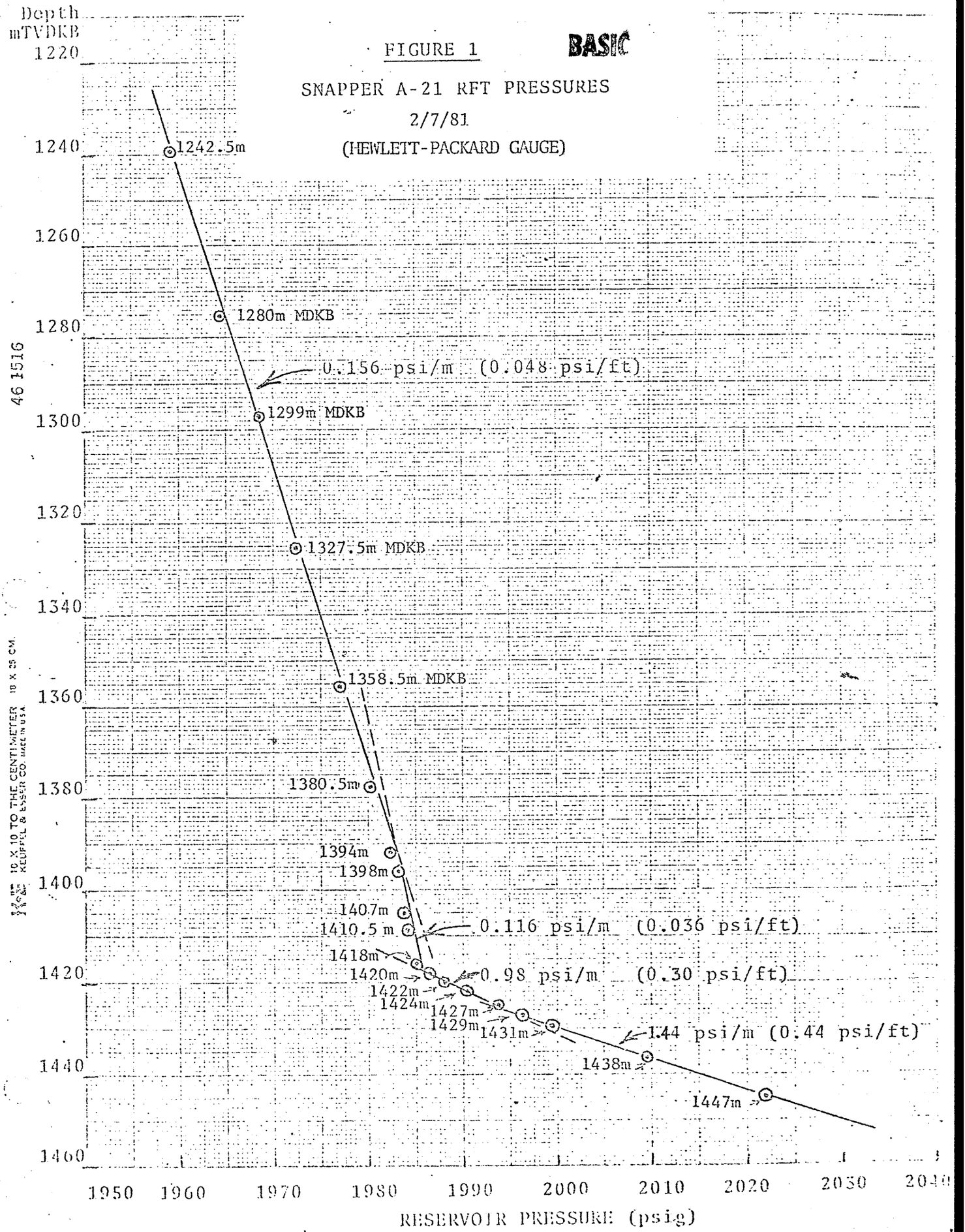
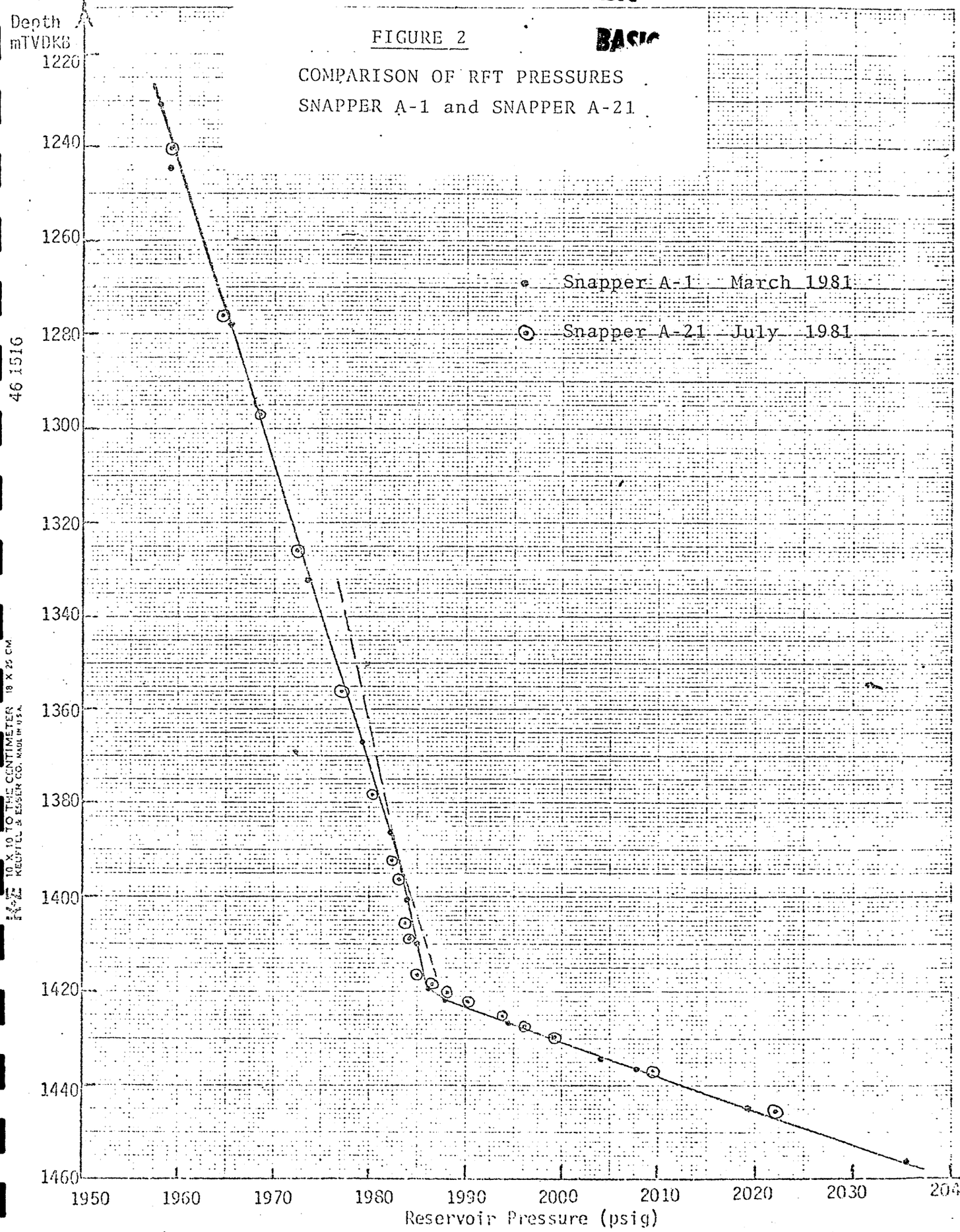


FIGURE 1
BASIC
SNAPPER A-21 RFT PRESSURES
2/7/81
(HEWLETT-PACKARD GAUGE)
Depth
mTVDKB
1220
1240
1260
1280
1300
1320
1340
1360
1380
1400
1420
1440
1460
1242.5m
1280m MDKB
0.156 psi/m (0.048 psi/ft)
1299m MDKB
1327.5m MDKB
1358.5m MDKB
1380.5m
1394m
1398m
1407m
1410.5 m
0.116 psi/m (0.036 psi/ft)
1418m
1420m
0.98 psi/m (0.30 psi/ft)
1422m
1424m
1427m
1429m
1431m
1.44 psi/m (0.44 psi/ft)
1438m
1447m
1950
1960
1970
1980
1990
2000
2010
2020
2030
RESERVOIR PRESSURE (psig)
46 1516
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN USA

FIGURE 2

COMPARISON OF RFT PRESSURES
SNAPPER A-1 and SNAPPER A-21



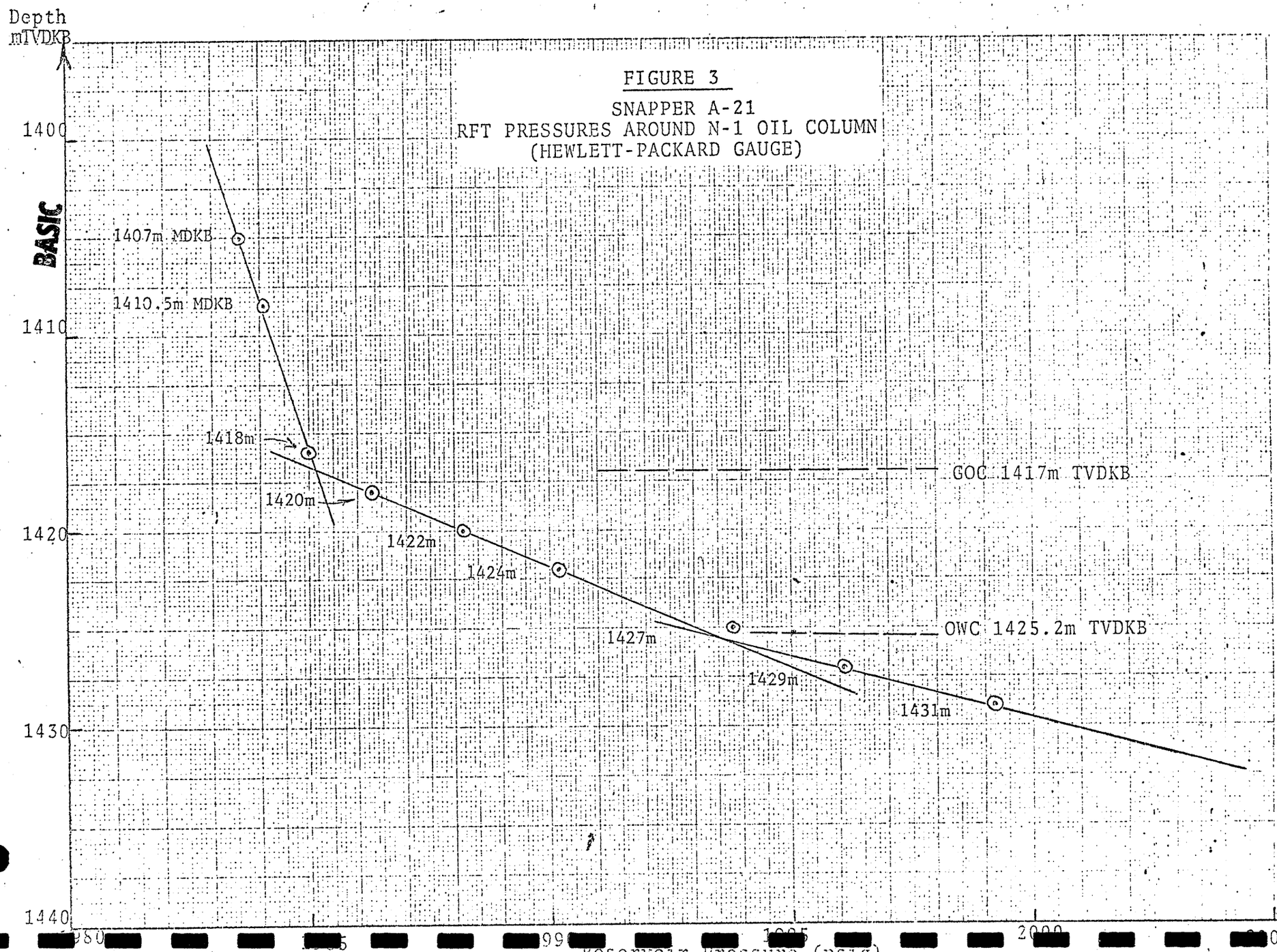


FIGURE 3

SNAPPER A-21
RFT PRESSURES AROUND N-1 OIL COLUMN
(HEWLETT-PACKARD GAUGE)

BASIC

SNAPPER A-21

RFT PROGRAM RESULTS

BASIC

Run	Seat	Depth M.D.	Pretest Pressure (psia)	Remarks
1	1	1447.0	2036.9	
1	2	1438.0	2024.3	
1	3	1431.0	2013.9	
1	4	1429.0	2010.8	
1	5	1427.0	2008.5	Tight.
1	6	1424.0	2004.9	
1	7	1422.0	2002.9	
1	8	1420.0	2001.0	
1	9	1418.0	1997.7	Tight.
1	10	1417.0	-	Very tight.
1	11	1410.5	1998.8	
1	12	1407.0	1998.3	
1	13	1398.0	1997.8	
1	14	1394.0	1996.9	
1	15	1380.5	1995.0	
1	16	1358.5	1991.8	
1	17	1327.5	1987.3	
1	18	1299.0	1983.2	
1	19	1280.0	1979.2	Lower chamber (2 3/4 gal.) gas: 35.8 c.ft. Sample pressure: 1,979 psia. Upper chamber (1 gal.) Sample P: 1979 psi.
1	20	1242.5	1973.6	
2	2/1	1416.5		Lower chamber (2 3/4 gal.) gas: 46.25 c.ft, filtrate: 1500 cc.. Sample P: 2,000 psia. Surface P: 1425 psig.
2	2/2	1420.0		Upper chamber (1 gal) oil: 2750 cc, gas: 183.5 c. ft., filtrate: trace. Sample P: 2000 psia. Surface P: 1000 psig.

Schaffer-A21 BASIC

Run	Seat	Depth M.D.	Pretest Pressure (psia)	Remarks
4	21	2662.0	3962.0	Not temperature stablized, non-segregated sample taken but chamber not full.
4	22	2643.0	N/A	Tight on pretest.
4	22A	2641.5	3940.0	Temp. stabilized OK. Still tight on pretest but got a final pretest pressure.
4	23	2636.5	3098.6	Good pretest.
4	24	2627.5	3925-3928	Tight.
4	25	2366.5	3410.0	Tight.
4	25A	2365.5	3415.0	Tight.
4	25B	2366.0	3415.0	Good pretest. Non-segregated sample taken. Flowing characteristics indicate gas.
4	27	2095.0	2977.5	Good pretest.
4	28	2054.0	2920.2	Good pretest.
4	29	2038.0	2898.1	Good pretest.
4	30	2021.0	2873.4	Good pretest.
4	31	1955.0	2795.5	Good pretest.
4	32	1950.0	2787.9	Started having trouble with temp stabilization, pretest OK.
4	33	1925.5	2751.6	Problems with temp. stabilization, pretest OK.
4	34	1914.5	2733.8	As above.
4	35	1787.0	2548.5	Temp. stabilization problems, tight pretest.
4	36	1763.5	2512.8	As above.
4	37	1739.5	2473.2	As above.
4	38	1718.5	2439.6	Temp. stabilization problems, tightish pretest.
4	39	1696.5	2405.1	Temp. stabilization OK from here on. Pretest tightish, but OK.
4	40	1673.5	2360.5	Pretest good.
4	41	1632.5	2300.9	Pretest good.

Run	Seat	Depth M.D.	Pretest Pressure (psia)	Remarks
5	42	1701.5	2410.0	2 3/4 gal. chamber-oil: 5700 cc. gas: 29.1 c. ft., filtrate: 1100 cc. Sand displayed excellent flowing characteristics.
6	43	1969.9	2814.5	Sample.
6	44	1925.5	-	Failed due to tight section.
6	45	1914.5	2734.5	Tight.
6	46	1739.5	2470.9	Repeat from Run #4 sample.
6	47	1731.0	2466.3	Sample.
6	48	1718.5	2439.8	Repeat from Run #4.
8	49	2642.5	3912.6	6 gal. chamber sampled for 24:42 mins. at flowing P of 100 psi.
8	50	2639.5	-	Unsuccessful pretest because of plugging.
8	50A	2640.0	-	Unsuccessful pretest because of plugging.
8	51	2637.2	-	6 gal. chamber sampled for 24:30 min. at flowing P of approx. 3400 psi. Filtrate: 1900 cc, gas: 1 c. ft., oil: trace (suspect oil chamber contamination).
9	52	2599.0	-	Tight at 2599m.
9	52A	2598.5	3856.9	
9	53	2587.0	-	Failed because of plugging.
9	53A	2587.3	-	
9	54	2521.0	3652.5	
9	55	2475.0	-	Failed because of plugging.
9	55A	2475.5	-	
9	56	2472.5	3583.3	
9	57	2391.5	-	Failed because of plugging.
9	57A	2390.4	-	

BASIC

Run	Seat	Depth M.D.	Pretest Pressure (psia)	Remarks
9	58	1692.5	-	HP gauge failed (plugged).
9	58A	1692.7	2404.4	Sampled.
9	58B	1693.0	2404.9	Recovered 2000 ccs. filtrate and oil (approx. 100-200 cc's oil).
9	59	1670.5	2360.6	Pretests indicate good permeability
9	59A	1669.5	-	but sampling failed due to plugging.
9	59B	1669.8	-	
9	59C	1671.0	-	Pretest failed.
9	60	1667.5	2360.2	Permeability OK on pretest, but sampling failed due to plugging.
9	61	1655.5	-	Continued seal failure.
9	61A	1656.0	-	Continued seal failure.
9	62	1653.0	2340.4	Permeability OK on pretest but sampling failed due to plugging.
10	63	3136.0	5260.0	RFT presssure.
10	64	3113.0	N/A	Plugged.
10	65	3108.2	N/A	Seal failure.
10	66	3079.5	N/A	Plugged.
10	67	3061.5	N/A	Seal failure.
10	68	2954.2	4475.0	Sampled, 9300 cc. water
10	69	2942.5	4430.0	
10	70	2905.5	4360.0	
10	71	2902.8	4357.0	Sampled, 1400 cc. water.
11	73	2888.8	N/A	Seal failure.
11	74	2866.2	4420.0	RFT gauge pressure.
11	75	2856.5	4424.0	RFT gauge pressure.
11	76	2821.5	N/A	Seal failure, no sample attempted.

1922f59-62

CORE DESCRIPTIONS

WELL COMPLETION REPORT

SNAPPER A-21

CORE DESCRIPTIONS

DEPTH	LITHOLOGY	DESCRIPTION
CORE NO. 4		
1412.0-1412.7m	Sandstone	Light grey, very friable to firm, fine to very coarse grained, (fU-vcU), mainly coarse (cU), moderate sorting subangular to subrounded mostly clean, trace dolomite cement, one thin (1cm.) coal stringer near top of core, very good visible intergranular porosity, extensive mud invasion. From 1412.6m- scattered pin point yellow-white fluorescence, very pale tan stain, instant fast streaming yellow white cut fluorescence, bright yellow white fluorescent residue.
1412.7-1412.93m	Sandstone	Light grey, friable, fine to very coarse (fU-vcU), moderate sorting, quartz 20% silt matrix, 20% silty coal clasts, pyritic microcrystalline impregnation, poor to fair visible porosity.
1412.93-1413.06m	Coal	Dark grey, brittle, clean.

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CORE NO. 5

1415.2-1418.5m	Claystone	Light grey, moderately hard, brittle, massive, clay to size, appears recrystallized, non calcareous, not water sensitive, graduation contact with underlying sandstone.
1418.5-1424.24m	Sandstone	Light grey, some with tan hue, very friable to firm, most massive, scattered thin (1-5mm.) silty argillaceous and carbonaceous laminations, minor coaly streaks (roots), very fine to medium grained (vfL-mU), sequence is fining up, most very well sorted, subangular to subrounded, pressure solution faceting quartz, 2-5% altered feldspar, trace metamorphic rock fragments, trace white mica, trace carbonaceous flecks, clean sandstone grading upwards to argillaceous sandstone and claystone, minor authigenic clay cement from altered feldspars, weak silica cement, trace scattered microcrystalline pyrite cement, very pale tan oil stain, petroliferous odour, massive to mottled bright yellow white fluorescence, instant diffuse to fast streaming yellow white cut fluorescence, very pale straw visible cut, very good intergranular porosity in clean zones, grades to fair to poor as clay content increases towards top of section.

CORE NO. 6

1424.0-1426.74m	Sandstone	Light grey, very friable to friable, fine to very coarse grained. (fL-vcU), mainly coarse (cL) well sorted, sub angular to subrounded, quartz, 2-3% rock fragments, trace to 2% muscovite, trace authigenic clay matrix, good to excellent visible intergranular porosity, strong petroliferous odour, 70-90% mottled to massive fluorescence, instant stream cut fluorescence, pale tan stain.
1427.10m	Sandstone	Light grey, friable, medium-granule size, poorly sorted, angualar to round, quartz, 3% authigenic clay matrix, 1% rock fragments, trace pyrite, trace dolomite cement, very weak odour, 20-30% pinpoint mottled fluorescence, cut, mud invasion masking stain if present.
1427.33-1429.48m	Sandstone	Light to medium grey, hard to very hard, medium granule size, mainly coarse (cU), well sorted, angular to subrounded quartz, 1-4% rock fragments, trace altered feldspar, trace authigenic clay matrix, abundant dolomitic cement. 1427.33-1428.12m- no odour, 10-20% patchy fluorescence, estimated 5-10% tan stain in vuggy intergranular pores, slow stream cut fluorescence. 1428.5-1429.48m- no odour, 5-25% pin point to patchy, dull yellow white mineral fluorescence, no cut.
1430.24-1430.7m	Sandstone	Light-olive grey, friable, medium to very coarse grained (mU-vcL), mainly coarse (cU), well sorted, subangular to subrounded, quartz, 2-3% rock fragments, minor dolomitic cement, no odour, trace pinpoint mineral fluorescence, no cut.
1430.85-1431.20m	Sandstone	Light grey, friable, medium to coarse grained (mL-cL), mainly medium (mU), werll sorted, subangular to subrounded, quartz, 2-3% rock fragments, 2-3% altered feldspars, trace clay matrix, no fluorescence, no cut.

CORE NO. 7

1699.0-1701m	Sandstone	Very light grey-dark grey, tan, friable, fine-very coarse, grained (fU-vcL), dominantly medium (mU), angular, subrounded, moderately sorted, quartz trace-2% altered feldspar, trace mica, 60% strong even yellow white fluorescence, immediate yellow white cut, trace oil stain? Good intergranular porosity.
1702m	Sandstone	Grey, moderate-hard, silt size, medium (mL), dominantly fine (fL), angular-subrounded, moderately sorted, quartz, 2% mica, carbonaceous laminae, 60% strong even yellow white fluorescence, fast-immediate yellow white cut, trace oil staining? Good intergranular porosity.
1704m	Sandstone	Very light-dark grey, friable, very fine-coarse, grained, (vfU-cU), dominantly medium (mU), well sorted, angular-subrounded, quartz, trace-1% altered feldspar, trace mica 40-60% strong even to patchy yellow white fluorescence, immediate yellow white cut, good intergranular porosity.
1707m	Carbon-aceous Shale	Disorientated plant fragments, becoming less carbonaceous, pockets of graphite.
1709m	Shale	Hard, subfissile, few plant remains, pockets of graphite and mica flakes.
1710m	Carbon-aceous Claystone	Massive, soft, earthy, disorientated plant fragments.
1712m	Carbon-aceous Siltstone	Interlaminated with carbonaceous streaks, hard, subfissile, rich in biotite and muscovite crystals.
1715m	Coal	Black, brittle, conchoidal fracture, shiny.
1717m	Sandstone	Firm to hard, very fine lower, quartz grains, carbonaceous streaks, fluorescence and cut.

CORE NO. 8

1919m	Sandstone	very fine upper-fine lower, quartz medium-light, medium grey, friable, well sorted, subangular laminae of detritus, faint odour, yellow fluorescence, slow streaming yellow-cream cut fluorescence.
1919.9-1920.5m	Silty/ Sandstone	Quartz, 5% coal fragments in laminae, occurrence of mica.
1920.5-1920.8m	Silty/ Sandstone	Friable, 20% coal fragments in patchy occurrence.
1920.8-1921.2m	Silty/ Sandstone	As above.
1921.2-1921.98m	Sandstone	Very fine upper-fine upper, medium-medium dark grey, friable, moderately sorted, subangular, silty matrix, thin laminae of detritus, very faint odour, patchy yellow fluorescence, very slow cut.
1921.98-1922.45	Siltstone	Friable, mica on laminae surfaces.
1922.45-1923.2	Coal	Dark brown.
1923.2-1923.85	Siltstone	Medium grey, moderately hard, waxy appearance on mottled surfaces.
1923.85-1924.36	Coaly/ Siltstone	Friable, medium grey.
1924.36-1925.48m	Siltstone	Medium grey-brownish, moderately hard, small coal bands (1.5mm) and patchy coal and mud concretions.

1925.48-1926.85m	Coal	Dark grey, very brittle, very porous.
1926.85-1928.28	Sandstone	vfU-fU, medium light grey, friable, moderately sorted, subangular, quartz, silty matrix, occurrence of mica, 5% coal fragments, little brown mud concretions, trace of fluorescence, yellow-cream, extremely weak and slow cut.
1928.28-1929.14m	Sandstone	vfU-mL, mainly fL, medium light grey, poorly sorted, subangular, slightly silty matrix. 1-2% coaly fragments, very thin laminae of coal, bright yellow fluorescence, slow yellow cut fluorescence, faint odour.
1929.14-1929.7m	Sandstone	50%, vfU-mL, medium light grey, poorly sorted, subangular, moderately hard, silty matrix, silty coal laminae, mottled dark brown.
1927.7-1930.6m	Siltstone	Coaly, grey, wavy thin lamination, moderate hard.
1930.6-1932.58m	Siltstone	Coaly, dark grey, moderate hard.
1932.58-1935.3m	Siltstone	Medium, light grey, moderate hard, thin laminae of detritus, in lower part increasing coal % from 1934.5, dark grey-brownish grey, occurrence of mica (biotite and muscovite) and pyrite.
1936.3-1937.08m	Silty/ Coal.	Dark grey, brittle.
1937.08m	Siltstone/ Claystone	Medium, dark grey, hard, occurrence of mica (biotite and muscovite) flakes 1937.45m.
		End of Core.

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CORE NO. 9

2164-2170m	This entire core section consisted of SHALE. Coring interval interrupted.

CORE NO. 10

2342m	Shale Coal	Micaceous and pyritic. Bright-banded.
2343m	Coal	80% white fluorescence, weak cut. Dull.
2344m		No shows, Mica.
2345m		Mica, pyrite. Abundant mica.
2346m		Abundant bright coal laminae. Mica.
2347m		Mica. Cut negligible.
2348m		Fine mica.
2349m		Fine mica, pyrite.
2350m		Fine mica. Micaceous, shale carbonaceous.
2351m		Orange fluorescence, no cut.

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CORE DESCRIPTION

WELL SNAPPER A-21

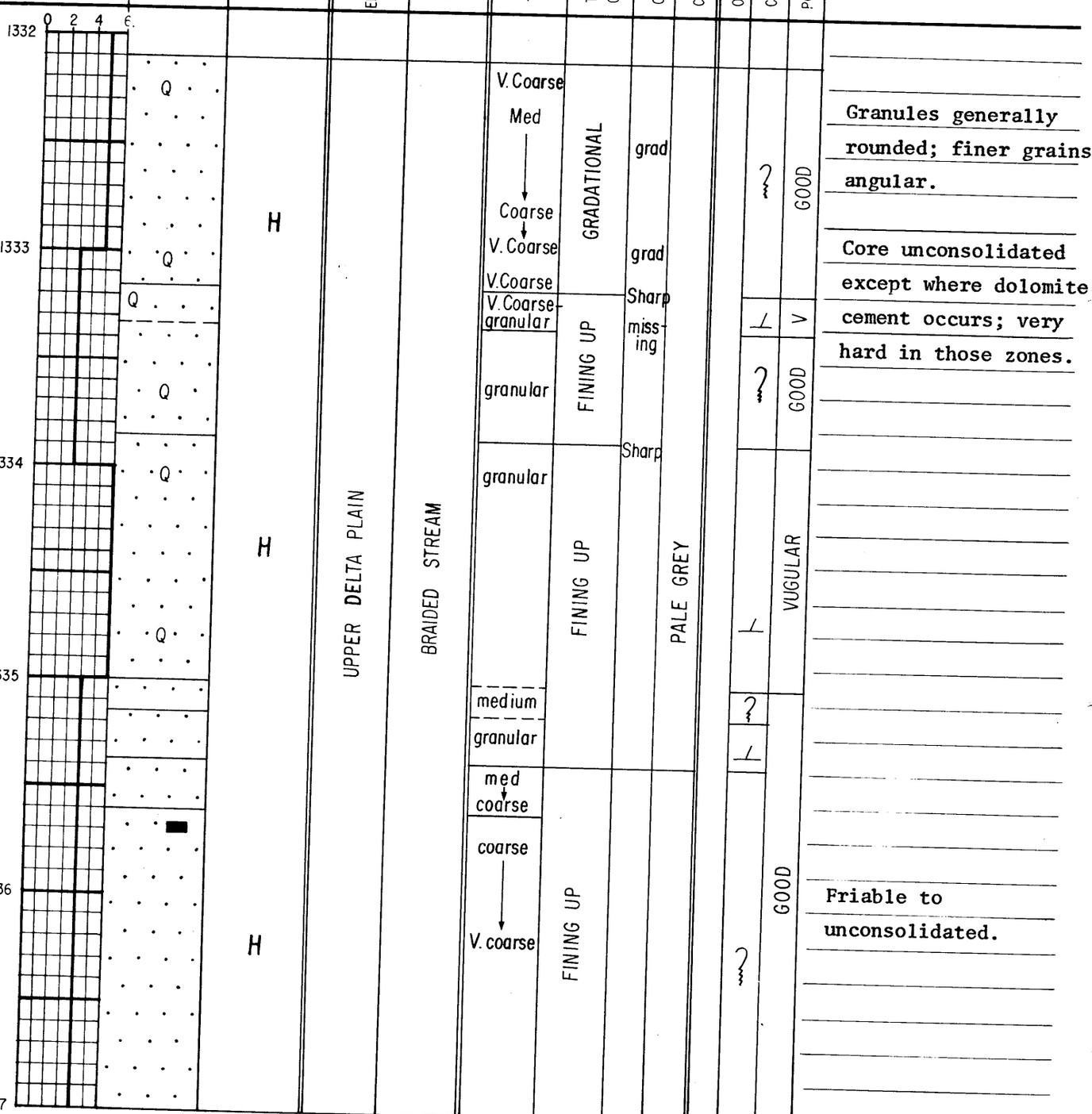
3" RUBBER SLEEVE

SCALE 1:25

CORE No. 2

Interval Cored 1332·1 – 38·2 **Cut** 6·1m **Recovered** 4·9m (80%) **Fm.** LATROBE

Bit Type C-35 **Bit Size** 8·47 in., **Desc by** J. Lau **Date** 12/1/82



EPRCo #1	1332.28-1332.38	#7	1334.25-1334.35	#13	1336.10-1336.20
2	1332.58-1332.68	8	1334.60-1334.70	14	1336.60-1336.70
3	1332.98-1333.08	9	1334.90-1335.00	15	1336.90-1337.00
4	1333.28-1333.38	10	1335.20-1335.30		
5	1333.55-1333.65	11	1335.50-1335.60		
6	1333.95-1334.05	12	1335.80-1335.90		

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

2/18

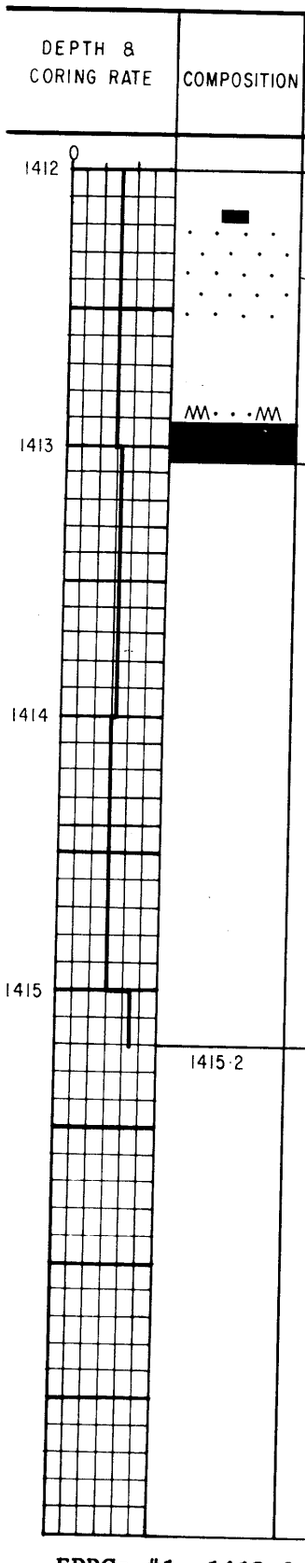
WELL SNAPPER A-21

SCALE 1:25

CORE No. 4

Interval Cored 1412.0 – 1415.2m **Cut** 3.2m **Recovered** 1.06m (33.%) **Fm.** LATROBE

Bit Type CHRIS C22 FD **Bit Size** $9\frac{27}{32}$" **in., Desc by** D. HENDERSON **Date** 28-6-81



1412.0-1412.7m
Sandstone- Light grey, very friable to firm, fine to very coarse grained (fu-vcU), mainly coarse (cU), moderate sorting subangular to subrounded, mostly clean, trace dolomite cement, one thin (1cm) coal stringer near top of core, very good visible intergranular porosity, extensive mud invasion, from 1412.6m scattered pin point yellow white fluorescence, very pale tan stain, instant fast streaming yellow white cut fluorescence, bright yellow white fluorescence residue.

1412.7-1412.93
Sandstone- Light grey, friable, fine to very coarse (fU-vcU) moderate sorting, quartz, 20% silt matrix, 20% silty coal clasts, pyritic micro-crystalline impregnation poor to fair visible porosity.

1412.93-1413.08
Coal- Dark grey, brittle, clean.

EPRCo #1 1412.0-1412.11m
2 1412.20-1412.31m
3 1412.57-1412.68m
4 1412.83-1412.92m

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

3/18

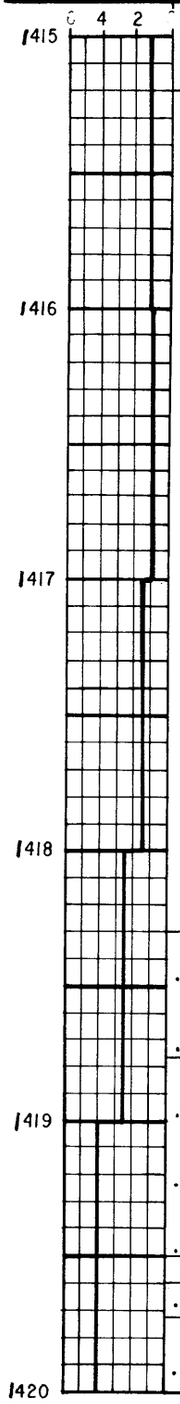
WELL SNAPPER A-21

SCALE 1:25

CORE No. 5

Interval Cored 1415.2 – 1424.24 Cut 9.04 m Recovered 9.04 m (100 %) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $9\frac{27}{32}$" in., Desc by DH/LM Date 14/1/82



DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN	CEMENT	POROSITY	REMARKS
1415												
1415–1418		H	FLUVIAL	ABANDONED CHANNEL	SOAPY CLAY TO SILTLY SIZED	NONE APPARENT	ALL GRADATIONAL	LIGHT GREY	⊕	SILTY MATRIX, SLIGHTLY CEMENTED		Claystone- mod. hard, brittle. Appears re-crystallized. Non-calcareous, not water-sensitive.
1418–1420	Q, tr, Q, tr, Q			BRAIDED STREAM	V.FINE; MED TO FINE; M; MED	MOSTLY FINING UP		LIGHT GREY TO TAN	⊕ 1%; ⊕ 70%			Sandstone- v. friable to firm. Scattered thin (1-5mm) silty argillaceous and carbonaceous laminae, minor coalified roots. Mostly well-sorted, subangular tosubrounded, pressure solution faceting, 2-5% altered feldspar, tr. met. rock fragments.

EPRCo. # 5 1419.72-1419.87 # 11 1421.88-1422.03

6 1420.18-1420.27

7 1420.58-1420.67

8 1420.88-1421.03

9 1421.28-1421.32

10 1421.64-1421.77

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

4/18

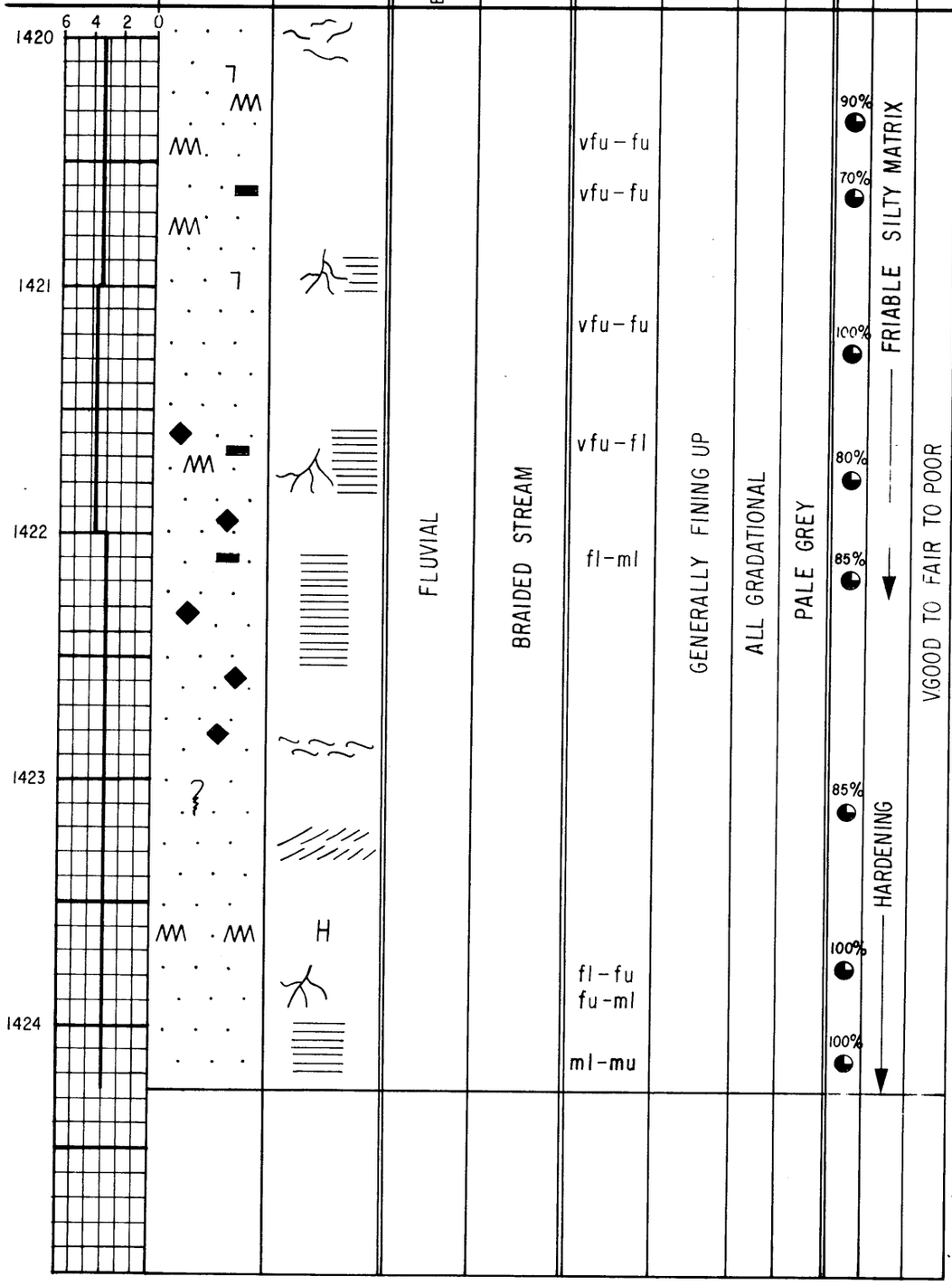
WELL SNAPPER A-21

SCALE 1:25

CORE No. 5

Interval Cored 1415.2-1424.24 Cut 9.04 Recovered 9.04 (100 %) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $9\frac{27}{32}$" in., Desc by DH/LM Date 14/1/82



REMARKS

Sandstone- Clean, fining up to argillaceous SS and claystone. Minor authigenic clay cement from altered feldspar cement. Trace scattered micro-crystalline pyrite cement. Very pale tan oil stain, petroliferous odour, massive to mottled Bright yellow-white fluor instant diffuse to fast streaming. White cut fluor., v. pale straw visible cut. V. good porosity in clean zones, grading to fair to poor with incr. in clay towards top of section. 1422-1423.4- Pyrite often associated with carb. laminae.

EPRCo. #	12	1422.64-1422.72
	13	1423.00-1423.13
	14	1423.34-1423.41
	15	1423.69-1423.76
	16	1423.91-1424.12
	17	1424.14-1424.24

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

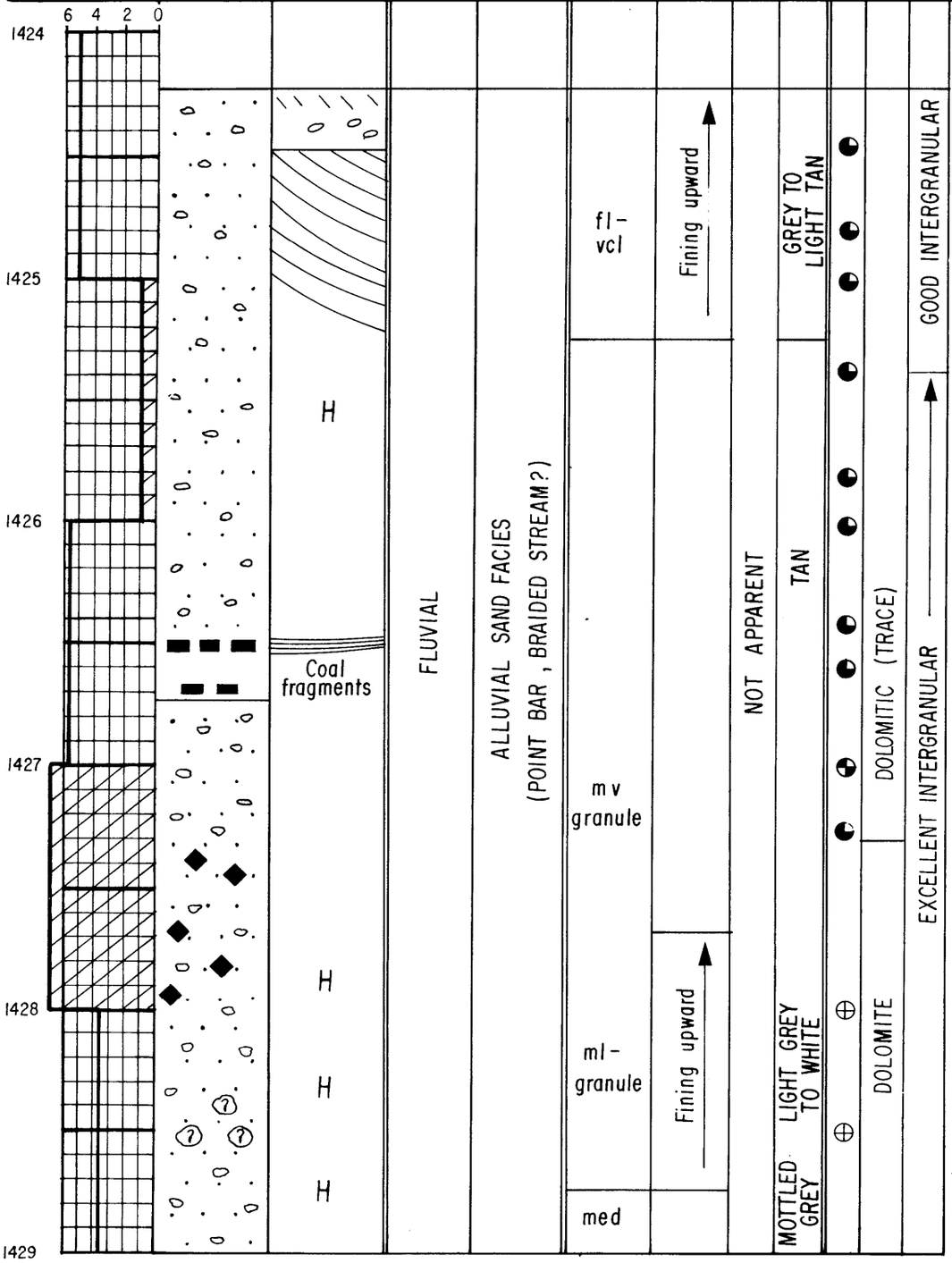
5/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 6

Interval Cored 1424.24–1432.40m Cut 8.16 Recovered 7.16 (88.%) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $9\frac{27}{32}$" in., Desc by GR,SF,LM. Date 14/1/82



REMARKS

1424.24-1426.74m SS, l. grey-tan, v. friable to friable, fine to v. coarse grn. (fL-vcU), mainly coarse (cL), well sorted, sbb-angular to subrounded; Q, 2-3% rock frags., tr-4% altered feldspar, tr-2% muscovite, tr. authigenic clay matrix, strong petroliferous odour, 70-90% mottled to mass fluor., instant stream cut fluor., pale tan stain.

1427.10m- Sandstone- l. grey, friable, med-granule size, poorly sorted, angular to round; Q, 3% authigenic clay matrix, 1% rock frags., v. weak odour, 20-30% pinpoint-mottled fluor., cut, mud invasion masking stain if present.

1427.33-1430.13-Sandstone well sorted, hard to v. hard, mainly coarse, n angular to subrounded.

EPRCo.	# 18	1424.38-1424.29	# 25	1426.74-1426.82	
	19	1424.64-1424.73	26	1427.00-1427.10	
	20	1425.00-1425.10	27	1427.33-1427.41	
	21	1425.50-1425.63	28	1427.70-1427.78	
22	22	1425.79-1425.88	29	1428.05-1428.12	
	23	1426.09-1426.17	30	1428.50-1428.55	
	24	1426.41-1426.50	31	1428.71-1428.81	

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

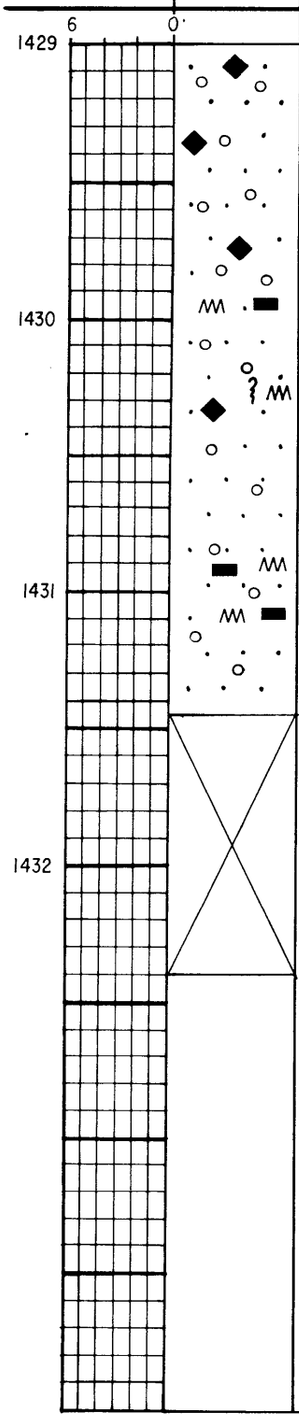
6/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 6

Interval Cored 1424.24-1432.40m Cut 8.16 Recovered 7.16 (88 %) Fm. Latrobe

Bit Type CHRIS C22 FD Bit Size $9\frac{27}{32}$" in., Desc by GR, SF, LM Date 14/1/82



ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY
FLUVIAL	ALLUVIAL SAND FACIES (POINT BAR, BRAIDED STREAM?)	mU-vcL	FINING UP		PINKISH GREY		DOLOMITE	
		mL-cL			PALE GREY		MINOR DOLOMITE	

END OF CORE

REMARKS

1427.33-1425.12-
no odour, 10-20% patchy fluor., a 5-10% tan stain in vuggy inter-granular pore. Slow stream cut fluor.,
1428.5-1429.48-
no odour, 5-25% patchy dull yellow-white minl. fluor., no cut.
1430.24-1430.37-SS
no odour, tr. minl. fluor., no cut.
1430.85-1431.40
SS- friable, tr. clay matrix, no fluor. or cut.

EPRCo. #	32	1429.05-1429.15
	33	1429.33-1429.48
	34	1429.77-1429.88
	35	1430.13-1430.24
	36	1430.43-1430.55
	37	1430.75-1430.80
	38	1431.18-1431.29

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

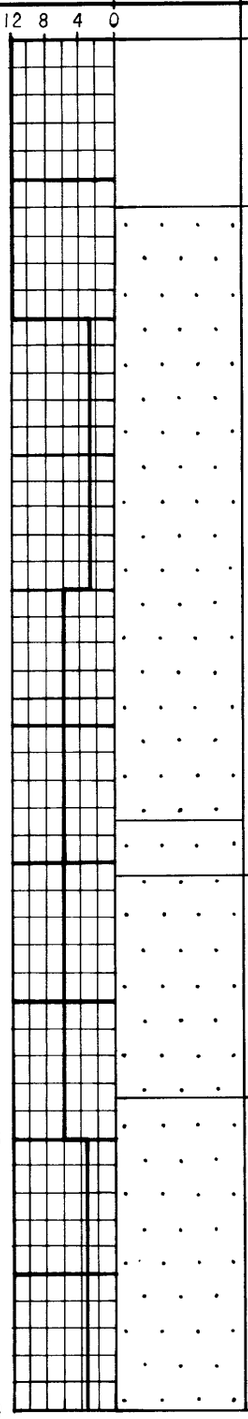
7/18

WELL SNAPPER A-21 SCALE 1m:4cm

CORE No. 7

Interval Cored 1699.0-1717.3m Cut 18.3m Recovered 17.8m (97.3%) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $8\frac{15}{32}$" in., Desc by SF, AL, JL Date 12/1/82



COMPOSITION | BEDDING & STRUCTURES | ENVIRONMENT | FACIES | TEXTURE | TEXTURAL CHANGE | CONTACTS | COLOR | OIL STN. | CEMENT | POROSITY | REMARKS

Sandstone- v. lt. grey to dark grey, tan, f friable, fine-v. coarse grained (fU-vcL), dominantly medium (mU) angular, subrounded, moderately sorted, quartz, trace-2% altered feldspar, trace mica, 60% strong even yellow white fluor. immediate yellow white cut, trace oil stain? Good intregran. porosity Sandstone- grey mod. hard silt size-medium (mL) dom. fine (fL). Angular-subrounded, mod. sorted, quartz 2% mica carbonaceous laminae, 60% strong, even yellow white fluor., fast-immed. yellow white cut, tr. oil staining? Good intergranular porosity.

EPRCo.

# 1	1705.41-1705.63	# 7	1700.96-1701.09
2	1704.87-1705.02	8	1700.18-1700.33
3	1703.90-1704.02	9	1699.71-1699.78
4	1702.96-1703.12		
5	1702.41-1702.58		
6	1701.78-1701.95		

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

8/18

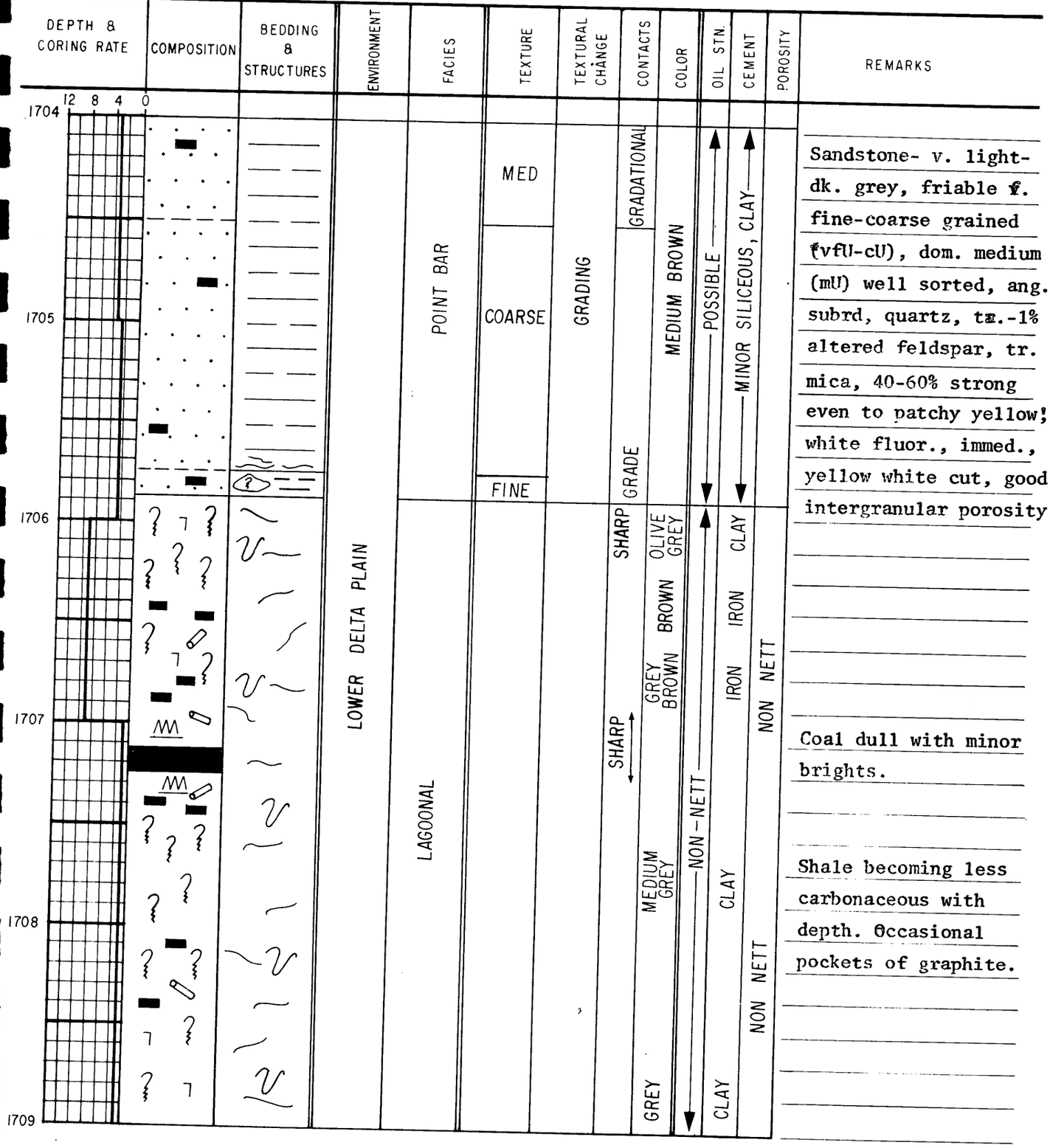
WELL SNAPPER A-21

SCALE 1m = 4cm

CORE No. 7

Interval Cored 1699m – 1717.3m Cut 18.3m Recovered 17.8m (97.3 %) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $8\frac{15}{32}$" in., Desc by SJF/AL/JL Date 12/1/82



Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

9/18

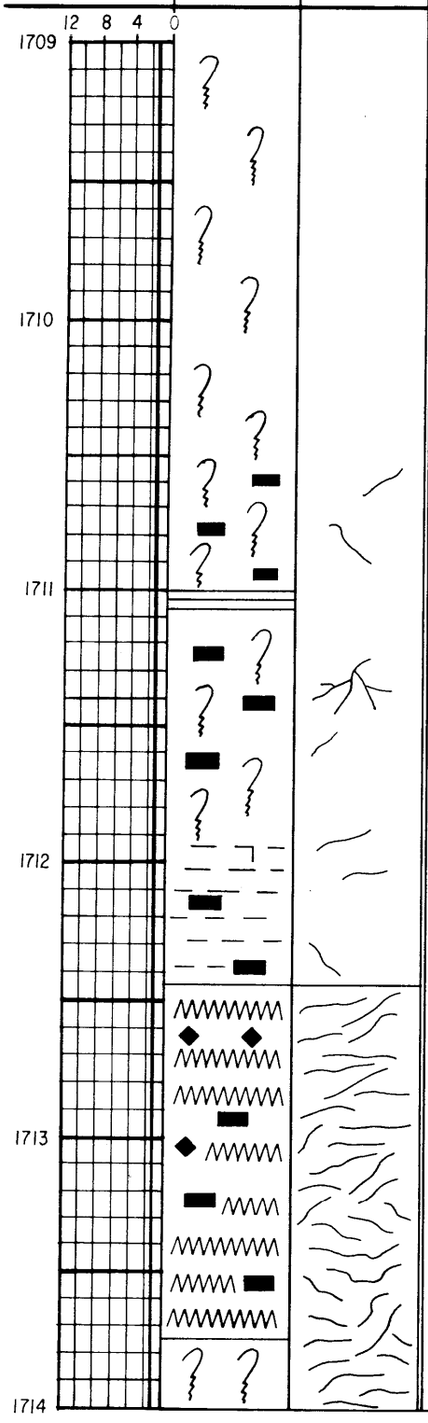
WELL SNAPPER A-21

SCALE 1m : 4cm

CORE No. 7

Interval Cored 1699m – 1717.3m Cut 18.3m Recovered 17.8m (97.3 %) Fm. LATROBE

Bit Type CHRIS. C22.FD Bit Size $8\frac{15}{32}$ in., Desc by SF, AL, JL Date 12/1/82



ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
LOWER DELTA PLAIN	LAGOONAL				GREY		CLAY	NON NETT	Shale- hard, sub. fissile, few plant remains, pockets of graphite and mica flakes.
					GREY		CLAY		
					CHOCOLATE (REDDISH BROWN)		IRON/CLAY CLAY		Carb. Claystone- massive, soft, earthy, disorientated plant fragments.
					GREY		CLAY		
					GREY BROWN		IRON/CLAY	NON NETT	Carb. Siltstone- Interlaminated with carb. streaks, hard, subfissile, rich in biotite and muscovite crystals.
					GREY		CLAY		

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

10/18

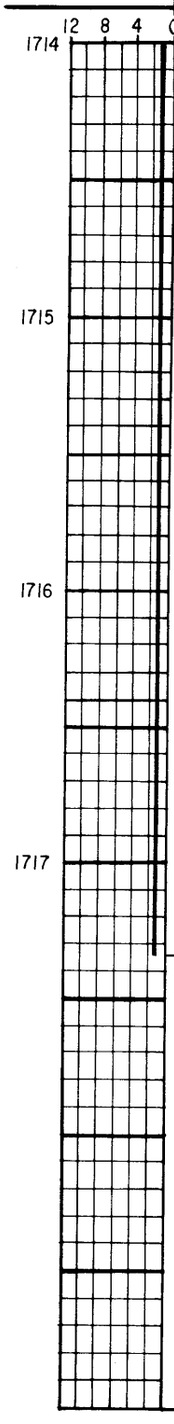
WELL SNAPPER A-21

SCALE 1m:4cm

CORE No. 7

Interval Cored 1699-1717.3m. Cut 18.3m Recovered 17.8m (97.3%) Fm. LATROBE

Bit Type CHRIS C22 FD Bit Size $8\frac{15}{32}$" in., Desc by SF, AL, JL Date 12/1/82



COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
		LOWER DELTA PLAIN	LAGOONAL				GREY BLACK GREY BROWN DARK GREY LIGHT GREY		CLAY CLAY CLAY/IRON CLAY	NON NETT	1715m Slickensides at high angle to bedding. Sandstone- firm to hard, vfl quartz grains, carb. streaks fluorescence and cut.

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

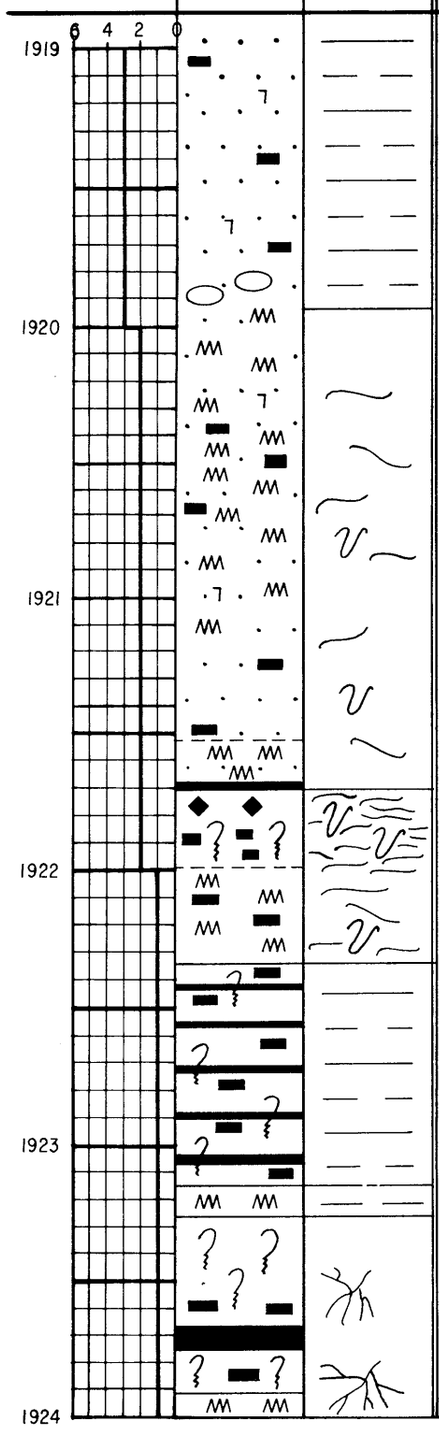
11/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 8

Interval Cored 1919-1937.45m Cut 18.45m Recovered 18.45m (.....%) Fm. INTRA LATROBE

Bit Type C22 FD Bit Size $8\frac{15}{22}$" in., Desc by GR/JL Date 14/1/82



REMARKS

1919-1919.9- Sst, vfr-fL, qt.,med. light-med. grey, friable, well sorted, subang. laminae of detritus, faint odour, yellow fluor., slow streaming, yellow-cream cut fluor.

1919.9-1920.5 Silty Sst. Qtz., 5% coal frag. in! laminae acc. of mica.

1920.5-1920.8 Silt. St. friable, 20% coal frag. in patchy occ.

1920.8-1921.5- Sst. vfu-fvm med.-med. dark grey, friable, mod. sorted, subangular, silty matrix, thin laminae of detritus, v. faint odour, patchy yell. fl., v. slow cut.

1922-1922.35- Silt. st. Friable mica on laminae surfaces.

1923.25-1923.68- Silt. st. Med. grey, mod. hard, waxy appearance on mottled surfaces.

1923.68-1923.75 Coal Dull with minor brights.

EPRCo. Sample	#1	1919-1918,07	#7	1921.12-1921.18
	2	1919.32-1919.4	8	1921.4-1921.47
	3	1919.58-1919.64		
	4	1919.82-1919.89		
	5	1920.12-1920.18		
	6	1920.38-1920.44		

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

12/16

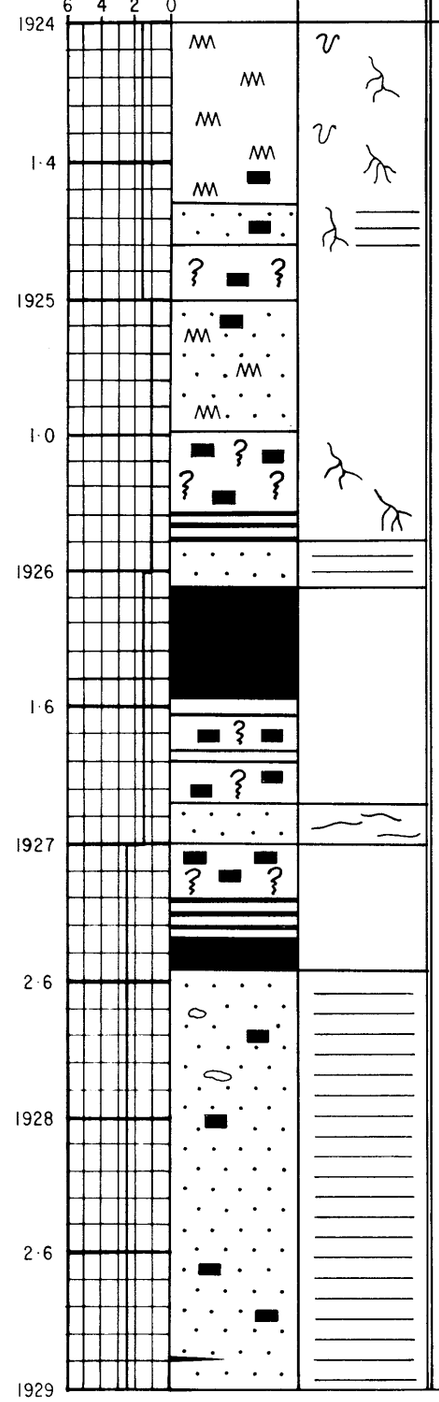
WELL SNAPPER

SCALE 1:25

CORE No. 8

Interval Cored 1919 - 1937.45 Cut 18.45m Recovered 18.45m (100 %) Fm. INTRA LA

Bit Type C22 FD Bit Size $8\frac{15}{32}$" in., Desc by GR/JL Date 14/1/82



REMARKS

1923.91-1925.48- Sltst. Med grey-brownish, mod. hard, small coal bands (1.5mm) patchy coal and mud concretions.

1925.48-1925.90- Carb. shale, dark grey, very brittle, very porous.

1926.10-1926.45 Bright coal.

1926.84-1929.72- Sst. vfv-fv, med. light grey, friable, mod. sorted, subang. qtz. silty matrix, occ. of mica, 5% coal frag., little brown mud concretions, tr. fluor. yell.-cream, extremely weak and slow cut.

1927.36-1927.46- Dull coal with 10-20% bright bands.

1928.28-1929.14- Sst. vfU-mL, mainly fL, med. grey, poorly sorted, subang, slightly silty matrix, 1-2% coaly frag. v. thin laminae of coal, bright yellow fluor., slow yellow cut fluor., faint odour.

EPRCo. #9 1927.5-1927.56

10 1927.74-1927.8

11 1927.96-1928.04

12 1928.20-1928.27

13 1928.44-1928.52

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

13/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 8

Interval Cored 1919–1937.45 Cut 18.45 m Recovered 18.45 m (100%) Fm. INTRA LATROBE

Bit Type C22 FD Bit Size $8\frac{15}{32}$" in., Desc by GR/JL Date 23-7-81

DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
1929 (6 4 2 0)				POINT BAR	FINE		MISSING	MED–PALE GREY				1929.14-1929.7- 50% Sst. vfU-mL, med. lt. grey, poorly sorted, subang., mod. hard, silty matrix, silty coal laminae, mottled dark brown. 1928.7-1930.6- Coaly grey siltstone, wavy thin lamination, mod. hard 1930.6-1932.58- Coaly siltstone dark grey mod. hard. 1932.58-1936.4- Siltst. med. light grey, mod. hard, thin laminae of detritus, in lower part increasing coal % from 1934.5 dark grey-brownish grey, occurr. of mica (biotite and muscovite) and pyrite.
1930			LOWER DELTA PLAIN	LAGOONAL				PALE GREY				
1931												
1932												
1933												
1934												

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

14/18

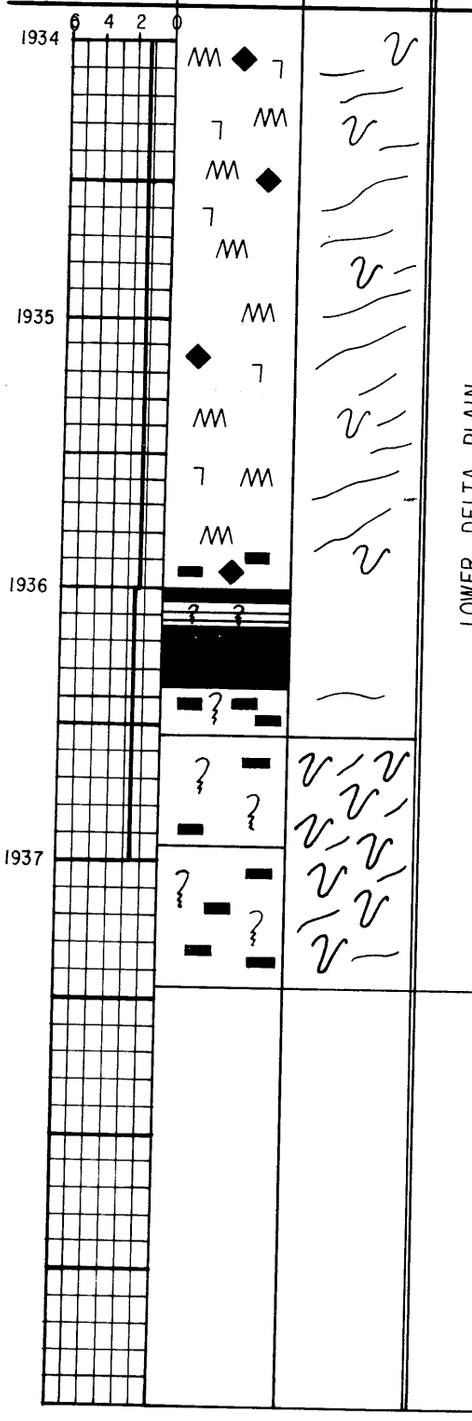
WELL SNAPPER A-21

SCALE 1:25

CORE No. 8

Interval Cored 1919-1937.45 m Cut 18.45m Recovered 18.45m (100%) Fm. INTRA LATROBE

Bit Type C22 FD Bit Size $8\frac{15}{32}$ in., Desc by GR/JL Date 23-7-81



ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY
LOWER DELTA PLAIN	LAGOONAL			SHARP SHARP SHARP	PALE GREY / D.GREY-BLACK / MED-DARK GREY			

REMARKS

1936-1936.35- Dull coal with 10-20% bright bands; silty bands towards top.

1937.45 End of core.

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

15/18

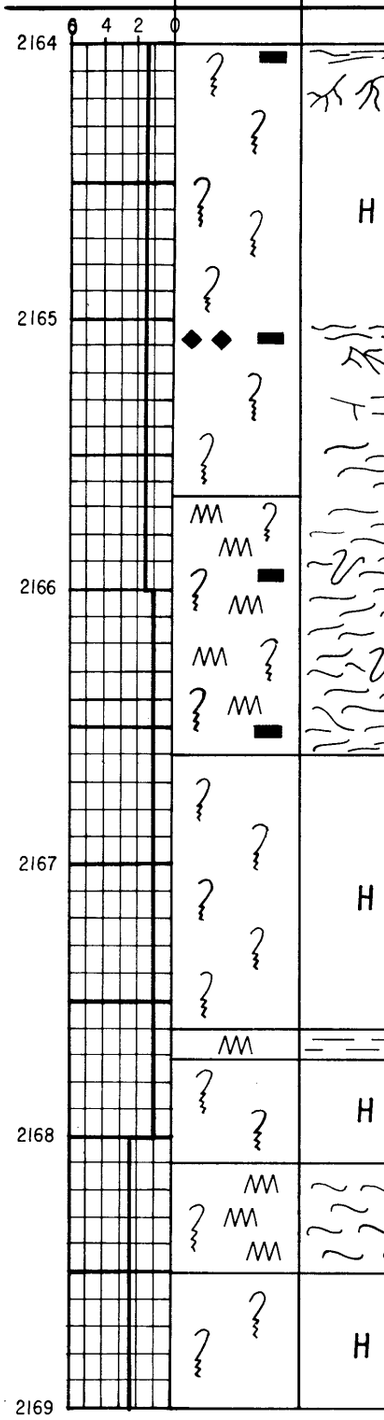
WELL SNAPPER A-21

SCALE 1:25

CORE No. 9

Interval Cored 2164-70m Cut 6m Recovered 6m (100%) Fm. LATROBE

Bit Type C2081E0330 Bit Size $8\frac{15}{32}$" in., Desc by GR, LM Date 12-1-82



DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
			LOWER DELTA PLAIN	LAGOONAL	VERY FINE		NOT APPARENT GRADATIONAL	DARK GREY / LIGHT GREY TO CREAM / GREY			NON-NETT	Siltstone cream, quartzose; with fine carbonaceous laminae. Siltstone occurs as irregular creamy patches.

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

16/18

WELL SNAPPER-A-21

SCALE 1:25

CORE No. 9

Interval Cored 2164-70 m. **Cut** 6 m. **Recovered** 6 m. (100%) **Fm.** LATROBE

Bit Type C2081E0330 **Bit Size** $8\frac{15}{32}$" in., **Desc by** GR / LM **Date** 12-1-82

DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
2169 6 4 2 0	? ◆ ? ◆◆ ?	H						GREY				
2170												Coring interval interrupted.

Dwg. 1107/0P/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

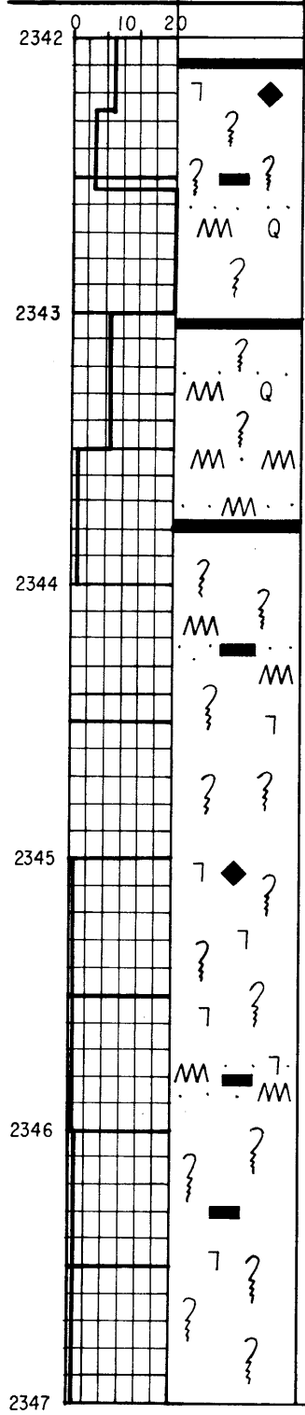
17/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 10

Interval Cored 2342-2351.1m Cut 9.14m Recovered 8.85m (96.8%) Fm. LATROBE

Bit Type ..... Bit Size ..... in., Desc by JL., LM. Date 14/1/82



DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN.	CEMENT	POROSITY	REMARKS
								d.gy				
								d.gy				Coal- occasional fine bright bands.
								m.gy				
								crm				
									80%			
					fine			l.gy			a3%	Coal, dull.
								m.gy				
					fine		all gradational	l.gy				
								m.gy				
								m.gy				
								m.gy				
								m.gy				
					fine			crm				
								d.gy				Abundant bright coal laminae.

Dwg. 1107/OP/87

ESSO AUSTRALIA LTD.

CORE DESCRIPTION

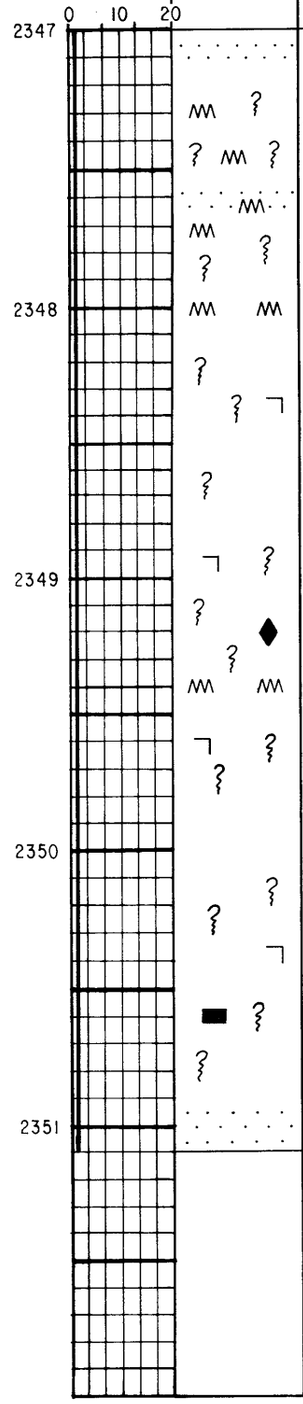
18/18

WELL SNAPPER A-21 SCALE 1:25

CORE No. 10

Interval Cored 2342 – 2351.1 m Cut 9.14 m Recovered 8.85 (96.8 %) Fm. LATROBE

Bit Type ..... Bit Size ..... in., Desc by JL, LM Date 14/1/82



DEPTH & CORING RATE	COMPOSITION	BEDDING & STRUCTURES	ENVIRONMENT	FACIES	TEXTURE	TEXTURAL CHANGE	CONTACTS	COLOR	OIL STN	CEMENT	POROSITY	REMARKS
					FINE MED. FINE		GRADATIONAL					Cut negligible. Orange (mineral) fluor., no cut.

Dwg. 1107/OP/87

SAMPLE DESCRIPTIONS

Sample Descriptions

SNAPPER A-21 WELL COMPLETION REPORT

SAMPLE DESCRIPTIONS

DEPTH	%	LITHOLOGY	DESCRIPTION
1220m-1225m	80	Sandstone	Brown grey, light grey, green glauconite specks, mottled, friable-moderately hard, very fine (vfL) to medium (mL) occasionally mU, moderate-poorly sorted, subangular to subrounded, clay matrix, est. 2-5% green grey glauconitic clay pellets, trace pyrite, moderate calcareous, dolomite or siderite, very poor visual porosity.
	5	Marl	Light grey, firm, blocky, clay-silt size, micromicaceous, abundant forams, trace pyrite.
	15	Forams	Loose, probably washed from Marl.
1225m-1230m	85	Sandstone	As above, abundant glauconite pellets, very poorly sorted, calcareous cement, very poor visible porosity.
	5	Marl	As above.
	10	Forams	As above.
1230m-1235m	5	Sandstone	As above, abundant pyrite.
	5	Marl	As above, grades to calcareous claystone, trace forams.
	70	Sandstone	Light grey, clear, mostly loose grains, fine to very coarse (fU-vcU), bimodal, moderately sorted, sub-angular to wellrounded, mostly sub rounded, quartz, coarse fraction contains abundant composite quartz grains, very minor pressure solution, possible trace quartz overgrowths, about 5% of grains have pyrite coating, probable excellent porosity.
	20	Claystone/ Coal	Dark brown to black, firm, silty carbonaceous claystone, grading to argillaceous coal.
1235m-1240m	95	Sandstone	Light grey, clear, milky, as above, fine to very coarse (fU-vcU), bimodal, well sorted, subangular to very well rounded, mostly well rounded. No visible pressure solution, quartz, trace feldspar, trace rock fragments, minor pyrite cement, excellent porosity, trace detrital clay matrix.
	5	Sandstone	Brown grey, as above, very pyritic, glauconite, cavings.

1240m-1245m	95	Sandstone	Light grey, milky, as above, est. 5% rock fragments, probably of metamorphic quartzite provenance, trace feldspar, 5-10% of grains have minor detrital clay coating, excellent porosity.
	5	Sandstone	Brown grey, as above, cavings.
1245m-1250m	95	Sandstone	Light grey, milky, as above, loose grains, estimated 10% very coarse composite quartzite grains, trace altered feldspar, trace clear dolomite cement. Trace clay matrix as grain coating.
	5	Sandstone	Brown grey, as above, cavings.
1250m-1255m (Poor sample after trip)	80	Sandstone	Light grey, milky, as above.
	20	Coal/ Claystone	Argillaceous coal grading to carbonaceous, silty claystone.
1255m-1260m	90	Sandstone	Light grey, milky, trace clay matrix.
	5	Coal/ Claystone	As above.
	5	Siltstone	Brown grey, firm, microlaminated, argillaceous, carbonaceous flecks and partings, very fine grained sandy in part, micromicaceous.
1260m-1265m	100	Sandstone	Light grey, milky, loose grains, medium to very coarse, occasionally granule size, dominantly coarse, subangular to well rounded, most rounded, minor pressure solution, very minor quartz overgrowths, quartz, est 5% composite quartzite and metamorphic rock fragments, trace pyrite, very minor detrital clay matrix, rare mica flakes, trace dolomite cemented sandstone.
1265m-1270m	100	Sandstone	Milky, as above, very clean, medium to very coarse, well sorted, about 2% dolomite cemented aggregates, about 20% of grains with pressure solution faceting.
1270m-1275m	100	Sandstone	As above, very clean, rare pyritic cement, rare metamorphic rock fragments, rare white mica flakes.
1275m-1280m	100	Sandstone	As above, medium grained to very coarse, occasionally granule size.
1280m-1285m	80	Sandstone	As above.
	20	Siltstone/ Coal	Dark grey brown to black, firm, blocky, argillaceous siltstone grading to argillaceous silty coal.

1285m-1290m	60	Sandstone	As above.
	10	Siltstone/ Coal	As above.
	30	Siltstone	Brown grey, friable-firm, microlaminated.
1290m-1295m	80	Sandstone	As above.
	20	Siltstone	As above, carbonaceous.
1295m-1300m	70	Sandstone	As above, medium to coarse, occasionally very coarse, trace mica flakes.
	30	Siltstone/ Coal	As above, argillaceous siltstone grading to black argillaceous coal.
1300m-1305m	100	Sandstone	Milky, clear, loose grains, abundant broken grains, medium to coarse (mL-vcL), well sorted, quartz, sub angular to rounded, broken grains, quartz, trace metamorphic rock fragments, trace dolomitic cement.
1305m-1310m	95	Sandstone	As above, mainly coarse.
	5	Siltstone	Brown grey, argillaceous, very fine sandy, carbonaceous.
1310m-1312m	60	Sandstone	As above.
	40	Coal	Dark brown grey to black, brittle, blocky, very silty and argillaceous.
1312m-1315m	80	Sandstone	As above.
	20	Siltstone	As above. Abundant cavings.
1315m-1320m	90	Coal	Dark brown grey to black, firm, blocky, very silty and argillaceous.
	10	Siltstone	Brown grey, firm, microlaminated, argillaceous, carbonaceous.
Top N 1.4	1315m	Top N 1.4 Sand 1325m	
1320m-1325m	70	Coal	As above.
	20	Siltstone	As above.
	10	Sandstone	As above.
1326m	70	Coal	As above.
	20	Siltstone	As above.
	10	Sandstone	As above.
1326m-1330m	80	Sandstone	As above.
	20	Siltstone	As above.
(Coring)			

1330m-1335m	90	Sandstone	Clear, milky, loose grains, medium to very coarse, dominantly coarse, well sorted, subangular to sub rounded, quartz, abundant composite grains, minor dolomite cement, trace pyrite.
	10	Coal	As above, possible caving.
Core 2 (Sample)	100	Sandstone	Light grey, very friable, medium to very coarse (mL-vcU), 1-2% up to 10mm., mainly coarse (cL), well sorted, sub angular to sub rounded, quartz, 1-2% metamorphic rock fragments (quartzitic), clean, non dolomitic, very good visible porosity.
1335m-1340m	95	Sandstone	Clear, milky, loose grains, medium to very coarse (mL-vcL), well sorted, sub angular to rounded, quartz, clean.
	5	Coal	Probably cavings.
1340m-1345m	100	Sandstone	Clear, milky, friable, coarse to very coarse (cL-vcL), mainly coarse, moderate to well sorted, 2-3% metamorphic rock fragments (quartzitic), clean, minor clear dolomite cement.
1345m-1350m	95	Sandstone	Clear, milky, loose to friable, medium to very coarse, bimodal, (fU-mU) (mL-vcL), subangular to subrounded, quartz, 3-4% rock fragments, minor dolomite cemented aggregates, many grains show pressure solution.
	5	Coal	Black, brittle.
	Trace	Shear Gouge	White, soft to brittle platey, black coating on grooved surfaces, possibly shear gouge, calcareous.
1350m-1355m	100	Sandstone	As above, fine to very coarse, (fU-vcU) occasional grains up to 55m, bimodal, trace feldspar grains.
1355m-1360m	100	Sandstone	Clear, milky, loose grains, medium to coarse (mU-cU), very well sorted, subangular to subrounded, most grains show pressure solution feceting, possible minor quartz overgrowths, clean.
1360m-1365m	100	Sandstone	As above, minor dolomite cement.
1365m-1370m	80	Sandstone	As above, minor aggregates, fine grained to very coarse, occasional granules, bimodal, generally poorly sorted, subangular to extensive pressure solution faceting, some fine grained aggregates are dolomite cemented.
	20	Siltstone/ Coal	Brown grey to black, microlaminated, argillaceous and carbonaceous, grades to argillaceous, silty coal.

1370m-1375m	80	Sandstone	Clear, milky, medium to very coarse (mU-vcL), mainly coarse, moderate sorting, pyrite cement, subangular to subrounded.
	20	Clay	White, soft, sandstone matrix.
	Trace	Coal	As above.
1375m-1380m	100	Sandstone	Clear, milky, loose grains, medium to very coarse (mL-vcL), mainly coarse, moderate sorting, minor pyrite cement as microcrystalline aggregates, minor dolomite cement, subangular grains.
1375m-1380m	100	Sandstone	As above (mL-vcU), mainly mU, moderate sorting, trace pyrite.
1380m-1385m	100	Sandstone	As above.
1385m-1390m	100	Sandstone	As above, (fU-vcU) mainly mU, moderate sorting, quartz with minor feldspar, 2-3% rock fragments, trace pyrite, trace dolomite cement, pressure solution faceting, minor quartz overgrowths.
1390m-1395m	100	Sandstone	As above, (mL-vcU), 2-3% vcU, mainly cL, moderate sorting, trace dolomite cemented aggregates, trace pyrite.
1395m-1400m	95	Sandstone	As above.
	trace	Coal/ Siltstone	Grey brown to black.
1402m (flowline)	80	Coal/ Siltstone	As above, occurrence of pyrite.
	20	Sandstone	As above.
1404m	80	Clay	Light grey, soft, soluble, slightly calcareous, possibly altered volcanic ash.
	10	Coal/ Siltstone	As above.
	10	Sandstone	As above.
1405m	95	Sandstone	As above, (mU-vcU) minor dolomitic aggregates.
	5	Siltstone/ Coal	As above, probably cavings.
1405m-1410m	95	Sandstone	As above, (mU-cU), 5% greater than cU, moderate sorting, subangular, subrounded, quartz, 2-3% rock fragments, no dolomite cement.
	5	Siltstone/ Coal	As above.
1410m-1412m	100	Sandstone	As above, no shows. Core 4-6, 1412.0m-1432.4m.

1435m-1440m	100	Sandstone	Clear, milky, loose, fine to coarse, (fU-cL), some very coarse (vcL) moderate sorting, subangular, subrounded, quartz, trace feldspar and rock fragments.
1440m-1445m	100	Sandstone	As above, estimate 10% dolomite cemented aggregates.
	trace	Claystone	Very light grey, very soft, soluble, non calcareous.
1445m-1450m	70	Sandstone	As above.
	30	Siltstone/ Coal	Grey brown to dark grey, argillaceous carbonaceous siltstone grading to argillaceous coal.
1445m-1460m	50	Siltstone/ Coal	As above.
	40	Sandstone	As above.
	10	Claystone	Very light grey, very soft, soluble, non calcareous.
1460m-1465m	70	Claystone	As above.
	30	Siltstone/ Coal	As above.
1465m-1470m	50	Sandstone	Clear, light grey, loose, fine to very coarse (fU-vcL), bimodal, well sorted, sub-angular, sub-rounded, pressure solution, quartz overgrowths, quartz, trace feldspar and rock fragments.
	50	Siltstone/ Coal	As above.
1470m-1475m	100	Sandstone	Clear, light grey, loose mL-vcU, mainly mL, moderately sorted, sub-angular, sub-rounded, pressure solution of quartz, quartz, trace of feldspars and rock fragments.
1475m-1480m	100	Sandstone	As above.
1480m-1485m	50	Sandstone	Clear, light grey, loose mL-vcU, mainly mL, moderately sorted, sub-angular, sub-rounded.
	50	Coal/Silty	Dark grey, 20% silt content, brittle.
1485m-1490m	100	Sandstone	Very light grey, loose, mL-vcU, (1.2%), mainly mU, moderately well sorted, sub-angular, quartz, trace magnetite (in association with quartz grains), 1-2% rock fragments.
1490m-1495m	100	Sandstone	Very light grey, loose, Mu-vcU, mainly cU, moderately sorted, sub-angular, quartz, trace feldspar, 2-3% rock fragments.

1495m-1500m	20	Sandstone	As above.
	80	Coal	Dark grey, brittle, 10% silt.
1500m-1505m	100	Coal	As above.
1505m-1510m	60	Sandstone	As above, sub-angular, sub-rounded, 1-2% pyrite.
	40	Coal	As above.
1510m-1515m	100	Coal	Dark grey, brittle, 10% silt.
1515m-1520m	50	Sandstone	Very light grey, loose medium U-vCu grained, moderately sorted, sub-angular to sub-rounded, mainly sub-angular, quartz, 1% pyrite, 3% altered feldspar, 3-4% rock fragments.
	50	Coal	Dark grey, brittle, blocky, dark brown in part, silty, subfissile.
1520m-1525m	70	Sandstone	Light grey, loose, medium L, to coarse U, grained, mainly medium, well sorted, sub-angular to round, quartz, 2-3% rock fragments, 2% altered feldspar, 1-2% pyrite.
	30	Coal	As above.
1525m-1530m	30	Sandstone	As above, 3-4% siltstone.
	70	Coal	As above, 15% siltstone.
1530m-1535m	60	Sandstone	Light greymedium grey, medium L to coarse grained U, mainly medium U, well sorted, sub-angular to round, quartz, 5% altered feldspar, trace pyrite.
	40	Coal	As above, 2-3% siltstone.
1535m-1540m	90	Coal	As above, trace silt.
	10	Sandstone	As above.
1540m-1545m	70	Coal	Dark grey, dark brown grey, brittle, subfissile in part, silty in part.
	30	Sandstone	As above.
1545m-1550m	90	Sandstone	Very light grey, milky in part, medium lower to very coarse grained upper, moderately sorted, sub-angular to round, quartz, 1% altered feldspar.
	10	Siltstone	Brown, greenish grey, firm some carbonaceous laminae.

9 5/8" Casing shoe was set at 1550m.

1550m-1555m	80	Sandstone	Clear, off white to light grey, medium to coarse, moderately sorted, sub-angular to rounded, quartz grains.
	20	Siltstone	Light brown to light greenish grey, minor pyrite.

1555m-1560m	80	Coal	Black, firm, subfissile to massive, dominantly massive.
	10	Sandstone	As above.
	10	Siltstone	Light to mid brown.
1560m-1565m	20	Sandstone	Clear, off white to light grey, fine to coarse, dominantly medium, poorly sorted, sub-angular to rounded, rare foram tests.
	70	Shale	Off shite to mid grey, light to mid brown, argillaceous, common pyrite, minor fine muscovite, rare glauconite.
	10	Coal	As above.
1565m-1570m	65	Shale	Mid to reddish brown and mid to dark grey, well developed laminations, abundant ferro cements, carbonaceous matter abundant.
	25	Sandstone	As above.
	10	Coal	As above.
1570m-1575m	80	Sandstone	Clear, off white to light grey, friable, medium, well sorted, quartz grains, poorly cemented.
	20	Shale	As above.
1575m-1580m	90	Sandstone	As above.
	10	Shale	As above.
1580m-1585m	40	Sandstone	As above, with common pyrite.
	40	Siltstone	Off white, occasionally medium to dark grey, argillaceous matrix, occasionally carbonaceous, pyrite common.
	20	Coal	Black, mainly massive, pyrite common.
1585m-1590m	30	Sandstone	Clear, white, friable, medium quartz grains, moderately sorted, sub-angular to sub-rounded, minor silicic cement, good intergranular porosity.
	60	Siltstone	Off white, to tan, firm, clay matrix, pyrite common.
	10	Coal	As above.
1590m-1595m	90	Sandstone	As above.
	10	Coal	As above.
1595m-1600m	30	Sandstone	As above, rare foram tests.
	30	Siltstone *	Mid to dark red, mid to dark grey, massive to laminated, ferro cement, carbonaceous matter, pyrite common.
	40	Coal	Black, firm, massive to subfissile, silty in part.

(* Metal cuttings common)

1600m-1605m	50	Sandstone	Clear, off white to white, friable, fine to medium quartz grains, moderately sorted, minor foram tests, silicic cement.
	40	Claystone/ Siltstone	As above.
	10	Coal	As above.
1605m-1610m	30	Sandstone	As above.
	60	Claystone/ Siltstone	As above.
	10	Coal	As above
1610m-1615m	30	Sandstone	Clear, friable, very fine to coarse quartz grains, poorly sorted, sub-angular to sub-rounded, minor foram fragments, silicic cement, poor intergranular porosity.
	30	Claystone	White to off white, fissile to massive, soft, dispersive.
	30	Siltstone	Medium to dark reddish brown, massive to subfissile, ferro cement, common fine muscovite, pyrite common.
	10	Coal	As above.
1615m-1620m	30	Sandstone	As above.
	30	Claystone	As above.
	30	Siltstone	As above.
	10	Coal	As above.
1620m-1625m	30	Sandstone	As above.
	30	Claystone	As above.
	30	Siltstone	As above.
	10	Coal	As above.
1625m-1630m	20	Sandstone	Clear, off white, firm, fine to medium quartz grains, moderately sorted sub-angular to rounded, fair intergranular porosity.
	80	Claystone	White to buff, dominantly massive.
1630m-1635m	40	Sandstone	Clear, very light grey, fL-cU, dominantly mL, moderate to well sorted, angular to sub-rounded, quartz, trace pyrite.
	30	Claystone	White, light grey, very soft, dispersive.
	20	Siltstone	Light grey, medium dark grey, tan, moderately hard to very hard, massive, subfissile in part, grades to shale in part, ferro cement in part.
	10	Coal	Dark grey, brittle, conchoidal fracture, subfissile in part.
1635m-1640m	80	Siltstone	Light medium grey, off white, blocky, subfissile in part, carbonaceous in part, grading to claystone.
	10	Claystone	As above.
	10	Sandstone	As above.

1640m-1645m	40	Siltstone	As above, 2-3% pyrite.
	40	Coal	Dark grey, blocky, often subfissile.
	10	Sandstone	As above.
	10	Claystone	Very light grey, buff, very soft, dispersive.
1645m-1650m	60	Siltstone	Light to dark grey, off white to medium brown, firm argillaceous matrix, often subfissile, occasionally rich in carbonaceous matter, minor pyrite, minor traces, of muscovite.
	35	Claystone	Off white to grey, firm but soluble, massive.
	trace	Sandstone	As above.
	trace	Coal	As above.
1650m-1655m	60	Siltstone	Light to dark grey, off white, firm, argillaceous matrix, occasionally subfissile, common carbonaceous matter, common pyrite clusters.
	30	Claystone	Off white to tan, firm, massive.
	5	Sandstone	As above, poorly sorted.
	5	Coal	Black, brittle, massive to fissile.
1655m-1660m	90	Sandstone	Dominantly clear, occasionally milky white, fine to coarse, dominantly medium, subrounded to rounded quartz grains, poorly sorted.
	10	Siltstone	As above.
1660m-1665m	20	Sandstone	As above.
	40	Siltstone	Off white, light to dark grey, reddish brown, firm to hard, clay or ferro cements, carbonaceous matter, subfissile or massive, pyrite common.
	40	Coal	Black, brittle, subfissile to massive.
1665m-1670m	30	Sandstone	As above, 5% fluorescence.
	60	Siltstone	As above.
	10	Coal	As above.
1670m-1675m	95	Sandstone	Clear to white, firm, medium to very fine, sub-rounded to rounded quartz grains, well sorterd, fair intergranular porosity. The sand has 5% bright blue-white fluorescence which gives a slow, yellow-milky white cut fluorescence.
	5	Siltstone	As above.
1675m-1680m	10	Sandstone	As above.
	20	Siltstone	As above. Abundant pyrite clusters.
	70	Claystone	Off white to tan, firm, massive, soluble.
1680m-1685m	10	Sandstone	As above.
	20	Siltstone	As above, with abundant carbonaceous matter.
	50	Claystone	As above.
	20	Coal	Black, brittle, massive.

1685m-1690m	70	Coal	Black, brittle, massive, occasionally subfissile.
	30	Siltstone	As above.
1690m-1695m	70	Sandstone	Clear, off white, firm, very fine to medium, dominantly fU, subrounded to rounded quartz grains, moderate to good sorting, saccharoidal texture, moderate porosity. The sand has 60% bright to dull blue-white fluorescence, and gives a weak blue white cut fluorescence.
	20	Siltstone	As above. Common pyrite and carbonaceous matter.
	10	Claystone	As above.
1695m-1699m	80	Sandstone	As above.
	20	Siltstone	Off white to medium brown, mid grey to dark grey, firm to hard, subfissile in part, otherwise massive, carbonaceous matter common, pyrite common, clay and/or ferro cements.
1699m-1717m	See Core Descriptions for Core No. 7.		
1717m-1725m	5	Sandstone	
	70	Siltstone	Medium brown to dark brown, medium grey to dark grey, firm to hard, massive to finely laminated, carbonaceous streaks common, pyrite clusters common, mainly clay matrix with minor calcareous matrix, 20% deep yellow gold fluorescence, no cut.
	20	Claystone	Light to tan, firm to hard massive.
	5	Coal	Black, massive, grading to carbonaceous shale.
1725m-1730m	15	Sandstone	White to off white, firm to hard, vfL, sub-rounded quartz grains, well sorted, clay matrix, 100% of the sandstone has a blue white fluorescence which gives a slow but strong blue white crush cut fluorescence.
	65	Siltstone	As above.
	20	Claystone	As above.
1730m-1735m	15	Sandstone	As above.
	35	Sandstone	Clear to off white, firm, sub-rounded to sub-angular, well sroted, mL quartz grains, no fluorescence.
	50	Coal	Black, brittle, massive, conchoidal fracture, shiny.
1735m-1740m	15	Sandstone	Very fine quartz sandstone with fluorescence and cut as above.
	35	Sandstone	Medium quartz sandstone as above.
	20	Siltstone	As above.
	30	Claystone	As above, becoming more dispersive.

1740m-1745m	90	Sandstone	Clear to white, firm mL-fU, sub-angular to sub-rounded, well sorted quartz grains, 100% of the sand has a weak blue white fluorescence giving no cut.
	10	Coal	As above.
1745m-1750m	10	Sandstone	Fine and medium quartz sandstones as above.
	90	Coal	Dark brown to black, mostly dark brown, soft, sub-fissile, occasionally massive.
1750m-1755m	20	Sandstone	As above.
	40	Siltstone	As above.
	40	Coal	Brown as above.
1755m-1760m	100	Siltstone	Chocolate brown, massive, argillaceous large pyrite clusters common.
1760m-1765m	10	Sandstone	White, firm to hard, vfL, sub-rounded quartz grains, well sorted quartz grains, clay matrix, 100% of the sand has a very strong blue white fluorescence which gives a very slow but strong crush cut fluorescence.
	20	Sandstone	Clear, off white, firm sub-angular quartz grains, medium sorting, no fluorescence.
	70	Siltstone	As above.
1765m-1770m	10	Sandstone	Fine quartz sandstone, as above, with fluorescence and cut.
	25	Sandstone	Medium quartz sandstone as above.
	65	Siltstone	Tan to chocolate brown, medium grey to dark grey subfissile to massive. The siltstone has a very weak deep gold fluorescence which gives a very slow and very weak blue white crush cut fluorescence.
1770m-1775m	70	Siltstone	As above.
	30	Sandstone	Fine quartz sandstone as above with fluorescence and cut.
1775m-1780m	60	Coal	Dark grey, blocky, subfissile in part.
	20	Sandstone	Light grey, vfU-mL, mainly fU, sub-angular to sub-rounded , quartz, trace pyrite 20%, weak dull orange fluorescence, no cut.
	20	Siltstone	Grey, grey-brown, consolidated, soft, subfissile in part.
1780m-1785m	70	Sandstone	As above, and 10% altered feldspar.
	30	Siltstone	As above.
1785m-1790m	40	Sandstone	As above, sub-angular to sub-rounded, and 20% altered feldspar.
	30	Siltstone	As above, and carbonaceous laminations.
	10	Coal	As above.

1790m-1795m	50	Siltstone	Light - dark brown, grey, firm, often subfissile, abundant carbonaceous laminations.
	40	Sandstone	Light grey, milky, tan, unconsolidated, fL-mL, dominantly fU, well sorted, sub-angular to sub-rounded. quartz, 20% pyrite, 10% dull orange pinpoint fluorescence, no cut.
	10	Coal	Dark grey, conchoidal fracture, subfissile in part, grades to carbonaceous shale in part.
1795m-1800m	70	Siltstone	Very light grey, grey-brown, consolidated, moderately hard, frequently carbonaceous laminations.
	20	Sandstone	As above and trace pyrite.
	10	Coal	As above.
1800m-1805m	70	Coal	As above.
	20	Siltstone	As above.
	10	Sandstone	As above.
1805m-1810m	80	Siltstone	As above, firm, frequent carbonaceous layers.
	10	Sandstone	Light grey, vfU-mL, dominantly fU, sub-angular to sub-rounded, well sorted, quartz, trace pyrite.
	10	Coal	As above.
1810m-1815m	60	Siltstone	As above, grading to very fine (vfL).
	40	Coal	As above.
1815m-1820m	90	Coal	As above, grades to carbonaceous shale.
	10	Siltstone	As above.
1820m-1825m	70	Siltstone	As above.
	20	Sandstone	Light grey, medium grey, vfU, consolidated, common carbonaceous layers, trace pyrite.
	10	Coal	As above.
1825m-1830m	80	Sandstone	Light grey, tan, vfU-cL, dominantly mL, well sorted, sub-angular to sub-rounded, quartz, 20% pyrite, 10% mica, 20% dull blue white fluorescence, weak slow streaming cut, and 50% very dull blue fluorescence, no cut.
	10	Siltstone	As above.
	10	Coal	As above.
1830m-1835m	5	Sandstone	As above.
	80	Carbon-aceous Siltstone	Off white to dark grey, hard common carbonaceous laminae, quartz siltstone, clay matrix.
	15	Coal	Black shiny to dull, brittle subfissile to massive minor pyrite clusters.

1835m-1840m	10	Sandstone	White, hard, vfU, sub-angular to sub-rounded, quartz grains, well sorted, clay matrix, bright blue white fluorescence, gives a strong but slow, blue white cut fluorescence.
	80	Siltstone	As above.
1840m-1845m	50	Sandstone	Clear to white, medium vfU, quartz grains, sub-angular, bimodal sorting, Sandstone has a weak blue white fluorescence which gives a slow weak crush cut fluorescence.
	50	Siltstone	As above.
	trace	Coal	As above.
1845m-1850m	50	Sandstone	As above.
	50	Siltstone	As above.
1850m-1855m	40	Sandstone	White, hard, vfU, sub-angular to sub-rounded, well sorted quartz grains, dolomitic cement, bright orange/yellow fluorescence, no cut.
	55	Siltstone	Grey brown, firm, subfissile to massive.
	5	Coal	Reddish brown ferro and clay cement, muscovite common minor pyrite.
1855m-1860m	35	Sandstone	Dolomitised sandstone as above.
	5	Sandstone	Sandstone as above, no dolomite, has blue white fluorescence, strong but slow crush cut fluorescence.
	60	Siltstone	As above.
1860m-1865m	5	Sandstone	White, hard, vfU, sub-rounded quartz grains, well sorted, fluorescence and cut.
	20	Sandstone	Tan, very hard, vfU, sub-rounded quartz grains, well sorted, dolomite cement, deep yellow orange fluorescence no cut.
	75	Siltstone	Grey, brown, dark brown, massive to slightly fissile, carbonaceous material common, pyrite common, muscovite flakes common.
1865m-1870m	15	Sandstone	Dolomitized sandstone as above.
	85	Siltstone	As above.
1870m-1875m	70	Sandstone	Dolomitized sandstone as above, no cut.
	10	Sandstone	As above.
1875m-1880m	30	Siltstone	As above.
	60	Coal	Black shiny, massive, sub fissile.
1880m-1885m	10	Sandstone	As above.
	30	Siltstone	As above.
	60	Coal	As above.

1885m-1890m	30	Sandstone	Clear to off white, ml, subangular to subrounded.
	30	Siltstone	Quartz grains, well sorted.
	40	Coal	
1890m-1895m	5	Sandstone	As above.
	85	Siltstone	As above.
	10	Coal	As above.
1895m-1900m	95	Siltstone	As above.
	50	Coal	As above.
1900m-1905m	95	Siltstone	As above.
	5	Coal	As above.
1905m-1910m	10	Sandstone	As above.
	60	Siltstone	As above.
	30	Coal	As above.
1910m-1915m	10	Sandstone	As above.
	80	Siltstone	As above.
	10	Coal	As above.
1915m-1919m	10	Sandstone	White to cream, firm, vfu, subrounded, quartz grains, well sorted, minor dolomitic cement, the sand has bright blue white fluorescence, giving a slow but strong blue white cut fluorescence.
	90	Sandstone	Clear to white, friable, medium quartz grains, angular to sub angular, well sorted, minor mica flakes.
PULLED OUT TO RUN CORE #8 22/7			See Description for Core #8.
1937.08m-1337.45m			Siltstone/Claystone dark grey, hard, occurrence of mica (biotite and muscovite) flakes.
1937m-1940m	40	Sandstone	vf-f, hard-firm, and white, no show, occasional loose quartz grains, subangular to subrounded, hard, no show.
	40	Shale	silty, brown, medium to hard.
	30	Coal	Black, brittle, conchoidal fracture.
1940m-1945m	80	Coal	
	10	Sandstone	As above, no show.
	10	Shale	As above.
1945m-1950m	50	Coal	Dark grey, occurrence of mica crystalline pyrite.
	25	Shale	Dark to brownish grey.
	25	Sandstone	vfL-vfU, white, moderately hard, well sorted, subangular, (quartz overgrowth due to pressure solution), quartz, dolomitic cement, occurrence of pyrite, dense microcrystalline.

1950m-1955m	30	Sandstone	vfL, friable, well sorted, subangular, quartz, clean, silty matrix.
	60	Shale	
	10	Coal	
1955m-1960m	60	Sandstone	fv-cL, mainly mL, friable, poorly sorted, subrounded, quartz, silty matrix, white, clear.
	40	Coaly shale	Grey dark to brownish.
1960m-1965m		Coaly Shale	Silt, dark grey to brown, occurrence of pyrite.
		Sandstone	As above.
1965m-1970m	80	Sandstone	mL-cU, white, mainly cL, loose, poorly sorted, subangular, quartz, trace of mica (muscovite).
	20	Coal/Shale	Laminae, dark grey to grey-brown, with impregnations of pyrite.
1970m-1975m	90	Sandstone	As above. Percentage of coal and shale decreasing.
1977m		Sandstone/ Siltstone	White vfL-silt dolomitic cement.
1975m-1980m	90	Sandstone/	vfL-silt, white, hard,secondary angularity, grain over growth (pressure solution) firmly cemented by dolomite (plate or stripe formed crystal of medium grey color impregnation of organic material as plant remnants with dolomite)?
1980m-1985m	80	Coal	Lignite silicified.
	20	Sandstone	As above with dolomite cement.
1985m-1990m		Coal	Silicified.
		Sandstone	vfU-mU, white, moderately hard, secondary angularity, dolomitic cement. Transition zone sandstone with 30% coal fragments, dolomite cement.
1992m	100	Sandstone	As above, trace of pyrite. (Very strong reaction to 10% HCI immediate, maybe Mg-Ca-CO_3 with high content of Ca. Determination between grain and matrix difficult.
1990m-1995m	10	Sandstone	As above.
	70	Coal	Dark grey, brittle.
	20	Shale	Dark grey to brownish.

1995m-2000m	80	Sandstone	Firm grain, whiteclear, loose, well sorted, subangular to subrounded, dominantly subangular, N.S. occasional mica flakes, pyrite and magnetite.
	20	Coal/ Lignite	Silty in part.
2000m-2005m	80	Coal	Dark grey.
	20	Sandstone	As above.
2005m-2010m	100	Coal/Shale	Dark grey, brittle, moderately hard with shale laminae.
2010m-2015m	60	Claystone	White, soft, flowline sample coal fragments interbedded.
	40	Silty Coal	Sandstone/Siltstone interbedded, occurrence of pyrite.
2015m-2020m		Claystone	White, soft.
		Coal	Dark grey.
2020m-2025m		Sandstone	White, clear, fU-mU, loose, well sorted, subangular, quartz, silty matrix, trace dolomite (trace of cut fluorescence after 1/2 hr.).
2025m-2030m		Sandstone	As above.
	Circulate bottoms up at 1934m.		
	1933m-1934m:		Sandstone, fL, white clear, well sorted, subangular, silty matrix.
2030m-2035m		Sandstone	mL-mU, white, clear, well sorted, subrounded, quartz, trace of mica, occurrence of pyrite, silty matrix.
		Shale	Light to medium, light to grey, friable.
2035m-2040m		Sandstone	As above.
2040m-2045m		Sandstone	mL-cL, white, clear, loose, moderately sorted, subangular, quartz, clean, occurrence of pyrite, slightly silty matrix.
2045m-2050m		Sandstone	mL-cU, mainly cL, white, clear, loose, moderately sorted, subangular, quartz, clean occurrence of pyrite.
2050m-2055m		Sandstone	As above.
2055m-2060m		Sandstone	As above.
2060m-2065m		Sandstone	mL-cL, white, clear, as above.
2065m-2070m		Sandstone	As above.

2072m		Sandstone	vf, white, clay matrix, white, soft, trace of dolomite.
		Shale	Dark grey, brownish with organic material.
2070m-2075m	10	Sandstone	fL-mL, white, clear, subrounded, moderately sorted, quartz, dolomitic cement.
	30	Siltstone	Medium, grey, brittle.
	30	Sandstone	White, clear vfL, subrounded, moderately sorted in white clay matrix.
	30	Claystone	White with pyrite and magnetite veins (5%) micro crystalline.
2075m-2080m	33	Siltstone	As above.
	33	Sandstone	Clay matrix, as above.
	33	Claystone	As above.
2080m-2085m	40	Claystone	As above.
	40	Silty Shale	Brown-tan, carbonaceous in part.
	20	Sandstone	As above, with bright yellow mineral fluorescence, no cut.
2085m-2090m	50	Claystone	As above.
	40	Silty Shale	Grading to siltstone, hard to firm, grey.
2090m-2093m	40	Sandstone	f-m, abundant loose course quartz grains no show
	10	Claystone	As above.
	50	Silty Shale	As above.
2093m-2095m	70	Sandstone	As above.
	20	Silty Shale	As above.
	10	Claystone	As above.
2095m-2100m	80	Sandstone	mL-cU, mainly cL, white, clear, loose, poorly sorted, subangular, quartz, silty matrix.
	10	Siltstone	As above.
	10	Claystone	As above.
2100m-2105m	60	Sandstone	As above.
	30	Silty Shale	Medium grey to brownish, 10% micro crystalline pyrite.
	10	Claystone	As above.
2105m-2110m	80	Sandstone	fL-mU, white, clear, loose, poorly sorted, subangular, quartz, silty matrix.
	15	Siltstone	10% pyrite.
	5	Claystone	As above.
2110m-2115m	90	Sandstone	fL-mU, white, clear, loose, poorly sorted, subangular, quartz, silty matrix, occurrence of sandstone as above, with dolomitic matrix.
	10	Silty Shale	As above.
2096m-2115m			Circulated bottom hole samples.

2118m		Claystone	White, silty.
2115m-2120m	40	Claystone	As above.
	40	Sandstone	fU-mU, white, clear, moderately sorted, subangular, silty matrix.
2120m-2125m	30	Coal	Dark grey, brittle.
	70	Sandstone	As above.
2125m-2130m	10	Coal	
	90	Sandstone	fU-mU, white, clear, moderately sorted, subangular, quartz, silty matrix, occurrence of pyrite, no show.
2130m-2135m	30	Claystone	Silty.
	30	Coal	
	40	Shale	

Core #9 2164m-2170m core. Preliminary wellsite description of unslabbed core.

2164.0m	Shale	Grey, hard to firm, micaceous, non calcareous, carbonaceous in part.
2164.73m	Shale	Black, hard to brittle, carbonaceous, micaceous in part, non calcareous.
2165.44m	Shale	As per 2164.0m
2165.5m	Shale	As above.
2166.09m	Shale	Grey, hard to firm, occurrence micaceous, occurrence carbonaceous laminae, silty in part, non calcareous.
2166.61m	Shale	As above.
2166.85m	Shale	Grey, hard to firm, micaceous in part, carbonaceous in part.
2168.34m	Shale	Black to grey, hard to firm, carbonaceous laminae, micaceous, silty in part, non calcareous.
2168.5m	Shale	As per 2166.09.
2169.28m	Shale	As per 2168.5m.

2135m-2140m	90	Sandstone	fu-mV, white, clear, subangular, well sorted, quartz, occurrence pyrite, clay matrix.
	10	Coal	Dark grey, moderate to hard.
2140m-2145m	100	Sandstone	As above.
2145m-2150m	100	Sandstone	White, clear, mL-cL, well sorted, subrounded, clean, quartz, trace of mica.
2150m-2155m	40	Shale	Tan to brown, hard to soft, silty in part, carbonaceous in part.
	60	Sandstone	As above, no show.
2155m-2160m			
2163m-2164m	Sandstone		vfU-fU, white, clear, subrounded, well sorted ,quartz, dolomitic cement, bright yellow fluorescence, slow dull yellow cream cut fluorescence.
Pulled out to run Core barrel. See description for Core #9.			
2170m-2175m	30	Coal	As above.
	60	Shale	Grey, hard, carbonaceous in part, micaceous in part, non calcareous.
	10	Siltstone/ Sandstone	vf-slt, white to tan, hard to friable, no show.
2175m-2176m	100	Coal	Black, brittle, shiny, surface.
2176m-2180m	30	Coal	
	50	Shale	As above, increasing in silty part.
	20	Sandstone/ Siltstone	As above, no show.
2180m-2185m	50	Sandstone	Quartzose, clear, loose to hard, fine to medium, subangular to subrounded, no show.
	30	Shale	Grading to siltstone.
	20	Claystone	Soft, soluble, white.
2185m-2190m	100	Sandstone	As above, grading to coarse grain, dominantly angular, no show.
2190m-2195m	60	Sandstone	As above.
	20	Coal	As above.
	20	Shale	As above.
2198m		Sandstone	As above, abundance of pyrite.
2195m-2200m	50	Sandstone	Quartzose, clear, firm to coarse grain, poorly sorted, abundant coarse grain, occurrence of pyrite.
	40	Shale	As above.
	10	Siltstone	As above.

2203m		Sandstone	White, clear, fine lower to coarse lower, angular (secondary angularity), moderately sorted, quartz, (grain overgrowth due to pressure solution) occurrence of pyrite, magnetite and mica. Trace of dolomitic cement.
2200m-2205m	20	Sandstone	As above.
	40	Coal	Dark grey.
	40	Shale	Dark grey to brown, with laminae of coal.
2205m-2210m	80	Sandstone	Fine upper to very coarse lower, mainly medium lower, white, clear, poorly sorted. Subangular (as above-secondary) quartz, occurrence pyrite, magnetite and mica.
	20	Shale	As above.
2210m-2215m	10	Sandstone	As above.
	30	Coal	
	60	Shale	Dark grey to brown, silty, coaly.
2215m-2220m	40	Coal	
	60	Shale	Sandy and silty (interbedded).
2220m-2225m	33	Silty Coal	
	33	Coal	
	33	Shale	
2225m-2230m	70	Coal	
	30	Shale	
2230m-2235m	70	Coal	
	30	Shale	
2235m-2240m	80	Sandstone	Medium lower to very coarse upper, mainly coarse lower, white, clear, moderate, hard, poorly sorted, angularity secondary, subangular, quartz, quartz overgrowth pressure solution, dolomitic cement, occurrence of mica.
	20	Shale	
2240m-2245m	90	Sandstone	Fine upper to coarse lower, mainly medium lower, loose, moderate sorting.
	10	Coal	Subangular, quartz, trace of mica.
2245m-2250m	90	Sandstone	Fine upper to coarse lower, moderate to hard, dolomitic matrix, very dull fluorescence, very slow dull yellow-cream cut fluorescence.
	10	Coal	
2250m-2255m	90	Sandstone	As above, visible grain of dolomite.
	10	Shale	Bright yellow fluorescence, slow cream cut fluorescence.
2255m-2260m	70	Silty Shale	

	20	Coal	
	10	Sandstone	As above.
2260m-2265m		Silty Coal	
2265m-2270m		Sandstone	Fine upper to coarse lower, white to light grey, subangular, moderately sorted, moderately hard, quartz, dolomitic cement.
		Shale	Grey, with coaly laminae and high pyrite percentage.
2270m-2275m	20	Sandstone	As above.
	30	Silty Shale	High pyrite percentage.
2275m-2280m	90	Sandstone	Quartzose, white to clear, hard to friable, fine to medium, occurrence argillaceous material, lithic in part, fragment chlorite, poor porosity and permeability, slightly calcitic cement, 80% moderate yellow fluorescence, very v slow white to yellow cut.
	10	Shale	Silty, as above, no show.
2280m-2285m	30	Sandstone	As above.
	70	Silty Shale	As above.
2285m-2290m	20	Sandstone	As above, no show.
	80	Silty Shale	As above.
2290m-2295m	50	Sandstone	Quartzose, clear, loose, subangular to subrounded, medium, occurrence aggregate sandstone as 2275.80 with 50% dull yellow fluorescence, very v weak cut.
	50	Silty Shale	As above, carbonaceous in part.
2295m-2300m	90	Silty Shale	As above.
	10	Sandstone	As above, no show.
2300m-2305m	60	Sandstone	Quartzose, white to clear, hard to friable, firm to medium grain, poorly sorted, occurrence argillaceous cement, carbonaceous in part, non calcitic, poor porosity and permeability, 1% dull yellow fluorescence, very v weak cut.
	40	Silty Shale	As above.
2305m-2307m,	80	Sandstone	As above, grading to medium grain, 50% dull white to yellow fluorescence, very v weak cut.
	20	Silty Shale	As above.
2307m-2310m	30	Sandstone	As above.
	70	Silty Shale	As above.
2310m-2315m	50	Sandstone	As above, with 20% white to dull yellow fluorescence, very weak streaming cut.
	50	Silty Shale	As above.
2315m-2320m	Sample by-passed the shaker.		

2320m-2325m	60	Sandstone	Quartzose, white to tan, hard to friable, fine, consolidated argillaceous cement, non calcitic, lithic fragments, poorly sorted, poor visual porosity and permeability, 10% yellow fluorescence with very v weak cut.
	40	Shale	As above.
2325m-2330m	80	Silty Shale	As above, with occurrence carbonaceous material.
	20	Sandstone	As above, no show.
2333m	40	Coal	
	30	Silty Shale	As above.
	30	Claystone	White, soft, soluble in .
2330m-2335m	60	Sandstone	Quartzose, loose, fine grain, 60% dull yellow fluorescence.
	20	Coal	
	20	Silty Shale	As above.
2335m-2340m	20	Coal	As above.
	10	Sandstone	As above.
	70	Silty Shale	As above.
2340m-2342m (B.U. Sample)	70	Sandstone,	Quartz, loose, subangular to subrounded, dominantly subangular, approx. 5-10% fluorescence, very v weak cut.
	20	Silty Shale	As above.
	10	Coal	As above.

Pulled out to run core barrel.

2342m-2351m See Core Description - Core No. 10.

2351m-2355m	90	Siltstone	Quartzose, light to mid brown, mid grey to dark grey, firm to hard, carbonaceous matter interbedded, micaceous, abundant pyrite clusters. Red paint contaminant.
	5	Claystone	
	5	Coal	
2555m-2560m	90	Siltstone	Quartzose, as above.
	5	Claystone	
	5	Coal	Black, shiny, brittle, conchoidal fracture.
	trace		Quartz grains, medium, subangular to subrounded.
2360m-2365m	50	Siltstone	As above.
	50	Coal	Brown, dull, soft.
	trace	Coal	Black, shiny, brittle, conchoidal fracture.
2365m-2570m	15	Sandstone	Quartzose, clear, medium upper, subangular, well sorted, minor dolomite cement.
	80	Siltstone	Quartzose, tan to dark brown and mid to dark grey, abundant pyrite, micaceous.
	5	Coal	

2370m-2775m	70	Sandstone	Quartzose, clear, translucent, medium, moderately sorted, subangular, the sandstone has a pale blue fluorescence which gives a strong but slow blue white cut fluorescence.
	30	Siltstone	As above.
2375m-2380m	50	Siltstone	As above.
	50	Coal	Black, shiny, brittle, often subfissile.
2380m-2385m	100	Siltstone	Grey brown, micaceous, pyritic.
2385m-2390m	40	Sandstone	Quartzose, grey white, very hard, fine, well sorted, siderite cement, no porosity, deep copper red mineral fluorescence, no cut.
	10	Sandstone	Quartzose, translucent friable, fine to medium, has a blue white fluorescence and gives a slow but strong blue white cut fluorescence.
	50	Siltstone	As above.
2390m-2395m	80	Sandstone	Quartzose, clear, white, friable, medium, well sorted, subangular to subrounded. The sandstone has 80% overall blue white fluorescence, which gives a strong blue white cut fluorescence.
	20	Siltstone	As above.
2395m-2400m	50	Sandstone	As above.
	10	Sideritic Sandstone	As above.
	40	Siltstone	Quartzose, brown, grey to dark grey micaceous, pyritic, carbonaceous.
2400m-2405m	40	Sandstone	As above, with siderite cement.
	10	Sandstone	Quartzose, medium, well sorted, with cut as above.
	50	Siltstone	Quartzose, as above.
2405m-2410m	70	Siltstone	Brown to dark brown, subfissile, rich in carbonaceous matter.
	30	Siltstone	Quartzose, grey, subfissile to massive, pyritic, micaceous.
2410m-2415m	70	Siltstone	Carbonaceous, as above.
	30	Siltstone	Quartzose, as above.
2415m-2420m	50	Siltstone	Brown, subfissile.
	40	Sandstone	Quartzose.
	10	Coal	Bright.
	trace	Pyrite	
2420m-2425m	90	Sandstone	Quartzose, well sorted, medium grain, abundance of pyrite, subangular to subrounded grains. 30% bright white fluorescence (speckled), very weak pale yellow to white crush cut fluorescence.

	5	Siltstone	Brown, quartzose.
	5	Coal	Bright.
2425m-2430m	70	Siltstone	Quartzose, mid to pale grey.
	25	Sandstone	Quartzose, clear, fine grain, subangular to subrounded, moderately well sorted.
	5	Coal	Bright, pyrite.
	trace	Mica	
2430m-2435m	90	Sandstone	Quartzose, clear white, fine grain, subrounded, well sorted. White, kaolinitic cement. Sparce blue white pin point fluorescence, abundant coppery orange fluorescence (siderite), weak yellow-white cut.
	10	Siltstone	Quartzose, brown.
	Minor	Coal	Bright, pyrite.
2435m-2440m	90	Siltstone	Quartzose, brown.
	5	Sandstone	Quartzose, clear-white, fine to medium, poorly sorted, angular.
	5	Coal	Bright.
	trace	Pyrite.	
2440m-2445m	95	Siltstone	Quartzose, brown, micaceous.
	5	Shale	Brown, fissile.
	Minor	Coal	bright, small quartz grains, pyrite.
2445m-2450m	80	Siltstone	Quartzose, brown.
	10	Shale	Carbonaceous, dark brown, fissile.
	5	Coal	Bright, concoidal fracture.
	5	Quartz	Quartz grain, very fine, subrounded.
	minor	Pyrite	
	trace	Mica	
2450m-2455m	40	Shale	Carbonaceous, dark brown, fissile.
	40	Siltstone	Quartzose, pale brown.
	10	Sandstone	Quartzose, clear, fine to very fine, poorly sorted, subangular to subrounded.
	10	Coal	Bright with conchoidal fracture.
	trace	Pyrite & Mica	
2455m-2460m	70	Siltstone	Quartzose, pale brown.
	20	Coal	Bright, concoidal fracture.
	10	Clay	(probably Kaolinite)- white, very soft.
	trace	Pyrite & Mica	
2460m-2465m	60	Siltstone	Quartzose, pale brown.
	25	Coal	Bright.
	10	Sandstone	Quartzose, (grains as above) with kaolinite cement.
	5	Clay	Kaolinitic, white, very soft.
	Minor	Pyrite	
	Trace	Mica	

2465m-2470m	50	Siltstone	Quartzose, brown.
	40	Sandstone	Quartzose, fine, subrounded grains, moderately well sorted, kaolinite cement.
	10	Coal	Bright.
2470m-2475m	85	Sandstone	Quartzose, clear medium grained, subrounded, well sorted, kaolinite cement, some pyrite. Pale yellow to white crush cut.
	10	Siltstone	Quartzose, brown.
	5	Coal	Bright.
	trace	Mica	
2475m-2480m	85	Sandstone	Quartzose, clear-white, medium, subangular to rounded, well sorted. Slow weak pale yellow-white crush cut.
	10	Coal	Bright, conchoidal fracture.
	5	Siltstone	Quartzose, brown.
	Minor	Pyrite	
2480m-2485m	60	Shale	Carbonaceous, dark brown, fissile.
	25	Siltstone	Quartzose, brown.
	10	Sandstone	Quartzose, fine to medium, clear, subangular.
	5	Coal	Bright.
	Minor	Pyrite.	
2485m-2490m	15	Sandstone	Quartzose, white, clear, firm, subangular to subrounded, fine to medium, moderately sorted, no fluorescence.
	85	Coal	Black, dull to shiny, dominantly dull, subfissile.
2490m-2495m	80	Sandstone	Quartzose, white to cream, hard, very fine to fine, subangular to subrounded, very tight calcareous and pyrite cements, very low porosity.
	20	Siltstone	Quartzose, light grey, massive, graphite specks, micaceous, pyrite very common.
2495m-2500m	50	Sandstone	Quartzose, as above.
	45	Siltstone	Carbonaceous, dark chocolate brown, soft, subfissile, pyrite.
	5	Coal	Black.
2500m-2505m	10	Sandstone	Quartzose, as above.
	90	Siltstone	Quartzose, grey, firm, clay matrix.
2505m-2510m	10	Sandstone	Quartzose, as above.
	80	Siltstone	Carbonaceous, dark chocolate brown, hard massive.
	10	Coal	Black, massive, brittle, shiny.
2510m-2515m	10	Sandstone	Quartzose, as above.
	90	Siltstone	As above.

2515m-2520m	50	Sandstone	Quartzose, white, clear, hard, fine to coarse, dominantly medium, subangular to subrounded, tightly cemented, no porosity, no fluorescence.
	50	Shale	Off white, grey, mid brown, subfissile, micaceous, carbonaceous, minor pyrite.
2520m-2525m	100	Sandstone	Quartzose, clear to off white, soft, subangular, coarse to medium, well sorted, carbonate cement, minor pyrite, 10% pin point blue-white fluorescence, which gives a weak blue white cut fluorescence.
2525m-2530m	80	Sandstone	As above. 75% of the sand has a bright yellow to dull copper red mineral fluorescence, no cut.
	20	Siltstone	
2530m-2535m	80	Sandstone	Quartzose, clear white, fine to medium, moderately well sorted, dolomitic (ankerite) cement. Pyrite common, subangular to subrounded. Trace - 20% spotted white, yellow gold, orange fluorescence; very weak crush, very slow white cut fluorescence.
	15	Shale	Carbonaceous in part, dark brown to pale brown, subfissile, soft. NB contact with coal.
	5	Coal	Bright, conchoidal fracture.
	trace	Mica	
2535m-2540m	85	Shale	Pale to mid brown, soft, subfissile, micaceous.
	10	Sandstone	Quartzose, as above.
	5	Coal	Bright.
2340m-2345m	80	Shale	Pale to mid brown, soft, subfissile.
	15	Sandstone	Quartzose, clear white, fine to medium, moderately well sorted, subrounded, pyritic, trace mica.
	5	Coal	Bright.
2545m-2550m	85	Shale	Pale to dark brown, soft, subfissile, micaceous.
	10	Sandstone	Quartzose, white to clear, fine to very fine, subrounded, dominantly well sorted, very fine fraction. Dolomitic cement. Micaceous and pyritic.
2545m-2550m	5	Coal	Dull and bright mixture.
2550m-2555m	60	Shale	As above, contact with coal.
	35	Sandstone	As above, fine to medium, very sparce bright white pin point fluorescence, heavy dull orange yellow fluorescence. Bright yellow white cut.
	5	Coal	As above.

2555m-2560m	85	Shale	As above, micaceous. Contact with coal.
	10	Sandstone	Quartzose, clear to white, very fine to medium, angular, moderately well sorted, pyritic. Sparce bright blue to white and strong yellow gold fluorescence, slow pale yellow to white cut.
	5	Coal	Bright and dull mix.
2560m-2565m	85	Shale	As above, contact with coal.
	10	Sandstone	As above.
	5	Coal	As above.
	trace	Mica	
2565m-2570m	85	Shale	As above, contact with coal.
	10	Sandstone	As above, fine to coarse, strong pale yellow cut, poorly sorted.
	5	Coal	As above.
2570m-2575m	90	Shale	As above.
	10	Sandstone	Quartzose, clear to white, fine to medium, subrounded moderately well sorted, dolomitic cement, pyritic.
	trace	Coal	As above.
2575m-2580m	50	Shale	As above.
	45	Sandstone	Quartzose, white, fine to medium, subrounded, moderately well sorted, abundant dolomitic cement. Micaceous and pyritic. Sparse bright white, some bright pale gold fluorescence; abundant copper-red mineral fluorescence. Strong pale yellow to white cut.
	5	Coal	Dull and bright.
2580m-2585m	50	Sandstone	Quartzose, clear to white, fine, angular to subrounded, well sorted. Pyritic. Abundant dolomitic cement. Sparse bright white pin point fluorescence, 20% yellow gold fluorescence. Weak pale yellow cut.
	30	Shale	As above.
	20	Coal	Dull and bright.
2585m-2590m	80	Sandstone	Quartzose, clear to white, medium, angular to rounded, well sorted. Dolomitic cement, 30% bright white fluorescence, 10% yellow gold fluorescence (dolomite). Weak pale yellow cut.
	10	Shale	Light brown, soft, micaceous.
	10	Coal	Dull and bright banded.
2590m-2595m	10	Sandstone	Quartzose, as above.
	60	Shale	Off white, to grey, firm to hard, micaceous, minor pyrite.
	30	Siltstone	Quartzose, off white, firm to hard, black specks (graphite ?), micaceous, minor pyrite.

2595m-2600m	15	Sandstone	Quartzose, white, hard, pores completely filled with cement (clay dolomite and silica).
	85	Shale	Carbonaceous, dark brown, firm, subfissile.
2600m-2605m	85	Sandstone	Quartzose, white to light grey, hard medium to coarse, angular to rounded, poorly sorted, clay matrix, minor pyrite cement, yellow gold mineral fluorescence.
	15	Shale	Carbonaceous.
2605m-2610m	15	Sandstone	Quartzose, as above, dolomite and pyrite cement, no porosity.
	85	Siltstone	Quartzose, grey to grey brown, firm, pyrite streaks common.
2610m-2615m	80	Sandstone	Quartzose, clear, translucent white, firm, medium to very coarse, poorly sorted. The sandstone has up to 10% specked blue white fluorescence, which gives a weak slow, milky white cut.
	10	Siltstone	
	10	Coal	
2615m-2620m	80	Shale	Light brown, friable, soft, minor micaceous.
	20	Siltstone	Light to dark grey, soft, slightly micaceous, slightly pyritic.
	trace	Sandstone	
	trace	Coal	
2620m-2625m	70	Shale	As above.
	20	Siltstone	As above.
	10	Sandstone	Quartzose, clear, medium grain, subangular to subrounded, pyritic.
	trace	Coal	Contact with siltstone.
2625m-2630m	95	Sandstone	Quartzose, clear to white, coarse to very coarse, angular to subrounded, moderately well sorted, kaolinitic cement, minor glauconite, pyritic. 40% bright, white fluorescence. Weak pale yelow white crush cut.
	5	Siltstone	Quartzose, pale brown and grey, hard.
	trace	Coal	
2630m-2635m	60	Sandstone	Quartzose, clear to white, medium to very coarse, angular to subangular, poorly sorted, slightly glauconitic and pyritic. Dolomitic cement. Sparse bright white fluorescence, heavy yellow gold mineral fluorescence. Pale yellow white crush cut fluorescence.
	20	Siltstone	Quartzose, pale brown, hard.
	20	Shale	Brown to dark grey, soft, subfissile.
	trace	Coal	

2635m-2640m	90	Sandstone	Quartzose, clear to white, coarse, rounded, well sorted. Sparce, bright white fluorescence, 20% yellow gold mineral fluorescence. Weak yellow white crush cut.
	10	Shale	As above.
	Minor	Coal	
2640m-2645m	95	Sandstone	Quartzose, clear white, medium, rounded, well sorted, pyritic. Kaolonite cement. Sparse bright white fluorescence, weak yellow white crush cut.
	5	Siltstone & Coal	
2645m-2650m	90	Sandstone	Quartzose, clear white, medium, subangular to rounded, well sorted, 30% calcareous cement. Sparse bright white fluorescence, slow streaming yellow white cut fluorescence.
	10	Siltstone	As above.
	trace	Coal	
2650m-2655m	90	Sandstone	As above, medium grain, subangular to subrounded, well sorted, calcareous cement. Pyritic. Sparce bright white fluorescence, 20% yellow gold, very heavy dull copper-red fluorescence, very slow yellow cut.
	10	Coal	
2655m-2660m	10	Sandstone	Clear white, moderately hard, subrounded to rounded, medium grained, well sorted, kaolinitic cement.
	40	Siltstone	Light brown, micaceous, soft.
	40	Coal	
	10	Shale	Dark brown, subfissile.
2660m-2665m	95	Sandstone	Clear, white rounded to subrounded, medium, very well sorted, 30% earthy gold fluorescence, with slow white cut.
	5	Siltstone	As above.
	trace	Coal	
2665m-2670m	50	Sandstone	As above.
	50	Shale	Light to dark grey, carbonaceous in part, subfissile.
2670m-2675m	10	Sandstone	As above.
	90	Shale	As above.
2675m-2680m	15	Sandstone	White to off white, hard, fine to very fine, calcareous, clay cement, very slow blue white cut fluorescence.
	60	Shale	Carbonaceous, dark brown, soft, massive, occasionally subfissile, grading to coal.
	25	Coal	Dark brown to black.

2680m-2685m	90	Sandstone	Quartzose, white to off white, firm to hard, very fine to coarse, well rounded to subangular, poorly sorted, calcaereous clay cement, 80% blue white fluorescence. It gives a moderate blue white crush cut.
	10	Siltstone	
2685m-2690m	90	Sandstone	As above.
	10	Siltstone/ Shale	
			Circulated bottoms up in preparation for logging run.
2690m-2695m	30	Sandstone	Quartzose, clear-white, hard-firm, f-m grained, consolidated, poor porosity, non calcareous, argillaceous cement in part, trace of dull white-yellow fluorescence, very v weak cut.
	60	Silty Shale	Brown-black, hard, carbonaceous.
	10	Coal	Black, bright (probably cavings).
2695m-2698m	60	Sandstone	As above.
	30	Silty Shale.	As above.
	10	Coal	As above.
2698m-2700m	100	Sandstone	Quartzose, hard, loose, m-c grained, subangular to subrounded, dominantly sub angular, trace of white-yellow fluorescence, very weak cut.
2700m-2705m	30	Sandstone	As above.
	10	Coal	As above.
	60	Silty Shale.	As above, decreasing in silty part.
			Note: big shale cutting from shaker.
2705m-2710m	80	Sandstone	Medium-coarse grained, quartzose, subangular.
	15	Coal	As above.
	5	Shale	As above.
2710m-2714m	60	Coal	Black sub bituminous, as above, large fragments.
	20	Sandstone	As above.
	20	Sandstone	Fine-very fine grained, silicious cemented, quartzose, light brown.
2714m-2715m	40	Coal	As above.
	40	Sandstone	Medium coarse grained quartzose, (as in 05-10).
	20	Sandstone	Fine - very fine grained, quartzose, as above, light brown.
2715m-2720m	30	Coal	As above.
	50	Sandstone	Medium-coarse grained, quartzose.
	20	Sandstone	Fine-very fine grained, light brown.

2720m-2725m	10	Coal	As above.
	60	Sandstone	Coarse-medium grained, quartzose, some pyrite.
	30	Sandstone	Fine-medium grained, light brown, silicious cement.
2725m-2730m	5	Coal	As above.
	70	Sandstone	Coarse-medium, quartzose, unconsolidated.
	25	Sandstone	Fine-medium grained, brown, silicious.
2730m-2735m	45	Sandstone	Quartzose, medium-coarse grained, unconsolidated, mature well sorted subangular grains, tight poor porosity.
	10	Coal	As above, small fragments minor pyrite.
	45	Sandstone	Fine grained, light brown carbonaceous, poor porosity.
2735m-2740m	5	Coal	As above, pyrite minor a/a/.
	70	Sandstone	As above, quartzose, medium-coarse grained, subangular.
	25	Sandstone	Fine grained, light brown carbonaceous, as above. (Some trace calcite).
2740m-2744m	60	Sandstone	Quartzose, as above, (trace pyrite).
TD sample	30	Sandstone	Fine-medium grained, light brown, as above.
POOH change bit. 21:47hrs	10	Coal	As above. Note: Apart from sample, probable clay at TD. (not recovered in sieved sample).
2744m-2745m	70	Sandstone	Quartzose, white-clear, hard-firm, consolidated, argillaceous cement, fine-moderate grain, lithic fragments, poor porosity. 50% pin point white-yellow fluorescence, very weak cut.
	30	Silty Shale.	As above.
2745m-2750m	40	Sandy Siltstone.	
	30	Coal	As above, black, sub bituminous mostly small fragments (with minor pyrite).
	30	Sandstone	As above, medium grained, quartzose, silicious cement, subrounded to subanguar grains.
2750m-2755m	40	Coal	As above.
	10	Sandstone	As above, medium grained quartzose.
	50	Siltstone	Grey-brown, as above, pin point white-yellow fluorescence, very weak cut.
2755m-2760m	5	Coal	As above, trace pyrite.
	60	Siltstone	As above, grey brown.
	35	Sandstone	Quartzose, as above, medium grained.

2760m-2761m	5	Coal	Trace.
	90	Sandstone	Medium grained, quartzose, angular to subrounded grains, poor porosity, weak cut fluorescence, dull yellow. Ankerite cement (Ankerite causing point white fluorescence).
2761m-2765m	20	Siltstone	Carbonaceous, brown, minor pyrite.
	80	Sandstone	Medium quartzose, as above, dolomitic cement, trace coal fragments.
2765m-2768m	85	Sandstone	Quartzose, dolomitic cement.
	15	Siltstone	Brown-grey, trace coal
2768m-2770m	95	Sandstone	As above, quartzose.
	5	Siltstone	Brown-grey, as above, (gas peak).
2770m-2775m	95	Sandstone	Dolomitic quartzose, heavy dolomite cementing.
	5	Siltstone	As above, plus minor pyrite.
2775m-2780m	80	Sandstone	As above.
	10	Coal	Small fragments.
	10	Siltstone	As above.
2780m-2785m	10	Coal	As above.
	50	Siltstone	As above, plus minor pyrite.
	40	Sandstone	As above.
2785m-2790m	70	Sandstone	Quartzose, as above.
	30	Siltstone	As above. (2795m, connection gas encountered.)
		Coal	Trace. (2800m, flow check, weigh up mud 9.4.10).
2790m-2795m	80	Sandstone	Quartzose, white-clear, consolidated, poorly sorted, moderate-coarse grained, argillaceous and dolomitic cement, calcareous, poor porosity, 50% white-yellow fluorescence, slow streaming white cut.
	20	Silty Shale.	As above.
2795m-2800m	90	Sandstone	As above.
	10	Silty Shale.	As above.
2800m-2805m	100	Sandstone	As above, increasing in loose quartz grains, mud decreasing in cement.
2805m-2810m	100	Sandstone	As above, loose, 80% white-yellow fluorescence, slow streaming white cut, yellow cement residue.
2810m-2815m	80	Sandstone	As above.
	20	Silty Shale.	As above.

2815m-2820m	90	Sandstone	As above, coarse to very coarse grained, loose, fair visual porosity. 70% white-yellow fluorescence, slow white cut, white-yellow cut residue.
		Shale	
2820m-2825m	90	Sandstone	Quartzose, coarse-very coarse, loose to consolidated. Argillaceous and calcitic cement. 40% white-yellow fluorescence, slow streaming white cut.
	10	Silty Shale.	As above.
2825m-2830m	60	Sandstone	As above.
	40	Silty Shale.	As above.
2830m-2835m	50	Sandstone	As above.
	50	Silty Shale.	As above.
2835m-2840m	70	Sandstone	Quartzose, medium-coarse grained, loose, rounded to subangular grains, medium sorting, calcite cement.
	10	Coal	
	Trace	Pyrite	
	20	Siltstone	Sandy, brown-grey, as above.
2840m-2845m			(Note two fractured dolomite beds 0.5m thick giving high gas).
	45	Sandstone	Quartzose, as above, with included carbonaceous wisps, slickensides some pyritization also trace coal.
	10	Dolomite	Aphanitic small angular fragments.
	45	Siltstone	Sandy, as above, some calcite cement and slickensides.
2845m-2850m	15	Sandstone	As above, quartzose (trace coal).
	5	Dolomite	Aphanitic, light brown to red brown angular fracture.
2850m-2855m	15	Dolomite	
	40	Sandstone	As above, quartzose,
	45	Siltstone	Sandy, as above.
2855m-2860m	60	Siltstone	As above.
	30	Sandstone	As above.
	10	Coal	As above.
2860m-2865m	80	Sandstone	As above.
	15	Siltstone	As above.
	5	Coal	As above.

2865m-2870m	90	Sandstone	Quartzose, white-clear, hard-friable, occurrence loose, moderate - coarse grained subangular to subrounded, non calcareous, fair porosity, 20% white-yellow fluorescence, slow streaming cut.
	10	Shale	Silty, as above.
2870m-2875m	60	Shale	Silty, as above.
	40	Sandstone	As above.
2875m-2880m	10	Coal	
	60	Shale	Silty, as above, increasing in carbonaceous material.
	30	Sandstone	As above.
2880m-2882m	30	Coal	
	40	Shale	Silty, as above.
	30	Sandstone	As above, (caving).
2882m-2885m	20	Sandstone	As above, no show.
	10	Coal	As above.
	70	Shale	Silty, as above.
2885m-2890m	90	Sandstone	Quartzose, white-clear, loose, occasionally consolidated, medium grained subangular to subrounded, domonantly subangular, argillaceous and calcitic cement, poor to fair porosity. Dull white-yellow fluorescence, slow white cut.
	5	Coal	As above.
	5	Shale	Silty, as above.
2890m-2895m	80	Sandstone	As above, decreasing in fluorescence and cut.
	20	Shale	Silty, as above.
2895m-2900	30	Shale	Silty, as above.
	70	Sandstone	As above.
2900m-2905m	100	Sandstone	Quartzose, white-clear, hard, loose, subangular to subrounded, dominantly subangular, moderate to very coarse grained poorly sorted, trace white-yellow fluorescence, very weak cut.
2905m-2910m	90	Sandstone	As above, grading to moderate to coarse grained.
	10	Shale	Silty, as above.
2910m-2915m	10	Shale	Silty as above.
	90	Sandstone	As above, moderate to coarse grained.
2915m-2920m	80	Sandstone	As above, moderate to coarse grained.
	10	Coal	
	10	Shale	Silty, as above.

2920m-2925m	55	Sandstone	Medium to coarse grained, silicious cement.
	5	Coal	As above.
	40	Siltstone	As above.
2925m-2930m	70	Sandstone	Medium to coarse grained, as above, subrounded grains, poor sorting.
	20	Siltstone	As above.
	10	Coal	As above, plus trace pyrite.
2930m-2935m	90	Sandstone	Medium to coarse grained, rounded to subrounded grains, quartzose silicious cement, fair sorting, loose.
	10	Shale	Silty.
2935m-2940m	90	Sandstone	Quartzose, as above, rounded grains, silicious cement.
	10	Siltstone	Brown-grey.
2940m-2945m			Quartzose, medium grained, rounded grain.
	95	Sandstone	Loose, very mature, possible good porosity.
	5	Siltstone	As above, spot yellow-white fluorescence, weak slow white cut.
2945m-2950m	40	Sandstone	As above.
	30	Dolomite	Brown-red brown, cryptocrystaline.
	30	Siltstone	As above.
2950m-2955m	40	Sandstone	Quartzose, medium-coarse grained, poor sorting, ankerite cementing.
	40	Siltstone	As above.
	20	Dolomite	As above.
2955m-2960m	40	Sandstone	Quartzose, as above.
	40	Dolomite	As above.
	20	Siltstone	As above.
2960m-2963m	30	Shale	Silty, as above.
	40	Dolomite	As above.
	30	Sandstone	As above.
2963m-2965m	20	Sandstone	As above, Trace of dolomite.
	80	Shale	As above, silty, increasing in carbonaceous material.
2965m-2970m	20	Sandstone	As above.
	80	Shale	As above, silty.
2970m-2975m	60	Sandstone	As above.
	40	Shale	Silty, as above.
2975m-2980m	60	Sandstone	White, quartzose, medium grained, rounded to subrounded, silicious cement, (Carbonaeous frays).
	30	Siltstone	Grey-brown, as above.
	10	Dolomite	Grey-brown cryptocrystaline.

2980m-2985m	60	Sandstone	Fine grained, silicious cement, white, rounded to subrounded grains.
	30	Siltstone	As above.
	10	Coal	
2985m-2990m	50	Sandstone	As above.
	50	Siltstone	As above, slightly carbonaceous.
2990m-2995m	60	Sandstone	Quartzose, white-tan, hard to friable, medium grained, well sorted, poor porosity, slight calcareous, argillaceous cement, no show.
	10	Coal	As above.
	30	Shale	Silty, increasing in carbonaceous.
2995m-3000m	20	Sandstone	As above.
	80	Shale	Silty, as above, very carbonaceous.
3000m-3005m	20	Sandstone	As above.
	80	Shale	Silty, as above.
3005m-3010m	60	Sandstone	Quartzose, white-tan, medium grained hard to friable, argillaceous, dolomite cement, well sorted, poor porosity.
	40	Shale	Silty, as above.
3010m-3015m	10	Dolomite	Grey-brown, cryptocrystalline.
	20	Sandstone	As above.
	70	Shale	Silty, as above.
3015m-3020m	70	Sandstone	Quartzose, white-clear, hard to friable, consolidated, dominantly loose, medium grained slightly calcareous, argillaceous cement. poor porosity, dull white-yellow fluorescence, very weak white cut.
	30	Shale	Silty, as above, increasing in carbonaceous matter.
3020m-3025m	70	Sandstone	Quartzose, hard to friable, white-clear, consolidated, medium grained slightly calcareous, argillaceous cement, subangular to subrounded, occasionally angular, poor porosity, dull white-yellow fluorescence, no cut.
	30	Shale	Silty, as above.
3025m-3030m	80	Sandstone	As above.
	20	Shale	Silty, as above.
3030m-3035m	80	Sandstone	Quartzose, medium grained, argillaceous cement, poor porosity.
	20	Shale	Silty, as above.
3035m-3040m	60	Sandstone	Quartzose, medium grain, argillaceous cement, consolidated, friable, poor porosity, no show.
	40	Shale	Silty, as above.

3040m-3045m	90	Shale	Silty, pale to dark brown, generally soft.
	10	Sandstone	Quartzose, fine grained, white argillaceous cement, angular grains.
	Minor	Coal	Banded.
3045m-3050m	50	Shale	Silty, as above.
	40	Sandstone	Quartzose, as above, fine to coarse, angular to well rounded.
	10	Coal	Dull and bright, strong conchoidal fracture.
3050m-3055m	80	Sandstone	Quartzose, clear/white, medium grained, rounded, well sorted, argillaceous matrix. Sparse brown white fluorescence, heavy gold, copper-red mineral fluorescence. Slow creamy colour cut fluorescence.
	10	Shale	Silty, as above.
	10	Coal	Dull and bright.
3055m-3060m	90	Sandstone	Quartzose, as above, gold and copper-red fluorescence. Creamy yellow cut fluorescence.
	10	Shale	Silty, as above, slight noticed in two grains.
	Minor	Coal	Bright, conchoidal fracture.
	Trace	Glauconite.	
3060m-3065m	95	Sandstone	As above, sparce bright white fluorescence, heavy gold fluorescence. Creamy-yellow cut fluorescence.
	5	Shale	Silty, as above.
	Minor	Coal	
	Trace	Glauconite.	
3065m-3070m	90	Sandstone	Quartzose, as above, medium-coarse, angular to subrounded. White clay matrix. Gold red fluorescence. Weak creamy yellow cut fluorescence.
	10	Shale	Silty, as above.
	Trace	Coal.	
3070m-3075m	80	Sandstone	Quartzose, as above, sparce white fluorescence, strong yellow white cut fluorescence. 10% gold, heavy red fluorescence.
	15	Shale	Silty, as above.
	5	Coal	Bright.
3075m-3080m	50	Sandstone	Quartzose, clear-white, medium to very coarse, appear shattered-conglomerate, angular white argillaceous cement, fluorescence as above, yellow-white cut fluorescence.
	40	Siltstone	Pale-red brown, variable quartz and mica content, hard.
	10	Shale	Dark brown, sub-fissile, soft.
	Minor	Coal	Bright, conchoidal fracture.
	Trace	Pyrite	

3080m-3085m	80	Sandstone	Quartzose, white-clear, medium to very coarse, angular. Cement argillaceous and slightly dolomitic, strong bright white fluorescence. Greenish yellow white streamings cut fluorescence.
	10	Siltstone	As above.
	10	Shale	As above.
3085m-3090m	30	Siltstone	As above.
	30	Shale	As above.
	40	Sandstone	As above.
3090m-3095m	60	Sandstone	Quartzose, as above, 20% gold, 20% copper-red fluorescence.
	30	Siltstone	As above.
	10	Shale	As above.
	Trace	Coal & Glauconite	
3095m-3100m	90	Sandstone	As above, sparse copper-red fluorescence.
	10	Siltstone	As above.
	Trace	Coal	
3100m-3105m	95	Sandstone	As above, sparse copper-red fluorescence.
	5	Siltstone	As above.
	Trace	Coal	
3105m-3110m	95	Sandstone	As above, sparse copper-red fluorescence.
	5	Siltstone	As above.
	Trace	Coal	
3110m-3115m	95	Sandstone	As above, 10% gold, 30% copper-red fluorescence.
	5	Shale	Carbonaceous, dark brown, sub-fissile, soft.
3115m-3120m	95	Sandstone	As above, 60% gold and 20% copper-red fluorescence.
	5	Shale	Carbonaceous, as above.
	Minor	Coal	
3120m-3125m	30	Sandstone	Quartzose, clear, colourless and grey white, hard, very fine upper to very coarse, subangular to subrounded, poorly sorted, silica and dolomite cement, minor pyrite overgrowths, low porosity, 10% yellow fluorescence, with weak crush cut.
	70	Siltstone	Light grey, mid brown and dark grey to black, hard to very hard.
3125m-3130m	10	Sandstone	As above.
	80	Siltstone	As above.
	10	Coal	

3130m-3135m	60	Sandstone	As above.
	20	Siltstone	Quartzose, pale to dark brown, hard.
	20	Shale	Carbonaceous, dark brown to black, subfissile, hard, sometimes with coaly streaks.
	Minor	Coal	Bright, conchoidal fracture.
3135m-3140m	90	Conglomerate	Shattered quartz particles, white clay cement.
	10	Shale	Carbonaceous in part.
	Minor	Coal	
3140m-3145m	60	Sandstone	As above, (implies some conglomeritic fraction).
	30	Shale	Carbonaceous, as above.
	10	Siltstone	As above.
3145m-3150m	50	Sandstone	As above, strong yellow cut fluorescence.
	40	Shale	Carbonaceous, as above.
	10	Claystone	Pale brown, soft.
	Minor	Coal	As above.
3150m-3155m	50	Sandstone	As above, (small conglomeritic fraction), heavy gold fluorescence, strong yellow white cut fluorescence.
	35	Siltstone	As above.
	10	Claystone	As above.
	5	Coal	As above.
3155m-3160m	50	Shale	Carbonaceous, as above.
	10	Claystone	As above.
	40	Sandstone	Quartzose, as above, strong gold fluorescence, strong yellow white cut fluorescence.
	Minor	Coal	
3160m-3165m	50	Sandstone	As above, minor bright white fluorescence, heavy gold fluorescence, strong yellow white cut fluorescence.
	50	Shale	Some carbonaceous; light to dark brown.
	Minor	Coal	
3165m-3170m	80	Sandstone	As above, 20% gold fluorescence, yellow white slow cut fluorescence.
	20	Shale	Pale to dark brown
	Minor	Coal	
3170m-3175m	90	Sandstone	As above, trace blue-white fluorescence, 20%¢ gold fluorescence, strong yellow cut fluorescence.
	10	Shale	Carbonaceous, as above.
	Minor	Coal	
3175m-3180m	70	Sandstone	As above, fluorescence as above, weak yellow cut.
	20	Shale	Generally carbonaceous, soft.
	10	Siltstone	As above.
	Minor	Coal	
	Trace	Muscovite	

3180m-3185m	70	Sandstone	Quartzose, clear, usually off white, fine to coarse, very hard, subangular quartz grains, with well developed quartz overgrowths, minor pyrite, some dolomite, very low porosity. The sand has a strong blue white fluorescence, which gives a slow streaming blue white cut fluorescence.
	20	Shale	As above.
	10	Siltstone	As above.
	Trace	Coal	
3185m-3190m	15	Sandstone	Quartzose, as above.
	40	Shale	As above.
	45	Siltstone	As above.
	Trace	Coal	
3190m-3195m	40	Sandstone	Quartzose, clear, off white, opaque, soft to firm, fine to very coarse, angular to subrounded, poorly sorted, very tightly cemented, quartz overgrowths, dolomitic cement, minor pyrite, 100% mineral fluorescence, no crush cut fluorescence.
	40	Siltstone	Grey to black, carbonaceous matter.
	20	Shale	Light brown to grey brown.
3195m-3200m	100	Sandstone	As for 3190m-3195m.
3200m-3205m	75	Sandstone	As above, trace glauconite, heavy mineral sands.
	25	Siltstone	As above.
	Trace	Coal	
3205m-3210m	75	Sandstone	As above, with mineral fluoescence, negligible cut.
	25	Siltstone	As above.
	Trace	Coal	Black, shiny, conchoidal fracture.
3210m-3215m	50	Sandstone	As above.
	50	Siltstone	As above.
3215m-3220m	50	Sandstone	As above.
	50	Siltstone	As above.
3220m-3225m	60	Sandstone	Quartzose, light grey to medium grey brown, moderately fine, subangular to subrounded, common lithic and carbonaceous matter, silt and clay matrix, very extensive silicic and dolomitic cement, trace mica, poor visual porosity. The sand has 20% dull yellow fluorescence, and a slow streaming yellow-white cut fluorescence. Gas Peak of 1600units.
	40	Shale	Carbonaceous, in part, grey black, hard, brittle, subfissile.
3225m-3230m	60	Sandstone	As above.
	40	Shale	As above, Gas Peak of 1200m.

3230m-3233m	60	Sandstone	As above.
	40	Shale	As above.

Circulating and increasing mud weight to 10.2 ppg.

3233m-3235m	90	Sandstone	Quartzose, light grey to medium brown, medium (dominantly) and well sorted, subrounded, occurrence angular fragments of very coarse sandstone size. Cement white, friable, slightly dolomitic. Sparse bright white and 10% gold fluorescence. Slow yellow-white cut fluorescence.
	10	Siltstone	Quartzose, pale brown to dark grey, hard.
	Trace	Coal/Muscovite/ Glauconite	
3235m-3240m	70	Sandstone	As above, medium flint particle. 20% gold fluorescence, yellow-white streaming cut fluorescence.
	20	Siltstone	As above.
	5	Shale	Carbonaceous, black, slight sheen, subfissile, hard.
	5	Coal	Bright, conchoidal fracture.
3240m-3245m	10	Sandstone	As above.
	30	Siltstone	As above.
	55	Shale	Carbonaceous, miod grey to black, dull to shiny, brittle, subfissile, fine pyrite specks.
	5	Coal	As above.
3245m-3250m	50	Shale	Carbonaceous, as above.
	20	Claystone	Pale brown and white, soft, puggy.
	20	Sandstone	Quartzose, pale brown, fine high matrix, (friable clay cement), subangular, well sorted.
	10	Quartz	Fragments, to very coarse size.
	Trace	Chert	(white).
	Minor	Coal	
3250m-3255m	20	Sandstone	Quartz fragments as above.
	40	Claystone	As above.
	40	Shale	Carbonaceous.
3255m-3260m		Shale/ Claystone.	As above.
		Sandstone	As above, trace glauconite.
	Trace	Coal	Dull and bright.
3260m-3265m	20	Sandstone	As above.
	50	Shale	Carbonaceous.
	30	Siltstone	
3265m-3270m	20	Sandstone	As above.
	50	Shale	Carbonaceous.
	30	Siltstone	Quartzose, off white to brown, hard.
	Trace	Coal	Brittle, pyrite common.

3270m-3275m	25	Sandstone	Quartzose, off white to light brown, hard fine to very coarse, poorly sorted, subangular to subrounded, clay and silt matrix, dolomite cement, minor pyrite, trace gypsum.
	55	Shale	Carbonaceous, grey to black, hard, brittle, subfissile, fine pyrite specks.
	20	Siltstone	As above.
	Trace	Coal	
3275m-3280m	15	Sandstone	As above.
	55	Shale	As above.
	30	Siltstone	As above.
3280m-3285m	30	Sandstone	Quartzose, as above, occasional grains, well rounded bimodal, very fine to very coarse, the very fine sandstone has a dark red-orange fluorescence with no cut.
	40	Shale	Carbonaceous, dark brown, hard, brittle, subfissile.
	30	Siltstone	As above.
	Trace	Coal	
3285m-3290m	80	Sandstone	Quartzose, pale brown bimodal, fine to coarse, subrounded, well sorted (dominantly fine component), gold and red mineral fluorescence, no cut.
	20	Shale	Mostly carbonaceous.
	Minor	Siltstone	As above.
	Minor	Basalt	(reworked from lower down)?

CORE #8: 1920m-1938m Preliminary Wellsite Description of unslabbed Core.

1920m	80 20	Siltstone Coal	Medium-dark grey with micro coal laminae. Extraordinary much paint and metal cuttings.
1921m		As above.	Too doubtful to be described as sample.
1919m	100	Sandstone	vfU-fL moderately light medium grey, friable well sorted, subangular, quartz, silty matrix, occurrence of mica, microlaminae of detritus, faint odour. Yellow fluorescence, slow streaming, yellow-cream cut fluorescence.
1919.4m			As above.
1919.64			As above, increasing amount of organic materials.
1919.9m	100	Silty Sandstone	vfL-vfU, medium-medium dark grey, friable-moderately hard, quartz, silty matrix, 5% coal fragments, in laminae, occurrence of mica.
1920.5m	100	Sandstone	Medium dark grey, friable, high content of coal fragments in patchy occurrence, 1-2% mica.
1920.8m	100	Silty Sandstone	As above.
1921.2m		Sandstone	vfU-fU, medium-medium dark grey, friable, moderately sorted, subangular, silty matrix, microlaminae of detritus very faint odour, patchy yellow fluorescence, very slow yellow-white cut.
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1921.98m	100	Siltstone	Medium-grey, coaly laminae surfaces with mica on laminae surfaces, friable.
1922.45m	100	Coal	Coal dark brown.
1923.2	100	Siltstone	Medium grey, moderately hard, waxy appearance on mottled surfaces.
1923.85m			Coaly siltstone coal in fragments and splinters, friable.
1924.36m			Mud-siltstone, moderately hard small coal bands

			(1.5mm) with patchy coals and mud concreations.
1925.48m			Silty coal dark grey porous.
1926.25m			Coal, dark grey, very brittle, very porous.
1926.85m	100	Sandstone	vfU-fU, medium light grey, friable, moderately sorted, subangular quartz, silty matrix, occurrence of mica, 5% coaly fragments and little brown mud.concreations, trace of fluorescence, extremely small and slow yellow cut.
1927.5m			Silty coal.
1927.55m		Sandstone	As above.
1928.04m		Sandstone	As above.
1928.28m		Sandstone	vfU-mL, mainly fL, medium grey, poorly sorted, subangular, friable, slightly silty matrix, 1-2% coaly fragments, micro laminae of coal, bright yellow fluorescence, slow yellow cut, faint odour.
1929.0m			As above.
1929.14m	50	Sandstone	vfU-mL, medium light grey, poorly sorted, subangular to moderately hard, silty matrix.
	50		Silty coal laminae mottled dark brown.
1929.7m			Coaly siltstone, dark grey, moderately hard.
1931.35m			As above.
1932.58m			Siltstone, medium to light grey, thin laminae of detritus, moderately hard.
1933.62m			As above.
1934.5m			Coaly siltstone, dark grey to brownish, occurrence of mica (biotite and muscovite) and pyrite.
1935.42m			As above.
1935.8m			As above.
1936.3m			Silty coal, dark grey, brittle.

SIDEWALL CORE DESCRIPTIONS

Sidewall Core Descriptions

OIL and GAS DIVISION

WELL COMPLETION REPORT

29 FEB 1984

SIDEWALL CORE DESCRIPTIONS

SNAPPER A-21

SWC RUN NO.I

Geologist: Gundi Royle
Service Co.: Schlumberger
Date: August 23, 1981

No.	Depth	Rec	Rock Type	Modifiers	Color	Indur Deg	Grain Size	Srtg	Rnd	% Fluorescence RK	Distr	Inten	Color	Cut Flouor Inten	Color	Remarks - Gas Cl	C2	C3	iC4	nC4	C5
1	3270	21	Shale	Silty	M Dk Gry	Soft															
2	3251	-														ppm.					
3	3229.6	21	Sandstone	Silty	V Lt Gry	Friable	vfu-fu	Unstd	Sa	5	Spty	Dull	White/ Yellow	Dull	White						
4	3211.5	22	Siltstone	Coaly	Dk Gry	Soft	Slt.				70	Even	Fnt	White	Fnt	White					
5	3200.5	22	Sandstone	Silty	Lt Gry	Friable	vfL-fl	well	Sa							Tr	29.1	4.8	Tr	Tr	Tr
6	3184	20	Siltstone	Coaly/	M Dk Gry Coal/ veins	Firm															
7	3174	-																			
8	3158	-																			
9	3144.5	20	Siltstone	Shaly	Br./ Green	Firm															

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No.	Depth	Rec	Rock Type	Modifiers	Color	Indur Deg	Grain Size	Srtg	Rnd	% Fluorescence RK	Distr	Inten	Color	Cut Flouor Inten	Color	Remarks - Gas Cl	C2	C3	iC4	nC4	C5
10	3134	-																			
11	3126	19	Shale		M Dk Gry	Friable	vfL-fu	well to Mod.	Sa												
12	3111	18	Sandstone		Lt Grey	Friable	vfl-cl	prly	Sa	80	Even	Fnt	White	Fnt	White	7.7	29.1	28.5	16.3	Tr.	34.3
13	3099	25	Sandstone	Pressure sol qtz overgr.	Lt Grey	Friable	vfL-ul	v/pr std.	Sa	80	Even	Fnt	White/ Yellow	Fnt	White						
14	3093.5	33	Sandstone	Qtz o'gr pressure sol.	M Lt Gry	Friable	vfu-cu	prly std.	Sa	40	Spty	Dull	Yellow	Dull	Yellow	30.8	38.8	20.9	65.2	181	165
15	3084.8	8	Siltstone	Coaly/ Silty	M Dk Gry	Firm															
16	3075.5	30	Sandstone	Qtz o'gr pressure sol.	Wht/ V Lt Gry	Friable	vfU-cU	prly	Sa	40	Spty	Bright	Yellow	Dull	Yellow	84	165	884	326	951	686
17	3067.5	18	Shale	Silty	M Dk Gry	Friable															
18	3059	28	Sandstone	Trace/ Glauc.	V Lt Gry	Friable	vfU-mU	Mod. std.	Sa	50	Spty	Bright	Yellow	Dull	Yellow	35	24.3	19	16.3	Tr.	Tr.
19	3056	15	Sandstone	Shaly/	V Lt Gry/ M Gry	Friable	vfU-mU	Mod. std.	Sa	5	Even	Faint	White			Tr.	Tr.	Tr.			
20	3048	20	Sandstone	Shaly/ coaly/ bands.	V Lt Gry	Friable	vfU-mU	Mod. std.	Sa	10	Even	Faint	White			Tr.	Tr.	Tr.			

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No.	Depth	Rec	Rock Type	Modifiers	Color	Indur Deg	Grain Size	Srtg	Rnd	% Fluorescence RK	Distr	Inten	Color	Cut Flouor Inten	Color	Cl	Remarks - Gas C2	C3	iC4	nC4	C5
21	3041	22	Siltstone	Coaly/ bands	M Dk Gry	Friable															
22	3032	14	Siltstone	Sandy/ coaly.	Dk Gry	Friable															
23	3019	-																			
24	3008	25	Shale	Coal/ Micro/ veins.	M Dk Gry	Friable															
25	300.5	34	Siltstone	Shaly	M Gry	Friable										658	243	370	73.4	242	172
26	2952	-																			
27	2944	32	Shale	Coaly/ silty.	M Dk Gry	Friable															
28	2921	-																			
29	2905	32	Sandstone	Quartz o'grwth press sol.	Whte	Friable	vfU-mU	Mod. std.	Sa	60	Even	Faint	White	Faint	White	Tr.	Tr.	Tr.			
30	2890.6	30	Sandstone	Coal/ fragm.	V Lt Gry	Friable	vfU-mU	"	Sa							70	48.5	19	Tr.	Tr.	Tr.
31	2875.3	18	Shale	Coaly/ patches	M Dk Gry	Friable															

1227f29

No.	Depth	Rec	Rock Type	Modifiers	Color	Indur Deg	Grain Size	Srtg	Rnd	% Fluorescence RK	Distr	Inten	Color	Cut Flouor Inten	Color	Remarks - Gas Cl	C2	C3	iC4	nC4	C5
32	2856.5	15	Shale	Coaly/ Silty.	M Dk Gry	Friable															
33	2827.5	11	Shale	Clayey	M Gry																
34	2808.5	17	Sandstone	W/Coal bands	Lt Grey	Friable	vfL-mL	Mod. Std.	Sa	40	Even	Faint	White	Faint	White	434	121.3	19	Tr.	Tr.	Tr.
35	2795.5	-																			
36	2780.5	13	Shale	Silty/ Coaly	M Dk Gry	Friable															
37	2758.5	17	Siltstone	W/coal bands, silty.	M Dk Gry	Friable															
38	2742.5	30	Coal	W/silty bands.	Dk Gry	Friable															
39	2723	22	Siltstone	Sandy	M Lt Gry	Firm															
40	2691	17	Sandstone	50%Coaly layers.	M Dk Gry	Friable	vfu-mL	Well Std.	Sa												
41	2673.5	23	Shale	Clayey	Dk Gry	Friable															
42	2637	17	Sandstone	Coaly/ fragm/ Pyrite.	Lt Grey	Friable	vfl-ml	Mod. Std.	Sa	50	Even	Faint	White	Faint	White						
43	2623.8	19	Sandstone	Clayey/ patches	M Lt Gry	Friable	vfl-mu	Mod. Std.	Sa	40 10	Even Spty	Faint Dull	White Yellow	Faint Dull	White Yellow						

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No.	Depth	Rec	Rock Type	Modifiers	Color	Indur Deg	Grain Size	Srtg	Rnd	% RK	Fluorescence Distr	Fluorescence Inten	Fluorescence Color	Cut Flouor Inten	Cut Flouor Color	Remarks - Gas Cl	C2	C3	iC4	nC4	C5
44	2618	20	Shale	Silty	M Gry	Friable															
45	2576.5	18	Sandstone	Clayey/ patches	M Lt Gry	Friable	vfU-fU	Well Std.	Sa	40	Even	Very faint	White			14	Tr.				
46	2558.5	27	Coal	Shaley	Dk Gry	Friable															
47	2545.5	23	Sandstone		V Lt Gry	Friable	fL-mL	Well std.	Sa	40	Spty	Dull	Yellow	Dull	White/ yellow	42	184	1330	619	1812	1784
48	2530	20	Sandstone		V Lt Gry	Friable	fL-mL	"	Sa							Tr.	Tr.				
49	2521	18	Sandstone	20%Coal Fragm.	Lt Grey	Friable	fL-mU	"	Sa	20	Even	Faint	White			546	247	76	16.3	Tr.	
50	2514.5	16	Sandstone		Lt Grey	Friable	cL-vfU	Mod. Std.	Sa							42	19.6	9.5			
51	2497.5	19	Shale	Silty	M Dk Gry	Friable															

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SIDEWALL CORE DESCRIPTIONS

SNAPPER A-21

SWC RUN NO.II & III

Geologist: Gundi Royle
Service Co.: Schlumberger
Date: August 23-24, 1981

Depth	Rec.	Rock Type	Modifiers	Color	Indur. Deg.	Grain Size	Srtg.	Rnd.	C1	C2	C3	iC4	nC4	C5
2491.5	-													
2480	-													
2475	20	Sandstone		V Lt Gry	Friable	vfU-mL	Mod.	Sa.						
2466.5	-													
2450.5	11	Shale		Dk Gry	Firm									
2336.5	21	Shale	Silty, coaly	M Dk Gry	Firm									
2383	14	Shale		M Dk Gry	Hard									
2515.5	-													
2177	22	Siltstone	Coaly	M Lt Gry	Firm									
2160	44	Shale	Silty	M Lt Gry	Friable									
2131.8	15	Shale	Silty	M Lt Gry	Friable									
2120.5	18	Sandstone	50% Coal	M Lt Gry/ Dk Gry	Firm	vfL-mL	Mod.	Sa.						

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Depth	Rec.	Rock Type	Modifiers	Color	Indur. Deg.	Grain Size	Srtg.	Rnd.	C1	C2	C3	iC4	nC4	C5
2120.5	6	Siltstone	Coaly bands	M Gry	Friable									
2090.5	30	Sandstone		V Lt Gry	Friable	fU-mU	Well	Sa.	Tr.	Tr.	5	-	-	-
2072.5	18	Siltstone	Silty	Lt Gry	Firm									
2060.5	22	Sandstone	Silty	Lt Gry	Firm	vfL-fL	Well		676	157	51	4	12	Tr.
2039.9	19	Siltstone		M Dk Gry	Friable									
2026.3	15	Sandstone	Very light silty	V Lt Gry	Friable	vfL-fL	Well		22	10	Tr.			
2021	16	Sandstone	Coaly micro bands	V Lt Gry	Friable	fU-mL	Well		Tr.	Tr.	Tr.	Tr.	Tr.	Tr.
2006.3	23	Sandstone	Coaly bands	Lt Gry	Friable	fU-mL	Well		59	60	67	54	232	1053
1994	13	Sandstone	Coaly silty micro bands	M Lt Gry	Friable	fL-mL	Mod.							
1979.5	-													
1962.5	15	Sandstone	Silty											
1961	-													
1955	32	Shale	Coaly	Dk Gry	Firm									
1951.5	32	Shale	Coaly	Dk Gry	Firm									
1942.3	14	Shale	Silty micro bands	M Dk Gry	Firm									
1931.3	34	Shale	Coaly	Dk Gry	Firm									

1227f26

SIDEWALL CORE DESCRIPTIONS

SNAPPER A-21

SWC RUN NO. II & III

Geologist: Gundi Royle
Service Co.: Schlumberger
Date: August 23-24, 1981

Depth	Rec. mm.	Rock Type	Modifiers	Color	Indur. Deg.	Grain Size	Srtg.	Rnd.	C1	C2	C3	iC4	nC4	C5
1911.7	-													
1907.5	18	Siltstone	Coaly, shaley	M Lt Gry	Firm									
1897.5	19	Siltstone	Shaley, organic	M Lt Gry	Firm									
1855m	28	Sandstone	Coaly, shaley	Lt Gry	Friable	vfU-mU	Mod.	Sa						
1809.5	16	Coal	Slightly silty	Dk Gry	Firm									
1796.5	30	Sandstone	Silty, quartz overgrowth	V Lt Gry	Friable	vfL-fL	Well		6468	1228	474	36	116	75
1767.5	32	sandstone	Pyrite	Lt Gry	Friable	vfL-fU	Well		15	20	57	39	216	752
1723.5	32	Sandstone	Silty bands	M Lt Gry Lt Gry	Friable	vfL-fU	Well		Tr.	73	62	18	4	-
1678.5	15	Siltstone		Lt Gry	Friable				-	21	15	Tr.	Tr.	-
1670.5	-													
1654	-													
1227f23														

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Depth	Rec.	Rock Type	Modifiers	Color	Indur. Deg.	Grain Size	Srtg.	Rnd.	C1	C2	C3	iC4	nC4	C5
1644.8	45	Shale		M Lt Gry	Firm									
1634.3	32	Shale	Banded	M Lt Gry	Firm									
1626.5	30	Siltstone	Sandy	Lt Gry	Firm									
1617.5	33	Siltstone		M Lt Gry	Firm									
1611.5	38	Sandstone	Mica	Lt Gry	Friable	vfU-mL	Mod.		15	74	896	537	1411	2632
1601	25	Siltstone		Lt Gry	Firm									
1588.5	25	Siltstone	Shaley	M Gry	Friable									
1576.5	42	Sandstone	Pyrite	Whte		vfU-mL	Well		Tr.	Tr.	Tr.	Tr.	Tr.	Tr.
1565.5	40	Siltstone	Micro bands, Shale	M Lt Gry	Firm									
1551.	31	Claystone	Silty	V Lt Gry	Friable									

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EXAMINATION OF THIN-SECTIONS FROM SIDEWALL CORES TAKEN BELOW THE N-1 RESERVOIR IN SNAPPER A-21.

10/12

SUMMARY:

1. No dolomite was observed in any of the sections. (Only 5 dolomitic zones were interpreted from the logs, and none of the thin sections were from these zones.)

2. All sections contained a clay matrix and a silica cement. In some speciments fragments of feldspar could be seen altering to the matrix clay - it can be concluded therefore that the clay is diagenetic.

3. No exsolution features were noticed around quartz grains, establishing that diagenesis was not well advanced.

4. The rarity of sutured contacts between grains shows that little compaction has occurred. This lends credence to the concept of some supporting material (dolomite?) having been introduced at an early stage.

5. Because of the high stress associated with the sidewall core method of sampling, apparent porosities and stress features were ignored.

DETAILED DESCRIPTIONS

SECTION OR S.W.C. NO.	DEPTH.	DESCRIPTION.
100	1576.5	SAND-SIZED CONSTITUENTS: (70%) (1) QUARTZ: sub-angular to rounded fine-med sized grains - 90%. (2) MICA: plates of fine-med sand size, tending to wrap around quartz grains - 10%. (3) CHERT: occasional rounded, sub-spherical grains. MATRIX + CEMENT (30%) A clay matrix and silica cement was present in all specimens. CONTACTS: Generally there is no contact between grains.
97	1611.5	As above.
88	1767.5	Sandstone as above, but with reduced cement & matrix (15%), and numerous long contacts, but no sutured contacts.
	2026.3	Sandstone as above, with fine siltstone laminae.
29	2095	Coarse sandstone, lithology as above.
47	2545.5	SAND-SIZED CONSTITUENTS: (70%) (1) QUARTZ: sub-angular to rounded fine-med sized grains - 80%. (2) ALBITE: unaltered fragments - 10%. (3) MICA: tending to wrap around other grains-10%. MATRIX + CEMENT: (30%) CONTACTS: Some sutured contacts.
30	2890.6	Sandstone as above, 90% quartz, 10% mica, occasional albite fragments eroding to clay.
18	3059	Sandstone as above, 80% quartz, 10% chert, 10% mica. Some sutured contacts.

SECTION OR S.W.C. NO.	DEPTH.	DESCRIPTION.
16	3075.5	Sandstone as above, with majority of grains 2-4mm diam (very small pebble classification). 80% quartz, 10% chert, 10% mica, minor albite. Matrix + cement 30-40%. May have silica-filled fractures.
14	3093	As above, but no albite noted.
13	3099	As above; noted one albite fragment eroding to clay.
12	3111	Silty sandstone (70-80% silt-sized or smaller). Lithologies as above.
5	3200.5	80% quartz, 20% chert, minor mica and albite. Grains not generally in contact - noted some long but no sutured contacts. 30-40% matrix + cement.
3	3229.6	70-80% quartz, 10-20% albite eroding to clay, 10% rounded, near-spherical chert grains. Matrix + cement 30%. Some sutured contacts.