

*Release Date
April 12th, 2006*

Contact Exploration Inc.

Final Well Report

Parsons Pond #1

July, 2004

**Prepared by
Terry Brooker, P.Eng.**

1.0 Introduction (2.2)

The Parsons Pond #1 well was drilled by Contact Exploration Inc. (Contact) to test the hydrocarbon potential of the limestone and dolomitized sections of the Daniel's Harbour member of the American Tickle formation. Oil seeps are widely encountered throughout the Parsons Pond area in old wells. This exploratory oil and gas well is located about 5 km south east of the town of Parsons Pond and about 1.6 km north of the boundary of Gros Morne National Park, Newfoundland.

The well spudded on January 21, 2004 with an Atlantic Drilling & Blasting Ltd. water well rig, drilled to 107 m and abandoned when the angle went to 2 deg. A new well was started and drilled to 111 m, 139 mm casing was set and cemented.

Operations resumed on February 28, 2002 when Logan Drilling Limited completed the rig move and started rigging up a Longyear 50 slim hole continuous coring rig. The well was cored to 338 m and 114 mm intermediate casing was set and cemented. Coring resumed to a TD of 1062 m and 88.9 mm casing was set and cemented.

Core was recovered from 111 m to 1062 m. The core was continuously described on site and boxed for permanent storage. There were no logs or drill stem tests run on this well.

Well site drilling supervision was by Mr. Bill Williams and site geological work by Mr. Cory Fitzgerald. Operations management was by Mr. Terry Brooker.

2.0 Map (2.3)

A map showing the location of the well and access road is included as Attachment #1.

3.0 General Information (2.4)

Well Name - Contact Parsons Pond # 1

Operator - Contact Exploration Inc.

Permit - Exploration Permit #03-103

Contractor - Logan Drilling Limited

Drilling Rig - Longyear 50

Location - Lat 57° 42' Long 49° 57'
- Northing 5536500 Easting 0449745

4.0 Difficulties and Delays (2.5)

See the drilling curve and time breakdown included as Attachments 2 (a and b), with details as follows:

- the original surface hole had to be re-drilled due to deviation problems, about 7 days (59 hours) were lost.
- severe snow and storms delayed the slim hole coring rig move after surface was set by over two weeks.
- drill pipe parted at 162 m and had to be fished, lost about 16 hours.
- drill pipe parted again at 508 m and fished, lost about 15 hours.
- transmission problems at 665 m, total repair time was about 36.5 hours.
- lost circulation (total about 5 m³) at 930 m, pump lost circulation material and establish circulation. Then had to trip to clean out bottom hole assembly, estimate total time lost was 24.5 hours.
- attempted to work through an apparent fault zone at 1062 m, lost about 63.5 hours before setting intermediate casing and suspending the well.

5.0 Drilling Operations (3.0)

5.1 Ground Elev. - 25 m
KB Elev. - 28 m

5.2 Total Depth - 1062 meters

5.3 Spud Date - 1030 hrs, January 21, 2004

5.4 TD Date - 0230 hrs, April 8, 2004

5.5 Rig Release - 1600 hrs, April 12, 2004

5.6 Well Status - well is suspended with casing to 1062 m.

5.7 Hole Size and Depths

- Conductor - Drive 216 mm pipe to 8 m
- Surface - Drill 178 mm hole to 111 m
- Intermediate - Core 123 mm hole to 329 m
- Main - Core 96 mm hole to 1062 m

5.8 Bit records

- 178 mm hole
 - 1 A 8 - 111 m Varel Air Hammer
 - 103 m in 16 hrs, 6.4 m/hr

5.0 Drilling Operations (continued)

- 123 mm hole

- 1 111 – 153 m, Fordia Shark – 7 serial # 21578/02
42 m in 37 3/4 hrs, 1.1 m/hr, 600 rpm
- 2 153 – 329 m, Pilot Shark – 7 serial # 3A2912
176 m in 130.5 hrs, 1.3 m/hr, 3000 pds, 600 rpm

- 96 mm hole

- 3 321-508 m, Fordia 4-6, serial # 27732-03
187 m in 102.5 hrs, 1.8 m/hr
- 4 508-691 m, Fordia 4-6, serial # 27732-04
183 m in 92.5 hrs, 2.0 m/hr
- 5 691-931 m, Fordia 4-6, serial # 27772-01
183 m in 107 hrs, 2.2 m/hr
- 6 931-1062 m Fordia 4-6, serial # 28509-09
131 m in 62 hrs, 2.1 m/hr

5.9 Casing and Cementing Record

- Conductor

Drive 216 mm, 25.2 kg/m casing to 8 m

- Surface

Run 139.7 mm, 21.1 kg/m PW casing to 109.1 m KB
Cement with 46 sxs Class G with 3 % CaCl₂, at 15.7 ppg,
no returns, mix 10 sxs Class A and pump down outside pipe

- Intermediate

Run 114 mm, 17.4 kg/m HW/HWT casing to 329.2 m KB
Cemented with 25 sxs Class A with 1 % CaCl₂, at 15.8 ppg,
20 l cement returns

- Intermediate

Run 88.9 mm, 12.8kg/m HRQHP casing to 1061 m KB
Cemented with 51 sxs Class G at 15.8 ppg down annulus,
partial returns – some loss circulation

5.10 Sidetracked Hole

There was no sidetracked hole.

5.11 Drilling Fluid

The well was drilled with a simple low viscosity mud with Poly Plus for shale control and PulPro as viscosifier. Mud weight reached a maximum density of 1130 kg/m³ at 805 m.

5.0 Drilling Operations (continued)

5.12 Fluid Disposal

The drilling mud was hauled to G.D.H. Environmental in Stephenville for disposal.

5.13 Fishing Operations

While drilling at 162 m, pipe parted in a connection at 128 m. Bowen spear was run, latched on and recovered fish. Total lost time was about 16 hours.

While drilling at 508 m, pipe parted in a connection at 222 m. Bowen spear was run, latched on and recovered fish. Total lost time was about 15 hours.

And while replacing the drill string, it twisted off in the slips and had to be fished. Lost time was ½ hour.

5.14 Well Kicks

There were no kicks.

5.15 Formation Leak-Off Tests

A leak off test was conducted at 125 m with PW casing set to 109.1 m. With water (1000 kg / m^3) in the hole, surface pressure of 760 kPa was applied with no leak-off, equivalent to a leak off gradient of 16.5 kPa / m.

A leak off test was conducted at 334 m with HW casing set to 329 m. With mud (1020 kg / m^3) in the hole, surface pressure was pumped to 2900 kPa with no leak off, equivalent to a leak off gradient of 18.9 kPa / m.

5.16 Time Distribution

A detailed time breakdown is included as Attachment # 2.

5.17 Deviation Plot

No continuous directional survey was run on this well.

Significant problems were encountered with the surface hole. The original hole built to 2° and was junked (surveys were 32 m – $1/2^\circ$, 70 m – 2° , and 107 m – 2°). The second hole was essentially the same and it was determined to use the well (13 m – 1° , 30 m – 1° , 47 m – 1° , 66 m – 1° , 78 m – 2° , 100 m – 2° , 111 m – 2°).

5.0 Drilling Operations (continued)

The main hole was drilled without deviation problems, notwithstanding the surface deviation. The surveys were 250 m – 2 1/2°, 329 m – misrun, 472 m – 2°, 691 m – 4°, and 988 m – 4°.

5.18 Suspension / Abandonment Plugs

There are no plugs in the main hole as it was cased and cemented. The original surface hole was cemented with 89 sxs Class A with 3% CaCl₂ through a 2" pvc pipe run in to 105 m.

5.19 Well Schematic

A schematic showing hole sizes and depths, casing sizes and depths, and cementing details is included as Attachment #3.

6.0 Geological (4.0) (Prepared by Mr. George Langdon)

As no open hole logs were run in the borehole, evaluation relied on examination of continuous core cut over 122.6 mm hole from 114.3 m to 327.5 m, and 98 mm hole from 327.5 m to TD at 1062 m. Core recovery was excellent at virtually 100%. The core was subsequently analyzed for seismic velocity and fractured reservoir properties. The Geological Report submitted by the wellsite geologist, Corey Fitzgerald, has been submitted under separate cover, and is referred to here as Attachment # 7.

Core Analysis

6.1 Seismic velocity study

The core was sampled at ACS Laboratories in St. John's for an Advanced Rock Properties Study which was carried out at Core Laboratories in Calgary. Twenty samples were shipped to Calgary, with an initial run of ten samples, chosen by George Langdon of Contact to represent the different lithologies in the core.

A full description of the analytical procedure is contained in the Core Labs report which is included as Attachment # 5. Results from the initial run of 10 samples were considered adequate to constrain the seismic model and tie the main reflectors to depths as encountered in the hole.

Compressional velocities (V_p) averaged 3778 m/sec in the Eagle Island sandstones and 5103 m/sec in the Cow Head limestones. These data enabled a tie of the main seismic reflective package to the top of the Cow Head at 635 m,

while the gouged, fractured zone near the base of the well (1059 m) ties t the first east-dipping thrust seen on seismic.

Samples used in the analysis are noted on the colour striplog included as Attachment # 4.

6.2 Fractured Reservoir Study

A short study was carried out by Dr. John Gale of FracFlow Consultants of St. John's, with the assistance of Corey Fitzgerald, the wellsite geologist. This report is included at Attachment # 6. The report recommends five zones for testing, all within the Cow Head Group. These zones are annotated on the striplog Attachment # 4. The Cow Head limestones (Green Point Formation) in general appear to be a highly fractured, brittle rock, contrasting somewhat with the more ductile, much less fractured massive sandstones of the Eagle Island Group. Lost circulation in the fractures at about 930 m also suggests permeability in the fractures. It is possible, if the fractures are charged with hydrocarbons, as suggested by gas shows in the fractured zones, that the tight unfractured Eagle Island sandstones are in fact sealing a Cow Head fractured reservoir.

6.3 Hydrocarbon Shows

Hydrocarbon shows were encountered both in the Eagle Island sandstone and Cow Head limestones. A total gas detector was in operation during drilling and the results are plotted on the strip log (Attachment #4). The gas shows are quite significant with drilling gas shows as high as 3.94 % (394 units) in the sandstone and 4 % (400 units) in the limestones. Connection gas peaks are also high, suggesting that free hydrocarbons are entering the borehole from the formation and note merely as a result of drilling source rock. Oil shows were seen in vuggy and fracture porosity, and were generally identified by adding solvent to the rock surface, although some macroscopic staining was observed. Based on steady salinities, there appears to be no entry of formation water in the borehole during drilling.

7.0 Well Evaluation (5.0)

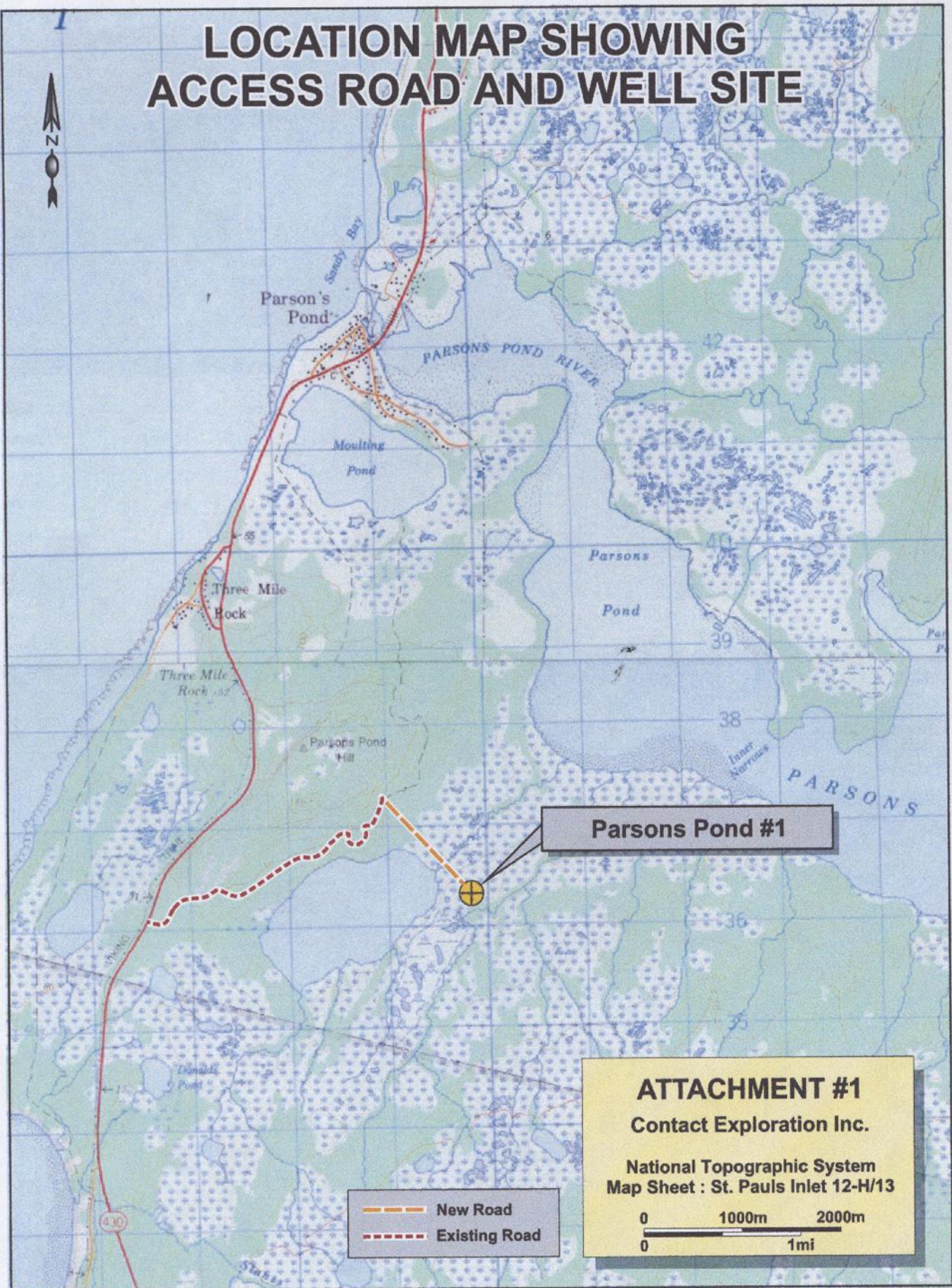
7.1 Logging Program

No open hole electric logs were run.

7.2 Drill Stem Tests

No Drill Stem Tests were run.

LOCATION MAP SHOWING ACCESS ROAD AND WELL SITE

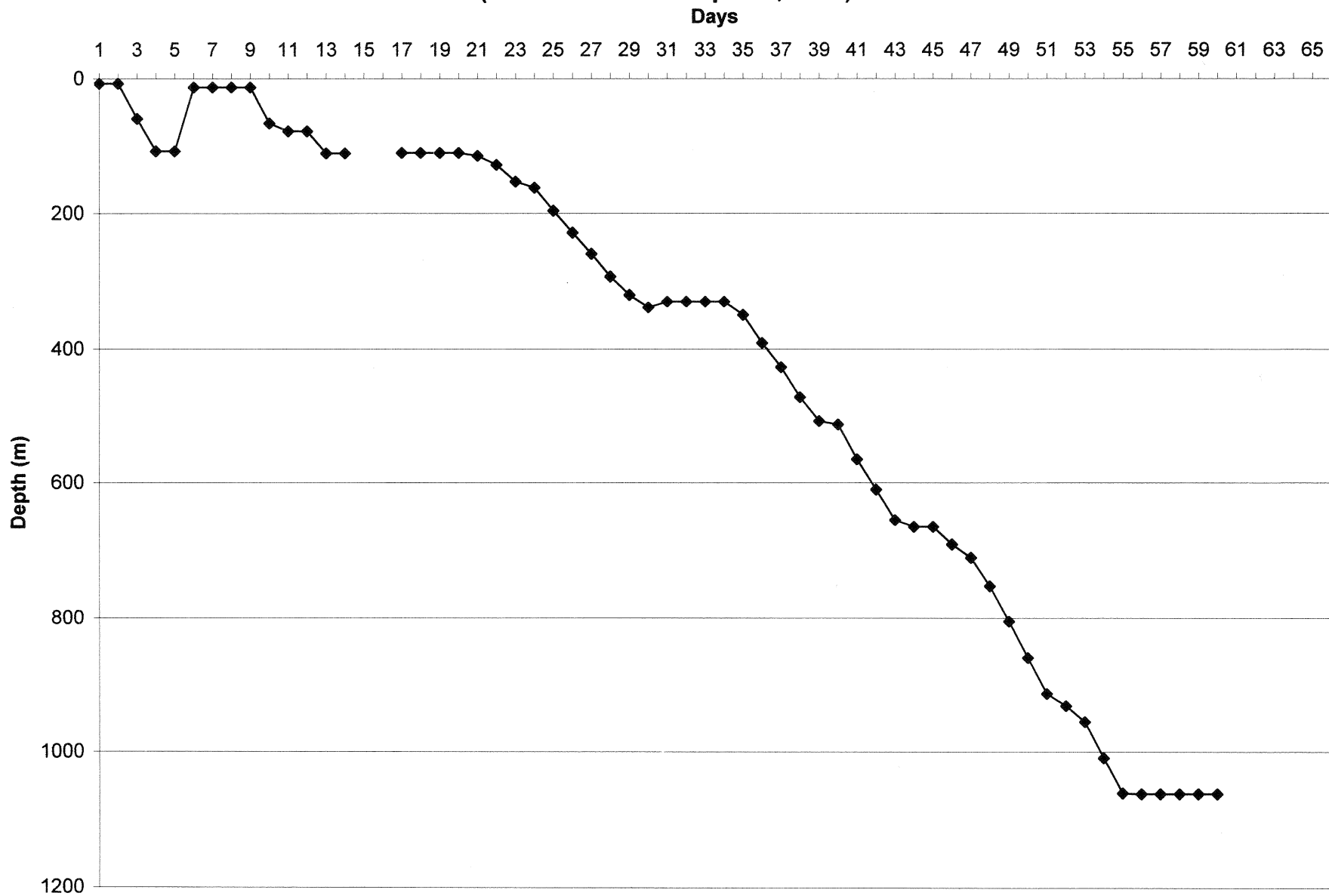


Parsons Pond #1

— New Road
- - - Existing Road

ATTACHMENT #1
Contact Exploration Inc.
National Topographic System
Map Sheet : St. Pauls Inlet 12-H/13
0 1000m 2000m
0 1mi

Attachment # 2 a
Contact Parsons Pond #1
(Overall Jan. 20 to Apr. 12, 2004)



Parsons Pond #1

Time Distribution - Jan. 20 to Feb. 2, 2004 (Spud to 111 m)

(Atlantic Drilling and Blasting Ltd.)

	Depth	Total Hrs.	RU/TO	Drill/Core	Reaming	Cond/Circ	Tripping	Pull Core	Survey	Repair Rig	DST	Logging	Run Csg	Cementing	WOC	WOO	Nu / Test BOPs	Drill out	Misc	Safety Mtg	WOW	Fishing
Jan 20 / 04	7	8	2.5	4																1.5		
Jan 21 / 04	7	9	5																4			
Jan 22 / 04	59.4	10	3	5.5					1											0.5		
Jan 23 / 04	107.5	9		5.5					3											0.5		
Jan 24 / 04	107.5	7	4				3															
Jan 25 / 04	13	8		2															6			
Jan 26 / 04	13	8																			8	
Jan 27 / 04	13	8	3																		5	
Jan 28 / 04	13	8	4										4									
Jan 29 / 04	66	8		4	2				2													
Jan 30 / 04	78	4		3					1													
Jan 31 / 04	78	10	10																			
Feb 1 / 04	111	10	4	4			2															
Feb 2 / 04	111	10	4										4	2								
Total Hours		117.0	39.50	28.00	2.00	0.00	5.00	0.00	7.00	0.00	0.00	0.00	4.00	6.00	0.00	0.00	0.00	0.00	10.00	2.50	13.00	
Time breakdown		100.0%	33.76%	23.93%	1.71%	0.00%	4.27%	0.00%	5.98%	0.00%	0.00%	0.00%	3.42%	5.13%	0.00%	0.00%	0.00%	0.00%	8.55%	2.14%	11.11%	

Time Distribution - Feb. 28 to Apr. 12, 2004 (110 m to 1062 m)

(Logan Drilling)

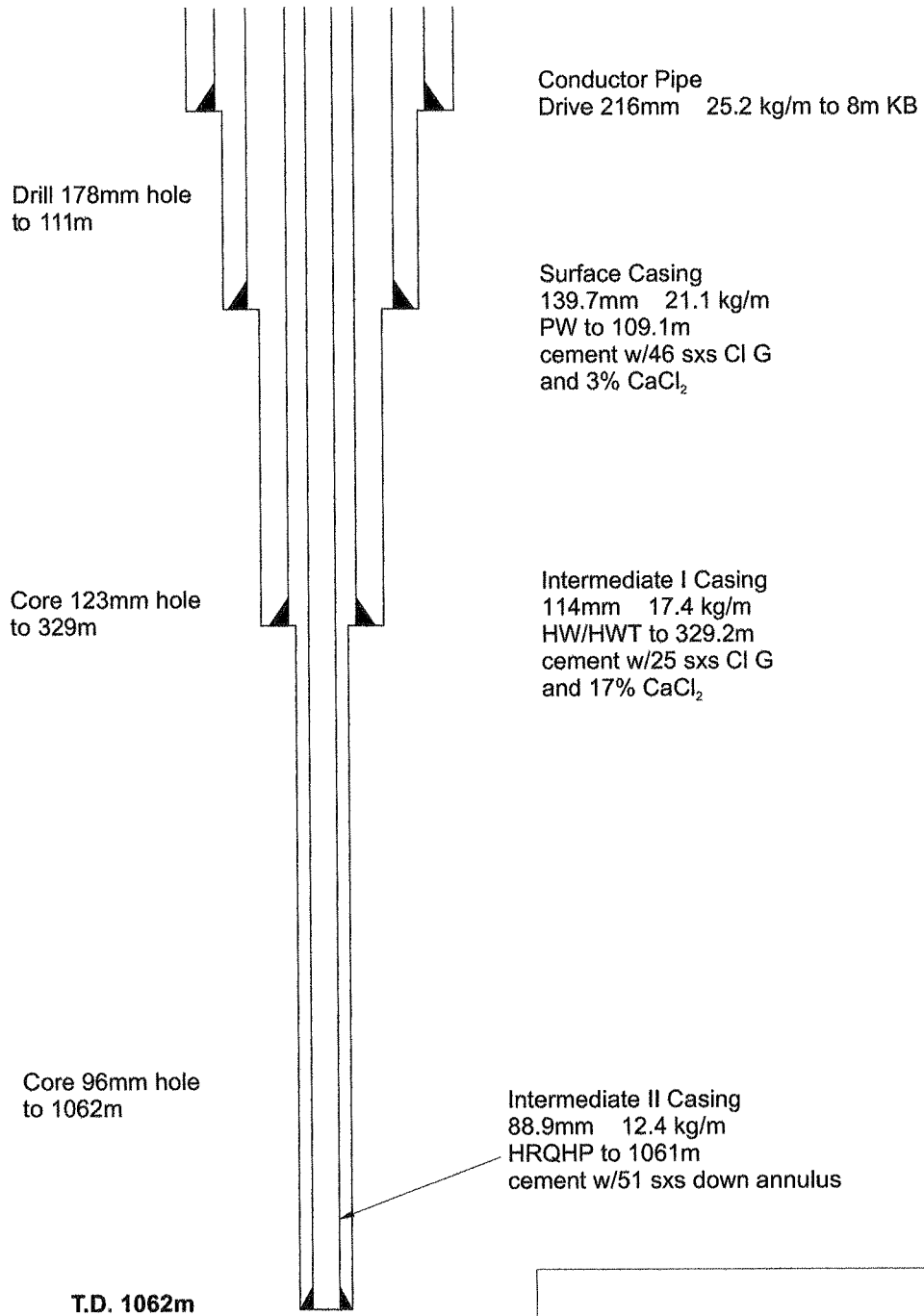
	Depth	Total Hrs.	RU/TO	Drill/Core	Reaming	Cond/Circ	Tripping	Pull Core	Survey	Repair Rig	DST	Logging	Run Csg	Cementing	WOC	WOO	Nu / Test BOPs	Drill out	Misc	Safety Mtg	WOW	Fishing
Feb 28 / 04	110	6	6																			
Mar 1 / 04	110	10	10																			
Mar 2 / 04	110	10	10																			
Mar 3 / 04	110	12	12																			
Mar 4 / 04	114.3	12	9.5				2													0.5		
Mar 5 / 04	128	16	2	5.5													0.5	8				
Mar 6 / 04	153	24		17.25						6							0.5			0.25		
Mar 7 / 04	162	24		7	2																	15
Mar 8 / 04	196	24		21	1												1			1		
Mar 9 / 04	228	24		22															2			
Mar 10 / 04	259	24		22					1								1					
Mar 11 / 04	292	24		22.5															1.5			
Mar 12 / 04	319	24		22															2			
Mar 13 / 04	338	24		21		0.5			2.5													
Mar 14 / 04	329	24	4			1	4		2.5				4		8						0.5	
Mar 15 / 04	329	24	4.25												16.25		3				0.5	
Mar 16 / 04	329	24					6			2							12		4			
Mar 17 / 04	329	24					8	3		8							0.5	3.5	0.5	0.5		
Mar 18 / 04	349	24		13.5			4		2								2.5	1	0.5	0.5		
Mar 19 / 04	391	24		23													0.5		0.5	0.5		
Mar 20 / 04	427	24		20															3.5	0.5		
Mar 21 / 04	472	24		22.5					1											0.5		

Parsons Pond #1

	Depth	Total Hrs.	RU/TO	Drill/Core	Reaming	Cond/Circ	Tripping	Pull Core	Survey	Repair Rig	DST	Logging	Run Csg	Cementing	WOC	WOO	Nu / Test	Drill out	Misc	Safety	WOW	Fishing
Mar 22 / 04	508	24		19			2.5										0.5		0.5	0.5		1
Mar 23 / 04	513	24		4			4												0.5	0.5		15
Mar 24 / 04	565	24		23															0.5	0.5		
Mar 25 / 04	610	24		23															0.5	0.5		
Mar 26 / 04	655	24		23															0.5	0.5		
Mar 27 / 04	665	24		7.5		0.5	1			14									0.5	0.5		
Mar 28 / 04	665	24					0.5			22.5									1			
Mar 29 / 04	691	24		12		0.5	9		1										0.5	0.5		0.5
Mar 30 / 04	710	24		10	1		10			1.5							0.5		0.5	0.5		
Mar 31 / 04	752	24		23															0.5	0.5		
Apr 1 / 04	805	24		23													0.5			0.5		
Apr 2 / 04	859	24		23													0.5			0.5		
Apr 3 / 04	913	24		22													0.5			0.5		
Apr 4 / 04	931	24		6		4	10										0.5			0.5		3
Apr 5 / 04	955	24		15.5	1	3.5	3										0.5			0.5		
Apr 6 / 04	1009	24		22					1											0.5	0.5	
Apr 7 / 04	1061	24		23																0.5	0.5	
Apr 8 / 04	1062	24		1.5	9.5	3	5.5										3.5			0.5	0.5	
Apr 9 / 04	1062	24			3	3	7										10			0.5	0.5	
Apr 10 / 04	1062	24				9	7													0.5	0.5	7
Apr 11 / 04	1062	24			7	5	4.5													0.5	0.5	7
Apr 12 / 04	1062	19	7			7								5								
Total Hours		973.0	64.75	519.75	24.50	37.00	88.00	3.00	11.00	54.00	0.00	0.00	4.00	5.00	24.25	0.00	38.50	12.50	23.50	14.75	14.00	34.50
Time breakdown		100.0%	6.65%	53.42%	2.52%	3.80%	9.04%	0.31%	1.13%	5.55%	0.00%	0.00%	0.41%	0.51%	2.49%	0.00%	3.96%	1.28%	2.42%	1.52%	1.44%	3.55%

WELL TOTALS

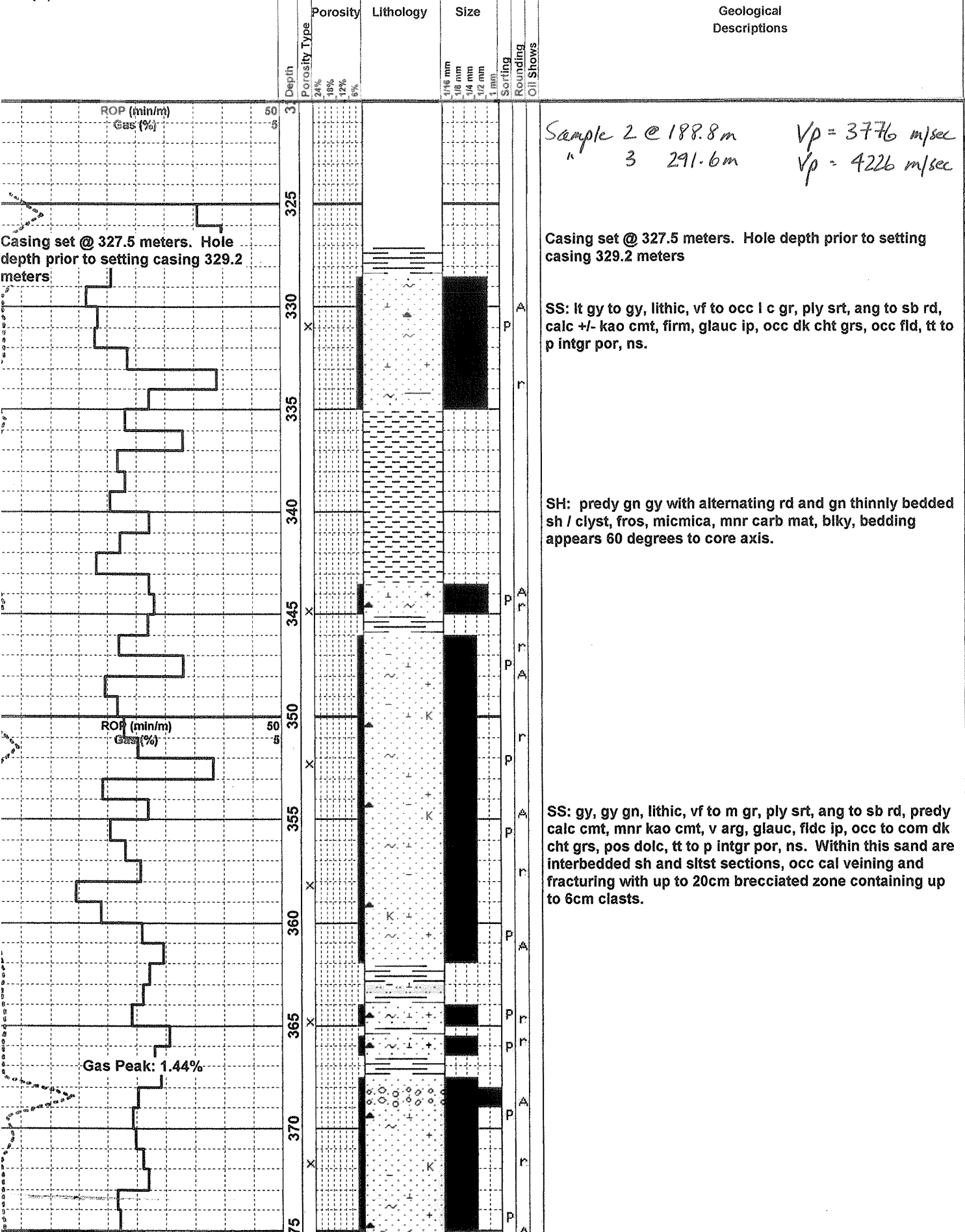
Total Hours	1090.0	104.3	547.8	26.5	37.0	93.0	3.0	18.0	54.0	0.0	0.0	8.0	11.0	24.3	0.0	38.5	12.5	33.5	17.3	27.0	34.5
Time breakdown	100.0%	9.56%	50.25%	2.43%	3.39%	8.53%	0.28%	1.65%	4.95%	0.00%	0.00%	0.73%	1.01%	2.22%	0.00%	3.53%	1.15%	3.07%	1.58%	2.48%	3.17%



ATTACHMENT #3
Well Schematic
Contact Parsons Pond #1
CONTACT EXPLORATION INC.

ROP (min/m)
Gas (%)

KARSON'S HOND #1



Sample 2 @ 188.8m Vp = 3776 m/sec
 " 3 291.6m Vp = 4226 m/sec

Casing set @ 327.5 meters. Hole depth prior to setting casing 329.2 meters

SS: lt gy to gy, lithic, vf to occ l c gr, ply srt, ang to sb rd, calc +/- kao cmt, firm, glauc ip, occ dk cht grs, occ fld, tt to p intgr por, ns.

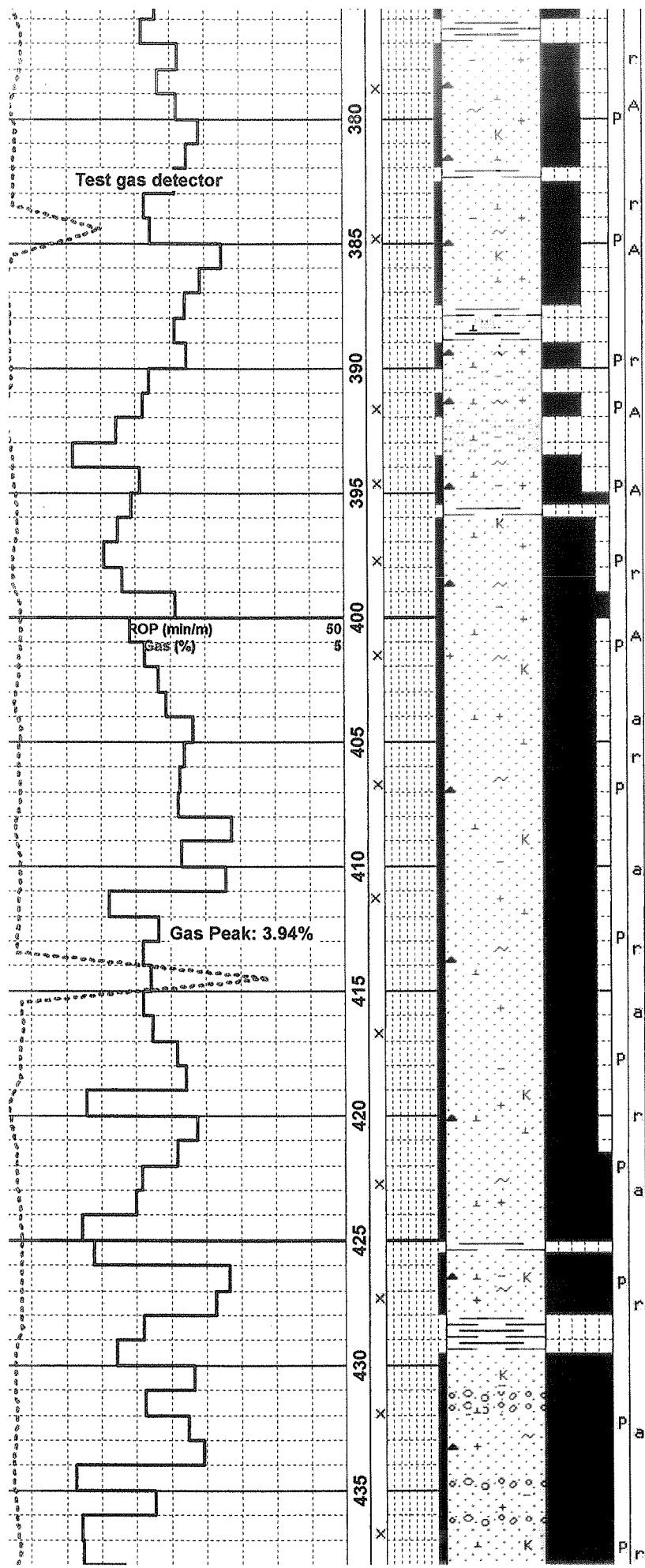
SH: predy gn gy with alternating rd and gn thinly bedded sh / clyst, fros, mica, mnr carb mat, blk, bedding appears 60 degrees to core axis.

SS: gy, gy gn, lithic, vf to m gr, ply srt, ang to sb rd, predy calc cmt, mnr kao cmt, v arg, glauc, fldc ip, occ to com dk cht grs, pos dolc, tt to p intgr por, ns. Within this sand are interbedded sh and sltst sections, occ cal veining and fracturing with up to 20cm brecciated zone containing up to 6cm clasts.

Casing set @ 327.5 meters. Hole depth prior to setting casing 329.2 meters

ROP (min/m)
Gas (%)

Gas Peak: 1.44%



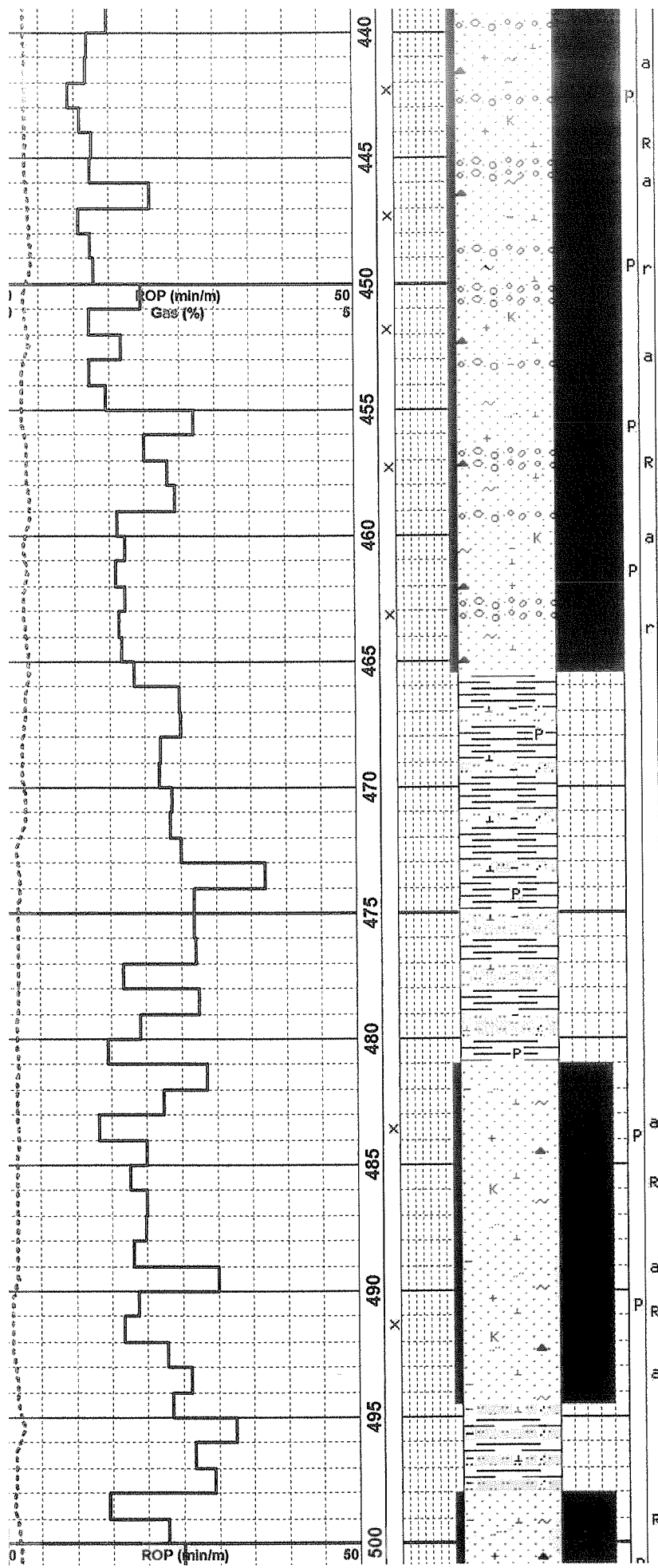
SS: gy, gy gn, lithic, vf to occ l c gr, ply srt, calc +/- kao cmt, arg, Ang to sb rd, glauc, fldc, com dk cht grs, pos dolc, p intgr por, ns.

SS: gy, gy gn, lithic, vf to occ l c gr, ply srt, calc +/- kao cmt, arg, Ang to sb rd, glauc, fldc, com dk cht grs, p intgr por, ns. Contains finer grained to silty sections within.

SS: gy, gy gn, lithic, vf to l med gr, with cgl sections, ply srt, lithic, arg, calc cmt, pos kao cmt, sb ang to sb rd, occ glau, com fld, occ dk cht grs, mics ip, tt to p intgr por, ns.

Occasional calcite veining and moderately fractured in places. Getting rare gas spikes that appear to be associated with some of these fractures at 368.0 m: 1.44% gas, 414.7 m: 3.94% gas. No visible staining or show upon examination could be seen at these depths.

SS: gy, gy gn, lithic, vf to u c gr cgl, ply srt, lithic, arg, calc cmt, pos kao cmt, sb ang to sb rd, occ glau, com fld, occ dk cht grs, mics ip, tt to p intgr por, ns.



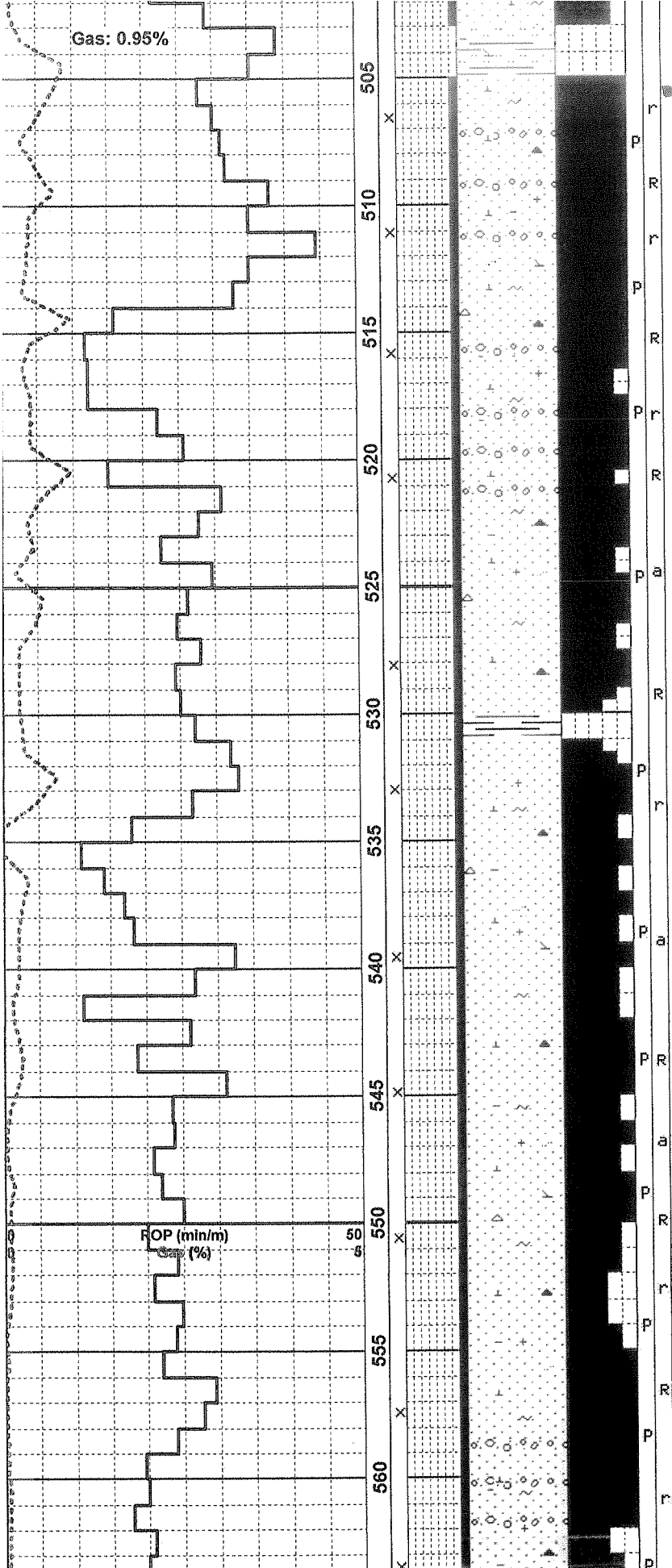
SS: gy, vf to u c gr, grdg to congl, lithic, calc cmt, lesser kao cmt, arg, sb ang to occ rd, occ glauc ip, occ fld, occ to com dk cht grs, mics ip, tt to p intgr por, ns.

Sand becoming more conglomeratic containing up to 5mm grains in sections.

SH / SLTST: gy to gy gn to gy blk, thinly bedded, com thin calc veining, w fractured, slty, sl calc, micmica, tr to mnr pyr.

SS: gy, gy gn, lithic, u vf to l c gr, ply srt, cgl ip, sb ang to rd, calc cmt, kao cmt, arg, glauc ip, occ fld, mnr dk cht, occ carb grs, tt, ns.

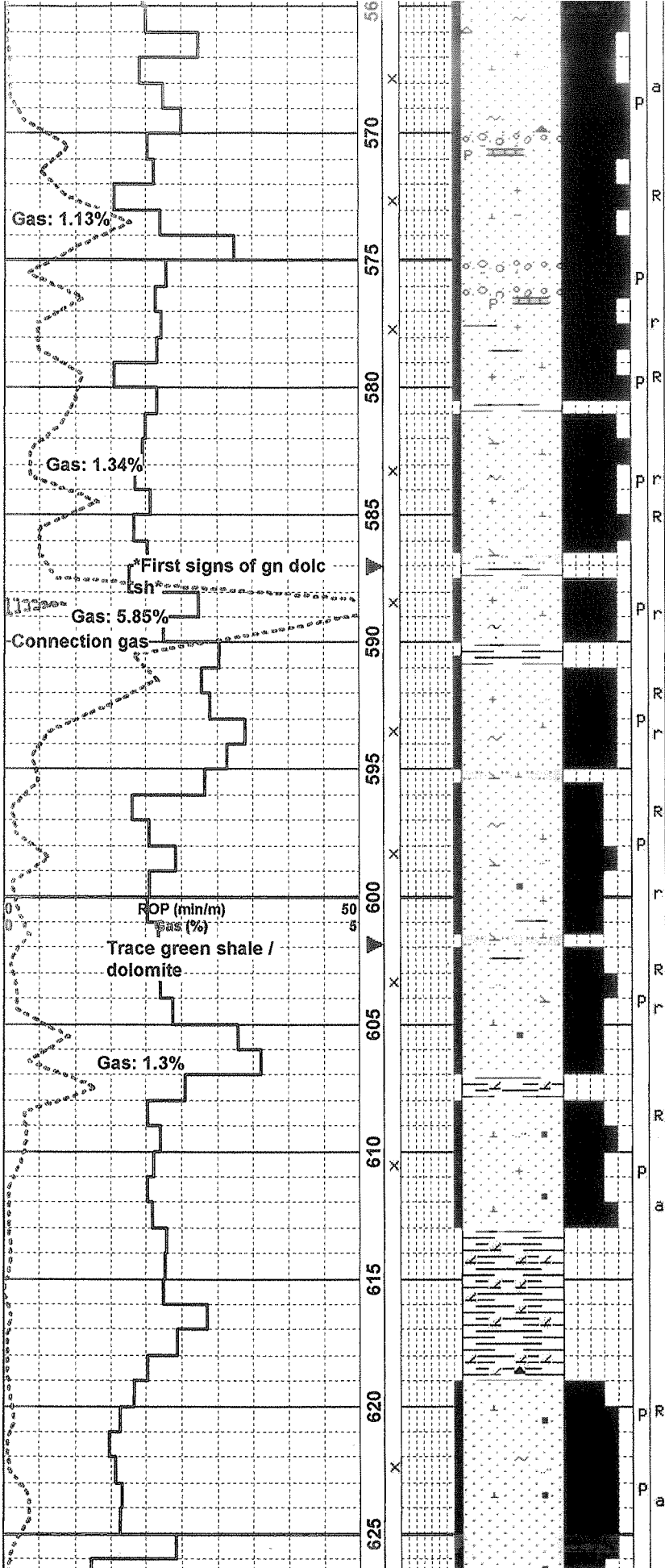
Shales/siltstones are broken up and well fractured with slickensides on most breaks in the core. At 504.0-504.5 meters the core is very broken up, almost rubble; possible fault gouge??



Sample 5 @ 505.8 $V_p = 3626$ m/sec

SS: gy, lithic, vf to u c gr, gran and cgl in sections with clasts from 5-20mm, ply srt, firm, sb ang to rd, calc cmt, slty mtx, mnr qtz ovgrh, arg, com glau, com fld, occ dk cht grs, mnr vcol cht grs, mnr carb grs and clasts, mnr sh clasts, mnr mics mat, tt to 3-5% intgr por, ns. Bedding 60 degrees to core axis.

SS: gy, lithic, vf to u c gr, with occ gran up to 4mm grs, sb rd to rd, calc cmt, slty mtx, mnr qtz ovgrh, arg, mnr carb mat, occ vcol cht, com glau, occ to com fld, mnr mics mat, tt to 3-5% intgr por, ns.



mat, occ vcol cht, com glau, occ fld, mnr mics mat, tt to 3-5% intgr por, ns. From 569.0-571.0 m and 576.0-577.5 m there are several subvertical (< 5 degrees to core axis) 1-2mm thick vuggy calcareous pyritic veins showing white yellow fluorescence with very faint to no fluorescent cut.

• Sample 7 @ 574.8 Vp = 3487 m/sec

SS: gy, gy gn, lithic, vf to l c gr, ply srt, calc cmt, slty mtX, tr qtz ovgh, tr dolc, sb rd to rd, com glau, com fld, occ dk cht, occ carb mat, sl arg, tt to 3-5% intgr por, ns. Bedding 60 degrees to core axis.

Fracture/Faulting associated with silt/shale beds. SLTST / SH gn gy, dk gy, calc and occ dolc, with gn and dk gy elg sh / dolc clasts and occ brecc calc fractures.

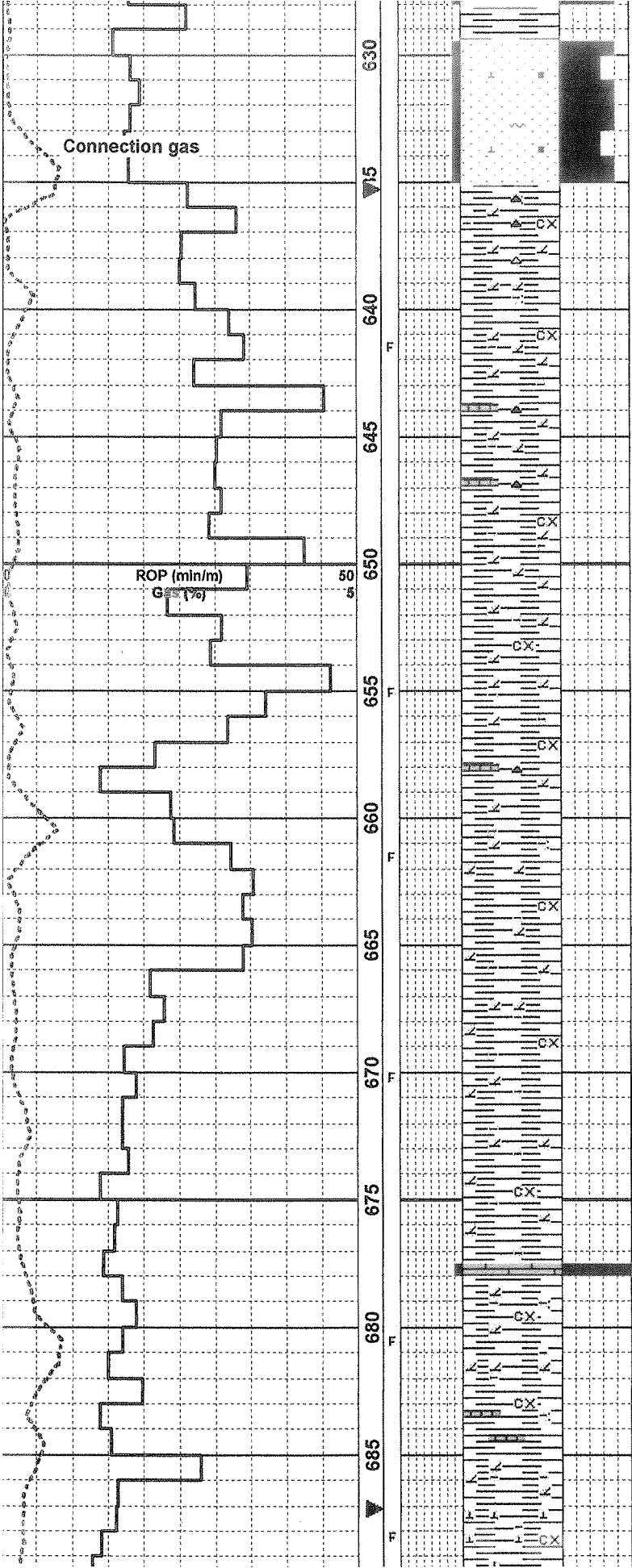
SS: gy, gy gn, lithic, vf to l m gr, ply srt, calc cmt, sl dolc, slty mtX, sb rd to rd, occ to mnr glau, mnr fld, com dk carb mat?, occ dk cht grs, mnr gn arg mat, tt to 3-5% intgr por, ns.

Wispy gn elg lozenge shaped sh / dolc clasts 4mm, oriented along bedding planes.

SS: gy gn, sb lithic to lithic, vf to m gr, occ l c gr, ply srt, sb ang to rd, predy calc cmt, tr qtz ovgh, wkly dolc, firm, com dk carb mat, mnr glau, mnr fld, occ gn arg mat, mics ip, 3-5% intgr por, ns.

SH: Alternating gn and red/brown sh / dol, mnr blk sh, thinly bedded, micmica, firm, blk, dolc, pos arg dol, elg lozenge shaped calc and gn sh clasts, moderate fracturing/faulting with several fracturing phases (one set of fractures along bedding and a later set of fractures ~ 90 degrees to core axis).

625 SS: gy gn, sb lithic to lithic, vf to U c gr, ply srt, calc cmt, slty mtX, mnr qtz ovgh, sb ang to rd, com dk carb mat, mnr glau, mnr fld, occ arg mat, 3-5% intgr por, ns.



COW HEAD 635.0 m

DOL/ SH: gn sh / dol, with interbedded blk carb sh, pos arg dol, blk, firm, fros, pos cyxn, mics, sl calc, w fractured and faulted with up to 10cm red / brn fractured cht clasts at top and vcol cht clasts scattered throughout. Contact with above sand is unconformable.

645 Minor up to 20 cm gy brn ls beds, containing ls, com blk cht and clr qtz grs up to 3mm. The ls is granular looking. Beds @ 643.5, 647.0 and 658.5 meters.

• *Sample 8 @ 649.8 m vp = 4867 m/sec*

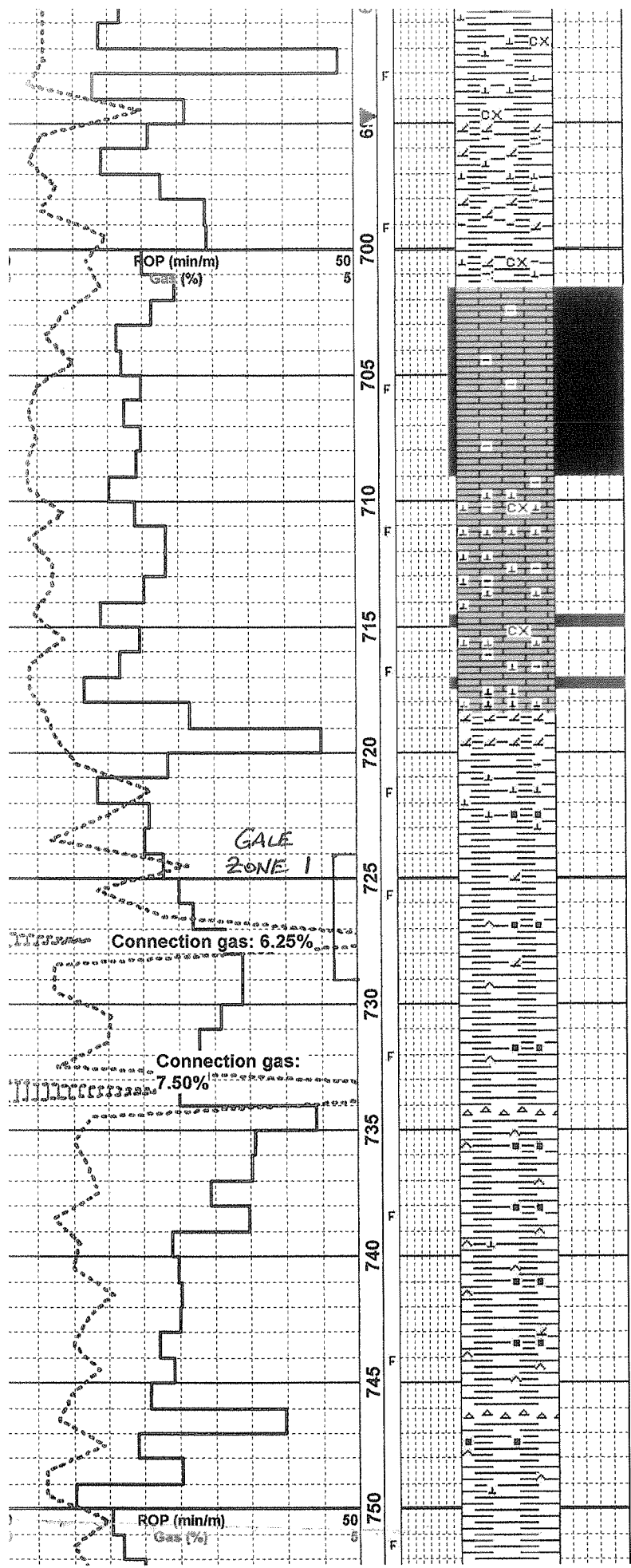
654 DOL / SH: gn w thinly interbedded blk dolc carb sh / dol, cyxn to mcxn, fros, hard, v arg, pos dolc sh, sl mics, mas, tt, ns.

659 DOL / SH: gn, red, blk, lt gy, pos dolc sh, v arg, tr mics, mas, hard, tt, ns, with mnr brecc calc veining .

675 DOL / SH: gy gn with interbedded blk carb beds, pos dolc sh, clayey, tr mics, mas, hard, tt, ns, with mnr 20cm granular to pebble cngl ls beds.

687.0 FAULT: 2mm calc vein

688 LS / SH: Alternating grey brown and lt gy, thinly



calc sh, hard, sl mics, tt, ns. Looks very similar to above dolomitic shale.

Starting around 698.0 meters the shale/dolomite/limestone gets darker bands with common 1-2mm to micro fractures and the rock gets an oil odour on fresh breaks predominantly along vuggy calcite veins. Along fractures there is occasional oil staining with yellow fluorescence and a white yellow slow streaming milky white yellow fluorescent cut.

702 LS: lt gy to gy brn, ls cgl, clasts up to 40cm, tr pyr blobs, with dk gy brn cyxln ls mtx / cmt.

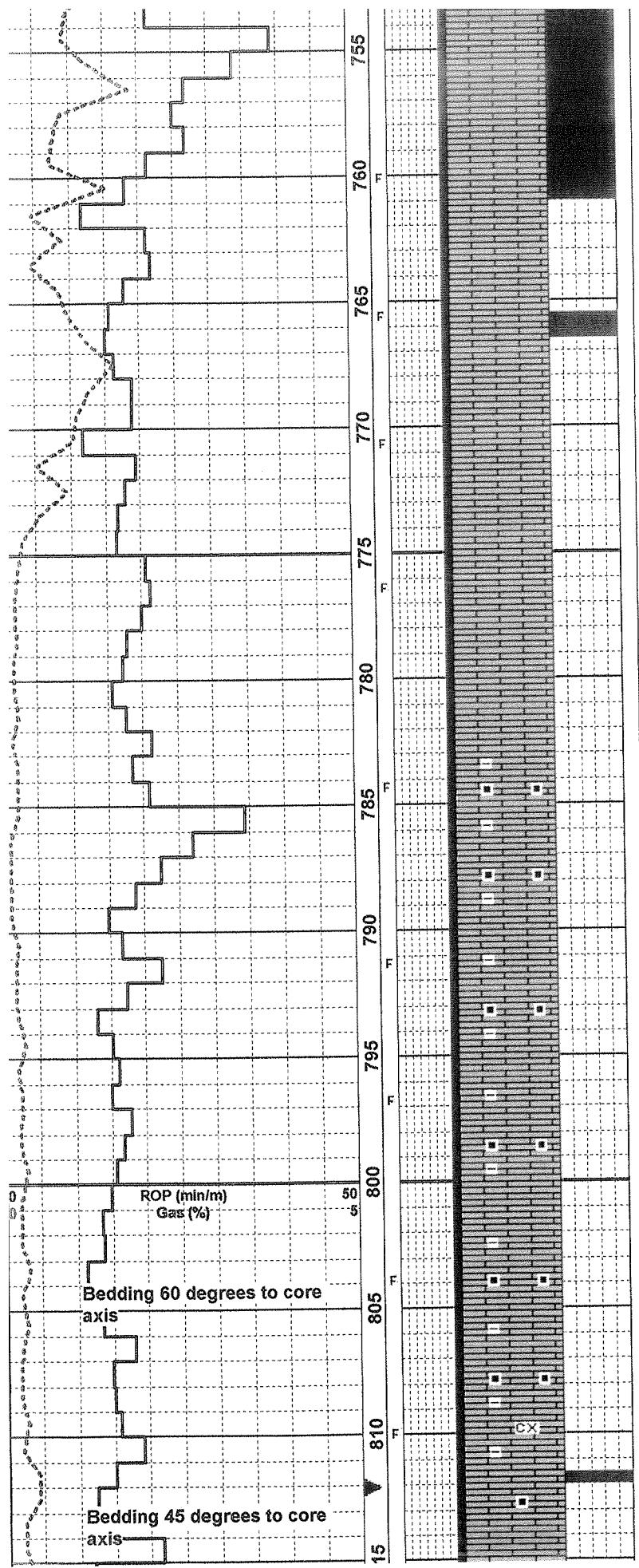
710 LS / SH: Alternating grey brown and lt gy, thinly bedded, mas, predy cyxln, fros, rr pyr, arg, pos calc sh, hard, sl mics, tt. Slightly darker with oil odour on fresh breaks in rock. Calcareous shale / argillaceous limestone still tight with oil in fractures having yellow fluorescence and slow streaming white yellow fluorescent cut.

720 SH: lt gy brn with interbedded dk brn carb sh, mas, hard, sl calc, v dolc ip, clayey ip, most faulting along bedding (60 degrees to core axis) with oil bearing fractures 80 degrees to bedding, show as above.

SH: gy gn to dk gy brn, wkly dolc, v carb ip, firm, micmica ip, mas, silc with occ chty sections, occ to com faulting and fracturing. Faulting appears to occur along bedding. Hydrocarbon bearing fracturing occurring ~80 degrees to bedding.

● Sample 11 @ 739.1 $V_p = 5004$ m/sec

745 SH: gy gn to thinly bedded carb dk gy brn, bedding 60 degrees to core axis, hard, silc, sl calc, blkly, tr micmica, mas, tr pyr, wkly dolc in places, common thin cal filled fractures @ 80 degrees to bedding, occ yellow flor in veins, with wh yel stmg flor cut. Hydrocarbon odour on fresh breaks in rock. Common faulting along bedding with glassy (baked) striated surfaces occurring predominantly in the dk gy brn sections.

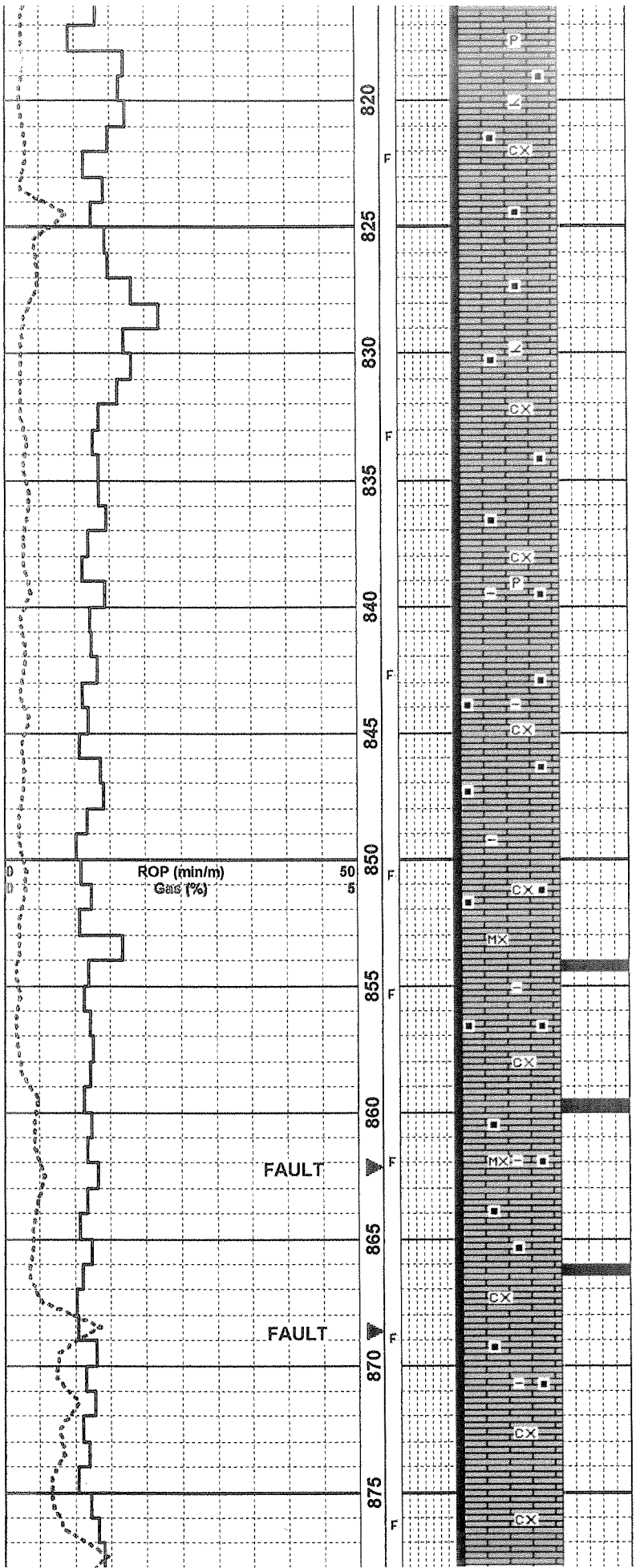


LS CGLN: It gy w gy brn ls grs very similar to underlying lower ribbon ls unit, clr c xln calc cmt at top with up to 1cm rd to w rd grs changing to dk calc arg mbr / cmt with sb rd to rd up to 7cm grs. The cgln is, mod frac ip, dk mat in frac, grs are gy brn and predy ls, rr pyr, occ sub vertical calcite veining, tr flor in frac, slow stmg mky wh yel flor cut.

773 LS: interbedded (ribbon) gy and dk gy brn ls, hard, cyxln, fros, arg ip, sl micmica, blk, dk sections appear more carb, mod to w frac with occ blk sections, fractures parallel to bedding and others 10 degrees to core axis and 70 degrees to bedding, tt, ns.

790 LS: interbedded (ribbon) gy and dk gy brn ls, hard, cyxln, fros, arg ip, sl micmica, blk, v carb ip, mod frac with occ blk lenticular sections, tt, ns. Fractures parallel to bedding at 60 degrees to core axis, and others 10 degrees to core axis and 80 degrees to bedding.

805 LS: interbedded gy to dk gy brn (ribbon) ls, cyxln, sl micmica, arg, v carb in darker sections, pos calc sh, fros, tt, mod to w fractured and tr fracture por increasing after 0.5 meter cgln bed @ 811.5 meters, tr yel flor, slow stmg mky yel cut in fractures. Below this cgln bed some beds are blocky and lenticular and sl silc with bedding getting steeper @ 45 degrees to core axis.



823 LS / SH: lt gy brn with incrg dk gy pos lmy mud, cyxln, micmica, fros, sl calc, arg, carb, sl dolc, blk, tr pyr, mnr yel flor in fractures, with slow stmg mky yel flor cut. In places the darker more carb mat cuts through and surrounds the lighter more calc ls.

Sample 13 (full diameter) @ 836 m. $V_p = 5230$ m/sec

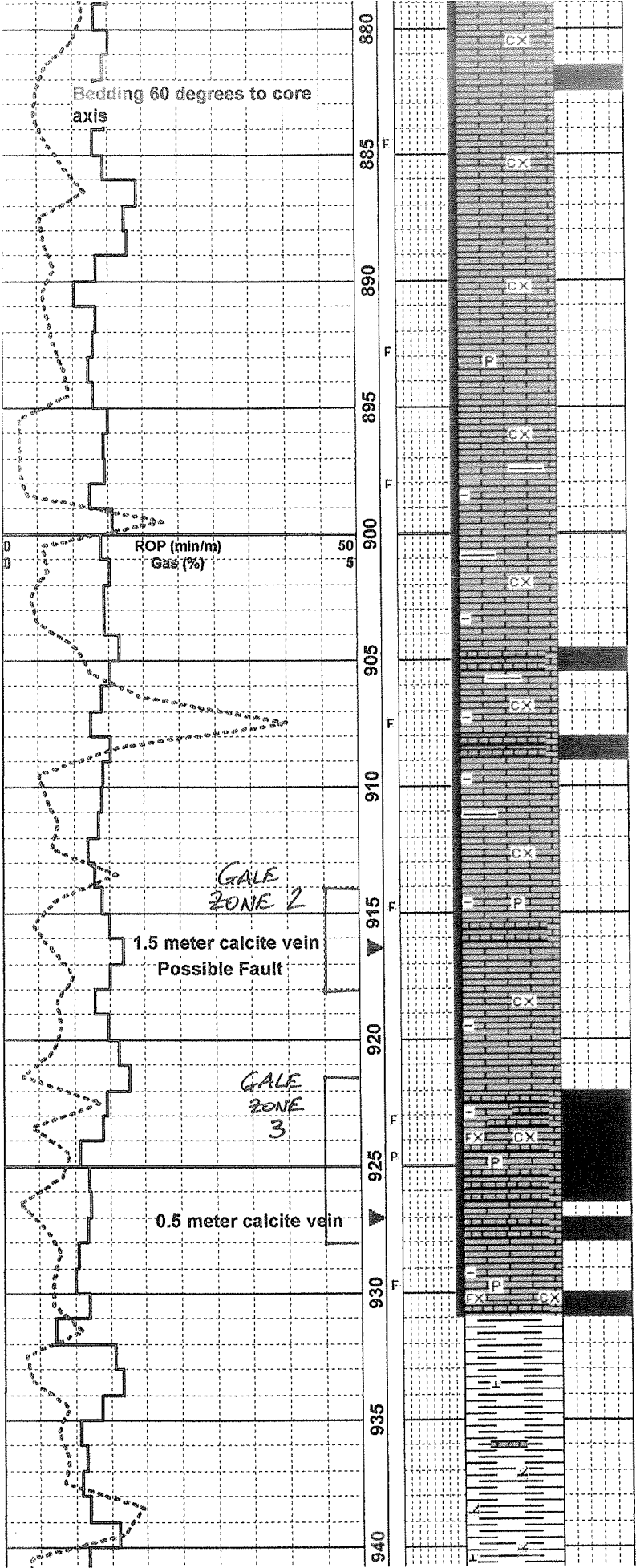
840 SH / LS: incrg dk gy brn (pos lmy mud) with interbedded lt gy brn ls, cyxln, micmica, fros, sl calc, arg, carb, sl dolc, blk, tr pyr, occ to mnr yel flor in fractures with dk o stng @ 846.5 meters with slow stmg mky yel flor cut. Lighter more carb getting sl silc and in places the darker more carb mat cuts through and surrounds the lighter more calc ls. Bedding 45 degrees to core axis

850 LS / SH: predy dk gy brn with clasts, lenses and beds of lt gy brn, dkr pos lmy mud sections are carb, sl calc, cyxln, mas, and invade and engulf lt gy brn sections, which are more calc, cyxln to mcxln and silc in places. Formation getting more fractured and faulted with brect sections and occ up to 0.5 m congl beds, predy vuggy 1-4mm calcite fractures and occ carb tr gn shaly beds, tt, with occ dk o stn in fractures and brect sections, yel flor, wh yel mod stmg mky yel flor cut.

Fractures along bedding and sub parallel to core axis
862 1.0 meter very broken up section possible fault.

868.5 0.5 meter very broken up section possible fault

From ~ 868.0-884.0 there is an increase in oil staining in fractures.



880 LS / SH: dk gy brn, cyxln, micmica, blkly, fros, v calc, dolc, firm, tt, arg, sl carb, with lt gy brn ls beds and fragments of beds, cgl'n bed is tabular looking, predy calc clasts up to 3 cm in a dk arg cmt, containing a 9cm fossil looking structure.

885 SH / LS: dr gy brn, micmica, blkly, firm, v calc, dolc ip, fros, tt. Bedding 60 degrees to core axis.

Sample 15 @ 832m. $v_p = 4845$ m/sec

891 SH / LS: dk gy brn, micmica, blkly, firm, sl calc, carb, wky dolc, sl fros, with beds and bed fragments of lt gy brn, cyxln, fros, firm ls, tr pyr blebs, mod frac, with micro to 1-2mm fracturing along bedding and sub-perpendicular to bedding and occ 5-10cm brecc sections, occ dk o stn in vuggy frac and brecc sections, yel flor, wh yel stmg flor cut.

From 895.0 meters the core is sl more frac.

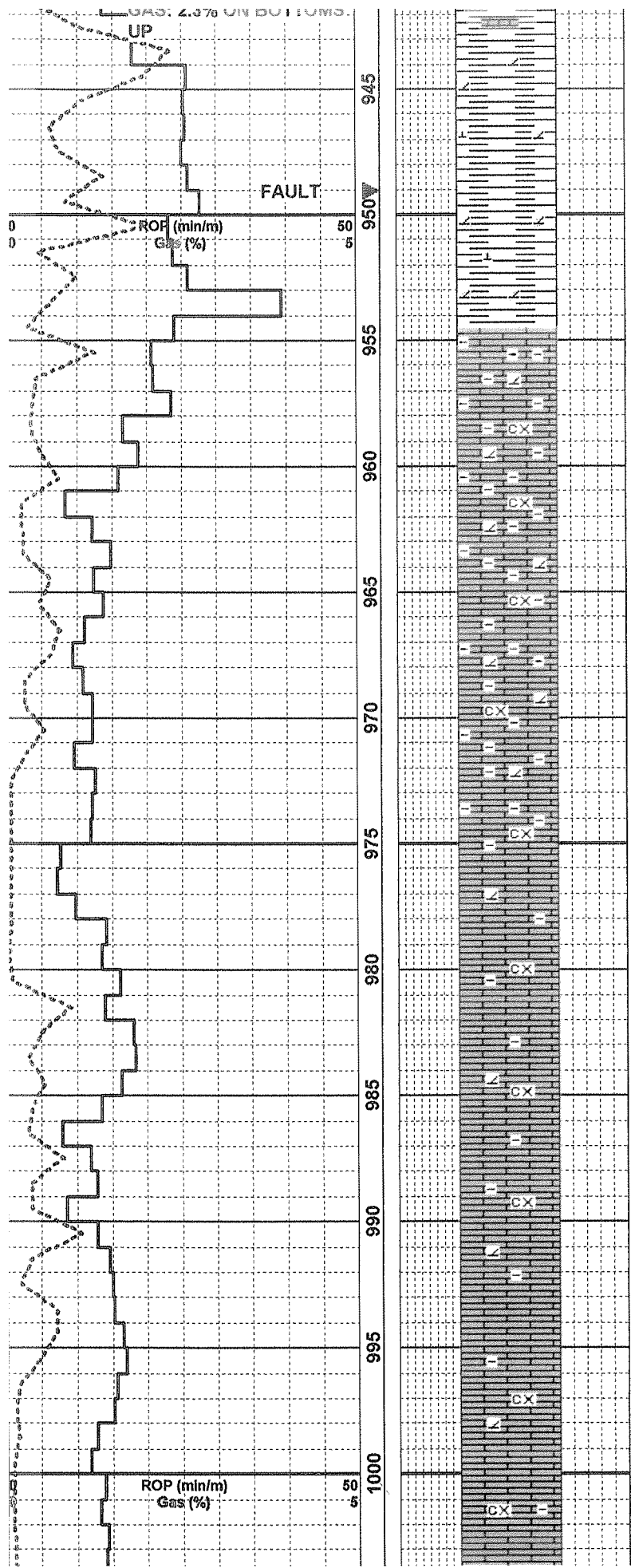
LS / SH: predy dk gy brn with occ ls beds and bed frags, mnr clastic looking cgl'n beds containing occ sh clasts, dk cmt and lt calc fracturing, clasts up to 4 cm.

SH / LS: dk gy sh / ls getting more carb, thinly lam, wky calc, with beds, lenses, blobs of cyxln lt gy brn ls, occ thin gy gn sh beds. Bedding 60 degrees to core axis.

1.5 meter Calcite vein 15 degrees to core axis, core broken up, possible fault.

922.0 LS CGLN: clastic looking f xln to cyxln cmt, com desm straw yel mat, tr to mnr pyr blebs and micro filled fractures, predy ls grs up to 5 cm, larger grs sb rd, gr- mnx supported, tt, with several v vuggy 1.0-1.5 cm fractures @ 10 degrees to core axis, mnr o stng in fractures, yel flor, slow blmg mky yel flor cut. Occ intbdd ribbon ls.

935 SH / LS: dk gy brn, cyxln to shly, v arg, micmica, sl calc to calc, firm, blkly, wky dolc ip, with mnr gy gn sh beds, becoming more broken with depth. At 941.5 meters the rock gets more dolomitic and clayey and changes in color to more grey brown. This appears to occur around



aspects looks very similar to the rock above the fracture.

945 SH / DOL / LS: gy brn, v micmica, v dolc, clayey, calc, blkly, v arg, sft, rock v broken up into hockey puck size pieces. Getting wk o odour in some sections and occ yel flor, no flor cut when tested.

949.0 FAULT 6.0 meters gouged up and faulted section LS / SH: gy brn, sft, gouged, clayey, calc, v arg, wxy ip, w fractured with com calcite filled fractures.

957 LS / DOL / SH: gy brn with interbedded / rhythmic dk gy, fros, cyln, firm, w fractured with calc in fractures, blkly, calc, v arg, dolc, w laminated ip, tt. Formation looks similar to above rhythmicly bedded imestone only now it is dolc. Weak o odour, dull yel to orng flor along occ fractures, no flor cut.

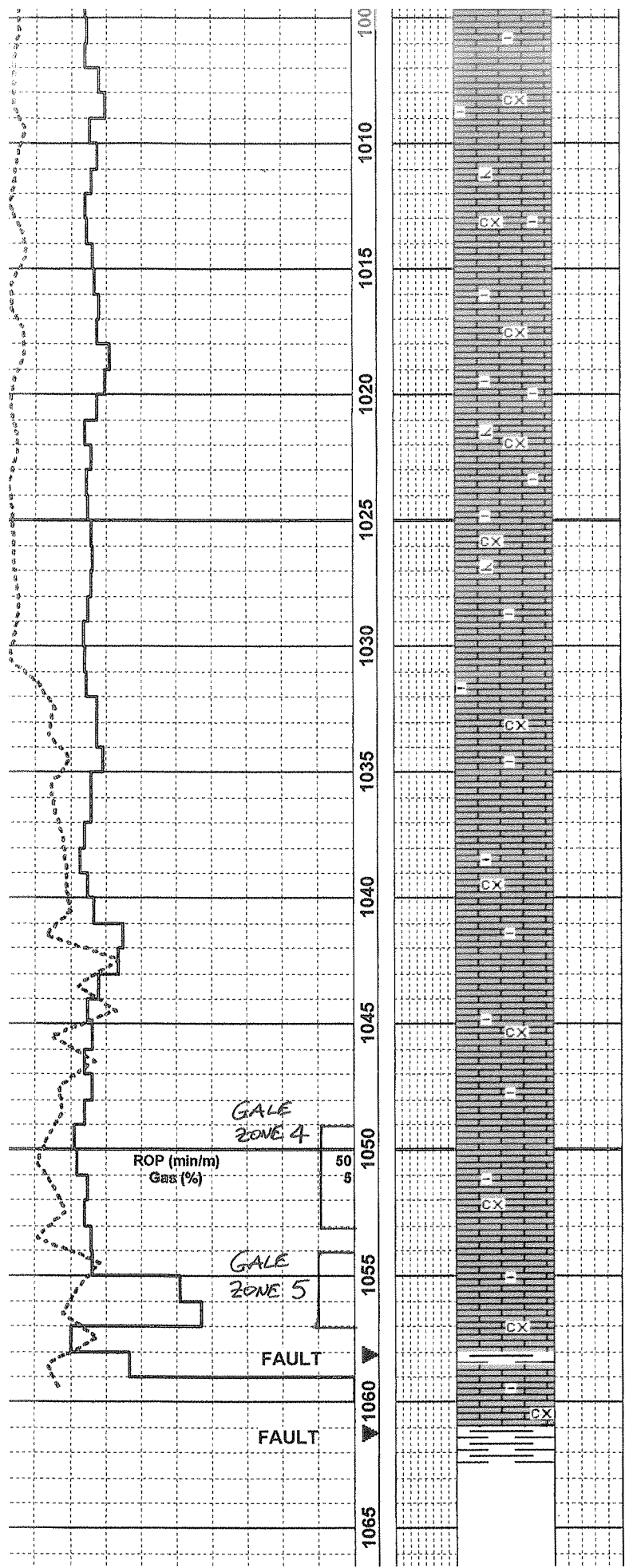
Bedding after fault is 60-70 degrees to core axis. After going through several w fractured / brect 10-20 cm zones @ 967.5 meters bedding changes to 30 degrees then 20 degrees and @ 972.7 meters at the base of a 40 cm ls cgl bedding is 5 degrees to core axis.

● Sample 18 @ 969.9m. $V_p = 6230$ m/sec

970 LS: rhythmicly bedded gy brn to dk gy brn, cyln, hard, blkly, arg, dolc, o odour on fresh breaks, tt, ns.

979 LS: predy lt gy brn, to dk gy brn, cyln, fros, hard, sl dolc, arg, tt, ns. Occ 1-2mm calcite filled fractures 80-90 degrees and 30-40 degrees to core axis with centimeter movement along these fractures. Bedding (pos wavy) 5 degrees to core axis, Fast dissipating o odour on fresh breaks in core, no shows.

994 LS: predy lt gy brn, to occ dk gy brn, cyln, fros, hard, sl dolc, arg, tt, fast dissipating o odour on fresh breaks, ns. Bedding 5 degrees to core axis.



1010 LS: gy brn to dk gy brn, hard, cyxln, blk, arg, sl dolc, tt, ns. Fast dissipating o odour on fresh breaks, ns. Bedding 5 degrees to core axis.

1015 Bedding 10 degrees to core axis

1025 LS: somewhat rhythmically bedded gy brn to dk gy brn, hard, cyxln, blk, arg, sl dolc, tt, ns. Fast dissipating o odour on fresh breaks. Bedding 10 degrees to core axis.

Sample 20 @ 1027.5 m. $V_p = 4444$ m/sec.

1036 LS: Beginning around 1036.0 meters the formation is getting more fractured and faulted with several 0.2 to 0.5 meter brecciated sections, 10 degrees to core axis. Bedding changes to 45 degrees to core axis @ 1042.0 meters then to 55 degrees after a 0.5 meter brecciated / structurally disturbed zone @ 1043.5 by 1047.0 meters bedding is 60 degrees to core axis.

1057.7 & 1061 Fault gouged rock; dk gy, blk, shy, wxy, glassy slickenside, v sft, v flky, calc, top of fault appears to be 50 degrees to core axis, bedding after 1057.7 meters is 20 degrees to core axis and after 1062.0 meters bedding is 50 degrees to core axis.

ADVANCED ROCK PROPERTIES STUDY
for
CONTACT EXPLORATION INC.

Well :
Parsons pond #1

2004 05 21

52132-04-5025




Core Laboratories Canada Ltd.




PROGRAM PARTICIPANTS

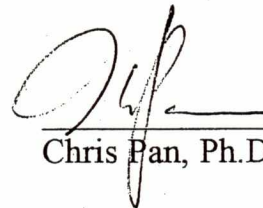
Laboratory Measurements and Data Review


Mike McSwiney

Report Preparation


Mike McSwiney

Technical and Final Review


Chris Pan, Ph.D.



Core Laboratories Canada Ltd.



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CHRONOLOGICAL SEQUENCE OF EVENTS

1. A total of ten (10) samples, were selected from the Parsons Pond #1 well. Out of the ten samples, nine (9) were vertical, 38.1 mm diameter plug samples, and one was a 63.1 mm diameter full diameter sample.
2. All ten samples were faced off and end faces fine ground, and dried in an oven.
3. The samples were loaded into a hydrostatic core holder, one at a time, at reservoir net overburden pressure and a temperature of 21°C. Compressional and shear velocities were measured at dry conditions.
4. Based on the acoustic velocity data, Poisson's ratio was calculated.
5. The results are presented in the following pages.

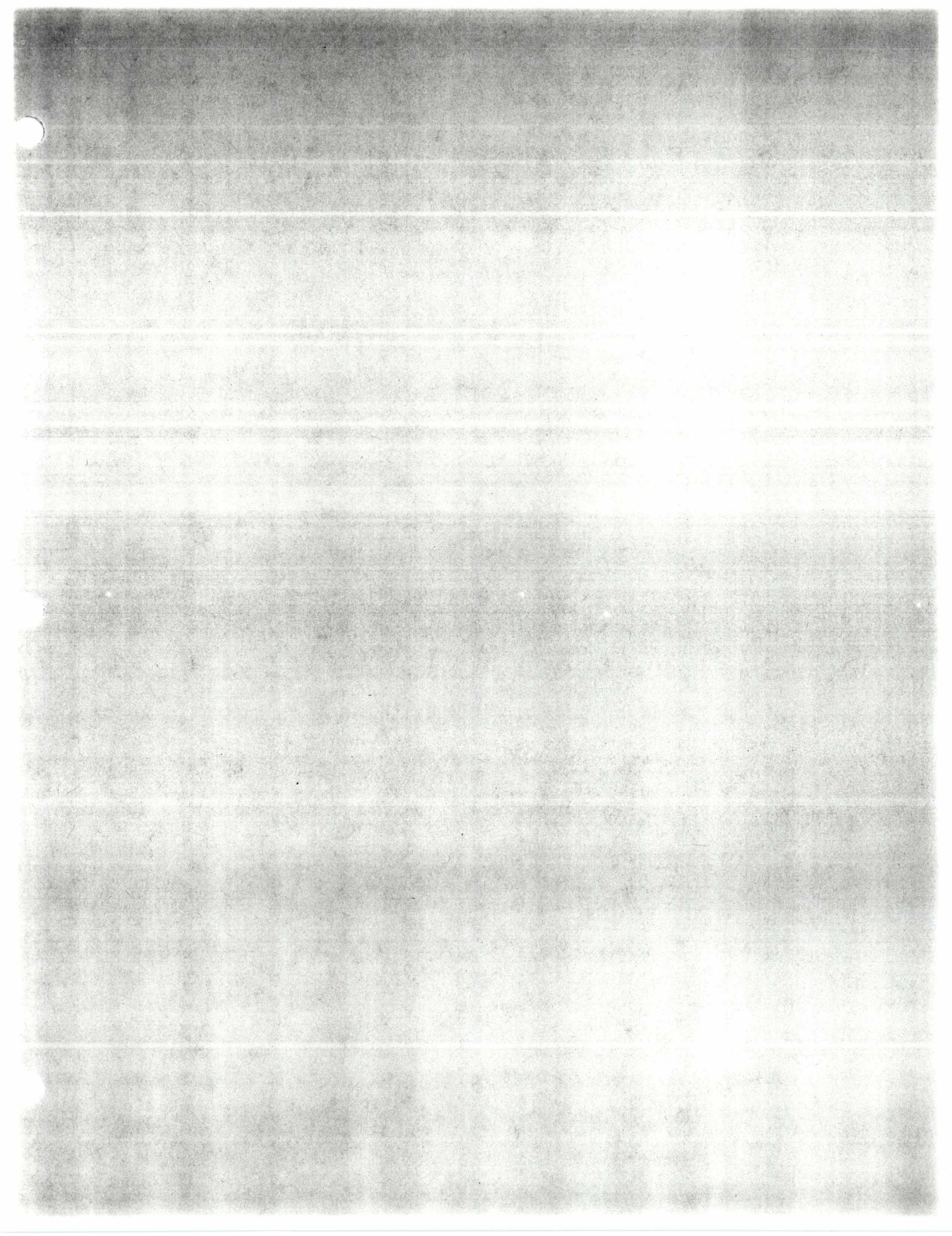


ADVANCED ROCK PROPERTIES PROCEDURES

Acoustic velocity

Prior to testing, the core end-surfaces are finely ground to assure proper contact between the sample and acoustic transducers. The sample is cleaned, dried and routine petrophysical properties of porosity, grain density and permeability to air are measured.

The sample placed in a viton sleeve and acoustic transducers (compressional and shear) are attached to the sample which is then placed into a pressure vessel. The sample is pressure-saturated with appropriate fluids. Pore and overburden pressure is applied to the sample and the vessel temperature is adjusted to reservoir conditions. The system is allowed to equilibrate and the pore and overburden pressure are readjusted to test conditions. The system is further allowed to stabilize until travel time of the compressional wave is constant. After stabilization, compressional and shear wave travel times are recorded.



FILE:

COMPANY: Contact Exploration Inc. FORMATION:
 WELL: Parsons Pond #1 FIELD:
 LOCATION: PROVINCE:

SUMMARY OF ACOUSTIC VELOCITY MEASUREMENTS

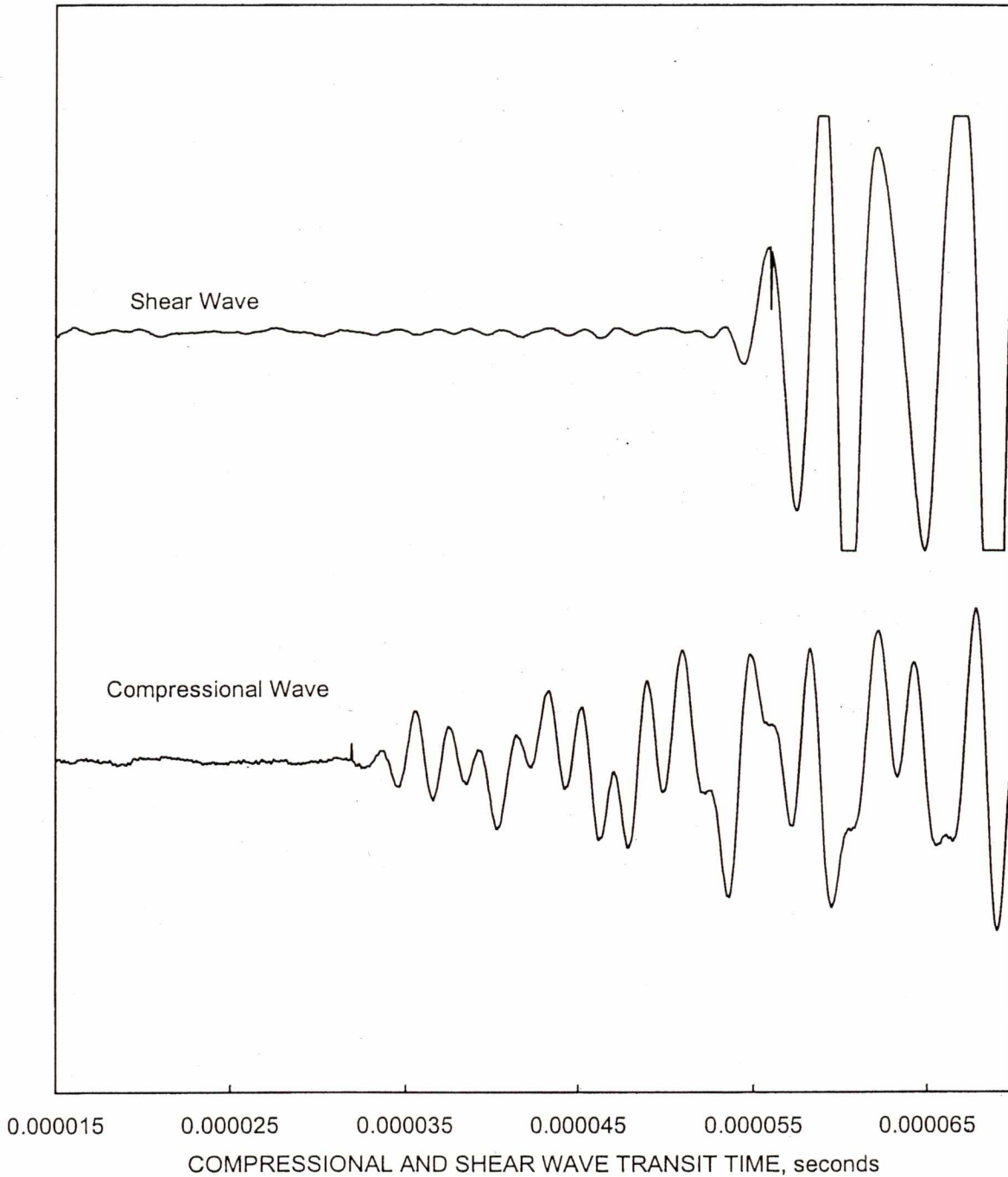
Sample: Various Reservoir (Test) Temperature, °C: 21.0
 Depth: Various Reservoir (Test) Net Overburden Pressure, kPa: Various

SAMPLE	DEPTH m	NET		SHEAR VELOCITY (Vs), m/sec	POISSON'S RATIO	SHEAR MODULUS, GPa	BULK MODULUS, GPa	YOUNG'S MODULUS, GPa
		OVERBURDEN PRESSURE kPa	COMPRESSIONAL VELOCITY (Vp), m/sec					
Sp 2	188.75	2430	3776	2295	0.207	n/a	n/a	n/a
Sp 3	291.60	3750	4226	2605	0.194	n/a	n/a	n/a
Sp 5	452.00	6500	3626	2265	0.180	n/a	n/a	n/a
Sp 7	574.80	7390	3487	2357	0.079	n/a	n/a	n/a
Sp 8	649.80	8350	4867	2829	0.245	n/a	n/a	n/a
Sp 11	739.10	9500	5004	2920	0.242	n/a	n/a	n/a
Fd 13	836.00	10791	5230	2844	0.290	n/a	n/a	n/a
Sp 15	892.00	11460	4845	2544	0.310	n/a	n/a	n/a
Sp 18	969.90	12460	6230	3127	0.332	n/a	n/a	n/a
Sp 20	1027.50	13200	4444	2993	0.085	n/a	n/a	n/a

Clean and Dry

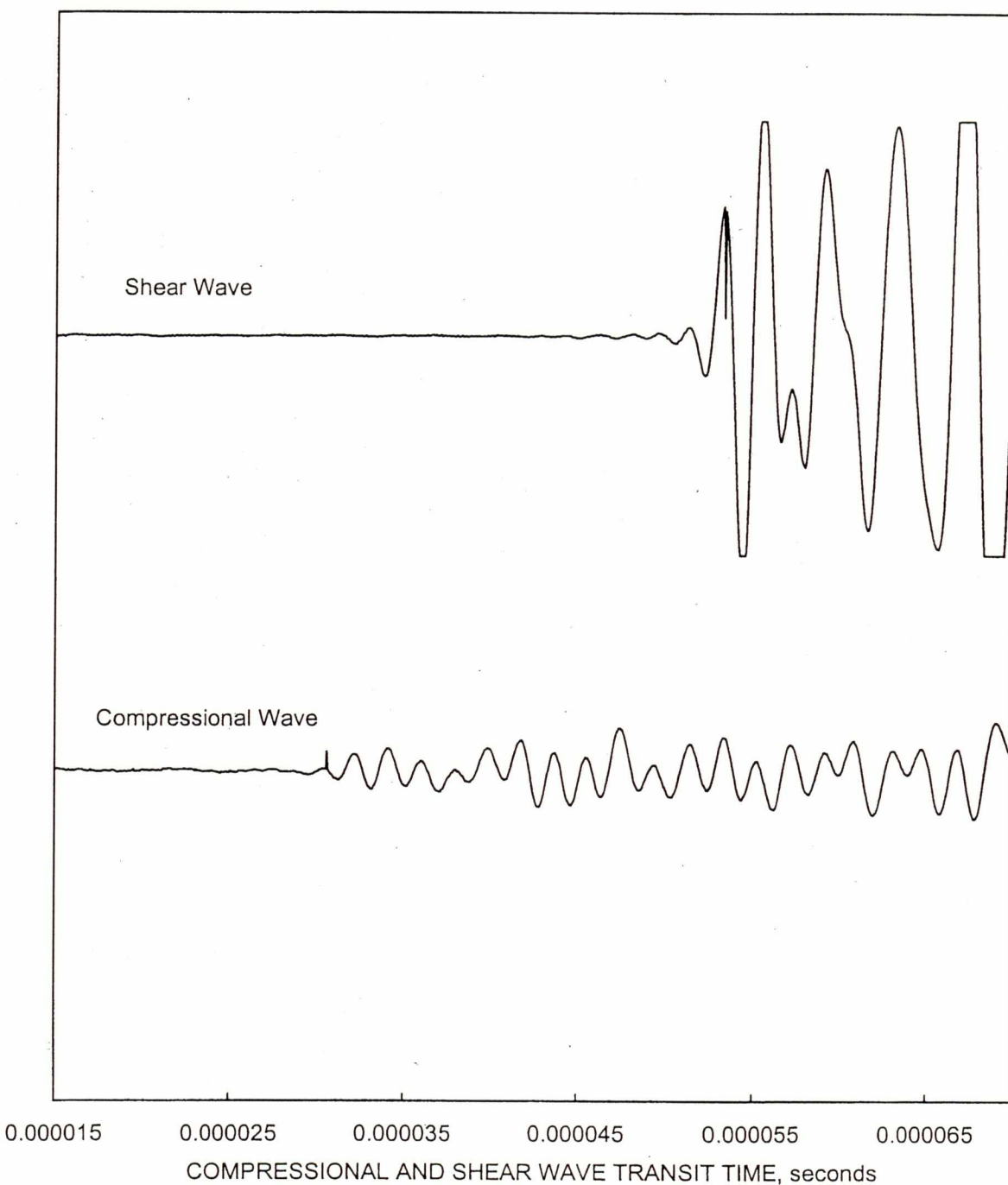
ACOUSTIC VELOCITY

COMPANY: Contact Exploration Inc. FILE: 52132-04-5025
WELL: Parsons Pond #1 FORMATION:
Sample: Sp 2 Reservoir (Test) Temperature, °C: 21.0
Depth, meters: 188.75 Reservoir NOB Pressure, kPa: 2430



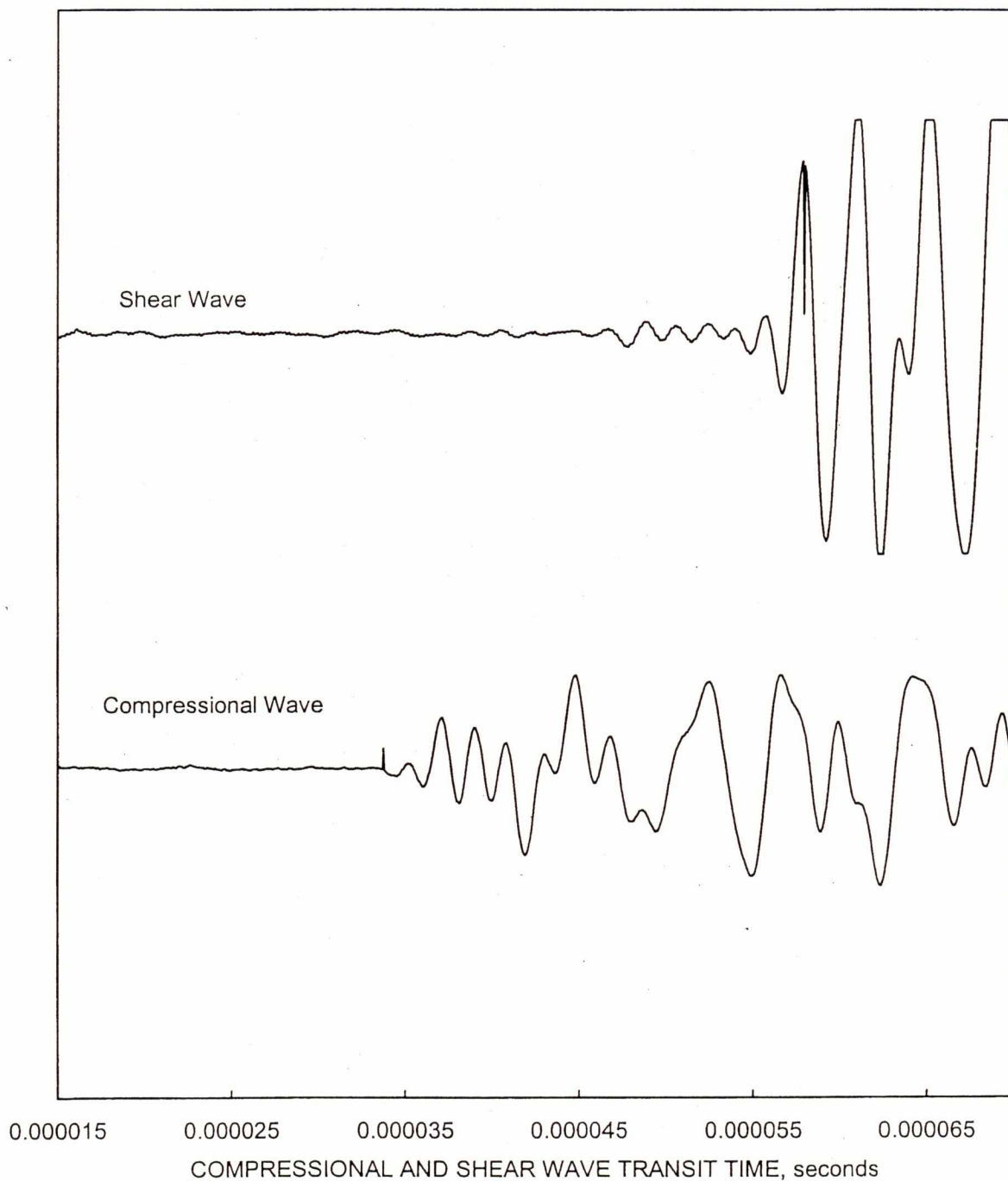
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 3	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	291.60	Reservoir NOB Pressure, kPa:	3750



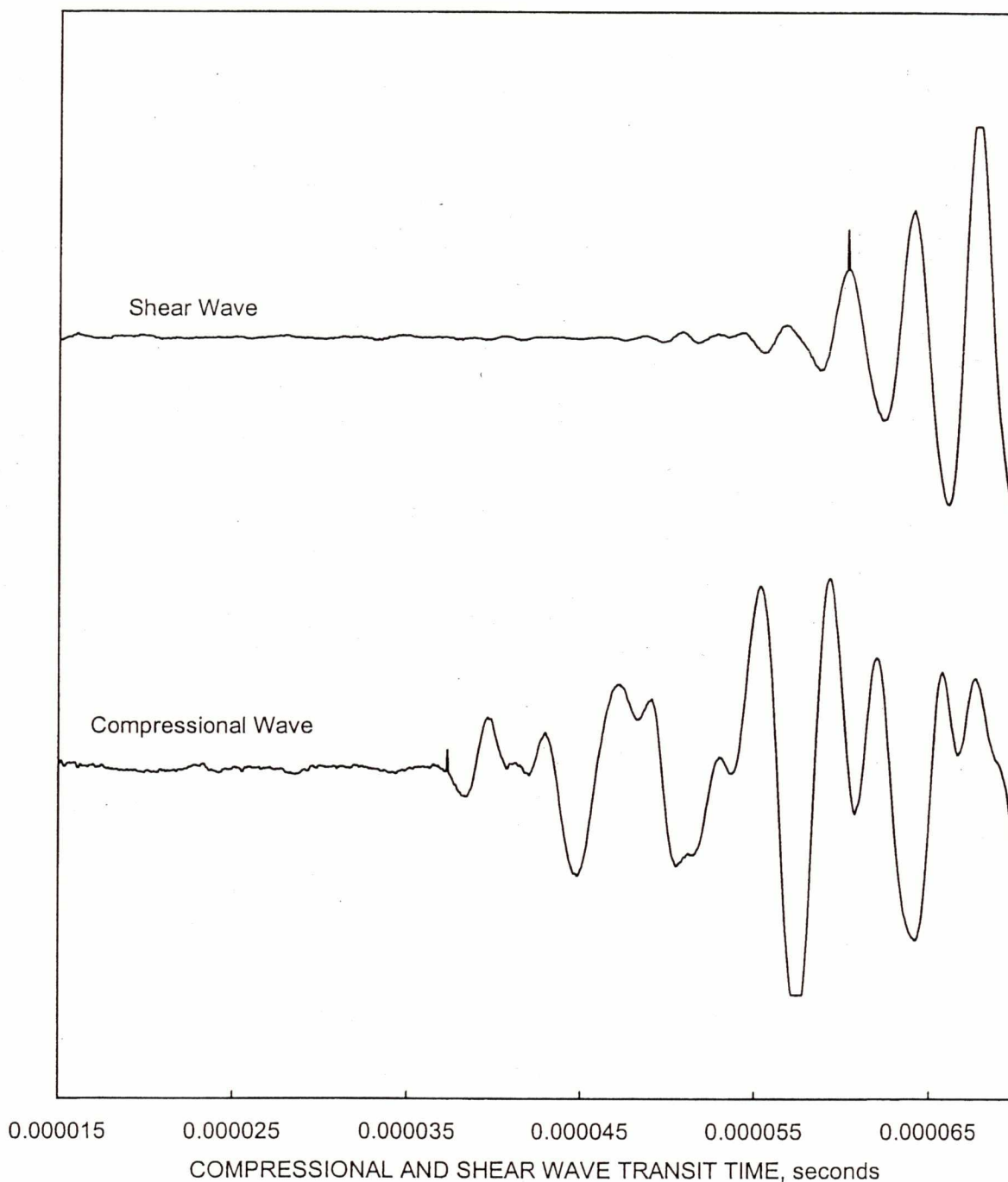
ACOUSTIC VELOCITY

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WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 5	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	452.00	Reservoir NOB Pressure, kPa:	6500



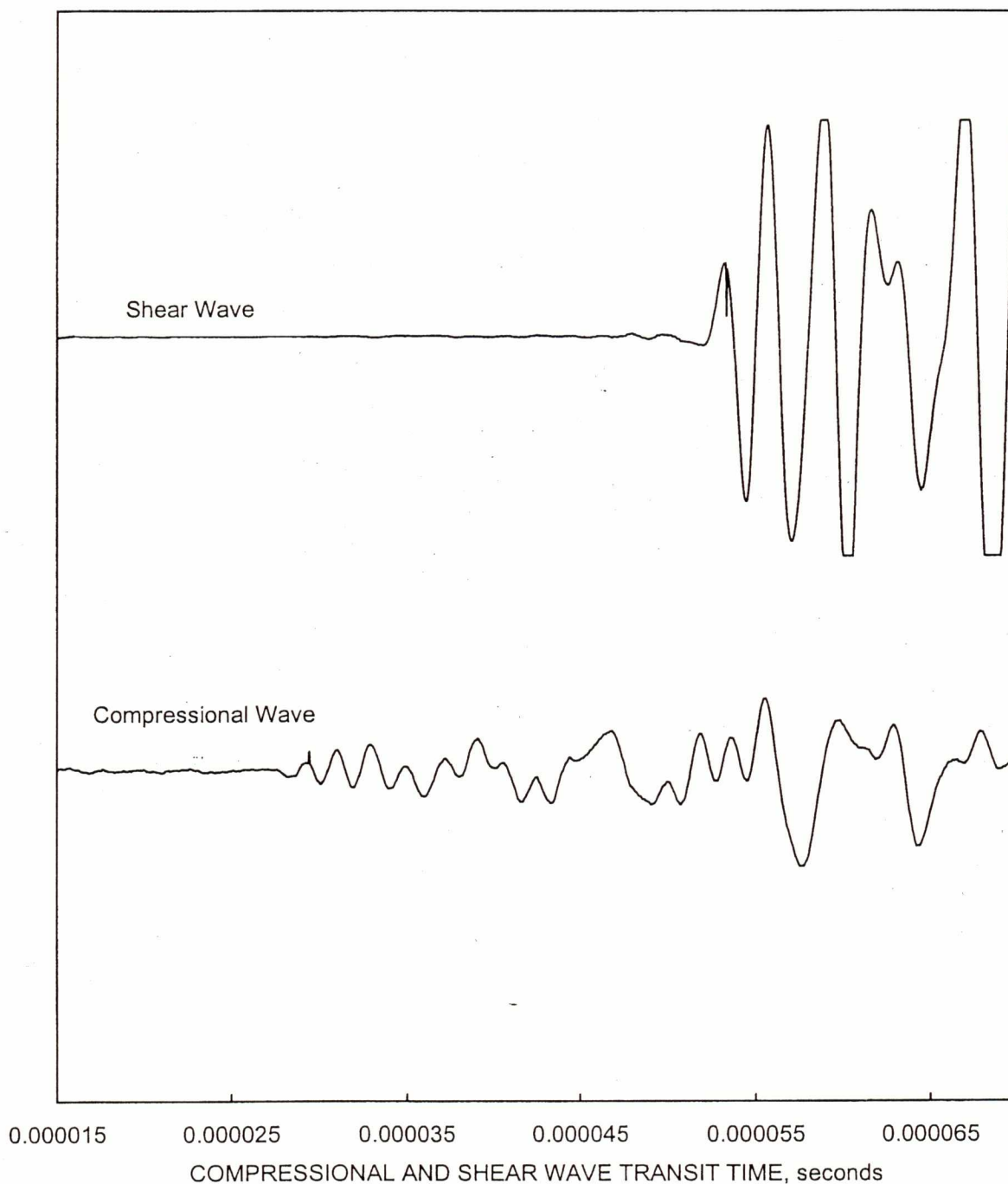
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 7	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	574.80	Reservoir NOB Pressure, kPa:	7390



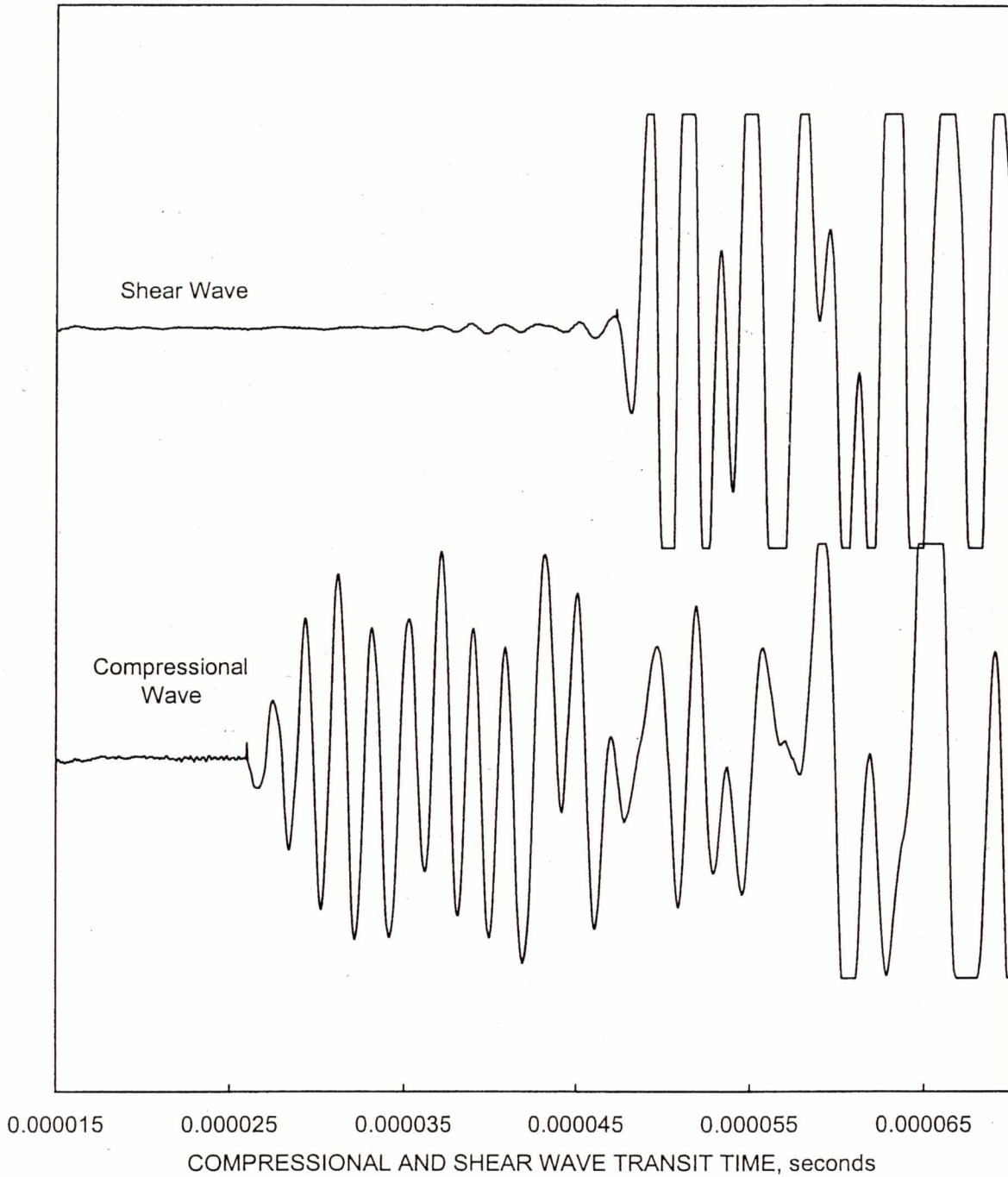
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 8	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	649.80	Reservoir NOB Pressure, kPa:	8350



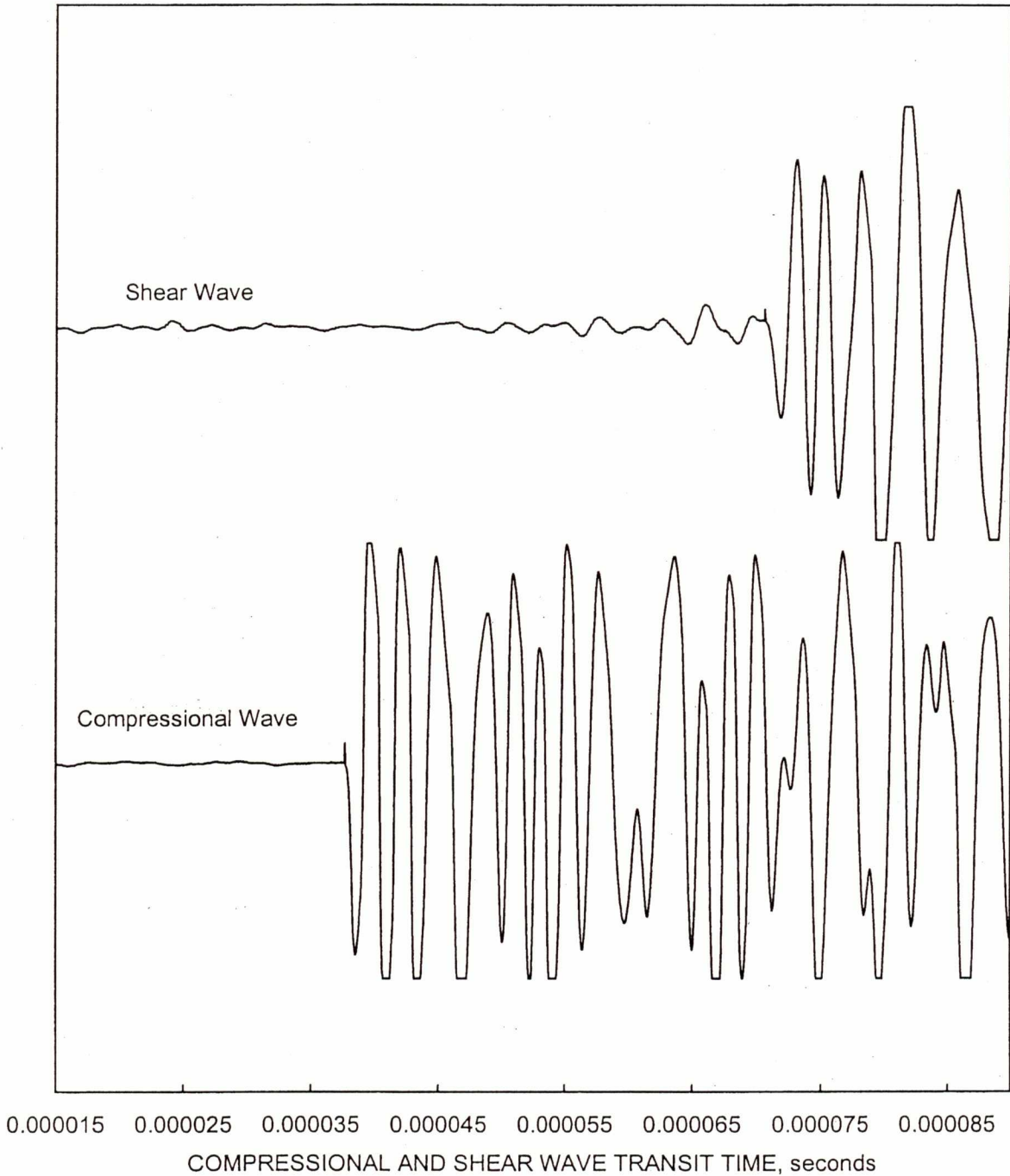
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 11	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	739.10	Reservoir NOB Pressure, kPa:	9500



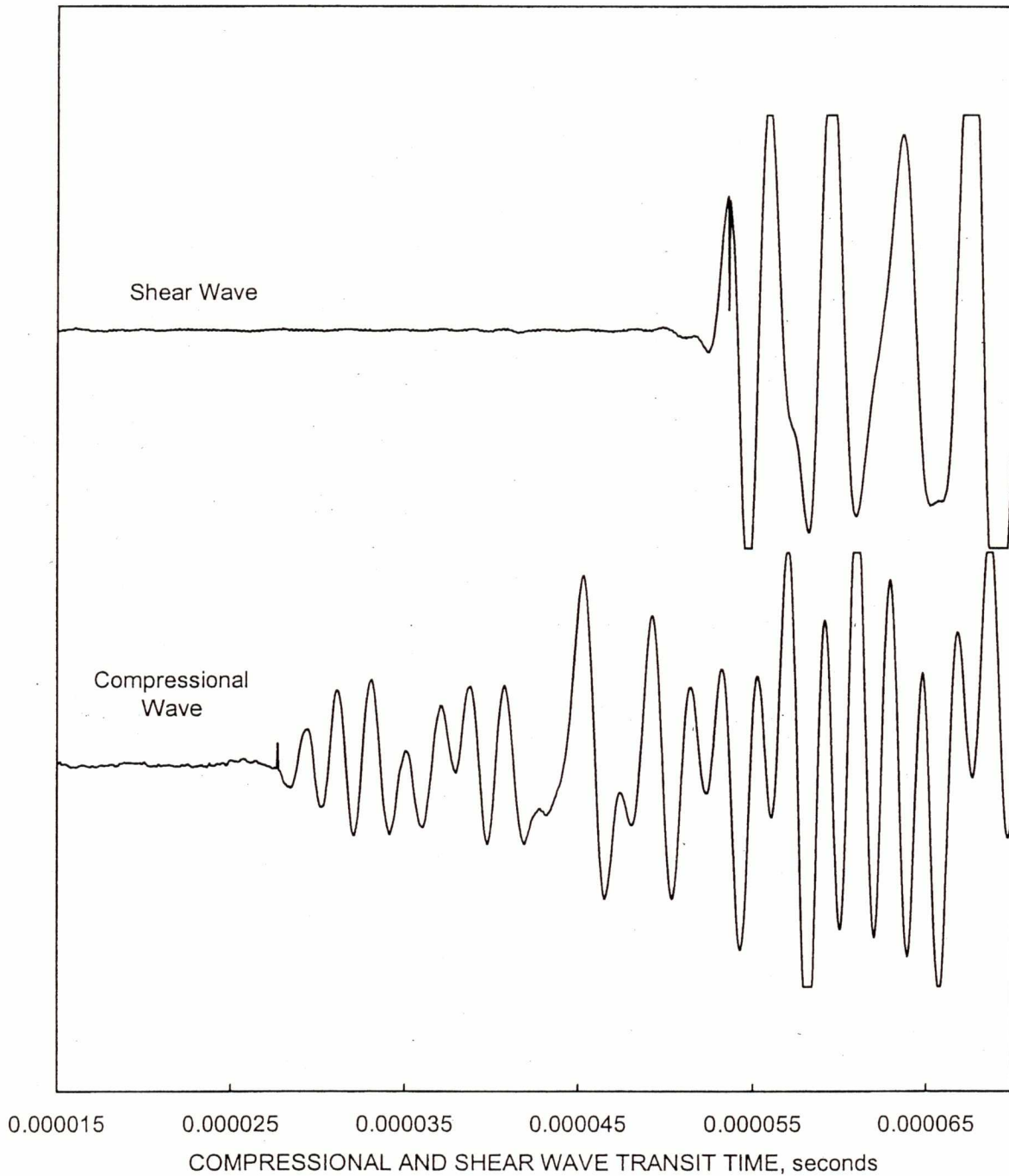
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Fd 13	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	836.00	Reservoir NOB Pressure, kPa:	10791



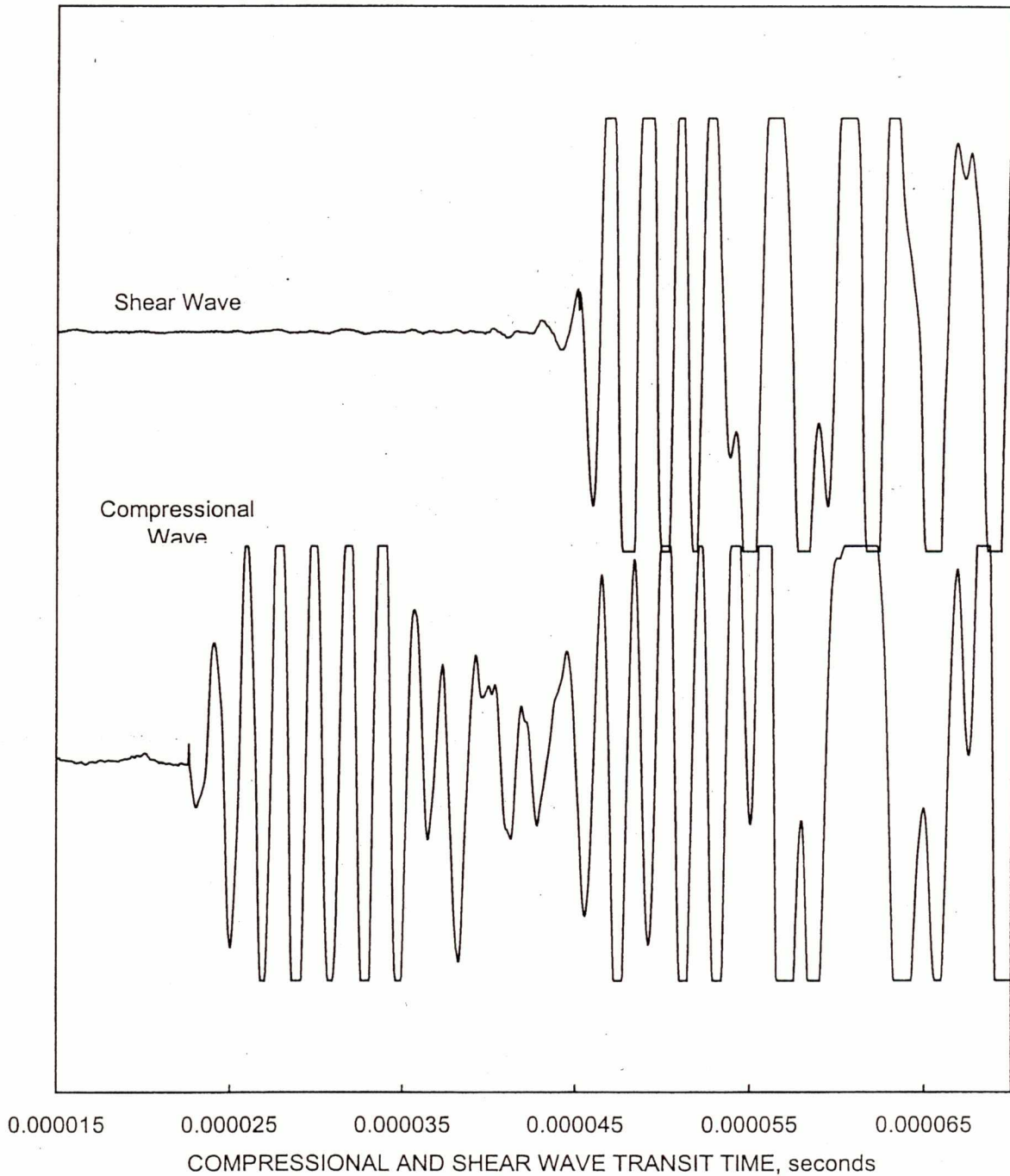
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 15	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	892.00	Reservoir NOB Pressure, kPa:	11416



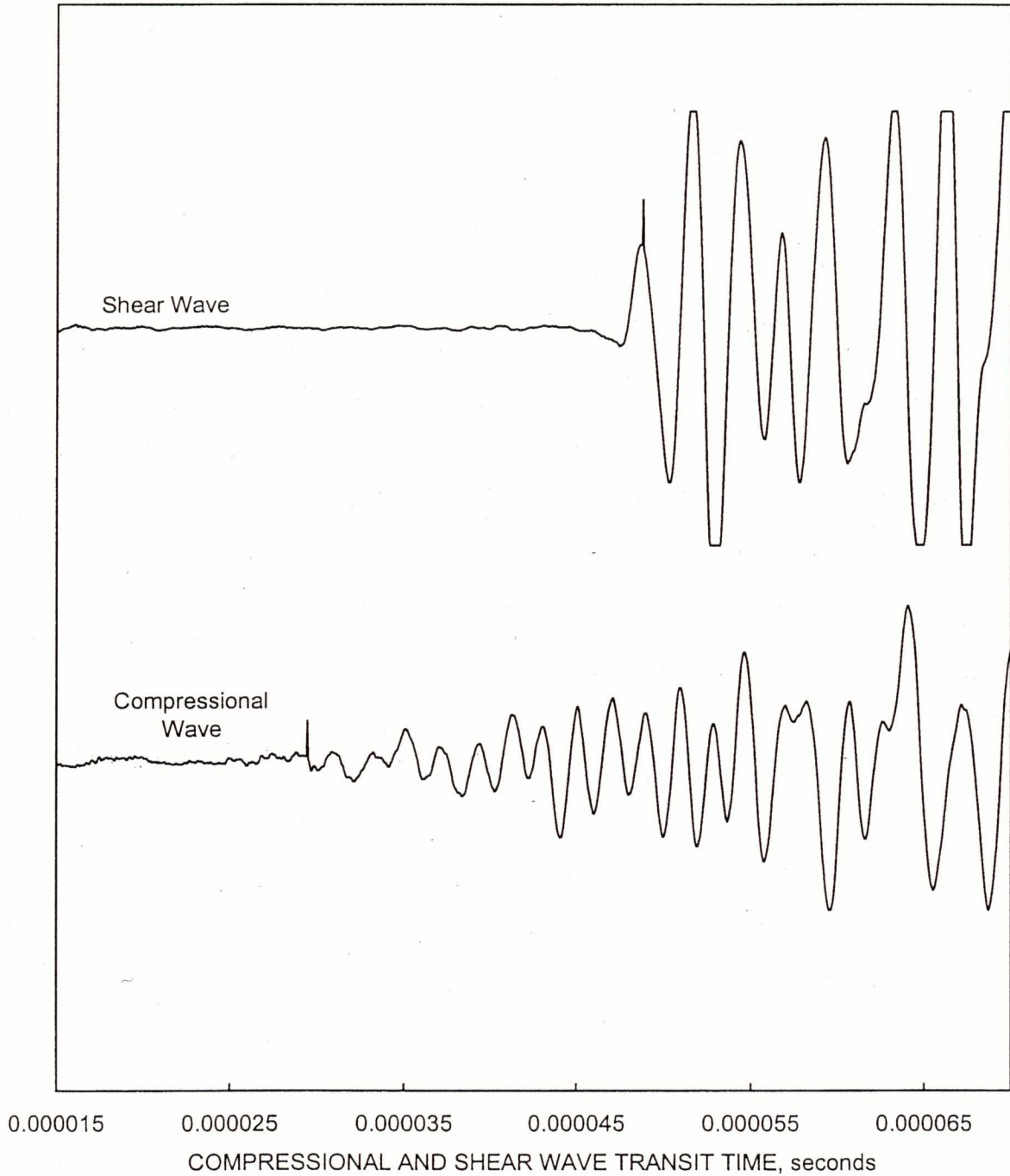
ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 18	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	969.90	Reservoir NOB Pressure, kPa:	12460



ACOUSTIC VELOCITY

COMPANY:	Contact Exploration Inc.	FILE:	52132-04-5025
WELL:	Parsons Pond #1	FORMATION:	
Sample:	Sp 20	Reservoir (Test) Temperature, °C:	21.0
Depth, meters:	1027.50	Reservoir NOB Pressure, kPa:	13200





Core Laboratories Canada Ltd.



PERMIT TO PRACTICE
CORE LABORATORIES CANADA LTD.
Signature <u><i>Jyle Pluhri</i></u>
Date <u><i>May 27, 2004</i></u>
PERMIT NUMBER: P 3007
The Association of Professional Engineers, Geologists and Geophysicists of Alberta



Fracflow Consultants Inc.

Environmental, Hydrogeological and
Geotechnical Engineering Consultants

Memo

To: George Langdon
Contact Exploration

From: John Gale, Ph.D., P.Eng.,
Fracflow Consultants Inc.

Date: June 4, 2004

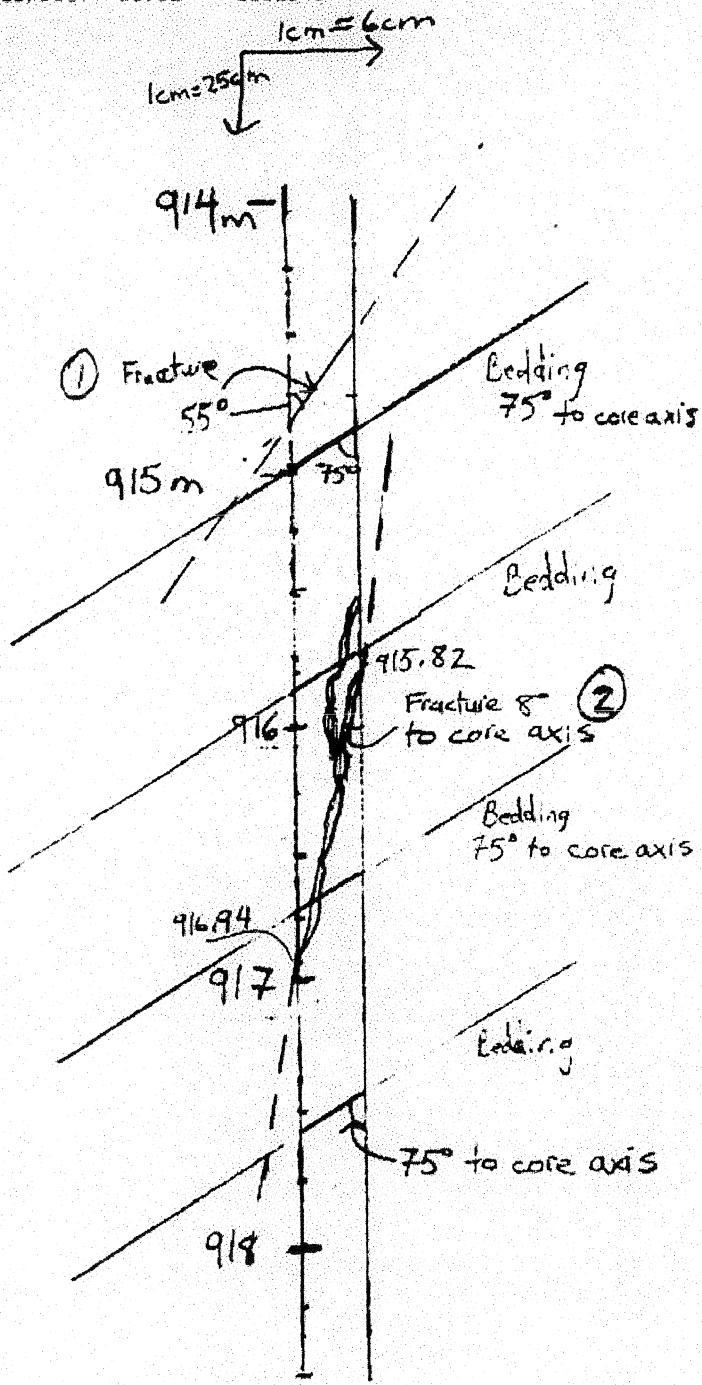
Subject: Assessment of possible "Shooting" locations in Parson's Pond Core

Attached please find five zones that are assumed to have had moderate to high permeability fractures. These zones have been mapped by Corey Fitzgerald following our discussions. The depth and fracture orientation data on each section can be used to site any planned penetration tests.

The sections include:

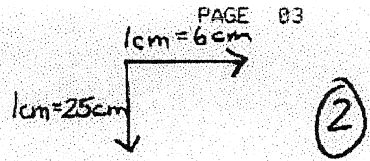
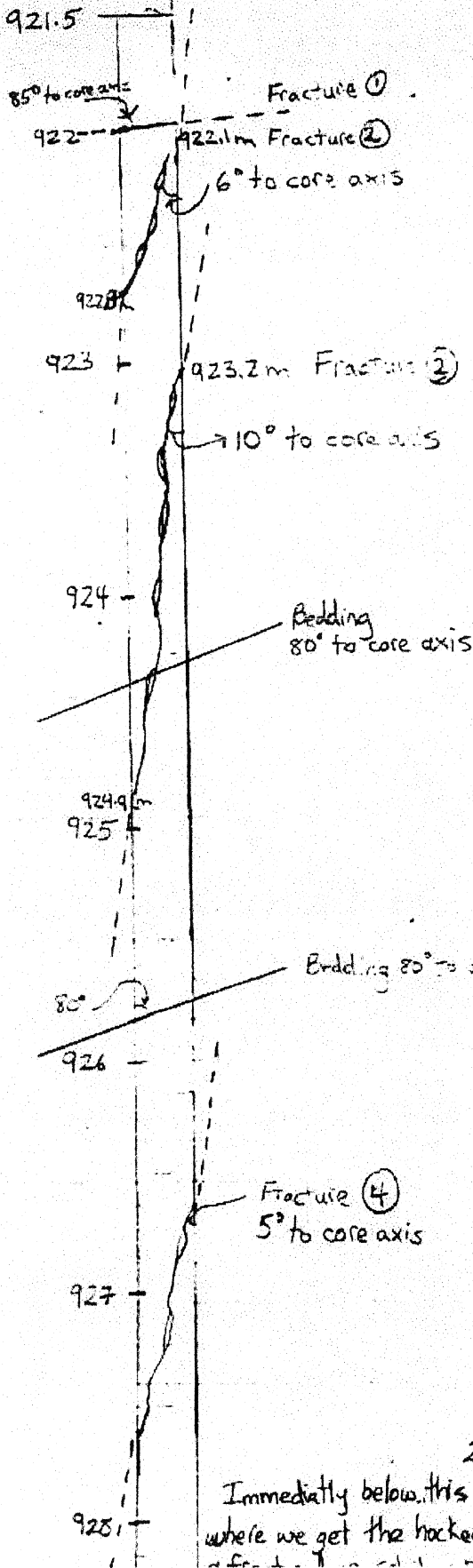
1. A five metre zone from 724 m to 729 m
2. A four metre long section between depths of 914 m to 918 m.
3. A 6.5 m zone from 921.5 m to 928 m, which is the preferred zone for any attempts at penetration.
4. A 4 m zone from 1049 to 1053 m.
5. A 4 m zone 1054 to 1058 m

In fractured reservoirs, we need to target fractures with rough irregular surfaces that have an overall planar appearance. This would suggest that the fracture planes continue for some distance beyond their intersection with the borehole and hence form conduits for flow. We have also concentrated on fractures that show alteration on the fracture surfaces and those that form small angles with the core or borehole axis. The targets for shooting at a given location must be above or below the intersection of the fracture plane with the borehole so that we have the opportunity to intersect the fracture plane(s) within the expected penetration distance. The further from the well that we intersect the fracture, the greater will be the chance that we intersect the fracture beyond the grout penetration.



Fracture Type

- ① Irregular to planar with black altered surface on fracture within limestone conglomerate
- ② Rough with common vugs up to 1.2cm within coarse calcite crystals with alteration on fracture surfaces. Fracture is somewhat wavy and looks to splay off creating multiple calcite filled fractures with maximum fracture thickness of 10cm again within limestone conglomerates



Fracture Type

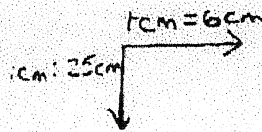
① max thickness 1.5cm
 Irreg. or fracture surface with some dark alteration or coarse vuggy calcite crystals (vugs up to 0.5cm)
 Fracture occurs within 5cm in Superficial zone to core axis in a limestone conglomerate

② max thickness 2cm
 Irregular to rough fracture surface with fine to coarse vuggy calcite crystals (vugs up to 1cm) and dark alteration material. Fracture appears to be wavy & vary in thickness with multiple fractures due to splays occurring in a limestone conglomerate

③ Irregular ^{at top} rough fracture surface wavy and varying in thickness from 2mm to 1cm. Fracture splays off with up to 2 limbs within core. Fracture made up of fine to coarse ^{vuggy} calcite crystals (vugs up to 2cm) within a limestone conglomerate.

④ Rough fracture surface consisting of fine to coarse calcite crystals & separate light/dark alteration material. Fracture appears to skim along edge of core with maximum measurable thickness @ 2cm. This occurs within a limestone conglomerate

Immediately below this section is a fault/shear zone starting @ 934.5m where we get the hockey puck breaks in sh. ls which changes into



③

Fracture Type

Fracture ①
42° to core axis

Bedding
53° to core axis

Fracture ②
65° to core axis

Bedding 45° to core axis

1051

1051

Fracture ③
65° to core axis

1052

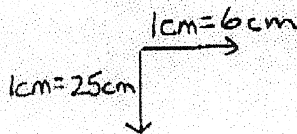
1053

① Irregular to planar with a dull black mineral surface and traces of slickensides on higher relief portions of fracture surface along with some smeared calcite material. No coarse crystals present. Core appears to fit together fairly snugly with 1-2 mm possible thickness. Occurs along a thin brecciated section (2-3 cm) within region is. Bedding is 53° to core axis and fracturing occurs along bedding and sub ⊥ to bedding

② Irregular to planar, same as above with dull black surface and slickenside in a thin brecciated section in 15. Core fits together fairly snugly. Common fracturing along bedding with black smooth slickenside surfaces

③ Irregular to planar dull black fracture surface fairly smooth and fit together fairly snugly. Lesser amount of calcite smeared material on surfaces. No measurable thickness.

smooth to slightly irregular
Common fracturing along bedding with black smooth shiny slickenside on surfaces



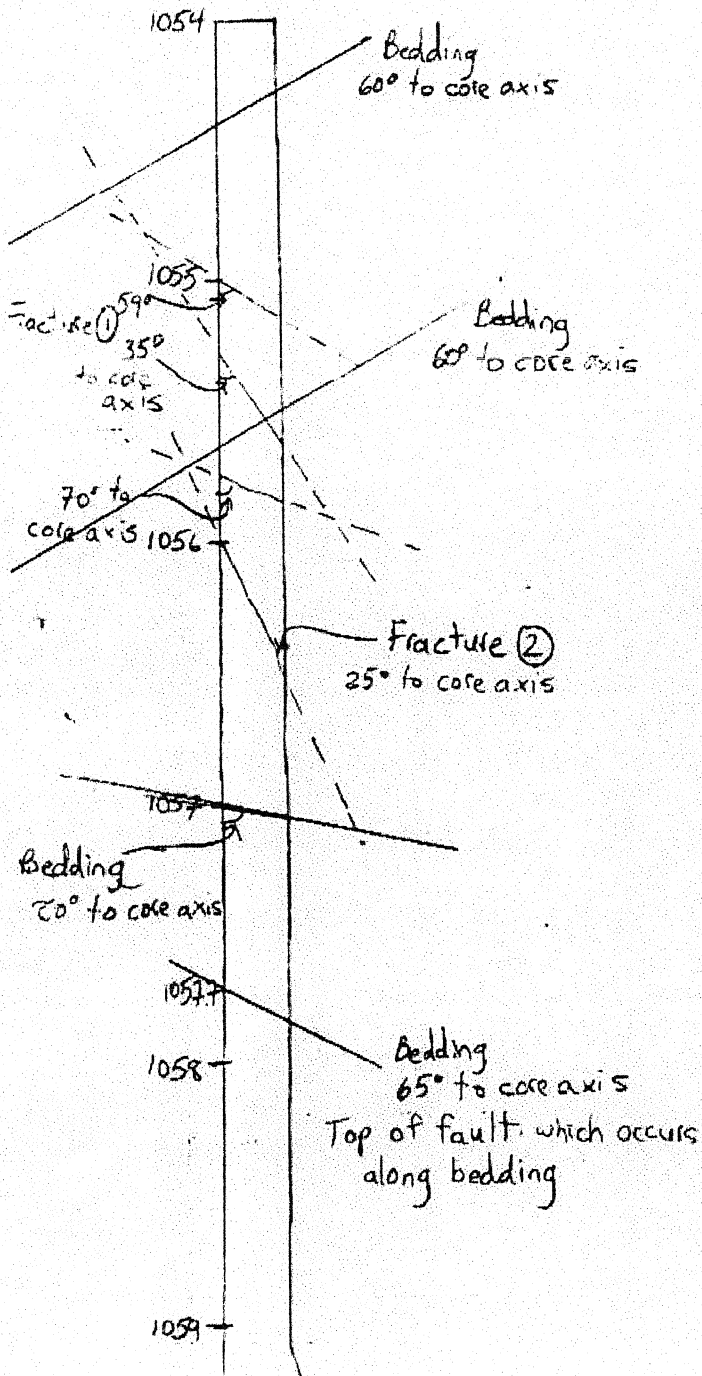
(4)

Fracture Type

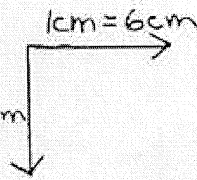
① Planar to irregular with dull black mineralized fairly smooth surface. Core fits well together with some slickenside and minor calcite crystals. Movement along fracture as beds are terminated by fracture. No measurable thickness. Common fracturing along bedding planes with other smooth shiny slickenside surfaces.

② Irregular to slightly planar with shiny black slickenside surface and associated smeared calcite crystals. Occurs adjacent to above 1-2 cm vuggy calcite ^{vein} which appear to be parallel to bedding. and 20 cm below fairly well filled vuggy calcite veins 25° to core axis.

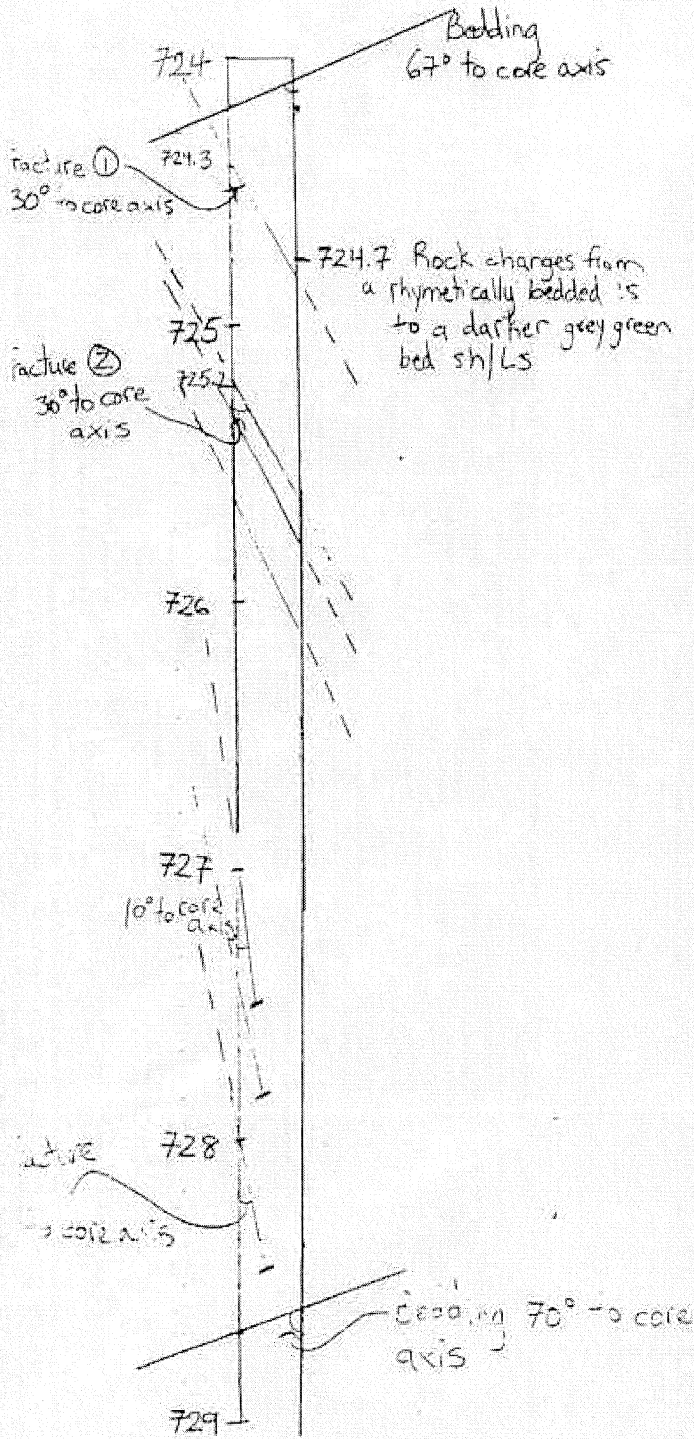
The hole was terminated at a fault @ 1061 m.



Sample taken 72.6m



5



Fracture Type

① Fairly well cemented with fine grained luggy calcite. Hairline fracture < 1mm in thickness. Oil colour and yellow fluorescence in fracture.

② Dark planar surface with abundant needle shaped crystals on fracture surface. Oil staining oil colour with few fluorescence. Looks to be hairline fractures < 1mm in thickness. Possible breaks in core from either drilling or while logging. Appear to be fairly tight in places with most fractures pinching away to nothing or being cut off by ⊥ fractures; shows no continuation. A lot of these micro fractures look completely closed off. We did get spikey gas readings over this interval. This fracturing occurs within the rhythmically bedded limestone

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Release Date:

RECEIVED

included 1 CD
of Core Photos

MAY 13 2004

Energy Branch
Department of Mines and Energy

GEOLOGICAL REPORT

on

PARSON'S POND # 1

in
Newfoundland

for
Contact Exploration

Prepared For: George Langdon
Prepared By: Corey Fitzgerald

Geologist Name

Corey Fitzgerald will use its best effort to furnish its customers with good interpretations and information relating to oil and (or) gas shows. However, Corey Fitzgerald cannot and does not guarantee the accuracy of such information and interpretation and shall not be liable or responsible for liabilities incurred by customer resulting from same.

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WELL SUMMARY

WELL NAME:	Parson's Pond # 1		
OPERATOR:	Contact Exploration		
PROVINCE:	Newfoundland		
AREA:	Parson's Pond		
DRILLING CONTRACTOR:	Logan Drilling		
WELL LICENCE NUMBER:	03-103		
WELLSITE SUPERVISION:	Geologist:	Corey Fitzgerald	
	Drilling Supervisor:	Bill Williams	
ELEVATIONS:	Ground Level:	0.0 meters	Kelly Bushing: 5.3 meters
SPUD DATE:	19-01-2004		
T.D. DATE:	08-04-2004		
SAMPLE INTERVAL:	10.0 – 1062.0 meters		
WELL STATUS:	Pending further evaluation.		

CASING SUMMARY

String #	Name	Casing Size (mm)	Hole Size (mm)	Joints (#)	Landed At (m)	Cement (liters)	Cement Type
1	PW	138.7	178.0	34	109.1	900.0	H2O Class "G" with 3% Ca
2	HWT		122.6	99	327.5	470.0	H2O class "G" with 1% Ca
3	HWT		96.0	353	1061.0	1.5 m3	H2O class "G"

DEVIATION SURVEYS

Measured Depth (m)	Inclination (degree)	Azimuth (degree)	T.V.D. (m)	Latitude N-S (m)	Departure E-W (m)	Vertical Section (m)	Dog Leg Severity (deg/30 m)
32.0	0.5						
70.0	2.0						
107.0	2.0						
250.0	2.5						
472.0	2.0						
691.0	4.0						
988.0	4.0						

BIT RECORD

Bit #:	1	Size:	305	Make:	Varel	Type:	
Serial #:		Jets:					
Depth In:	0	Depth Out:	7.0	Made:	7.0		
Hours:	4.0	Accum. Hours:	4.0				

Bit #:	1A	Size:	178.0	Make:	Varel	Type:	Air
Serial #:		Jets:					
Depth In:	8.0	Depth Out:	111.0	Made:	103.0		
Hours:	13.5	Accum. Hours:	13.5				

Bit #:	1	Size:	122.6	Make:	Fordia	Type:	Shark-7
Serial #:	21578102	Jets:					
Depth In:	114.3	Depth Out:	153.0	Made:	38.7		
Hours:	37.75	Accum. Hours:	37.75				

Bit #:	2	Size:	122.6	Make:	Fordia	Type:	Shark-7
Serial #:	3A2912	Jets:					
Depth In:	153.0	Depth Out:	329.2	Made:	176.2		
Hours:	168.25	Accum. Hours:	168.25				

Bit #:	3	Size:	96.0	Make:	Fordia	Type:	4-6
Serial #:	27732-03	Jets:					
Depth In:	329.0	Depth Out:	508.0	Made:	179.0		
Hours:	98.0	Accum. Hours:	98.0				

Bit #:	4	Size:	96.0	Make:	Fordia	Type:	4-6
Serial #:	27732-04	Jets:					
Depth In:	508.0	Depth Out:	691.0	Made:	183.0		
Hours:	92.5	Accum. Hours:	92.5				

Bit #:	5	Size:	96.0	Make:	Fordia	Type:	4-6
Serial #:	27772-01	Jets:					
Depth In:	691.0	Depth Out:	1062.0	Made:	371.0		
Hours:	62.0	Accum. Hours:	62.0				

FORMATION TOPS

Kelly Bushing: 5.3 m

Formation	Prognosis (m)	Sample Top (m)
Cow Head	220.0	635.0

FORMATION EVALUATIONS

Formation:	<u>Eagle Island</u>		
Age:	<u>Cambro Ordovician</u>		
Sample Top:	<u>N/A</u>	Sample TVD:	<u>N/A</u>
Thickness:	<u>N/A</u>		
Evaluation:	The Eagle Island is predominantly a sandstone described as follows: gray, lithic, upper fine with coarse grain up to granular sections. Cement / matrix is a silty, calcareous, argillaceous matrix, poorly sorted, sub angular to rounded, friable, common glauconite grains, variable amounts of feldspar, red and black chert grains, siderite, and trace shale in places. The sand is predominantly tight with minor sections up to 10-12% intergranular porosity, and no shows.		
Conclusion:	<u>The Eagle Island exhibits no reservoir potential in this well</u>		

Formation:	<u>Cow Head</u>		
Age:	<u>Cambro Ordovician</u>		
Sample Top:	<u>635.0 ?</u>	Sample TVD:	<u>635.0 ?</u>
Thickness:	<u>T.D. in Cow Head</u>		
Evaluation:	The Cow Head formation is predominantly a light gray brown to dark gray brown limestone that is rhythmically bedded with occasional up to 10 meter thick limestone conglomeratic sections. The limestone is cryptocrystalline, frosted, hard, slightly dolomitic in places, argillaceous, and very tight. Throughout the formation are faulted and fractured sections where hydrocarbons are detected within 1 to 2 mm calcite filled fractures predominantly 80 to 90 degrees and 30 to 40 degrees to core axis with bedding at 60 degrees to core axis. In places there is a fast dissipating oil odour on fresh breaks in core, with no shows. Within some fractures there is hydrocarbon staining with yellow fluorescence and a slow blooming milky yellow fluorescence cut. These fractures are well filled with calcite and exhibit possibly very little effective porosity. In addition the concentration of fractures appears insufficient to be economic.		
Conclusion:	<u>The Cow Head formation exhibits very poor to no reservoir potential in this well up to 1062.0 m (T.D.).</u>		

DETAILED SAMPLE DESCRIPTIONS

WELL NAME: Parson's Pond # 1

LOCATION: Parson's Pond

DEPTH (5.3 m KB)	DESCRIPTION
0-10.0 m Interval 10.0 m	No sample, overburden.
10.0-15.0 m Interval 5.0 m	<p>SHALE(45%) gray, green, very micromicaceous in part, blocky, grading to argillaceous siltstone.</p> <p>DOLOMITE(30%): gray brown, gray green, massive, cryptocrystalline, blocky, micaceous, tight, no shows.</p> <p>SANDSTONE(25%): light gray, sub lithic to lithic, fine to Upper coarse grained, poorly sorted, common calcareous cement, sub angular to rounded, 5% glauconite grains, silty in part, micaceous in part, trace feldspar, 5 to 8% intergranular porosity, no shows.</p>
15.0-20.0 m Interval 5.0 m	<p>SHALE(50%) gray, green, very micromicaceous in part, blocky, grading to calcareous argillaceous siltstone.</p> <p>DOLOMITE(15%): gray brown, gray green, massive, cryptocrystalline, blocky, micaceous, possible dolomitic limestone, tight, no shows.</p> <p>SANDSTONE(35%): light gray, sub lithic to lithic, predominantly very fine to medium, occasional coarse grained, poorly sorted, common calcareous cement, sub angular to rounded, 3 to 5% glauconite grains, silty in part, micaceous in part, trace feldspar, tight to 8 to 10% intergranular porosity, no shows.</p>
20.0-25.0 m Interval 5.0 m	<p>SHALE(25%) gray, green, very micromicaceous in part, blocky, grading to calcareous argillaceous siltstone.</p> <p>LIMESTONE(35%): gray brown, minor white, massive, cryptocrystalline to minor chalky, frosted, dolomitic in part, blocky, minor argillaceous material, tight, no shows.</p> <p>SANDSTONE(40%): light gray, sub lithic to lithic, predominantly very fine to fine grained matrix with fine to coarse grains, poorly sorted, common calcareous cement, angular to sub rounded, common glauconite grains, silty in part, micaceous in part, minor feldspar, trace sideritic spherules, trace carbonaceous material, tight to 8 to 10% intergranular porosity, no shows.</p>

25.0-30.0 m Interval 5.0 m	<p>SANDSTONE(75%): light gray, lithic, fine to coarse grained with 60% predominantly very fine to fine grained calcareous argillaceous matrix, poorly sorted, common calcareous cement, angular to sub rounded, slightly friable, common glauconite grains, silty in part, minor feldspar, trace sideritic spherules, trace carbonaceous material, tight to possible fair intergranular porosity, no shows.</p> <p>SHALE(5%) green, micromicaceous, blocky.</p> <p>LIMESTONE(20%): gray brown, massive, cryptocrystalline to minor chalky, frosted, dolomitic in part, blocky, argillaceous in part, tight, no shows.</p>
30.0-35.0 m Interval 5.0 m	<p>SANDSTONE(95%): light gray, lithic, upper fine to coarse grained with 60% very fine to fine grained calcareous argillaceous matrix, poorly sorted, common calcareous cement, sub angular to occasional rounded, friable, common glauconite grains, silty in part, minor feldspar, minor carbonaceous material, possible fair intergranular porosity, no shows.</p> <p>SHALE(5%) gray, micromicaceous, blocky to sub fissile, silty in part.</p>
35.0-40.0 m Interval 5.0 m	<p>SANDSTONE(95%): gray, lithic, upper fine to coarse grained with 50% very fine to fine grained calcareous argillaceous matrix, poorly sorted, sub angular to occasional rounded, friable in part, occasional glauconite grains, silty in part, minor feldspar, minor carbonaceous material, tight to possible fair intergranular porosity, no shows.</p> <p>SHALE(5%) gray, micromicaceous, blocky to sub fissile, silty in part.</p>
40.0-45.0 m Interval 5.0 m	<p>SANDSTONE(90%): gray, lithic, upper fine to coarse grained with 50% very fine to fine grained calcareous argillaceous silty matrix, poorly sorted, sub angular to occasional rounded, friable in part, occasional glauconite grains, minor feldspar, 10% dark chert grains, tight to possible fair intergranular porosity, no shows.</p> <p>SHALE(10%) gray, micromicaceous, blocky to occasional fissile, silty in part.</p>
45.0-50.0 m Interval 5.0 m	<p>SANDSTONE(85%): gray, lithic, upper fine to coarse grained with 30% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to occasional rounded, friable, occasional glauconite grains, increasing feldspar, 5 to 10% dark chert grains, tight to possible fair intergranular porosity, no shows.</p> <p>SHALE(15%) gray, micromicaceous, blocky to occasional fissile, silty in part.</p>
50.0-55.0 m Interval 5.0 m	<p>SANDSTONE(100%): gray, lithic, upper fine to increasing coarse grained with 25% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to rounded, friable, common glauconite grains, occasional feldspar, 5 to 10% red and black chert grains, trace shale, micaceous, trace siderite, tight to 10 to 12% intergranular porosity, no shows.</p>

55.0-60.0 m Interval 5.0 m	<p>SANDSTONE(100%): gray, lithic, upper fine to occasional coarse grained with 20% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to rounded, occasional quartz overgrowths, friable, common glauconite grains, occasional feldspar, 5 to 10% red and black chert grains, trace shale, tight to 12% intergranular porosity, no shows.</p>
60.0-65.0 m Interval 5.0 m	<p>SANDSTONE(95%): gray, lithic, upper fine to occasional coarse grained with 20% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to rounded, occasional quartz overgrowths, friable, common glauconite grains, occasional feldspar, 5 to 10% red and black chert grains, tight to 12% intergranular porosity, no shows.</p> <p>SHALE(5%): gray, micromicaceous, fissile to sub fissile, trace silty, trace carbonaceous.</p>
65.0-70.0 m Interval 5.0 m	<p>SANDSTONE(85%): gray to gray green, lithic, upper fine to coarse grained with 35% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, occasional feldspar, 15% red and black chert grains, tight to 10% intergranular porosity, no shows.</p> <p>SHALE(15%): gray, green, micromicaceous, fissile to sub fissile, trace silty, trace carbonaceous.</p>
70.0-75.0 m Interval 5.0 m	<p>SANDSTONE(90%): gray to gray green, lithic, upper fine to lower vc grained with 35% very fine to fine grained calcareous argillaceous occasional silty matrix, poorly sorted, sub angular to well rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% red and black chert grains, tight to 10% intergranular porosity, no shows.</p> <p>SHALE(10%): gray, green, micromicaceous, fissile to sub fissile, trace silty, trace carbonaceous.</p>
75.0-80.0 m Interval 5.0 m	<p>SANDSTONE(90%): gray to gray green, lithic, upper fine to occasional coarse grained with 30% silty to fine grained calcareous argillaceous matrix, poorly sorted, sub angular to well rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% dark chert grains, micaceous in part, tight to 10% intergranular porosity, no shows.</p> <p>SHALE(10%): gray, micromicaceous, sub fissile, trace silty, trace carbonaceous.</p>
80.0-85.0 m Interval 5.0 m	<p>SANDSTONE(90%): gray, lithic, upper fine to occasional coarse grained with 40% silty to fine grained calcareous increasing argillaceous matrix, poorly sorted, sub angular to well rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% dark chert grains, increasing micaceous material, sideritic in part, tight to 10% intergranular porosity, no shows.</p> <p>SHALE(10%): gray, micromicaceous, sub fissile, trace silty, trace carbonaceous, trace waxy.</p>

85.0-90.0 m
Interval 5.0 m

SANDSTONE(90%): gray, lithic, upper fine to occasional coarse grained with 50% silty to fine grained calcareous common argillaceous matrix, poorly sorted, sub angular to well rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% dark chert grains, occasional micaceous material, sideritic in part, tight to 10% intergranular porosity, no shows.

SHALE(10%): gray, dark gray, micromicaceous, occasional waxy, sub fissile, trace silty.

90.0-95.0 m
Interval 5.0 m

SANDSTONE(85%): gray, lithic, upper fine to occasional coarse grained with 30% silty to fine grained calcareous common argillaceous matrix, poorly sorted, sub angular to well rounded, occasional quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% dark chert grains, minor micaceous material, sideritic in part, tight to 10% intergranular porosity, no shows.

SHALE(15%): gray, dark gray, micromicaceous, occasional waxy, sub fissile, trace silty.

95.0-100.0 m
Interval 5.0 m

SANDSTONE(75%): gray, lithic, upper fine to occasional coarse grained with 30% silty to fine grained calcareous argillaceous matrix, increasing calcareous, poorly sorted, sub angular to well rounded, trace quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, 10% dark chert grains, micaceous material, trace sideritic in part, tight to 10% intergranular porosity, no shows.

SHALE(25%): gray, dark gray, micromicaceous, occasional waxy, sub fissile to blocky.

100.0-111.0 m
Interval 11.0 m

SANDSTONE(90%): gray, lithic, fine to occasional coarse grained with 20% silty to fine grained calcareous occasional argillaceous matrix, increasing calcareous, poorly sorted, sub angular to rounded, trace quartz overgrowths, slightly friable, common glauconite grains, minor feldspar, minor dark chert grains, possible tight to 10% intergranular porosity, no shows.

SHALE(10%): gray, dark gray, micromicaceous, occasional waxy, sub fissile to blocky.

Set surface casing, begin coring at 114.3 meters.

115.0-120.0 m Interval 5.0 m	SANDSTONE: gray, lithic, fine to lower coarse grained, minor upper coarse grained, sub angular to occasional rounded, poorly sorted, calcareous argillaceous cement, silty, occasional glauconite, sideritic in part, minor feldspar, minor dark chert, increasing micaceous in fine grain sections, tight to poor intergranular porosity, no shows; with interbedded (occasional thinly) well indurated dark gray, micromicaceous, silty, shale. Bedding is approximately 60 degrees to core axis.
130.0-135.0 m Interval 5.0 m	SANDSTONE: gray, lithic, fine to lower coarse grained, minor upper coarse grained, sub angular to occasional rounded, poorly sorted, calcareous argillaceous cement, silty, occasional glauconite, sideritic in part, minor feldspar, minor dark chert, increasing mica in fine grain sections, tight to poor intergranular porosity, no shows; with interbedded (occasional thinly) well indurated dark gray, micromicaceous, silty, shale. Bedding is approximately 60 degrees to core axis
150.0-155.0 m Interval 5.0 m	SANDSTONE: gray, lithic, fine to lower coarse grained, minor upper coarse grained, sub angular to occasional rounded, poorly sorted, calcareous argillaceous cement, silty, occasional glauconite, sideritic in part, trace feldspar, dark chert, mica in fine grain sections, tight to poor intergranular porosity, no shows; with interbedded well indurated dark gray, micromicaceous, silty, shale and coarser grained sandstone sections. Bedding is approximately 60 degrees to core axis
175.0-190.0 m Interval 15.0 m	SANDSTONE: gray, lithic, upper very fine to lower m grained, silty, calcareous cement, silty matrix, moderately to poorly sorted, sub angular to sub rounded, minor glauconite, feldspar, minor siderite, micaceous in part, occasional dark chert, tight to 3 to 5% intergranular porosity, no shows. With coarser sections present. 10 cm calcite veining, possible minor fault along bedding at 198.5: slickensides present.
190.0-200.0 m Interval 10.0 m	SANDSTONE: gray, lithic, predominantly very fine to lower m grained, with occasional fine to m grained sections, poorly sorted, sub rounded to sub angular, calcareous and possible siliceous cement, firm, micaceous in fine grain sections, occasional dark chert grains, glauconite, rare pyrite, feldspar, tight, no shows with occasional thinly bedded shale and wispy siltstone.
200.0-213.0 m Interval 13.0 m	SANDSTONE: gray, lithic, predominantly very fine to lower m grained, with occasional fine to m grained sections, poorly sorted, sub rounded to sub angular, calcareous and possible siliceous cement, micaceous in fine grained sections, firm, occasional dark chert grains, glauconite, feldspar, tight, no shows with occasional thinly bedded shale and wispy siltstone.
213.0-225.0 m Interval 12.0 m	SANDSTONE: gray to dark gray as above with occasional dark gray to black thinly bedded shale with 1 to 2 meter scale fining upward sequences. Bedding at 60 degrees to core axis.

225.0-240.0 m Interval 15.0 m	SANDSTONE: as above. gray, very fine to fine and fine to lower coarse grained sections with interbedded shale and lesser siltstone. Bedding at 60 degrees to core axis.
255.0-265.0 m Interval 10.0 m	SANDSTONE: As above; gray to occasional light gray, lithic, very fine to lower coarse grained, poorly sorted, calcareous and possible kaolinitic cement (common very soft clear prismatic crystals turns chalky white when scratched occurs as interstitial material), dolomitic in part, common glauconite in part, feldspar, minor carbonaceous material, trace siderite, tight to poor intergranular porosity, no shows.
265.0-275.0 m Interval 10.0 m	SANDSTONE: gray to gray green, lithic, very fine to upper medium grained, poorly sorted, calcareous and possible kaolinitic cement (common very soft clear prismatic crystals turns chalky white when scratched, occurs as interstitial material), common dark translucent quartzose "eyes", occasional dolomitic, common glauconite, occasional feldspar, minor carbonaceous material, trace siderite, occasional dark chert grains, tight to poor intergranular porosity, no shows.
275.0-283.0 m Interval 8.0 m	Sandstone as above with common interbedded shale and minor upper to 5 cm vuggy calcite veining along bedding. Common soft white to clear interstitial material possible gypsum, with occasional finer grained micaceous sections. Bedding ~ 60 degrees to core axis.
280.0-285.0 m Interval 5.0 m	SHALE: dark gray to black and green, thinly bedded with siltstone, calcareous dolomite and sandstone.
285.0-287.0 m Interval 2.0 m	DOLOMITE: light gray, finely crystalline to microcrystalline, calcareous, massive, frosted, dense, tight, no shows.
295.0-305.0 m Interval 10.0 m	SANDSTONE: gray to light gray, lithic, very fine to lower coarse grained, poorly sorted, calcareous and common kaolinitic cement (common soft white to clear interstitial material), silty in part, dolomitic in part, common glauconite, occasional feldspar, occasional carbonaceous material, minor dark chert grains, tight, no shows.
305.0-310.0 m Interval 5.0 m	SANDSTONE: gray to gray green, lithic, fine to lower coarse grained, poorly sorted, calcareous and common kaolinitic cement, sub rounded to sub angular, silty in part, occasional glauconite, occasional feldspar, minor dark chert grains, tight, no shows.
310.0-314.0 m Interval 4.0 m	SHALE: dark gray, micromicaceous, grading to argillaceous siltstone, weakly calcareous, weakly dolomitic, blocky.
314.0-314.5 m Interval 0.5 m	SILTSTONE: gray, calcareous, dolomitic, very argillaceous, possible silty dolomite, thin wispy sometimes truncated bedding, micaceous, firm, tight, no shows.

318.0-321.0 m
Interval 3.0 m

SANDSTONE: gray green, lithic, very fine to upper medium grained, with very fine grained to siltstone sections, poorly sorted, calcareous and kaolinitic cement, sub rounded to occasional sub angular, glauconitic, feldspar, minor dark chert grains, tight, no shows.

Bedding ~ 60 degrees to core axis. Some post depositional structures present. Some sand units appear to be migrating/squeezed upper in to the overlying shales. Sandstones appear to becoming finer grained towards bottom.

Casing set at 327.5 meters.

Hole depth prior to setting casing 329.2 meters

DRILLING 96.0 mm HOLE

330.0-335.0 m
Interval 5.0 m

SANDSTONE: light gray to gray, lithic, very fine to occasional lower coarse grained, poorly sorted, angular to sub rounded, calcareous +/- kaolinitic cement, firm, glauconitic in part, occasional dark chert grains, occasional feldspar, tight to poor intergranular porosity, no shows.

335.0-345.0 m
Interval 10.0 m

SHALE: predominantly green gray with alternating rounded and green thinly bedded shale / claystone, frosted, micromicaceous, minor carbonaceous material, blocky, bedding appears 60 degrees to core axis.

355.0 meters

SANDSTONE: gray, gray green, lithic, very fine to m grained, poorly sorted, angular to sub rounded, predominantly calcareous cement, minor kaolinitic cement, very argillaceous, glauconitic, feldspathic in part, occasional to common dark chert grains, possible dolomitic, tight to poor intergranular porosity, no shows. Within this sand are interbedded shale and siltstone sections, occasional calcite veining and fracturing with upper to 20cm brecciated zone containing upper to 6cm clasts.

378.0 meters

SANDSTONE: gray, gray green, lithic, very fine to occasional lower coarse grained, poorly sorted, calcareous +/- kaolinitic cement, argillaceous, Angular to sub rounded, glauconitic, feldspathic, common dark chert grains, possible dolomitic, poor intergranular porosity, no shows.

397.0 meters

SANDSTONE: gray, gray green, lithic, very fine to occasional lower coarse grained, poorly sorted, calcareous +/- kaolinitic cement, argillaceous, Angular to sub rounded, glauconitic, feldspathic, common dark chert grains, poor intergranular porosity, no shows. Contains finer grained to silty sections within.

410.0 meters

SANDSTONE: gray, gray green, lithic, very fine to lower medium grained, with conglomerate sections, poorly sorted, lithic, argillaceous, calcareous cement, possible kaolinitic cement, sub angular to sub rounded, occasional glauconite, common feldspar, occasional dark chert grains, micaceous in part, tight to poor intergranular porosity, no shows.

Occasional calcite veining and moderately fractured in places. Getting rare gas spikes that appear to be associated with some of these fractures at 368.0 m: 1.44% gas, 414.7 m: 3.94% gas. No visible staining or show upon examination could be seen at these depths.

- 426.0 meters SANDSTONE: gray, gray green, lithic, very fine to upper coarse grained conglomerate, poorly sorted, lithic, argillaceous, calcareous cement, possible kaolinitic cement, sub angular to sub rounded, occasional glauconite, common feldspar, occasional dark chert grains, micaceous in part, tight to poor intergranular porosity, no shows.
- 440.0-465.0 m Interval 25.0 m SANDSTONE: gray, very fine to upper coarse grained, grading to conglomerate, lithic, calcareous cement, lesser kaolinitic cement, argillaceous, sub angular to occasional rounded, occasional glauconite to glauconitic in part, occasional feldspar, occasional to common dark chert grains, micaceous in part, tight to poor intergranular porosity, no shows.
- Sand becoming more conglomeratic containing up to 5mm grains in sections.
- 470.0 meters SHALE / SILTSTONE: gray to gray green to gray black, thinly bedded, common thin calcareous veining, well fractured, silty, slightly calcareous, micromicaceous, trace to minor pyrite.
- 483.0-495.0 m Interval 12.0 m SANDSTONE: gray, gray green, lithic, upper very fine to lower coarse grained, poorly sorted, conglomerate in part, sub angular to rounded, calcareous cement, kaolinitic cement, argillaceous, glauconitic in part, occasional feldspar, minor dark chert, occasional carbonaceous grains, tight, no shows.
- Shales/siltstones are broken up and well fractured with slickensides on most breaks in the core. At 504.0 to 504.5 meters the core is very broken upper, almost rubble; possible fault gouge??
- 515.0-525.0 m Interval 10.0 m SANDSTONE: gray, lithic, very fine to upper coarse grained, granular and conglomerate sections with clasts from 5 to 20mm, poorly sorted, firm, sub angular to rounded, calcareous cement, silty matrix, minor quartz overgrowths, argillaceous, common glauconite, common feldspar, occasional dark chert grains, minor varicolored chert grains, minor carbonaceous grains and clasts, minor shale clasts, minor micaceous material, tight to 3 to 5% intergranular porosity, no shows. Bedding 60 degrees to core axis.
- 540.0-575.0 m Interval 25.0 m SANDSTONE: gray, lithic, very fine to upper coarse grained, with occasional granular upper to 4mm grains, sub rounded to rounded, calcareous cement, silty matrix, minor quartz overgrowths, argillaceous, minor carbonaceous material, occasional varicolored chert, common glauconite, occasional to common feldspar, minor micaceous material, tight to 3 to 5% intergranular porosity, no shows.
- 565.0 meters SANDSTONE: gray, lithic, very fine to upper coarse grained, with occasional granular upper to 4mm grains, sub rounded to rounded, calcareous cement, silty matrix, minor quartz overgrowths, argillaceous, minor carbonaceous material, occasional varicolored chert, common glauconite, occasional feldspar, minor micaceous material, tight to 3 to 5% intergranular porosity, no shows. From 569.0 to 571.0 m and 576.0 to 577.5 m there are several subvertical (< 5 degrees to core axis) 1 to 2mm thick vuggy calcareous pyritic veins showing white yellow fluorescence with very faint to no fluorescent cut.

575.0-595.0 m Interval 20.0 m	<p>SANDSTONE: gray, gray green, lithic, very fine to lower coarse grained, poorly sorted, calcareous cement, silty matrix, trace quartz overgrowths, trace dolomitic, sub rounded to rounded, common glauconite, common feldspar, occasional dark chert, occasional carbonaceous material, slightly argillaceous, tight to 3 to 5% intergranular porosity, no shows. Bedding 60 degrees to core axis.</p> <p>Fracture/Faulting associated with silt/shale beds. SILTSTONE / SHALE green gray, dark gray, calcareous and occasional dolomitic, with green and dark gray elongate shale / dolomitic clasts and occasional brecciated calcareous fractures.</p>
596.0-605.0 m Interval 9.0 m	<p>SANDSTONE: gray, gray green, lithic, very fine to lower medium grained, poorly sorted, calcareous cement, slightly dolomitic, silty matrix, sub rounded to rounded, occasional to minor glauconite, minor feldspar, common dark carbonaceous material?, occasional dark chert grains, minor green argillaceous material, tight to 3 to 5% intergranular porosity, no shows.</p> <p>Wispy green elongate lozenge shaped shale / dolomitic clasts 4mm, oriented along bedding planes.</p>
605.0-613.0 m Interval 8.0 m	<p>SANDSTONE: gray green, sub lithic to lithic, very fine to medium grained, occasional lower coarse grained, poorly sorted, sub angular to rounded, predominantly calcareous cement, trace quartz overgrowths, wkly dolomitic, firm, common dark carbonaceous material, minor glauconite, minor feldspar, occasional green argillaceous material, micaceous in part, 3 to 5% intergranular porosity, no shows.</p>
610.0-618.0 m Interval 8.0 m	<p>SHALE: Alternating green and red/brown shale / dolomite, minor black shale, thinly bedded, micromicaceous, firm, blocky, dolomitic, possible argillaceous dolomite, elongate lozenge shaped calcareous and green shale clasts, moderate fracturing/faulting with several fracturing phases (one set of fractures along bedding and a later set of fractures ~ 90 degrees to core axis).</p>
625.0 meters	<p>SANDSTONE: gray green, sub lithic to lithic, very fine to Upper coarse grained, poorly sorted, calcareous cement, silty matrix, minor quartz overgrowths, sub angular to rounded, common dark carbonaceous material, minor glauconite, minor feldspar, occasional argillaceous material, 3 to 5% intergranular porosity, no shows.</p>
635.0 meters	<p>COW HEAD DOLOMITE/ SHALE: green shale / dolomite, with interbedded black carbonaceous shale, possible argillaceous dolomite, blocky, firm, frosted, possible cryptocrystalline, micaceous, slightly calcareous, well fractured and faulted with upper to 10cm red / brown fractured chert clasts at top and varicolored chert clasts scattered throughout. Contact with above sand is unconformable.</p>
645.0 meters	<p>Minor upper to 20 cm gray brown limestone beds, containing limestone, common black chert and clear quartz grains upper to 3mm. The limestone is granular looking. Beds at 643.5, 647.0 and 658.5 meters.</p>
654.0 meters	<p>DOLOMITE / SHALE: green well thinly interbedded black dolomitic carbonaceous shale / dolomite, cryptocrystalline to microcrystalline, frosted, hard, very argillaceous, possible dolomitic shale, slightly micaceous, massive, tight, no shows.</p>

659.0 meters	DOLOMITE / SHALE: green, red, black, light gray, possible dolomitic shale, very argillaceous, trace micaceous, massive, hard, tight, no shows, with minor brecciated calcareous veining .
675.0 meters	DOLOMITE / SHALE: gray green with interbedded black carbonaceous beds, possible dolomitic shale, clayey, trace micaceous, massive, hard, tight, no shows, with minor 20cm granular to pebble conglomerate limestone beds.
687.0 meters	FAULT: 2mm calcareous vein
688.0 meters	LIMESTONE / SHALE: Alternating grey brown and light gray, thinly bedded, massive, predominantly cryptocrystalline, frosted, clayey in part, rare pyrite, argillaceous, possible calcareous shale, hard, slightly micaceous, tight, no shows. Looks very similar to above dolomitic shale. Starting around 698.0 meters the shale/dolomite/limestone gets darker bands with common 1 to 2mm to micro fractures and the rock gets an oil odour on fresh breaks predominantly along vuggy calcite veins. Along fractures there is occasional oil staining with yellow fluorescence and a slow streaming milky white yellow fluorescent cut.
702.0 meters	LIMESTONE: light gray to gray brown, limestone conglomerate, clasts upper to 40cm, trace pyrite blobs, with dark gray brown cryptocrystalline limestone matrix / cement.
710.0 meters	LIMESTONE / SHALE: Alternating grey brown and light gray, thinly bedded, massive, predominantly cryptocrystalline, frosted, rare pyrite, argillaceous, possible calcareous shale, hard, slightly micaceous, tight. Slightly darker with oil odour on fresh breaks in rock. Calcareous shale / argillaceous limestone still tight with oil in fractures having yellow fluorescence and slow streaming white yellow fluorescent cut.
720.0 meters	SHALE: light gray brown with interbedded dark brown carbonaceous shale, massive, hard, slightly calcareous, very dolomitic in part, clayey in part, most faulting along bedding (60 degrees to core axis) with oil bearing fractures 80 degrees to bedding, show as above.
730.0 meters	SHALE: gray green to dark gray brown, wkly dolomitic, very carbonaceous in part, firm, micromicaceous in part, massive, siliceous with occasional cherty sections, occasional to common faulting and fracturing. Faulting appears to occur along bedding. Hydrocarbon bearing fracturing occurring ~80 degrees to bedding.
745.0 meters	SHALE: gray green to thinly bedded carbonaceous dark gray brown, bedding 60 degrees to core axis, hard, siliceous, slightly calcareous, blocky, trace micromicaceous, massive, trace pyrite, wkly dolomitic in places, common thin calcite filled fractures at 80 degrees to bedding, occasional yellow fluorescence in veins, with white yellow streaming fluorescence cut. Hydrocarbon odour on fresh breaks in rock. Common faulting along bedding with glassy (baked) striated surfaces occurring predominantly in the dark gray brown sections.

753.0-761.0 m Interval 8.0 m	LIMESTONE CONGLOMERATE: light gray well gray brown limestone grains very similar to underlying lower ribbon limestone unit, clear coarse crystalline calcareous cement at top with up to 1cm rounded to well rounded grains changing to dark calcareous argillaceous matrix / cement with sub rounded to rounded upper to 7cm grains. The conglomerate is, moderately fracture in part, dark material in fracture, grains are gray brown and predominantly limestone, rare pyrite, occasional sub vertical calcite veining, trace fluorescence in fracture, slow streaming milky white yellow fluorescence cut.
773.0 meters	LIMESTONE: interbedded (ribbon) gray and dark gray brown limestone, hard, cryptocrystalline, frosted, argillaceous in part, slightly micromicaceous, blocky, dark sections appear more carbonaceous, moderately to well fracture with occasional blocky sections, fractures parallel to bedding and others 10 degrees to core axis and 70 degrees to bedding, tight, no shows.
790.0 meters	LIMESTONE: interbedded (ribbon) gray and dark gray brown limestone, hard, cryptocrystalline, frosted, argillaceous in part, slightly micromicaceous, blocky, very carbonaceous in part, moderately fracture with occasional blocky lenticular sections, tight, no shows. Fractures parallel to bedding at 60 degrees to core axis, and others 10 degrees to core axis and 80 degrees to bedding.
805.0 meters	LIMESTONE: interbedded gray to dark gray brown (ribbon) limestone, cryptocrystalline, slightly micromicaceous, argillaceous, very carbonaceous in darker sections, possible calcareous shale, frosted, tight, moderately to well fractured and trace fracture porosity increasing after 0.5 meter conglomerate bed at 811.5 meters, trace yellow fluorescence, slow streaming milky yellow cut in fractures. Below this conglomerate bed some beds are blocky and lenticular and slightly siliceous with bedding getting steeper at 45 degrees to core axis.
823.0 meters	LIMESTONE / SHALE: light gray brown with increasing dark gray possible limy mud, cryptocrystalline, micromicaceous, frosted, slightly calcareous, argillaceous, carbonaceous, slightly dolomitic, blocky, trace pyrite, minor yellow fluorescence in fractures, with slow streaming milky yellow fluorescence cut. In places the darker more carbonaceous material cuts through and surrounds the lighter more calcareous limestone (beds appear discontinuous).
840.0 meters	SHALE / LIMESTONE: increasing dark gray brown (possible limy mud) with interbedded light gray brown limestone, cryptocrystalline, micromicaceous, frosted, slightly calcareous, argillaceous, carbonaceous, slightly dolomitic, blocky, trace pyrite, occasional to minor yellow fluorescence in fractures with dark oil staining at 846.5 meters with slow streaming milky yellow fluorescence cut. Lighter sections getting slightly siliceous and in places the darker more carbonaceous material cuts through and surrounds the lighter more calcareous limestone. Bedding 45 degrees to core axis.
850.0 meters	LIMESTONE / SHALE: predominantly dark gray brown with clasts, lenses and beds of light gray brown, darker possible limy mud sections are carbonaceous, slightly calcareous, cryptocrystalline, massive, and invade and engulf light gray brown sections, which are more calcareous, cryptocrystalline to microcrystalline and siliceous in places. Formation getting more fractured and faulted with brecciated sections and occasional upper to 0.5 m conglomeratic beds, predominantly vuggy 1 to 4mm calcite fractures and occasional carbonaceous trace green shaly beds, tight, with occasional dark oil stain in fractures and brecciated sections, yellow fluorescence, white yellow moderately streaming milky yellow fluorescence cut. Fractures along bedding and sub parallel to core axis.

862.0 meters	1.0 meter very broken upper section possible fault, .868.5 0.5 meter very broken upper section possible fault. From ~ 868.0 to 884.0 there is an increase in oil staining in fractures.
880.0 meters	LIMESTONE / SHALE: dark gray brown, cryptocrystalline, micromicaceous, blocky, frosted, very calcareous, dolomitic, firm, tight, argillaceous, slightly carbonaceous, with light gray brown limestone beds and fragments of beds, conglomerate bed is tabular looking, predominantly calcareous clasts upper to 3 cm in a dark argillaceous cement, containing a 9cm fossil looking structure.
885.0 meters	SHALE / LIMESTONE: dark gray brown, micromicaceous, blocky, firm, very calcareous, dolomitic in part, frosted, tight. Bedding 60 degrees to core axis.
891.0 meters	SHALE / LIMESTONE: dark gray brown, micromicaceous, blocky, firm, slightly calcareous, carbonaceous, weakly dolomitic, slightly frosted, with beds and bed fragments of light gray brown, cryptocrystalline, frosted, firm limestone; trace pyrite blebs, moderately fractured, with micro to 1 to 2mm fracturing along bedding and sub perpendicular to bedding with occasional 5 to 10cm brecciated sections, occasional dark oil stain in vuggy fractures and brecciated sections, yellow fluorescence, white yellow streaming fluorescence cut. From 895.0 meters the core is slightly more fracture.
900.0 meters	LIMESTONE / SHALE: predominantly dark gray brown with occasional limestone beds and bed fragments, minor clastic looking conglomerate beds containing occasional shale clasts, dark cement and light calcareous fracturing, clasts upper to 4 cm.
905.0 meters	SHALE / LIMESTONE: dark gray shale / limestone getting more carbonaceous, thinly laminated, wkly calcareous, with beds, lenses, blobs of cryptocrystalline light gray brown limestone, occasional thin gray green shale beds. Bedding 60 degrees to core axis. 1.5 meter calcite vein 15 degrees to core axis, core broken up, possible fault.
922.0 meters	LIMESTONE CONGLOMERATE: clastic looking fine crystalline to cryptocrystalline cement, common disseminated straw yellow material, trace to minor pyrite blebs and micro filled fractures, predominantly limestone grains upper to 5 cm, larger grains sub rounded, grained to matrix supported, tight, with several very vuggy 1.0 to 1.5 cm fractures at 10 degrees to core axis, minor oil staining in fractures, yellow fluorescence, slow blooming milky yellow fluorescence cut. Occasionally interbedded ribbon limestone.
935.0 meters	SHALE / LIMESTONE: dark gray brown, cryptocrystalline to shaly, very argillaceous, micromicaceous, slightly calcareous to calcareous, firm, blocky, wkly dolomitic in part, with minor gray green shale beds, becoming more broken with depth. At 941.5 meters the rock gets more dolomitic and clayey and changes in color to more gray brown. This appears to occur around a fractured up section of rock. The rock in all other aspects looks very similar to the rock above the fracture.

945.0 meters	SHALE / DOLOMITE / LIMESTONE: gray brown, very micromicaceous, very dolomitic, clayey, calcareous, blocky, very argillaceous, soft, rock very broken up into hockey puck size pieces. Getting weak oil odour in some sections and occasional yellow fluorescence, no fluorescent cut when tested.
949.0 meters	FAULT 6.0 meters gouged up and faulted section. LIMESTONE / SHALE: gray brown, soft, gouged, clayey, calcareous, very argillaceous, waxy in part, well fractured with common calcite filled fractures.
957.0 meters	LIMESTONE / DOLOMITE / SHALE: gray brown with interbedded / rhythmic dark gray, frosted, cryptocrystalline, firm, well fractured with calcareous in fractures, blocky, calcareous, very argillaceous, dolomitic, well laminated in part, tight. Formation looks similar to above rhythmically bedded limestone only now it is dolomitic in part. Weak oil odour, dull yellow to orange fluorescence along occasional fractures, no fluorescent cut. Bedding after fault is 60 to 70 degrees to core axis. After going through several well fractured / brecciated 10 to 20 cm zones at 967.5 meters bedding changes to 30 degrees then 20 degrees and at 972.7 meters at the base of a 40 cm limestone conglomerate bedding is 5 degrees to core axis.
970.0 meters	LIMESTONE: rhythmically bedded gray brown to dark gray brown, cryptocrystalline, hard, blocky, argillaceous, dolomitic, oil odour on fresh breaks, tight, no shows.
979.0 meters	LIMESTONE: predominantly light gray brown, to dark gray brown, cryptocrystalline, frosted, hard, slightly dolomitic, argillaceous, tight, no shows. Occasional 1 to 2mm calcite filled fractures 80 to 90 degrees and 30 to 40 degrees to core axis with centimeter movement along these fractures. Bedding (possible wavy) 5 degrees to core axis, Fast dissipating oil odour on fresh breaks in core, no shows.
994.0 meters	LIMESTONE: predominantly light gray brown, to occasional dark gray brown, cryptocrystalline, frosted, hard, slightly dolomitic, argillaceous, tight, fast dissipating oil odour on fresh breaks, no shows. Bedding 5 degrees to core axis.
1010.0 meters	LIMESTONE: gray brown to dark gray brown, hard, cryptocrystalline, blocky, argillaceous, slightly dolomitic, tight, no shows. Fast dissipating oil odour on fresh breaks, no shows. Bedding 5 degrees to core axis.
1015.0 meters	Bedding 10 degrees to core axis
1025.0 meters	LIMESTONE: somewhat rhythmically bedded gray brown to dark gray brown, hard, cryptocrystalline, blocky, argillaceous, slightly dolomitic, tight, no shows. Fast dissipating oil odour on fresh breaks. Bedding 10 degrees to core axis.
1036.0 meters	LIMESTONE: Beginning around 1036.0 meters the formation is getting more fractured and faulted with several 0.2 to 0.5 meter brecciated section, 10 degrees to core axis. Bedding changes to 45 degrees to core axis at 1042.0 meters then to 55 degrees after a 0.5 meter brecciated / structurally disturbed zone at 1043.5 by 1047.0 meters bedding is 60 degrees to core axis.

1057.0 meters

Fault gouged rock; dark gray, black, shaly, waxy, glassy slickenside, very soft, very flaky, calcareous, top of fault appears to be 50 degrees to core axis, bedding after 1057.7 meters is 20 degrees to core axis and after 1062.0 meters bedding is 50 degrees to core axis.

TOTAL DEPTH 1062.0 meters.



P1-01
Box 4

P1-02
Box 5

P1-03
Box 6

P1-04
Box 7

P1-05
Box 8

P1-06
Box 9

P1-07
Box 10

P1-08
Box 11



101-01
6-15-04

101-02
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Box 17

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Box 13



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P-1-C4
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P-1-C4
Box 24

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P-1-C4
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Case 14

Case 15

Case 16

Case 17

Case 18

Case 19

Case 20

Case 21

Case 22

Case 23



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Box 165

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Box 170

Box 171

Box 172

Green label on the core

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F-2-1-04 ACN 171

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F-2-1-04 ACN 171

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F-2-1-01 BOX 117

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FP-1-C4 BOX 115

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PACK 1003 183

PACK 1003 183

PACK 1003 183

PACK 1003 183

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BOX 187
P-2-1-04 BOX 185
P-2-1-04 BOX 186
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1-04 BOX 188





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12 rolls of dark grey fabric for book covers
C. L. L. No. 105











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Box 234



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F-P-1-04 Box 239

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R.P. 1-04
Box 249

6378

R.P. 1-04
Box 250

R.P. 1-04
Box 251





85-101-04 BOX 256

85-101-04 BOX 257



1-1204 BOX 240

1-1204 BOX 259

1-1204 BOX 257





Box 24

Box 25

Box 26

Box 27

Box 28

Box 29

Box 30



P. P. 1-09 Box 265

P. P. 1-09 Box 264

P. P. 1-09 Box 263



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P-1-01 BOX 148

P-1-01 BOX 110

P-1-01 BOX 110

P-1-01 BOX 110



P-1-04 BOX 130

P-1-04 BOX 372

P-1-04 BOX 372

P-1-04 BOX 373

P-P-104 BOX 272

P-P-104 BOX 273

P-P-104 BOX 274

P-P-104 BOX 275





P-1-01 BOX 214

P-1-01 BOX 223

P-1-01 BOX 226

P-1-01 BOX 226

P-1-01 BOX 226



335

335

335

335

1000

1000

1000

1



1000 X 1000

1000 X 1000

1000 X 1000









1488

1489

1490

1491

1488
1489
1490
1491
1492
1493
1494
1495

1488
1489
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1492
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1495

1488
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1491
1492
1493
1494
1495







7567

7568

7569

7567

7568

7569

7570



799

796

797

799-796-797

P-P-10
P-P-10



P-P-104 BOX 303

3117



P-P-104 BOX 302



P-P-104 BOX 301

3097





1
Pp-1-01 R03304

347

4
3173

Pp-1-01 R03305

4

3107

Pp-1-01 R03306

3108

Pp-1-01 R03307



P-PA-1-01 30X 306

P-PA-1-01 30X 306

P-PA-1-01 00X 306

P-PA-1-01 00X 306

8135

8167

8179

8187



8215

8227

8259

838

100-100-100

101 Nov 310

100-100-100

100-100-100



8432

8447

8453

8507

1-1-04 BOX 11
1-1-04 BOX 11
1-1-04 BOX 11
1-1-04 BOX 11

857

7

815 100 40 100 100

857

7

815 100 40 100 100

862

7

815 100 40 100 100

857

7

815 100 40 100 100

8687

8712

8743

Section 1

Section 2

Section 3

Section 4





877.7

E088

877.7

877.7

877.7





8868

8869

8870

8871

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8868-8871

8869-8870

8870-8871

8871-8872

100-100

8877

↑

8923

↑

8981

100-100

↑

8954

100-100

↑

100-100







9077

9133

9133

9162

P-21-106 Box 315
D-2 315



335

P-1-26 Box 316

P-1-11 Box 316

P-1-11 Box 316

P-1-11 Box 316

916-2

917

921

922

342
04



THE YOGI IN 1941

9257

9258

783



257

258

259

260

THE TOLEDO SHELDON



923

OHXG1

↑

930

9507

15' rod to 14' 11" level

932

↑

940.1

15' 30" to 14' 11" level



9397

9398

9406

CHEYER

100 47

100 47

100 47





940

943

946

P-1-0+L-1

P-1-0+L-1

P-1-0+L-1



7473

91900230

11

1991-1993 347

9527

12

9557

1991-1993 347

9587

Box 351

Box 352

Box 353

Box 354

Box 355

Box 356

Box 357

9643

9673

7703

7733



7353

↑

Box 354

7732

↑

Box 355

7763

Box 356

Box 357

Box 358







Box 318

1887

1888

1886

1885



APR 1950
Box 100

APR 1950
Box 100

APR 1950
Box 100

APR 1950
Box 100



1001
1002
1003
1004
1005
1006
1007
1008
1009
1010

1001

1004

1007

1009



Box 31

Box 32

Box 33

Box 34



1011-1013



