SHELL BLACKWATER LAKE

G-52

Drilling Authority No. 134

Date Issued

WELL NAME Shell Blackwater Lake G-52

FIELD

LOCATION: Unit G Area:

Section 52 Grid 64° 10' ; 122° 45'

Latitude 64° 01' 20" Longitude 122° 55' 12"

From Established Reference Marker

Rig Release Date:

Status

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
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	Data for Back Pressure Test on Natural Gas Wells — Monograph 7 Method.
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	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
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	Well Card.
	Well Visit.
	Daily Drilling Reports.
	Logs. Large scale ..... Small scale .....

Drilling Authority No. 134

Date Issued 2/4/64

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

WELL COMPLETION DATA

(To be submitted in duplicate within thirty days after the completion rework, abandonment, recompletion or suspension of every well.)

Well name and number SHELL BLACKWATER LAKE G-52

Permit No. 3295 Lease No.

Shell Canada Limited (Permittee, Licensee, Lessee) Exploratory Licence No. 640

Shell Canada Limited (Operator) Exploratory Licence No. 640

Location: Unit G Section 32 Grid 64° 10' 122° 45'

Latitude 64° 01' 20" N Longitude 122° 55' 12" W

From Established Reference Marker -

	DATE	DEPTH
Spudded	2/9/64	
Suspended	-	
Resumed	-	
Finished Drilling	3/20/64	6500'
Deepened		
Completed (gas/oil)		
Abandoned	3/24/64	
Rig released	3/24/64	

Pool (S) -

Interval(s) open to production -

Elevation: Gr. 1200'

K.B. 1213.5'

Drilling Contractor & Rig No. Regent 21

Contractor's Licence No. A11359

CASING RECORD

Casing Size (Inches)	Weight	Amount	Set at—	Sacks of Cement	Method
1. 9-5/8"	36	740	740	300	
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION	
	Depths	Sub-Sea
Cretaceous	608	+ 606
Hume	686 -	+ 528
Bear Rock	812	+ 402
Mt. Kindle	2770	-1556
Fault	3250	-2036
Mt. Kindle	4035	-2821
Franklin Mtn.	4836	-3622
Cambrian Clastics	5740	-4526

CORE RECORD

From	To	Rec.	From	To	Rec.
Nil					

LOG RECORD

Run No.	Type of Log	From	To
1	Microlog Caliper	6500'	739'
1	Sonic Gamma Ray	6500'	740'
1	Induction Electrical	6500'	739'

NANR 52-90(2) (1-61)

CEMENTING RECORD (Plug, Squeeze, etc.)

Date	From	To	Remarks
	6500	6300	45 35 sacks
	2980	2700	125 sacks, felt at 2515'
	900	700	148 sacks, felt at 625'
Cut casing off at ground level and welded on steel plate with well name.			
Surface plug in top of casing			10 sacks.

PERFORATING RECORD (Bullet, Jet)

Date	From	To	Remarks

SERVICING RECORD (Acidizing, Fracturing, etc.)

Date	From	To	Remarks

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	3/21/64	Bear Rock	1871	1908										Misrun
2	3/21/64	Bear Rock	1868	1905										Misrun
3	3/23/64	Bear Rock	1570	1590										Misrun

Lab. No.	Sample	From	To	Source	Remarks
	Nil				

PRESENT STATUS OF WELL

Oil ____ (Interval) ____

Gas ____ (Interval) ____

Dry and Abandoned

Susp. ____

Company Shell Canada Limited

Signed by ORIGINAL SIGNED BY C. F. WATTS FOR

Title Manager - Edmonton Division Production

Date April 9, 1964

Forms to be prepared in duplicate and forwarded to the Oil Conservation Engineer, Calgary, Alberta.

File No.
Drilling Authority No. 134

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application to Abandon a Well or Suspend Drilling

In compliance with the "Canada Oil and Gas Land Regulations", application is made hereby for approval to abandon, to suspend drilling:—

Name and number of well SHELL BLACKWATER LAKE G-52

Location: Unit G Section 32 Grid 64° 10' 122° 45'

Latitude 64° 01' 20" N Longitude 122° 55' 12" W

From Established Reference Marker

Permit No. 3295 Lease No.

Shell Canada Limited
(Permittee, Licensee, Lessee)

Date of commencement of proposed programme

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at -
Gas at -
Water at -
Total Depth 6500' Date of last operations March 24, 1964
Present condition of well Plugged and abandoned

CASING RECORD

	Casing Size O.D. Inches	Weight	Amount	Set At—	Sack of Cement	Method	Amount Pulled
1.	9-5/8	36	740	740	300		Nil
2.							
3.							
4.							
5.							

PROPOSED ABANDONMENT PROGRAMME

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	6500-6300'		35 sacks	
2	2980-2700'		125 sacks	Felt at 2515'
3	900- 700'		145 sacks	Felt at 625'
Ran 20 sacks cement in top casing.				
Cut casing off at ground level and welded on steel plate with well name.				

The following logs have been run Induction Electrical, Sonic Gamma Ray, Microlog Caliper
Other operations proposed None

Operations to be carried out by Regent Drilling Contractor Licence No. A11359
Address Edmonton, Alberta Address Edmonton, Alberta
Responsible Agent in field R. Cumbers
Dated at Edmonton, Alberta, this 8th Day of April 19 64
Signed by C. F. WATTS (ORIGINAL SIGNED BY) Company Shell Canada Limited
Title Manager - Edmn. Div. Production FOR Exploratory Licence No. -

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For RESOURCES DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Confirming oral approval given 21st March 1964

Dated 13th April, 19 64

B. R. Sherwood

Forms to be submitted in triplicate to Oil Conservation Engineer, Calgary, Alberta

NANR 52-90 (5) (1-61)

(12)

File No. .....

Drilling Authority No. 134

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application for a Drilling Authority

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is made hereby for approval to drill:—

Name and number of well SHELL BLACKWATER LAKE O-52

Location: Unit G Section 52 Grid 64° 10' 122° 45'

Latitude 64° 01' 20" N Longitude 122° 55' 12" W

From Established Reference Marker .....

.....

Elevation: Ground 1200' (estimated) K.B. 1215' (estimated) feet above sea-level.

Well is expected to produce from Mt. Kindle formation at a depth of about 3900 feet.

Area assigned to well .....
(for Oil Conservation Engineer's use only)

.....

Permit No. 3295 Lease No. ..... Acreage 56,000

Permittee, licensee, or lessee Shell Canada Limited

Exploratory Licence No. 640

Surface owned by Crown or Crown
(If alienated submit name and address of owner and occupant.)

Petroleum and natural-gas rights owned by Shell Canada Limited

We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (inches)	Weight (Lb./Ft.)	Grade	Brand	New or Used	Estimated Depth	Sacks of Cement
1. 9-5/8"	36	J-55	Domestic	New	950'	700
2.						
3.						
4.						
5.						

Expected water, gas, and oil horizons and type of control equipment Silure-Ordovician (Mt. Kindle)
Lower Devonian
Control Equipment Cameron 6" Series 900 QRC BOP
Hydril 6" Series 900 BOP

Well will be drilled with (Rotary) Rig No. 21 by Regent Drilling Company
(Cable) (Drilling Contractor or company)

.....

Responsible agent of applicant:— Contractor's Licence No. A13359

At well R. Cumbers At registered office A. M. McLachlin

Address P. O. Box 186, Edmonton Address P. O. Box 186, Edmonton

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Dated at Edmonton, Alberta, this 31st day of January 19 64

Signed by C. F. WATTS FOR Company Shell Canada Limited

Title Manager - Edmonton Division Production Licence No. .....

(For Resources Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.

.....

Dated 4th February 19 64 .....

Forms to be submitted to Oil Conservation Engineer, Calgary, Alberta.

WELL HISTORY REPORT

ON

SHELL BLACKWATER LAKE C-52

WELL HISTORY REPORT

ON

SHELL BLACKWATER LAKE C-52

GEOLOGICAL & EVALUATION
RESOURCES DIVISION
JUN 29 1964
OTTAWA, CANADA
Dept. of Northern Affairs & National Resources

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WELL HISTORY REPORT

SECTION I - SUMMARY OF WELL DATA

(a) WELL NAME AND NUMBER

Shell Blackwater Lake C-52

(b) PERMITTEE

Shell Canada Limited

(c) NAME OF OPERATOR

Shell Canada Limited

(d) LOCATION

Unit C Section 52 Grid $64^{\circ}10'122^{\circ}45'$
Latitude $64^{\circ}01'20"$ N Longitude $122^{\circ}55'12"$ W

(e) PERMIT NUMBER

3295

(f) DRILLING CONTRACTOR

Regent Drilling Company Rig No. 21 (Rotary)

(g) DRILLING AUTHORITY

No. 134 Date Issued - February 4, 1964

(h) CLASSIFICATION

Wildcat

(i) ELEVATION

Ground Elevation 1200' KB Elevation 1213.5'

(j) DATE SPUDDED

February 9, 1964

(k) DATE COMPLETED DRILLING

March 20, 1964

(l) TOTAL DEPTH AND PLUGGED BACK TOTAL DEPTH

TD 6500' PBTD Surface

(m) WELL STATUS

Plugged and Abandoned

(n) DATE RIG RELEASED

March 24, 1964

(o) HOLE SIZE

Surface 13-3/4" from Surface to 740'
6-3/4" from 740' to 6500'

(p) CASING

(Surface) Cemented 9-5/8" J-55 36#/ft. casing at 740' with 300 sacks Portland

SECTION II - GEOLOGICAL SUMMARY

(a) FORMATION TOPS

FORMATION	E LOG DEPTH	SAMPLE DEPTH
Cretaceous	600'	600'
Hume	680'	680'
Bear Rock	812'	812'
Mt. Kindle	2710'	2747'
Fault	3250'	3252'
Mt. Kindle	4035'	4035'
Franklin Mountain	4836'	4836'
Cambrian Clastics	5740'	5740'

(b) CORED INTERVALS

4801' - 4835'

(c) CORE DESCRIPTION

Refer to Sample Description

SWIFT, BLACKWATER LAKE 0-52

K.B. 1214'

T.D. 6100'

Latitude: 60° 01' 20"

Longitude: 122° 55' 12"

0-20'	Drift	Light grey, medium to coarse lithic unconsolidated sandstone.
20'-40'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; fragments of quartz and granite.
40'-60'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone; few fragments of quartz and chert.
60'-80'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone; basic igneous recrystallisation.
80'-100'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone.
100'-120'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone.
120'-140'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone.
140'-160'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; mostly quartz and granite Inoceramus prisms.
160'-180'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; few sandstone pebbles.
180'-200'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; few dolomite pebbles.

200'-220'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; probably some granite.
220'-240'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; boulders; quartz fragments.
240'-260'	Drift	Light pink, medium to coarse sand grain size, lithic sandstone.
260'-280'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; granite, sandstone minor.
280'-300'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; basic igneous.
300'-320'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; fragments of quartz, granite, and red sandstone.
320'-340'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; with quartz, granite and red sandstone.
340'-360'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone.
360'-380'	Drift	Light pink, medium to pebble sand grain size lithic sandstone.
380'-400'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
400'-420'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone; fragments of quartz and granite.
420'-440'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone;

440'-460'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone; basic igneous.
460'-480'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
480'-500'	Drift	Light pink, medium to very coarse sand grain size unconsolidated lithic sandstone; mostly quartz grains.
500'-520'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
520'-540'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
540'-560'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
560'-580'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
580'-600'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
600'-620'	Shale	Dark grey, soft flakey, few carbonaceous specks shale.
620'-640'	Shale	Dark grey, soft, flakey, shale with a trace of siltstone and glauconite; few carbonaceous specks; streak of siltstone.
640'-650'	Shale	Dark grey shale.
650'-660'	Shale	Dark grey shale with bentonite in partings.

660'-670'	Shale	Dark grey to medium brown shale.
670'-680'	Shale	Light green to light brown shale; waxy light green and light brown; bentonite in partings.
680'-690'	Limestone	Light brown to medium brown microcrystalline limestone; trace of pyrite and fossil fragments.
690'-695'	Limestone	Light brown to medium brown microcrystalline limestone; trace of calcispheres? trace of clay, ~~and brown argillaceous material~~, and pyrite, and crinoids.
695'-700'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale and crinoids; few med- to coarse floating crinoids.
700'-705'	Limestone	Medium brown microcrystalline limestone with a trace of clay and brachiopods; lime-mud.
705'-710'	Limestone	Medium brown microcrystalline limestone with a waxy scum.
710'-715'	Limestone	Medium brown microcrystalline limestone with a trace of clay and stromatoporoid.
715'-720'	Limestone	Medium brown microcrystalline limestone with a trace of shale, pyrite and stylolites.
720'-725'	Limestone	Light brown microcrystalline limestone with a trace of shale; 10% fragmental limestone; trace of bryozoa, crinoids and pyrite; generally lime-mud.
725'-730'	Limestone	Light to medium brown microcrystalline limestone with a streak of dolomite; trace of crinoids and pyrite; vaguely pelletal in partings.

730'-735'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale; waxy scum.
735'-739'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale; waxy scum.
739'-740'	No Sample	
740'-750'	Limestone	Light to medium brown microcrystalline limestone; very small chips.
750'-760'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale and ostracods; appears to be mostly lime-mud.
760'-770'	Limestone	Light to medium brown microcrystalline limestone; appears to be lime-mud.
770'-780'	Limestone	Light to medium brown microcrystalline limestone with a streak of chert.
780'-790'	Limestone	Light to medium brown microcrystalline limestone.
790'-800'	Limestone	Light to medium brown microcrystalline limestone.
800'-810'	Limestone	Light to medium brown microcrystalline limestone; very poor sample.
810'-820'	Limestone	Light to medium brown microcrystalline limestone with a band of microcrystalline dolomite.
820'-830'	Dolomite	Light brown to grey microcrystalline dolomite.
830'-835'	No Samples	Very poor sample, all cement.

835'-840'	Dolomite	Light brown to grey microcrystalline dolomite with a band of anhydrite; 20% anhydrite and 80% dolomite.
840'-845'	Dolomite	Light brown to grey microcrystalline dolomite with 20% anhydrite; band of anhydrite.
845'-850'	Limestone	Light brown to grey microcrystalline dolomite.
850'-855'	Limestone	Light brown to grey microcrystalline limestone; very poor sample, ~~very~~ fine cuttings.
855'-860'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (50%) and dolomite (50%).
860'-865'	Dolomite	Light brown to grey microcrystalline dolomite with 20% limestone; trace of secondary quarts crystals.
865'-870'	Dolomite	Light brown to grey microcrystalline dolomite with a band of anhy[illegible].
870'-875'	Limestone	Light brown to grey microcrystalline limestone with 10% of shale and 10% of chert.
875'-880'	Limestone and Dolomite	Light brown to grey microcrystalline limestone(40%) and dolomite (40%); 10% shale and 10% secondary quarts crystals.
880'-885'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (40%) and dolomite (40%); 10% shale and 10% secondary quarts crystals.
885'-890'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (50%) and dolomite (50%).
890'-895'	Limestone and Dolomite	Light brown to grey microcrystalline limestone 50% and dolomite 50% .

895'-900'	Dolomite	Light brown to gray microcrystalline dolomite.
900'-905'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
905'-910'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone; band of anhydrite.
910'-915'	Dolomite	Light brown microcrystalline dolomite with 10% microcrystalline limestone.
915'-920'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
920'-925'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
925'-940'	No Samples	
940'-945'	Dolomite	Very light brown microcrystalline dolomite with 10% microcrystalline limestone.
945'-950'	Dolomite	Very light brown microcrystalline dolomite with 20% microcrystalline limestone.
950'-955'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
955'-960'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
960'-965'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
965'-970'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
970'-980'	No Samples	

980'-985'	Dolomite	Light brown extremely fine crystalline dolomite.
985'-990'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
990'-1010'	No Samples	
1010'-1015'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1015'-1020'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1020'-1025'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1025'-1030'	No Samples	
1030'-1035'	Dolomite and Anhydrite	Very light brown microcrystalline dolomite interbedded with anhydrite; very poor sample but considerable anhydrite.
1035'-1040'	Dolomite and Anhydrite	Very light brown microcrystalline dolomite interbedded with anhydrite; very poor sample but considerable anhydrite.
1040'-1045'	Dolomite	Very light brown microcrystalline dolomite with 20% microcrystalline limestone; band of anhydrite.
1045'-1050'	Anhydrite	Very light brown anhydrite.
1050'-1055'	Dolomite	Dolomite, very light brown, microcrystalline; 20% microcrystalline limestone.
1055'-1060'	Anhydrite	Very light brown anhydrite.
1060'-1065'	Dolomite	Very light brown microcrystalline dolomite.
1065'-1070'	Anhydrite	Very light brown microcrystalline anhydrite.

1070'-1075'	Dolomite	Light brown microcrystalline dolomite.
1075'-1080'	No Samples	
1080'-1085'	Anhydrite	Light brown microcrystalline anhydrite.
1085'-1090'	Dolomite	Light brown microcrystalline dolomite.
1090'-1100'	Anhydrite	Light brown microcrystalline anhydrite.
1100'-1105'	Dolomite	Light brown microcrystalline dolomite.
11 05'-1175'	No Samples	
1175'-1180'	Anhydrite	Light brown microcrystalline anhydrite.
1180'-1185'	Dolomite	Light brown microcrystalline dolomite.
1185'-1190'	Anhydrite	Light brown microcrystalline anhydrite.
1190'-1195'	Dolomite	Light brown microcrystalline dolomite.
1195'-1200'	Anhydrite	Light brown microcrystalline anhydrite with a band of shale; few chips waxy, green shale.
1200'-1205'	Dolomite	Light brown microcrystalline dolomite.
1205'-1210'	Anhydrite	Light brown microcrystalline anhydrite.
1210'-1215'	Dolomite	Light brown microcrystalline dolomite.
1215'-1220'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite.

1220'-1225'	Dolomite	Medium brown, extremely fine to microcrystalline dolomite.
1225'-1230'	Anhydrite	Light brown microcrystalline anhydrite.
1230'-1235'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a band of cryptocrystalline limestone.
1235'-1240'	Dolomite	Light brown microcrystalline dolomite.
1240'-1245'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite; band of shale, (few chips of light greenish grey shale).
1245'-1250'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite: limestone, extremely fine crystalline to cryptocrystalline: argillaceous in partings; bands of dolomite and shale.
1250'-1255'	Limestone	Light brown microcrystalline limestone with 30% shale; band of cryptocrystalline anhydrite; light green shale.
1255'-1260'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite.
1260'-1265'	Dolomite	Light brown extremely fine crystalline dolomite.
1265'-1270'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite.
1270'-1275'	Limestone	Light brown microcrystalline to cryptocrystalline limestone.
1275'-1280'	Dolomite	Light brown microcrystalline dolomite.

1280'-1285'	Limestone	Light brown microgranular to cryptogranular limestone.
1285'-1290'	Limestone	Light brown microgranular to cryptogranular limestone.
1290'-1295'	Anhydrite	Light brown microcrystalline anhydrite.
1295'-1300'	Dolomite	Light brown microcrystalline dolomite.
1300'-1305'	No Samples	
1305'-1325'	No Samples	
1325'-1330'	Limestone	Light brown microcrystalline limestone.
1330'-1335'	Dolomite	Medium brown microcrystalline dolomite with a trace of shale; slight acid reaction, no cut.
1335'-1340'	Anhydrite	Light brown microcrystalline anhydrite.
1340'-1345'	Dolomite	Light brown microgranular dolomite.
1345'-1350'	Limestone	Medium brown microgranular limestone with a trace of shale.
1350'-1355'	Anhydrite	Light brown microcrystalline anhydrite.
1355'-1360'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with a trace of shale; trace of stylolites (pyrobitumen in stylolites?); sparry gypsum filling fractures.
1360'-1365'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 10% shale and a trace of pyrite.

1365'-1370'	Dolomite	Medium brown extremely fine to cryptogranular dolomite with 30% extremely fine cryptogranular limestone; 20% shale; 20% medium dolomite rhombs; trace of fossil debris.
1370'-1375'	Dolomite	Medium brown extremely fine crystalline to cryptocrystalline dolomite.
1375'-1380'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite, with a band of anhydrite.
1380'-1385'	Limestone	Light brown medium sand grain size fragmental limestone; 40% extremely fine to microcrystalline dolomite.
1385'-1390'	Dolomite	Light brown very fine to cryptocrystalline dolomite with a band of limestone; 20% anhydrite; brachiopods?
1390'-1395'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with a trace of shale.
1395'-1400'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 30% cryptogranular limestone; 20% shale.
1400'-1405'	Anhydrite	Light brown anhydrite.
1405'-1410'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite; sparry gypsum - fracture filling?
1410'-1415'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1415'-1420'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1420'-1425'	Limestone	Medium brown extremely fine crystalline to microcrystalline dolomite (30%), and limestone (70%); band of anhydrite.

1425'-1430'	Limestone and Dolomite	Light brown extremely fine crystalline to microcrystalline limestone (50%) and dolomite (50%); band of anhydrite.
1430'-1435'	Limestone and Dolomite	Light brown extremely fine crystalline to microcrystalline limestone (50%) and dolomite (50%).
1435'-1440'	Anhydrite	Light brown microcrystalline anhydrite.
1440'-1445'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
1445'-1450'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
1450'-1455'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone; band of anhydrite.
1455'-1460'	Dolomite	Medium brown extremely fine crystalline dolomite.
1460'-1465'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 20% limestone.
1465'-1470'	Anhydrite	White microcrystalline anhydrite, microcrystalline to coarse spar.
1470'-1475'	Anhydrite	White microcrystalline anhydrite, microcrystalline to coarse spar.
1475'-1480'	Anhydrite	White microcrystalline anhydrite with a trace of dolomite.
1480'-1485'	Anhydrite	White extremely fine crystalline to microcrystalline anhydrite with a trace of dolomite.
1485'-1490'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with a trace of dolomite.

1490 '-1492.5'	Dolomite	Light brown extremely fine to cryptogranular dolomite with 20% limestone and 30% shale.
1492.5'-1495'	Dolomite	Light brown extremely fine crystalline dolomite.
1495 '-1500'	Anhydrite	Very light brown microcrystalline anhydrite.
1500 '-1505'	Dolomite	Medium brown extremely fine crystalline dolomite.
1505 '-1510'	Anhydrite	Light brown microcrystalline anhydrite.
1510 '-1515'	Dolomite	Medium brown extremely fine crystalline dolomite.
1515 '-1520'	Dolomite	Medium brown extremely fine crystalline dolomite.
1520 '-1522.5'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% shale.
1522.5'-1525'	Dolomite	Medium brown extremely fine crystalline dolomite.
1525 '-1530'	Anhydrite	Light brown microcrystalline anhydrite.
1530 '-1535'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of shale; band of limestone.
1535 '-1540'	Dolomite	Medium brown extremely fine crystalline dolomite.
1540 '-1542.5'	Dolomite	Medium to dark brown, extremely fine crystalline dolomite with 30% microcrystalline to cryptocrystalline limestone; 30% shale.
1542.5'-1545'	Dolomite	Medium to dark brown extremely fine crystalline dolomite.

1545'-1550'	Dolomite	Medium brown extremely fine crystalline dolomite with a band of limestone.
1550'-1555'	Anhydrite	Light brown microcrystalline anhydrite.
1555'-1560'	Dolomite and Limestone	Medium to dark brown extremely fine crystalline dolomite and microgranular limestone; 30% shale; lithic fragments present in the shale; few lithic fragments of dolomite in argillaceous and calcareous dolomite matrix.
1560'-1565'	Dolomite	Medium brown extremely fine crystalline dolomite with 20% microcrystalline limestone.
1565'-1570'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of limestone.
1570'-1575'	Anhydrite	White extremely fine crystalline anhydrite with a band of limestone; trace of ostracods.
1575'-1580'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone.
1580'-1585'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of stylolites.
1585'-1590'	Anhydrite	White extremely fine crystalline anhydrite.
1590'-1595'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone; trace of shale and crinoids.
1595'-1600'	Anhydrite	White, extremely fine crystalline anhydrite.
1600'-1605'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone.

1605'-1610'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of shale; band of anhydrite.
1610'-1615'	Dolomite	Medium brown, very fine to extremely fine crystalline dolomite with a trace of shale; band of limestone, and a trace of ostracod; waxy scum.
1615'-1620'	Anhydrite	Light brown very fine to extremely fine crystalline anhydrite.
1620'-1625'	Dolomite	Medium brown extremely fine, very fine crystalline dolomite.
1625'-1630'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite with a trace of pyrite; band of cryptocrystalline limestone.
1630'-1635'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite with a band of anhydrite.
1635'-1640'	Dolomite	Medium brown extremely fine crystalline dolomite with a band of cryptogranular limestone.
1640'-1645'	Anhydrite	White, extremely fine crystalline anhydrite; white, opaque "satin spar", fracture filling?
1645'-1647.5'	Limestone	Medium to light brown extremely fine crystalline limestone with 40% shale.
1647.5'-1650'	Dolomite	Medium to light brown extremely fine crystalline dolomite.
1650'-1655'	Dolomite	Medium to light brown extremely fine crystalline dolomite.
1655'-1660'	Anhydrite	White, extremely fine crystalline anhydrite.
1660'-1665'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.

1665'-1667.5'	Limestone	Medium brown to light brown to olive grey microgranular limestone with a trace of shale; lithic fragments in limestone.
1667.5-1670'	Anhydrite	Medium brown extremely fine crystalline anhydrite.
1670'-1675'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1675'-1680'	Anhydrite	White extremely fine crystalline anhydrite.
1680'-1685'	Dolomite	Medium brown extremely crystalline dolomite (fragmental in partings?) with a band of limestone.
1685'-1690'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.
1690'-1695'	Anhydrite	White extremely fine crystalline anhydrite.
1695'-1700'	Dolomite	Medium brown extremely fine to very fine dolomite crystalline; some sparry calcite, vug lining?
1700'-1705'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1705'-1710'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1710'-1715'	Anhydrite	White, extremely fine to microcrystalline anhydrite with a band of dolomite.
1715'-1720'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1720'-1725'	Anhydrite	White, extremely fine to very fine crystalline anhydrite.
1725'-1730'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.

1730'–1735'	Anhydrite	Very light grey microcrystalline anhydrite.
1735'–1740'	Anhydrite	Very light grey microcrystalline anhydrite.
1740'–1745'	Anhydrite	Very light grey microcrystalline anhydrite.
1745'–1750'	Anhydrite	Very light grey microcrystalline anhydrite; few chips of light greenish grey shale.
1750'–1755'	Anhydrite	Very light grey microcrystalline anhydrite.
1755'–1760'	Anhydrite	Very light grey microcrystalline anhydrite; few chips of light greenish grey shale.
1760'–1765'	Anhydrite	Very light grey extremely fine crystalline to microcrystalline anhydrite with a band of limestone.
1765'–1770'	Anhydrite	Very light grey extremely fine crystalline to microcrystalline anhydrite.
1770'–1775'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
1775'–1780'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1780'–1785'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a band of limestone; few chips light greenish grey shale and microgranular limestone.
1785'–1790'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.

1790'-1795'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1795'-1800'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of fine to medium floating quartz sandgrains; band of shale at the top of the interval.
1800'-1805'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1805'-1810'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of shale and a trace of fine to medium floating quartz sand grains.
1810'-1815'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1815'-1820'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a band of dolomite.
1820'-1825'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of shale and a trace of fine to medium quartz sand grains floating in very light greenish grey argillaceous anhydrite.
1825'-1830'	Dolomite	Very light brown cryptogranular dolomite.
1830'-1835'	Dolomite	Very light brown cryptocrystalline dolomite.
1835'-1840'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite.
1840'-1845'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1845'-1850'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.

1850'-1855'	Anhydrite	Light greenish grey microcrystalline to cryptocrystalline anhydrite with 20% dolomite; 20% shale; 10% fine to medium sand grains.
1855'-1860'	Dolomite	Very light brown cryptocrystalline dolomite; some sparry calcite - vug lining?
1860'-1865'	Dolomite	Very light brown cryptocrystalline dolomite; trace of shale.
1865'-1870'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with - trace of shale.
1870'-1875'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1875'-1880'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite.
1880'-1885'	Dolomite	Dark brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 30% shale.
1885'-1890'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1890'-1895'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1895'-1900'	Dolomite	Light to medium brown extremely fine crystalline to cryptocrystalline dolomite with 20% limestone and 10% shale; band of anhydrite.
1900'-1905'	Dolomite	Dark brown extremely fine crystalline dolomite with 20% limestone; 20% shale.
1905'-1910'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1910'-1915'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite.

1915'-1920'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite; trace of floating fine sand grains.
1920'-1925'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1925'-1930'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with a trace of floating fine sand grains.
1930'-1935'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a trace of shale.
1935'-1940'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite.
1940'-1945'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1945'-1950'	Dolomite	Medium to dark brown extremely fine to microcrystalline dolomite with 20% limestone; 20% shale.
1950'-1955'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1955'-1960'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% cryptogranular shale; trace of crinoids.
1960'-1965'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% anhydrite.
1965'-1970'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1970'-1975'	Anhydrite	White, microcrystalline anhydrite with 10% shale.

1975'-1980'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1980'-1985'	Dolomite	Very light brown, microcrystalline to cryptocrystalline dolomite.
1985'-1990'	Dolomite	Very light brown, microcrystalline to cryptocrystalline dolomite.
1990'-1995'	Anhydrite	White, extremely fine to microcrystallin anhydrite.
1995'-2000'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2000'-2005'	Limestone	Light grey microcrystalline to cryptocrystalline limestone, with 20% dolomite, and 20% shale.
2005'-2010'	Limestone	Light to medium grey microgranular to cryptogranular limestone with shale in partings.
2010'-2015'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 20% shale; streak of chert.
2015'-2020'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 20% shale.
2020'-2025'	Anhydrite	Very light greenish grey anhydrite with 30% microcrystalline dolomite; 20% very fine to extremely fine quartz.
2025'-2030'	Anhydrite	Very light greenish grey anhydrite with 30% microcrystalline dolomite; 20% very fine to extremely fine quartz.
2030'-2035'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2035'-2040'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% shale.

2040'-2045'	Anhydrite	Very light greenish grey anhydrite with 10% microcrystalline dolomite and 10% shale; 10% extremely fine to very fine quartz.
2045'-2050'	Anhydrite	Yellowish brown anhydrite with microcrystalline dolomite (30%) and 10% extremely fine to very fine quartz.
2050'-2055'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2055'-2060'	Anhydrite	White, anhydrite with 20% microcrystalline dolomite and 20% extremely fine to very fine quartz.
2060'-2065'	Anhydrite	Light greenish grey anhydrite with microcrystalline dolomite (20%) and 10% extremely fine to very fine quartz.
2065'-2070'	Anhydrite	Light greenish grey microcrystalline dolomite and anhydrite; 20% extremely fine to very fine quartz.
2070'-2075'	Anhydrite	White microcrystalline anhydrite with 10% extremely fine quartz.
2075'-2080'	Anhydrite	White extremely fine to microcrystalline anhydrite with 30% dolomite.
2080'-2085'	Shale	Brick red shale with 20% dolomite and 20% anhydrite; 10% quartz.
2085'-2090'	Dolomite	White, extremely fine crystalline to cryptocrystalline dolomite with 40% anhydrite.
2090'-2095'	Dolomite, Shale and Anhydrite	Red, extremely fine crystalline to microcrystalline dolomite (30%), anhydrite (30%), and shale (30%); 10% quartz.

2095'-2100'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2100'-2105'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of pyrite.
2105'-2110'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite.
2110'-2115'	Dolomite	Very light brown microcrystalline to ~~cryptocrystalline dolomite with~~ 30% anhydrite and a band of limestone.
2115'-2120'	Dolomite	Very, very light brown (almost white) microcrystalline to cryptocrystalline dolomite.
2120'-2125'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2125'-2130'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
2130'-2135'	Anhydrite	White to very light brown cryptocrystalline to microcrystalline anhydrite with 30% dolomite.
2135'-2140'	Dolomite	White to very light brown cryptocrystalline to microcrystalline dolomite.
2140'-2145'	Limestone	Medium brown microgranular to cryptogranular limestone with 20% dolomite and 30% shale.
2145'-2150'	Shale	Red shale with 30% quartz siltstone and 20% dolomite.
2150'-2155'	Shale	Green shale with 10% dolomite.
2155'-2160'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% quartz siltstone and 30% anhydrite.

2160'-2165'	Quartz	Extremely fine to cryptogranular red siltstone with 20% shale and 20% dolomite.
2165'-2170'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% anhydrite; 10% extremely fine granular quartz siltstone.
2170'-2175'	Limestone	Medium brown extremely fine crystalline dolomite (20%), and microgranular to cryptogranular limestone with 20% shale; trace of crinoids.
2175'-2180'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with extremely fine granular limestone and siltstone.
2180'-2185'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite with a trace of quartz.
2185'-2190'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite and a band of light greenish grey shale.
2190'-2195'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 20% anhydrite.
2195'-2200'	Dolomite	Medium brown very fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale; waxy scum, no cut.
2200'-2205'	Dolomite	Microcrystalline to cryptocrystalline dolomite, very light brown with 30% anhydrite.
2205'-2210'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
2210'-2215'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.

2215'-2220'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 40% anhydrite.
2220'-2225'	Dolomite	Light green microcrystalline dolomite with 20% anhydrite; very fine to extremely fine quartz; 20% cryptogranular shale.
2225'-2230'	Dolomite	Very light brown, extremely crystalline to microcrystalline dolomite with 30% anhydrite.
2230'-2235'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite and 10% quartz.
2235'-2240'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 10% limestone and a trace of stylolites; 20% shale.
2240'-2245'	Shale	Light green shale with 20% dolomite.
2245'-2250'	Shale and Siltstone	Brick red, extremely fine to cryptogranular quartz and shale; 20% dolomite.
2250'-2255'	Dolomite	Very light brown to white extremely fine to microcrystalline dolomite with 10% quartz, and 30% anhydrite.
2255'-2260'	Dolomite	Very light brown to white extremely fine to microcrystalline dolomite with 10% quartz and 30% anhydrite.
2260'-2265'	Shale	Green shale with 20% quartz siltstone and 20% dolomite.
2265'-2270'	Dolomite	Light brown to white microcrystalline to cryptocrystalline dolomite with 20% anhydrite and 10% extremely fine granular quartz.

2270'-2275'	Dolomite	Light brown to white extremely fine crystalline dolomite to cryptocrystalline dolomite with 20% anhydrite.
2275'-2280'	Shale and Siltstone	Red, extremely fine granular siltstone and shale; 20% microcrystalline dolomite.
2280'-2285'	Dolomite	Light brown to white extremely fine crystalline to cryptocrystalline dolomite with 20% anhydrite.
2285'-2290'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.
2290'-2295'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.
2295'-2300'	Dolomite	Medium brown extremely fine crystalline to cryptocrystalline dolomite with 20% limestone and 20% shale; trace of stylolites.
2300'-2305'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 20% limestone; trace of spar and quartz.
2305'-2310'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale.
2310'-2315'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale.
2315'-2320'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% anhydrite.
2320'-2325'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with anhydrite (10%).

2325'-2330'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a band of anhydrite.
2330'-2335'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a band of anhydrite.
2335'-2340'	Dolomite	Light brown microcrystalline dolomite with 10% limestone; 10% shale; band of extremely fine granular quarts at the top of the interval.
2340'-2345'	Dolomite	Light brown microcrystalline dolomite with 10% extremely fine granular quarts and 10% shale; trace of stylolites.
2345'-2350'	Dolomite	Light brown microcrystalline dolomite with 10% shale and 10% quarts.
2350'-2355'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% quarts.
2355'-2360'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% anhydrite.
2360'-2365'	Dolomite	Light to medium brown extremely fine crystalline to cryptocrystalline dolomite with 10% limestone and a band of shale.
2365'-2370'	Dolomite	Light brown to medium brown extremely fine crystalline to microcrystalline dolomite with 10% limestone; trace of shale.
2370'-2375'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite with 20% dolomite; 20% extremely fine granular quarts.

2375'-2380'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2380'-2385'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2385'-2390'	Dolomite and Anhydrite	Very light brown extremely fine crystalline to cryptocrystalline dolomite (40%) and anhydrite (40%) with 20% quartz.
2390'-2395'	Shale and Siltstone	Green shale and siltstone with 20% dolomite and 20% anhydrite.
2395'-2400'	Dolomite and Shale	Red shale and microcrystalline to cryptocrystalline dolomite with 20% siltstone and 20% anhydrite.
2400'-2405'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 40% anhydrite and 10% quartz.
2405'-2410'	Limestone	Medium brown microgranular to cryptogranular limestone with a trace of shale and a trace of ostracods.
2410'-2415'	Limestone	Medium brown extremely fine to microcrystalline limestone with 20% dolomite; 20% shale.
2415'-2420'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 10% limestone; 20% shale.
2420'-2425'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite with 20% dolomite; 30% extremely fine granular quartz siltstone.

2425'-2430'	Shale	Mottled red and green shale with 20% dolomite and 10% quartz siltstone.
2430'-2435'	Dolomite and Anhydrite	Light brown microcrystalline to cryptocrystalline dolomite and anhydrite.
2435'-2440'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2440'-2445'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% anhydrite and 20% quartz.
2445'-2450'	Dolomite	Very light brown extremely fine to cryptogranular dolomite.
2450'-2455'	Shale	Mottled red and green shale with 10% quartz; 40% microcrystalline to cryptocrystalline dolomite.
2455'-2460'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite (50%).
2460'-2465'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite. (50%).
2465'-2470'	Shale and Lithoclasts	Medium brown, medium to fine lithoclasts; 30% shale; 20% limestone; 20% dolomite; sparry calcite - vug lining?
2470'-2475'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite (50%).
2475'-2480'	Shale	Mottled red and green shale with 20% quartz siltstone and 20% dolomite.
2480'-2485'	Siltstone	Greenish grey, extremely fine granular to microgranular quartz siltstone with 30% shale; 20% dolomite.

2485'-2490'	Siltstone	Greenish grey extremely fine granular to microgranular quartz siltstone with 30% shale and 20% dolomite.
2490'-2495'	Siltstone	Greenish grey extremely fine granular to microgranular quartz siltstone with 30% shale and 20% dolomite.
2495'-2500'	Shale and Siltstone	Light greenish grey extremely fine granular to microgranular quartz siltstone (40%) with shale (40%); 20% dolomite and a trace of pyrite.
2500'-2505'	Shale	Light greenish grey shale with 20% extremely fine to micro-granular quartz siltstone; 20% dolomite with a trace of pyrite.
2505'-2510'	Shale	Light greenish grey shale with 20% extremely fine to micro-granular quartz siltstone; 20% dolomite with a trace of pyrite and anhydrite.
2510'-2515'	Shale and Siltstone	Light greenish grey shale (40%) and extremely fine granular to microgranular siltstone (40%); 20% dolomite.
2515'-2520'	Shale and Siltstone	Light greenish grey shale (40%) and extremely fine granular to microgranular quartz siltstone; 10% dolomite; 10% anhydrite.
2520'-2525'	Siltstone	Light greenish grey extremely fine granular to cryptogranular quartz siltstone; 20% dolomite.
2525'-2530'	Dolo-ite	Very light brown extremely fine to cryptocrystalline dolomite with 20% quartz.

2530'-2535'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% quartz.
2535'-2540'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% quartz.
2540'-2545'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2545'-2550'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2550'-2555'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale.
2555'-2560'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale, and a band of anhydrite.
2560'-2565'	Dolomite	Light brown microcrystalline dolomite with a trace of shale.
2565'-2570'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale.
2570'-2575'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; fractures filled with selenite?
2575'-2580'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; fractures filled with selenite?

2580'-2585'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with a trace of shale; fractures filled with selenite?
2585'-2590'	Dolomite	Light to medium brown microcrystalline to cryptocrystalline dolomite with a trace of shale.
2590'-2595'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; band of anhydrite.
2595'-2600'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
2600'-2605'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale; band of limestone
2605'-2610'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
2610'-2615'	Dolomite	Light to medium brown microcrystalline dolomite with 10% shale.
2615'-2620'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone and 10% shale.
2620'-2625'	Limestone	Light to medium brown extremely fine to microgranular limestone with 10% quartz siltstone and a trace of shale; trace of coral calcispheres and corals?
2625'-2630'	Limestone	Light to medium brown microcrystalline limestone with 30% dolomite and a trace of shale; band of anhydrite; fragments limestones and stylolites.

2630'-2635'	Dolomite	Light to medium brown microcrystalline dolomite with 10% shale.
2635'-2640'	Dolomite	Light to medium brown microcrystalline dolomite with a trace of shale.
2640'-2645'	Limestone	Light to medium brown extremely fine crystalline dolomite (10%) and limestone (80%); 10% shale; ostracods, crinoids and calcispheres.
2645'-2650'	Dolomite	Medium brown microcrystalline to cryptocrystalline dolomite with 20% limestone and a band of anhydrite; trace of shale; stylolites.
2650'-2655'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone and a trace of shale.
2655'-2660'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% limestone; 10% shale.
2660'-2665'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone; 10% shale.
2665'-2670'	Limestone	Medium brown microgranular to cryptogranular limestone with 10% dolomite and 10% shale.
2670'-2675'	Dolomite	Light brown microcrystalline dolomite with a band of anhydrite and a trace of shale.

2675'-2680'	Dolomite	Light brown extremely fine crystalline dolomite with 20% limestone; 10% shale; fragmental limestone or dolomite present.
2680'-2685'	Dolomite	Medium brown extremely fine crystalline dolomite with 20% limestone; 10% shale.
2685'-2690'	Dolomite and Anhydrite	Light brown microcrystalline to cryptocrystalline dolomite and anhydrite.
2690'-2695'	Dolomite	Dull red extremely fine crystalline to cryptocrystalline dolomite with 10% anhydrite and 20% quartz; 30% felspar.
2695'-2700'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2700'-2705'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite and 30% quartz.
2705'-2710'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2710'-2715'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2715'-2720'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2720'-2725'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2725'-2730'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2730'-2735'	Limestone	Medium brown extremely fine to microcrystalline limestone with 20% shale; 10-40% shale.

2735'-2740'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite.
2740'-2745'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2745'-2750'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite.
2750'-2755'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 10% chert.
2755'-2760'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 30% anhydrite.
2760'-2765'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 10% chert.
2765'-2770'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% anhydrite and 10% chert.
2770'-2775'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 10% chert and a streak of shale with a trace of siltstone.
2775'-2780'	Dolomite	Very light brown very fine crystalline to extremely fine crystalline dolomite.
2780'-2785'	Dolomite	Very light brown very fine crystalline dolomite with 10% anhydrite with a trace of chert.
2785'-2790'	Dolomite	Very light brown very fine crystalline dolomite with a band of chert.
2790'-2795'	Dolomite	Very light brown very fine crystalline dolomite.
2795'-2800'	Dolomite	Very light brown very fine crystalline dolomite.

2800'-2805'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite with a trace of shale; band of white opaque chert.
2805'-2810'	Dolomite	Very light brown, very fine to extremely fine dolomite.
2810'-2815'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite with a trace of shale; few sedimite crystalline fragments.
2815'-2820'	Dolomite	Very light brown, very fine to microcrystalline dolomite with 10% chert.
2820'-2825'	Dolomite	Very light brown, very fine to microcrystalline dolomite with 10% chert.
2825'-2830'	Dolomite	Very light brown very fine to microcrystalline dolomite with 10% chert.
2830'-2835'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
2835'-2840'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
2840'-2845'	Dolomite	Very light brown, very fine to extremely fine dolomite crystalline; few C vugs, sparry calcite indicates some D vugs.
2845'-2850'	Dolomite	Very light brown, very fine to extremely fine dolomite crystalline with a streak of limestone.
2850'-2855'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a trace of chert; originally pelletoid?
2855'-2860'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite; 2840'-2865' very clean dolomite, only a trace of siliceous residue.

2860'-2865'	Dolomite	Very light brown fine to very fine crystalline dolomite with a trace of chert.
2865'-2870'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite.
2870'-2875'	Dolomite	Very light brown fine to very fine crystalline dolomite with a trace of chert.
2875'-2880'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
2880'-2885'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a band of chert.
2885'-2890'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
2890'-2895'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% anhydrite.
2895'-2900'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of chert.
2900'-2905'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of shale.
2905'-2910'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a band of chert; few medium to coarse lithic fragments (dolomite).
2910'-2915'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; few medium to coarse lithic fragments (dolomite).
2915'-2920'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite; few medium to coarse lithic fragments (dolomite), (or breccia?).

2920'—2925'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of chert; breccia in partings!
2925'—2930'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite.
2930'—2935'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite.
2935'—2940'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a band of chert.
2940'—2945'	Dolomite	Light brown to medium brown very fine crystalline to microcrystalline dolomite with a trace of shale.
2945'—2950'	Dolomite	Light to medium brown very fine crystalline to microcrystalline dolomite with a trace of shale and chert.
2950'—2955'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 10% shale.
2955'—2960'	Dolomite	Light to ~~medium brown~~ very fine crystalline to microcrystalline dolomite.
2960'—2965'	Dolomite	Light to medium brown very fine crystalline to microcrystalline dolomite.
2965'—2970'	Dolomite	Medium brown very fine crystalline to microcrystalline dolomite with a trace of shale.
2970'—2975'	Dolomite	Medium brown veryfine crystalline to extremely fine crystalline dolomite with a trace of shale.
2975'—2980'	Dolomite	Medium brown very fine crystalline dolomite with a trace of shale; band of extremely fine granular to microgranular limestone.

2990'—2995'	Dolomite	Medium brown very fine crystalline to microcrystalline dolomite with a trace of shale and a band of chert.
2995'—3000'	Dolomite	Medium to dark brown very fine crystalline dolomite.
2990'—2995'	Dolomite	Medium to dark brown very fine crystalline dolomite.
2995'—3000'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite.
3000'—3005'	Dolomite	~~Medium to dark brown extremely fine~~ crystalline to microcrystalline dolomite with a trace of shale; ostracods.
3005'—3010'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
3010'—3015'	Dolomite	Medium to dark brown microcrystalline dolomite with a trace of shale; few selenite crystals, filling fractures?
3015'—3020'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with a trace of shale and a ~~band~~ of microgranular to cryptogranular limestone; trace of stylolites, few selenite crystals filling fractures?
3020'—3025'	Dolomite	Medium to dark brown extremely fine crystalline dolomite with a trace of shale and 10% chert.
3025'—3030'	Dolomite	Light brown microcrystalline dolomite with a trace of shale; few lithic fragments and floating sand grains, possibly caving?
3030'—3035'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite with a trace of shale.
3035'—3040'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite with 10% shale.

3040'-3045'	Dolomite	Medium to dark brown very fine to extremely fine crystalline dolomite with a trace of shale.
3045'-3050'	Dolomite	Very light brown microcrystalline dolomite.
3050'-3055'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3055'-3060'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite.
3060'-3065'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3065'-3070'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
3070'-3075'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite with a trace of chert.
3075'-3080'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite with a trace of shale.
3080'-3081'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite; sparry calcite.
3081'-3085'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
3085'-3090'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3090'-3100'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3100'-3105'	Dolomite	Very light brown fine to very fine crystalline dolomite.

3105'-3110'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3110'-3115'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3115'-3120'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3120'-3125'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite; stylolites; 5% coarse gypsum crystals filling vugs or fractures?
3125'-3130'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3130'-3135'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
3135'-3140'	Dolomite	Very light brown fine to very fine crystalline dolomite with a band of chert.
3140'-3145'	Dolomite	Light brown fine to extremely fine crystalline dolomite.
3145'-3150'	Dolomite	Light brown fine to extremely fine crystalline dolomite.
3150'-3155'	Dolomite	Light brown very fine to extremely fine crystalline dolomite.
3155'-3160'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a band of chert.
3160'-3165'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite.
3165'-3170'	Dolomite	Very light fine to extremely fine crystalline dolomite.
3170'-3175'	Dolomite	Very fine to extremely fine crystalline, very light brown dolomite.
3175'-3180'	Dolomite	Very fine to extremely fine crystalline, very light brown dolomite.

3180'-3185'	Dolomite	Very light brown microcrystalline dolomite with a trace of shale and chert, brecciated in parts?
3185'-3190'	Dolomite	Very light brown fine to microcrystalline dolomite with a trace of shale.
3190'-3195'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3195'-3200'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3200'-3205'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3205'-3210'	Dolomite	Light brown microcrystalline dolomite.
3210'-3215'	Dolomite	Light brown fine to very fine crystalline dolomite.
3215'-3220'	Dolomite	Light brown fine to very fine crystalline dolomite.
3220'-3225'	Dolomite	Light brown fine to very fine crystalline dolomite.
3225'-3230'	Dolomite	Light brown fine to very fine crystalline dolomite.
3230'-3235'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with a trace of anhydrite.
3235'-3240'	Dolomite	Very light brown microcrystalline dolomite with 10% anhydrite.
3240'-3245'	Dolomite	Very light brown microcrystalline dolomite with 10% anhydrite.
3245'-3255'	Dolomite	Very light brown microcrystalline dolomite with a streak of shale and a band of chert.

3255'-3260'	Dolomite	White to very light brown extremely fine to microcrystalline dolomite. Dolomite and anhydrite following finely interbedded.
3260'-3265'	Anhydrite	White to very light brown extremely fine to microcrystalline anhydrite. Anhydrite and above dolomite finely interbedded.
3265'-3270'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite.
3270'-3275'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite; streak of mottled red and green shale.
3275'-3280'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
3280'-3285'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite.
3285'-3290'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% streaks and blebs of anhydrite.
3290'-3295'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite.
3295'-3300'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline dolomite.
3300'-3305'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite and 20% anhydrite blebs.
3305'-3310'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite and 20% anhydrite blebs.

3310'-3315'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite blebs.
3315'-3320'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite blebs.
3320'-3325'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite.
3325'-3330'	Dolomite	Very light brown, very fine crystalline dolomite to microcrystalline dolomite.
3330'-3335'	Dolomite	Very light brown, extremely fine to microcrystalline dolomite with 20% anhydrite.
3335'-3340'	Dolomite	Light brown, extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
3340'-3350'	No Sample	
3350'-3355'	Dolomite	Light brown, extremely fine crystalline to microcrystalline dolomite with a streak of light grey shale; trace of pyrite.
3355'-3360'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3360'-3365'	Dolomite	Light brown microcrystalline dolomite with 20% anhydrite.
3365'-3370'	Dolomite	Medium brown microcry talline dolomite with 10% anhydrite and 10% shale.
3370'-3375'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.

3375'-3380'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with a band of shale.
3380'-3385'	Anhydrite and Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).
3385'-3390'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3390'-3395'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite.
3395'-3400'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3400'-3405'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3405'-3410'	Dolomite and Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%); finely laminated in parts.
3410'-3415'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite.
3415'-3420'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite with 20% brown shale.
3420'-3425'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3425'-3430'	Anhydrite	White, microcrystalline to extremely fine crystalline anhydrite with 20% dolomite.
3430'-3435'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite and 20% brown shale.

3435'-3440'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
3440'-3445'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite with 30% anhydrite and 30% brown shale.
3445'-3450'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 10% dolomite.
3450'-3455'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 10% dolomite.
3455'-3460'	Shale	Band of light green shale.
3460'-3470'	Anhydrite	Light brown cryptogranular anhydrite with 40% dolomite.
3470'-3475'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 40% dolomite.
3475'-3480'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 40% dolomite.
3480'-3485'	Anhydrite	Very light brown microcrystalline anhydrite with 30% dolomite and 10% shale.
3485'-3490'	Anhydrite	Very light brown microcrystalline anhydrite.
3490'-3495'	Shale	Band of green shale mottled red: 10% dolomite and 10% anhydrite.
3495'-3500'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3500'-3505'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).

3505'-3510'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%); laminated in parts.
3510'-3515'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
3515'-3520'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3520'-3525'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3525'-3530'	Shale	Medium greenish grey shale with 10% quartz and 10% dolomite.
3530'-3535'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%); ostracods.
3535'-3540'	Shale	Light green shale with 10% quartz siltstone, 10% dolomite, 10% anhydrite; band of light blue grey chert.
3540'-3545'	Dolomite	Light to medium brown extremely fine crystalline dolomite with 30% anhydrite.
3545'-3550'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite and a band of limestone.
3550'-3555'	Shale	Medium greenish grey shale with 10% quartz and 20% dolomite.
3555'-3560'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% shale and 20% anhydrite.
3560'-3565'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).

3565'-3570'	Dolomite and Anhydrite	Light brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).
3570'-3575'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% limestone and 10% shale.
3575'-3580'	Dolomite	Medium brown microcrystalline dolomite with 10% shale; 10% extremely fine granular limestone and a trace of quartz siltstone.
3580'-3585'	Anhydrite	Very light brown microcrystalline anhydrite with 10% extremely fine granular quartz siltstone.
3585'-3590'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3590'-3595'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite and 10% shale.
3595'-3600'	Shale	Light olive green with some red mottling shale; 20% extremely fine granular to microgranular quartz siltstone; 20% dolomite.
3600'-3605'	Shale	Light olive green shale with some red mottling; 20% extremely fine granular to microgranular quartz siltstone; 20% dolomite.
3605'-3610'	Shale	Light olive green shale with some red mottling; 20% extremely fine granular to microgranular quartz siltstone; 20% dolomite.
3610'-3615'	Shale	Light olive green shale with some red mottling; 20% extremely fine granular to microgranular quartz siltstone; 20% dolomite.

3615'-3620'	Shale	Very light greenish grey shale with 20% extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3620'-3625'	Shale	Very light greenish grey, red and purple shale; 20% extremely fine granular siltstone; 20% dolomite and 10% anhydrite.
3625'-3630'	Shale	Very light greenish grey, red and purple shale; 20% extremely fine granular siltstone; 20% dolomite and 10% anhydrite.
3630'-3635'	Shale	~~Light green to pink shale; 10%~~ extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3635'-3640'	Shale	Light green to pink shale; 10% extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3640'-3647'	Dolomite	Very dark yellowish brown to very pale yellow brown orange microcrystalline dolomite with 20% shale and a trace of anhydrite.
3647'-3650'	Shale	Greenish grey shale mottled with various shades of red; 20% microcrystalline dolomite; 20% quartz siltstone; trace of anhydrite; occasional smooth green shale chip.
3650'-3658'	Dolomite	Very dark yellowish brown grading to pale yellow brown orange, microcrystalline dolomite with 20% shale and a trace of anhydrite.
3658'-3660'	Shale	Greenish grey mottled with various shades of red, shale; 20% quartz siltstone; 20% microcrystalline dolomite; trace of anhydrite.

3660'-3670'	Dolomite	Very dark yellowish brown to pale yellowish brown orange microcrystalline dolomite with 10% shale and 15% anhydrite and anhydrite blebs; streak of greenish grey shale mottled with various shades of red.
3670'-3685'	Dolomite	Very dark yellowish brown to pale yellow brown orange microcrystalline dolomite ; 10% shale; 15% anhydrite; streak of dark greenish grey shale.
3685'-3692'	Dolomite	Dark yellowish brown to pale yellowish brown orange microcrystalline dolomite with a trace of microgranular siltstone; 10% shale and 25% anhydrite and anhydrite blebs.
3692'-3700'	Shale	Various shades of greenish grey shale mottled with various shades of red; 20% quartz siltstone; 15% microcrystalline dolomite; occasional chip of anhydrite between 3695'-3700'.
3700'-3730'	Shale and Dolomite	Medium brownish grey to very light pinkish grey microcrystalline dolomite with a trace of shale; 20% to 50% anhydrite; interbedded with various shades of greenish grey shale mottled with various shades of red; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3730'-3739'	Anhydrite	Medium brownish grey to pale pinkish grey with a trace of quartz siltstone and 20% microcrystalline dolomite; 10% shale.
3739'-3740'	Shale and Anhydrite	Greenish grey mottled with red, shale and anhydrite; 10% quartz siltstone; 20% microcrystalline dolomite.

3740'-3748'	Anhydrite	Medium brownish grey to pale pinkish grey anhydrite; 10% shale; trace of quartz siltstone; 20% microcrystalline dolomite.
3748'-3750'	Shale and Anhydrite	Greenish grey mottled with red shale (35%) and anhydrite (35%); 10% quartz siltstone; 20% microcrystalline dolomite.
3750'-3759'	Anhydrite	Dark yellowish brown anhydrite with a trace of quartz siltstone; 20% microcrystalline dolomite; 20% shale.
3759'-3760'	Shale	Greenish grey mottled with red shale; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3760'-3762'	Anhydrite	Very pale greyish orange pink grading to dark brownish grey anhydrite with 20% shale; 20% microcrystalline dolomite; trace of quartz siltstone.
3762'-3770'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3770'-3775'	Anhydrite	Dark brownish grey to very light brownish grey anhydrite; 10% quartz siltstone; 10% shale; 20% microcrystalline dolomite.
3775'-3780'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 20% anhydrite.
3780'-3787'	Anhydrite	Dark brownish grey to very light brownish grey anhydrite; trace of quartz siltstone; 10% shale; 30% microcrystalline dolomite.
3787'-3790'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 20% anhydrite.

3790'-3802'	Dolomite	Dark to pale yellowish brown microcrystalline to extremely fine crystalline dolomite; 10% shale; 10% to 20% anhydrite.
3802'-3805'	Siltstone	Greenish grey quartz siltstone, with 30% shale; 20% microcrystalline dolomite; 10% anhydrite.
3805'-3810'	Dolomite	Very dark yellowish brown microcrystalline dolomite with 10% shale; trace of anhydrite and anhydrite blebs.
3810'-3820'	Dolomite	Very dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3820'-3830'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3830'-3840'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs; occasional near white chert chip.
3840'-3850'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite.
3850'-3860'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3860'-3870'	Dolomite	Dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.

3870'-3880'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3880'-3890'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3890'-3900'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3900'-3909'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3909'-3910'	Anhydrite	Light brown anhydrite with a trace of shale; 10% microcrystalline dolomite.
3910'-3920'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs; streak of light brown anhydrite.
3920'-3929'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3929'-3930'	Anhydrite	Light brown anhydrite with a trace of shale and 10% microcrystalline dolomite.
3930'-3940'	Dolomite	Very dark to medium yellowish brown microcrystalline dolomite with a trace of shale and a streak of light brown anhydrite.

3940'-3949'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3949'-3950'	Anhydrite	Brown anhydrite with 10% dolomite and a trace of shale.
3950'-3958'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale.
3958'-3960'	Anhydrite	Brown anhydrite with a trace of shale and 10% microcrystalline dolomite.
3960'-3973.5'	Dolomite	Dark to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3973.5'-3975'	Anhydrite	Brown anhydrite with 10% microcrystalline dolomite.
3975'-3985'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs; streak of medium greenish grey slightly dolomitic shale.
3985'-3994'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs; streak of medium greenish grey slightly dolomitic shale.
3994'-3995'	Anhydrite	Light brown anhydrite with 10% microcrystalline dolomite.
3995'-4005'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; streak of medium greenish grey slightly dolomitic shale.

4005'-4015'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; streak of medium greenish grey slightly dolomitic shale.
4015'-4030'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; one or two anhydrite chips and a trace of quartz; streak of medium greenish grey slightly dolomitic shale.
4030'-4040'	Dolomite	Very dark yellowish brown to very pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of clean anhydrite blebs (very thin line); occasional white shale chip; streak of dark olive grey shale (slightly dolomitic and with floating angular very fine to fine quartz sand? and floating fine sand size authigenic quartz; 0-10% of dark olive grey chip is quartz sand or authigenic quartz).
4040'-4045'	Dolomite	Very dark yellowish brown to very pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of clean anhydrite blebs (very thin line); occasional white chert chip. Also occasional argillaceous chip with floating sand or authigenic quartz.
4045'-4050'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4050'-4060'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline to extremely fine crystalline dolomite with possible pelletal texture (extremely fine to very fine) in 20% of the dolomite; streak of dark olive grey dolomitic shale;

		occasional white chert chip(possible pelletal texture in one or two chert chips, but chips very smooth).
4060'-4070'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with a trace of pyrite; 10% relic fragments in dolomite; streak of light olive gray very dolomitic shale; occasional white chert chip (possible pelletal texture in one or two of the chert chips, but chips very smooth).
4070'-4080'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with 0-10% shale; streak of white chert (generally without texture, but believed silicified carbonate); angular content in streaks and variable; occasional loose, clear gypsum chip (fracture filling?).
4080'-4090'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with a trace of pyrite; 10% extremely fine relic fragments in dolomite; occasional white chert chips; occasional loose, clear gypsum chip (fracture filling?).
4090'-4100'	Dolomite	Dark yellowish brown microcrystalline to very fine dolomite; occasional loose, clear, gypsum chip (fracture filling?); occasional white chert chip and tiny clear quartz chip.
4100'-4110'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite; occasional siltstone grain; occasional, loose, clear, gypsum chip (fracture filling?); occasional tiny clear quartz chip.

4110'-4120'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite with 20% relic fragments (extremely fine to very fine) in dolomite; occasional white chert chip and clear gypsum crystal; one aggregate of chips adhering together by what is interpreted as oil contamination.
4120'-4125'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4125'-4130'	Dolomite	Medium yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite.
4130'-4135'	Dolomite	Medium yellowish brown to pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4135'-4140'	Dolomite	Dark to pale yellowish brown extremely fine crystalline dolomite; rare clear, crystals of anhydrite or gypsum.
4140'-4145'	Dolomite	Dark to pale yellowish brown extremely fine crystalline dolomite; rare, clear crystals of anhydrite or gypsum.
4145'-4150'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline dolomite with 20% extremely fine to very fine relic fragments in dolomite; rare, clear crystals of anhydrite or gypsum.
4150'-4160'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline dolomite with 30% extremely fine to very fine relic fragments in dolomite; trace of crinoids? occasional light chert chip; approximately 5% clear gypsum crystalline and appears to fill former vugs or fractures.

4160'-4170'	Dolomite	Dark yellowish brown to very pale yellowish brown, very fine to fine crystalline dolomite with 30% relic fragments; occasional light chert chip; approximately 5% clear gypsum crystalline and appears to be fill former vugs or fractures.
4170'-4180'	Dolomite	Dark yellowish brown to very pale yellowish brown, very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments in dolomite; trace of crinoids?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting.
4180'-4185'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine crystalline to fine crystalline dolomite; 30% extremely fine to very fine relic fragments; 1% crinoids?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting.
4185'-4190'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine crystalline to fine crystalline dolomite; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting.
4190'-4200'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine to fine crystalline dolomite with 30% very fine to extremely fine relic fragments; trace of corals?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting (possible fossil material in chert).
4200'-4210'	Dolomite	Medium to pale yellowish brown, very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments; trace of crinoids; occasional light chert chips; approximately 5% clear gypsum crystals.

4210'-4220'	Dolorite	Medium to pale yellowish brown, very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments; trace of fossil fragments (all chert); approximately 5% clear gypsum crystals; occasional light chert chip.
4220'-4230'	Dolomite	Dark to pale yellowish brown extremely fine to very fine crystalline dolomite; 10% extremely fine to very fine relic fragments in dolomite, approximately 3% clear gypsum crystals.
4230'-4235'	Dolomite	Dark to pale yellowish brown extremely fine to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments in dolomite; approximately 3% clear gypsum crystals.
4235'-4240'	No Sample	
4240'-4245'	Dolomite	Medium to pale yellowish brown very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments in dolomite; approximately 2% clear gypsum crystals.
4245'-4250'	Dolomite	Pale to dark yellowish brown, very fine dolomite crystalline with 10% extremely fine to very fine relic fragments; approximately 2% clear gypsum crystals; occasional chert chips.
4250'-4260'	Dolomite	Medium to pale yellowish brown extremely fine to very fine dolomite crystalline; approximately 2% clear gypsum crystals.
4260'-4265'	Dolomite	Medium to pale yellowish brown extremely fine to very fine dolomite crystalline with approximately 2% clear gypsum crystals.

4265'-4270'	Dolomite	Medium to dark yellowish brown microcrystalline to extremely fine crystalline dolomite; approximately 2% gypsum crystals; occasional chert chip.
4270'-4280'	Dolomite	Medium to dark yellowish brown microcrystalline to extremely fine crystalline dolomite.
4280'-4290'	Dolomite	Medium to dark yellowish brown cryptocrystalline to microcrystalline dolomite, 1-2% shale; occasional light chert chip and clear gypsum crystal.
4290'-4300'	Dolomite	Medium to dark yellowish brown microcrystalline to cryptocrystalline dolomite; 1-2% shale; occasional light chert chip and clear gypsum crystal.
4300'-4310'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite; 2% shale.
4310'-4320'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite with occasional chips of chert, 2% shale.
4320'-4330'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite with occasional chips of chert, 2% shale.
4330'-4340'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale.
4340'-4350'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace of crinoids.
4350'-4360'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; occasional clear gypsum crystals.

4360'-4370'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% clear gypsum crystals; trace of fossil fragments and brachiopods?.
4370'-4380'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% clear gypsum crystals; trace of ostracods and crinoids.
4380'-4390'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline to micro-crystalline dolomite with a trace of shale; approximately 1% clear gypsum crystals; trace of crinoids.
4390'-4400'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 1% clear gypsum crystals; trace of crinoids and corals.
4400'-4410'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; 10% fragments and relic fragments; trace of fossil fragments and crinoids; approximately 2% gypsum crystals.
4410'-4420'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; 2-3% gypsum crystals; trace of crinoids and fossil fragments.
4420'-4430'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% gypsum crystals.
4430'-4440'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline dolomite with a trace of shale to 20% shale; trace of extremely fine to very fine relic fragments; 1% crinoids and 1% fossil fragments; approximately 2% gypsum crystals.

4440'-4445'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline dolomite with a trace of shale: approximately 2% gypsum crystals; trace of crinoids and 1% fossil fragments.
4445'-4453'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline to microcrystalline dolomite with a trace of shale; approximately 2% gypsum crystals.
4453'-4455'	Anhydrite	Dark brownish grey grading to light brown microcrystalline dolomite with a trace of shale: 90% anhydrite and 10% dolomite.
4455'-4463'	Dolomite	Dusky yellowish brown grading to black microcrystalline to extremely fine crystalline dolomite with a trace of shale; occasional fossil in dark coloured dolomite considered cave also; approximately 1% gypsum crystals: fishing at 4461', poor samples to 4475' with some light dolomite cave.
4463'-4465'	Anhydrite	Dark brownish grey to light brown microcrystalline dolomite with a trace of shale: 90% anhydrite and 10% dolomite; approximately 1% gypsum crystals, fishing at 4461', poor samples to 4475' with some light dolomite cave.
4465'-4472'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline dolomite with a trace of shale; approximately 1% gypsum crystals; fishing at 4461', poor samples to 4475' with some light dolomite cave.
4472'-4475'	Anhydrite	Dark brownish grey grading to light brown anhydrite with a trace of shale and 10% microcrystalline dolomite.

[illegible]	Dolomite	Dark brownish grey to dark brownish black microcrystalline dolomite with 10-50% shale.
4480'-4485'	Anhydrite	Brownish grey to dark brownish grey anhydrite with a trace of shale and 10% microcrystalline dolomite.
4485'-4490'	Dolomite	Dark brownish grey to brownish black microcrystalline dolomite with 10-50% shale.
4491'-4495'	Anhydrite	Brownish grey to dark brownish grey anhydrite with a trace of shale and 10% microcrystalline dolomite.
4495'-4503'	Dolomite	Brownish grey grading to brownish black microcrystalline dolomite with 10-60% shale; 10% anhydrite and a streak of light to medium brown chert.
4503'-4505'	Shale and Dolomite	Olive grey shale (50%) and microcrystalline dolomite (50%).
4505'-4515'	Dolomite	Brownish grey to brownish black microcrystalline dolomite with 10-60% shale; streak of light and medium brown chert.
4515'-4525'	Dolomite	Dark brownish grey to brownish black microcrystalline to extremely fine crystalline dolomite with 10-60% shale; streak of light and medium brown anhydrite.
4525'-4535'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale; streak of light and dark brown chert with an occasional fossil; trace of fossil fragments and crinoids.

4535'-4545'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale; with a streak of light and dark brown chert; trace of fossil fragments and crinoids; approximately 1% gypsum crystals.
4545'-4550'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale; streak of light and dark brown chert; approximately 1% gypsum crystals; trace of brachiopods? and crinoids.
4550'-4560'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace to 10% shale and 10% extremely fine to very fine relic fragments; streak of light brown grading to light greyish brown chert (silicified carbonate); trace of crinoids; approximately 2% gypsum crystals.
4560'-4570'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments; trace to 10% shale; trace of light and dark brown chert; 2% crinoids; the dolomite is generally clean but a few of the darker chips very argillaceous; approximately 1% gypsum crystals.
4570'-4580'	Dolomite	Very dark yellowish brown to dusky brown extremely fine to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments; trace to 10% shale; trace of light and dark brown chert; trace of crinoids; approximately 2% gypsum crystals.

4580'-4590'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: with a streak of light and dark brown chert; 1% crinoids and a trace of stromatoporal; approximately 1% gypsum crystals.
4590'-4600'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: with a streak of light and dark brown chert; 1% crinoids: approximately 1% gypsum crystals.
4600'-4610'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: streak of light to dark brown chert; trace of crinoids.
4610'-4620'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: streak of light and dark brown chert; 1% crinoids.
4620'-4625'	No Samples	
4625'-4630'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; trace of crinoids.
4630'-4640'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; streak of chert; 1% crinoids with a trace of fossil fragments.
4640'-4650'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; 10% very fine to coarse crinoids.
4650'-4660'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale; 10% very fine to coarse crinoids.

4660'-4670'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; 1% very fine to coarse crinoids.
4670'-4680'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite to microcrystalline dolomite with a trace to 20% shale; 5% very fine to coarse crinoids; 1-2% fossil fragments.
4680'-4685'	Dolomite	Very dark yellowish brown grading to dusky brown microcrystalline dolomite with 10% shale; 2% crinoids.
4685'-4690'	Dolomite	Very dark yellowish brown grading to dusky brown microcrystalline to extremely fine crystalline dolomite; 10% shale; trace to 10% very fine to coarse crinoids.
4690'-4700'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with 10% shale; trace to 10% very fine to coarse crinoids; 2% fossil fragments; occasional chip of chert.
4700'-4710'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline to very fine crystalline dolomite with a trace to 10% of shale; 10% extremely fine relic fragments; 10% very fine to coarse crinoids; 1% fossil fragments; occasional chert chip; (very fine crystalline dolomite very minor).
4710'-4720'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline to very fine crystalline dolomite with a trace to 10% shale; 10% extremely fine relic fragments; 10% very fine to coarse crinoids;

		trace of corals?, and brachiopods?. and a trace of bitumen partings. (black).
4720'-4730'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; (rare very fine crystalline dolomite too minor to mention); 10% extremely fine relic fragments; trace to 1-% very fine to coarse crinoids; trace of brachiopods, and corals with 1% fossil fragments.
4730'-4740'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace to 10% shale; 10% extremely fine to very fine relic fragments; trace to 10% very fine to coarse crinoids; 5% very fine to medium fossil fragments; trace of brachiopods and black bitumen partings.
4740'-4750'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; trace to 10% very fine to coarse crinoids; 1% brachiopods; 3-5% fossil fragments.
4750'-4760'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; 10% very fine to coarse crinoids; trace of corals and black bitumen partings; 2% fossil fragments.
4760'-4770'	Dolomite	Very dark yellowish brown grading to dusky extremely crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; 5% very fine to coarse crinoids; 5%very fine to medium fossil fragments; trace of brachiopods.

4770'-4780'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; trace to 10% very fine to coarse crinoids; 2-3% fossil fragments.
4780'-4790'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine to very fine crystalline dolomite; 5% very fine to coarse crinoids; trace of brachiopods and black bitumen partings; 1-2% fossil fragments.
4790'-4795'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine to very fine crystalline dolomite; 5% very fine to coarse crinoids; trace of black bitumen partings; 1-2% fossil fragments.
4795'-4801'	No Sample	
Core No. 1 4801'-4803½'	Shale	Irregularly interbedded (1) shale, dark grey, dolomitic-3% (2) shale, medium grey, dolomitic-5%; both rock types contain traces of disseminated pyrite and negligible traces of medium sized bioclastic debris.
4803½'-4808½'	Shale	Dark grey shale (70% of the interval) with 3% dolomite; 30% dolomite blobs and nodules, extremely fine and argillaceous (30% dark grey); trace of disseminated pyrite, 5% coarse bioclastic debris, composed of crinoid ossicles, brachiopod fragments, rare silicified solitary corals, bryozoa and one possible unidentifiable chain coral.
4808½'-4813'	Shale	Dark grey shale (70% of the interval) with 3% dolomite; 30% dolomite blobs and nodules, extremely fine and argillaceous, (30%) dark grey; trace of disseminated pyrite, 3% coarse bioclastic debris, composed of crinoid ossicles, brachiopod fragments, and bryozoa.

4813'-4815.8'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (3%) shale; finely disseminated pyrite and a trace (up to 1%) medium to coarse bioclastic debris.
4815.8'-4820½'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (3%) shale; finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal, brachiopodal and favosites debris, (in part silicified).
4820½'-4822.75'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (± 10%) shale; trace of finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal, brachiopodal and favosites debris, (in part silicified).
4822.75'-4825'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (± 10%) shale; trace of finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal, brachiopodal and favosites debris, (in part silicified).
4825'-4830'	Shale	Dark grey shale, slightly dolomitic (3%), with a trace of disseminated pyrite.
4830'-4831.75'	Shale	Dark grey shale, slightly dolomitic (3%), with a trace of disseminated pyrite.
4831.75'		Abrupt contact characterized by pyrite laminae containing fine to coarse rounded quartz grains.

4831.75'-4835'	Shale and Siltstone	Light grey quartz siltstone (40%) with 40% light grey shale; trace of medium to very coarse quartz grains (floating, rounded); 20% dolomite; trace of disseminated pyrite, banded very hard and firm, rare burrows.
	End of Core #1	
4835'-4845'	No Samples	
4845'-4855'	Dolomite	Very light olive grey fine crystalline dolomite with 20% very fine to fine relic fragments; one coarse floating sand grain observed between 4850' and 4855'.
4855'-4863'	Dolomite	Very light olive grey very fine crystalline to fine crystalline dolomite with a trace of shale.
4863'-4865'	Shale	Olive grey shale with a trace of cryptogranular quartz siltstone; 40% microcrystalline dolomite.
4865'-4875'	Dolomite	Very light grey very fine crystalline to medium crystalline dolomite with a trace of shale; occasional bright green shale chip.
4875'-4880'	Dolomite	Very light grey grading to very pale yellowish brown very fine to fine crystalline dolomite with a trace of shale; occasional bright green shale chip.
4880'-4890'	Dolomite	Very light grey grading to very pale yellowish brown, very fine crystalline dolomite; trace to 10% shale.
4890'-4900'	Dolomite	Very light grey grading to very pale yellowish brown, very fine crystalline dolomite; trace of shale.
4900'-4910'	Dolomite	Very light grey (nearly white) very fine to fine crystalline dolomite, (rare chip up to medium crystalline, but mostly very fine); trace of quartz siltstone; trace to 10% shale; occasional bright green shale chip.

4910'-4920'	Dolomite	Very light grey (nearly white), very fine to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
4920'-4927'	Dolomite	Very light grey (nearly white), very fine to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; occasional bright green shale chip.
4927'-4930'	Dolomite	Very light grey very fine crystalline to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
4930'-4938'	Dolomite	Very light grey very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; occasional bright green shale chip.
4938'-4940'	Dolomite	Very light brown very fine crystalline dolomite with a trace of quartz siltstone; trace of shale; 15% fine to medium pelletoid dolomite (very good, very rounded and may even be oolites); trace of pyrite; occasional bright green shale chip.
4940'-4950'	Dolomite	Very light brown (possible slight pinkish tinge), very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; 10% fine pelletoid dolomite; trace of pyrite; (pelletoid dolomite, very good, very rounded and may even be oolites).
4950'-4960'	Dolomite	Very light brown grading to very light pinkish brown, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone, and a trace of shale; 10% fine to medium pelletoid dolomite (very good, very rounded and may be oolites); trace of pyrite; occasional white chert chip, some chert with pelletoid or oolite texture; streak of greenish grey shale.

4960'-4970'	Dolomite	Light brownish pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace to 10% fine to medium pelletoid dolomite; one coarse floating sand grain between 4965' and 4970'; streak of greenish grey shale.
4970'-4975'	Dolomite	Light brownish pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of pyrite; 10% shale; 1% very fine to medium pelletoid dolomite; trace of coarse, floating sand grains.
4975'-4980'	Dolomite	Light brownish pink grading to pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone; 10-20% shale; trace of very fine to medium pelletoid dolomite; occasional white chert chip; one chert chip with appears to contain coarse sand size oolites; trace of very fine floating sand grains; streak of very smooth medium greenish grey shale.
4980'-4990'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale; trace to 10% fine to medium pelletoid dolomite; trace of coarse floating sand grains; occasional chert chip; streak of medium greenish grey shale.
4990'-5000'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale; trace to 10% very fine to medium pelletoid dolomite; streak of medium greenish grey shale;

		1% rounded, coarse to very coarse floating sand grains; one chip of oolite chert.
5000'-5010'	Dolomite	Light brownish pink grading to light red, extremely fine crystalline to fine crystalline dolomite; trace of cryptogranular quartz siltstone; trace to 10% shale; 10% very fine to medium pelletoid dolomite (may be oolites) streak of olive grey to medium greenish grey shale.
5010'-5020'	Dolomite	Light brownish pink grading to light red, very fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale; trace of very fine to medium pelletoid dolomite (may be oolites); one or two anhydrite crystals; streak of white chert; streak of medium greenish grey shale.
5020'-5030'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale and pyrite; trace of extremely fine to fine pelletoid dolomite; one chert chip with oolites; streak of greenish (medium) shale; occasional white chert chip.
5030'-5035'	Dolomite	Light brown to white grading to light red, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace of very fine to fine fragmental and pelletoid dolomite; occasional clear anhydrite crystal. and white chert chip.
5035'-5040'	Dolomite	Light brown grading to light red, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace of very fine to fine pelletoid and fragmental dolomite; occasional white chert chip.

5040'-5045'	Dolomite	Light brown grading to pink, microcrystalline to very fine crystalline dolomite; trace of quartz siltstone; trace to 10% shale; trace of fine to medium pelletoid dolomite; oolite in one chert chip; occasional white chert and green shale chip.
5045'-5055'	Dolomite	Light brown to white grading to light red extremely fine crystalline to very fine crystalline dolomite; trace of cryptogranular quartz siltstone; 10% shale; occasional clear anhydrite crystals.
5055'-5060'	Dolomite	Light brown to white grading to light red, extremely fine crystalline to microcrystalline dolomite; trace of cryptogranular quartz siltstone; 10% shale; occasional clear anhydrite crystals.
5060'-5065'	Dolomite	Light brown to white grading to pink, microcrystalline to extremely fine crystalline dolomite; trace of cryptogranular quartz siltstone.
5065'-5075'	Dolomite	Dusky yellowish brown grading to dusky brown, extremely crystalline to very fine crystalline dolomite; trace of quartz siltstone; 10-20% shale; 45% very fine to medium pelletoid dolomite, (well rounded, may be oolites? but rims not detectable; 15% pyrite; light dolomite not believed in situ.
5075'-5080'	Dolomite	Light brown grading to very light brown, extremely fine to very fine crystalline dolomite; trace to 10% cryptocrystalline quartz siltstone; trace of shale; dark brown dolomite considered out of situ.

5080'-5085'	Dolomite	Very light brown grading to light brown, extremely fine to very fine crystalline dolomite; trace to 10% cryptogranular quartz siltstone; trace of shale; trace to 10% very fine to fine pelletoid dolomite.
5085'-5095'	Dolomite	Very light brown grading to very light grey extremely fine crystalline to microcrystalline dolomite with a trace of cryptogranular quartz siltstone; trace to 10% shale; trace of fine sand size, floating sand grains.
5095'-5100'	Dolomite	Very dark yellowish brown grading to dusky brown, extremely fine crystalline to fine crystalline dolomite; trace of microgranular quartz siltstone; trace to 10% shale; 40% fine to medium pelletoid dolomite; 20% pyrite; 1-2% gypsum crystals. Pelletoid dolomite may be oolites, but rims are not visible in the dolomite.
5100'-5108'	Dolomite	Light brown grading to dusky brown, extremely fine crystalline to very fine crystalline dolomite; trace to 10% cryptogranular quartz siltstone; 10-20% shale; 3% fine to medium pelletoid and oolite dolomite; 1-2% clear gypsum crystals.
5108'-5110'	Dolomite	Very light grey, extremely fine to very fine crystalline dolomite with a trace of shale, and a trace of quartz siltstone.
5110'-5118'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; trace of quartz siltstone; 10% shale.
5118'-5120'	Dolomite	Medium light grey, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone; trace of shale.

5120'-5130'	Dolomite	Dusky yellowish brown to dusky brown very fine crystalline dolomite with a trace of quartz siltstone; trace of shale; 10% very fine to fine fragmental and pelletoidal dolomite; 1-2% black bitumen partings.
5130'-5140'	Dolomite	Dusky yellowish brown to dusky brown very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace to 10% very fine to fine fragmental and fragmental relics.
5140'-5150'	Dolomite	Very dark yellowish brown to dusky brown very fine crystalline dolomite with a trace of shale; 10% very fine to fine pelletoid dolomite; streak of brown chert with pellets.
5150'-5160'	Dolomite	Very dark yellowish brown to dusky brown, extremely fine to very fine crystalline dolomite with a trace of shale and 2% siltstone (microgranular); trace of very fine to medium pelletoid dolomite; trace of fracture.
5160'-5170'	Dolomite	Very dark yellowish brown to dusky brown extremely fine to very fine crystalline dolomite; trace to 10% shale; trace of black bitumen partings; 2% microgranular quartz siltstone; trace of fracturing; occasional brown chert chip, one chert chip with oolites.
5170'-5175'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace to 10% shale; trace of pyrite; trace of fracture; occasional brown chert chip; one or two chips with good pellets but may not be in situ.

5175'-5180'	Dolomite	Very light brown grading to dark brown, microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 10% shale.
5180'-5190'	Dolomite	Very light brown grading to dark brown, extremely fine crystalline dolomite with a trace of quartz siltstone; 10-20% shale, (shale content variable, and ranges from a trace to 50%, but 10-20% average), trace of fracturing.
5190'-5200'	Dolomite	Very light brown grading to dark brown, extremely fine crystalline to microcrystalline dolomite; trace of quartz siltstone; 10-20% shale, (shale content variable, and ranges from a trace to 50%, but 10-20% average).
5200'-5210'	Dolomite	Very light brown grading to dark brown extremely fine crystalline dolomite, with a trace of quartz siltstone and from a trace to 50% shale; trace of fracturing.
5210'-5220'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; trace of quartz siltstone; trace to 50% shale; trace of quartz sand grains, coarse and floating; occasional chip of chert.
5220'-5230'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; with a trace of quartz siltstone; trace to 20% shale; 35% fine to medium pelletoid and oolite dolomite, 10% pyrite; occasional chert chip, one with oolite.
5230'-5240'	Dolomite	Light brownish pink, extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 30% shale; darker dolomite not considered in situ.

5240'-5247'	Dolomite	Very dark yellowish brown grading into dusky yellowish brown microcrystalline to extremely fine crystalline dolomite; trace of quartz siltstone; trace to 30% shale.
5247'-5250'	Dolomite	Light brownish pink, extremely fine crystalline to microcrystalline dolomite; trace of quartz siltstone; trace to 30% shale.
5250'-5259'	Dolomite	Very dark yellowish brown grading into dusky yellowish brown microcrystalline to extremely fine crystalline dolomite; trace of quartz siltstone; trace to 10% shale.
5259'-5260'	Dolomite	Very light grey, microcrystalline dolomite with a trace of shale; 35% cryptogranular quartz siltstone.
5260'-5270'	Dolomite	Light grey and light brownish pink grading into very dark yellowish brown. (mostly light in colour); 30-50% shale.
5270'-5280'	Dolomite	Light olive brown and light brownish pink grading into dark yellowish brown, (mostly light in color); dolomite microcrystalline to extremely fine crystalline; 40%-50% shale.
5280'-5285'	Dolomite	Light pinkish brown microcrystalline dolomite with 10-40% shale.
5285'-5290'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with 30-50% shale.
5290'-5297'	Dolomite	Very light grey and light pinkish brown microcrystalline dolomite with a trace of quartz siltstone and 20% shale.
5297'-5300'	Dolomite	Very dark to dusky yellowish brown extremely fine to microcrystalline dolomite with a trace of quartz silt.

		stone, and between 30 and 50% shale.
5300'-5305'	Dolomite	Light, and very light greyish brown microcrystalline dolomite; trace of cryptogranular quartz siltstone; 10% to 50% shale; 1% very fine to fine floating sand grains; occasional very silty dolomite chips.
5305'-5318'	Dolomite	Very light brown grading into brownish grey, microcrystalline dolomite; trace to 10% cryptogranular quartz siltstone; 10-50% shale.
5318'-5320'	Dolomite	Very dark brown microcrystalline dolomite; trace of quartz siltstone; 50-60% shale.
5320'-5330'	Dolomite	Light and very light brown microcrystaline to extremely fine crystalline dolomite with a trace of cryptogranular quartz siltstone; trace to 10% shale.
5330'-5340'	Dolomite	Very light grey microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 20% shale; brown dolomite not considered in situ.
5340'-5350'	Dolomite	Very light grey extremely fine crystalline dolomite; trace of microgranular siltstone; trace of shale.
5350'-5360'	Dolomite	Very light grey extremely fine crystalline dolomite with a trace of microgranular siltstone; trace of shale.
5360'-5365'	Dolomite	Light and very light grey grad- to light brown extremely fine to microcrystalline dolomite; trace of quartz siltstone; trace to 10% shale; streak of dark olive grey to olive grey shale.

5365'-5370'	Dolomite	Very light grey grading into very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone; trace of shale and pyrite.
5370'-5380'	Dolomite	Very light grey grading to very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
5380'-5390'	Dolomite	Very light grey grading into very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of cryptogranular quartz and shale; between 5380' and 5385', occasional darker brown chips with oolites and pellets, very minor, very dark brown lithology (very argillaceous and very limy) not considered in situ.
5390'-5400'	Dolomite	Brownish grey to dark brownish grey extremely fine to very fine crystalline dolomite; 20% very fine to fine pellets; trace of quartz siltstone and shale.
5400'-5405'	Dolomite	Very dark brownish grey to brownish grey, extremely fine to very fine crystalline dolomite; trace of cryptogranular quartz siltstone; trace of shale; 10% very fine to fine pellets; 1% fine floating sand grains.
5405'-5410'	Dolomite	Very dark brownish grey to brownish grey, extremely fine to very fine crystalline dolomite; 20% very fine to fine pellets; trace of quartz siltstone and shale.
5410'-5415'	Dolomite	Very light brown extremely fine to very fine crystalline dolomite; trace of quartz siltstone and shale.

5415'-5419.5'	Dolomite	Brownish grey to dark brownish grey extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; 15% very fine to fine pellets.
5419.5'-5425'	Dolomite	Very light brown, microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone, and a trace of shale.
5425'-5430'	Dolomite	Very light grey grading to light and very light brown, microcrystalline to extremely fine and very fine crystalline dolomite; 10% cryptogranular quartz siltstone.
5430'-5436'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite; trace of quartz siltstone; trace to 10% shale; 15% very fine to medium fragments and pellets.
5436'-5440'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite with a trace of shale and pyrite; trace to 10% cryptogranular siltstone.
5440'-5443'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite with a trace of cryptogranular siltstone; trace to 10% shale; 10% very fine to fine fragments and pellets; trace of medium floating sand grains.
5443'-5450'	Dolomite	Very light grey grading to light and very light brown extremely fine crystalline dolomite; trace of quartz siltstone, and a trace of shale.
5450'-5460'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of cryptogranular siltstone; streak of black shale.

5460'-5470'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone.
5470'-5480'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone.
5480'-5485'	Dolomite	Dusky brown microcrystalline dolomite with a trace of shale and pyrite; 10-20% very fine to fine pellets.
5485'-5490'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace of very fine to fine pellets.
5490'-5498'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace to 10% very fine to medium pellets; trace of anhydrite blebs?
5498'-5503'	Dolomite	Light brown microcrystalline dolomite with a trace of quartz siltstone and a trace of shale.
5503'-5510'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace of very fine to fine pellets; occasional clean gypsum crystal.
5510'-5520'	Dolomite	Light brown grading to dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace of very fine to medium pellets.
5520'-5535'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone and a trace of pyrite; trace to 10% shale.

5535'-5590'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace to 10% very fine to fine pellets, occasional chip with oolites.
5560'-5590'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite; trace of shale and a trace of quartz siltstone, occasional chip with good pellets.
5550'-5560'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale, (argillaceous content variable, up to 50%).
5560'-5570'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 30% shale.
5570'-5580'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale.
5580'-5590'	Dolomite	Medium brown grading to dark dusky brown microcrystalline dolomite, with a trace of quartz siltstone; trace to 20% shale.
5590'-5600'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone; trace of shale and pyrite.
5600'-5608'	Dolomite	Light brown grading to medium brown, microcrystalline dolomite; trace to 10% shale; trace of anhydrite blebs; occasional very tiny bleb of chert.
5608'-5610'	Shale	Medium olive grey grading to olive grey, microcrystalline dolomite with a trace of pyrite; 60-90% shale and 10-40% dolomite.

5610'-5617'	Dolomite	Light brown to medium brown microcrystalline dolomite with a trace of anhydrite and anhydrite blebs, trace to 10% quartz siltstone; trace to 10% shale; trace of coarse floating sand grains.
5617'-5620'	Shale	Olive grey to dark olive grey shale with a trace of pyrite; 10-40% microcrystalline dolomite;
5620'-5628'	Dolomite	Light brown microcrystalline dolomite, trace of quartz siltstone; trace to 20% shale; trace of anhydrite blebs; occasional very tiny blebs of chert, and very silty dolomite chips; 1-2% fine to very coarse floating sand grains.
5628'-5630'	Shale	Olive grey to dark olive grey shale with a trace of pyrite; 10-40% microcrystalline dolomite.
5630'-5640'	Dolomite	Medium to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; trace of very fine to fine pellets; trace of anhydrite blebs; streak of olive grey shale.
5640'-5650'	Dolomite	Dark brown microcrystalline dolomite with a trace of shale and anhydrite blebs; 10% very fine to medium pellets; trace of fracturing.
5650'-5660'	Dolomite	Dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace to 10% very fine to fine pellets; trace of bitumen partings (black).
5660'-5670'	Dolomite	Dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; trace of pyrite; trace to 10% very fine to fine pellets; streak of black shale.

5670'-5680'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace of black bitumen partings; trace to 40% shale; streak of black shale.
5680'-5690'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; 10-50% shale; occasional black dolomitic shale chip to 5695'
5690'-5700'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone and pyrite; 10-50% shale; streak of olive grey shale.
5700'-5707'	Dolomite	Medium brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace to 40% shale.
5707'-5710'	Shale	Dark olive grey shale with 20% microcrystalline to cryptocrystalline dolomite.
5710'-5716'	Dolomite	Medium to dark brown grading to very dark brown microcrystalline dolomite; trace to 30% shale, trace of coarse floating sand grains.
5716'-5720'	Shale	Dark olive grey shale with 20% microcrystalline to cryptocrystalline dolomite.
5720'-5725'	Dolomite	Medium dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace to 20% shale; very occasional very silty chips.
5725'-5730'	Dolomite	Very dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; argillaceous content variable, occasional chip 50% +.

5730'-5740'	Dolomite	Medium brown grading to very dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale.
5740'-5744'	Dolomite	Light to medium brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace to 20% shale; trace of coarse floating sand grains.
5744'-5748'	Siltstone	Light grey quartz siltstone with a trace of shale and pyrite; 30-40% microcrystalline dolomite.
5748'-5760'	Shale	Olive grey grading to dark olive grey shale with 1% pyrite; 20% cryptogranular to microgranular dolomite crystalline.
5760'-5768'	Shale	Olive grey grading to dark greenish grey shale with 1% pyrite; 10-20% microcrystalline to cryptocrystalline dolomite; occasional clean gypsum crystal.
5768'-5770'	Siltstone	Light grey grading to light brown siltstone with a trace of shale and pyrite; 30-60% microcrystalline dolomite; trace of anhydrite.
5770'-5776'	Shale	Olive grey grading to dark greenish grey shale with a trace of pyrite; 10-20% microcrystalline to cryptocrystalline dolomite.
5776'-5780'	Dolomite	Light brown grading to medium brown microcrystalline dolomite with a trace of pyrite and anhydrite.
5780'-5788'	Shale	Brick red and bright green shale with 10% microcrystalline to cryptocrystalline dolomite with a trace of anhydrite.
5788'-5790'	Anhydrite	Light grey grading to pink anhydrite with 10-20% quartz siltstone; 30-40% microcrystalline dolomite.

5790'-5797'	Shale	Red with green mottling shale; 10% microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5797'-5800'	Anhydrite	Light grey grading to pink anhydrite with 10-20% quartz siltstone; 30-40% microcrystalline dolomite.
5800'-5808'	Shale	Red with green mottling shale; 10% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5808'-5810'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 30% microcrystalline dolomite.
5810'-5816.5'	Shale	Red with green mottling shale; 10% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5816.5'-5820'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 30% microcrystalline dolomite.
5820'-5825'	Shale	Red with green mottling shale; 20% anhydrite; 10% microcrystalline to cryptocrystalline dolomite.
5825'-5830'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 20% microcrystalline dolomite.
5830'-5834'	Shale	Red with green mottling shale; 20% anhydrite; 10% microcrystalline to cryptocrystalline dolomite.
5834'-5840'	Anhydrite	Pink anhydrite with 20% quartz siltstone and 20% microcrystalline dolomite.
5840'-5846'	Shale	Red with green mottling shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite.

5845'-5850'	Anhydrite	Light brown grading to pink anhydrite; 25% quartz siltstone; 25% microcrystalline dolomite.
5850'-5857'	Shale	Red shale with green mottling; 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5857'-5860'	Anhydrite	Light brown grading to pink anhydrite; 25% quartz siltstone; 25% microcrystalline dolomite.
5860'-5863.5'	Shale	Red shale with green mottling; 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5863.5'-5865'	Anhydrite	Light brown grading to pink anhydrite; 25% quartz siltstone; 25% microcrystalline dolomite.
5865'-5875'	Shale	Red shale, (very minor green shale), with 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5875'-5882'	Shale	Red shale with green mottling; 10% anhydrite; trace of dolomite; (microcrystalline to cryptocrystalline dolomite).
5882'-5890'	Anhydrite	Light brown grading to pink anhydrite with 25% quartz siltstone; 25% microcrystalline dolomite.
5890'-5894'	Shale	Red shale with green mottling; 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5894'-5900'	Anhydrite	Light brown grading to pink anhydrite; 10-30% siltstone; 25% microcrystalline dolomite.

5900'-5906'	Shale	Red shale with olive brown and olive grey mottling; trace of pyrite and anhydrite; 10-30% microcrystalline to cryptocrystalline dolomite.
5906'-5910'	Anhydrite	Light brown grading to pink anhydrite with 30% microcrystalline dolomite; 45% anhydrite; 25% quartz siltstone.
5910'-5918'	Shale and Dolomite	Olive grey microcrystalline to cryptocrystalline dolomite (40-60%) with a trace of pyrite and anhydrite; 40-60% shale; streak of red shale.
5918'-5920'	Anhydrite	~~Light brown grading to pink micro~~-crystalline dolomite; 25% quartz siltstone; 45% anhydrite.
5920'-5930'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite, streak of dolomitic anhydrite.
5930'-5940'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite; streak of dolomitic anhydrite.
5940'-5950'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite; streak of light brown grading to pink anhydrite (dolomitic).
5950'-5952'	Shale	Red shale with a trace of microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5952'-5958'	Shale	Light brown grading to pink shale with 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5958'-5960'	Anhydrite	Light brown anhydrite with 20% quartz siltstone; 20-30% microcrystalline dolomite.
5960'-5962'	Shale	Red shale with a trace of microcrystalline to cryptocrystalline dolomite; trace of anhydrite.

5962'-5968'	Shale	Light brown grading to pink shale with 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5968'-5970'	Anhydrite	Light brown grading to pink anhydrite with 20% quartz siltstone; 20-30% microcrystalline dolomite.
5970'-5973'	Shale	Bright red and green mottled shale; 10% microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5973'-5976'	Anhydrite	Light brown grading to pink anhydrite; ~~10-20% quartz siltstone; 20-30%~~ microcrystalline dolomite.
5976'-5980'	Shale	Medium olive brown grading to dark olive brown shale; 10% anhydrite; 20-30% microcrystalline to cryptocrystalline dolomite.
5980'-5988'	Shale	Dusky yellowish brown grading to very dark red mottled with green (green is very minor), shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite; trace of very fine to fine floating sand grains.
5988'-5990'	Anhydrite	Light brown grading to pink anhydrite with 20% quartz siltstone; 20% microcrystalline dolomite.
5990'-6003.5'	Shale	Dusky yellowish brown grading to very dark red mottled with green (green is very minor) shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite; trace of very fine to fine floating sand grains.
6003.5'-6005'	Anhydrite	Light brown grading to pink anhydrite wit 20% quartz siltstone; 20% microcrystalline dolomite.
6005'-6009'	Shale	Dark greenish grey grading to dark olive grey shale; trace of microcrystalline to cryptocrystalline dolomite; 1-2% very fine, clear silica, floating sand grains, harder.

6009'-6015'	Sandstone	Very light grey fine to coarse sandstone (coarse grains very minor); roundness hard to determine since silica cement tends to be obscure; glauconite only in the upper 1', and is up to 10%; very hard, subrounded, moderate sphericity; considerable shale cave; 10% clear silica, siliceous chert.
6015'-6020'	Sandstone	Very light grey (nearly white), fine to medium sandstone (rare coarse grains of sandstone); 10% siliceous chert; very hard, subrounded, moderate sphericity; considerable shale cave.
6020'-6030'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone, (rare coarse grains of sandstone); 10% siliceous chert; very hard, subrounded, moderate sphericity; considerable shale cave, but occasional chips of quartzite to 6045' (i.e. breaks across the grains).
6030'-6045'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone (rare coarse grains of sandstone); 10% siliceous chert.
6045'-6055'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone, (rare coarse grains of sandstone); trace of siliceous chert; somewhat softer, subrounded, moderate sphericity.
6055'-6060'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert; very hard, subrounded, moderate sphericity, in part quartzite.
6060'-6070'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone, (rare coarse sand grains); 20% siliceous chert; very hard, subrounded, moderate sphericity, in part quartzite.

6070'-6080'	Sandstone	Very light grey, (nearly white) fine to medium sandstone with 20% chert; very hard, subrounded, moderate sphericity; in part quartsite.
6080'-6090'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert; very hard, subrounded, moderate sphericity; in part quartsite.
6090'-6100'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert; very hard, subrounded, moderate sphericity; in part quartsite.
6100'-6110'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity, in part quartsite.
6110'-6120'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity; in part quartsite.
6120'-6130'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity, in part quartsite.
6130'-6145'	Sandstone	Crystal clear, fine to coarse quartz sandstone, rather poorly sorted; 15% clear siliceous cement; quartzite.
6145'-6150'	Sandstone and Shale	Crystal clear, fine to coarse quartz sandstone, rather poorly sorted, with 15% clear siliceous cement, quartzite; interbedded with brick red shale with 10% quartz siltstone.

6150'-6160'	Shale and Dolomite	Brick red shale with 10% quartz siltstone; interbedded with pink grading to red, extremely fine to very fine dolomite.
6160'-6200'	Shale and Dolomite	Red, extremely fine to very fine crystalline dolomite; interbedded with red shale with 10% quartz siltstone; thin streaks of grass green shale occur in interval 6180'-6200'.
6200'-6245'	Shale and Dolomite	Red, extremely fine to very fine crystalline dolomite with a trace of white anhydrite eyes; interbedded with red and green shale with 10% quartz siltstone.
6245'-6280'	Shale and Dolomite	Brick red, microcrystalline dolomite, with streaks of extremely fine crystalline dolomite, trace of anhydrite blebs; interbedded with brick red shale and green shale with 10% quartz siltstone.
6280'-6320'	Shale and Dolomite	[illegible] to salmon red, to brick red, m[illegible]crystalline dolomite with str[illegible] of extremely fine crystalline [illegible]omite, contains a trace of white anhydrite eyes; interbedded with green shale and red shale with 10% quartz siltstone.
6320'-6330'	Shale, Sandstone, and Dolomite	Light grey, pink and red, microcrystalline dolomite; interbedded with pale green and olive green shale with a silt content of 5%; interbedded with white, fine quartz sand, containing 15% siliceous cement.
6330'-6340'	Shale and Dolomite	Light grey, pink and red, microcrystalline dolomite; interbedded with brick red, grass green and olive green shales; interbedded with fine and medium white quartz containing 10%+ dolomite and a trace of siliceous cement.
6340'-6350'	Shale	Olive green shales containing pyrite cubes; interbedded with white, fine quartz sand, containing 10% siliceous cement.

6350'-6355'	Shale	Grass green shale containing 10% quartz siltstone; interbedded with olive green shale containing 10% quartz siltstone.
6355'-6360'	Shale	Grass green shale and olive green shale, containing 10% quartz siltstone; interbedded with brick red shale, also containing 10% quartz siltstone.
6360'-6365'	Sandstone	Brick red, very fine crystalline dolomite with 30% shale and 10% siliceous chert; hematitic in parts.
6365'-6370'	Sandstone	Brick red, very fine crystalline sandstone, with a trace of medium to coarse, rounded, floating sand grains.
6370'-6375'	Shale and Anhydrite	Light grey shale with 10% finely disseminated anhydrite and a trace of dolomite; interbedded with light grey anhydrite (bedded) which contains a trace of dolomite.
6375'-6380'	Shale and Dolomite	Brick red and grass green shale with a trace of quartz siltstone; interbedded with pink to red microcrystalline dolomite.
6380'-6385'	Shale	Brick red and grass green, mottled in parts, shale.
6385'-6390'	Shale and Sandstone	Brick red and grass green shale, mottled in parts; interbedded with very fine to fine quartz sandstone which contains 30% brick red shale.
6390'-6395'	Shale	Brick red and grass green shale with 20% siltstone and very fine sandstone quartz.
6395'-6400'	No Sample	
6400'-6405'	Shale	Brick red, very fine to fine quartz sandstone, which contains 30% brick red shale; interbedded with light grey shale with 5% anhydrite blebs and a trace of quartz siltstone.

6405'-6410'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%); interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale. (medium sized grains of quartz are floating).
6410'-6415'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%); interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale, (medium sized grains of quartz are floating); streaks of white, pure quartzose sandstone, glauconitic, 5% white argillaceous cement, in parts trace of siliceous cement.
6415'-6420'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%); interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale, (medium sized grains of quartz are floating); streaks of white, pure quartzose sandstone, glauconitic. 5% white argillaceous cement, in parts trace of siliceous cement.
6420'-6425'	Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone.
6425'-6430'	Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone.
6430'-6435'	Shale and Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone; interbedded with brick red shale with 10% quartz siltstone.
6435'-6440'	Shale	Brick red shale with 5% quartz siltstone.

[illegible]-6455'	Shale and Dolomite	Pink, purple, and red shale, with 20% quartz siltstone; interbedded with red dolomite with 10% quartz siltstone.
6455'-6460'	Dolomite	Very light grey microcrystalline dolomite, with 10% white quartz siltstone.
6460'-6465'	Siltstone, Shale and Dolomite	Very light grey microcrystalline dolomite, containing 10% white quartz siltstone; interbedded with red quartz siltstone (30%), and brick red shale (30%).
6465'-6470'	Siltstone and Shale	Red, cryptocrystalline quartz siltstone (50%), with red shale (50%); interbedded with pink to light grey quartz siltstone, containing 10% white to pink shale.
6470'-6475'	Siltstone, Shale and Dolomite	Very light grey microcrystalline dolomite, containing 5% quartz siltstone, and 5% white shale; interbedded with brick red shale which contains 10-20% quartz siltstone; interbedded with pink quartz siltstone, which contains 10% white to pink shale.
6495'-6480'	Siltstone, Shale and Dolomite	Brick red shale containing 10% quartz siltstone; interbedded with red, microcrystalline dolomite with 10% quartz siltstone; interbedded with cryptogranular quartz siltone, (white to pink in colour), which contains 10% shale.
6480'-6485'	Siltstone	Pink, salmon pink, and red quartz siltstone, which contains 5%, pink to red shale, and a trace of dolomite.
6485'-6490'	Siltstone	Pink, salmon pink, and red, quartz siltstone, which contains 5%, pink to red shale, and a trace of dolomite.
90'-6495'	Shale	Light to medium grey shale which contains 10% quartz siltstone.

6495'-6500'	Siltstone and Dolomite	Light grey to pink microcrystalline dolomite, which contains 10% quartz siltstone and 5% white to pink shale; interbedded with pink to red quartz siltstone, which contains 5% shale and a trace of dolomite; also contains a trace of white to light grey chert, (bedded).

SECTION III - ENGINEERING SUMMARY

(a) DRILL STEM TESTS

NO	DATE	FROM	TO	VO MIN	ISI MIN	FSI MIN	ISI BHP	FSI BHP	IF BHP	FF BHP	IHP	FHP	REMARKS
1	3/21/64	1871	1908	MISRUN									
2	3/21/64	1868	1905	MISRUN									
3	3/23/64	1570	1590	MISRUN									

(b) CASING RECORD

CASING SIZE INCHES	WEIGHT LBS/FT	GRADE	BRAND	NEW OR USED	DEPTH	SACKS OF CEMENT
9-5/8"	36	J-55	Domestic	New	740	300 sacks Portland

(c) BIT RECORD

NO	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN	NO	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN
1A	13-3/4	S3	187	187	8-1/4	11	6-3/4	OWC	2483	149	9
2A	13-3/4	S3	430	243	11	12	6-3/4	H7	2688	205	10-1/2
3A	13-3/4	YT3A	618	188	5-1/2	13	6-3/4	WTR2	2849	161	8-1/4
4A	13-3/4	OSC	740	122	9-1/4	14	6-3/4	WTR2	2954	106	5-1/2
1	6-3/4	M4N	1106	366	11-3/4	15	6-3/4	WTR2	3074	120	7-1/4
2	6-3/4	S6	1223	117	9-3/4	16	6-3/4	H7	3167	93	5-3/4
3	6-3/4	OWV	1272	49	10	17	6-3/4	WTR2	3313	146	10-3/4
4	6-3/4	OWV	1370	98	14-1/4	18	6-3/4	WTR2	3482	169	10-3/4
5	6-3/4	OWV	1578	217	13-3/4	19	6-3/4	WTR2	3659	177	11-3/4
6	6-3/4	OWV	1766	188	15	20	6-3/4	WTR2	3784	125	8-3/4
7	6-3/4	YSI	1949	183	15-1/2	21	6-3/4	WTR2	3925	141	8-1/4
8	6-3/4	OWV	2040	91	14-1/4	22	6-3/4	WTR2	4076	151	11-3/4
9	6-3/4	M4N	2108	68	12-3/4	23	6-3/4	WTR2	4117	46	4-1/2
10	6-3/4	YM	2334	226	10-1/2	24	6-3/4	WTR Reamed		4037-4117 80	5-1/4

(c) BIT RECORD (continued)

NO	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN
25	6-3/4	RGIJ	4461	344	28-1/4
26	6-3/4	W7R	Mill on Iron		
27	6-3/4	YCGJ	4734	273	27-1/2
28	6-3/4	W7R	4793	59	5-1/2
29	6-3/4	W7R	4801	8	3/4
30	4-11/16	EC-8306	4835	34	7
31	6-3/4	RG3	4835	Ream 34	4
32	6-3/4	RGIJ	5015	180	17-3/4
33	6-3/4	WC3	5256	241	27
34	6-3/4	W7R2	5357	101	10-1/2
35	6-3/4	YCG	5682	325	40-3/4
36	6-3/4	YCG	5910	228	28
37	6-3/4	W7R2	6011	101	9-1/4
38	6-3/4	WC3	6026	15	5-1/4
Rerun Bit No. 33 241 ft. 27 hrs.					
39	6-3/4	W7R2	Ran in with junk sub.		
40	6-3/4	RGIJ	6008	62	15
41	Rerun	RG3	6008 Ream		5
	Bit No. 31				
42	6-3/4	YCG	6106	38	6-3/4
43	6-3/4	W7R	6134	8	4
44	6-3/4	YCG	6237	103	17-3/4
45	6-3/4	YCG	6311	94	16-1/2
46	6-3/4	W7R2	6369	30	6-3/4
47	6-3/4	YCG	6398	29	14-1/4
48	6-3/4	YR42	6430	32	6-1/2
49	6-3/4	W7R2	6468	38	8-3/4
50	6-3/4	W7R2	6500	32	9-1/4

(d) MUD RECORD

TYPE	AMOUNT
Caustic Soda	550 lbs.
Gel	35,900 lbs.
Peltex	900 lbs.
Quik-Vis	275 lbs.
Shavings	2,800 lbs.

(e) DEVIATION RECORD

DEPTH	DEVIATION	DEPTH	DEVIATION	DEPTH	DEVIATION	DEPTH	DEVIATION
60	1/2°	1366	6°	1932	14°	3585	11-1/2°
156	1-1/2	1379	8	2025	14-1/2	3650	11-3/4
270	1-1/4	1500	8-1/2	2110	16	3775	12-1/4
490	3/4	1530	8-1/2	2170	17	3860	12
679	1-1/4	1554	8-3/4	2230	17	3960	10
975	2-1/4	1585	9-3/4	2385	12	4070	10-1/4
1035	1-1/2	1658	10	2552	5-1/2	4461	9-1/2
1100	2-1/2	1689	10	2614	4-1/2	4734	6-1/4
1160	4	1720	10-1/2	2685	7	5015	8-1/2
1190	5-1/2	1750	11	2849	7-3/4	5187	8-1/2
1223	6-1/2	1780	11-1/2	2954	8	5350	8-1/2
1240	8	1842	12	3070	8-3/4	5655	9
1272	7-1/2	1903	12-1/2	3167	9	5910	8-1/2
1314	8	1933	13	3310	9-3/4		
1344	8	1962	13-3/4	3460	11		

(f) ABANDONMENT PLUGS

Plug No. 1 6500 - 6300 with 35 sacks Cement
Plug No. 2 2980 - 2700 with 125 sacks Cement. Felt at 2515'
Plug No. 3 900 - 700 with 148 sacks Cement. Felt at 625'

Cut casing off at ground level and welded on steel plate with well name.

(g) LOST CIRCULATION ZONES

None

(h) REPORT OF BLOWOUTS

None

SECTION IV - LOG SUMMARY

TYPE OF LOG	INTERVAL
Microlog Caliper	6500 - 739
Sonic Gamma Ray	6500 - 740
Induction Electrical	6500 - 739
Continuous Dip Meter	6500 - 2000 - Repeated - no points made.
Gamma Ray Neutron Survey	6002 - 740

SECTION V - ANALYSIS

(a) CORE ANALYSIS

None

(b) WATER ANALYSIS

None

(c) GAS ANALYSIS

None

(d) OIL ANALYSIS

None

Shell Canada Limited
Shell Blackwater Lake #C-52
54°-01'-20"N-122°-55'-12"W.
-1570-1590

JOHNSTON TESTERS

TECHNICAL REPORT

Shell Canada Limited
Shell Blackwater Lake #G-52
64°-01'-20"N-122°-55'-12"W.
-1570-1590

JOHNSTON TESTERS

TEST DATA

Formation — Zone Thickness — Ft

Interval 1570 To 1590 TD 2535

Type of Test Open Hole, Straddle, Bypass

Total Depth of Tool in Hole 0245 Hrs | Tool Open Hrs

1st Flow 0 Min | Shut In 0 Min

2nd Flow 0 Min | Final Shut In 0 Min

Pulled Loose @ 0500 Hrs | Out of Hole 0645 Hrs

Weight on Packer 40,000 # | Pulled Loose @ 44,000 #

Remarks

Description of Blow During Test Mis-Run. Seat Failure.

GAS FLOW MEASUREMENTS

Measured with ID Prover or Ist

Type of Measurement

Time	Size Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes No X

Fluid Recovered Total: Ft

Description of Fluid Recovered Not Reported

Remarks

Mis-Run. Seat Failure.

Co. Rep. H. Lyon

Tester F. Spreen

Elevation 1213.5' KB 1200' GL

Bottom Hole Choke Size 1/2"

Fluid Cushion Type

Amount

TOOL SEQUENCE

Tool	Length	OD
Sub.	.85	
P.O. Sub.	.70	
Sub.	.85	
D.P. Sub.	.68	
L.I.T.	6.05	
Recorder	5.50	
Hyd. Tool	6.85	
Recorder	5.50	
Jars	4.85	
Safety Jt.	1.74	
H. Sub.	.67	
I.C. & Pkr.	4.70	
Total	46.57	
Stub	1.00	
Perf.	2.59	
L. Sub.	.71	
Recorder	5.50	
I.C. & Stub	3.00	
Total Intv.	13.80	
Pkr.	2.85	
Sub.	.85	
Setting Tool	5.25	
Total Below Intv.	8.85	
Total Length	68.22	

MUD AND HOLE DATA

Mud Type Gel & Chem W.L. 23

Filter Cake 2/32 Visc. 47 Wt. 9.3

Time Taken March 20/64 @ 1600 hrs.

Contractor Regent Drilling Rig No. 21

Drill Pipe Size 3 1/2 IF

Drill Collar Size 2 1/4 ID Length 783.08'

Main Hole Size 6 3/4"

Rat Hole Size

District Ft. St. John

Company Shell Canada Limited

Well Name Shell Blackwater Lake #C-52

Number 84°-01'-20"N-122°-55'-12"W.

Formation -1570-1590

and Interval

Distribution of Reports 5-Edmonton.

Ticket No. C 738 Date March 23/64

Address P.O. Box 186, Edmonton, Alberta

Test No. 3 J.T.L. Test No. 3

Field Blackwater Lake Province British Columbia

Consultant

TANK #B738 RUN #

JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 728

Recorder No.	T-4911	T-193	T-271		
Capacity PSIG	3000	3000	3000		
Recorder Depth	1540	1554	1582		
Pressure Gradient					
Wall Temperature	89°	89°	89°		
A Initial Hydrostatic		7538	7866		
B First Initial Flow	Ran Above Tool.				
C Initial Shut-In		MIS-RUN.			
D Second Flow		SEAT			
E Second Shut-In		FAILURE.			
G Final Hydrostatic		7508	7838		

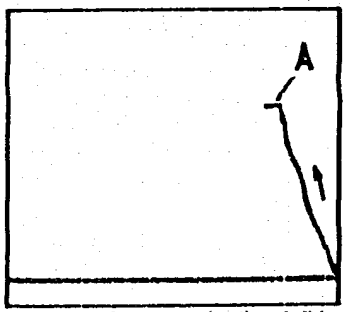
Remarks T-4911-Inside Recorder

T-193-Inside Recorder

T-271-Outside Recorder

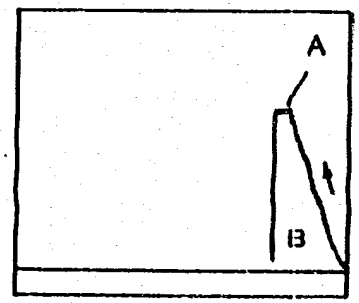
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



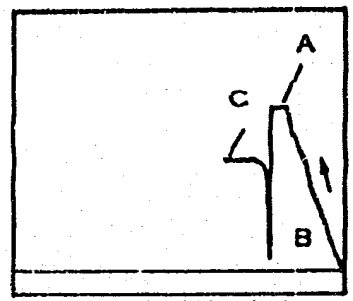
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



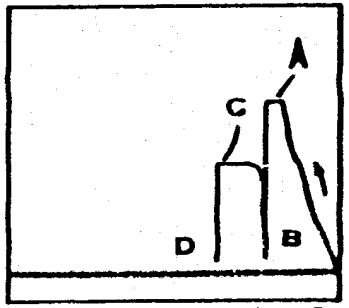
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



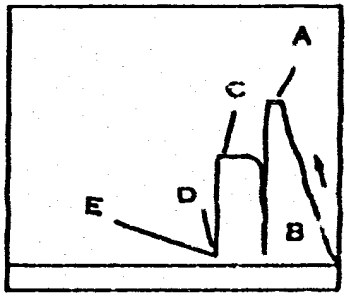
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



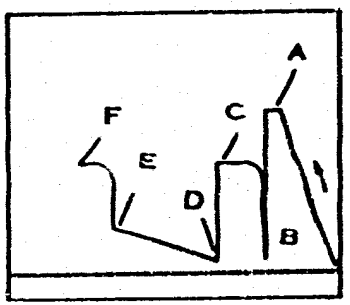
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position Permitting the open formation to produce.

5



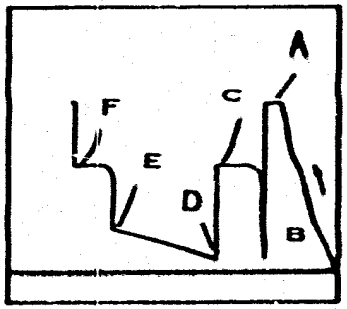
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



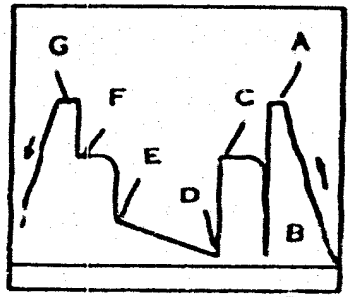
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been open & permitting the drilling fluid to flow through the packer to the test zone. Then, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

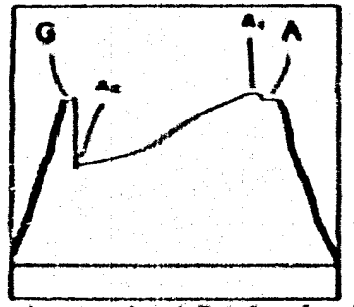
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

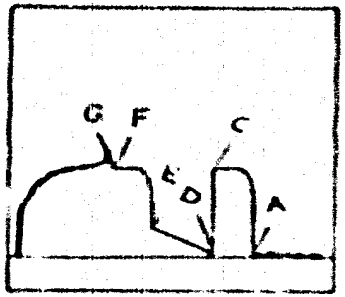
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E 3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



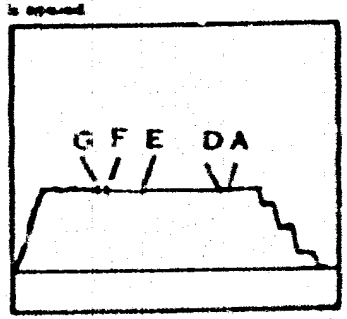
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded when the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber face of the packer element, which in turn causes a drop in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut in pressures are recorded while the main tester valve is opened.

C

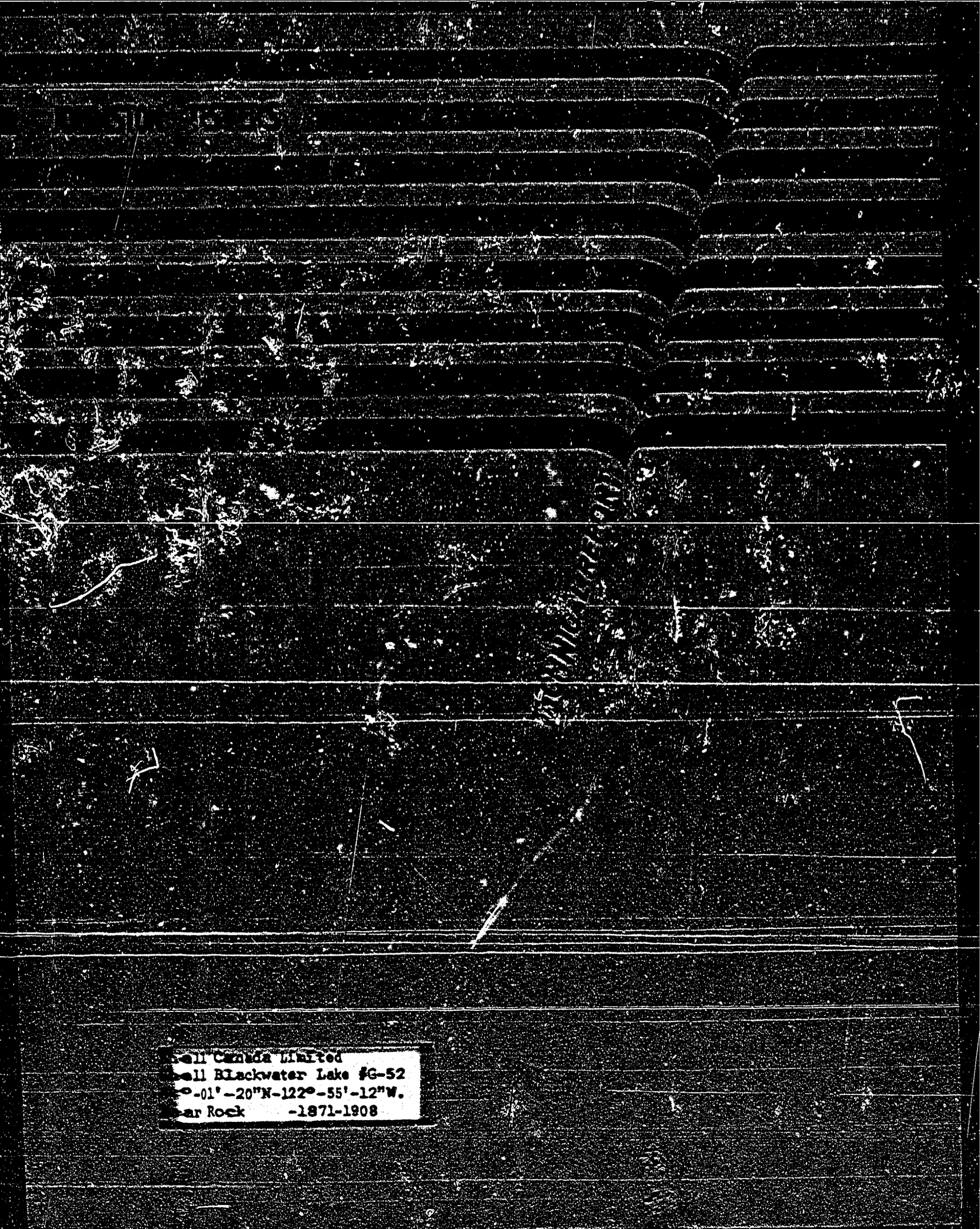


In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. The pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressure of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

Shell Canada Limited
Shell Blackwater Lake #G-52
52°-01'-20"N-122°-55'-12"W.
Bear Rock -1871-1908


ell Canada Limited
ell Blackwater Lake #G-52
°-01'-20"N-122°-55'-12"W.
ar Rock -1871-1908

JOHNSTON TESTERS

TEST DATA

Formation: Bear Rock — Zone Thickness: Ft
Interval: 1871 — To: 1908 — T.D. 2535
Type of Test: Open Hole, Straddle, By-pass
Time Started in Hole: 0630 Hrs — Tool Open: Hrs
First Flow: 0 Min — Shut In: 0 Min
Second Flow: 0 Min — Final Shut In: 0 Min
Pulled Loose @: 0950 Hrs — Out of Hole: 1230 Hrs
Wt. Set on Packer: 43,000 # — Pulled Loose Wt: 43,000 #
Remarks:

Description of Blow During Test: Mis-Run. Seat failure.

GAS BLOW MEASUREMENTS

Measured with: ID Riser or Ext.
Type of Instrument:

Time	Size Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒
Fluid Recovered (Total): Ft.
Description of Fluid Recovered: Not Reported

Remarks: Mis-Run. Seat failure.

Elevation: 1213.5' KB 1200' GL
Bottom Hole Choke Size: 1/2"
Fluid Cushion Type:
Amount:

TOOL SEQUENCE

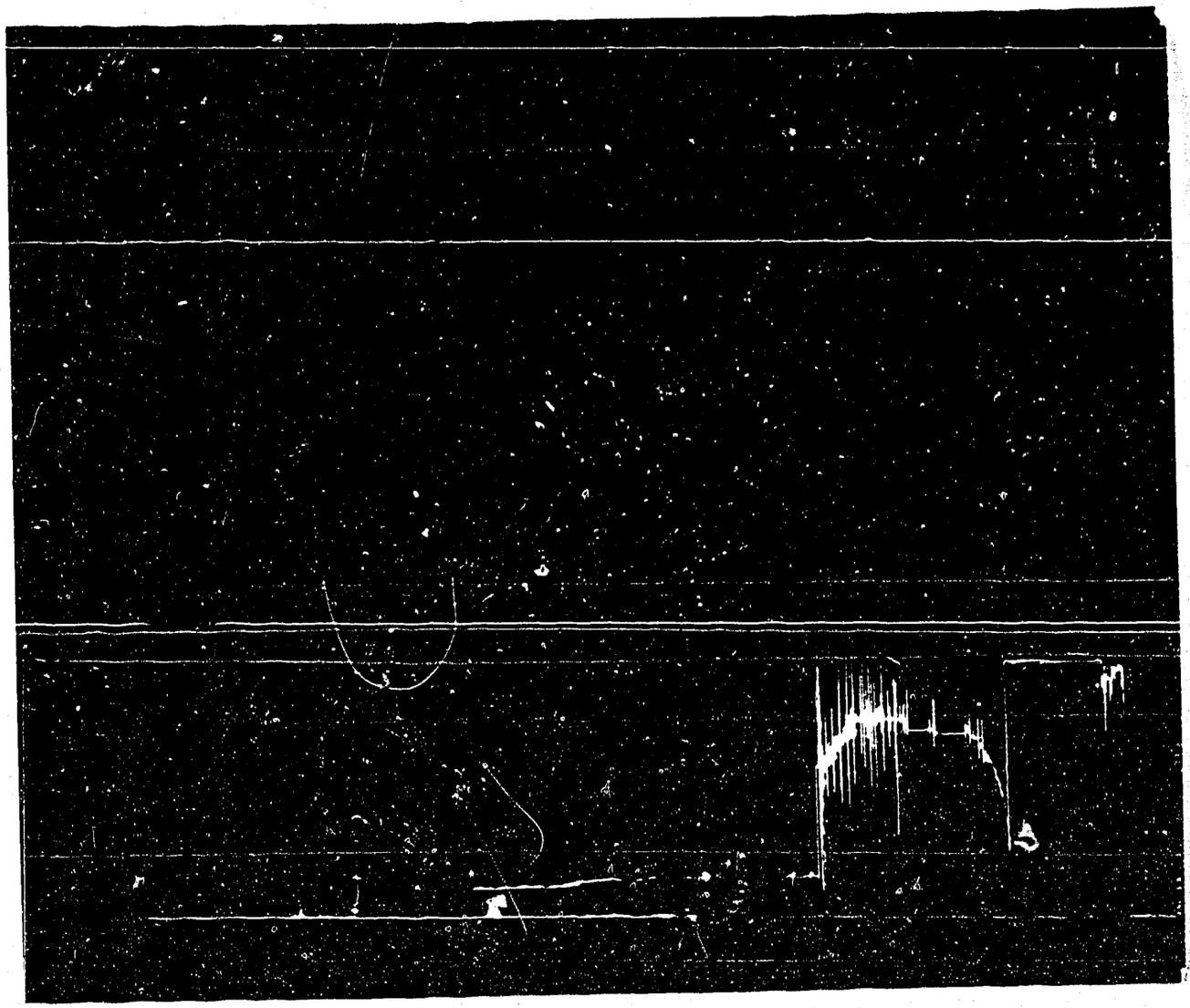
Tool	Length	O D
Sub.	.65	
P.O. Sub.	.70	
Sub.	.85	
D.P. Sub.	.68	
S.I.T.	6.05	
Recorder	5.50	
Hyd. Tool	8.38	
Recorder	5.50	
Jars	4.85	
Safety Jt.	1.74	
H. Sub.	.67	
T.C. & Pkr.	6.53	
T.C. & Pkr.	6.70	
Total	47.10	
Stub	1.00	
Perf.	26.50	
R. Sub.	.72	
Recorder	5.50	
T.C. & Stub	8.00	
Total Intv.	88.71	
Pkr.	2.65	
T.C. & Pkr.	6.77	
Recorder	4.45	
Sub.	.95	
Setting Tool	5.25	
Total Below Intv.	20.07	
Total Length	103.88	

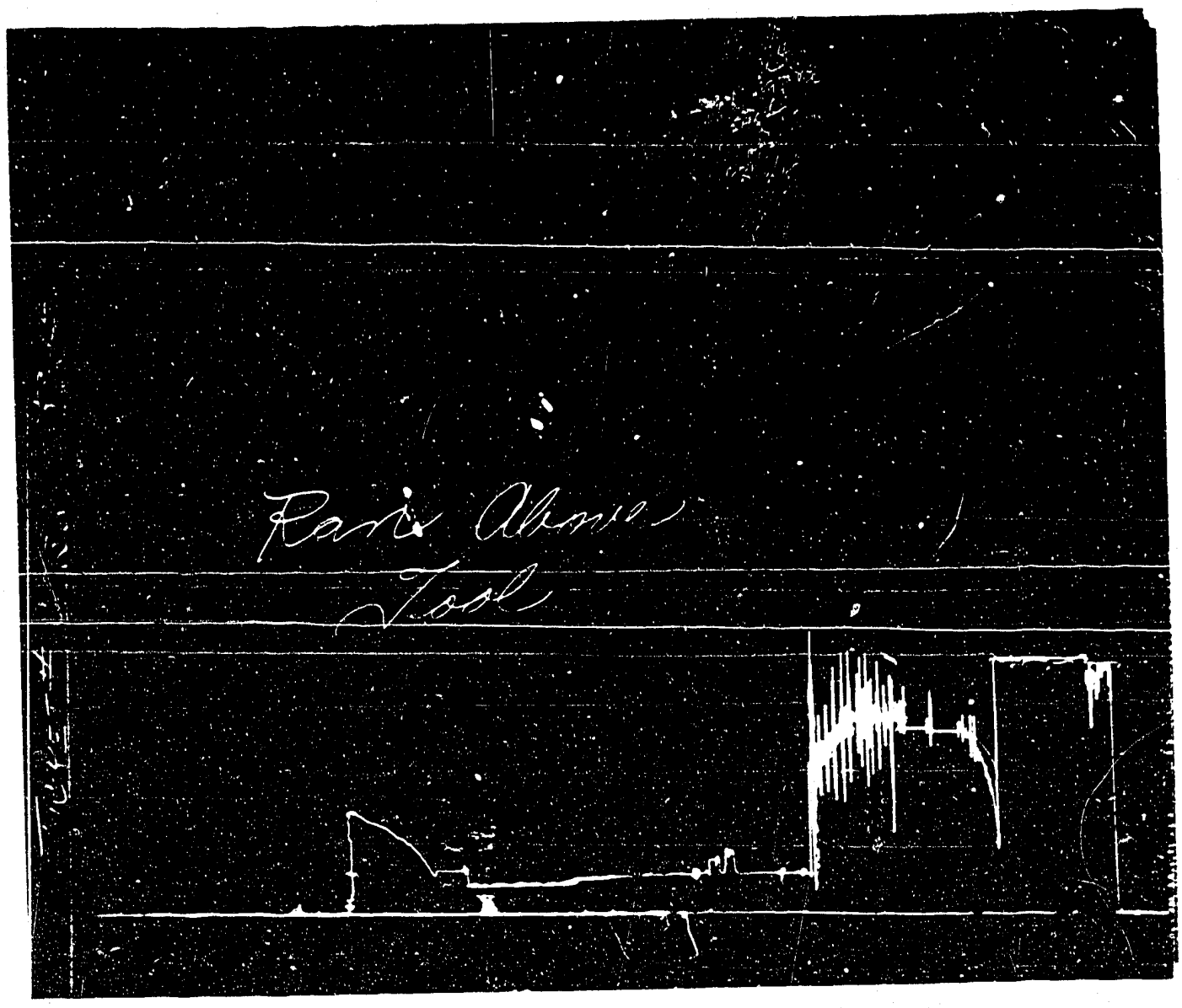
MUD AND HOLE DATA

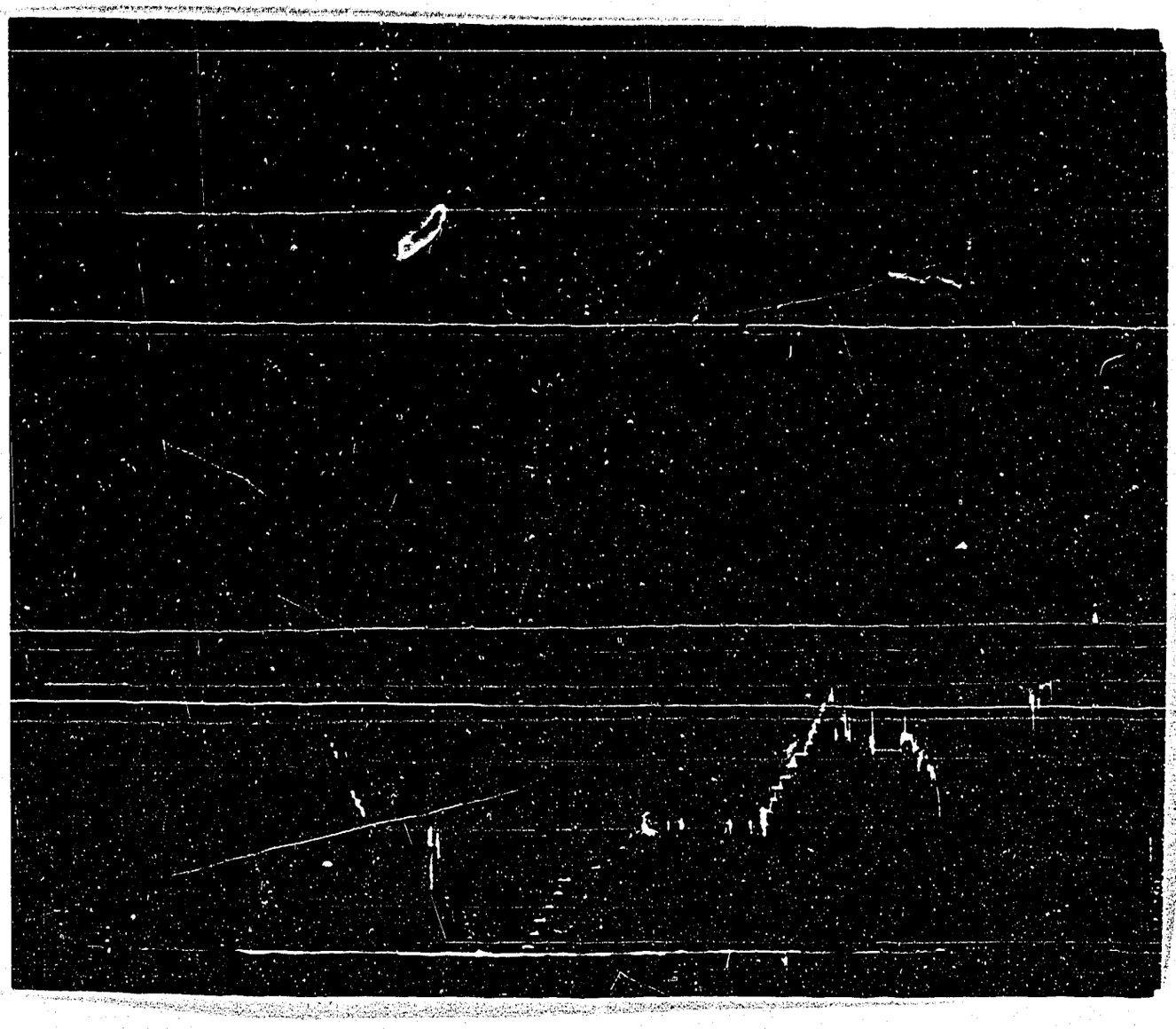
Mud Type: Gel & Chem — W.L. 23
Filter Cake 2/32 — Visc. 47 — Wt. 9.3
Time Taken: March 20/64 @ 1800 hrs.
Contractor: Regent Drilling — Rig No. 21
Drill Pipe Size: 3 1/2 IF
Drill Collar Size: 2 1/4 ID — Length 783.08'
Main Hole Size: 6 3/4"
Rat Hole Size:

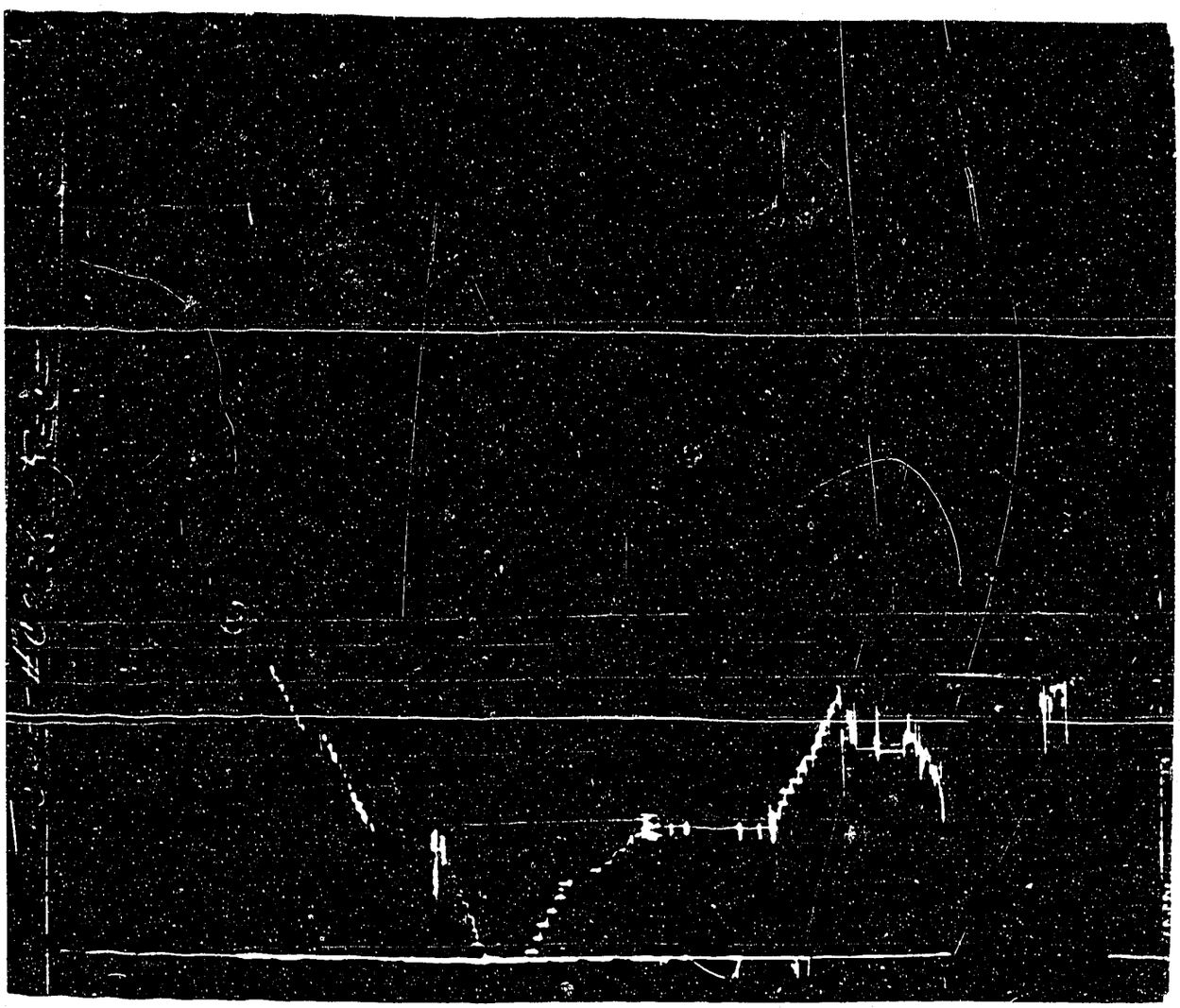
Co. Rep. H. Lyon
Tester F. Spray
District Ft. St. John
Company Shell Canada Limited
Well Name Shell Blackwater Lake #G-52
Number 64°-01'-20"N-122°-55'-12"W.
Formation Bear Rock -1871-1908
and Interval
Distribution of Reports 5-Edmonton.

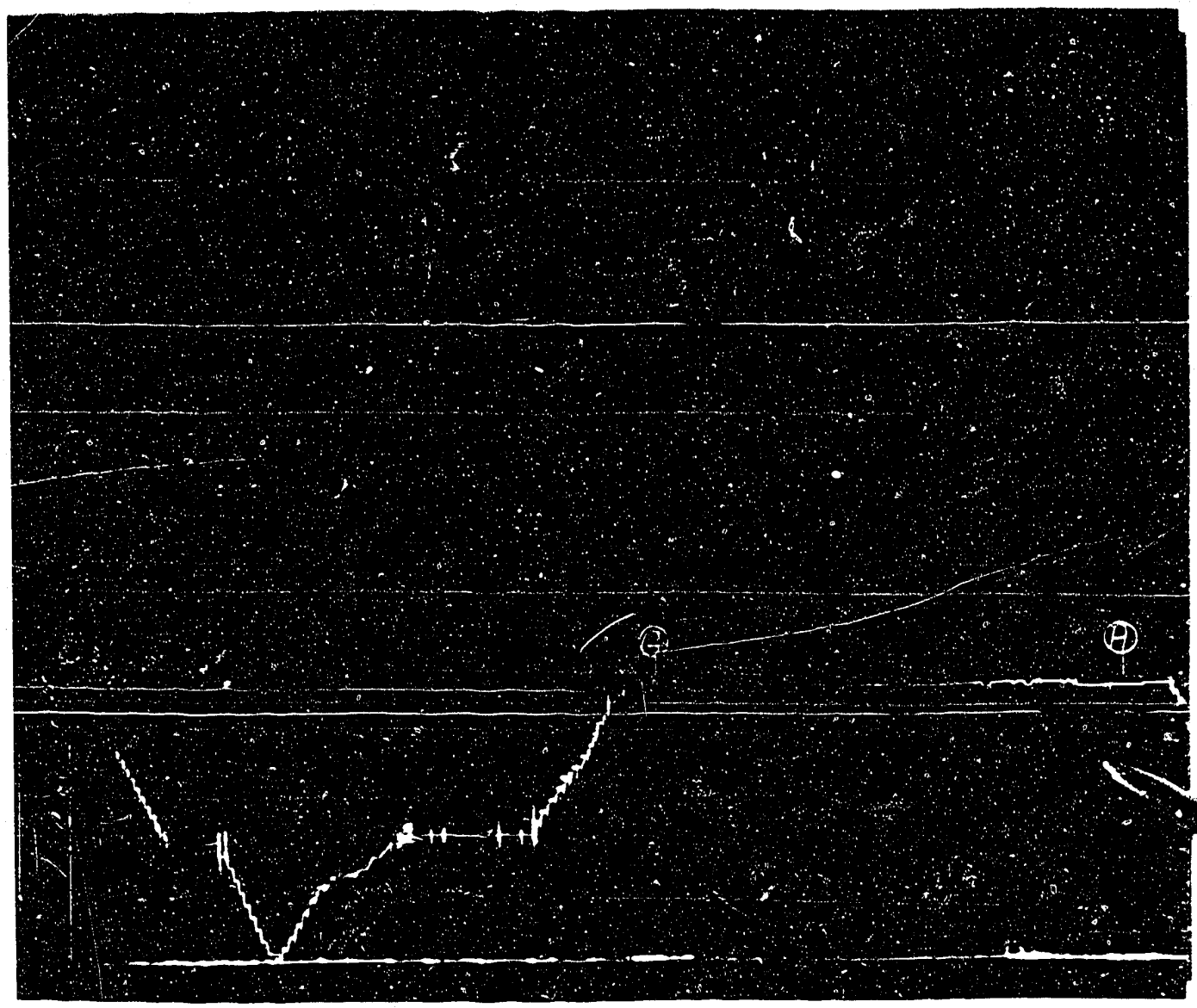
Ticket No. C 736 — Date March 21/64
Address P.O. Box 186, Edmonton, Alberta
Test No. 1 — J.T.L. Test No. 1
Field Wildcat — Province British Columbia
Consultant




Paris Atomic
Tool






G
H

TARGET

JOHNSTON TESTERS

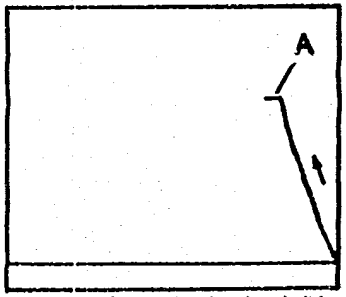
Pressure Data Test Ticket No. C 736

Recorder No.	T-4911	T-193	T-371	T-187	
Capacity P.S.I.	3000	3000	3000	3000	
Recorder Depth	1834	1848	1900	1918	
Pressure Gradient P.S.I. per Ft.					
Drill Temperature @ Ft.	98°	98°	98°	98°	
A Initial Hydrostatic	Ran Above Tool	8918	9154	9324	
B First Initial Flow					
C Initial Shut-in Pres.		MIS-RUN.		Ran Below	
D Flowing Press.		SEAT		Straddle.	
E Final Flow		FAILURE.			
F Final Shut-in					
G Final Hydrostatic	Ran Above Tool		9064	9214	

Remarks T-4911-Inside Recorder
T-193-Inside Recorder
T-371-Outside Recorder
T-187-Outside Recorder

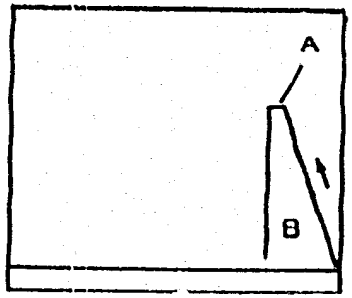
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



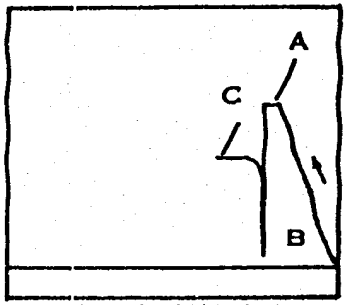
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



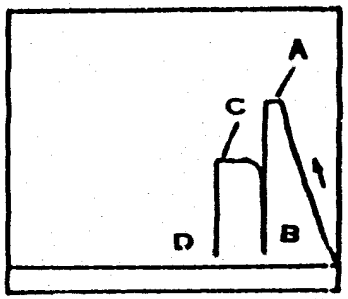
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



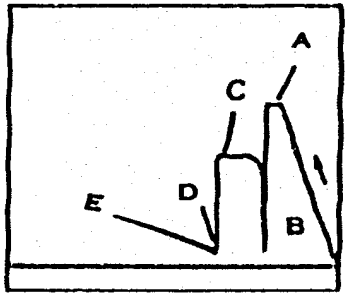
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



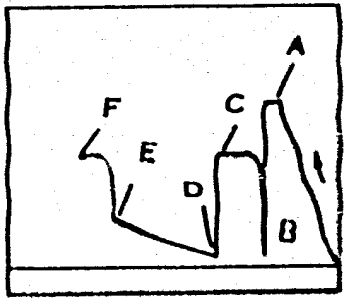
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



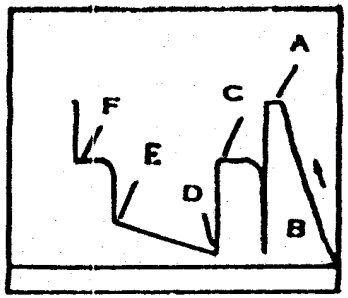
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



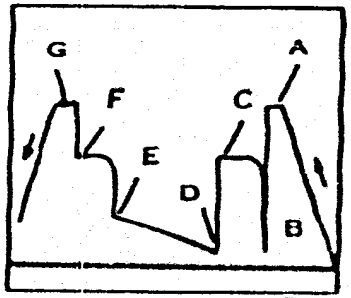
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

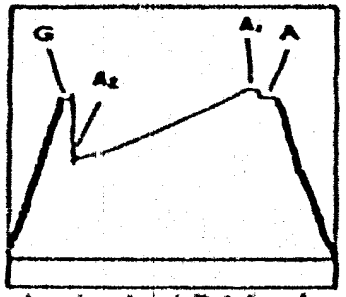
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

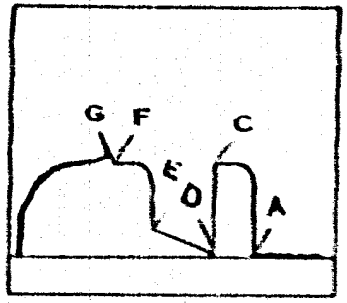
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



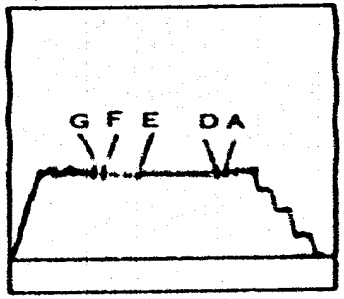
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drop-down in pressure. If the below straddle chart reads the same as a chart that is run to record pressure of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded on the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TECHNICAL REPORT

Shell Canada Limited
eShell Blackwater Lake #G-52
84° -01'-20"N-122°-55'-12"W.
Bear Rock -1868-1905

Shell Canada Limited
Shell Blackwater Lake #G-52
64°-01'-20"N-122°-55'-12"W.
Bear Rock -1868-1905

JOHNSTON TESTERS

TEST DATA

Formation: Bear Rock — Zone Tested: — Ft

Interval: 1868 To 1905 T.D. 2335

Type of Test: Open Hole, Straddle, By-pass

Time Started in Hole: 1730 Hrs — Tool Open — Hrs

First Flow: 0 Min — Shut In: 0 Min

Second Flow: 0 Min — Final Shut In: 0 Min

Pulled Loose @: 1940 Hrs — Out of Hole: 2130 Hrs

Wt. Set on Packer: 43,000 # — Pulled Loose Wt: 46,000 #

Remarks:

Description of Blow During Test: Mis-Run. Seat Failure.

GAS BLOW MEASUREMENTS

Measured with: ID Riser or Ext. ☐

Type of Instrument:

Time	Size Choke	Reading Inches	Cubic Feet/Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: Not Reported. Ft

Description of Fluid Recovered

Remarks: Mis-Run. Seat Failure.

Co. Rep. H. Lyon

Tester F. Sprau

Elevation: 1213.5' KB 1200' GL

Bottom Hole Choke Size: 1/2"

Fluid Cushion Type:

Amount:

TOOL SEQUENCE

Tool	Length	OD
Sub.	.85	
P.O. Sub.	.70	
Sub.	.85	
D.P. Sub.	.68	
S.I.I.	6.05	
Recorder	5.50	
Hyd. Tool	8.38	
Recorder	5.50	
Jars	4.95	
Safety Jt.	1.74	
H. Sub.	.87	
T.C. & Pkr.	6.58	
T.C. & Pkr.	4.70	
Total	47.10	
Stub	1.00	
Perf.	28.90	
R. Sub.	.71	
Recorder	5.50	
T.C. & Stub	3.00	
Total Intv.	36.71	
Pkr.	2.85	
T.C. & Pkr.	8.77	
Recorder	4.45	
Sub.	.95	
Setting tool	5.25	
Total Below Intv.	20.07	
Total Length	103.88	

MUD AND HOLE DATA

Mud Type: Gel & Chem W.L. 23

Filter Cake 2/32 Visc. 47 Wt. 9.3

Time Taken: March 20/64 @ 1600 hrs.

Contractor: Regent Drilling Rig No. 21

Drill Pipe Size: 3 1/2 IF

Drill Collar Size: 2 1/4" ID Length: 783.08'

Main Hole Size:

Rat Hole Size:

District: Ft. St. John — Ticket No.: C 737 — Date: March 21/64

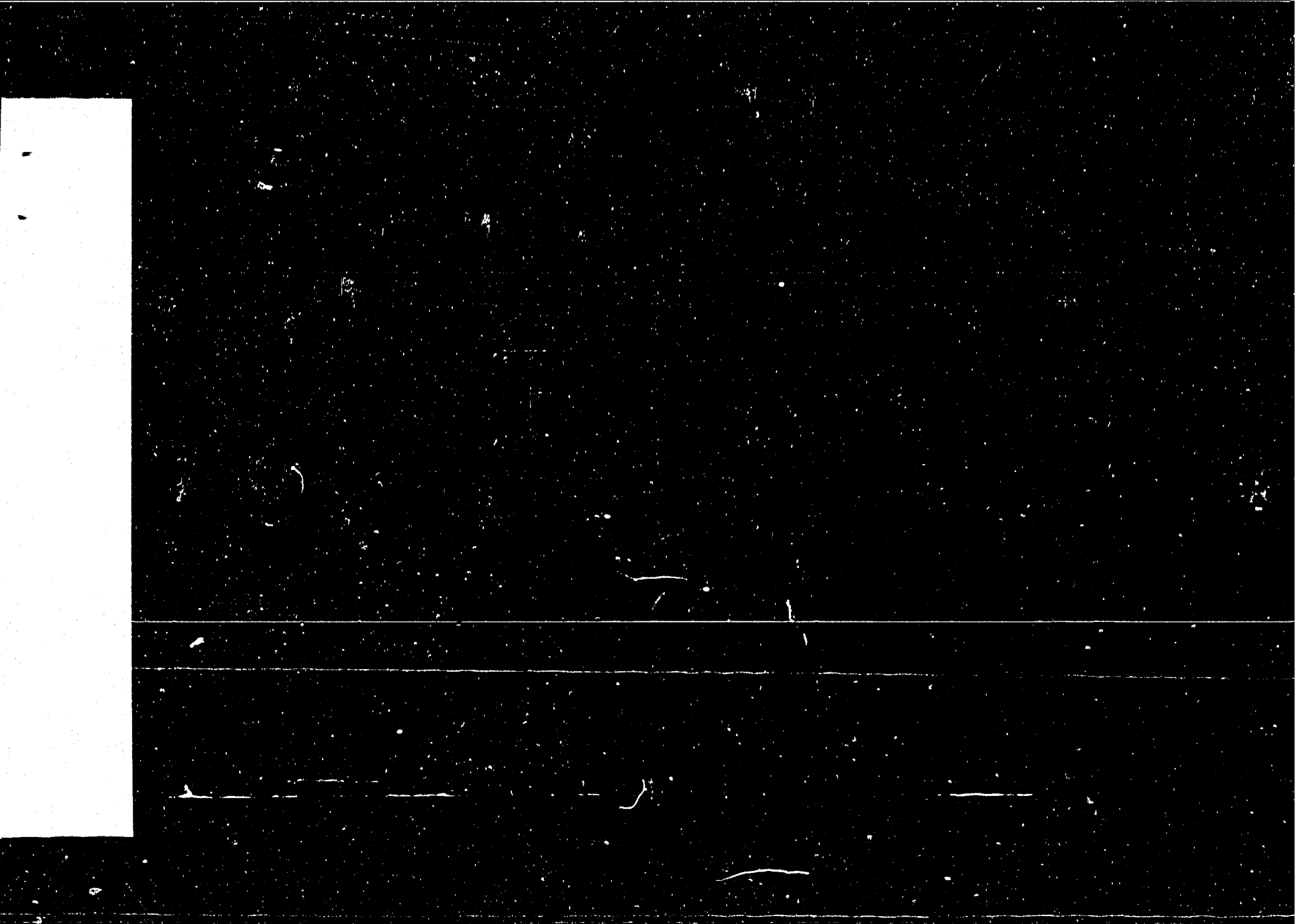
Company: Shell Canada Limited — Address: P.O. Box 185, Edmonton, Alberta

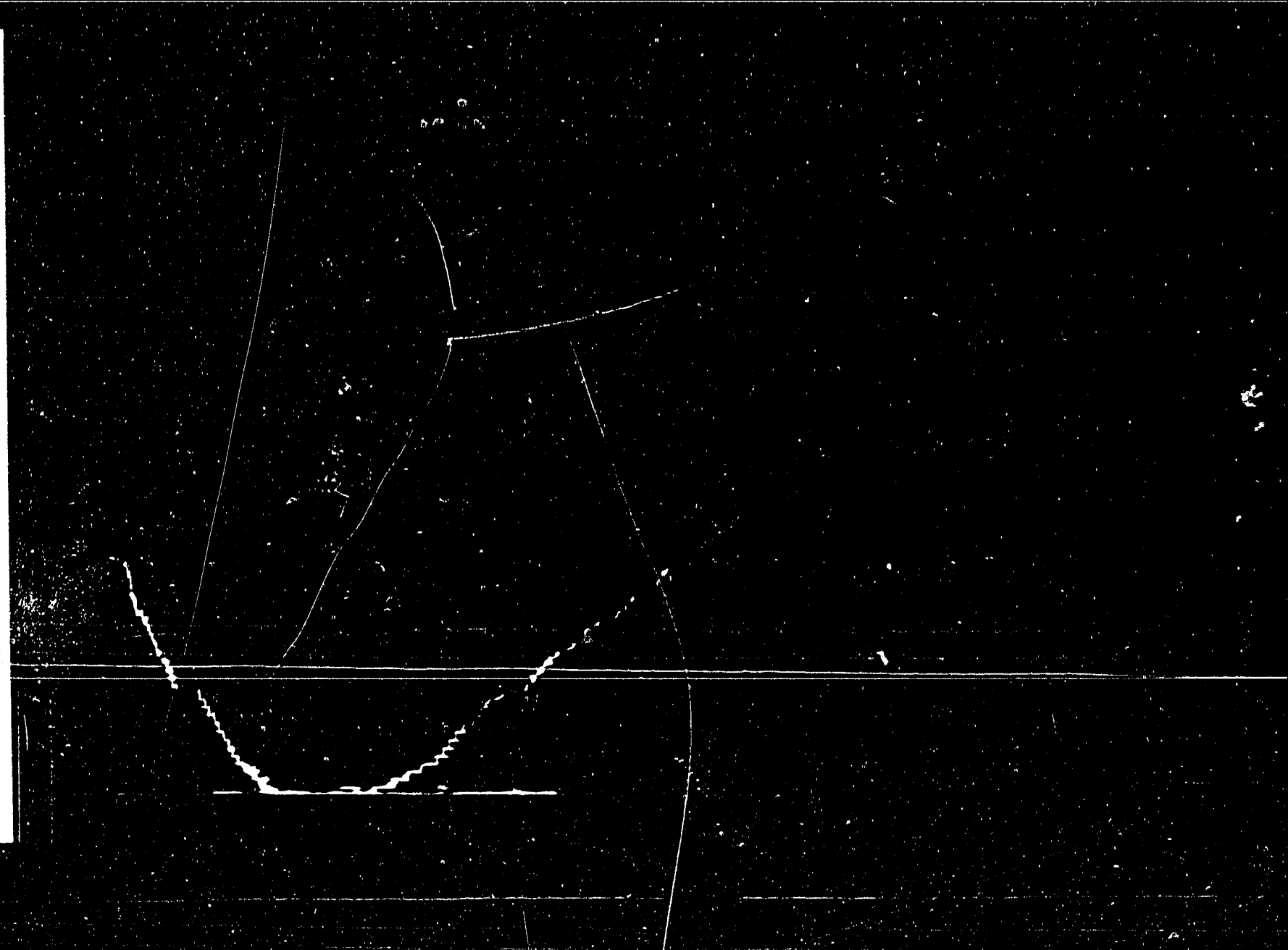
Well Name: Shell Blackwater Lake #G-52 — Test No.: 2 — J.T.L. Test No.: 2

Number: 54°-01'-20"N-122°-55'-12"W. — Field: Blackwater Lake — Province: British Columbia

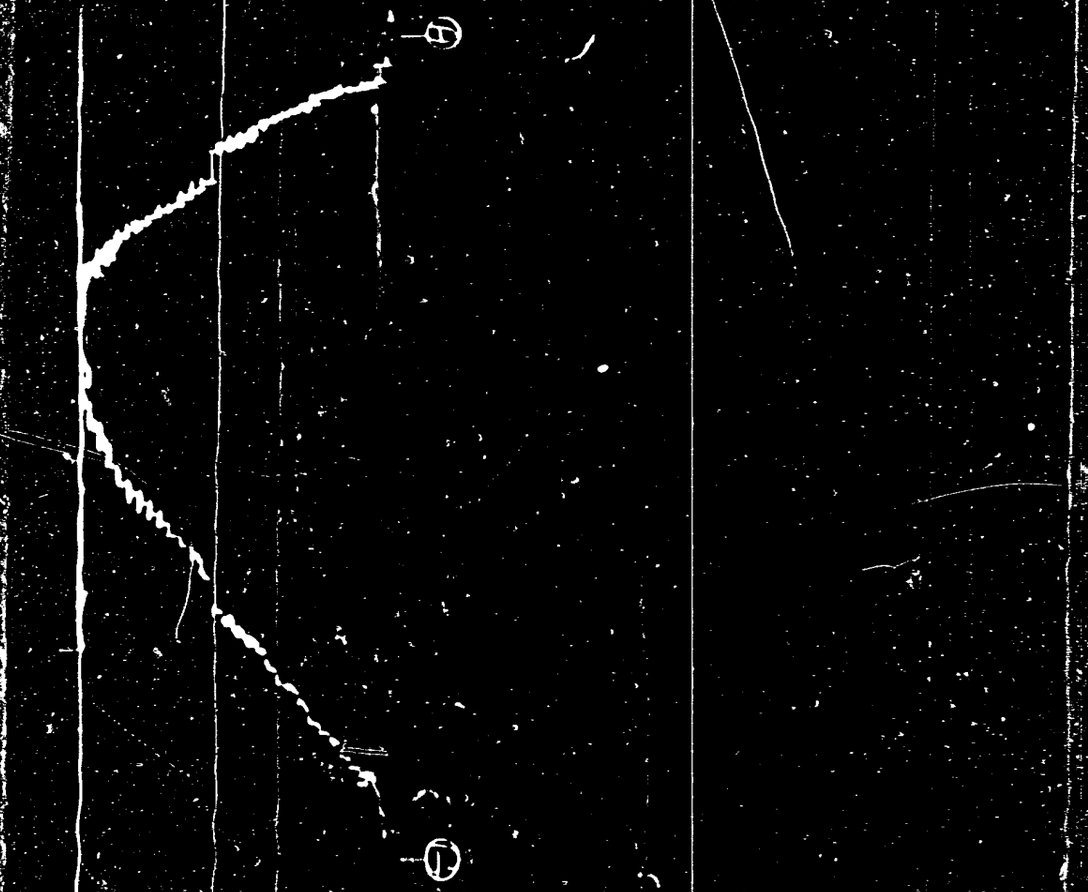
Formation and Interval: Bear Rock -1868-1905 — Consultant:

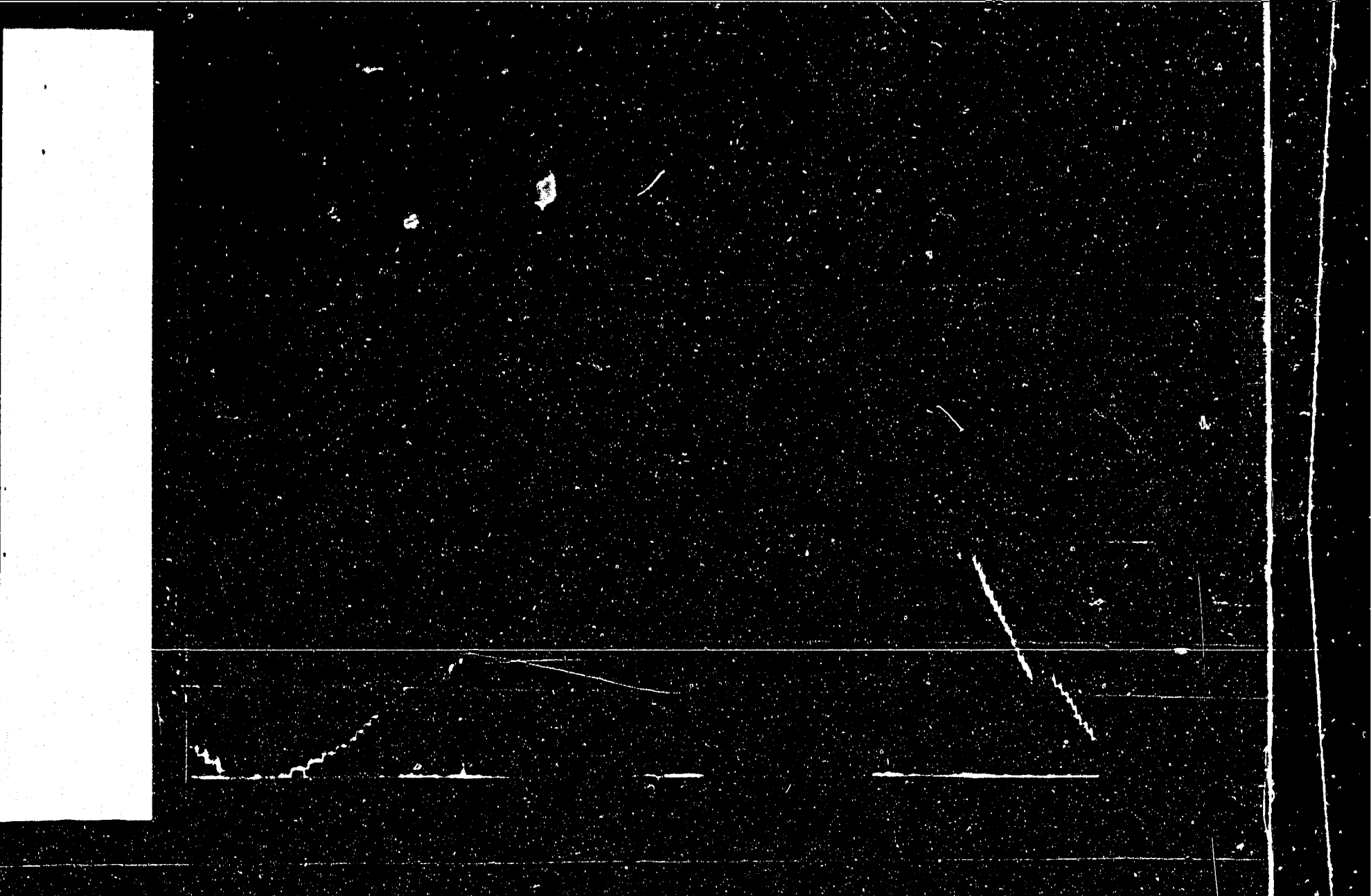
Distribution of Reports: 5-Edmonton.





TICKET# C737 SEC# T175

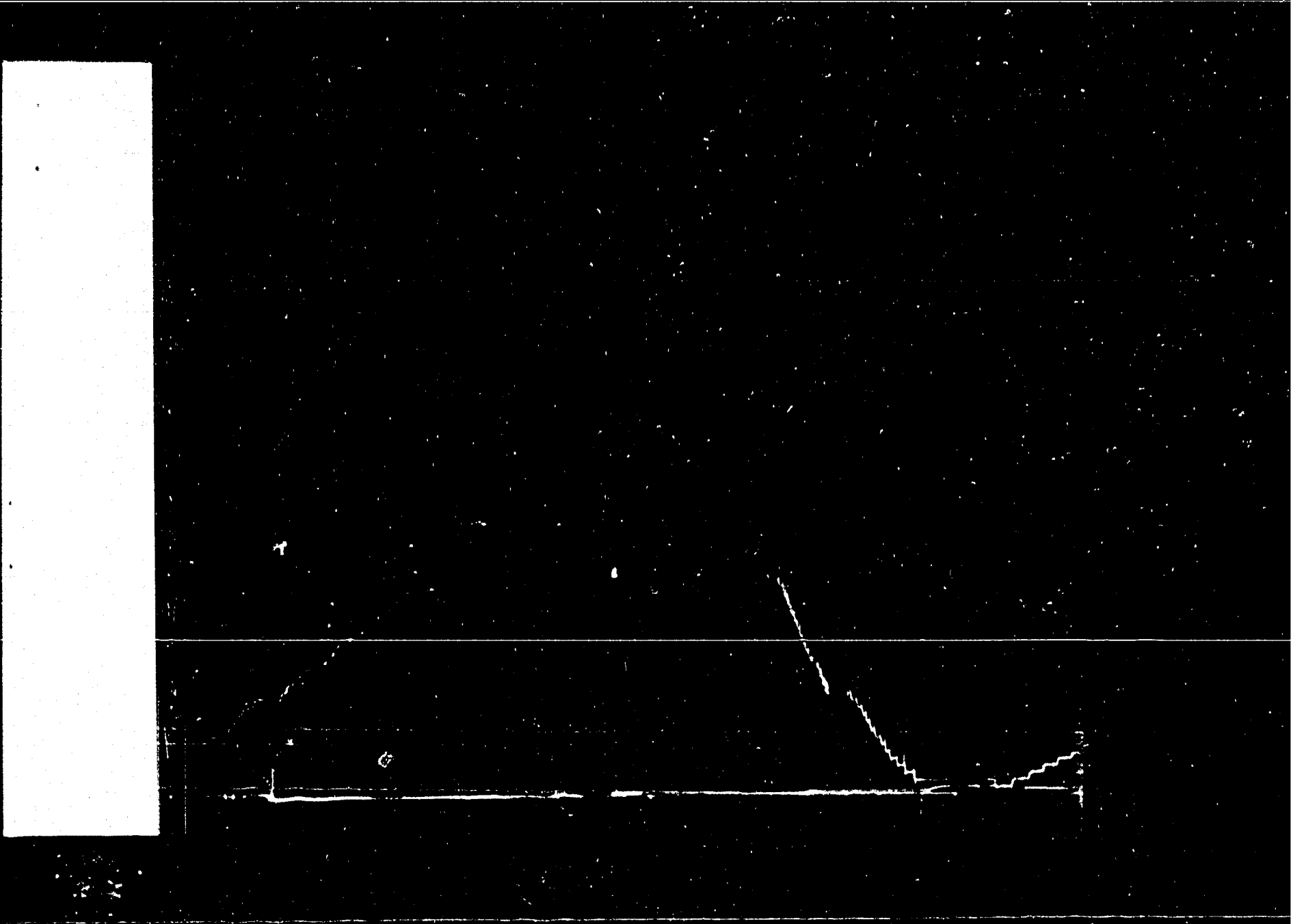




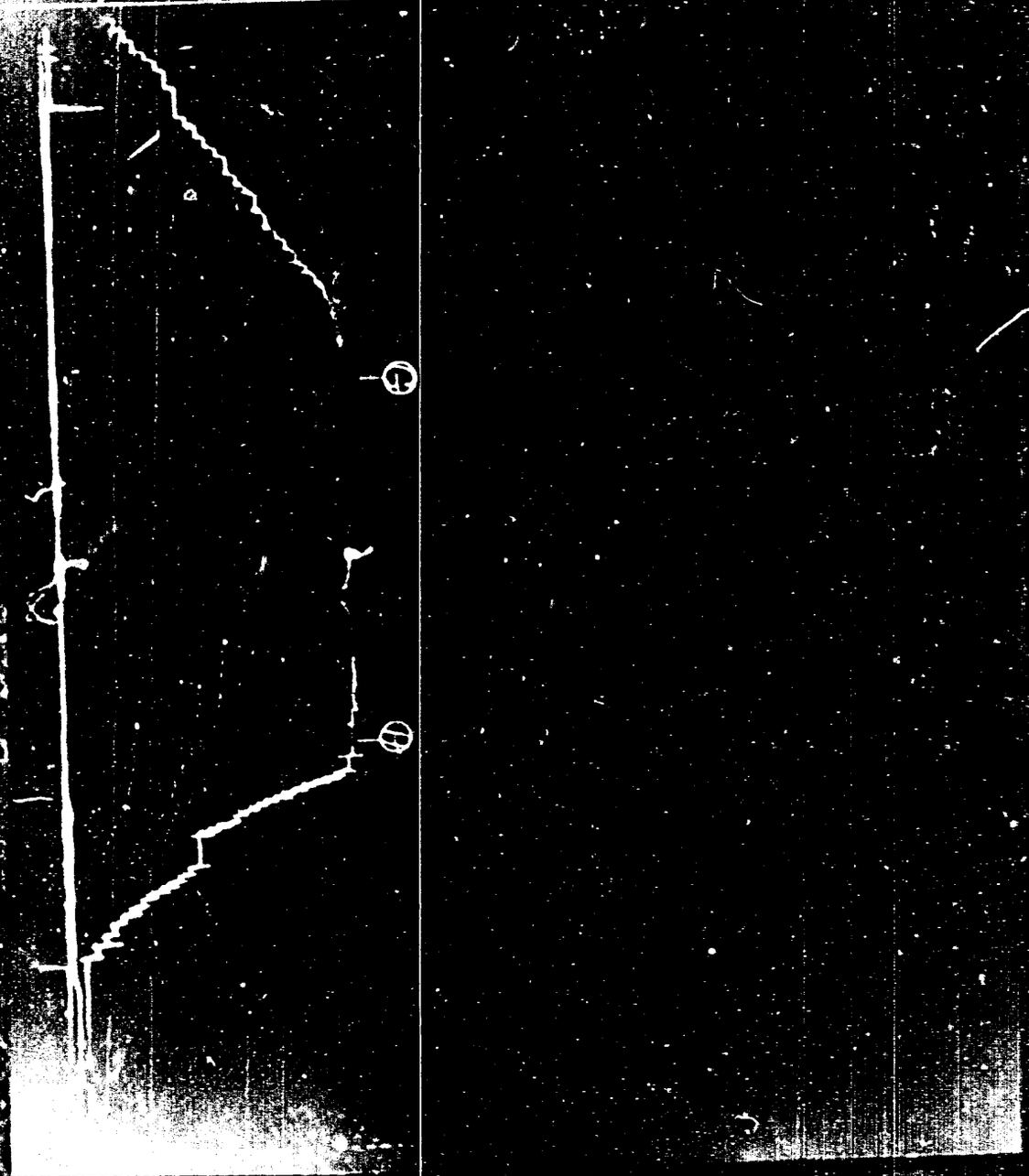
Ticket #0787

Rig # 3

B



TICKET #C23V Rel # T-K1



JOHNSTON TESTERS

Pressure Data

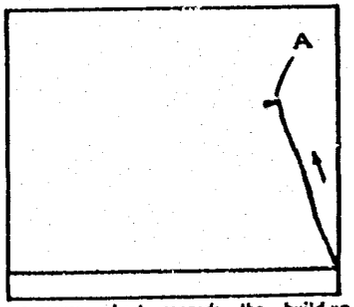
Test Ticket No. C 787

Recorder No.	T-4911	T-193	T-371	T-187	
Capacity P S I G	3000	3000	3000	3000	
Recorder Depth	1831	1845	1827	1815	
Pressure Gradient P S I / Ft					
Well Temperature °F	98°	98°	98°	98°	
A Initial Hydrostatic	Ran Above Tool	887#	911#	924#	
B First Initial Flow					
C Initial Shut-In Pres		MIS-RUN.		Ran Below	
D Flowing Pres		SEAT		Straddle.	
E Final Flow		FAILURE,			
F Final Shut In					
G Final Hydrostatic	Ran Above Tool	887#	911#	924#	

Remarks T-4911-Inside Recorder
T-193-Inside Recorder
T-371-Outside Recorder
T-187-Outside Recorder

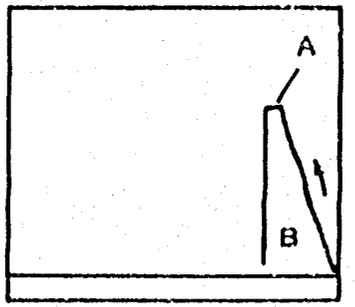
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



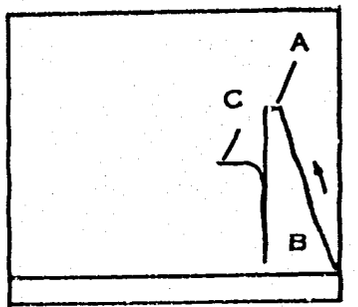
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



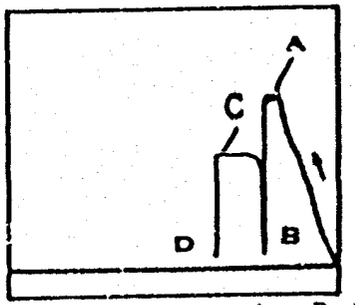
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



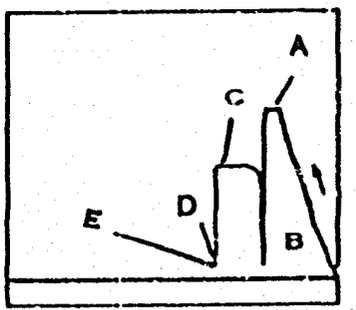
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



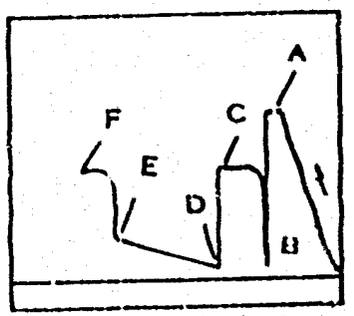
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



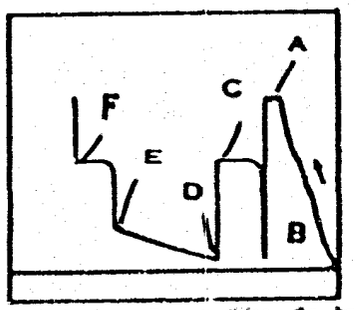
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



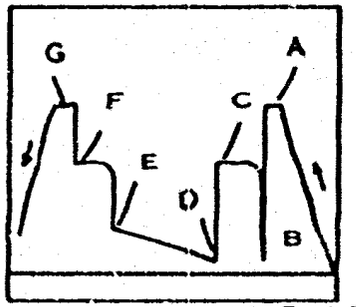
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by-pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Then, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been loosened. The testing assembly is being removed from the hole.

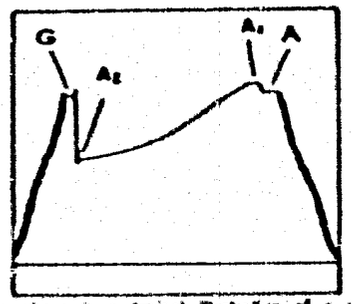
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Final Flow
E—Final Shut-in
F—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings. (testing different zones).

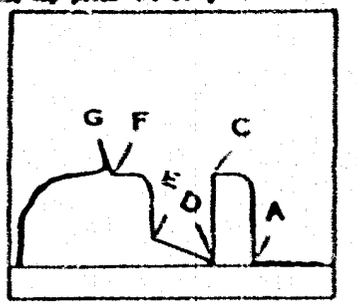
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



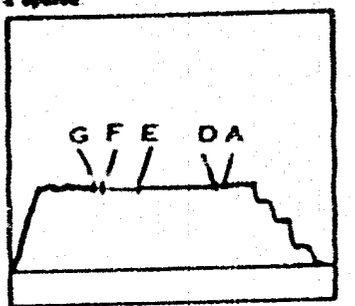
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drop-down in pressure. If the below straddle chart reads the same as a chart that is run to record pressure of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. The pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As many stands are run into the hole, the recorder registers the hydrostatic pressure of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

See also

Shell Ochre R

No 1

63° 24'

122° 46'

DAILY WELL REPORT
BLACKWATER LAKE
Q - 52

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 8, 1964

Bit - (1) Number - 1A

(2) Make - SEC

(3) Type - S3

(4) Size - 13 3/4

(5) Footage drilled -

Mud: Treatment - DAY: Gel. 30 sks.
Caustic 50 lbs.
Quickvis 1 Gal.

		MORNING	DAY	EVENING
Properties	(1) Weight -			
	(2) Viscosity -			
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Setting rig up.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 9, 1964

	MORNING	DAY	EVENING
Bit - (1) Number -	1A	1A & 2A	2A
(2) Make -	SEC	SEC	SEC
(3) Type -	S3	S3	S3
(4) Size -	13 3/4	13 3/4	13 3/4
(5) Footage drilled -	143'	119'	165'

Mud: Treatment - MORN.: Gel. 2200#
Quickvis 1 Gal.
EVENING: Quickvis ½ Gal.
Gel. 5 sks.

	MORNING	DAY	EVENING
Properties (1) Weight -			
(2) Viscosity -	48 49 120	130 115 110	95 80 75
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:

DEPTH	DEVIATION		
60'	¼°	330'	1°
156'	1½°	395'	1/8°
270'	1¼°		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 10, 1964

Bit - (1) Number -	2A	3A		3A	4A		4A			
(2) Make -	SEC	REED		REED	HT		HT			
(3) Type -	S3	YT3A		YT3A	OSC		OSC			
(4) Size -	13 3/4			13 3/4			13 3/4			
(5) Footage drilled -	168'			97'			29'			

Mud: Treatment -

		MORNING			DAY			EVENING		
Properties	(1) Weight -	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
	(2) Viscosity -	60	70	75	75	84	73	75	74	74
	(3) Water Loss -									
	(4) Filter Cake -									
	(5) P.H. -									

Deflection Surveys:	DEPTH	DEVIATION
	490'	3/4°
	679'	1 1/4°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

SEC = Security

HT = Hughes Tool

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 11, 1964

Bit - (1) Number - 4A

(2) Make - HT

(3) Type - OSC

(4) Size - 13 3/4

(5) Footage drilled - 19'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -		10.6 10.6	
	(2) Viscosity -		68 68	
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	679'	1¼°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 44°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 17, 1964

Bit - (1) Number -

(2) Make -

(3) Type -

(4) Size -

(5) Footage drilled -

Mud: Treatment -

Properties (1) Weight -

(2) Viscosity -

(3) Water Loss -

(4) Filter Cake -

(5) P.H. -

Deflection Surveys:

Contractor:

Type of Rig:

Remarks: Running cement.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 13, 1964

Bit - (1) Number - 1

(2) Make - SEC

(3) Type - M4N

(4) Size - 6 3/4

(5) Footage drilled - 712' 154'

Mud: Treatment -

		MORNING	DAY			EVENING		
Properties	(1) Weight -		8.4	8.4	8.4	8.4	8.4	8.4
	(2) Viscosity -		28	28	28	28	28	28
	(3) Water Loss -							
	(4) Filter Cake -							
	(5) P.H. -							

Deflection Surveys:	DEPTH	DEVIATION		
	910'	3°	1100'	2½°
	975'	2½°		
	1035'	1½°		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 14, 1964

Bit - (1) Number -	2	2	3	3
(2) Make -	SEC	SEC	HT	HT
(3) Type -	S6	S6	OWV	OWV
(4) Size -	6 3/4	6 3/4		6 3/4
(5) Footage drilled -	87'	47'		27'

Mud: Treatment -EVENING: Sawdust 70 sks.

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.4 8.4 8.4	8.5 8.5 8.4	8.4 8.4 8.4
	(2) Viscosity -	27 27 27	28 28 28	28 28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION		
	1160'	4°	1240'	8°
	1190'	5½°		
	1223'	6½°		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 15, 1964

Bit - (1) Number -	3 & 4	4	4 & 5
(2) Make -	HT	HT	HT
(3) Type -	OWV	OWV	OWV
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	41'	50'	61'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.3 8.4 8.5	8.6 8.7 8.7	8.6 8.5 8.5
	(2) Viscosity -	27 27 27	28 28 28	28 28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION		
	1272'	7½°	1366'	8°
	1314'	8°		
	1344'	8°		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 16, 1964

Bit - (1) Number -	5	5 4 6	6
(2) Make -	HT	HT	HT
(3) Type -	OWV	OWV	OWV
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	81'	105'	84'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5 8.5 8.5	8.5 8.5 8.6	8.6 8.6
	(2) Viscosity -	28 28 28	28 28 28	28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION		
	1379'	8°	1530'	8½°
	1408'	8°	1554'	8 3/4°
	1500'	8½°	1585'	9 3/4°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 17, 1964

Bit - (1) Number -	6	6	7		7
(2) Make -	HT	HT	REED		REED
(3) Type -	OWV	OWV	YSI		YSI
(4) Size -	6 3/4		6 3/4		6 3/4
(5) Footage drilled -	69'		49'		114'

Mud: Treatment -

		MORNING			DAY			EVENING
Properties	(1) Weight -	8.6	8.5	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28	28	28
	(3) Water Loss -							
	(4) Filter Cake -							
	(5) P.H. -							

Deflection Surveys:	DEPTH	DEVIATION		
	1658'	10°	1750'	11°
	1689'	10°	1780'	11½°
	1720'	10½°	1842'	12°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 18, 1964

Bit - (1) Number -	7	8		8		8	9	
(2) Make -	REED	HT		HT		HT	SEC	
(3) Type -	YSI	OWV		OWV		OWV	M4N	
(4) Size -		6 3/4		6 3/4			6 3/4	
(5) Footage drilled -	49'			47'			24'	

Mud: Treatment -

		MORNING	DAY			EVENING
Properties	(1) Weight -	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28
	(3) Water Loss -					
	(4) Filter Cake -					
	(5) P.H. -					

Deflection Surveys:	DEPTH	DEVIATION		
	1903'	12½°	1992'	14°
	1933'	13°		
	1962'	13 3/4°		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 19, 1964

Bit - (1) Number -	9	9	10
(2) Make -	SEC	SEC	REED
(3) Type -	M4N	M4N	YM
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	43'	24'	162'

Mud: Treatment - Water

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5	8.5 8.5 8.5	8.5
	(2) Viscosity -	28	28 28 28	28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:

DEPTH	DEVIATION
2025'	14½°
2110'	16°
2170'	17°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 20, 1964

Bit - (1) Number -	10	11	11	12
(2) Make -	REED	HT	HT	SEC
(3) Type -	YM	OWC	OWC	H7
(4) Size -	6 3/4		6 3/4	6 3/4
(5) Footage drilled -	90'		123'	120'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5	8.5 8.5 8.5	8.5
	(2) Viscosity -	28	28 28 28	28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	2230'	17°
	2385'	12°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 21, 1964

Bit - (1) Number -	12	13	13 & 14
(2) Make -	SEC	HT	HT
(3) Type -	H7	W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	85'	148'	74'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5	8.5 8.5 8.5	8.5 8.5 8.5
	(2) Viscosity -	28	28 28 28	28 28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	2614'	4¼°
	2685'	7°
	2849'	7-3/4°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 22, 1964

Bit - (1) Number -	14 & 15	15	16
(2) Make -	HT	HT	SEC
(3) Type -	W7R2	W7R2	H7
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	60'	104'	93'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5 8.5	8.5 8.5 8.5	8.5 8.5 8.5
	(2) Viscosity -	28 28	28 28 28	28 28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

	DEPTH	DEVIATION
Deflection Surveys:	3070'	8-3/4°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 23, 1964

Bit - (1) Number -	17	17	18
(2) Make -	HT	HT	HT
(3) Type -	W7R2	W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	65'	81'	112'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5 8.5 8.5	8.5 8.5 8.5	8.5 8.5 8.5
	(2) Viscosity -	28 28 28	28 28 28	28 28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	3167'	9°
	3310'	9-3/4°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 24, 1964

Bit - (1) Number -	18	19	19
(2) Make -		HT	HT
(3) Type -	W7R2	W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	57'	116'	61'

Mud: Treatment -

		MORNING			DAY			EVENING
Properties	(1) Weight -	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28	28	28
	(3) Water Loss -							
	(4) Filter Cake -							
	(5) P.H. -							

Deflection Surveys:	DEPTH	DEVIATION
	3460'	11°
	3585'	11½°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 25, 1964

Bit - (1) Number -	20	20 - 21	21
(2) Make -	HT	HT HT	HT
(3) Type -	W7	W7 W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	111'	63'	92'

Mud: Treatment -

Properties	MORNING	DAY	EVENING
(1) Weight -	8.5 8.5 8.5	8.5 8.5 8.5	8.5 8.5 8.5
(2) Viscosity -	28 28 28	28 28 28	28 28 28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	3650'	11 3/4°
	3775'	12½°
	3860'	12°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 26, 1964

Bit - (1) Number -	22	22	23
(2) Make -	HT	HT	HT
(3) Type -	W7R2	W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	58'	93'	41'

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -	8.5 8.5	8.5 8.5 8.5	8.5 8.5
(2) Viscosity -	28 28	28 28 28	28 28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	3960'	10°
	4070'	10½°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 27, 1964

Bit - (1) Number -	24	24 & 25	25
(2) Make -	HT	HT	HT
(3) Type -	W7R	W7R RGIJ	RGIJ
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -		31'	92'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5 8.5	8.5 8.5 8.5	8.5
	(2) Viscosity -	28 28	28 28 28	28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	4070'	10°
	4070'	10 1/2°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64° 01' 20"N

Longitude - 122° 55' 12"W

Elevation of K.B.: 1214'

Date: February 28, 1964

Bit - (1) Number -	25	25	25
(2) Make -	HTCo	HT	HT
(3) Type -	RCIJ	RCIJ	RCIJ
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	93'	102'	26'

Mud: Treatment -

Properties	MORNING	DAY	EVENING
(1) Weight -	8.5 8.5 8.5	8.5 8.5 8.5	8.5
(2) Viscosity -	28 28 28	28 28 28	28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:

DEPTH	DEVIATION
4070'	10 10/60
4461'	9 1/2°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: February 29, 1964

Bit - (1) Number -	26	27	27
(2) Make -	HTCo	REED	REED
(3) Type -	W7R	YCGJ	YCGJ
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	0'	25'	72'

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -		8.5 8.5 8.5	8.5 8.5 8.5
(2) Viscosity -		28 28 28	28 28 28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	4461'	9½°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 1, 1964

Bit - (1) Number -	27		27		27	28	
(2) Make -	REED		REED		REED	HT	
(3) Type -	YCGJ		YCGJ		REED	HT	
(4) Size -	6 3/4		6 3/4		6 3/4		
(5) Footage drilled -	84'		73'		25'		

Mud: Treatment -

	MORNING			DAY			EVENING
Properties (1) Weight -	8.5	8.5	8.5	8.5	8.5	8.5	8.5
(2) Viscosity -	28	28	28	28	28	28	28
(3) Water Loss -							
(4) Filter Cake -							
(5) P.H. -							

Deflection Surveys:	DEPTH	DEVIATION
	4734'	6¾°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 2, 1964

Bit - (1) Number -	28	29
(2) Make -	HT	HT
(3) Type -	W7R	W7R
(4) Size -	6 3/4	6 3/4
(5) Footage drilled -	53'	8'

Mud: Treatment -

		MORNING			DAY	EVENING
Properties	(1) Weight -	8.5	8.5	8.5	8.5	
	(2) Viscosity -	28	28	28	28	
	(3) Water Loss -					
	(4) Filter Cake -					
	(5) P.H. -					

Deflection Surveys:	DEPTH	DEVIATION
	4734'	6°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 7, 1964

Bit - (1)	Number -	30	31
(2)	Make -		
(3)	Type -	EC-8306	RG3
(4)	Size -	4 11/16	6 3/4
(5)	Footage drilled -	0'	34'

Mud: Treatment -

Properties (1)	Weight -	8.5	8.5	8.5	8.5	8.5
(2)	Viscosity -	28	28	28	28	28
(3)	Water Loss -					
(4)	Filter Cake -					
(5)	P.H. -					

Deflection Surveys: 4734' 6½°

Contractor:

Type of Rig:

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 4, 1964

Bit - (1) Number -	32	32	32
(2) Make -	HT	HT	HT
(3) Type -	RGIJ	RGIJ	RGIJ
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	45'	78'	57'

Mud: Treatment -

		MORNING		DAY			EVENING		
Properties	(1) Weight -	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28	28	28	28
	(3) Water Loss -								
	(4) Filter Cake -								
	(5) P.H. -								

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 5, 1964

Bit - (1) Number -	33	33	33
(2) Make -	REED	REED	REED
(3) Type -	WC3	WC3	WC3
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	49'	60'	123'

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5 8.5 8.5	8.5 8.5 8.5	8.5 8.5
	(2) Viscosity	28 28 28	28 28 28	28 28
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	5015'	8¼°
	5187'	8½°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 6, 1964

Bit - (1) Number - Re run	33	33		33	34
(2) Make -	REED	REED		REED	HT
(3) Type -	WC3	WC3		WC3	W7R2
(4) Size -	6 3/4	6 3/4			6 3/4
(5) Footage drilled -	0'	56'			28'

Mud: Treatment -

	MORNING	DAY			EVENING
Properties (1) Weight -		8.5	8.5	8.5	8.5
(2) Viscosity -		28	28	28	28
(3) Water Loss -					
(4) Filter Cake -					
(5) P.H. -					

Deflection Surveys:	DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 7, 1964

Bit - (1) Number -	34	34	35	35
(2) Make -	HT	HT	REED	REED
(3) Type -	W7R2	W7R2	YCG	YCG
(4) Size -	6 3/4	6 3/4		6 3/4
(5) Footage drilled -	69'	38'		44'

Mud: Treatment -

	MORNING	DAY			EVENING
Properties (1) Weight -	8.5	8.5	8.5	8.5	8.5
(2) Viscosity -	28	28	28	28	28
(3) Water Loss -					
(4) Filter Cake -					
(5) P.H. -					

Deflection Surveys:	DEPTH	DEVIATION
	5350'	8¼°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 8, 1964

Bit - (1) Number -	35	35	35
(2) Make -	REED	REED	REED
(3) Type -	YCO	YCO	YCO
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	63'	59'	50'

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -	8.5 8.5 8.5	8.5 8.5 8.5	8.5 8.5 8.5
(2) Viscosity -	28 28 28	28 28 28	28 28 28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 9, 1964

Bit - (1) Number -	35	35 & 36	36
(2) Make -	REED	REED	REED
(3) Type -	YCO	YCO	YCO
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	68'	26'	50'

Mud: Treatment -

		MORNING	DAY			EVENING
Properties	(1) Weight -	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28
	(3) Water Loss -					
	(4) Filter Cake -					
	(5) P.H. -					

Deflection Surveys:	DEPTH	DEVIATION
	5655'	9°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 10, 1964

Bit - (1) Number -	36	36	36	37
(2) Make -	REED	REED	REED	HT
(3) Type -	YCG	YCG	YCG	W7R2
(4) Size -	6 3/4	6 3/4		6 3/4
(5) Footage drilled -	77'	64'		21'

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -			
(2) Viscosity -			
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION
	5910'	8½°

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 5

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 11, 1964

Bit - (1) Number -	37	37	38
(2) Make -	HT	HT	REED
(3) Type -	W7R2	W7R2	WC3
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	80'	11'	14'

Mud: Treatment -

		MORNING	DAY			EVENING
Properties	(1) Weight -	8.5	8.5	8.5	8.5	8.5
	(2) Viscosity -	28	28	28	28	28
	(3) Water Loss -					
	(4) Filter Cake -					
	(5) P.H. -					

Deflection Surveys:

DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64° 01' 20"N

Longitude - 122° 55' 12"W

Elevation of K.B.: 1214'

Date: March 12, 1964

Bit - (1) Number -	39	40	40
(2) Make -	HT	HT	HT
(3) Type -	W7R2	RGIJ	RGIJ
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	1'	10'	38'

Mud: Treatment -

	MORNING	DAY			EVENING
Properties (1) Weight -	8.5	8.5	8.5	8.5	8.5
(2) Viscosity -	28	28	28	28	28

(3) Water Loss -

(4) Filter Cake -

(5) P.H. -

Deflection Surveys:	DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 13, 1964

Bit - (1) Number -	40	41
(2) Make -	HT	HT
(3) Type -	RCIJ	RC3
(4) Size -	6 3/4	6 3/4
(5) Footage drilled -	14'	-

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -	8.5	8.5 8.5 8.5	
	(2) Viscosity -	28	28 28 28	
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 14, 1964

Bit - (1) Number -	42	42 43	43 44
(2) Make -	REED	REED HT	HT REED
(3) Type -	YCG	YCG W7R	W7R YCG
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	30'	12'	8'

Mud: Treatment -

Properties	MORNING	DAY	EVENING
(1) Weight -	8.5	8.5 8.5	8.5
(2) Viscosity -	28	28 28	28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:

DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 15, 1964

Bit - (1) Number -	44	44	44
(2) Make -	REED	REED	REED
(3) Type -	YCG	YCG	YCG
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	40'	50'	9'

Mud: Treatment -

Properties	MORNING	DAY	EVENING
(1) Weight -	8.5	8.5 8.5 8.5	8.5
(2) Viscosity -	28	28 28 28	28
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:

DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake G - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 16, 1964

Bit - (1) Number -	45	45	45
(2) Make -	REED	REED	REED
(3) Type -	YCG	YCG	YCG
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	31'	28'	35'

Mud: Treatment - MORN.: Caustic 300 lbs.
Peltex 600 lbs.
Gel. 50 sks.
DAY: Quickvis 2 Gal.
Gel. 75 sks.
EVENING: Gel. 75 sks.

		MORNING	DAY			EVENING		
Properties	(1) Weight -	8.8	8.8	8.8	8.8	8.8	8.9	9.0
	(2) Viscosity -	29	29	29	29	30	31	32
	(3) Water Loss -							
	(4) Filter Cake -							
	(5) P.H. -	9.5						9.5

Deflection Surveys:	DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 17, 1964

Bit - (1) Number -	46	46	47
(2) Make -	HT	HT	REED
(3) Type -	W7R	W7R	YCG
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	8'	30'	10'

Mud: Treatment - MORN.: Gel. 25 sks.
DAY : Caustic 100 lbs.
Peltex 100 lbs.
Quickvis 1 Gal.
Gel. 25 sks.
EVENING: Peltex 50 lbs.
Caustic 50 lbs.

Properties	MORNING	DAY	EVENING
(1) Weight -	9	9 9 9	9.1 9.1
(2) Viscosity -	33	33 33 35	36 37
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 18, 1964

Bit - (1) Number -	47	47 & 48	48
(2) Make -	REED	REED	REED
(3) Type -	YCO	YCO YHW2	YHW2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	15'	10'	26'

Mud: Treatment - MORN: Peltex 100 lbs.
Gel. 12 sks.

	MORNING	DAY	EVENING
Properties (1) Weight -	9.1 9.2 9.2	9.2 9.2 9.2	9.2 9.3 9.3
(2) Viscosity -	37 36 37	37 37 38	37 37 37
(3) Water Loss -	24	22	
(4) Filter Cake -	$\frac{2}{32}$	$\frac{2}{32}$	
(5) P.H. -	9.5	9.5	

DEPTH DEVIATION

Deflection Surveys:

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 19, 1964

Bit - (1) Number -	49	49	50
(2) Make -	HT	HT	HTC
(3) Type -	W7R2	W7R2	W7R2
(4) Size -	6 3/4	6 3/4	6 3/4
(5) Footage drilled -	17'	21'	23'

Mud: Treatment - MORN.: Peltex 100 lbs. Gel. 18 sks. Streamwater ½ EVENING: Caustic 50 lbs. Gel. 12 sks.

		MORNING	DAY	EVENING
Properties	(1) Weight -	9.3 9.3	9.3 9.3 9.3	9.3 9.3 9.3
	(2) Viscosity -	37 36	37 37 38	38 38 40
	(3) Water Loss	23.4	20.6	23
	(4) Filter Cake -	2/32	2/32	2/32
	(5) P.H. -	9	9	9

Deflection Surveys: DEPTH DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks:

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 20, 1964

Bit - (1) Number - 50

(2) Make - HT

(3) Type - W7H2

(4) Size - 6 3/4

(5) Footage drilled - 9'

Mud: Treatment - MORN.:Gel. 10 sks.

		MORNING	DAY	EVENING
Properties	(1) Weight -	9.3	9.3	9.4
	(2) Viscosity	41	47	47
	(3) Water Loss -	21		
	(4) Filter Cake -	2/32		
	(5) P.H. -	9		

Deflection Surveys:

DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Starting to log.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 21, 1964

Bit - (1) Number -

(2) Make -

(3) Type -

(4) Size -

(5) Footage drilled -

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -			
	(2) Viscosity -			
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Logging and running plugs.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 27, 1964

Bit - (1) Number -

(2) Make -

(3) Type -

(4) Size -

(5) Footage drilled -

Mud: Treatment -

		MORNING	DAY	EVENING
Properties	(1) Weight -			
	(2) Viscosity -			
	(3) Water Loss -			
	(4) Filter Cake -			
	(5) P.H. -			

	DEPTH	DEVIATION
Deflection Surveys:		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Pulling out, breaking down packer and making up a new packer.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake O - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 23, 1964

Bit - (1) Number -

(2) Make -

(3) Type -

(4) Size -

(5) Footage drilled -

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -			
(2) Viscosity -			
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

Deflection Surveys:	DEPTH	DEVIATION

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Finished making new packer and running plugs.

DAILY CHRONOLOGICAL WELL REPORT

Well Name: Blackwater Lake C - 52

Location: Latitude - 64°01' 20"N

Longitude - 122°55' 12"W

Elevation of K.B.: 1214'

Date: March 24, 1964

Bit - (1) Number -

(2) Make -

(3) Type -

(4) Size -

(5) Footage drilled -

Mud: Treatment -

	MORNING	DAY	EVENING
Properties (1) Weight -			
(2) Viscosity -			
(3) Water Loss -			
(4) Filter Cake -			
(5) P.H. -			

	DEPTH	DEVIATION
Deflection Surveys:		

Contractor: Regent Drilling

Type of Rig: Rotary

Remarks: Rig released.

BIT SUMMARY:

NO.	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN
1A	13 3/4	S3	187	187	8½
2A	13 3/4	S3	430	243	11
3A	13 3/4	YT3A	618	188	5½
4A	13 3/4	OSC	740	122	9½
1	6 3/4	M4N	1106	366	11 3/4
2	6 3/4	S6	1223	117	9 3/4
3	6 3/4	OWV	1272	49	10
4	6 3/4	OWV	1370	98	14½
5	6 3/4	OWV	1578	217	13 3/4
6	6 3/4	OWV	1766	188	15
7	6 3/4	YSI	1949	183	15½
8	6 3/4	OWV	2040	91	14½
9	6 3/4	M4N	2108	68	12 3/4
10	6 3/4	YM	2334	226	10½
11	6 3/4	OWC	2483	149	9
12	6 3/4	H7	2688	205	10½
13	6 3/4	W7R2	2849	161	8½
14	6 3/4	W7R2	2954	106	5½
15	6 3/4	W7R2	3074	120	7½
16	6 3/4	H7	3167	93	5 3/4
17	6 3/4	W7R2	3313	146	10 3/4
18	6 3/4	W7R2	3482	169	10 3/4
19	6 3/4	W7R2	3659	177	11 3/4
20	6 3/4	W7R2	3784	125	8 3/4

BIT SUMMARY:

NO.	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN
21	6 3/4	W7R2	3925	141	8½
22	6 3/4	W7R2	4076	151	11 3/4
23	6 3/4	W7R2	4117	46	4½
24	6 3/4	W7R	Reamed 4037-4117	80	5½
25	6 3/4	RGIJ	4461	344	28½
26	6 3/4	W7R	Mill on Iron		
27	6 3/4	YCGJ	4734	273	27½
28	6 3/4	W7R	4793	59	5½
29	6 3/4	W7R	4801	8	3/4
30	4 11/16	EC-8306	4835	34	7
31	6 3/4	RG3	4835	Ream 34	4
32	6 3/4	RGIJ	5015	180	17 3/4
33	6 3/4	WC3	5256	241	27
34	6 3/4	W7R2	5357	101	10½
35	6 3/4	YCG	5682	325	40 3/4
36	6 3/4	YCG	5910	228	28
37	6 3/4	W7R2	6011	101	9½
38	6 3/4	WC-3	6026	15	5½
RERUN BIT NO. 33		241feet	27 hrs.		
39	6-3/4	W7R2	RAN IN WITH JUNK SUB.		
40	6 3/4	RGIJ	6088	62	15
41	Rerun Bit No.31	RG3	6088	Ream	5
42	6 3/4	YCG	6126	38	6 3/4
43	6 3/4	W7R	6134	8	4
44	6 3/4	YCG	6237	103	17 3/4

BIT SUMMARY:

NO.	SIZE	TYPE	DEPTH OUT	FEET	HOURS RUN
45	6 3/4	YCO	6331	94	16½
46	6 3/4	W7R2	6369	30	6 3/4
47	6 3/4	YCO	6398	29	14½
48	6 3/4	YHH7	6430	32	6½
49	6 3/4	W7R2	6468	38	8 3/4
50	6 3/4	W7R2	6500	32	9½

NOTE:

The following will clarify typing description:

(1) argillaceous content has been referred to as shale content example. 870'-875'.

(2) quartz silt content has been referred to as quartz siltstone. example. 2155'-2160'.

(3) In the interval 6009-6130' silica cement has been called siliceous chert.

SHELL, BLACKWATER LAKE O-52

K.B. 1214'

T.D. 6500'

Latitude: 64° 01' 20"

Longitude: 122° 55' 12"

0-20'	Drift	Light grey, medium to coarse lithic unconsolidated sandstone.
20'-40'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; fragments of quartz and granite.
40'-60'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone; few fragments of quartz and chert.
60'-80'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone; basic igneous recrystallisation.
80'-100'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone.
100'-120'	Drift	Pink, fine to pebble sand grain size unconsolidated lith ic sandstone.
120'-140'	Drift	Pink, fine to pebble sand grain size unconsolidated lithic sandstone.
140'-160'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; mostly quartz and granite inoceramus prisms.
160'-180'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; few sandstone pebbles.
180'-200'	Drift	Pink, medium to pebble sand grain size unconsolidated lithic sandstone; few dolomite pebbles.

200'-220'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; probably some granite.
220'-240'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; boulders; quarts fragments.
240'-260'	Drift	Light pink, medium to coarse sand grain size, lithic sandstone.
260'-280'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; granite, sandstone minor.
280'-300'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; basic igneous.
300'-320'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; fragments of quartz, granite, and red sandstone.
320'-340'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone; with quartz, granite and red sandstone.
340'-360'	Drift	Light pink, medium to pebble sand grain size, lithic sandstone.
360'-380'	Drift	Light pink, medium to pebble sand grain size lithic sandstone.
380'-400'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
400'-420'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone; fragments of quartz and granite.
420'-440'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone;

440'-460'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone; basic igneous.
460'-480'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
480'-500'	Drift	Light pink, medium to very coarse sand grain size unconsolidated lithic sandstone; mostly quarts grains.
500'-520'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
520'-540'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
540'-560'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
560'-580'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
580'-600'	Drift	Light pink, medium to pebble sand grain size unconsolidated lithic sandstone.
600'-620'	Shale	Dark grey, soft flakey, few carbonaceous specks shale.
620'-640'	Shale	Dark grey, soft, flakey, shale with a trace of siltstone and glauconite; few carbonaceous specks; streak of siltstone.
640'-650'	Shale	Dark grey shale.
650'-660'	Shale	Dark grey shale with bentonite in partings.

660'-670'	Shale	Dark grey to medium brown shale.
670'-680'	Shale	Light green to light brown shale; waxy light green and light brown; bentonite in partings.
680'-690'	Limestone	Light brown to medium brown microcrystalline limestone; trace of pyrite and fossil fragments.
690'-695'	Limestone	Light brown to medium brown microcrystalline limestone; trace of calcispheres? trace of clay, and brown argillaceous material, and pyrite, and crinoids.
695'-700'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale and crinoids; few med- to coarse floating crinoids.
700'-705'	Limestone	Medium brown microcrystalline limestone with a trace of clay and brachiopods; lime-mud.
705'-710'	Limestone	Medium brown microcrystalline limestone with a waxy scum.
710'-715'	Limestone	Medium brown microcrystalline limestone with a trace of clay and stromatoporoid.
715'-720'	Limestone	Medium brown microcrystalline limestone with a trace of shale, pyrite and stylolites.
720'-725'	Limestone	Light brown microcrystalline limestone with a trace of shale; 10% fragmental limestone; trace of bryozoa, crinoids and pyrite; generally lime-mud.
725'-730'	Limestone	Light to medium brown microcrystalline limestone with a streak of dolomite; trace of crinoids and pyrite; vaguely pelletal in partings.

730'-735'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale; waxy scum.
735'-739'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale; waxy scum.
739'-740'	No Sample	
740'-750'	Limestone	Light to medium brown microcrystalline limestone; very small chips.
750'-760'	Limestone	Light to medium brown microcrystalline limestone with a trace of shale and ostracods; appears to be mostly lime-mud.
760'-770'	Limestone	Light to medium brown microcrystalline limestone; appears to be lime-mud.
770'-780'	Limestone	Light to medium brown microcrystalline limestone with a streak of chert.
780'-790'	Limestone	Light to medium brown microcrystalline limestone.
790'-800'	Limestone	Light to medium brown microcrystalline limestone.
800'-810'	Limestone	Light to medium brown microcrystalline limestone; very poor sample.
810'-820'	Limestone	Light to medium brown microcrystalline limestone with a band of microcrystalline dolomite.
820'-830'	Dolomite	Light brown to grey microcrystalline dolomite.
830'-835'	No Samples	Very poor sample, all cement.

835'-840'	Dolomite	Light brown to grey microcrystalline dolomite with a band of anhydrite: 20% anhydrite and 80% dolomite.
840'-845'	Dolomite	Light brown to grey microcrystalline dolomite with 20% anhydrite: band of anhydrite.
845'-850'	Limestone	Light brown to grey microcrystalline dolomite.
850'-855'	Limestone	Light brown to grey microcrystalline limestone: very poor sample. very fine cuttings.
855'-860'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (50%) and dolomite (50%).
860'-865'	Dolomite	Light brown to grey microcrystalline dolomite with 20% limestone: trace of secondary quartz crystals.
865'-870'	Dolomite	Light brown to grey microcrystalline dolomite with a band of anhydrite.
870'-875'	Limestone	Light brown to grey microcrystalline limestone with 10% of shale and 10% chert.
875'-880'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (40%) and dolomite (40%): 10% shale and 10% secondary quartz crystals.
880'-885'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (40%) and dolomite (40%): 10% shale and 10% secondary quartz crystals.
885'-890'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (50%) and dolomite (50%).
890'-895'	Limestone and Dolomite	Light brown to grey microcrystalline limestone (50%) and dolomite (50%).

895'-900'	Dolomite	Light brown to grey microcrystalline dolomite.
900'-905'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
905'-910'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone; band of anhydrite.
910'-915'	Dolomite	Light brown microcrystalline dolomite with 10% microcrystalline limestone.
915'-920'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
920'-925'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
925'-940'	No Samples	
940'-945'	Dolomite	Very light brown microcrystalline dolomite with 10% microcrystalline limestone.
945'-950'	Dolomite	Very light brown microcrystalline dolomite with 20% microcrystalline limestone.
950'-955'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
955'-960'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
960'-965'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
965'-970'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
970'-980'	No Samples	

980'-985'	Dolomite	Light brown extremely fine crystalline dolomite.
985'-990'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
990'-1010'	No Samples	
1010'-1015'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1015'-1020'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1020'-1025'	Dolomite	Light brown microcrystalline dolomite with 20% microcrystalline limestone.
1025'-1030'	No Samples	
1030'-1035'	Dolomite and Anhydrite	Very light brown microcrystalline dolomite interbedded with anhydrite: very poor sample but considerable anhydrite.
1035'-1040'	Dolomite and Anhydrite	Very light brown microcrystalline dolomite interbedded with anhydrite: very poor sample but considerable anhydrite.
1040'-1045'	Dolomite	Very light brown microcrystalline dolomite with 20% microcrystalline limestone: band of anhydrite.
1045'-1050'	Anhydrite	Very light brown anhydrite.
1050'-1055'	Dolomite	Dolomite, very light brown, microcrystalline: 20% microcrystalline limestone.
1055'-1060'	Anhydrite	Very light brown anhydrite.
1060'-1065'	Dolomite	Very light brown microcrystalline dolomite.
1065'-1070'	Anhydrite	Very light brown microcrystalline anhydrite.

1070'-1075'	Dolomite	Light brown microcrystalline dolomite.
1075'-1080'	No Samples	
1080'-1085'	Anhydrite	Light brown microcrystalline anhydrite.
1085'-1090'	Dolomite	Light brown microcrystalline dolomite.
1090'-1100'	Anhydrite	Light brown microcrystalline anhydrite.
1100'-1105'	Dolomite	Light brown microcrystalline dolomite.
11 05'-1175'	No Samples	
1175'-1180'	Anhydrite	Light brown microcrystalline anhydrite.
1180'-1185'	Dolomite	Light brown microcrystalline dolomite.
1185'-1190'	Anhydrite	Light brown microcrystalline anhydrite.
1190'-1195'	Dolomite	Light brown microcrystalline dolomite.
1195'-1200'	Anhydrite	Light brown microcrystalline anhydrite with a band of shale: few chips waxy, green shale.
1200'-1205'	Dolomite	Light brown microcrystalline dolomite.
1205'-1210'	Anhydrite	Light brown microcrystalline anhydrite.
1210'-1215'	Dolomite	Light brown microcrystalline dolomite.
1215'-1220'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite.

1220'-1225'	Dolomite	Medium brown, extremely fine to microcrystalline dolomite.
1225'-1230'	Anhydrite	Light brown microcrystalline anhydrite.
1230'-1235'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a band of cryptocrystalline limestone.
1235'-1240'	Dolomite	Light brown microcrystalline dolomite.
1240'-1245'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite; band of shale, (few chips of light greenish grey shale).
1245'-1250'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite: limestone, extremely fine crystalline to cryptocrystalline: argillaceous in partings; bands of dolomite and shale.
1250'-1255'	Limestone	Light brown microcrystalline limestone with 30% shale: band of cryptocrystalline anhydrite: light green shale.
1255'-1260'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite.
1260'-1265'	Dolomite	Light brown extremely fine crystalline dolomite.
1265'-1270'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite.
1270'-1275'	Limestone	Light brown microcrystalline to cryptocrystalline limestone.
1275'-1280'	Dolomite	Light brown microcrystalline dolomite.

1280'-1285'	Limestone	Light brown microgranular to cryptogranular limestone.
1285'-1290'	Limestone	Light brown microgranular to cryptogranular limestone.
1290'-1295'	Anhydrite	Light brown microcrystalline anhydrite.
1295'-1300'	Dolomite	Light brown microcrystalline dolomite.
1300'-1305'	No Samples	
1305'-1325'	No Samples	
1325'-1330'	Limestone	Light brown microcrystalline limestone.
1330'-1335'	Dolomite	Medium brown microcrystalline dolomite with a trace of shale; slight acid reaction, no cut.
1335'-1340'	Anhydrite	Light brown microcrystalline anhydrite.
1340'-1345'	Dolomite	Light brown microgranular dolomite.
1345'-1350'	Limestone	Medium brown microgranular limestone with a trace of shale.
1350'-1355'	Anhydrite	Light brown microcrystalline anhydrite.
1355'-1360'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with a trace of shale; trace of stylolites (pyrobitumen in stylolites?); sparry gypsum filling fractures.
1360'-1365'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 10%shale and a trace of pyrite.

1365'-1370'	Dolomite	Medium brown extremely fine to cryptogranular dolomite with 30% extremely fine cryptogranular limestone; 20% shale; 20% medium dolomite rhombs; trace of fossil debris.
1370'-1375'	Dolomite	Medium brown extremely fine crystalline to cryptocrystalline dolomite.
1375'-1380'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite, with a band of anhydrite.
1380'-1385'	Limestone	Light brown medium sand grain size fragmental limestone; 40% extremely fine to microcrystalline dolomite.
1385'-1390'	Dolomite	Light brown very fine to cryptocrystalline dolomite with a band of limestone; 20% anhydrite; brachiopods?
1390'-1395'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with a trace of shale.
1395'-1400'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 30% cryptogranular limestone; 20% shale.
1400'-1405'	Anhydrite	Light brown anhydrite.
1405'-1410'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite; sparry gypsum - fracture filling?
1410'-1415'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1415'-1420'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1420'-1425'	Limestone	Medium brown extremely fine crystalline to microcrystalline dolomite (30%), and limestone (70%); band of anhydrite.

1425'-1430'	Limestone and Dolomite	Light brown extremely fine crystalline to microcrystalline limestone (50%) and dolomite (50%); band of anhydrite.
1430'-1435'	Limestone and Dolomite	Light brown extremely fine crystalline to microcrystalline limestone (50%) and dolomite (50%).
1435'-1440'	Anhydrite	Light brown microcrystalline anhydrite.
1440'-1445'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
1445'-1450'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
1450'-1455'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone: band of anhydrite.
1455'-1460'	Dolomite	Medium brown extremely fine crystalline dolomite.
1460'-1465'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 20% limestone.
1465'-1470'	Anhydrite	White microcrystalline anhydrite, microcrystalline to coarse spar.
1470'-1475'	Anhydrite	White microcrystalline anhydrite, microcrystalline to coarse spar.
1475'-1480'	Anhydrite	White microcrystalline anhydrite with a trace of dolomite.
1480'-1485'	Anhydrite	White extremely fine crystalline to microcrystalline anhydrite with a trace of dolomite.
1485'-1490'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with a trace of dolomite.

1490'-1492.5'	Dolomite	Light brown extremely fine to cryptogranular dolomite with 20% limestone and 30% shale.
1492.5'-1495'	Dolomite	Light brown extremely fine crystalline dolomite.
1495'-1500'	Anhydrite	Very light brown microcrystalline anhydrite.
1500'-1505'	Dolomite	Medium brown extremely fine crystalline dolomite.
1505'-1510'	Anhydrite	Light brown microcrystalline anhydrite.
1510'-1515'	Dolomite	Medium brown extremely fine crystalline dolomite.
1515'-1520'	Dolomite	Medium brown extremely fine crystalline dolomite.
1520'-1522.5'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% shale.
1522.5'-1525'	Dolomite	Medium brown extremely fine crystalline dolomite.
1525'-1530'	Anhydrite	Light brown microcrystalline anhydrite.
1530'-1535'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of shale; band of limestone.
1535'-1540'	Dolomite	Medium brown extremely fine crystalline dolomite.
1540'-1542.5'	Dolomite	Medium to dark brown, extremely fine crystalline dolomite with 30% microcrystalline to cryptocrystalline limestone; 30% shale.
1542.5'-1545'	Dolomite	Medium to dark brown extremely fine crystalline dolomite.

1545'-1550'	Dolomite	Medium brown extremely fine crystalline dolomite with a band of limestone.
1550'-1555'	Anhydrite	Light brown microcrystalline anhydrite.
1555'-1560'	Dolomite and Limestone	Medium to dark brown extremely fine crystalline dolomite and microgranular limestone; 30% shale; lithic fragments present in the shale; few lithic fragments of dolomite in argillaceous and calcareous dolomite matrix.
1560'-1565'	Dolomite	Medium brown extremely fine crystalline dolomite with 20% microcrystalline limestone.
1565'-1570'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of limestone.
1570'-1575'	Anhydrite	White extremely fine crystalline anhydrite with a band of limestone; trace of ostracods.
1575'-1580'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone.
1580'-1585'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of stylolites.
1585'-1590'	Anhydrite	White extremely fine crystalline anhydrite.
1590'-1595'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone: trace of shale and crinoids.
1595'-1600'	Anhydrite	White, extremely fine crystalline anhydrite.
1600'-1605'	Dolomite	Medium brown extremely fine crystalline dolomite with 10% limestone.

1605'-1610'	Dolomite	Medium brown extremely fine crystalline dolomite with a trace of shale; band of anhydrite.
1610'-1615'	Dolomite	Medium brown, very fine to extremely fine crystalline dolomite with a trace of shale; band of limestone, and a trace of ostracod; waxy scum.
1615'-1620'	Anhydrite	Light brown very fine to extremely fine crystalline anhydrite.
1620'-1625'	Dolomite	Medium brown extremely fine, very fine crystalline dolomite.
1625'-1630'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite with a trace of pyrite; band of cryptocrystalline limestone.
1630'-1635'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite with a band of anhydrite.
1635'-1640'	Dolomite	Medium brown extremely fine crystalline dolomite with a band of cryptogranular limestone.
1640'-1645'	Anhydrite	White, extremely fine crystalline anhydrite; white, opaque "satin spar", fracture filling?
1645'-1647.5'	Limestone	Medium to light brown extremely fine crystalline limestone with 40% shale.
1647.5'-1650'	Dolomite	Medium to light brown extremely fine crystalline dolomite.
1650'-1655'	Dolomite	Medium to light brown extremely fine crystalline dolomite.
1655'-1660'	Anhydrite	White, extremely fine crystalline anhydrite.
1660'-1665'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.

1665'-1667.5'	Limestone	Medium brown to light brown to olive grey microgranular limestone with a trace of shale; lithic fragments in limestone.
1667.5-1670'	Anhydrite	Medium brown extremely fine crystalline anhydrite.
1670'-1675'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1675'-1680'	Anhydrite	White extremely fine crystalline anhydrite.
1680'-1685'	Dolomite	Medium brown extremely crystalline dolomite (fragmental in partings?) with a band of limestone.
1685'-1690'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.
1690'-1695'	Anhydrite	White extremely fine crystalline anhydrite.
1695'-1700'	Dolomite	Medium brown extremely fine to very fine dolomite crystalline; some sparry calcite, vug lining?
1700'-1705'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1705'-1710'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1710'-1715'	Anhydrite	White, extremely fine to microcrystalline anhydrite with a band of dolomite.
1715'-1720'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1720'-1725'	Anhydrite	White, extremely fine to very fine crystalline anhydrite.
1725'-1730'	Dolomite	Medium brown extremely fine to very fine crystalline dolomite.

1730'-1735'	Anhydrite	Very light grey microcrystalline anhydrite.
1735'-1740'	Anhydrite	Very light grey microcrystalline anhydrite.
1740'-1745'	Anhydrite	Very light grey microcrystalline anhydrite.
1745'-1750'	Anhydrite	Very light grey microcrystalline anhydrite; few chips of light greenish grey shale.
1750'-1755'	Anhydrite	Very light grey microcrystalline anhydrite.
1755'-1760'	Anhydrite	Very light grey microcrystalline anhydrite; few chips of light greenish grey shale.
1760'-1765'	Anhydrite	Very light grey extremely fine crystalline to microcrystalline anhydrite with a band of limestone.
1765'-1770'	Anhydrite	Very light grey extremely fine crystalline to microcrystalline anhydrite.
1770'-1775'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
1775'-1780'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1780'-1785'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a band of limestone; few chips light greenish grey shale and microgranular limestone.
1785'-1790'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.

1790'-1795'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite.
1795'-1800'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of fine to medium floating quartz sandgrains; band of shale at the top of the interval.
1800'-1805'	Anhydrite	White, extr[illegible] fine crystalline to microcry[illegible]line anhydrite.
1805'-1810'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of shale and a trace of fine to medium floating quartz sand grains.
1810'-1815'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1815'-1820'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a band of dolomite.
1820'-1825'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of shale and a trace of fine to medium quartz sand grains floating in very light greenish grey argillaceous anhydrite.
1825'-1830'	Dolomite	Very light brown cryptogranular dolomite.
1830'-1835'	Dolomite	Very light brown cryptocrystalline dolomite.
1835'-1840'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite.
1840'-1845'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1845'-1850'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.

1850'-1855'	Anhydrite	Light greenish grey microcrystalline to cryptocrystalline anhydrite with 20% dolomite; 20% shale; 10% fine to medium sand grains.
1855'-1860'	Dolomite	Very light brown cryptocrystalline dolomite; some sparry calcite - vug lining?
1860'-1865'	Dolomite	Very light brown cryptocrystalline dolomite; trace of shale.
1865'-1870'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with a trace of shale.
1870'-1875'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1875'-1880'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite.
1880'-1885'	Dolomite	Dark brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 30% shale.
1885'-1890'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1890'-1895'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
1895'-1900'	Dolomite	Light to medium brown extremely fine crystalline to cryptocrystalline dolomite with 20% limestone and 10% shale; band of anhydrite.
1900'-1905'	Dolomite	Dark brown extremely fine crystalline dolomite with 20% limestone; 20% shale.
1905'-1910'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1910'-1915'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite.

1915'-1920'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite; trace of floating fine sand grains.
1920'-1925'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1925'-1930'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with a trace of floating fine sand grains.
1930'-1935'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a trace of shale.
1935'-1940'	Anhydrite	White, extremely fine to microcrystalline anhydrite with 20% dolomite.
1940'-1945'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1945'-1950'	Dolomite	Medium to dark brown extremely fine to microcrystalline dolomite with 20% limestone; 20% shale.
1950'-1955'	Anhydrite	White, extremely fine to microcrystalline anhydrite.
1955'-1960'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% cryptogranular shale; trace of crinoids.
1960'-1965'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% anhydrite.
1965'-1970'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
1970'-1975'	Anhydrite	White, microcrystalline anhydrite with 10% shale.

1975'-1980'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
1980'-1985'	Dolomite	Very light brown, microcrystalline to cryptocrystalline dolomite.
1985'-1990'	Dolomite	Very light brown, microcrystalline to cryptocrystalline dolomite.
1990'-1995'	Anhydrite	White, extremely fine to microcrystallin anhydrite.
1995'-2000'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2000'-2005'	Limestone	Light grey microcrystalline to cryptocrystalline limestone, with 20% dolomite, and 20% shale.
2005'-2010'	Limestone	Light to medium grey microgranular to cryptogranular limestone with shale in partings.
2010'-2015'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 20% shale: streak of chert.
2015'-2020'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 20% shale.
2020'-2025'	Anhydrite	Very light greenish grey anhydrite with 30% microcrystalline dolomite; 20% very fine to extremely fine quartz.
2025'-2030'	Anhydrite	Very light greenish grey anhydrite with 30% microcrystalline dolomite; 20% very fine to extremely fine quartz.
2030'-2035'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2035'-2040'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% shale.

2040'-2045'	Anhydrite	Very light greenish grey anhydrite with 10% microcrystalline dolomite and 10% shale; 10% extremely fine to very fine quartz.
2045'-2050'	Anhydrite	Yellowish brown anhydrite with microcrystalline dolomite (30%) and 10% extremely fine to very fine quartz.
2050'-2055'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2055'-2060'	Anhydrite	White, anhydrite with 20% microcrystalline dolomite and 20% extremely fine to very fine quartz.
2060'-2065'	Anhydrite	Light greenish grey anhydrite with microcrystalline dolomite (20%) and 10% extremely fine to very fine quartz.
2065'-2070'	Anhydrite	Light greenish grey microcrystalline dolomite and anhydrite; 20% extremely fine to very fine quartz.
2070'-2075'	Anhydrite	White microcrystalline anhydrite with 10% extremely fine quartz.
2075'-2080'	Anhydrite	White extremely fine to microcrystalline anhydrite with 30% dolomite.
2080'-2085'	Shale	Brick red shale with 20% dolomite and 20% anhydrite; 10% quartz.
2085'-2090'	Dolomite	White, extremely fine crystalline to cryptocrystalline dolomite with 40% anhydrite.
2090'-2095'	Dolomite, Shale and Anhydrite	Red, extremely fine crystalline to microcrystalline dolomite (30%), anhydrite (30%), and shale (30%); 10% quartz.

2095'-2100'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite.
2100'-2105'	Anhydrite	White, extremely fine crystalline to microcrystalline anhydrite with a trace of pyrite.
2105'-2110'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite.
2110'-2115'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 30% anhydrite and a band of limestone.
2115'-2120'	Dolomite	Very, very light brown (almost white) microcrystalline to cryptocrystalline dolomite.
2120'-2125'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2125'-2130'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite.
2130'-2135'	Anhydrite	White to very light brown cryptocrystalline to microcrystalline anhydrite with 30% dolomite.
2135'-2140'	Dolomite	White to very light brown cryptocrystalline to microcrystalline dolomite.
2140'-2145'	Limestone	Medium brown microgranular to cryptogranular limestone with 20% dolomite and 30% shale.
2145'-2150'	Shale	Red shale with 30% quartz siltstone and 20% dolomite.
2150'-2155'	Shale	Green shale with 10% dolomite.
2155'-2160'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% quartz siltstone and 30% anhydrite.

2160'-2165'	Quartz	Extremely fine to cryptogranular red siltstone with 20% shale and 20% dolomite.
2165'-2170'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 30% anhydrite; 10% extremely fine granular quartz siltstone.
2170'-2175'	Limestone	Medium brown extremely fine crystalline dolomite (20%), and microgranular to cryptogranular limestone with 20% shale; trace of crinoids.
2175'-2180'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with extremely fine granular limestone and siltstone.
2180'-2185'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite with a trace of quartz.
2185'-2190'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite and a band of light greenish grey shale.
2190'-2195'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 20% anhydrite.
2195'-2200'	Dolomite	Medium brown, very fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale; waxy scum, no cut.
2200'-2205'	Dolomite	Microcrystalline to cryptocrystalline dolomite, very light brown with 30% anhydrite.
2205'-2210'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
2210'-2215'	Dolomite	Very light brown, extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.

2215'-2220'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 80% anhydrite.
2220'-2225'	Dolomite	Light green microcrystalline dolomite with 20% anhydrite; very fine to extremely fine quartz; 20% cryptogranular shale.
2225'-2230'	Dolomite	Very light brown, extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
2230'-2235'	Dolomite	Very light brown, extremely fine crystalline to microcrystalline dolomite with 30% anhydrite and 10% quartz.
2235'-2240'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 10% limestone and a trace of stylolites; 20% shale.
2240'-2245'	Shale	Light green shale with 20% dolomite.
2245'-2250'	Shale and Siltstone	Brick red, extremely fine to cryptogranular quartz and shale; 20% dolomite.
2250'-2255'	Dolomite	Very light brown to white extremely fine to microcrystalline dolomite with 10% quartz, and 30% anhydrite.
2255'-2260'	Dolomite	Very light brown to white extremely fine to microcrystalline dolomite with 10% quartz and 30% anhydrite.
2260'-2265'	Shale	Green shale with 20% quartz siltstone and 20% dolomite.
2265'-2270'	Dolomite	Light brown to white microcrystalline to cryptocrystalline dolomite with 20% anhydrite and 10% extremely fine granular quartz.

2270'-2275'	Dolomite	Light brown to white extremely fine crystalline dolomite to cryptocrystalline dolomite with 20% anhydrite.
2275'-2280'	Shale and Siltstone	Red, extremely fine granular siltstone and shale; 20% microcrystalline dolomite.
2280'-2285'	Dolomite	Light brown to white extremely fine crystalline to cryptocrystalline dolomite with 20% anhydrite.
2285'-2290'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.
2290'-2295'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 20% shale.
2295'-2300'	Dolomite	Medium brown extremely fine crystalline to cryptocrystalline dolomite with 20% limestone and 20% shale; trace of stylolites.
2300'-2305'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 20% limestone; trace of spar and quartz.
2305'-2310'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale.
2310'-2315'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; 10% shale.
2315'-2320'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% anhydrite.
2320'-2325'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with anhydrite (10%).

2325'-2330'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a band of anhydrite.
2330'-2335'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with a band of anhydrite.
2335'-2340'	Dolomite	Light brown microcrystalline dolomite with 10% limestone: 10% shale; band of extremely fine granular quartz at the top of the interval.
2340'-2345'	Dolomite	Light brown microcrystalline dolomite with 10% extremely fine granular quartz and 10% shale; trace of stylolites.
2345'-2350'	Dolomite	Light brown microcrystalline dolomite with 10% shale and 10% quartz.
2350'-2355'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% quartz.
2355'-2360'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 20% anhydrite.
2360'-2365'	Dolomite	Light to medium brown extremely fine crystalline to cryptocrystalline dolomite with 10% limestone and a band of shale.
2365'-2370'	Dolomite	Light brown to medium brown extremely fine crystalline to microcrystalline dolomite with 10% limestone: trace of shale.
2370'-2375'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite with 20% dolomite: 20% extremely fine granular quartz.

2375'-2380'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2380'-2385'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2385'-2390'	Dolomite and Anhydrite	Very light brown extremely fine crystalline to cryptocrystalline dolomite (40%) and anhydrite (40%) with 20% quartz.
2390'-2395'	Shale and Siltstone	Brown shale and siltstone with 20% dolomite and 20% anhydrite.
2395'-2400'	Dolomite and Shale	Red shale and microcrystalline to cryptocrystalline dolomite with 20% siltstone and 20% anhydrite.
2400'-2405'	Dolomite	Very light brown cryptocrystalline to microcrystalline dolomite with 40% anhydrite and 10% quartz.
2405'-2410'	Limestone	Medium brown microgranular to cryptogranular limestone with a trace of shale and a trace of ostracods.
2410'-2415'	Limestone	Medium brown extremely fine to microcrystalline limestone with 20% dolomite; 20% shale.
2415'-2420'	Dolomite	Medium brown extremely fine to microcrystalline dolomite with 10% limestone; 20% shale.
2420'-2425'	Anhydrite	Light brown microcrystalline to cryptocrystalline anhydrite with 20% dolomite; 30% extremely fine granular quartz siltstone.

2425'-2430'	Shale	Mottled red and green shale with 20% dolomite and 10% quartz siltstone.
2430'-2435'	Dolomite and Anhydrite	Light brown microcrystalline to cryptocrystalline dolomite and anhydrite.
2435'-2440'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2440'-2445'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% anhydrite and 20% quartz.
2445'-2450'	Dolomite	Very light brown extremely fine to cryptogranular dolomite.
2450'-2455'	Shale	Mottled red and green shale with 10% quartz; 40% microcrystalline to cryptocrystalline dolomite.
2455'-2460'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite (50%).
2460'-2465'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite, (50%).
2465'-2470'	Shale and Lithoclasts	Medium brown, medium to fine lithoclasts; 30% shale; 20% limestone; 20% dolomite; sparry calcite - vug lining?
2470'-2475'	Dolomite and Anhydrite	Very light brown microcrystalline to cryptocrystalline dolomite (50%) and anhydrite (50%).
2475'-2480'	Shale	Mottled red and green shale with 20% quartz siltstone and 20% dolomite.
2480'-2485'	Siltstone	Greenish grey, extremely fine granular to microgranular quartz siltstone with 30% shale; 20% dolomite.

2485'-2490'	Siltstone	Greenish grey extremely fine granular to microgranular quartz siltstone with 30% shale and 20% dolomite.
2490'-2495'	Siltstone	Greenish grey extremely fine granular to microgranular quartz siltstone with 30% shale and 20% dolomite.
2495'-2500'	Shale and Siltstone	Light greenish grey extremely fine granular to microgranular quartz siltstone (40%) with shale (40%); 20% dolomite and a trace of pyrite.
2500'-2505'	Shale	Light greenish grey shale with 20% extremely fine to microgranular quartz siltstone; 20% dolomite with a trace of pyrite.
2505'-2510'	Shale	Light greenish grey shale with 20% extremely fine to microgranular quartz siltstone; 20% dolomite with a trace of pyrite and anhydrite.
2510'-2515'	Shale and Siltstone	Light greenish grey shale (40%) and extremely fine granular to microgranular siltstone (40%); 20% dolomite.
2515'-2520'	Shale and Siltstone	Light greenish grey shale (40%) and extremely fine granular to microgranular quartz siltstone; 10% dolomite; 10% anhydrite.
2520'-2525'	Siltstone	Light greenish grey extremely fine granular to cryptogranular quartz siltstone; 20% dolomite.
2525'-2530'	Dolomite	Very light brown extremely fine to cryptocrystalline dolomite with 20% quartz.

2530'-2535'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% quartz.
2535'-2540'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% quartz.
2540'-2545'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2545'-2550'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite.
2550'-2555'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale.
2555'-2560'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale, and a band of anhydrite.
2560'-2565'	Dolomite	Light brown microcrystalline dolomite with a trace of shale.
2565'-2570'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale.
2570'-2575'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; fractures filled with selenite?
2575'-2580'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; fractures filled with selenite?

2580'-2585'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with a trace of shale; fractures filled with selenite?
2585'-2590'	Dolomite	Light to medium brown microcrystalline to cryptocrystalline dolomite with a trace of shale.
2590'-2595'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone; band of anhydrite.
2595'-2600'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
2600'-2605'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale; band of limestone
2605'-2610'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
2610'-2615'	Dolomite	Light to medium brown microcrystalline dolomite with 10% shale.
2615'-2620'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone and 10% shale.
2620'-2625'	Limestone	Light to medium brown extremely fine to microgranular limestone with 10% quartz siltstone and a trace of shale; trace of coral calcispheres and corals?
2625'-2630'	Limestone	Light to medium brown microcrystalline limestone with 30% dolomite and a trace of shale; band of anhydrite; fragments limestones and stylolites.

2630'-2635'	Dolomite	Light to medium brown microcrystalline dolomite with 10% shale.
2635'-2640'	Dolomite	Light to medium brown microcrystalline dolomite with a trace of shale.
2640'-2645'	Limestone	Light to medium brown extremely fine crystalline dolomite (10%) and limestone (80%); 10% shale; ostracods, crinoids and calcispheres.
2645'-2650'	Dolomite	Medium brown microcrystalline to cryptocrystalline dolomite with 10% limestone and a band of anhydrite; trace of shale; stylolites.
2650'-2655'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% limestone and a trace of shale.
2655'-2660'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% limestone; 10% shale.
2660'-2665'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% limestone; 10% shale.
2665'-2670'	Limestone	Medium brown microgranular to cryptogranular limestone with 10% dolomite and 10% shale.
2670'-2675'	Dolomite	Light brown microcrystalline dolomite with a band of anhydrite and a trace of shale.

2675'-2680'	Dolomite	Light brown extremely fine crystalline dolomite with 20% limestone; 10% shale; fragmental limestone or dolomite present.
2680'-2685'	Dolomite	Medium brown extremely fine crystalline dolomite with 20% limestone; 10% shale.
2685'-2690'	Dolomite and Anhydrite	Light brown microcrystalline to cryptocrystalline dolomite and anhydrite.
2690'-2695'	Dolomite	Dull red extremely fine crystalline to cryptocrystalline dolomite with 10% anhydrite and 20% quartz; 30% felspar.
2695'-2700'	Dolomite	Light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2700'-2705'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite and 30% quartz.
2705'-2710'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2710'-2715'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2715'-2720'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2720'-2725'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2725'-2730'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2730'-2735'	Limestone	Medium brown extremely fine to microcrystalline limestone with 20% shale; 10-40% shale.

2735'-2740'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite.
2740'-2745'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 40% anhydrite.
2745'-2750'	Anhydrite	Very light brown microcrystalline to cryptocrystalline anhydrite with 40% dolomite.
2750'-2755'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 10% chert.
2755'-2760'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 30% anhydrite.
2760'-2765'	Dolomite	Very light brown microcrystalline to cryptocrystalline dolomite with 10% chert.
2765'-2770'	Dolomite	Very light brown extremely fine crystalline to cryptocrystalline dolomite with 30% anhydrite and 10% chert.
2770'-2775'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with 10% chert and a streak of shale with a trace of siltstone.
2775'-2780'	Dolomite	Very light brown very fine crystalline to extremely fine crystalline dolomite.
2780'-2785'	Dolomite	Very light brown very fine crystalline dolomite with 10% anhydrite with a trace of chert.
2785'-2790'	Dolomite	Very light brown very fine crystalline dolomite with a band of chert.
2790'-2795'	Dolomite	Very light brown very fine crystalline dolomite.
2795'-2800'	Dolomite	Very light brown very fine crystalline dolomite.

2800'-2805'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite with a trace of shale; band of white opaque chert.
2805'-2810'	Dolomite	Very light brown, very fine to extremely fine dolomite.
2810'-2815'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite with a trace of shale; few sclomite crystalline fragments.
2815'-2820'	Dolomite	Very light brown, very fine to microcrystalline dolomite with 10% chert.
2820'-2825'	Dolomite	Very light brown, very fine to microcrystalline dolomite with 10% chert.
2825'-2830'	Dolomite	Very light brown very fine to microcrystalline dolomite with 10% chert.
2830'-2835'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
2835'-2840'	Dolomite	Medium brown extremely fine crystalline dolomite with 30% microgranular limestone and 10% shale.
2840'-2845'	Dolomite	Very light brown, very fine to extremely fine dolomite crystalline; few C vugs, sparry calcite indicates some D vugs.
2845'-2850'	Dolomite	Very light brown, very fine to extremely fine dolomite crystalline with a streak of limestone.
2850'-2855'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a trace of chert; originally pelletoid?
2855'-2860'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite; 2840'-2865' very clean dolomite, only a trace of siliceous residue.

2860'-2865'	Dolomite	Very light brown fine to very fine crystalline dolomite with a trace of chert.
2865'-2870'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite.
2870'-2875'	Dolomite	Very light brown fine to very fine crystalline dolomite with a trace of chert.
2875'-2880'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
2880'-2885'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a band of chert.
2885'-2890'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
2890'-2895'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% anhydrite.
2895'-2900'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of chert.
2900'-2905'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of shale.
2905'-2910'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a band of chert; few medium to coarse lithic fragments (dolomite).
2910'-2915'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; few medium to coarse lithic fragments (dolomite).
2915'-2920'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite; few medium to coarse lithic fragments (dolomite), (or breccia?).

2920'-2925'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a trace of chert; breccia in partings?
2925'-2930'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite.
2930'-2935'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite.
2935'-2940'	Dolomite	Light brown microcrystalline to extremely fine crystalline dolomite with a band of chert.
2940'-2945'	Dolomite	Light brown to medium brown very fine crystalline to microcrystalline dolomite with a trace of shale.
2945'-2950'	Dolomite	Light to medium brown very fine crystalline to microcrystalline dolomite with a trace of shale and chert.
2950'-2955'	Dolomite	Light to medium brown extremely fine to microcrystalline dolomite with 10% shale.
2955'-2960'	Dolomite	Light to medium brown very fine crystalline to microcrystalline dolomite.
2960'-2965'	Dolomite	Light to medium brown very fine crystalline to microcrystalline dolomite.
2965'-2970'	Dolomite	Medium brown very fine crystalline to microcrystalline dolomite with a trace of shale.
2970'-2975'	Dolomite	Medium brown veryfine crystalline to extremely fine crystalline dolomite with a trace of shale.
2975'-2980'	Dolomite	Medium brown very fine crystalline dolomite with a trace of shale; band of extremely fine granular to microgranular limestone.

2980'-2985'	Dolomite	Medium brown very fine crystalline to microcrystalline dolomite with a trace of shale and a band of chert.
2985'-2990'	Dolomite	Medium to dark brown very fine crystalline dolomite.
2990'-2995'	Dolomite	Medium to dark brown very fine crystalline dolomite.
2995'-3000'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite.
3000'-3005'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; ostracods.
3005'-3010'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with 10% shale.
3010'-3015'	Dolomite	Medium to dark brown microcrystalline dolomite with a trace of shale; few selenite crystals, filling fractures?
3015'-3020'	Dolomite	Medium to dark brown extremely fine crystalline to microcrystalline dolomite with a trace of shale and a band of microgranular to cryptogranular limestone; trace of stylolites, few selenite crystals filling fractures?
3020'-3025'	Dolomite	Medium to dark brown extremely fine crystalline dolomite with a trace of shale and 10% chert.
3025'-3030'	Dolomite	Light brown microcrystalline dolomite with a trace of shale; few lithic fragments and floating sand grains, possibly caving?
3030'-3035'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite with a trace of shale.
3035'-3040'	Dolomite	Medium to dark brown very fine crystalline to microcrystalline dolomite with 10% shale.

3040'-3045'	Dolomite	Medium to dark brown very fine to extremely fine crystalline dolomite with a trace of shale.
3045'-3050'	Dolomite	Very light brown microcrystalline dolomite.
3050'-3055'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3055'-3060'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite.
3060'-3065'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3065'-3070'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
3070'-3075'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite with a trace of chert.
3075'-3080'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite with a trace of shale.
3080'-3081'	Dolomite	Very [illegible] brown very fine crystalline to microcrystalline dolomite; sparry calcite.
3081'-3085'	Dolomite	Very light brown fine to extrerely fine crystalline dolomite.
3085'-3090'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3090'-3100'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3100'-3105'	Dolomite	Very light brown fine to very fine crystalline dolomite.

3105'-3110'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3110'-3115'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3115'-3120'	Dolomite	Very light brown, fine to extremely fine crystalline dolomite.
3120'-3125'	Dolomite	Very light brown, very fine to extremely fine crystalline dolomite; stylolites; 5% coarse gypsum crystals filling vugs or fractures?
3125'-3130'	Dolomite	Very light brown fine to very fine crystalline dolomite.
3130'-3135'	Dolomite	Very light brown fine to extremely fine crystalline dolomite.
3135'-3140'	Dolomite	Very light brown fine to very fine crystalline dolomite with a band of chert.
3140'-3145'	Dolomite	Light brown fine to extremely fine crystalline dolomite.
3145'-3150'	Dolomite	Light brown fine to extremely fine crystalline dolomite.
3150'-3155'	Dolomite	Light brown very fine to extremely fine crystalline dolomite.
3155'-3160'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite with a band of chert.
3160'-3165'	Dolomite	Very light brown very fine to extremely fine crystalline dolomite.
3165'-3170'	Dolomite	Very light fine to extremely fine crystalline dolomite.
3170'-3175'	Dolomite	Very fine to extremely fine crystalline, very light brown dolomite.
3175'-3180'	Dolomite	Very fine to extremely fine crystalline, very light brown dolomite.

3180'-3185'	Dolomite	Very light brown microcrystalline dolomite with a trace of shale and chert, brecciated in parts?
3185'-3190'	Dolomite	Very light brown, fine to microcrystalline dolomite with a trace of shale.
3190'-3195'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3195'-3200'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3200'-3205'	Dolomite	Very light brown very fine crystalline to microcrystalline dolomite.
3205'-3210'	Dolomite	Light brown microcrystalline dolomite.
3210'-3215'	Dolomite	Light brown fine to very fine crystalline dolomite.
3215'-3220'	Dolomite	Light brown fine to very fine crystalline dolomite.
3220'-3225'	Dolomite	Light brown fine to very fine crystalline dolomite.
3225'-3230'	Dolomite	Light brown fine to very fine crystalline dolomite.
3230'-3235'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite with a trace of anhydrite.
3235'-3240'	Dolomite	Very light brown microcrystalline dolomite with 10% anhydrite.
3240'-3245'	Dolomite	Very light brown microcrystalline dolomite with 10% anhydrite.
3245'-3255'	Dolomite	Very light brown microcrystalline dolomite with a streak of shale and a band of chert.

3255'—3260'	Dolomite	White to very light brown extremely fine to microcrystalline dolomite. Dolomite and anhydrite following finely interbedded.
3260'—3265'	Anhydrite	White to very light brown extremely fine to microcrystalline anhydrite. Anhydrite and above dolomite finely interbedded.
3265'—3270'	Dolomite	Very light brown extremely fine crystalline to microcrystalline dolomite.
3270'—3275'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite; streak of mottled red and green shale.
3275'—3280'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
3280'—3285'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite.
3285'—3290'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% streaks and blebs of anhydrite.
3290'—3295'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite.
3295'—3300'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline dolomite.
3300'—3305'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite and 20% anhydrite blebs.
3305'—3310'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite and 20% anhydrite blebs.

3310'-3315'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite blebs.
3315'-3320'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% anhydrite blebs.
3320'-3325'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite.
3325'-3330'	Dolomite	Very light brown, very fine crystalline dolomite to microcrystalline dolomite.
3330'-3335'	Dolomite	Very light brown, extremely fine to microcrystalline dolomite with 20% anhydrite.
3335'-3340'	Dolomite	Light brown, extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
3340'-3350'	No Sample	
3350'-3355'	Dolomite	Light brown, extremely fine crystalline to microcrystalline dolomite with a streak of light grey shale; trace of pyrite.
3355'-3360'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3360'-3365'	Dolomite	Light brown microcrystalline dolomite with 20% anhydrite.
3365'-3370'	Dolomite	Medium brown microcrystalline dolomite with 10% anhydrite and 10% shale.
3370'-3375'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.

3375'-3380'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with a band of shale.
3380'-3385'	Anhydrite and Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).
3385'-3390'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3390'-3395'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite.
3395'-3400'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3400'-3405'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3405'-3410'	Dolomite and Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%): finely laminated in parts.
3410'-3415'	Anhydrite	Light to medium brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite.
3415'-3420'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite with 20% brown shale.
3420'-3425'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3425'-3430'	Anhydrite	White, microcrystalline to extremely fine crystalline anhydrite with 20% dolomite.
3430'-3435'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite and 20% brown shale.

3435'-3440'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% anhydrite.
3440'-3445'	Dolomite	Medium brown microcrystalline to extremely fine crystalline dolomite with 30% anhydrite and 30% brown shale.
3445'-3450'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 10% dolomite.
3450'-3455'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 10% dolomite.
3455'-3460'	Shale	Band of light green shale.
3460'-3470'	Anhydrite	Light brown cryptogranular anhydrite with 40% dolomite.
3470'-3475'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 40% dolomite.
3475'-3480'	Anhydrite	Light brown extremely fine crystalline to microcrystalline anhydrite with 40% dolomite.
3480'-3485'	Anhydrite	Very light brown microcrystalline anhydrite with 30% dolomite and 10% shale.
3485'-3490'	Anhydrite	Very light brown microcrystalline anhydrite.
3490'-3495'	Shale	Band of green shale mottled red: 10% dolomite and 10% anhydrite.
3495'-3500'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3500'-3505'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).

3505'-3510'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%); laminated in parts.
3510'-3515'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite.
3515'-3520'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3520'-3525'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite.
3525'-3530'	Shale	Medium greenish grey shale with 10% quartz and 10% dolomite.
3530'-3535'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%); ostracods.
3535'-3540'	Shale	Light green shale with 10% quartz siltstone, 10% dolomite, 10% anhydrite; band of light blue grey chert.
3540'-3545'	Dolomite	Light to medium brown extremely fine crystalline dolomite with 30% anhydrite.
3545'-3550'	Dolomite	Light to medium brown extremely fine crystalline to microcrystalline dolomite with 30% anhydrite and a band of limestone.
3550'-3555'	Shale	Medium greenish grey shale with 10% quartz and 20% dolomite.
3555'-3560'	Dolomite	Medium brown extremely fine crystalline to microcrystalline dolomite with 20% shale and 20% anhydrite.
3560'-3565'	Dolomite and Anhydrite	Medium brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).

3565'-3570'	Dolomite and Anhydrite	Light brown extremely fine crystalline to microcrystalline dolomite (50%) and anhydrite (50%).
3570'-3575'	Dolomite	Light brown extremely fine crystalline to microcrystalline dolomite with 10% limestone and 10% shale.
3575'-3580'	Dolomite	Medium brown microcrystalline dolomite with 10% shale: 10% extremely fine granular limestone and a trace of quartz siltstone.
3580'-3585'	Anhydrite	Very light brown microcrystalline anhydrite with 10% extremely fine granular quartz siltstone.
3585'-3590'	Anhydrite	Very light brown extremely fine crystalline to microcrystalline anhydrite with 20% dolomite.
3590'-3595'	Anhydrite	Medium brown extremely fine crystalline to microcrystalline anhydrite with 30% dolomite and 10% shale.
3595'-3600'	Shale	Light olive green with some red mottling shale: 20% extremely fine granular to microgranular quartz siltstone: 20% dolomite.
3600'-3605'	Shale	Light olive green shale with some red mottling: 20% extremely fine granular to microgranular quartz siltstone: 20% dolomite.
3605'-3610'	Shale	Light olive green shale with some red mottling: 20% extremely fine granular to microgranular quartz siltstone: 20% dolomite.
3610'-3615'	Shale	Light olive green shale with some red mottling: 20% extremely fine granular to microgranular quartz siltstone: 20% dolomite.

3615'-3620'	Shale	Very light greenish grey shale with 10% extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3620'-3625'	Shale	Very light greenish grey, red and purple shale; 10% extremely fine granular siltstone; 20% dolomite and 10% anhydrite.
3625'-3630'	Shale	Very light greenish grey, red and purple shale; 20% extremely fine granular siltstone; 20% dolomite and 10% anhydrite.
3630'-3635'	Shale	Light green to pink shale; 10% extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3635'-3640'	Shale	Light green to pink shale; 10% extremely fine granular to microgranular quartz siltstone; 20% dolomite and 10% anhydrite.
3640'-3647'	Dolomite	Very dark yellowish brown to very pale yellow brown orange microcrystalline dolomite with 20% shale and a trace of anhydrite.
3647'-3650'	Shale	Greenish grey shale mottled with various shades of red; 20% microcrystalline dolomite; 20% quartz siltstone; trace of anhydrite; occasional smooth green shale chip.
3650'-3658'	Dolomite	Very dark yellowish brown grading to pale yellow brown orange, microcrystalline dolomite with 20% shale and a trace of anhydrite.
3658'-3660'	Shale	Greenish grey mottled with various shades of red, shale; 20% quartz siltstone; 20% microcrystalline dolomite; trace of anhydrite.

3660'-3670'	Dolomite	Very dark yellowish brown to pale yellowish brown orange microcrystalline dolomite with 10% shale and 15% anhydrite and anhydrite blebs; streak of greenish grey shale mottled with various shades of red.
3670'-3685'	Dolomite	Very dark yellowish brown to pale yellow brown orange microcrystalline dolomite ; 10% shale: 15% anhydrite; streak of dark greenish grey shale.
3685'-3692'	Dolomite	Dark yellowish brown to pale yellowish brown orange microcrystalline dolomite with a trace of microgranular siltstone; 10% shale and 2% anhydrite and anhydrite blebs.
3692'-3700'	Shale	Various shades of greenish grey shale mottled with various shades of red; 20% quartz siltstone; 15% microcrystalline dolomite; occasional chip of anhydrite between 3695'-3700'.
3700'-3730'	Shale and Dolomite	Medium brownish grey to very light pinkish grey microcrystalline dolomite with a trace of shale; 20% to 50% anhydrite; interbedded with various shades of greenish grey shale mottled with various shades of red; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3730'-3739'	Anhydrite	Medium brownish grey to pale pinkish grey with a trace of quartz siltstone and 20% microcrystalline dolomite; 10% shale.
3739'-3740'	Shale and Anhydrite	Greenish grey mottled with red, shale and anhydrite; 10% quartz siltstone; 20% microcrystalline dolomite.

3740'-3748'	Anhydrite	Medium brownish grey to pale pinkish grey anhydrite; 10% shale; trace of quartz siltstone; 20% microcrystalline dolomite.
3748'-3750'	Shale and Anhydrite	Greenish grey mottled with red shale (35%) and anhydrite (35%); 10% quartz siltstone; 20% microcrystalline dolomite.
3750'-3759'	Anhydrite	Dark yellowish brown anhydrite with a trace of quartz siltstone; 20% microcrystalline dolomite; 20% shale.
3759'-3760'	Shale	Greenish grey mottled with red shale; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3760'-3762'	Anhydrite	Very pale greyish orange pink grading to dark brownish grey anhydrite with 20% shale; 20% microcrystalline dolomite; trace of quartz siltstone.
3762'-3770'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 30% anhydrite.
3770'-3775'	Anhydrite	Dark brownish grey to very light brownish grey anhydrite; 10% quartz siltstone; 10% shale; 20% microcrystalline dolomite.
3775'-3780'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 20% anhydrite.
3780'-3787'	Anhydrite	Dark brownish grey to very light brownish grey anhydrite; trace of quartz siltstone; 10% shale; 30% microcrystalline dolomite.
3787'-3790'	Shale	Greenish grey shale mottled with red; 10% quartz siltstone; 20% microcrystalline dolomite; 20% anhydrite.

3790'-3802'	Dolomite	Dark to pale yellowish brown microcrystalline to extremely fine crystalline dolomite; 10% shale; 10% to 20% anhydrite.
3802'-3805'	Siltstone	Greenish gray quartz siltstone, with 30% shale; 20% microcrystalline dolomite; 10% anhydrite.
3805'-3810'	Dolomite	Very dark yellowish brown microcrystalline dolomite with 10% shale; trace of anhydrite and anhydrite blebs.
3810'-3820'	Dolomite	Very dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3820'-3830'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3830'-3840'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite blebs; occasional near white chert chip.
3840'-3850'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite.
3850'-3860'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3860'-3870'	Dolomite	Dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.

3870'-3880'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3880'-3890'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3890'-3900'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs.
3900'-3909'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3909'-3910'	Anhydrite	Light brown anhydrite with a trace of shale: 10% microcrystalline dolomite.
3910'-3920'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a traceof shale and a trace of anhydrite blebs; streak of light brown anhydrite.
3920'-3929'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3929'-3930'	Anhydrite	Light brown anhydrite with a trace of shale and 10% microcrystalline dolomite.
3930'-3940'	Dolomite	Very dark to medium yellowish brown microcrystalline dolomite with a trace of shale and a streak of light brown anhydrite.

3940'-3949'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3949'-3950'	Anhydrite	Brown anhydrite with 10% dolomite and a trace of shale.
3950'-3958'	Dolomite	Very dark yellowish brown to medium yellowish brown microcrystalline dolomite with a trace of shale.
3958'-3960'	Anhydrite	Brown anhydrite with a trace of shale and 10% microcrystalline dolomite.
3960'-3973.5'	Dolomite	Dark to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite blebs.
3973.5'-3975'	Anhydrite	Brown anhydrite with 10% microcrystalline dolomite.
3975'-3985'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs; streak of medium greenish grey slightly dolomitic shale.
3985'-3994'	Dolomite	Dark yellowish brown to pale yellowish brown microcrystalline dolomite with a trace of shale and a trace of anhydrite and anhydrite blebs; streak of medium greenish grey slightly dolomitic shale.
3994'-3995'	Anhydrite	Light brown anhydrite with 10% microcrystalline dolomite.
3995'-4005'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; streak of medium greenish grey slightly dolomitic shale.

4005'-4015'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; streak of medium greenish grey slightly dolomitic shale.
4015'-4030'	Dolomite	Medium yellowish brown to very pale yellowish brown microcrystalline dolomite with a trace of shale; one or two anhydrite chips and a trace of quartz; streak of medium greenish grey slightly dolomitic shale.
4030'-4040'	Dolomite	Very dark yellowish brown to very pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of clean anhydrite blebs, occasional white shale chip; streak of dark olive grey shale (slightly dolomitic and with floating angular very fine to fine quartz sand? and floating fine sand size authigenic quartz; 0-10% of dark olive grey chip is quartz sand or authigenic quartz).
4040'-4045'	Dolomite	Very dark yellowish brown to very pale yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale and a trace of clean anhydrite blebs, occasional white chert chip, also occasional argillaceous chip with floating sand or authigenic quartz.
4045'-4050'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4050'-4060'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline to extremely fine crystalline dolomite with possible pelletal texture (extremely fine to very fine) in 20% of the dolomite; streak of dark olive grey dolomitic shale;

		occasional white chert chip(possible pelletal texture in one or two chert chips, but chips very smooth).
4060'-4070'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with a trace of pyrite; 10% relic fragments in dolomite; streak of light olive grey very dolomitic shale; occasional white chert chip (possible pelletal texture in one or two of the chert chips, but chips very smooth).
4070'-4080'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with 0-10% shale; streak of white chert (generally without texture, but believed silicified carbonate); angular content in streaks and variable; occasional loose, clear gypsum chip (fracture filling?).
4080'-4090'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite with a trace of pyrite; 10% extremely fine relic fragments in dolomite; occasional white chert chips; occasional loose, clear gypsum chip (fracture filling?).
4090'-4100'	Dolomite	Dark yellowish brown microcrystalline to very fine dolomite; occasional loose, clear, gypsum chip (fracture filling?); occasional white chert chip and tiny clear quartz chip.
4100'-4110'	Dolomite	Dark yellowish brown to very pale yellowish brown microcrystalline to very fine crystalline dolomite; occasional siltstone grain; occasional, loose, clear, gypsum chip (fracture filling?); occasional tiny clear quartz chip.

4110'-4120'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite with 20% relic fragments (extremely fine to very fine) in dolomite; occasional white chert chip and clear gypsum crystal; one aggregate of chips adhering together by what is interpreted as oil contamination.
4120'-4125'	Dolomite	Dark yellowish brown to very pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4125'-4130'	Dolomite	Medium yellowish brown to pale yellowish brown microcrystalline to extremely fine crystalline dolomite.
4130'-4135'	Dolomite	Medium yellowish brown to pale yellowish brown extremely fine crystalline to very fine crystalline dolomite.
4135'-4140'	Dolomite	Dark to pale yellowish brown extremely fine crystalline dolomite; rare clear, crystals of anhydrite or gypsum.
4140'-4145'	Dolomite	Dark to pale yellowish brown extremely fine crystalline dolomite; rare, clear crystals of anhydrite or gypsum.
4145'-4150'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline dolomite with 20% extremely fine to very fine relic fragments in dolomite; rare, clear crystals of anhydrite or gypsum.
4150'-4160'	Dolomite	Dark yellowish brown to very pale yellowish brown very fine crystalline dolomite with 30% extremely fine to very fine relic fragments in dolomite; trace of crinoids? occasional light chert chip; approximately 5% clear gypsum crystalline and appears to fill former vugs or fractures.

4160'-4170'	Dolomite	Dark yellowish brown to very pale yellowish brown, very fine to fine crystalline dolomite with 30% relic fragments; occasional light chert chip; approximately 5% clear gypsum crystalline and appears to to fill former vugs or fractures.
4170'-4180'	Dolomite	Dark yellowish brown to very pale yellowish brown, very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments in dolomite; trace of crinoids?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting.
4180'-4185'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine crystalline to fine crystalline dolomite; 30% extremely fine to very fine relic fragments; 1% crinoids?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting.
4185'-4190'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine crystalline to fine crystalline dolomite; occasional light chert chip; up to 5% clear gypsum crystals, occasional bitumenious fleck or parting.
4190'-4200'	Dolomite	Medium yellowish brown to very pale yellowish brown very fine to fine crystalline dolomite with 30% very fine to extremely fine relic fragments; trace of corals?; occasional light chert chip; up to 5% clear gypsum crystals, occasional bituminous fleck or parting (possible fossil material in chert).
4200'-4210'	Dolomite	Medium to pale yellowish brown, very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments; trace of crinoids; occasional light chert chips; approximately 5% clear gypsum crystals.

4210'—4220'	Dolomite	Medium to pale yellowish brown, very fine to fine crystalline dolomite; 5% extremely fine to very fine relic fragments; trace of fossil fragment (all chert); approximately 3% clear gypsum crystals; occasional light chert chip.
4220'—4230'	Dolomite	Dark to pale yellowish brown extremely fine to very fine crystalline dolomite; 10% extremely fine to very fine relic fragments in dolomite, approximately 3% clear gypsum crystals.
4230'—4235'	Dolomite	Dark to pale yellowish brown extremely fine to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments in dolomite; approximately 3% clear gypsum crystals.
4235'—240'	No Sample	
4240'—4245'	Dolomite	Medium to pale yellowish brown very fine to fine crystalline dolomite; 30% extremely fine to very fine relic fragments in dolomite; approximately 2% clear gypsum crystals.
4245'—4250'	Dolomite	Pale to dark yellowish brown, very fine dolomite crystalline with 10% extremely fine to very fine relic fragments; approximately 2% clear gypsum crystals; occasional chert chips.
4250'—4260'	Dolomite	Medium to pale yellowish brown extremely fine to very fine dolomite crystalline; approximately 2% clear gypsum crystals.
4260'—4265'	Dolomite	Medium to pale yellowish brown extremely fine to very fine dolomite crystalline with approximately 2% clear gypsum crystals.

4265'-4270'	Dolomite	Medium to dark yellowish brown microcrystalline to extremely fine crystalline dolomite: approximately 2% gypsum crystals: occasional chert chip.
4270'-4280'	Dolomite	Medium to dark yellowish brown microcrystalline to extremely fine crystalline dolomite.
4280'-4290'	Dolomite	Medium to dark yellowish brown cryptocrystalline to microcrystalline dolomite, 1-2% shale; occasional light chert chip and clear gypsum crystal.
4290'-4300'	Dolomite	Medium to dark yellowish brown microcrystalline to cryptocrystalline dolomite; 1-2% shale; occasional light chert chip and clear gypsum crystal.
4300'-4310'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite; 2% shale.
4310'-4320'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite with occasional chips of chert, 2% shale.
4320'-4330'	Dolomite	Dark to very dark yellowish brown microcrystalline to extremely fine crystalline dolomite with occasional chips of chert, 2% shale.
4330'-4340'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale.
4340'-4350'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace of crinoids.
4350'-4360'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; occasional clear gypsum crystals.

4360'-4370'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% clear gypsum crystals; trace of fossil fragments and brachiopods?.
4370'-438'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% clear gypsum crystals; trace of ostracods and crinoids.
4380'-4390'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline to microcrystalline dolomite with a trace of shale; approximately 1% clear gypsum crystals; trace of crinoids.
4390'-4400'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 1% clear gypsum crystals; trace of crinoids and corals.
4400'-4410'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; 10% fragments and relic fragments; trace of fossil fragments and crinoids; approximately 2% gypsum crystals.
4410'-4420'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; 2-3% gypsum crystals; trace of crinoids and fossil fragments.
4420'-4430'	Dolomite	Very dark to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale; approximately 2% gypsum crystals.
4430'-4440'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline dolomite with a trace of shale to 20% shale; trace of extremely fine to very fine relic fragments; 1% crinoids and 1% fossil fragments; approximately 2% gypsum crystals.

4440'-4445'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline dolomite with a trace of shale: approximately 2% gypsum crystals: trace of crinoids and 1% fossil fragments.
4445'-4453'	Dolomite	Very dark yellowish brown grading to brownish black extremely fine crystalline to microcrystalline dolomite with a trace of shale: approximately 2% gypsum crystals.
4453'-4455'	Anhydrite	Dark brownish grey grading to light brown microcrystalline dolomite with a trace of shale: 90% anhydrite and 10% dolomite.
4455'-4463'	Dolomite	Dusky yellowish brown grading to black microcrystalline to extremely fine crystalline dolomite with a trace of shale: occasional fossil in dark coloured dolomite considered cave also: approximately 1% gypsum crystals: fishing at 4461', poor samples to 4475' with some light dolomite cave.
4463'-4465'	Anhydrite	Dark brownish grey to light brown microcrystalline dolomite with a trace of shale: 90% anhydrite and 10% dolomite: approximately 1% gypsum crystals, fishing at 4461', poor samples to 4475' with some light dolomite cave.
4465'-4472'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline dolomite with a trace of shale: approximately 1% gypsum crystals: fishing at 4461', poor samples to 4475' with some light dolomite cave.
4472'-4475'	Anhydrite	Dark brownish grey grading to light brown anhydrite with a trace of shale and 10% microcrystalline dolomite.

4475'-4480'	Dolomite	Dark brownish grey to dark brownish black microcrystalline dolomite with 10-50% shale.
4480'-4485'	Anhydrite	Brownish grey to dark brownish grey anhydrite with a trace of shale and 10% microcrystalline dolomite.
4485'-4490'	Dolomite	Dark brownish grey to brownish black microcrystalline dolomite with 10-50% shale.
4490'-4495'	Anhydrite	Brownish grey to dark brownish grey anhydrite with a trace of shale and 10% microcrystalline dolomite.
4495'-4503'	Dolomite	Brownish grey grading to brownish black microcrystalline dolomite with 10-60% shale; 10% anhydrite and a streak of light to medium brown chert.
4503'-4505'	Shale and Dolomite	Olive grey shale (50%) and microcrystalline dolomite (50%).
4505'-4515'	Dolomite	Brownish grey to brownish black microcrystalline dolomite with 10-60% shale: streak of light and medium brown chert.
4515'-4525'	Dolomite	Dark brownish grey to brownish black microcrystalline to extremely fine crystalline dolomite with 10-60% shale; streak of light and medium brown anhydrite.
4525'-4535'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale: streak of light and dark brown chert with an occasional fossil; trace of fossil fragments and crinoids.

4535'-4545'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale: with a streak of light and dark brown chert: trace of fossil fragments and crinoids: approximately 1% gypsum crystals.
4545'-4550'	Dolomite	Dusky yellowish brown grading to brownish black microcrystalline to extremely fine crystalline dolomite with 10-40% shale: streak of light and dark brown chert: approximately 1% gypsum crystals; trace of brachiopods? and crinoids.
4550'-4560'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace to 10% shale and 10% extremely fine to very fine relic fragments: streak of light brown grading to light greyish brown chert (silicified carbonate); trace of crinoids: approximately 2% gypsum crystals.
4560'-4570'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments: trace to 10% shale; trace of light and dark brown chert; 2% crinoids: the dolomite is generally clean but a few of the darker chips very argillaceous: approximately 1% gypsum crystals.
4570'-4580'	Dolomite	Very dark yellowish brown to dusky brown extremely fine to very fine crystalline dolomite with 10% extremely fine to very fine relic fragments; trace to 10% shale: trace of light and dark brown chert; trace of crinoids: approximately 2% gypsum crystals.

4580'-4590'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: with a streak of light and dark brown chert: 1% crinoids and a trace of stromatopora?: approximately 1% gypsum crystals.
4590'-4600'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: with a streak of light and dark brown chert: 1% crinoids: approximately 1% gypsum crystals.
4600'-4610'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: streak of light to dark brown chert: trace of crinoids.
4610'-4620'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: streak of light and dark brown chert: 1% crinoids.
4620'-4625'	No Samples	
4625'-4630'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale: trace of crinoids.
4630'-4640'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline to microcrystalline dolomite with a trace of shale: streak of chert: 1% crinoids with a trace of fossil fragments.
4640'-4650'	Dolomite	Very dark yellowish brown to dusky yellowish brown extremely fine crystalline dolomite with a trace of shale: 10% very fine to coarse crinoids.
4650'-4660'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace of shale: 10% very fine to coarse crinoids.

4660'-4670'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale: 15% very fine to coarse crinoids.
4670'-4680'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite to microcrystalline dolomite with a trace to 20% shale: 5% very fine to coarse crinoids: 1-2% fossil fragments.
4680'-4685'	Dolomite	Very dark yellowish brown grading to dusky brown microcrystalline dolomite with 10% shale: 2% crinoids.
4685'-4690'	Dolomite	Very dark yellowish brown grading to dusky brown microcrystalline to extremely fine crystalline dolomite: 10% shale: trace to 10% very fine to coarse crinoids.
4690'-4700'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with 10% shale: trace to 10% very fine to coarse crinoids: 2% fossil fragments: occasional chip of chert.
4700'-4710'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline to very fine crystalline dolomite with a trace to 10% of shale: 10% extremely fine relic fragments: 10% very fine to coarse crinoids: 1% fossil fragments: occasional chert chip: (very fine crystalline dolomite very minor).
4710'-4720'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline to very fine crystalline dolomite with a trace to 10% shale: 10% extremely fine relic fragments: 10% very fine to coarse crinoids:

		trace of corals?, and brachiopods?, and a trace of bitumen partings. (black).
4720'-4730'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; (rare very fine crystalline dolomite too minor to mention): 10% extremely fine relic fragments; trace to 10% very fine to coarse crinoids; trace of brachiopods, and corals with 1% fossil fragments.
4730'-4740'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace to 10% shale; 10% extremely fine ti very fine relic fragments; trace to 10% very fine to coarse crinoids; 5% very fine to medium fossil fragments; trace of brachiopods and black bitumen partings.
4740-4750'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; trace to 10% very fine to coarse crinoids; 1% brachiopods; 3-5% fossil fragments.
4750'-4760'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; 10% very fine to coarse crinoids; trace of corals and black bitumen partings; 2% fossil fragments.
4760'-4770'	Dolomite	Very dark yellowish brown grading to dusky brown extremely crystalline dolomite with a trace of shale; 10% extremely fine to very fine relic fragments; 5% very fine to coarse crinoids; 5% very fine to medium fossil fragments; trace of brachiopods.

4770'-4780'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine crystalline dolomite with a trace of shale; trace to 10% very fine to coarse crinoids: 2-3% fossil fragments.
4780'-4790'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine to very fine crystalline dolomite; 5% very fine to coarse crinoids; trace of brachiopods and black bitumen partings: 1-2% fossil fragments.
4790'-4795'	Dolomite	Very dark yellowish brown grading to dusky brown extremely fine to very fine crystalline dolomite; 5% very fine to coarse crinoids; trace of black bitumen partings; 1-2% fossil fragments.
4795'-4801'	No Sample	
4801'-4803½'	Shale	Irregularly interbedded (1) shale, dark grey, dolomitic-3% (2) shale, medium grey, dolomitic-5%: both rock types contain traces of disseminated pyrite and negligible traces of medium sized bioclastic debris.
4803½'-4808½'	Shale	Dark grey shale (70% of the interval) with 3% dolomite: 30% dolomite blobs and nodules, extremely fine and argillaceous (30% dark grey): trace of disseminated pyrite, 5% coarse bioclastic debris, composed of crinoid ossicles, brachiopod fragments, rare silicified solitary corals, bryozoa and one possible unidentifiable chain coral.
4808½'-4813'	Shale	Dark grey shale (70% of the interval) with 3% dolomite; 30% dolomite blobs and nodules, extremely fine and argillaceous, (30%) dark grey; trace of disseminated pyrite, 3% coarse bioclastic debris, composed of crinoid ossicles, brachiopod fragments, and bryozoa.

4813'-4815.8'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (3%) shale; finely disseminated pyrite and a trace (up to 1%) medium to coarse bioclastic debris.
4815.8'-4820½'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (3%) shale; finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal, brachiopodal and favosites debris, (in parts silicified).
4820½'-4822.75'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (± 10% shale; trace of finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal,brachiopodal and favosites debris, (in parts silicified).
4822.75'-4825'	Shale	Irregularly banded sequence of (1) 50% dark grey, slightly dolomitic (5%) shale and, (2) 50% medium to dark grey slightly dolomitic (± 10% shale; trace of finely disseminated pyrite and 2% medium to coarse bioclastic debris, consisting of a crinoidal,brachiopodal and favosites debris, (in parts silicified).
4825'-4830'	Shale	Dark grey shale, slightly dolomitic (3%), with a trace of disseminated pyrite.
4830'-4831.75'	Shale	Dark grey shale, slightly dolomitic (3%), with a trace of disseminated pyrite.
4831.75'		Abrupt contact characterized by pyrite laminae containing fine to coarse rounded quartz grains.

4831.75'-4835'	Shale and Siltstone	Light grey quartz siltstone (40%) with 40% light grey shale: trace of medium to very coarse quartz grains (floating, rounded); 20% dolomite; trace of disseminated pyrite, banded very hard and firm, rare burrows.
4835'-4845'	No Samples	
4845'-4855'	Dolomite	Very light olive grey fine crystalline dolomite with 20% very fine to fine relic fragments: one coarse floating sand grain observed between 4850' and 4855'.
4855'-4863'	Dolomite	Very light olive grey very fine crystalline to fine crystalline dolomite with a trace of shale.
4863'-4865'	Shale	Olive grey shale with a trace of cryptogranular quartz siltstone: 40% microcrystalline dolomite.
4865'-4875'	Dolomite	Very light grey very fine crystalline to medium crystalline dolomite with a trace of shale; occasional bright green shale chip.
4875'-4880'	Dolomite	Very light grey grading to very pale yellowish brown very fine to fine crystalline dolomite with a trace of shale; occasional bright green shale chip.
4880'-4890'	Dolomite	Very light grey grading to very pale yellowish brown, very fine crystalline dolomite; trace to 10% shale.
4890'-4900'	Dolomite	Very light grey grading to very pale yellowish brown, very fine crystalline dolomite; trace of shale.
4900'-4910'	Dolomite	Very light grey (nearly white) very fine to fine crystalline dolomite, (rare chip up to medium crystalline, but mostly very fine); trace of quartz siltstone; trace to 10% shale; occasional bright green shale chip.

4910'-4920'	Dolomite	Very light grey (nearly white), very fine to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
4920'-4927'	Dolomite	Very light grey (nearly white), very fine to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; occasional bright green shale chip.
4927'-4930'	Dolomite	Very light grey very fine crystalline to fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
4930'-4934'	Dolomite	Very light grey very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; occasional bright green shale chip.
4934'-4940'	Dolomite	Very light brown very fine crystalline dolomite with a trace of quartz siltstone; trace of shale; 15% fine to medium pelletoid dolomite (very good, very rounded and may even be oolites); trace of pyrite; occasional bright green shale chip.
4940'-4950'	Dolomite	Very light brown (possible slight pinkish tinge), very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; 10% fine pelletoid dolomite; trace of pyrite; (pelletoid dolomite, very good, very rounded and may even be oolites).
4950'-4960'	Dolomite	Very light brown grading to very light pinkish brown, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone, and a trace of shale; 10% fine to medium pelletoid dolomite (very good, very rounded and may be oolites); trace of pyrite; occasional white chert chip, some chert with pelletoid or oolite texture; streak of greenish grey shale.

4960'-4970'	Dolomite	Light brownish pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace to 10% fine to medium pelletoid dolomite; one coarse floating sand grain between 4965' and 4970'; streak of greenish grey shale.
4970'-4975'	Dolomite	Light brownish pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of pyrite; 10% shale; 15% very fine to medium pelletoid dolomite; trace of coarse, floating sand grains.
4975'-4980'	Dolomite	Light brownish pink grading to pink extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone; 10-20% shale; trace of very fine to medium pelletoid dolomite; occasional white chert chip; one chert chip with appears to contain coarse sand size oolites; trace of very fine floating sand grains; streak of very smooth medium greenish grey shale.
4980'-4990'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale; trace to 10% fine to medium pelletoid dolomite; trace of coarse floating sand grains; occasional chert chip; streak of medium greenish grey shale.
4990'-5000'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite; trace of quartz siltstone; trace of shale; trace to 10% very fine to medium pelletoid dolomite; streak of medium greenish grey shale;

		1% rounded, coarse to very coarse floating sand grains; one chip of oolite chert.
5000'-5010'	Dolomite	Light brownish pink grading to light red, extremely fine crystalline to fine crystalline dolomite: trace of cryptogranular quartz siltstone: trace to 10% shale: 10% very fine to medium pelletoid dolomite (may be oolites) streak of olive grey to medium greenish grey shale.
5010'-5020'	Dolomite	Light brownish pink grading to light red, very fine crystalline to fine crystalline dolomite: trace of quartz siltstone: trace of shale: trace of very fine to medium pelletoid dolomite (may be oolites): one or two anhydrite crystals: streak of white chert: streak of medium greenish grey shale.
5020'-5030'	Dolomite	Light brownish pink grading to light red extremely fine crystalline to fine crystalline dolomite: trace of quartz siltstone: trace of shale and pyrite: trace of extremely fine to fine pelletoid dolomite: one chert chip with oolites: streak of greenish (medium) shale: occasional white chert chip.
5030'-5035'	Dolomite	Light brown to white grading to light red, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone: trace to 10% shale: trace of very fine to fine fragmental and pelletoid dolomite: occasional clear anhydrite crystal, and white chert chip.
5035'-5040'	Dolomite	Light brown grading to light red, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace of very fine to fine pelletoid and fragmental dolomite; occasional white chert chip.

5040'-5045'	Dolomite	Light brown grading to pink, microcrystalline to very fine crystalline dolomite; trace of quartz siltstone; trace to 10% shale; trace of fine to medium pelletoid dolomite; oolite in one chert chip; occasional white chert and green shale chip.
5045'-5055'	Dolomite	Light brown to white grading to light red extremely fine crystalline to very fine crystalline dolomite; trace of cryptogranular quartz siltstone; 10% shale; occasional clear anhydrite crystals.
5055'-5060'	Dolomite	Light brown to white grading to light red, extremely fine crystalline to microcrystalline dolomite; trace of cryptogranular quartz siltstone; 10% shale; occasional clear anhydrite crystals.
5060'-5065'	Dolomite	Light brown to white grading to pink, microcrystalline to extremely fine crystalline dolomite; trace of cryptogranular quartz siltstone.
5065'-5075'	Dolomite	Dusky yellowish brown grading to dusky brown, extremely crystalline to very fine crystalline dolomite; trace of quartz siltstone; 10-30% shale; 45% very fine to medium pelletoid dolomite, (well rounded, may be oolites? but rims not detectable; 15% pyrite; light dolomite not believed in situ.
5075'-5080'	Dolomite	Light brown grading to very light brown, extremely fine to very fine crystalline dolomite; trace to 10% cryptocrystalline quartz siltstone; trace of shale; dark brown dolomite considered out of situ.

5080'-5085'	Dolomite	Very light brown grading to light brown, extremely fine to very fine crystalline dolomite; trace to 10% cryptogranular quartz siltstone; trace of shale; trace to 10% very fine to fine pelletoid dolomite.
5085'-5095'	Dolomite	Very light brown grading to very light grey extremely fine crystalline to microcrystalline dolomite with a trace of cryptogranular quartz siltstone; trace to 10% shale; trace of fine sand size, floating sand grains.
5095'-5100'	Dolomite	Very dark yellowish brown grading to dusky brown, extremely fine crystalline to fine crystalline dolomite; trace of microgranular quartz siltstone; trace to 10% shale; 40% fine to medium pelletoid dolomite; 20% pyrite; 1-2% gypsum crystals. Pelletoid dolomite may be oolites, but rims are not visible in the dolomite.
5100'-5108'	Dolomite	Light brown grading to dusky brown, extremely fine crystalline to very fine crystalline dolomite; trace to 10% cryptogramular quartz siltstone; 10-20% shale; 35% fine to medium pelletoid and oolite dolomite; 1-2% clear gypsum crystals.
5108'-5110'	Dolomite	Very light grey, extremely fine to very fine crystalline dolomite with a trace of shale, and a trace of quartz siltstone.
5110'-5118'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; trace of quartz siltstone; 10% shale.
5118'-5120'	Dolomite	Medium light grey, extremely fine to very fine crystalline dolomite with a trace of quartz siltstone; trace of shale.

5120'-5130'	Dolomite	Dusky yellowish brown to dusky brown very fine crystalline dolomite with a trace of quartz siltstone; trace of shale; 10% very fine to fine fragmental and pelletoidal dolomite; 1-2% black bitumen partings.
5130'-5140'	Dolomite	Dusky yellowish brown to dusky brown very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace to 10% very fine to fine fragmental and fragmental relics.
5140'-5150'	Dolomite	Very dark yellowish brown to dusky brown very fine crystalline dolomite with a trace of shale; 10% very fine to fine pelletoid dolomite; streak of brown chert with pellets.
5150'-5160'	Dolomite	Very dark yellowish brown to dusky brown, extremely fine to very fine crystalline dolomite with a trace of shale and 2% siltstone (microgranular); trace of very fine to medium pelletoid dolomite; trace of fracture.
5160'-5170'	Dolomite	Very dark yellowish brown to dusky brown extremely fine to very fine crystalline dolomite; trace to 10% shale; trace of black bitumen partings; 2% microgranular quartz siltstone; trace of fracturing; occasional brown chert chip, one chert chip with oolites.
5170'-5175'	Dolomite	Very dark yellowish brown to dusky brown extremely fine crystalline dolomite with a trace to 10% shale; trace of pyrite; trace of fracture; occasional brown chert chip; one or two chips with good pellets but may not be in situ.

5175'-5180'	Dolomite	Very light brown grading to dark brown, microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 10% shale.
5180'-5190'	Dolomite	Very light brown grading to dark brown, extremely fine crystalline dolomite with a trace of quartz siltstone; 10-20% shale, (shale content variable, and ranges from a trace to 50%, but 10-20% average), trace of fracturing.
5190'-5200'	Dolomite	Very light brown grading to dark brown, extremely fine crystalline to microcrystalline dolomite; trace of quartz siltstone; 10-20% shale, (shale content variable, and ranges from a trace to 50%, but 10-20% average).
5200'-5210'	Dolomite	Very light brown grading to dark brown extremely fine crystalline dolomite, with a trace of quartz siltstone and from a trace to 50% shale; trace of fracturing.
5210'-5220'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; trace of quartz siltstone; trace to 50% shale; trace of quartz sand grains, coarse and floating; occasional chip of chert.
5220'-5230'	Dolomite	Very dark yellowish brown to dusky yellowish brown, extremely fine to very fine crystalline dolomite; with a trace of quartz siltstone; trace to 20% shale; 35% fine to medium pelletoid and oolite dolomite, 10% pyrite; occasional chert chip, one with oolite.
5230'-5240'	Dolomite	Light brownish pink, extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 30% shale; darker dolomite not considered in situ.

5240'-5247'	Dolomite	Very dark yellowish brown grading into dusky yellowish brown microcrystalline to extremely fine crystalline dolomite: trace of quartz siltstone: trace to 30% shale.
5247'-5250'	Dolomite	Light brownish pink, extremely fine crystalline to microcrystalline dolomite: trace of quartz siltstone: trace to 30% shale.
5250'-5259'	Dolomite	Very dark yellowish brown grading into dusky yellowish brown microcrystalline to extremely fine crystalline dolomite;trace of quartz siltstone: trace to 10% shale.
5259'-5260'	Dolomite	Very light grey, microcrystalline dolomite with a trace of shale: 35% cryptogramular quartz siltstone.
5260'-5270'	Dolomite	Light grey and light brownish pink grading into very dark yellowish brown, (mostly light in colour): 30-50% shale.
5270'-5280'	Dolomite	Light olive brown and light brownish pink grading into dark yellowish brown, (mostly light in color); dolomite microcrystalline to extremely fine crystalline: 40%-50% shale.
5280'-5285'	Dolomite	Light pinkish brown microcrystalline dolomite with 10-40% shale.
5285'-5290'	Dolomite	Very dark to dusky yellowish brown microcrystalline to extremely fine crystalline dolomite with 30-50% shale.
5290'-5297'	Dolomite	Very light grey and light pinkish brown microcrystalline dolomite with a trace of quartz siltstone and 20% shale.
5297'-5300'	Dolomite	Very dark to dusky yellowish brown extremely fine to microcrystalline dolomite with a trace of quartz silt-

		stone, and between 30 and 50% shale.
5300'—5305'	Dolomite	Light, and very light greyish brown microcrystalline dolomite; trace of cryptogranular quartz siltstone; 10% to 50% shale; 1% very fine to fine floating sand grains; occasional very silty dolomite chips.
5305'—5318'	Dolomite	Very light brown grading into brownish grey, microcrystalline dolomite; trace to 10% cryptogranular quartz siltstone; 10-50% shale.
5318'—5320'	Dolomite	Very dark brown microcrystalline dolomite; trace of quartz siltstone; 50-60% shale.
5320'—5330'	Dolomite	Light and very light brown microcrystalline to extremely fine crystalline dolomite with a trace of cryptogranular quartz siltstone; trace to 10% shale.
5330'—5340'	Dolomite	Very light grey microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone; trace to 20% shale; brown dolomite not considered in situ.
5340'—5350'	Dolomite	Very light grey extremely fine crystalline dolomite; trace of microgranular siltstone; trace of shale.
5350'—5360'	Dolomite	Very light grey extremely fine crystalline dolomite with a trace of microgranular siltstone; trace of shale.
5360'—5365'	Dolomite	Light and very light grey grad- to light brown extremely fine to microcrystalline dolomite; trace of quartz siltstone; trace to 10% shale; streak of dark olive grey to olive grey shale.

5365'-5370'	Dolomite	Very light grey grading into very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone; trace of shale and pyrite.
5370'-5380'	Dolomite	Very light grey grading to very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale.
5380'-5390'	Dolomite	Very light grey grading into very light brown, extremely fine crystalline to very fine crystalline dolomite with a trace of cryptogranular quartz and shale; between 5380' and 5385', occasional darker brown chips with oolites and pellets, very minor, very dark brown lithology (very argillaceous and very limy) not considered in situ.
5390'-5400'	Dolomite	Brownish grey to dark brownish grey extremely fine to very fine crystalline dolomite; 20% very fine to fine pellets; trace of quartz siltstone and shale.
5400'-5405'	Dolomite	Very dark brownish grey to brownish grey, extremely fine to very fine crystalline dolomite; trace of cryptogranular quartz siltstone; trace of shale; 10% very fine to fine pellets; 1% fine floating sand grains.
5405'-5410'	Dolomite	Very dark brownish grey to brownish grey, extremely fine to very fine crystalline dolomite; 20% very fine to fine pellets; trace of quartz siltstone and shale.
5410'-5415'	Dolomite	Very light brown extremely fine to very fine crystalline dolomite; trace of quartz siltstone and shale.

5425'-5429.5'	Dolomite	Brownish grey to dark brownish grey extremely fine crystalline to very fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; 15% very fine to fine pellets.
5429.5'-5425'	Dolomite	Very light brown, microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone, and a trace of shale.
5425'-5430'	Dolomite	Very light grey grading to light and very light brown, microcrystalline to extremely fine and very fine crystalline dolomite; 10% cryptogranular quartz siltstone.
5430'-5434'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite; trace of quartz siltstone; trace to 10% shale; 15% very fine to medium fragments and pellets.
5434'-5440'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite with a trace of shale and pyrite; trace to 10% cryptogranular siltstone.
5440'-5443'	Dolomite	Brownish grey grading to dark brownish grey extremely fine crystalline dolomite with a trace of cryptogranular siltstone; trace to 10% shale; 10% very fine to fine fragments and pellets; trace of medium floating sand grains.
5443'-5450'	Dolomite	Very light grey grading to light and very light brown extremely fine crystalline dolomite; trace of quartz siltstone, and a trace of shale.
5450'-5460'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of cryptogranular siltstone; streak of black shale.

5460'-5470'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone.
5470'-5480'	Dolomite	Very light brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone.
5480'-5485'	Dolomite	Dusky brown microcrystalline dolomite with a trace of shale and pyrite; 10-20% very fine to fine pellets.
5485'-5490'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace of very fine to fine pellets.
5490'-5498'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of shale; trace to 10% very fine to medium pellets; trace of anhydrite blebs?
5498'-5503'	Dolomite	Light brown microcrystalline dolomite with a trace of quartz siltstone and a trace of shale.
5503'-5510'	Dolomite	Dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone and a trace of shale; trace of very fine to fine pellets; occasional clean gypsum crystal.
5510'-5520'	Dolomite	Light brown grading to dusky brown microcrystalline to extremely fine crystalline dolomite with a trace of quartz siltstone and a trace of shale: trace of very fine to medium pellets.
5520'-5535'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone and a trace of pyrite; trace to 10% shale.

5535'5540'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace to 10% very fine to fine pellets, occasional chip with oolites.
5540'-5550'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite; trace of shale and a trace of quartz siltstone, occasional chip with good pellets.
5550'-5560'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale, (argillaceous content variable, up to 50%).
5560'-5570'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 30% shale.
5570'-5580'	Dolomite	Light brown grading to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale.
5580'-5590'	Dolomite	Medium brown grading to dark dusky brown microcrystalline dolomite, with a trace of quartz siltstone; trace to 20% shale.
5590'-5600'	Dolomite	Light brown grading to dusky brown microcrystalline dolomite with a trace of quartz siltstone; trace of shale and pyrite.
5600'-5608'	Dolomite	Light brown grading to medium brown, microcrystalline dolomite; trace to 10% shale; trace of anhydrite blebs; occasional very tiny bleb of chert.
5608'-5610'	Shale	Medium olive grey grading to olive grey, microcrystalline dolomite with a trace of pyrite; 60-90% shale and 10-40% dolomite.

5610'-5617'	Dolomite	Light brown to medium brown microcrystalline dolomite with a trace of anhydrite and anhydrite blebs, trace to 10% quartz siltstone; trace to 10% shale; trace of coarse floating sand grains.
5617'-5620'	Shale	Olive grey to dark olive grey shale with a trace of pyrite; 10-40% microcrystalline dolomite;
5620'-5628'	Dolomite	Light brown microcrystalline dolomite, trace of quartz siltstone; trace to 20% shale; trace of anhydrite blebs; occasional very tiny blebs of chert, and very silty dolomite chips; 1-2% fine to very coarse floating sand grains.
5628'-5630'	Shale	Olive grey to dark olive grey shale with a trace of pyrite; 10-40% microcrystalline dolomite.
5630'-5640'	Dolomite	Medium to dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; trace of very fine to fine pellets; trace of anhydrite blebs; streak of olive grey shale.
5640'-5650'	Dolomite	Dark brown microcrystalline dolomite with a trace of shale and anhydrite blebs; 10% very fine to medium pellets; trace of fracturing.
5650'-5660'	Dolomite	Dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 10% shale; trace to 10% very fine to fine pellets; trace of bitumen partings (black).
5660'-5670'	Dolomite	Dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; trace of pyrite; trace to 10% very fine to fine pellets; streak of black shale.

5670'-5680'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace of black bitumen partings; trace to 40% shale; streak of black shale.
5680'-5690'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; 10-50% shale; occasional black dolomitic shale chip to 5695'
5690'-5700'	Dolomite	Dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone and pyrite; 10-50% shale; streak of olive grey shale.
5700'-5707'	Dolomite	Medium brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace to 40% shale.
5707'-5710'	Shale	Dark olive grey shale with 20% microcrystalline to cryptocrystalline dolomite.
5710'-5716'	Dolomite	Medium to dark brown grading to very dark brown microcrystalline dolomite; trace to 30% shale, trace of coarse floating sand grains.
5716'-5720'	Shale	Dark olive grey shale with 20% microcrystalline to cryptocrystalline dolomite.
5720'-5725'	Dolomite	Medium dark brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone; trace to 20% shale; very occasional very silty chips.
5725'-5730'	Dolomite	Very dark brown microcrystalline dolomite with a trace of quartz siltstone; trace to 20% shale; argillaceous content variable, occasional chip 50% +.

5730'-5740'	Dolomite	Medium brown grading to very dark brown microcrystalline dolomite with a trace of quartz siltstone: trace to 20% shale.
5740'-5744'	Dolomite	Light to medium brown grading to very dark brown microcrystalline dolomite; trace of quartz siltstone: trace to 20% shale: trace of coarse floating sand grains.
5744'-5748'	Siltstone	Light grey quartz siltstone with a trace of shale and pyrite: 30-40% microcrystalline dolomite.
5748'-5760'	Shale	Olive grey grading to dark olive grey shale with 1% pyrite; 20% cryptogranular to microgranular dolomite crystalline.
5760'-5768'	Shale	Olive grey grading to dark greenish grey shale with 1% pyrite: 10-20% microcrystalline to cryptocrystalline dolomite: occasional clean gypsum crystal.
5768'-5770'	Siltstone	Light grey grading to light brown siltstone with a trace of shale and pyrite: 30-40% microcrystalline dolomite: trace of anhydrite.
5770'-5776'	Shale	Olive grey grading to dark greenish grey shale with a trace of pyrite: 10-20% microcrystalline to cryptocrystalline dolomite.
5776'-5780'	Dolomite	Light brown grading to medium brown microcrystalline dolomite with a trace of pyrite and anhydrite.
5780'-5788'	Shale	Brick red and bright green shale with 10% microcrystalline to cryptocrystalline dolomite with a trace of anhydrite.
5788'-5790'	Anhydrite	Light grey grading to pink anhydrite with 10-20% quartz siltstone: 30-40% microcrystalline dolomite.

5790'-5797'	Shale	Red with green mottling shale: 10% microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5797'-5800'	Anhydrite	Light grey grading to pink anhydrite with 10-20% quartz siltstone; 30-40% microcrystalline dolomite.
5800'-5808'	Shale	Red with green mottling shale: 10% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5808'-5810'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 30% microcrystalline dolomite.
5810'-5816.5'	Shale	Red with green mottling shale: 10% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5816.5'-5820'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 30% microcrystalline dolomite.
5820'-5825'	Shale	Red with green mottling shale; 20% anhydrite; 10% microcrystalline to cryptocrystalline dolomite.
5825'-5830'	Anhydrite	Pink anhydrite with 20% quartz siltstone; 20% microcrystalline dolomite.
5830'-5834'	Shale	Red with green mottling shale; 20% anhydrite; 10% microcrystalline to cryptocrystalline dolomite.
5834'-5840'	Anhydrite	Pink anhydrite with 20% quartz siltstone and 20% microcrystalline dolomite.
5840'-5846'	Shale	Red with green mottling shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite.

5846'-5850'	Anhydrite	Light brown grading to pink anhydrite: 25% quartz siltstone: 25% microcrystalline dolomite.
5850'-5857'	Shale	Red shale with green mottling: 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5857'-5860'	Anhydrite	Light brown grading to pink anhydrite: 25% quartz siltstone: 25% microcrystalline dolomite.
5860'-5863.5'	Shale	Red shale with green mottling: 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5863.5'-5865'	Anhydrite	Light brown grading to pink anhydrite: 25% quartz siltstone; 25% microcrystalline dolomite.
5865'-5875'	Shale	Red shale, (very minor green shale), with 10% anhydrite: trace of microcrystalline to cryptocrystalline dolomite.
5875'-5882'	Shale	Red shale with green mottling: 10% anhydrite; trace of dolomite: (microcrystalline to cryptocrystalline dolomite).
5882'-5890'	Anhydrite	Light brown grading to pink anhydrite with 25% quartz siltstone; 25% microcrystalline dolomite.
5890'-5894'	Shale	Red shale with green mottling; 10% anhydrite; trace of microcrystalline to cryptocrystalline dolomite.
5894'-5900'	Anhydrite	Light brown grading to pink anhydrite: 10-30% siltstone; 25% microcrystalline dolomite.

5900'-5906'	Shale	Red shale with olive brown and olive grey mottling; trace of pyrite and anhydrite; 10-30% microcrystalline to cryptocrystalline dolomite.
5906'-5910'	Anhydrite	Light brown grading to pink anhydrite with 30% microcrystalline dolomite; 45% anhydrite; 25% quartz siltstone.
5910'-5918'	Shale and Dolomite	Olive grey microcrystalline to cryptocrystalline dolomite (40-60%) with a trace of pyrite and anhydrite; 40-60% shale; streak of red shale.
5918'-5920'	Anhydrite	Light brown grading to pink microcrystalline dolomite; 25% quartz siltstone; 45% anhydrite.
5920'-5930'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite, streak of dolomitic anhydrite.
5930'-5940'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite; streak of dolomitic anhydrite.
5940'-5950'	Shale	Medium olive brown grading to dark olive brown shale; 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite; streak of light brown grading to pink anhydrite (dolomitic).
5950'-5952'	Shale	Red shale with a trace of microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5952'-5958'	Shale	Light brown grading to pink shale with 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5958'-5960'	Anhydrite	Light brown anhydrite with 20% quartz siltstone; 20-30% microcrystalline dolomite.
5960'-5962'	Shale	Red shale with a trace of microcrystalline to cryptocrystalline dolomite; trace of anhydrite.

5962'-5968'	Shale	Light brown grading to pink shale with 20-30% microcrystalline to cryptocrystalline dolomite; 10% anhydrite.
5968'-5970'	Anhydrite	Light brown grading to pink anhydrite with 20% quartz siltstone; 20-30% microcrystalline dolomite.
5970'-5973'	Shale	Bright red and green mottled shale; 10% microcrystalline to cryptocrystalline dolomite; trace of anhydrite.
5973'-5976'	Anhydrite	Light brown grading to pink anhydrite; 10-20% quartz siltstone; 20-30% microcrystalline dolomite.
5976'-5980'	Shale	Medium olive brown grading to dark olive brown shale; 10% anhydrite; 20-30% microcrystalline to cryptocrystalline dolomite.
5980'-5988'	Shale	Dusky yellowish brown grading to very dark red mottled with green (green is very minor), shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite; trace of very fine to fine floating sand grains.
5988'-5990'	Anhydrite	Light brown grading to pink anhydrite with 20% quartz siltstone; 20% microcrystalline dolomite.
5990'-6003.5'	Shale	Dusky yellowish brown grading to very dark red mottled with green (green is very minor) shale; trace of microcrystalline to cryptocrystalline dolomite; 10% anhydrite; trace of very fine to fine floating sand grains.
6003.5'-6005'	Anhydrite	Light brown grading to pink anhydrite wit 20% quartz siltstone; 20% microcrystalline dolomite.
6005'-6009'	Shale	Dark greenish grey grading to dark olive grey shale; trace of microcrystalline to cryptocrystalline dolomite; 1-2% very fine, clear silica, floating sand grains, harder.

6009'-6015'	Sandstone	Very light grey fine to coarse sandstone (coarse grains very minor); roundness hard to determine since silica cement tends to be obscure: glauconite only in the upper 1', and is up to 10%: very hard, subrounded, moderate sphericity: considerable shale cave: 10% clear silica, siliceous chert.
6015'-6020'	Sandstone	Very light grey (nearly white), fine to medium sandstone (rare coarse grains of sandstone): 10% siliceous chert: very hard, subrounded, moderate sphericity: considerable shale cave.
6020'-6030'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone, (rare coarse grains of sandstone): 10% siliceous chert: very hard, subrounded, moderate sphericity: considerable shale cave, but occasional chips of quartzite to 6045' (i.e. breaks across the grains).
6030'-6045'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone (rare coarse grains of sandstone): 10% siliceous chert.
6045'-6055'	Sandstone	Very light grey (nearly white), fine to medium quartz sandstone, (rare coarse grains of sandstone): trace of siliceous chert: somewhat softer, subrounded, moderate sphericity.
6055'-6060'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert: very hard, subrounded, moderate sphericity, in part quartzite.
6060'-6070'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone, (rare coarse sand grains); 20% siliceous chert: very hard, subrounded, moderate sphericity, in part quartzite.

6070'-6080'	Sandstone	Very light grey, (nearly white) fine to medium sandstone with 20% chert; very hard, subrounded, moderate sphericity: in part quartzite.
6080'-6090'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert: very hard, subrounded, moderate sphericity; in part quartzite.
6090'-6100'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 15% siliceous chert: very hard, subrounded, moderate sphericity: in part quartzite.
6100'-6110'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity, in part quartzite.
6110'-6120'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity: in part quartzite.
6120'-6130'	Sandstone	Very light grey, (nearly white), fine to medium quartz sandstone; 10-15% siliceous chert; very hard, subrounded, moderate sphericity, in part quartzite.
6130'-6145'	Sandstone	Crystal clear, fine to coarse quartz sandstone, rather poorly sorted; 15% clear siliceous cement; quartzite.
6145'-6150'	Sandstone and Shale	Crystal clear, fine to coarse quartz sandstone, rather poorly sorted, with 15% clear siliceous cement, quartzite; interbedded with brick red shale with 10% quartz siltstone.

6150'-6160'	Shale and Dolomite	Brick red shale with 10% quartz siltstone: interbedded with pink grading to red, extremely fine to very fine dolomite.
6160'-6200'	Shale and Dolomite	Red, extremely fine to very fine crystalline dolomite: interbedded with red shale with 10% quartz siltstone: thin streaks of grass green shale occur in interval 6180'-6200'.
6200'-6245'	Shale and Dolomite	Red, extremely fine to very fine crystalline dolomite with a trace of white anhydrite eyes: interbedded with red and green shale with 10% quartz siltstone.
6245'-6280'	Shale and Dolomite	Brick red, microcrystalline dolomite, with streaks of extremely fine crystalline dolomite, trace of anhydrite blebs: interbedded with brick red shale and green shale with 10% quartz siltstone.
6280'-6320'	Shale and Dolomite	Pink, to salmon red, to brick red, microcrystalline dolomite with streaks of extremely fine crystalline dolomite, contains a trace of white anhydrite eyes: interbedded with green shale and red shale with 10% quartz siltstone.
6320'-6330'	Shale, Sandstone, and Dolomite	Light grey, pink and red, microcrystalline dolomite: interbedded with pale green and olive green shale with a silt content of 5%: interbedded with white, fine quartz sand, containing 15% siliceous cement.
6330'-6340'	Shale and Dolomite	Light grey, pink and red, microcrystalline dolomite: interbedded with brick red, grass green and olive green shales: interbedded with fine and medium white quartz containing 10%+ dolomite and a trace of siliceous cement.
6340'-6350'	Shale	Olive green shales containing pyrite cubes: interbedded with white, fine quartz sand, containing 10% siliceous cement.

6350'-6355'	Shale	Grass green shale containing 10% quartz siltstone; interbedded with olive green shale containing 10% quartz siltstone.
6355'-6360'	Shale	Grass green shale and olive green shale, containing 10% quartz siltstone; interbedded with brick red shale, also containing 10% quartz siltstone.
6360'-6365'	Sandstone	Brick red, very fine crystalline dolomite with 30% shale and 10% siliceous chert; hematitic in parts.
6365'-6370'	Sandstone	Brick red, very fine crystalline sandstone, with a trace of medium to coarse, rounded, floating sand grains.
6370'-6375'	Shale and Anhydrite	Light grey shale with 10% finely disseminated anhydrite and a trace of dolomite; interbedded with light grey anhydrite (bedded) which contains a trace of dolomite.
6375'-6380'	Shale and Dolomite	Brick red and grass green shale with a trace of quartz siltstone; interbedded with pink to red microcrystalline dolomite.
6380'-6385'	Shale	Brick red and grass green, mottled in parts, shale.
6385'-6390'	Shale and Sandstone	Brick red and grass green shale, mottled in parts; interbedded with very fine to fine quartz sandstone which contains 30% brick red shale.
6390'-6395'	Shale	Brick red and grass green shale with 20% siltstone and very fine sandstone quartz.
6395'-6400'	No Sample	
6400'-6405'	Shale	Brick red, very fine to fine quartz sandstone, which contains 30% brick red shale; interbedded with light grey shale with 5% anhydrite blebs and a trace of quartz siltstone.

6405'-6410'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%): interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale, (medium sized grains of quartz are floating).
6410'-6415'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%): interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale, (medium sized grains of quartz are floating): streaks of white, pure quartzose sandstone, glauconitic, 5% white argillaceous cement, in parts trace of siliceous cement.
6415'-6420'	Shale and Sandstone	Brick red shale (50%) with very fine quartz sandstone (50%): interbedded with brick red shale which contains 10% quartz siltstone: interbedded with orange, fine and medium quartz sandstone with 20% red shale, (medium sized grains of quartz are floating): streaks of white, pure quartzose sandstone, glauconitic, 5% white argillaceous cement, in parts trace of siliceous cement.
6420'-6425'	Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone.
6425'-6430'	Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone.
6430'-6435'	Shale and Dolomite	Pink to salmon pink and red microcrystalline dolomite, with 10% quartz siltstone: interbedded with brick red shale with 10% quartz siltstone.
6435'-6440'	Shale	Brick red shale with 5% quartz siltstone.

6440'-6455'	Shale and Dolomite	Pink, purple, and red shale, with 20% quartz siltstone; interbedded with red dolomite with 10% quartz siltstone.
6455'-6460'	Dolomite	Very light grey microcrystalline dolomite, with 10% white quartz siltstone.
6460'-6465'	Siltstone, Shale and Dolomite	Very light grey microcrystalline dolomite, containing 10% white quartz siltstone; interbedded with red quartz siltstone (50%), and brick red shale (50%).
6465'-6470'	Siltstone and Shale	Red, cryptocrystalline quartz siltstone (50%), with red shale (50%); interbedded with pink to light grey quartz siltstone, containing 10% white to pink shale.
6470'-6475'	Siltstone, Shale and Dolomite	Very light grey microcrystalline dolomite, containing 5% quartz siltstone, and 5% white shale; interbedded with brick red shale which contains 10-20% quartz siltstone; interbedded with pink quartz siltstone, which contains 10% white to pink shale.
6495'-6480'	Siltstone, Shale and Dolomite	Brick red shale containing 10% quartz siltstone; interbedded with red, microcrystalline dolomite with 10% quartz siltstone; interbedded with cryptogranular quartz siltone, (white to pink in colour), which contains 10% shale.
6480'-6485'	Siltstone	Pink, salmon pink, and red quartz siltstone, which contains 5%, pink to red shale, and a trace of dolomite.
6485'-6490'	Siltstone	Pink, salmon pink, and red, quartz siltstone, which contains 5%, pink to red shale, and a trace of dolomite.
6490'-6495'	Shale	Light to medium grey shale which contains 10% quartz siltstone.

6495'-6500'	Siltstone and Dolomite	Light grey to pink microcrystalline dolomite, which contains 10% quartz siltstone and 5% white to pink shale: interbedded with pink to red quartz siltstone, which contains 5% shale, and a trace of dolomite; also contains a trace of white to light grey chert, (bedded?).

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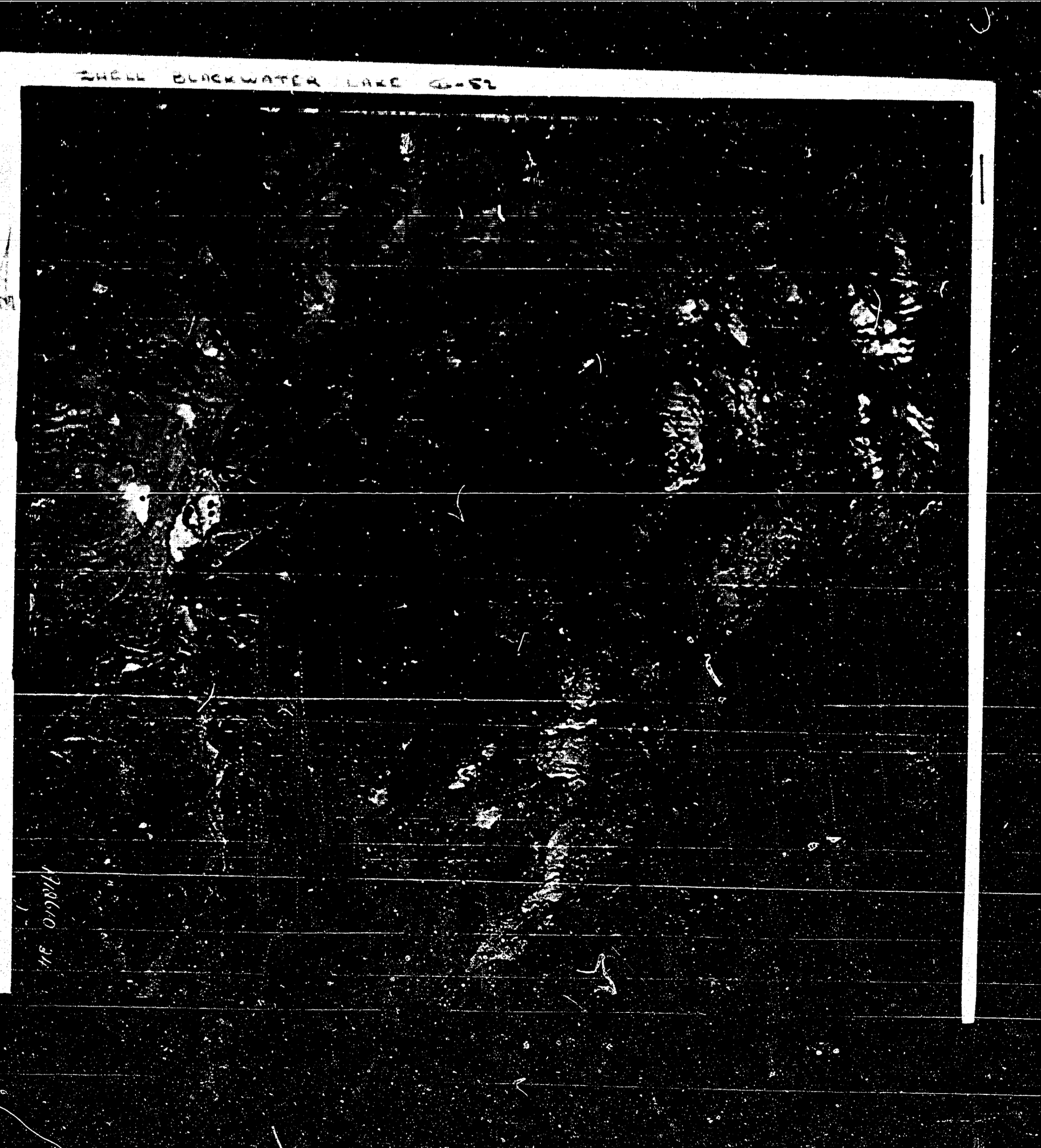
Exploration, Shell Canada Limited,
June 30, 1964.


SHELL BLACKWATER LAKE G-52

SHIELL
BLACKWATER LAKE

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 45 DATE MARCH 24 1964

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION: LSD. 6 SEC. 20 TWP. 53 RGE. 12 W. W.
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. 4 SIZE 4½ TOOL JOINT 4½ OD TYPE THD. 4" F.H.

OPERATOR'S REPRESENTATIVE: W.B. Cumber
CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D300	
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
7"		0	340				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING			
TRIPS			
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:	
OPERATOR'S TIME:	
HRS. W/D.P:	
HRS WO/D.P:	
HRS STANDBY	

WIRE LINE RECORD

REEL NO	
NO OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. or TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. or TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG. / TYPE	
	RMR BODY OD	FT.	NOZ. NO. / SIZE	
	STB BODY OD	FT.		
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER: Gene Burke

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12:00 1:00 LAY DOWN DRILL PIPE
1:00 8:00 TEAR OUT

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR. CK.				
PH				
SD. CONT.				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG. / TYPE	
	RMR BODY OD	FT.	NOZ. NO. / SIZE	
	STB BODY OD	FT.		
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOYAL	FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER: McCann

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8:00 10:00 Lay down 13.05
Run 10 Sks. Cemt. Top of Casing
Weld on cap.
Rig Released @ 10 AM.
March 24/64
W.B. Cumber

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR. CK.				
PH				
SD. CONT.				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C ID / OD	FT.	MFG. / TYPE	
	RMR BODY OD	FT.	NOZ. NO. / SIZE	
	STB BODY OD	FT.		
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT OF STRING		LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR CK				
PH				
SD. CONT				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 44 DATE MARCH 23/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION: LSD. 2 SEC. 11 TWP. 55 RGE. 12 W. 5T
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.
CONTRACTOR: RIGHT DRILLING RIG No. 21
DRILL PIPE STRING NO. SIZE: TOOL JOINT 4½ OD TYPE THD. I.F.
OPERATOR'S REPRESENTATIVE: H.S. Lamb
CONTRACTOR'S TOOL PUSHER: R. Mayfield

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-375	12"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	1790				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING			
TRIPS	3		
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
[illegible]	3½		
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING	12		
(E) ACIDIZING			
(F) ADDITIONAL	8		
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 3⁰⁰ Finish Hitting up Packer.
2³⁰ 4⁰⁰ Run in
4⁰⁰ 5³⁰ Testing
5³⁰ 7⁰⁰ Pull Out
7⁰⁰ 8⁰⁰ Break Down Packer.

DST #2A. 1570 - 1590 anchor @ 1595.
Misrun - packers did not seat set 4000
mud equalized in drillpipe.

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR. CK.				
PH				
SD. CONT.				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 2⁰⁰ Lay down Drill Collars & Pipe. Run Plug #3 900 - 700 w/ 148 sks. Portland Cement w/ 2% CaCl=
2⁰⁰ 3⁰⁰ Run in Run Plug #3. Plug Down 3⁰⁰ PM
3⁰⁰ 4⁰⁰ W.O.C.

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR. CK.				
PH				
SD. CONT.				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 11⁰⁰ W.O.C.
11⁰⁰ 12⁰⁰ Felt Plug #3 @ 625 ft w/ calc wt.
felt at 12:00 midnight

MUD RECORD

TIME				
WEIGHT				
VISC				
W.L.-C.C.				
FLTR CK.				
PH				
SD. CONT				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 43 DATE MARCH 22 1964

OPERATOR	LOCATION LSD. SEC. TWP. RGE. W.	WELL NAME No.	PROVINCE
Shell Oil Company of Canada, Limited	6 7 09 20 N 122 55 12 W	SHELL BLACKWATER LAKE G-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT OD	TYPE THD.
REGENT DRILLING	21	5 1/2	4 7/8	I.F.

OPERATOR'S REPRESENTATIVE: J. Rochon

CONTRACTOR'S TOOL PUSHER: R. Murphy

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Faisco	D-300	14"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9 5/8		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING	2		
TRIPS	2 1/2	1 1/2	3 1/2
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	3 1/2	7 1/2	3 1/2
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING		12	12
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS W/O D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
17	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
26	D.C. ID / OD	783.88	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO. / SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

2:00 3:00 Trip out
12:00 2:00 CIRC
2:00 6:30 MAKE UP PACKER.
6:30 8:00 RUN IN (MEASURE)
2:00 3:00 PULL OUT

Fill Pkg #2 @ 2515 w/ 10000 # WT
Set @ 2:00 AM

D.S.T. No 1A misrun 1871-1908 anchor @ 1924
no packer seats set with 4500#
drilling mud equalized on pipe.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO. / SIZE	
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER

McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8:00 10:00 TESTING
10:00 12:30 PULL OUT
12:30 4:00 LAY DOWN PACKER MAKE UP NEW PACKER

DST No 1B misrun 10 '

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO. / SIZE	
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT OF STRING		LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4:00 5:00 FINISH MAKE UP PACKER
5:00 6:30 RUN IN
6:30 7:45 TESTING
7:45 9:30 PULL OUT
9:30 12:00 BREAK DOWN PACKER. MAKE UP NEW PACKER.

DST. No 1B misrun
1868-1905 anchor @ 1921
set 4300# packers did not seat
mud equalized in pipe.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 42 DATE MARCH 21 1964

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION: LSD. 64 SEC. 8 TWP. 20" N RGE. 122° 33' 12" W.
WELL NAME: SHELL BLAIRMORE-BLAIRMORE No. G-32
PROVINCE: N.W.T.
CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. SIZE: 5" TOOL JOINT 4½" OD TYPE THD. I.F.
OPERATOR'S REPRESENTATIVE: M. Rochon
CONTRACTOR'S TOOL PUSHER: R. Mufferich

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
7"		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING			
TRIPS			1½
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	8	2½	13½
[illegible] ER		5½	6½
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8		8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS. WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD
	STANDS DP	FT.	RUN NO.
	SNGLS. DP	FT.	SIZE
	D.C. ID / OD	FT.	MFG.
	RMR BODY OD	FT.	TYPE
	STB BODY OD	FT.	NOZ. NO. / SIZE
	SUBS OD	FT.	SER. NO
	BIT OR C.B.	FT.	DEPTH OUT
		FT.	CUMULATIVE HOURS RUN
	KELLY DOWN	FT.	COND. OF BIT
	TOTAL	FT.	REAMER CUTTER NO.
	WT. OF STRING	LBS.	TYPE

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

		REMARKS
12⁰⁰	5⁰⁰	LOGGING

MUD RECORD

TIME / WEIGHT / VISC / W.L.-C.C. / FLTR. CK. / PH / SD. CONT.

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD
	STANDS DP	FT.	RUN NO.
	SNGLS. DP	FT.	SIZE
	D.C. ID / OD	FT.	MFG.
	RMR BODY OD	FT.	TYPE
	STB BODY OD	FT.	NOZ. NO. / SIZE
	SUBS OD	FT.	SER. NO.
	BIT OR C.B.	FT.	DEPTH OUT
		FT.	CUMULATIVE HOURS RUN
	KELLY DOWN	FT.	COND. OF BIT
	TOTAL	FT.	REAMER CUTTER NO.
	WT. OF STRING	LBS.	TYPE

DRILLER: [illegible] McCormick

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

		REMARKS
8⁰⁰	10⁰⁰	LOGGING
10⁰⁰	10³⁰	TEAR OUT LOG UNIT — Ran Plug #1 6500 - 6300
10³⁰	10⁰⁰	RUNNING WITH OPEN DICK UP w/ 45 SKS. Portland Cement
		26 JOINTS OF RACK
10⁰⁰	20⁰⁰	CIRC RIG UP TO RUN PLUGS — Ran Plug #2 2980 - 2700
20⁰⁰	23⁰⁰	RUN PLUG # 1 — w/ 125 SKS. Portland Ciment w/ 2% CaCl2
23⁰⁰	4⁰⁰	PULL OUT 49 STDS — Plug Down @ 5⁰⁰ PM.

MUD RECORD

TIME / WEIGHT / VISC / W.L.-C.C. / FLTR. CK. / PH / SD. CONT.

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY	FT.	BIT RECORD
20	STANDS DP	FT.	RUN NO
	SNGLS. DP	FT.	SIZE
26	D.C. ID / OD	783.08 FT.	MFG.
	RMR BODY OD	FT.	TYPE
	STB BODY OD	FT.	NOZ. NO. / SIZE
	SUBS OD	FT.	SER NO
	BIT OR C.B.	FT	DEPTH OUT
		FT.	CUMULATIVE HOURS RUN
	KELLY DOWN	FT.	COND. OF BIT
	TOTAL	FT.	REAMER CUTTER NO.
	WT OF STRING	LBS.	TYPE

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV / DIRECTION / DEPTH / DEV / DIRECTION

		REMARKS
4⁰⁰	5⁰⁰	RUN PLUG # 2
5⁰⁰	10⁰⁰	LAYING DOWN DRILL PIPE
10⁰⁰	10³⁰	UNLOAD PACKER
10³⁰	12⁰⁰	RUN IN

MUD RECORD

TIME / WEIGHT / VISC / W.L.-C.C. / FLTR CK. / PH / SD. CONT

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

C.P.–38 **DAILY DRILLING REPORT** REPORT NO. 41 DATE MARCH 20/64

OPERATOR: Shell Oil Company of Canada, Limited	LOCATION: LSD. 64° 9' 20" N SEC. 122° 55' 12" W TWP. RGE. W.	WELL NAME: SHELL BLACKWATER LAKE	No. G-52	PROVINCE: N.W.T.
CONTRACTOR: REGENT DRILLING	RIG No. 21	DRILL PIPE STRING NO. 2 SIZE 3½	TOOL JOINT 4½ OD	TYPE THD. I.F
OPERATOR'S REPRESENTATIVE: M. Hocken	CONTRACTOR'S TOOL PUSHER: Q. Kuffnick			

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	FAISCO	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	9½		
REAMING			
CIRCULATING	1½		
TRIPS	3		
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	1	8	8
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
72	STANDS DP	5675.64 FT.	RUN NO.	50
	SNGLS. DP	FT.	SIZE	6¾
26	D.C. ID / OD	783.08 FT.	MFG.	H.T.
	RMR BODY OD	FT.	TYPE	W7R2
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	7/16
1	BIT OR C.B.	.50 FT.	SER. NO	45679
		FT.	DEPTH OUT	6500
	KELLY DOWN	40.78 FT.	CUMULATIVE HOURS RUN	9½
	TOTAL	6500 FT.	COND. OF BIT	
WT. OF STRING		50000 LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2½		6491	6500		45	32	1000	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 2³⁰ DRILL

2³⁰ 4⁰⁰ CIRC.

4⁰⁰ 7⁰⁰ PULL OUT TO LOG

7⁰⁰ 8⁰⁰ RIG UP & LOGGING

TD 6500 ft Driller depths.

H. Hocken

MUD RECORD

	2⁰⁰	2⁰⁰	4⁰⁰
TIME			
WEIGHT	9.3	9.3	9.4
VISC	41	47	47
W.L.-C.C.	21		
FLTR. CK.	35-2		
PH	9		
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	105 SKS.		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO.	
	SUBS OD	FT.	NOZ. SIZE	
	BIT OR C.B.	FT.	SER. NO.	
		FT.	DEPTH OUT	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	
	TOTAL	FT.	COND. OF BIT	
WT. OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: McAnneny

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 4⁰⁰ LOGGING

MUD RECORD

TIME			
WEIGHT			
VISC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO.	
	SUBS OD	FT.	NOZ. SIZE	
	BIT OR C.B.	FT	SER NO	
		FT.	DEPTH OUT	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	
	TOTAL	FT.	COND. OF BIT	
WT OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 12⁰⁰ LOGGING

2" 5" scale I.E.S. TD - 740 Surface casing

5" scale Micro log cal. TD - 740

1" spacing. 2" 5" scale Sonic Gamma Ray TD - 610

TD Schlumberger 6438

MUD RECORD

TIME			
WEIGHT			
VISC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 40 DATE MARCH 19 1964

OPERATOR	LOCATION	WELL NAME	PROVINCE
Shell Oil Company of Canada, Limited	LSD. 64 SEC. 9 TWP. 20' N RGE. 122° 55' W. 12 W.	SHELL BLACKWATER LAKE No. G-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT	
REGENT DRILLING Co	21	2 3½	4¾ OD	TYPE THD. I.F.

OPERATOR'S REPRESENTATIVE: A. Bochan

CONTRACTOR'S TOOL PUSHER: R. Thuppit

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	FMSCO	D-300	14"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4½	4¼	6¾
REAMING			
CIRCULATING			
TRIPS	3	3½	1
DEVIATION SURVEY			
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
REAMER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
91	STANDS DP	5640.02 FT.	RUN NO.	49
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	H.T.
26	D.C. OD	783.08 FT.	TYPE	WJ7A2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	48665
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	4½
	KELLY DOWN	24 FT.	COND. OF BIT	
	TOTAL	6447.10 FT.	REAMER CUTTER NO.	
	WT. OF STRING	80000 LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4½		6430	6447		40	32	1000	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 12¹⁵ SERV. R.G

12¹⁵ 3³⁰ TRIP

3³⁰ DRILL

MUD RECORD		
TIME	5	6
WEIGHT	9.3	9.3
VISC	37	36
W.L.-C.C.	22.4	
FLTR. CK.	2/32	
PH	9	
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	15 SKS.		
PERMATEX	100 LBS.		
~~½ SEAWATER~~			

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
92	STANDS DP	5675.64 FT.	RUN NO.	49
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	HT
26	D.C. OD	783.08 FT.	TYPE	WJ7A2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	48665
	BIT OR C.B.	FT.	DEPTH OUT	6468
		FT.	CUMULATIVE HOURS RUN	9¾
	KELLY DOWN	10 FT.	COND. OF BIT	3-2-1
	TOTAL	6468 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
1¼		6447	6468		50	32	1000	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 8¹⁵ RIG SERV CHECK B.O.P

8¹⁵ 12³⁰ DRILL

12.30 4⁰⁰ MEASURE OUT CHECK BLIND RAMS RUN IN

Made correction Tallyed DP 5675.64 DC OK.
Board 5671
Correction 4.64 HH

MUD RECORD			
TIME	4	10	11
WEIGHT	9.3	9.3	9.3
VISC	37	37	38
W.L.-C.C.		20.6	
FLTR. CK.		2/32	
PH		9	
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
92	STANDS DP	5675.64 FT.	RUN NO	50
	SNGLS. DP	FT.	SIZE	6¾
	D.C ID		MFG.	HT
26	D.C OD	783.08 FT.	TYPE	WJ7A2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	48679
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	6¾
	KELLY DOWN	32.50 FT.	COND. OF BIT	
	TOTAL	6491.23 FT.	REAMER CUTTER NO.	
	WT OF STRING	80000 LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		6468	6491		45	32	1000	5½	60			1

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 4¹⁵ RIG SERV CHECK B-O-P

4¹⁵ 5¹⁵ FINISH RUN IN HOLE

5¹⁵ 12⁰⁰ DRILL

MUD RECORD			
TIME	7	8⁰⁰	10⁰⁰
WEIGHT	93	93	93
VISC	38	38	40
W.L.-C.C.	23		
FLTR CK.	2/32		
PH	9.		
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	12 SKS		
CAUSTIC	50 LBS		

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 39 DATE MARCH 15/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 9 TWP. 20' N RGE. 12 W. W.
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4¼ OD TYPE THD. I.F
OPERATOR'S REPRESENTATIVE: S. Hocken
CONTRACTOR'S TOOL PUSHER: R. Shuffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	8	3	5¼
REAMING			
CIRCULATING			
TRIPS		4¾	2
DEVIATION SURVEY			
TEST B.O.P		¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			½
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS. WO/D.P:
HRS. STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
40	STANDS DP	5578.57 FT.	RUN NO.	47
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	REED
26	D.C. OD	783.05 FT.	TYPE	YCG
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	F34320
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	12½
	KELLY DOWN	31 FT.	COND. OF BIT	
	TOTAL	6394 FT.	REAMER CUTTER NO.	
	WT. OF STRING	80000 LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
8		6379	6394		30	35	1000	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 8⁰⁰ DRILL

MUD RECORD

TIME	12⁰⁰	4⁰⁰	6⁰⁰
WEIGHT	9.1	9.2	9.2
VISC	37	36	37
W.L.-C.C.	24		
FLTR. CK.	[illegible]		
PH	9.5		
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	125 KS		
FILTER	100 KS		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
41	STANDS DP	5609.48 FT.	RUN NO.	47	48
	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	REED	REED
26	D.C. OD	783.08 FT.	TYPE	YC6	YHM2
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	9/16
	SUBS OD	FT.	SER. NO	E34320	E34317
	BIT OR C.B.	FT.	DEPTH OUT	6398	
		FT.	CUMULATIVE HOURS RUN	14¼	1¼
	KELLY DOWN	12 FT.	COND. OF BIT	2-2-1	
	TOTAL	6404 FT.	REAMER CUTTER NO.		
	WT. OF STRING	80000 LBS.	TYPE		

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3		6394	6404		30	35	1000	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 9⁴⁵ DRILL
9⁴⁵ 10⁰⁰ RIG SERV CHECK B.O.P
10⁰⁰ 2⁴⁵ TRIP CHECK BLIND RAMS
2⁴⁵ 4⁰⁰ DRILL

MUD RECORD

TIME	8	9	5
WEIGHT	9.2	9.2	9.2
VISC	37	37	38
W.L.-C.C.		22	
FLTR. CK.		1/32	
PH		9.5	
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
91	STANDS DP	5609.48 FT.	RUN NO	48
	SNGLS. DP	FT.	SIZE	6¾
	D.C ID		MFG.	REED
26	D.C OD	783.08 FT.	TYPE	YHM2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	E34317
	BIT OR C.B.	FT	DEPTH OUT	6430
		FT.	CUMULATIVE HOURS RUN	6½
	KELLY DOWN	38 FT.	COND. OF BIT	3 2 1
	TOTAL	6430.56 FT.	REAMER CUTTER NO.	
WT OF STRING		80000 LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		6404	6430		50	32	1200	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 4¹⁵ RIG SERV CHECK B.O.P
4¹⁵ 5⁴⁵ DRILL
5⁴⁵ 6¹⁵ CHANGE HEAD IN PUMP
6¹⁵ 10⁰⁰ DRILL
10⁰⁰ 12⁰⁰ TRIP

MUD RECORD

TIME	5	8⁰⁰	10⁰⁰
WEIGHT	9.2	9.3	9.3
VISC	37	37	37
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 38 DATE MARCH 12 1964

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: Precision Drilling Co. RIG NO.: 21
OPERATOR'S REPRESENTATIVE: D. Baker
CONTRACTOR'S TOOL PUSHER: R. Whitford

LOCATION LSD. 6 SEC. 4 TWP. 40 RGE. 12 W. 4
DRILL PIPE STRING NO. 2 SIZE 3 1/2
TOOL JOINT 4 1/2 OD
TYPE THD. IF
WELL NAME: SHELL BLACKWATER LAKE No. C-2
PROVINCE: N.W.T.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 375	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9 5/8		0	0540				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	1 1/2	5 1/4	4 1/2
REAMING	1		1/2
CIRCULATING			
TRIPS	5 1/2	2 1/2	2 1/2
DEVIATION SURVEY			
TEST B.O.P	1/4	1/4	1/4
CUT OFF DRILL LINE			1/2
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS. STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
89	STANDS DP	5766 FT.	RUN NO.	46
1	SNGLS. DP	FT.	SIZE	6 3/4
	D.C. ID		MFG.	H.T
26	D.C. OD	785.08 FT.	TYPE	W10R
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/11
	SUBS OD	FT.	SER. NO	45661
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	1 1/2
	KELLY DOWN	39.50 FT.	COND. OF BIT	
	TOTAL	6339.50 FT.	REAMER CUTTER NO.	
WT. OF STRING	80 000 LBS.		TYPE	

DRILLER: Jim Brule

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
1 1/2		6331	6339		40	30	1000	5 1/2	60			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION

REMARKS
1200 1215 SERV. R.C.
1215 1230 TRIP CHECK BOP
1230 1330 REAM BRIDGE @ 6320 FT. FROM
1330 1400 DRILL

MUD RECORD

TIME	1200
WEIGHT	9
VISC	33
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	25 SKS.		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
90	STANDS DP	5542.02 FT.	RUN NO.	46
	SNGLS. DP	FT.	SIZE	6 3/4
	D.C. ID		MFG.	HT
26	D.C. OD	783.04 FT.	TYPE	W10R
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	48661
	BIT OR C.B.	FT.	DEPTH OUT	6369
		FT.	CUMULATIVE HOURS RUN	6 3/4
	KELLY DOWN	39 FT.	COND. OF BIT	3-2-1
	TOTAL	6369 FT.	REAMER CUTTER NO.	
WT. OF STRING	60 000 LBS.		TYPE	

DRILLER: McCamon

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		6339	6369		40	30	1000	5 1/2	60			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION

REMARKS
600 615 R.C. SERV. CHECK BOP
615 130 DRILL
130 400 PULL OUT

MUD RECORD

TIME	9	11	1
WEIGHT	9	9	9
VISC	33	33	35
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	25 SKS		
CAUSTIC	100 LBS		
PELTEX	100 LBS		
QUICKVIS	1 GAL		

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
90	STANDS DP	5578.57 FT.	RUN NO	47
1	SNGLS. DP	FT.	SIZE	6 3/4
	D.C ID		MFG.	REED
26	D.C OD	785.08 FT.	TYPE	YC6
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	43204
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	4 1/2
	KELLY DOWN	16 FT.	COND. OF BIT	
	TOTAL	6379.65 FT.	REAMER CUTTER NO.	
WT OF STRING	90 000 LBS.		TYPE	

DRILLER: Jim Brule

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4 1/2		6369	6379		30	32	1000	5 1/2	60			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION

REMARKS
1200 1215 R.C. SERV. CHECK BOP
1215 1245 RUN IN D. COLLARS
1245 515 SLIP LINE
515 700 RUN IN REAM BRIDGE @ 5950
700 730 REAM 5' TO BOTTOM
730 1200 DRILL

MUD RECORD

TIME	800	1000	
WEIGHT	9.1	9.1	
VISC	36	37	
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
PELTEX	50 LBS		
CAUSTIC	50 LBS.		

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 37 DATE MARCH 16 64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 9 TWP. 20 RGE. 12 W. 5
WELL NAME: SHELL BLACKFOOT LAKE G-52 No.
PROVINCE: N.W.T.
CONTRACTOR: RICH DRILLING RIG No. 21
DRILL PIPE STRING NO. 3 SIZE 4½
TOOL JOINT 4½ OD TYPE THD. I.F
OPERATOR'S REPRESENTATIVE: S. Hoskin
CONTRACTOR'S TOOL PUSHER: R. Hutchinson

PUMP NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	3¾	5	7¾
REAMING	1		
CIRCULATING			
TRIPS			
DEVIATION SURVEY			
TEST B.O.P		¼	¼
CUT OFF DRILL LINE			
REPAIR RIG		2¾	
COILING			
WIRE LINE LOGGING			
OTHER	3¼		
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
88	STANDS DP	5 4520 FT.	RUN NO.	45
1	SNGLS. DP	FT.	SIZE	6¾
21	D.C. ID / OD	755.08 FT.	MFG.	Reed
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	11/16
	BIT OR C.B.	FT.	SER. NO	534285
		FT.	DEPTH OUT	
	KELLY DOWN	26 FT.	CUMULATIVE HOURS RUN	3¾
	TOTAL	6268.08 FT.	COND. OF BIT	
WT. OF STRING	80000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: E McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		6237	6268		30	32	1000	5½	66			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

REMARKS
1200 1300 CLEAN OUT TO BTM
1300 1345 DRILL
1345 1500 TIGHT ON CONN PLUGGED BIT PULL 2 STDS RUNNING CLEAN 60' TO BTM
1500 1800 DRILL

MUD RECORD

TIME	600
WEIGHT	8.8
VISC	29
W.L.-C.C.	
FLTR. CK.	
PH	9.5
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	505 KS		
Caustic	30 LBS		
Pipe Lax	60 LBS		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
89	STANDS DP	5 4920 FT.	RUN NO.	45
	SNGLS. DP	FT.	SIZE	6¾
26	D.C. ID / OD	785.08 FT.	MFG.	Reed
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO	3
	SUBS OD	FT.	NOZ. SIZE	11/16
	BIT OR C.B.	FT.	SER. NO.	534285
		FT.	DEPTH OUT	
	KELLY DOWN	24 FT.	CUMULATIVE HOURS RUN	23¼
	TOTAL	6296 FT.	COND. OF BIT	
WT. OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: E McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5		6264	6296		30	32	1000	5½	66			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

REMARKS
800 915 DRILL
915 930 RIG SERV CHECK BOP
930 1215 PULL 5 STDS WORK ON PUMP REMOVE CLOTH TO BULLHOSE
1215 400 DRILL

MUD RECORD

TIME	9	1	3
WEIGHT	8.8	8.8	8.8
VISC	29	29	29
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	75 SXS		
QUICKVIS	2 GALS		

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
89	STANDS DP	5516 FT.	RUN NO	45
1	SNGLS. DP	FT.	SIZE	6¾
26	D.C ID / OD	785.08 FT.	MFG.	Reed
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	11/16
	BIT OR C.B.	FT	SER NO	534285
		FT.	DEPTH OUT	6331
	KELLY DOWN	30 FT.	CUMULATIVE HOURS RUN	16½
	TOTAL	6331 FT.	COND. OF BIT	221
WT OF STRING	80000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: E McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		6296	6331		30	32	1000	5½	66			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV / DIRECTION / DEPTH / DEV / DIRECTION

REMARKS
400 415 RIG SERV CHECK BOP
415 1200 DRILL

MUD RECORD

TIME	5	800	1000
WEIGHT	8.8	8.9	9.0
VISC	30	31	32
W.L.-C.C.			
FLTR CK.			
PH			9.5
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	75 SKS		

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 36 DATE MARCH 15 1964

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. 6 SEC. 40 TWP. 20'N RGE. 12 W. 5th

WELL NAME: SHELL BLACKWATER LAKE No. G-2

PROVINCE: N.W.T.

CONTRACTOR: BRIGHT DRILLING RIG No. 21

DRILL PIPE STRING NO. SIZE: 2 3½ TOOL JOINT 4½ OD TYPE THD. IF

OPERATOR'S REPRESENTATIVE: M. Maclean

CONTRACTOR'S TOOL PUSHER: R. Silverfox

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-200	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	8	7¼	1½
REAMING			1
CIRCULATING			
TRIPS			5½
DEVIATION SURVEY			
TEST B.O.P		¼	¼
CUT OFF DRILL LINE			
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
~~OTHER~~			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON Cal. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
58	STANDS DP	5365.16 FT.	RUN NO.	44
	SNGLS. DP	FT.	SIZE	6½
26	D.C. ID / OD	785.08 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YC6
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	14/16
	BIT OR C.B.	FT.	SER. NO	F34256
		FT.	DEPTH OUT	
	KELLY DOWN	30 FT.	CUMULATIVE HOURS RUN	9
	TOTAL	6178.24 FT.	COND. OF BIT	
WT. OF STRING	80000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
8		6138	6178		20	32	1025	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

1200 800 DRILL

MUD RECORD

TIME	600		
WEIGHT	85		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
92	STANDS DP	5426.63 FT.	RUN NO.	44
	SNGLS. DP	FT.	SIZE	6¾
26	D.C. ID / OD	785.08 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YC6
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	11/16
	BIT OR C.B.	FT.	SER. NO.	F34296
		FT.	DEPTH OUT	
	KELLY DOWN	19 FT.	CUMULATIVE HOURS RUN	16¼
	TOTAL	6228 FT.	COND. OF BIT	
WT. OF STRING	80 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: McInnes

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¼		6178	6228		26	32	1025	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

600	815	RIG SERV. CHECK BOP
815	1.45	DRILL
1.45	215	CHANGE SEAT IN PUMP
215	400	DRILL

MUD RECORD

TIME	9	12	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
58	STANDS DP	5426.63 FT.	RUN NO	44
	SNGLS. DP	FT.	SIZE	6¾
26	D.C ID / OD	785.08 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YC6
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	14/16
	BIT OR C.B.	FT	SER NO	F34256
		FT.	DEPTH OUT	6237
	KELLY DOWN	26 FT.	CUMULATIVE HOURS RUN	17¾
	TOTAL	6237 FT.	COND. OF BIT	3/4
WT OF STRING	80000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
1½		6228	6237		30	32	1050	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

400	415	RIG SERV. CHECK B.O.P.S.
415	545	DRILL
545	1100	TRIP.
1100	1200	REAM BRIDGE 330' OFF BTM.

MUD RECORD

TIME	400		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C-P-38

DAILY DRILLING REPORT

REPORT NO. 35 DATE MARCH 14 1964

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: REGENT DRILLING RIG No. 21
OPERATOR'S REPRESENTATIVE:
CONTRACTOR'S TOOL PUSHER: R. MacKenzie

LOCATION LSD. 6409'20"N SEC. TWP. 122 RGE. 05'12"W.
DRILL PIPE STRING NO. SIZE: 3½
TOOL JOINT 4½ OD
TYPE THD. IF

WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5½	3	3
REAMING			
CIRCULATING			
TRIPS	2½	4¾	4½
DEVIATION SURVEY			
TEST B.O.P		¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
RUNNING CASING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
86	STANDS DP	5303.83 FT.	RUN NO.	42
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	REED
26	D.C. OD	785.08 FT.	TYPE	YCG
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	326098
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	5¾
	KELLY DOWN	30 FT.	COND. OF BIT	
	TOTAL	6118.91 FT.	REAMER CUTTER NO.	
WT. OF STRING		80000 LBS.	TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		6088	6118		30	32	1000	5½	63			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

1200-2¹⁵ RUNNING
2¹⁵-800 DRILL

MUD RECORD

TIME	6
WEIGHT	85
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
86	STANDS DP	5303.83 FT.	RUN NO.	42	43
	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	REED	HT
26	D.C. OD	795.09 FT.	TYPE	YCG	WJR
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	9/16
	SUBS OD	3.00 FT.	SER. NO.	326098	74766
	BIT OR C.B.	FT.	DEPTH OUT	6126	
		FT.	CUMULATIVE HOURS RUN	6¾	2
	KELLY DOWN	39 FT.	COND. OF BIT	4-3-1	
	TOTAL	6130 FT.	REAMER CUTTER NO.		
WT. OF STRING		LBS.	TYPE		

DRILLER: McGillivray

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3		6118	6130		30	32	1000	5½	63			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

900	900	DRILL
900	915	RIG FOR UPPER CHOKE BOP
915	200	TRIP CHECK BLIND RAMS
200	400	DRILL

MUD RECORD

TIME	2	3
WEIGHT	85	85
VISC	28	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
86	STANDS DP	5335.37 FT.	RUN NO	43	44
1	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	HT	REED
26	D.C. OD	783.08 FT.	TYPE	WJR	YCG
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	11/16
	SUBS OD	FT.	SER NO	74766	E34786
	BIT OR C.B.	FT	DEPTH OUT	6134	
		FT.	CUMULATIVE HOURS RUN	4	1
	KELLY DOWN	20 FT.	COND. OF BIT	221	
	TOTAL	6138 FT.	REAMER CUTTER NO.		
WT OF STRING		80000 LBS.	TYPE		

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000±	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3		6130	6138		30 20	32	1000	5½	63			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

400	415	SERVICE CHECK BOPS
415	615	DRILL
615	1100	TRIP
1400	1200	DRILL

MUD RECORD

TIME	400
WEIGHT	85
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 34 DATE MARCH 13 1964

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 20 TWP. 1 RGE. 12° W. W.
WELL NAME: SHELL BLA-KWATI
No. G-52
PROVINCE: N.W.T.
CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. SIZE
TOOL JOINT 4 3/4 OD
TYPE THD. IF
OPERATOR'S REPRESENTATIVE: McRae
CONTRACTOR'S TOOL PUSHER: R. Thuffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	3½		
REAMING		5	
CIRCULATING			1
TRIPS	4	2¾	5¼
DEVIATION SURVEY			
TEST B.O.P	½	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			1
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
85	STANDS DP	5241.97 FT.	RUN NO.	40
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	HT
27	D.C. OD	815.86 FT.	TYPE	R6J
	RMR BODY OD	FT.	NOZ. NO.	2
	STB BODY OD	FT.	NOZ. SIZE	3/16
	SUBS OD	FT.	SER. NO	78930
	BIT OR C.B.	FT.	DEPTH OUT	6088
		FT.	CUMULATIVE HOURS RUN	15
	KELLY DOWN	31.00 FT.	COND. OF BIT	1/1/0
	TOTAL	6088.53 FT.	REAMER CUTTER NO.	
	WT. OF STRING	76000 LBS.	TYPE	

DRILLER: McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3½		6074	6085		30	32	1050	5½	60			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

REMARKS

12⁰⁰ 3³⁰ DRILL
3³⁰ 6³⁰ PULL OUT
6³⁰ 7⁰⁰ CHECK BOP'S SERVICE
7⁰⁰ 8⁰⁰ RUN IN O/S (STAND ONE BACK CRACK PUMP FILL)

MUD RECORD

TIME	700
WEIGHT	8.5
VISC	25
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
95	STANDS DP	FT.	RUN NO. RR	41
1	SNGLS. DP	522.95 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
26	D.C. OD	785.28 FT.	TYPE	RG3
	RMR BODY OD	FT.	NOZ. NO	3/
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	54272
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	30 FT.	COND. OF BIT	
	TOTAL	6088 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
			6088		50	8	900	5½	60			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

REMARKS

9⁰⁰ 8¹⁵ RIG SERV CHECK BOP
8¹⁵ 9³⁰ FINISH RUN IN
9³⁰ 2³⁰ REAMING UNDER GAUGE HOLE 6050-6088
2³⁰ 4⁰⁰ RUNNING OUT

MUD RECORD

TIME	10	12	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
85	STANDS DP	5272.95 FT.	RUN NO	
1	SNGLS. DP	FT.	SIZE	
	D.C ID		MFG.	
26	D.C OD	785.88 FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	30 FT.	COND. OF BIT	
	TOTAL	6088 FT.	REAMER CUTTER NO.	
	WT OF STRING	80000 LBS.	TYPE	

DRILLER: McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
			6088				900	5½	60			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV | DIRECTION | DEPTH | DEV | DIRECTION

REMARKS

4⁰⁰ 5⁰⁰ FINISH PULL OUT
5⁰⁰ 5¹⁵ RIG SERV CHECK BOP
5¹⁵ 7³⁰ RUN IN W/ JUNK SUB + MAGNET
7³⁰ 8³⁰ CIRC. W/ JUNK SUB MAGNET.
8³⁰ 11⁰⁰ PULL OUT
11⁰⁰ 12⁰⁰ CLEAN JUNK SUB.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 33 DATE MARCH 12 1964

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. SEC. TWP. RGE. W.: 64° 9' 20" N / 122° 55' 12" W

WELL NAME: SHELL BLACKWATER LAKE No. G-52

PROVINCE: N.W.T.

CONTRACTOR: REGENT DRILLING RIG No.

DRILL PIPE STRING NO. SIZE: 2 3½ TOOL JOINT 4 3/4 OD TYPE THD. I.F

OPERATOR'S REPRESENTATIVE: J. Rochon

CONTRACTOR'S TOOL PUSHER: R. Shuffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		3¾	7¾
REAMING			
CIRCULATING			
TRIPS	6½	2½	
DEVIATION SURVEY			
TEST B.O.P		¼	
CUT OFF DRILL LINE		1½	
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	1½		¼
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
84	STANDS DP	5180 FT.	RUN NO.	39
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	H.T.
	RMR BODY OD	FT.	TYPE	WDR2
	STB BODY OD	FT.	NOZ. NO.	3
1	SUBS Junk OD	2.97 FT.	NOZ. SIZE	5/16
	BIT OR C.B.	FT.	SER. NO	48662
		FT.	DEPTH OUT	Run
	KELLY DOWN	27.50 FT.	CUMULATIVE HOURS RUN	111
	TOTAL	6026.45 FT.	COND. OF BIT	4/4 Jag
WT. OF STRING	76000 LBS.		REAMER CUTTER NO.	Sec
DRILLER	J. McBride		TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
			6026									

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

REMARKS

12 00 4 15 TRIP-CHECK B.O.P'S
4 15 - 5 00 CHANGE JUNK SUB.
5 00 PULL OUT.

MUD RECORD

TIME	500		
WEIGHT	85		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
84	STANDS DP	FT.	RUN NO.	40
1	SNGLS. DP	52.11.02 FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	HT
	RMR BODY OD	FT.	TYPE	RG15
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	3/8
	BIT OR C.B.	FT.	SER. NO.	78920
		FT.	DEPTH OUT	
	KELLY DOWN	10 FT.	CUMULATIVE HOURS RUN	3¾
	TOTAL	6036 FT.	COND. OF BIT	
WT. OF STRING	LBS.		REAMER CUTTER NO.	
DRILLER	McConnery		TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		6026	6036		30	32	1000	5½	56			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

REMARKS

8 00 8 30 FINISH PULL OUT
8 30 8 45 CLEAN JUNK SUB RIG SERV CHECK B.O.P
8 45 9 15 RUN IN D. COLLARS
9 15 10 45 STRING NEW DRILL LINE
10 45 12 15 FINISH RUN IN
12 15 4 00 DRILL

MUD RECORD

	1	2	3
TIME			
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
84	STANDS DP	5241.97 FT.	RUN NO	40
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	H.T.
	RMR BODY OD	FT.	TYPE	RG15
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	3/8
	BIT OR C.B.	FT.	SER NO	78920
		FT.	DEPTH OUT	
	KELLY DOWN	17 FT.	CUMULATIVE HOURS RUN	11½
	TOTAL	6054.83 FT.	COND. OF BIT	
WT OF STRING	76000 LBS.		REAMER CUTTER NO.	
DRILLER	J. McBride		TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		6036	6054		30	32	1050	5½	60			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV | DIRECTION | DEPTH | DEV | DIRECTION

REMARKS

4 00 4 15 SERV. RIG
4 15 - 12 00 DRILL

MUD RECORD

	10.00		
TIME			
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 32 DATE MARCH 11 1964

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. SEC. TWP. RGE. W.: 64° 09' 20" N 122° 55' 12" W
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.
CONTRACTOR: REGENT DRILLING CO LTD RIG No. 21
DRILL PIPE STRING NO. SIZE: 2 3½ TOOL JOINT 4¾ OD TYPE THD. I.F.
OPERATOR'S REPRESENTATIVE: [illegible]
CONTRACTOR'S TOOL PUSHER: R. Blackwich

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7	13¼	5¾
REAMING			¾
CIRCULATING			
TRIPS		5½	1¾
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG	1	¾	
CORING			
WIRE LINE LOGGING			
OTHER			¼
WASHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS W/O D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
83	STANDS DP	5448.48 FT.	RUN NO.	37
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	H.T
27	D.C. OD 8¼	815.86 FT.	TYPE	WJR
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	53336
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	7½
	KELLY DOWN 36	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING 75000	LBS.	TYPE	

DRILLER: [illegible]

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		5920	6000		50	32		5½				

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 4³⁰ DRILL
4³⁰ -30 WK ON ROAD
-30 8⁰⁰ DRILL

MUD RECORD

TIME	8⁰⁰		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
84	STANDS DP	5140.00 FT.	RUN NO.	37
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	HT
27	D.C. OD	518.86 FT.	TYPE	WJR2
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	53336
	BIT OR C.B.	FT.	DEPTH OUT	6011
		FT.	CUMULATIVE HOURS RUN	9¼
	KELLY DOWN 16	FT.	COND. OF BIT	3-2-1
	TOTAL 6011	FT.	REAMER CUTTER NO.	
	WT. OF STRING 76000	LBS.	TYPE	

DRILLER: McInnes

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
1¾		6000	6011		50	32	1050	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 8¹⁵ RIG SERV CHECK B.O.P
8¹⁵ 8³⁰ DRILL
8³⁰ 9¹⁵ CHANGE SEAT IN PUMP
9¹⁵ 10⁴⁵ DRILL
10⁴⁵ 4⁰⁰ TRIP MEASURE PIPE CHECK BLIND RAMS

MUD RECORD

	8	9	10
TIME			
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
84	STANDS DP	5180.00 FT.	RUN NO	RR38
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	REED
27	D.C. OD	815.86 FT.	TYPE	WC3
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	36103
	BIT OR C.B.	FT	DEPTH OUT	6026
		FT.	CUMULATIVE HOURS RUN	5½
	KELLY DOWN 31	FT.	COND. OF BIT	
	TOTAL 6026.86	FT.	REAMER CUTTER NO.	
	WT OF STRING 76000	LBS.	TYPE	

DRILLER: McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
15		6011	6026		30	32	1020	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 4¹⁵ FINISH TRIP
4¹⁵ 4³⁰ RIG SERV CHECK B.O.P
4³⁰ 5¹⁵ REAM FROM 6009- 6011
5¹⁵ 10³⁰ DRILL
10³⁰ 12⁰⁰ PULL OUT

MUD RECORD

	8⁰⁰		
TIME			
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 31 DATE MARCH 10 1964

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: REGENT DRILLING RIG No. 21
OPERATOR'S REPRESENTATIVE: M. Lockau
CONTRACTOR'S TOOL PUSHER: R. Shuffunk
LOCATION LSD. 6 SEC. 20 TWP. 4 RGE. 12 W. W.
WELL NAME: SHELL BLACKWATER LAKE No. C-52
PROVINCE: N.W.T.
DRILL PIPE STRING NO. 3 SIZE 3½
TOOL JOINT 4½ OD
TYPE THD. I.F

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D 500	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7¾	7¾	2½
REAMING			
CIRCULATING			
TRIPS			5
DEVIATION SURVEY			¼
TEST B.O.P		¼	
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	¼		¼
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
81	STANDS DP	4995.12 FT.	RUN NO.	36
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	326109
		FT.	DEPTH OUT	
	KELLY DOWN	25 FT.	CUMULATIVE HOURS RUN	15¼
	TOTAL	5835 FT.	COND. OF BIT	
WT. OF STRING	74 000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5758	5835		30	32	1000	5½	67			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

REMARKS
1200 1215 SERVICE
1215 800 DRILL

MUD RECORD

TIME	800		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
82	STANDS DP	5066.62 FT.	RUN NO.	36
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	326109
		FT.	DEPTH OUT	
	KELLY DOWN	27 FT.	CUMULATIVE HOURS RUN	26
	TOTAL	5899 FT.	COND. OF BIT	
WT. OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: McLennan

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5835	5899		30	32	1000	5½	67			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

REMARKS
400 915 RIG SERV CHECK BOP
915 400 DRILL

MUD RECORD

	9	12	3
TIME			
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
82	STANDS DP	5087.43 FT.	RUN NO	36	37
1	SNGLS. DP	FT.	SIZE	6¾	6¾
27	D.C ID / OD	815.86 FT.	MFG.	REED	HT
	RMR BODY OD	FT.	TYPE	YCG	WJR3
	STB BODY OD	FT.	NOZ. NO.	3	3
	SUBS OD	FT.	NOZ. SIZE	9/16	9/16
	BIT OR C.B.	FT.	SER NO	326109	52336
		FT.	DEPTH OUT	5910	
	KELLY DOWN	17. FT.	CUMULATIVE HOURS RUN	28	½
	TOTAL	5920.29 FT.	COND. OF BIT	321	
WT OF STRING	25000 LBS.		REAMER CUTTER NO.		
			TYPE		

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2½		5899	5920		50	32	1000	5½	66			

DEVIATION RECORD: DEPTH 5910 / DEV. 8½ / DIRECTION / DEPTH / DEV / DIRECTION / DEPTH / DEV / DIRECTION

REMARKS
400 415 SER RIG
415-615 DRILL
615-630 SURVEY
630-1130 TRIP CLOSE RAMS
1130-1700 DRILL

MUD RECORD

	600		
TIME			
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 30 DATE MARCH 9 1964

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: REGENT DRILLING RIG No. 21
OPERATOR'S REPRESENTATIVE: H. Rocka
CONTRACTOR'S TOOL PUSHER: A. Peterson

LOCATION LSD. 6 SEC. 40 TWP. 9'20" N RGE. 122 W. 5'42" W
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

DRILL PIPE STRING NO. 2 SIZE 3½ TYPE THD. I.F.
TOOL JOINT 4¾ OD

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7½	3¾	7
REAMING			
CIRCULATING			
TRIPS		4	
DEVIATION SURVEY		¼	
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			¾
CORING			
WIRE LINE LOGGING			
OTHER	½		½
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
78	STANDS DP	4941.91 FT.	RUN NO.	3
1	SNGLS. DP	FT.	SIZE	6½
27	D.C. ID / OD	815.86 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	326108
		FT.	DEPTH OUT	
	KELLY DOWN	25 FT.	CUMULATIVE HOURS RUN	40½
	TOTAL	5680.77 FT.	COND. OF BIT	
WT. OF STRING	74000 LBS.		REAMER CUTTER NO.	
DRILLER	E McBride		TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5614	~~5682~~ 5682		30	30	925	5½	62			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

1200	215	DRILL
215	230	SERV. RIG
230	800	DRILL

MUD RECORD

TIME	800
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
79	STANDS DP	4872.46 FT.	RUN NO.	35	36
	SNGLS. DP	FT.	SIZE	6¾	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED	REED
	RMR BODY OD	FT.	TYPE	YCG	YCG
	STB BODY OD	FT.	NOZ. NO	3	3
	SUBS OD	FT.	NOZ. SIZE	9/16	9/16
	BIT OR C.B.	FT.	SER. NO.	326108	326109
		FT.	DEPTH OUT	5692	
	KELLY DOWN	20 FT.	CUMULATIVE HOURS RUN	40¾	3½
	TOTAL	5708 FT.	COND. OF BIT		
WT. OF STRING	74— LBS.		REAMER CUTTER NO.		
DRILLER	Mc Connery		TYPE		

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		5692	5708		30	30	925	5½	62			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5655	9							

REMARKS

800	815	DRILL
815	830	SURVEY RIG SERV CHECK BOP
830	1230	TRIP CHANGE CHUCK BLIND RAMS
1230	1600	DRILL

MUD RECORD

TIME	8	2	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
79	STANDS DP	4903.49 FT.	RUN NO	36
1	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YCG
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER NO	326109
		FT.	DEPTH OUT	
	KELLY DOWN	39.50 FT.	CUMULATIVE HOURS RUN	10½
	TOTAL	5758.85 FT.	COND. OF BIT	
WT OF STRING	74000 LBS.		REAMER CUTTER NO.	
DRILLER	E McBride		TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		5708	5758		30	32	1000	5½	67			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

400	415	RIG SERV CHECK BOP
415	715	DRILL
715	800	CHANGE HEAD & LINER
800	1200	DRILL

MUD RECORD

TIME	1000
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 29 DATE MARCH 8 1964

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: KLEPPEN DRLG RIG No. 21
OPERATOR'S REPRESENTATIVE: J McLachlan
CONTRACTOR'S TOOL PUSHER: R. Shuffrick
LOCATION LSD. SEC. TWP. RGE. W.: 6409'20"N 122°35'12"W.
DRILL PIPE STRING NO. SIZE: 2 3½ TOOL JOINT 4¾ OD TYPE THD. I.F.
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7¾	7¾	6¾
REAMING			
CIRCULATING			
TRIPS			
DEVIATION SURVEY			
TEST B.O.P		¼	
CUT OFF DRILL LINE			
REPAIR RIG			1
CORING			
WIRE LINE LOGGING			
OTHER SERV.	¼		½
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
76	STANDS DP	4656.6 FT.	RUN NO.	35
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED
			TYPE	YCG
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	326108
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	18¼
	KELLY DOWN	33 FT.	COND. OF BIT	
	TOTAL	5505.9 FT.	REAMER CUTTER NO.	
WT. OF STRING	71 000 LBS.		TYPE	

DRILLER: J McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5442	5505		30	30	925	5½	62			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 12⁴⁵ DRILL
12⁴⁵ 1⁰⁰ SERV. R.G.
1⁰⁰ 8⁰⁰ DRILL

MUD RECORD

TIME	12⁰⁰	2⁰⁰	6⁰⁰
WEIGHT	8.5	8.5	8.5
VISC	28	28	25
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
76	STANDS DP	FT.	RUN NO.	35
1	SNGLS. DP	4917.92 FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	REED
			TYPE	YCG
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	326108
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	26
	KELLY DOWN	31 FT.	COND. OF BIT	
	TOTAL	5564 FT.	REAMER CUTTER NO.	
WT. OF STRING	LBS.		TYPE	

DRILLER: McInnes

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5505	5564		30	30	925	5½	62			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

4⁰⁰ 8¹⁵ RIG SERV. CHECK BOP
4¹⁵ 4⁰⁰ DRILL

MUD RECORD

TIME	9	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
97	STANDS DP	4780.4 FT.	RUN NO	35
1	SNGLS. DP	FT.	SIZE	6¾
27	D.C ID / OD	815.86 FT.	MFG.	REED
			TYPE	YCG
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	326108
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	32¾
	KELLY DOWN	18 FT.	COND. OF BIT	
	TOTAL	5614.2 FT.	REAMER CUTTER NO.	
WT OF STRING	72 000 LBS.		TYPE	

DRILLER: J McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		5564	5614		30	30	925	5½	62			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 4¹⁵ SERV. RIG CHECK BOP
4¹⁵ 8³⁰ DRILL
8³⁰ 9³⁰ SERV. RIG CHANGE LINER ROD
9³⁰ 12⁰⁰ DRILL

MUD RECORD

TIME	4⁰⁰	6⁰⁰	10⁰⁰
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 28 DATE MAR 7/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 7 TWP. 20 RGE. 22 W. 5 W.
WELL NAME: SHELL BLACKWATER LAKE No. 6-5-7
PROVINCE: N.W.T.

CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. 3 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF

OPERATOR'S REPRESENTATIVE: J.M. Bocken
CONTRACTOR'S TOOL PUSHER: R. Schaffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝		0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7½	7¾	7¾
REAMING			
CIRCULATING			
TRIPS		4	
DEVIATION SURVEY		¼	
TEST B.O.P			¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	¼		
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD 27
CUMULATIVE ROTATING HRS. 408

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
73	STANDS DP	4012¼	RUN NO.	34
	SNGLS. DP	FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	H.T
	RMR BODY OD	FT.	TYPE	WJR2
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	48606
		FT.	DEPTH OUT	
	KELLY DOWN	23 FT.	CUMULATIVE HOURS RUN	9½
	TOTAL	5349 FT.	COND. OF BIT	
WT. OF STRING	70000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: J.M. Brule

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5271	5340		60	30	1000	5½	66			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION

REMARKS
12⁰⁰ 2¹⁵ DRILL
2¹⁵ 2³⁰ SERV. RIG
2³⁰ 8⁰⁰ DRILL

MUD RECORD

TIME	600
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
73	STANDS DP	FT.	RUN NO.	34	35
1	SNGLS. DP	1632.19 FT.	SIZE	6¾	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	H.T	REED
	RMR BODY OD	FT.	TYPE	WJR2	YC6
	STB BODY OD	FT.	NOZ. NO.	3	3
	SUBS OD	FT.	NOZ. SIZE	9/16	9/16
	BIT OR C.B.	FT.	SER. NO.	48666	326108
		FT.	DEPTH OUT	5359	
	KELLY DOWN	30 FT.	CUMULATIVE HOURS RUN	10½	2¾
	TOTAL	5378 FT.	COND. OF BIT	3-2-1	
WT. OF STRING		LBS.	REAMER CUTTER NO.		
			TYPE		

DRILLER: J.M. Connerey

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		5340	5378		30	30	925	5½	62			

DEVIATION RECORD: DEPTH 5350 / DEV. 9½ / DIRECTION

REMARKS
9⁰⁰ 9⁰⁰ DRILL
9⁰⁰ 9¹⁵ DROP SURVEY RIG SERV CHECK B.O.P
9¹⁵ 11⁵ TRIP CHECK BLIND RAMS
11⁵ 4⁰⁰ DRILL

MUD RECORD

TIME	830	2	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
74	STANDS DP	4594.74	RUN NO	35
1	SNGLS. DP	FT.	SIZE	6¾
27	D.C ID / OD	815.86 FT.	MFG.	REED
	RMR BODY OD	FT.	TYPE	YC6
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT	SER NO	326108
		FT.	DEPTH OUT	
	KELLY DOWN	32 FT.	CUMULATIVE HOURS RUN	10½
	TOTAL	5442 FT.	COND. OF BIT	
WT OF STRING	70000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: J.M. Brule

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		5378	5442		30	30	925	5½	62			

DEVIATION RECORD: DEPTH / DEV. / DIRECTION

REMARKS
4⁰⁰ 4¹⁵ SERV. RIG.
4¹⁵ 12⁰⁰ DRILL

MUD RECORD

TIME	1600
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 27 DATE March 6/64

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. SEC. TWP. RGE. W.: 64°09'20"N 122°55'12"W

WELL NAME: Shell Black Water Lake No. G-52

PROVINCE: N.W.T.

CONTRACTOR: Reyno Drilling RIG No. 21

DRILL PIPE STRING NO. SIZE: 2 3½ TOOL JOINT 4½ OD TYPE THD. FH

CEMENT USED: OTHER:

OPERATOR'S REPRESENTATIVE: J. McLellan

CONTRACTOR'S TOOL PUSHER: R. Hufford

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
9⅝	43.5	0	740		

CEMENT USED:

OTHER:

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		7¼	3¾
REAMING			
CIRCULATING			
TRIPS	2½	½	4
DEVIATION SURVEY			
TEST B.O.P		¼	¼
CUT OFF DRILL LINE	1		
REPAIR RIG	4½		
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P: 1 ¼

HRS WO/D.P: ¼

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
70	STANDS DP	FT.	RUN NO.	Re Run 33
1	SNGLS. DP	43.47.96 FT.	SIZE	6¾
27	D.C. ID / OD	815.86 FT.	MFG.	Reed
			TYPE	WC3
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	326103
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	7.4 FT.	COND. OF BIT	
	TOTAL	5147 FT.	REAMER CUTTER NO.	
	WT. OF STRING	68 M LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		5147	5187									

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 14⁵ Finish Rabbiting out Check BOP DC Run in DC
14⁵ 24⁵ Slip Line Grease Crown
24⁵ 7¹² Replace pump Weld Wash out Run in
7¹⁵ 8⁰⁰

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
71	STANDS DP	FT.	RUN NO.	33
1	SNGLS. DP	4408.88 FT.	SIZE	6¾
27	D.C. ID / OD	815.96 FT.	MFG.	REED
			TYPE	WC3
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	326103
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	25
	KELLY DOWN	19 FT.	COND. OF BIT	
	TOTAL	5243 FT.	REAMER CUTTER NO.	
	WT. OF STRING	70⁰⁰⁰ LBS.	TYPE	

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¼		5187	5243		30	30	1000	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 8³⁰ Finish Rabbiting
8³⁰ 8⁴⁵ Rig Serv Check BOP
8⁴⁵ 4⁰⁰ Drill

MUD RECORD

TIME	9	11	2
WEIGHT	85	85	85
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
72	STANDS DP	4439.80 FT.	RUN NO	33	34
	SNGLS. DP	FT.	SIZE	6¾	6½
27	D.C ID / OD	815.86 FT.	MFG.	REED	HT
			TYPE	WC3	WJR2
	RMR BODY OD	FT.	NOZ. NO.	~~9/16~~	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	9/16
	SUBS OD	FT.	SER NO	326103	4566
	BIT OR C.B.	FT	DEPTH OUT	5256	
		FT.	CUMULATIVE HOURS RUN	27	13¼
	KELLY DOWN	16 FT.	COND. OF BIT	Fair	
	TOTAL	5271.66 FT.	REAMER CUTTER NO.		
	WT OF STRING	70000 LBS.	TYPE		

DRILLER: Jim Bride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		5243	5271		60	30	1000	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ 4¹⁵ Rig Serv Check BOP
4¹⁵ 6¹⁵ Drill
6¹⁵ 10¹⁵ Trip
10¹⁵ 12⁰⁰ Drill

MUD RECORD

TIME	5
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 26 DATE March 5/64

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. 6409 SEC. 26 TWP. 4 RGE. 12 W. 5 W. 12 W

WELL NAME: Shell Black Water Lake No. 5-2

PROVINCE: Alberta

CONTRACTOR: Regent Drilling RIG No. 21

DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. FH

OPERATOR'S REPRESENTATIVE: W B Crumb

CONTRACTOR'S TOOL PUSHER: L. Grove

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	6T55	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5	6¾	6
REAMING			
CIRCULATING			
TRIPS	2¼		1¾
DEVIATION SURVEY			¼
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE	¼		
REPAIR RIG	½	1	
CORING			
WIRE LINE LOGGING			
OTHER Run ½			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		FT.
67	STANDS	DP	FT.
1	SNGLS.	DP	422.30 FT.
27	D.C. ID 4 3/4 OD		815.86 FT.
	RMR BODY	OD	FT.
	STB BODY	OD	FT.
	SUBS	OD	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING	68 000 LBS.		

DRILLER: F. Laplante

BIT RECORD	
RUN NO.	33
SIZE	6¾
MFG.	Reed
TYPE	WC3
NOZ. NO.	2
NOZ. SIZE	9/16
SER. NO	326103
DEPTH OUT	
CUMULATIVE HOURS RUN	5
COND. OF BIT	4
REAMER CUTTER NO.	
TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5		5015	5064		30	35	1000	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	5015	8½°							

REMARKS

12⁰⁰	12³⁰	For Rig Check BOP
12³⁰	2³⁰	Finish Pulling out Reamers
2³⁰	7³⁰	Drill
7³⁰	8⁰⁰	Repair Pump

MUD RECORD			
TIME	4 AM	6 AM	8 AM
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		FT.
69	STANDS	DP	FT.
1	SNGLS.	DP	4287.03 FT.
27	D.C. ID OD		815.86 FT.
	RMR BODY	OD	FT.
	STB BODY	OD	FT.
	SUBS	OD	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	22	FT.
	TOTAL	5124	FT.
WT. OF STRING	70 000 LBS.		

DRILLER: McConnery

BIT RECORD	
RUN NO.	33
SIZE	6¾
MFG.	Reed
TYPE	WC 3
NOZ. NO	
NOZ. SIZE	9/16
SER. NO.	326103
DEPTH OUT	
CUMULATIVE HOURS RUN	11¾
COND. OF BIT	
REAMER CUTTER NO.	
TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		5064	5124		30	35	1000	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

4⁰⁰	8¹⁵	RIG SERV CHECK B.O.P
8¹⁵	2³⁰	DRILL
2³⁰	3³⁰	CHANGE HEAD IN PUMP
3³⁰	4⁰⁰	DRILL

MUD RECORD			
TIME	9	12	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		FT.
70	STANDS	DP	FT.
1	SNGLS.	DP	4347.96 FT.
27	D.C ID OD		815.86 FT.
	RMR BODY	OD	FT.
	STB BODY	OD	FT.
	SUBS	OD	FT.
	BIT OR C.B.		FT
			FT.
	KELLY DOWN	24	FT.
	TOTAL	5189	FT.
WT OF STRING	68 000 LBS.		

DRILLER: F. Laplante

BIT RECORD	
RUN NO	33
SIZE	6¾
MFG.	Reed
TYPE	WC3
NOZ. NO.	3
NOZ. SIZE	9/16
SER NO	326103
DEPTH OUT	5187
CUMULATIVE HOURS RUN	17¾
COND. OF BIT	1:1
REAMER CUTTER NO.	
TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6		5064	5187		30	35	1000	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
	5187	4½							

REMARKS

4⁰⁰	4¹⁵	RIG SERV CHECK B.O.P
4¹⁵	10⁰⁰	DRILL
10⁰⁰	10³⁰	Surgey
10³⁰	12⁰⁰	Ballyant Chuck DC

MUD RECORD		
TIME	5	8
WEIGHT	8.5	8.5
VISC	28	28
W.L.-C.C.		
FLTR CK.		
PH		
SD. CONT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 25 DATE March 4/64

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. 6 SEC. 4 TWP. 109 RGE. 20 W. 4

WELL NAME: Shell Black Water No. 6-5-2

CONTRACTOR: Regent Drilling RIG No. 21

DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. F.H.

PROVINCE: N.W.T.

OPERATOR'S REPRESENTATIVE: W. B. Cowan CONTRACTOR'S TOOL PUSHER: L. Groves

CEMENT USED: OTHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
4½	6.75	0	7440		

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4¼	7¾	5¾
REAMING			
CIRCULATING			
TRIPS	3½		1
DEVIATION SURVEY	¼		¼
TEST B.O.P		¼	
CUT OFF DRILL LINE			
REPAIR RIG			¾
CORING			
WIRE LINE LOGGING			
REAMER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
45	STANDS DP	FT.	RUN NO.	32
1	SNGLS. DP	4041.64 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
27	OD	815.46 FT.	TYPE	RG11
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	SIZE	½
	SUBS OD	FT.	SER. NO	74977
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	43 FT.	COND. OF BIT	
	TOTAL	4880 FT.	REAMER CUTTER NO.	
	WT. OF STRING	64 M LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¼		4835	4880		30	35	1000	5½	56			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1200	12°	Lower Swivel Pkg.						
1215	345	Pull Test Check B.O.P. Run in						
345	8'5	Drill						

REMARKS

MUD RECORD

TIME	12 AM	9 AM
WEIGHT	8.5	8.5
VISC	28	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
46	STANDS DP	FT.	RUN NO.	32
1	SNGLS. DP	4103.19 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
27	OD	815.86 FT.	TYPE	RG11
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	SIZE	½
	SUBS OD	FT.	SER. NO.	78937
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	12
	KELLY DOWN	39 FT.	COND. OF BIT	
	TOTAL	4958 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Mc Cassaery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		4880	4958		30	35	1000	5½	56			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
400	415	RIG SERV CHECK B.O.P						
415	400	DRILL						

REMARKS

MUD RECORD

TIME	6	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
47	STANDS DP	FT.	RUN NO	32
1	SNGLS. DP	4164.19 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
27	4¾ OD	815.86 FT.	TYPE	RG11
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	SIZE	½
	SUBS OD	FT.	SER NO	78937
	BIT OR C.B.	FT.	DEPTH OUT	5015
		FT.	CUMULATIVE HOURS RUN	17¾
	KELLY DOWN	3 FT.	COND. OF BIT	4-2-I
	TOTAL	5015 FT.	REAMER CUTTER NO.	
	WT OF STRING	68 LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		4958	5015		30	35	1000	5½	56			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
400	415	RIG SERV CHECK B.O.P						
415	915	DRILL						
915	1000	Change Head on D.300 pump						
1000	1043	Drill						
1043	1100	Survey						
1100	1200	Pull out						

REMARKS

MUD RECORD

TIME	4 PM	6 PM	6 PM
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 24 DATE March 3/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 7 TWP. 20 RGE. 5 W. 4
WELL NAME: Shell Black Diamond Lot 6 No. 5
PROVINCE: N.W.T.
CONTRACTOR: Regent Drilling RIG No. 21
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE: H.B. Coumbe
CONTRACTOR'S TOOL PUSHER: L. Graves

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D.300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	LT&C	0	744				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			4
CIRCULATING	½		
TRIPS	4½	1	3
DEVIATION SURVEY			
TEST B.O.P	½		
CUT OFF DRILL LINE			
REPAIR RIG			
CORING		7	
WIRE LINE LOGGING			
OTHER	½		1
FISHING	½		
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS. WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY

NO.			
63	STANDS DP		FT.
1	SNGLS. DP	3918.45	FT.
27	D.C. ID / OD	815.86	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	1	FT.
	TOTAL	4801	FT.
WT. OF STRING			LBS.

BIT RECORD

RUN NO.	30
SIZE	11¾
MFG.	Chris
TYPE	O
NOZ. NO.	
NOZ. SIZE	FH
SER. NO	EC 9306
DEPTH OUT	
CUMULATIVE HOURS RUN	
COND. OF BIT	
REAMER CUTTER NO.	
TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		4801	–									

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 12¹⁵ Lay Rig
12¹⁵ 12⁴⁵ Work Junk Sub and Magnit
12⁴⁵ 3⁴⁵ Mouse out
3⁴⁵ 5⁴⁵ Clean Junk Sub and Magnit Back up Core Bbl.
5⁴⁵ 7³⁰ Run in W/ Core Bbl.
7³⁰ 4⁰⁰ Core to Core.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

DRILLING ASSEMBLY

NO.			
63	STANDS DP		FT.
1	SNGLS. DP	3918.45	FT.
29	D.C. ID / OD	915.46	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.	65.84	FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

RUN NO.	30
SIZE	11⅞
MFG.	CHRIS
TYPE	O
NOZ. NO.	
NOZ. SIZE	
SER. NO.	EC 8206
DEPTH OUT	
CUMULATIVE HOURS RUN	7
COND. OF BIT	341
REAMER CUTTER NO.	
TYPE	

DRILLER: McConnaery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
	1	4801	4835	34'.	65	10	1000	5½	35			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 3 = 0 Coring
3 = 4 = Pulling out.

MUD RECORD

TIME	9	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

DRILLING ASSEMBLY

NO.			
64	STANDS DP		FT.
1	SNGLS. DP	3979.83	FT.
27	D.C. ID / OD	415.86	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	40	FT.
	TOTAL	4835	FT.
WT OF STRING			LBS.

BIT RECORD

RUN NO	31
SIZE	11⅞
MFG.	
TYPE	R63
NOZ. NO.	3
NOZ. SIZE	9/16
SER NO	54272
DEPTH OUT	4835
CUMULATIVE HOURS RUN	
COND. OF BIT	
REAMER CUTTER NO.	
TYPE	

DRILLER: F. Laplante

HRS. DRLD. Ream	CORE NO.	Ream FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4		4801	4835		100	20	900	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
4734	6¾							

REMARKS

4²⁰ 5¹⁵ Pull out
5¹⁵ 6¹⁵ Handle Core Lay down Core Bbl.
6¹⁵ 8⁰⁰ Run in
8⁰⁰ 12⁰⁰ Ream

Core No 1 4801–4835 34'
Recovery 34' 100%

MUD RECORD

TIME	4⁰⁰	10⁰⁰	
WEIGHT	8.6	8.6	
VISC	28	28	
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 23 DATE March 2/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 26 TWP. 122 RGE. 12 W. 6
WELL NAME: Shell Black Creek Fee
No. 6-26
PROVINCE: N W T

CONTRACTOR: Regent Drilling RIG No. 2
OPERATOR'S REPRESENTATIVE: A.S. Carlson
CONTRACTOR'S TOOL PUSHER: F. Laplante
DRILL PIPE STRING NO. SIZE: 3½
TOOL JOINT 4½ OD
TYPE THD. I.F

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36 J55	0	744				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4½	3¼	
REAMING		1	
CIRCULATING			
TRIPS	3	4¼	5¾
DEVIATION SURVEY			
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			2
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER		1	
FISHING		3¼	
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS. W/O D.P:
HRS. STANDBY

WIRE LINE RECORD
RUN NO.
NO. OF LINES SIZE
FEET SHOT
FEET CUT OFF
PRESENT LENGTH
TON MI. SINCE LAST CUT
CUMULATIVE TON MI.
NO. OF TRIPS FROM WELL
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	26
	SNGLS. DP	FT.	SIZE	6¾
29	D.C. ID / OD	873.4 FT.	MFG.	HT
			TYPE	WTR
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	87602
	BIT OR C.B.	FT.	DEPTH OUT	4793
		FT.	CUMULATIVE HOURS RUN	4¼
	KELLY DOWN	FT.	COND. OF BIT	491
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING	60000 LBS.		TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¾		4740	4793		60	35	850	6½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4734	6¼							

REMARKS

12:00 12:45 Service Rig
12:45 5:00 Drilling
5:00 8:00 Trip Bit

MUD RECORD

TIME	12:00	9:00	4:00
WEIGHT	9.0+	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
63	STANDS DP	3956.7 FT.	RUN NO.	29
1	SNGLS. DP	FT.	SIZE	6¾
29	D.C. ID / OD	873.41 FT.	MFG.	HT
			TYPE	WTR
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	88118
	BIT OR C.B.	FT.	DEPTH OUT	4808
		FT.	CUMULATIVE HOURS RUN	3¼
	KELLY DOWN	10 FT.	COND. OF BIT	
	TOTAL	4798 FT.	REAMER CUTTER NO.	
WT. OF STRING	60000 LBS.		TYPE	

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
¾		4793	4808		60	35	8	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

9:00 9:45 Finish Running
9:45 9:00 Rig Serv Check B.O.P
9:00 10:00 Ream & to Bottom
10:00 10:45 Drill twist off
10:45 12:15 Pull out
12:15 1:15 Make up overshot + Jars
1:15 3:15 Run in
3:15 4:00 Fishing

MUD RECORD

TIME	10		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT OF STRING		LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		4793										

DEVIATION RECORD:

DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
4734	6¼							

REMARKS

4:00 4:15 Rig Serv
4:15 8:00 Pull out + Lay Down Fish
8:00 10:00 Slip Cut Drlg Line
10:00 12:00 Run in with Spear + T. Sub.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.

Double Tally 1801

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 22 DATE March 1/64

OPERATOR: Shell Oil Company of Canada, Limited

CONTRACTOR: Regent Drilling RIG No. 21

OPERATOR'S REPRESENTATIVE:

CONTRACTOR'S TOOL PUSHER:

LOCATION LSD. 6409 SEC. 20 TWP. 12 RGE. 20 W. 5 1/2 W. 12 W

DRILL PIPE STRING NO. 3 SIZE 4 1/2 OD

TOOL JOINT TYPE THD. J.F.

WELL NAME: Shell Black Water Lake No. G-52

PROVINCE: N.W.T.

CEMENT USED: OTHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
9 5/8	36 J55	0	740		

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7	8 7 3/4	2
REAMING			1/4
CIRCULATING			
TRIPS			3 1/4
DEVIATION SURVEY			1/4
TEST B.O.P	1/4	1/4	1/4
CUT OFF DRILL LINE			
REPAIR RIG			1 1/4
CORING			
WIRE LINE LOGGING			
[illegible]ER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		FT.
61	STANDS DP		FT.
1	SNGLS. DP	37 2 1/2	FT.
29	D.C. ID		FT.
	D.C. OD	873.41	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	40	FT.
	TOTAL	4642	FT.
WT. OF STRING		64 000	LBS.

DRILLER: F. Laplante

BIT RECORD		
RUN NO.	27	
SIZE	6 3/4	
MFG.	Reed	
TYPE	YCGJ	
NOZ. NO.	3	
NOZ. SIZE	3/16	
SER. NO	526471	
DEPTH OUT		
CUMULATIVE HOURS RUN	18	
COND. OF BIT		
REAMER CUTTER NO.		
TYPE		

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7 3/4		4556	4642		30	35	850	5 1/2	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12 00 12 15 Lay Rig

12 15 8 00 Drill

MUD RECORD			
TIME	1900	2000	2400
WEIGHT	8.5	8.5	8.5
VISC	28	28	26
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		FT.
62	STANDS DP	3821.19	FT.
	SNGLS. DP		FT.
29	D.C. ID		FT.
	D.C. OD	873.41	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.	—	FT.
			FT.
	KELLY DOWN	21	FT.
	TOTAL	4715	FT.
WT. OF STRING		60 000	LBS.

DRILLER: McConnery

BIT RECORD		
RUN NO.	27	
SIZE	6 3/4	
MFG.	REED	
TYPE	YCGJ	
NO.	3	
SIZE	1/2	
SER. NO.	526471	
DEPTH OUT		
CUMULATIVE HOURS RUN	25 3/4	
COND. OF BIT		
REAMER CUTTER NO.		
TYPE		

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7 3/4		4642	4715		30	35	850	5 1/2	67			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8 00 8 15 Rig Serv Check B.O.P

8 15 4 00 DRILL

MUD RECORD			
TIME	9	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		FT.
62	STANDS DP		FT.
1	SNGLS. DP	38 82.13	FT.
29	D.C ID		FT.
	D.C OD	873.41	FT.
	RMR BODY OD		FT.
	STB BODY OD		FT.
	SUBS OD		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	15	FT.
	TOTAL	4740	FT.
WT OF STRING		64 000	LBS.

DRILLER: F. Laplante

BIT RECORD		
RUN NO	27	28
SIZE	6 3/4	6 3/4
MFG.	REED	H+T
TYPE	YCGJ	WTR
NO.	3	3
SIZE	1/2	9/16
SER NO	526471	87608
DEPTH OUT	4734	
CUMULATIVE HOURS RUN		
COND. OF BIT	431	
REAMER CUTTER NO.		
TYPE		

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2		4715	4740		60	35	875	[illegible]	1[illegible]			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
	4734	6 1/4							

REMARKS

4 00 4 15 Ser Rig Check B.O.P

4 15 5 30 Drill

5 30 6 00 Change Head in pump

6 00 6 30 Drill

6 30 6 45 Survey

6 45 8 30 Pull out

8 30 9 15 Make up Bit Chang[illegible] Valve on Fill up Line

9 15 11 00 Run in

11 00 to 11 15 Ream

11 15 to 12 00 Drill

MUD RECORD			
TIME	4PM		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 21 DATE ~~Feb 23/64~~ Feb 24/64

OPERATOR: Shell Oil Company of Canada, Limited

CONTRACTOR: Rigat Drilling RIG No. 21

OPERATOR'S REPRESENTATIVE: H.B. Cowles

CONTRACTOR'S TOOL PUSHER: J. Groves

LOCATION LSD. 6 SEC. 4 TWP. 20 RGE. 12 W. 5

WELL NAME: Shell Black Water Lake No. G 59

PROVINCE: ~~Alberta~~ N.W.T.

DRILL PIPE STRING NO. 2 SIZE 3½

TOOL JOINT 4½ OD

TYPE THD. IF

CEMENT USED

OTHER

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D.300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
7"	6 J-55	0	740		

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		2½	7¼
REAMING			
CIRCULATING	~~¼~~	¼	
TRIPS	5¾	4¼	
DEVIATION SURVEY			
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG		3/4	
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING	2		
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	6	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
54	STANDS DP	FT.	RUN NO.	26
	SNGLS. DP	3574.28 FT.	SIZE	6¾
	D.C. ID		MFG.	HTC
29	D.C. OD	873.41 FT.	TYPE	W7R
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	96116
	BIT OR C.B.	FT.	DEPTH OUT	4411
		FT.	CUMULATIVE HOURS RUN	0
	KELLY DOWN	14 FT.	COND. OF BIT	1 1 WT
	TOTAL	4461 FT.	REAMER CUTTER NO.	
WT. OF STRING	64000 LBS.		TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		4466	4461									

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4461	9½							

REMARKS

12⁰⁰ 19⁰⁰ Run Rig

12⁰⁰ 1⁰⁰ Run Log

1⁰⁰ 2³⁰ D[illegible] RIH

2³⁰ 7³⁰ Pull out Run in Magnet

7³⁰ 8⁰⁰ Core Work Magnet

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
58	STANDS DP	3974.28 FT.	RUN NO.	27
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	REED
29	D.C. OD	873.41 FT.	TYPE	YCGJ
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	½
	SUBS OD	FT.	SER. NO.	526471
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	2½
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	39 FT.	REAMER CUTTER NO.	
WT. OF STRING	4486 LBS.		TYPE	

DRILLER: Mc Connery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2½		4461	4496		30	35	850	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ 8¹⁵ CIRC & WORK MAGNET (Pump 6 bolts)

8¹⁵ 10.45 PULL OUT LAY DOWN MAGNET CHECK ARMS

10⁴⁵ 12³⁰ RUN IN

12³⁰ 12⁴⁵ CIRC & RIG SERV

12⁴⁵ 2¹⁵ DRILL

2¹⁵ 3⁰⁰ CHANGE HEAD IN PUMP

3⁰⁰ 4⁰⁰ DRILL

MUD RECORD

	1	2	3
TIME			
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
54	STANDS DP	FT.	RUN NO	27
1	SNGLS. DP	36677 FT.	SIZE	6¾
	D.C ID		MFG.	REED
29	D.C OD	873.41 FT.	TYPE	YCBJ
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	½
	SUBS OD	FT.	SER NO	526471
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	17 FT.	COND. OF BIT	
	TOTAL	4554 FT.	REAMER CUTTER NO.	
WT OF STRING	64000 LBS.		TYPE	

DRILLER: F Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		4486	4554		30	35	850	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
4461	9½							

REMARKS

4⁰⁰ 4¹⁵ RIG SERV CHECK B.O.P

4¹⁵ 12⁰⁰ DRILL

MUD RECORD

	5	10 PM	12⁰⁰
TIME			
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 20 DATE Jan 28, 1964

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. SEC. TWP. RGE. W.
WELL NAME: Shell Block Waterton Lake G-52 No.
PROVINCE: Alta
CONTRACTOR: Regent Drilling RIG No. 21
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE: K.S. Graham CONTRACTOR'S TOOL PUSHER: J. Groves

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36	0	746				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7¾	7¾	2¼
REAMING			
CIRCULATING			
TRIPS			4½
DEVIATION SURVEY			¼
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			½
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING	[redacted]		
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
55	STANDS DP	FT.	RUN NO.	25
1	SNGLS. DP	34.20 FT.	SIZE	6¾
	D.C. ID		MFG.	HTC
29	4¾ OD	875.44 FT.	TYPE	RG15
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	3/8
	SUBS OD	FT.	SER. NO	63232
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	18¼
	KELLY DOWN	40 FT.	COND. OF BIT	Pinion
	TOTAL	4333 FT.	REAMER CUTTER NO.	
	WT. OF STRING	63000 LBS.	TYPE	

DRILLER: J. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		4240	4333		30	35	975	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4070	10½							

REMARKS
12 00 12 15 Lay Rig
12 15 6 00 Drill

MUD RECORD

TIME	12 00	3	7
WEIGHT	9	8.5	8.5
VISC	26	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
57	STANDS DP	FT.	RUN NO.	25
1	SNGLS. DP	35.42.70 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
29	OD	873.41 FT.	TYPE	R615
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	3/8
	SUBS OD	FT.	SER. NO.	63232
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	26
	KELLY DOWN	19 FT.	COND. OF BIT	
	TOTAL	4435 FT.	REAMER CUTTER NO.	
	WT OF STRING	64000 LBS.	TYPE	

DRILLER: Mc Coubrey

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		4333	4435		30	35	975	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS
8 00 8 15 RIG SERV CHECK B.O.P
8 15 4 00 DRILL

MUD RECORD

TIME	9	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
58	STANDS DP	FT.	RUN NO	25
	SNGLS. DP	FT.	SIZE	6¾
	D.C ID		MFG.	
29	OD	873.41 FT.	TYPE	R.615
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	3/4
	SUBS OD	FT.	SER NO	63232
	BIT OR C.B.	FT	DEPTH OUT	4461
		FT.	CUMULATIVE HOURS RUN	29¼
	KELLY DOWN	14 FT.	COND. OF BIT	
	TOTAL	4461 FT.	REAMER CUTTER NO.	3444.
	WT OF STRING	64000 LBS.	TYPE	

DRILLER: J. Laplante.

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
9¼		4435	4461		30	35	975	5½	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
4461	9½							

REMARKS
4 00 4 15 Lay Rig Check BOP
4 15 6 30 Drill
6 30 6 45 Survey
6 45 8 15 Pull out
8 15 8 45 Pull out Line Check BOP
8 45 12 Run in D.C drop Bolt in hole Pull out
Run in W/ Junk Sub and Bit

MUD RECORD

TIME	5		
WEIGHT	9.5		
VISC	28		
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 19 DATE Feb 27/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. SEC. TWP. RGE. W.: 6409 11 20 W4 1220 S 1112 W
WELL NAME No.: Shell Black Water Lake 6-20
PROVINCE: Alberta

CONTRACTOR: Regent Drilling RIG No. 21
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE: W.B. Cumbie
CONTRACTOR'S TOOL PUSHER: A. Klufpoth

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	61	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		23¾	17¾
REAMING	5¼	6¾	
CIRCULATING			
TRIPS	2½	2¾	
DEVIATION SURVEY			
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG		¼	
CORING			
WIRE LINE LOGGING			
OTHER	½		
FISHING	¾		
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TONE MI. or TRIPS SINCE LAST CUT
CUMULATIVE TONE MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	24
	SNGLS. DP	FT.	SIZE	6½
	D.C. ID		MFG.	
24	D.C. OD	873.4 FT.	TYPE	WTR
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	96114
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	5¼
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING	100 over LBS.		TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		41					750	5½	65			

DEVIATION RECORD: DEPTH 4070 DEV. 10 DIRECTION

REMARKS
12:00 12:15 Lay Pipe
12:15 2:45 Pull Wet Chk BOP Run in
2:45 Ream 80 ft.

MUD RECORD

TIME	4 AM	8 AM
WEIGHT	8.5	8.5
VISC	28	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
52	STANDS DP	FT.	RUN NO.	24	25
1	SNGLS. DP	3235.17 FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	HT	HT
29	D.C. OD	873.41 FT.	TYPE	WTR	RGIJ
	RMR BODY OD	FT.	NOZ. NO	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	3/8
	SUBS OD	FT.	SER. NO	96114	63232
	BIT OR C.B.	FT.	DEPTH OUT	4117	
		FT.	CUMULATIVE HOURS RUN	5¾	2¾
	KELLY DOWN	40 FT.	COND. OF BIT	3-3-1	
	TOTAL	4148 FT.	REAMER CUTTER NO.		
WT. OF STRING	64000 LBS.		TYPE		

DRILLER: Mc Connery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2¾		4117	4148		30	35	975	5½	60			

DEVIATION RECORD: DEPTH DEV. DIRECTION

REMARKS
8:00 9:30 FINISH REAMING
9:30 8:45 RIG SERV CHECK BOP
8:45 11:30 TRIP CHECK BLIND RAMS
11:30 1:00 REAM
1:00 2:00 DRILL
2:00 2:15 WELD MUDLINE
2:15 4:00 DRILL

MUD RECORD

TIME	8	1	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
54	STANDS DP	FT.	RUN NO	25
1	SNGLS. DP	3356.26 FT.	SIZE	6¾
	D.C ID		MFG.	HT
29	D.C OD	873.4 FT.	TYPE	RGIJ
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	3/8
	SUBS OD	FT.	SER NO	63232
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	10½
	KELLY DOWN	10 FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT OF STRING	64000 LBS.		TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		4148	4240		30	35	975	5½	60			

DEVIATION RECORD: DEPTH 4070 DEV. 10½ DIRECTION

REMARKS
4:00 4:15 RIG SERV CHECK BOP
4:15 12:00 DRILL

MUD RECORD

TIME	5	
WEIGHT	8.5	
VISC	28	
W.L.-C.C.		
FLTR CK.		
PH		
SD. CONT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 18 DATE Feb 27/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 40 TWP. 20 RGE. 12 W. 5 WELL NAME: Shell Block Waterton No. 4-5
PROVINCE: Alta
CONTRACTOR: Bryant Drilling RIG No. 21
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE: K B Cumberbatch CONTRACTOR'S TOOL PUSHER: R. Shaffrik

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

	SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
	9⅝	61	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4¼	7½	4¾
REAMING			1
CIRCULATING			
TRIPS	2¼		2¾
DEVIATION SURVEY	½	¼	
TEST B.O.P	¼	¼	
CUT OFF DRILL LINE			
REPAIR RIG	¾		
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITION			
TOTALS	9	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
50	STANDS DP	FT.	RUN NO.	22
	SNGLS. DP	3080.89 FT.	SIZE	6¾
	D.C. ID		MFG.	
99	D.C. OD	873.41 FT.	TYPE	W7R2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	99328
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	29 FT.	COND. OF BIT	
	TOTAL	3983 FT.	REAMER CUTTER NO.	
	WT. OF STRING	60000 LBS.	TYPE	

DRILLER: J. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¼		3925	3983		90	35	750	5½	66			

DEVIATION RECORD: DEPTH 3960 DEV. 10° DIRECTION

REMARKS
12:00 12:15 Sea Rig
12:15 2:00 Pull Out Check BOP Run in
2:00 2:45 Work on Hydromatic
2:45 3:15 Run in
3:15 6:15 Drill
6:15 6:45 Survey
6:45 8:00 Drill

MUD RECORD

TIME	6 AM	8 AM
WEIGHT	8.5	8.5
VISC	28	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
51	STANDS DP	FT.	RUN NO.	22
1	SNGLS. DP	3122.06 FT.	SIZE	6¾
	D.C. ID		MFG.	Ht
29	D.C. OD	823.41 FT.	TYPE	W7R2
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	99328
	BIT OR C.B.	FT.	DEPTH OUT	4076
		FT.	CUMULATIVE HOURS RUN	11¾
	KELLY DOWN	31 FT.	COND. OF BIT	
	TOTAL	4076 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Mc Connachy

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7½		3983	4076		90	35	750	5½	66			

DEVIATION RECORD: DEPTH DEV. DIRECTION

REMARKS
8:00 8:15 RIG SERV. CHECK B.O.P
8:15 3:45 DRILL
3:45 4:00 SURVEY

MUD RECORD

TIME	9	11	1
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
52	STANDS DP	FT.	RUN NO	23
	SNGLS. DP	3203.65 FT.	SIZE	6¾
	D.C. ID		MFG.	Ht
99	D.C OD	873.41 FT.	TYPE	W7R2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	99334
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	40 FT.	COND. OF BIT	3 1/4
	TOTAL	4117 FT.	REAMER CUTTER NO.	
	WT OF STRING	100 000 LBS.	TYPE	

DRILLER: J. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4½		4076	4117		9	25	750	4½	66			

DEVIATION RECORD: DEPTH 4070 DEV. 10¼ DIRECTION

REMARKS
4:00 6:30 TRIP CHECK RAMS
6:30 7:30 Ream 20' To Bottom
7:30 12:00 DRILL

MUD RECORD

TIME	4PM	6PM
WEIGHT	8.5	8.5
VISC	28	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 17 DATE Feb. 25 1964

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. 16 SEC. 20 TWP. 11 RGE. 22 W. 4

WELL NAME: Bell Black Foothills No. 5-20

PROVINCE: Alberta

CONTRACTOR: Ryan Drilling RIG No. 21

DRILL PIPE STRING NO. SIZE: 4½

TOOL JOINT 4½ OD

TYPE THD. IF

OPERATOR'S REPRESENTATIVE: R B Cumming

CONTRACTOR'S TOOL PUSHER: R Mayfield

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36 J-55	0	746			400 sx	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7½	5½	7
REAMING			
CIRCULATING			
TRIPS	½	2½	½
DEVIATION SURVEY		½	½
TEST B.O.P.	½	½	½
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
44	STANDS DP	FT.	RUN NO.	20
1	SNGLS. DP	24.66.16 FT.	SIZE	6¾
24	D.C. ID / OD	873.41 FT.	MFG.	
	RMR BODY OD	FT.	TYPE	W7
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	34305
		FT.	DEPTH OUT	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	7¼
	TOTAL	FT.	COND. OF BIT	
WT. OF STRING	95 over LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¼		365	3770		90	35	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
365	11¾							

REMARKS

12⁰⁰	12¹⁵	Lga Rig
12¹⁵	12⁴⁵	Rig Lga
12⁴⁵	8⁰⁰	Drill

MUD RECORD

TIME	11 AM	4 AM	6 AM
WEIGHT	9.5	9.5	9.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
47	STANDS DP	FT.	RUN NO.	20	21
1	SNGLS. DP	29.28.06 FT.	SIZE	6¾	6¾
29	D.C. ID / OD	873.41 FT.	MFG.	HT	HT
	RMR BODY OD	FT.	TYPE	W7	W7R2
	STB BODY OD	FT.	NOZ. NO	3	3
	SUBS OD	FT.	SIZE	9/16	9/16
	BIT OR C.B.	FT.	SER. NO.	34315	42521
		FT.	DEPTH OUT	3784	
	KELLY DOWN	32 FT.	CUMULATIVE HOURS RUN	8¾	3¾
	TOTAL	3933 FT.	COND. OF BIT	3	2-1
WT. OF STRING	58 over LBS.		REAMER CUTTER NO.		
			TYPE		

DRILLER: Mc Conway

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¼		3770	3833		90	35	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3775	12¼							

REMARKS

8⁰⁰	8¹⁵	RIG SERV CHECK BOP
8¹⁵	9⁴⁵	DRILL
9⁴⁵	10⁰⁰	SURVEY
10⁰⁰	12¹⁵	TRIP CHECK BLIND RAMS
12¹⁵	4⁰⁰	DRILL

MUD RECORD

TIME	8	1	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
46	STANDS DP	FT.	RUN NO.	21
1	SNGLS. DP	30.19.02 FT.	SIZE	6¾
29	D.C. ID / OD	873.41 FT.	MFG.	HT
	RMR BODY OD	FT.	TYPE	W7R2
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	SIZE	9/16
	BIT OR C.B.	FT.	SER NO	42521
		FT.	DEPTH OUT	3925
	KELLY DOWN	34 FT.	CUMULATIVE HOURS RUN	
	TOTAL	3925 FT.	COND. OF BIT	3 2 1
WT OF STRING	60 over LBS.		REAMER CUTTER NO.	
			TYPE	W7R2

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		3833	3925		90	35	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
3860	12							

REMARKS

4⁰⁰	4¹⁵	RIG SERV CHECK BOP
4¹⁵	6⁴⁵	DRILL
6⁴⁵	7¹⁵	SURVEY
7¹⁵	11⁴⁵	DRILL
11⁴⁵	12⁰⁰	Fill out

MUD RECORD

TIME	5	6 PM	1 PM
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 16 DATE Feb 27/64

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: Regent Drilling RIG No. 21
OPERATOR'S REPRESENTATIVE: H B Cameron CONTRACTOR'S TOOL PUSHER: R. Moffatt

LOCATION LSD. 6 SEC. 20 TWP. 42 RGE. 05 W. 5 "2" W
DRILL PIPE STRING NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. 11"
WELL NAME Shell Bluesky No. C-52 PROVINCE Alberta

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Bowsar	D.B.D.	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	47.5#	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4	7½	4½
REAMING			
CIRCULATING			
TRIPS	3		2
DEVIATION SURVEY	½	½	3
TEST B.O.P	½	½	
CUT OFF DRILL LINE			
REPAIR RIG			1
CORING			
WIRE LINE LOGGING			
OTHER	½		
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	18
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	
29	D.C. OD	873.41 FT.	TYPE	WDR2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO	99331
	BIT OR C.B.	FT.	DEPTH OUT	3482
		FT.	CUMULATIVE HOURS RUN	10¾
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4		3425	3482		90	35	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12[24]	12[12]	Sun Rig
12[12]	4[15]	Drill
4[15]	4[30]	SURVEY MIS RUN
4[30]	5[45]	PULL OUT
5[45]	6[15]	CLEAN TANK SHOCK B.O.P
6[15]	8[00]	RUNIN CHECK COLLARS FOR STUCK SURVEY INDC

MUD RECORD

TIME	12[00]	2	4
WEIGHT	46.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
45	STANDS DP	FT.	RUN NO.	19
1	SNGLS. DP	2685.31 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
29	D.C. OD	873.41 FT.	TYPE	WDR2
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	41523
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	7½
	KELLY DOWN	40 FT.	COND. OF BIT	
	TOTAL	3598 FT.	REAMER CUTTER NO.	
	WT. OF STRING	54000 LBS.	TYPE	

DRILLER: McConaghy

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7½		3482	3598		90	30	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3860	11°							

REMARKS

400	430	RUN SURVEY CHECK B.O.P RIG SERV
430	400	DRILL

MUD RECORD

TIME	9	12	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
44	STANDS DP	FT.	RUN NO	19
1	SNGLS. DP	2746 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
29	D.C. OD	873.41 FT.	TYPE	WDR2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	41523
	BIT OR C.B.	FT	DEPTH OUT	3659
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	40 FT.	COND. OF BIT	
	TOTAL	3659 FT.	REAMER CUTTER NO.	
	WT OF STRING	58000 LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		3598	3659		90	30	750	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
3585	11½							

REMARKS

400	430	RIG SERV CHECK B.O.P RUN SURVEY
430	845	DRILL
845	900	Survey
900	1100	Pull out reason for D.C
1100	1200	Repack Swivel

MUD RECORD

TIME	5		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 15 DATE Feb. 23/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 10 TWP. 9 RGE. 22 W. 4
WELL NAME: Shell Black Water Lake No. 6
PROVINCE: Alberta
CONTRACTOR: Regent Drilling RIG No. 21
DRILL PIPE STR'NG NO. 2 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE: W B Cunningham
CONTRACTOR'S TOOL PUSHER: R. Heffick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36.0	0	744				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5-½	5½	6¾
REAMING			
CIRCULATING			
TRIPS	2½	1½	3¼
DEVIATION SURVEY	¼	¼	
TEST B.O.P		¼	¼
CUT OFF DRILL LINE		½	¼
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING	¾		
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS -STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
38	STANDS DP	FT.	RUN NO.	17
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	
28	D.C. OD	845.16 FT.	TYPE	W7R2
	RMR BODY OD	FT.	NOZ. NO.	9/16
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	41529
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	12 FT.	COND. OF BIT	
	TOTAL	3232 FT.	REAMER CUTTER NO.	
	WT. OF STRING	52,000 LBS.	TYPE	

DRILLER: F. Laplante

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¼		3167	3232		90	35	675	5½	64			

DEVIATION RECORD: DEPTH 3167 DEV. ¾° DIRECTION

REMARKS

12⁰⁰ 12¹⁵ Survey 3167 ¾° Sm Rig
12¹⁵ 2⁴⁵ Pull out Check B.O.P Run in
2⁴⁵ Drilling

MUD RECORD

TIME	7 AM	5 PM	6 AM
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
39	STANDS DP	FT.	RUN NO.	17
1	SNGLS. DP	24.37.86 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
28	D.C. OD	845.16 FT.	TYPE	W7R2
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	41522
	BIT OR C.B.	FT.	DEPTH OUT	3313
		FT.	CUMULATIVE HOURS RUN	10¾
	KELLY DOWN	30 FT.	COND. OF BIT	3-2-1
	TOTAL	3313 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Mc Cranney

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		3232	3313		90	35	675	5½	64			

DEVIATION RECORD: DEPTH 3310 DEV. 9¾ DIRECTION

REMARKS

8⁰⁰ 8¹⁵ RIG SERV CHECK B.O.P
8¹⁵ 1.45 DRILL
1.45 2⁰⁰ SURVEY
2⁰⁰ 3³⁰ PULL OUT CHECK RAMS RUN IN COLLARS PICK ONE OFF RACK
3³⁰ 4⁰⁰ CUT + SLIP DRILLING LINE

MUD RECORD

TIME	9	11	1
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
41	STANDS DP	FT.	RUN NO	18
	SNGLS. DP	2531.25 FT.	SIZE	6¾
	D.C ID		MFG.	H+
29	D.C OD	873.41 FT.	TYPE	M7R2
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	41522
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	12 FT.	COND. OF BIT	
	TOTAL	3423 FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER: F. Laplante.

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		3313			90	30	675	5½	64			

DEVIATION RECORD: DEPTH 3310 DEV. 9¾ DIRECTION

REMARKS

4⁰⁰ 4¹⁵ FINISH CUT LINE
4¹⁵ 5⁰⁰ RUN IN
5⁰⁰ 5¹⁵ RIG SERV CHECK B.O.P
5¹⁵ 12⁰⁰ DRILL

MUD RECORD

TIME	6	6 PM	12 Mn
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 14 DATE Feb 22/64

OPERATOR: Shell Oil Company of Canada, Limited
CONTRACTOR: Regent Drilling RIG No. 21
OPERATOR'S REPRESENTATIVE: W.S. Cambon
CONTRACTOR'S TOOL PUSHER: R. MacPherick

LOCATION LSD. 14 SEC. 9 TWP. 20 N RGE. 12 W. 5th
WELL NAME: Shell Block 9 Waterton Lake No. 4-52
PROVINCE: Alberta

DRILL PIPE STRING NO. 4 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. IF

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300A	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
9⅝	36 J55	0	744		

CEMENT USED: H W T
OTHER:

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	3¾	5¾	5¾
REAMING	½		
CIRCULATING			
TRIPS	2½	1¾	2
DEVIATION SURVEY	¼	¼	
TEST B.O.P		¼	¼
CUT OFF DRILL LINE			
REPAIR RIG	¾		
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	4	9	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
33	STANDS DP	FT.	RUN NO.	14	15
1	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.		HT
28	D.C. 4¾ OD	845.16 FT.	TYPE	WTR2	WTR2
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	9/16
	SUBS OD	FT.	SER. NO	[illegible]70340	
	BIT OR C.B.	FT.	DEPTH OUT	2954	
		FT.	CUMULATIVE HOURS RUN	5½	1½
	KELLY DOWN	27 FT.	COND. OF BIT	4 3 0	
	TOTAL	2970 FT.	REAMER CUTTER NO.	2 4 5	
WT. OF STRING	52 000 LBS.		TYPE		

DRILLER: F. Laplante

MRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		[illegible] 2910	2970		90	35	625	5½	65			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

0	12[illegible]	Sun Rig 12[illegible]
12[illegible]	2 30	Drilling
2 30	2 45	Survey
2 45	5 12	Pull out clean tank Run in Lay down 1 each DC
5 12	5 30	Work on air
5 30	6[illegible]	Ream to bottom
6[illegible]	6 30	Work on pump
6 30	[illegible]	Drill

MUD RECORD

TIME	12[illegible]	[illegible]	
WEIGHT	8.5	8.5	
VISC	28	28	
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
35	STANDS DP	FT.	RUN NO.	15
1	SNGLS. DP	2199.67 FT.	SIZE	6¾
	D.C. ID		MFG.	HT
28	D.C. OD	845.16 FT.	TYPE	WTR2
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER. NO.	42291
	BIT OR C.B.	FT.	DEPTH OUT	3074
		FT.	CUMULATIVE HOURS RUN	7¼
	KELLY DOWN	40 FT.	COND. OF BIT	2-2-1
	TOTAL	3074 FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER: McConnery

MRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		2970	3074		90	35	625	5½	65			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3070	4¾							

REMARKS

8[illegible]	8 15	RIG SERV CHECK B.O.P
8 15	2 00	DRILL
2 00	2 15	SURVEY
2 15	4 00	PULL OUT CHECK ALL D.C

MUD RECORD

TIME	9	11	1
WEIGHT	8.5	8.5	8.5
VISC	24	28	25
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
37	STANDS DP	FT.	RUN NO	16
	SNGLS. DP	2282.41 FT.	SIZE	6¾
	D.C ID		MFG.	SEC
	D.C OD	845.16 FT.	TYPE	H7
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	570509
	BIT OR C.B.	FT.	DEPTH OUT	3167
		FT.	CUMULATIVE HOURS RUN	5¾
	KELLY DOWN	40 FT.	COND. OF BIT	2-2-1
	TOTAL	3167 FT.	REAMER CUTTER NO.	
WT OF STRING	52 000	LBS.	TYPE	

DRILLER: F. Laplante

MRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		3074	3167		90	35	675	5½	64			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
3070	4¾							

REMARKS

4 00	5 00	FINISH CHECK D.C
5 00	5 15	RIG SERV CHECK B.O.P
5 15	6 15	RUN IN
6 15	12[illegible]	DRILL

MUD RECORD

TIME	7 PM	10 PM	12
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 12 DATE FEB 21/65

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 40 TWP. 9' 20" W RGE. 122° 12' W. W.
WELL NAME: SHELL BLACKWATER LAKE No. G-2
PROVINCE: N.W.T.
CONTRACTOR: REGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. 3 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. I.F
OPERATOR'S REPRESENTATIVE: R B Cumbus
CONTRACTOR'S TOOL PUSHER: D. Shaffrick

PUMPS NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	J	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5½	7¼	4¼
REAMING			1
CIRCULATING			
TRIPS	1¾	¼	2¼
DEVIATION SURVEY	½	¼	¼
TEST B.O.P	¼	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	¼		
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	9	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
23	STANDS DP	1759.95 FT.	RUN NO.	12
	SNGLS. DP	FT.	SIZE	6¾
29	D.C. 2¼ ID 4¾ OD	875.48 FT.	MFG.	SEC
	RMR BODY OD	FT.	TYPE	H7
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER. NO	577936
		FT.	DEPTH OUT	2688
	KELLY DOWN	23. FT.	CUMULATIVE HOURS RUN	10½
	TOTAL	2688.77 FT.	COND. OF BIT	331
WT. OF STRING		50 000 LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: G McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		2603	2688		120	35	600	5½	65			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2614	4½		2688					

REMARKS

12 00	12 45	DRILL
12 45	1 15	SER. RIG SURVEY
1 15	5 45	DRILL
5 45	6 00	SURVEY
6 00	8 00	TRIP CHECK B.O.P's.

MUD RECORD

TIME	600		
WEIGHT	8.-		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
31	STANDS DP	FT.	RUN NO.	13	
1	SNGLS. DP	1942.42 FT.	SIZE	6¾	
19	D.C. ID OD	875.94 FT.	MFG.	~~SEC~~	HT
	RMR BODY OD	FT.	TYPE	~~H7~~ HT	W7R2
	STB BODY OD	FT.	NOZ. NO.	~~3~~	3
	SUBS OD	FT.	NOZ. SIZE	~~9/16~~	9/16
	BIT OR C.B.	FT.	SER. NO	~~577936~~	H2299
		FT.	DEPTH OUT		
	KELLY DOWN	18 FT.	CUMULATIVE HOURS RUN	7¼	
	TOTAL	FT.	COND. OF BIT		
WT. OF STRING		2836 LBS.	REAMER CUTTER NO.		
			TYPE		

DRILLER: Mc Connery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¼		2684	2836		120	35	600	5½	65			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2685	7							

REMARKS

400	815	FINISH RUN IN
815	830	RIG SERV. CHECK B.O.P
830	130	DRILL
130	145	SURVEY
145	400	DRILL

MUD RECORD

TIME	9	11	1
WEIGHT	~~8.5~~	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
	STANDS DP	FT.	RUN NO	13	14
	SNGLS. DP	FT.	SIZE	6¾	6¾
29	D.C ID OD	875.94 FT.	MFG.	H+ ~~SEC~~	H+
1	RMR BODY OD	3.05 FT.	TYPE	W7R2 ~~H7~~	W7R2
	STB BODY OD	FT.	NOZ. NO.	3	3
	SUBS OD	FT.	NOZ. SIZE	9/16	9/16
	BIT OR C.B.	FT.	SER NO	H2299	70340
		FT.	DEPTH OUT	2849	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	8¼	3¼
	TOTAL	2910 FT.	COND. OF BIT	3-3-1	
WT OF STRING		LBS.	REAMER CUTTER NO.		
			TYPE		

DRILLER: Lapointe

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¼		2836	2910		90	35	600	5½	65			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
	2849	7¾							

REMARKS

400	415	RIG SERV
415	515	DRILL
515	530	SURVEY
530	745	TRIP PICK UP REAMER CHECK RAMS
745	945	REAM 2800-2849 UNDER GAUGE HOLE
945	1200	DRILL

MUD RECORD

TIME	5	9	11
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.-38 **DAILY DRILLING REPORT** REPORT NO. 12 DATE Feb 20 1964

OPERATOR	LOCATION LSD. SEC. TWP. RGE. W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	64° 9' 20" N 122° 5' 12" W	SHELL BLACKWATER LAKE	G-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT	CASING & LINER RECORD	SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
REGENT DRILLING	21	3½	4½ OD		9⅝	36 J-55	0	240				
			TYPE THD. I F									

OPERATOR'S REPRESENTATIVE	CONTRACTOR'S TOOL PUSHER
W B Cumber	R. Muffick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D700	14
2.			
3.			

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	4¾	13½	5¾
REAMING			
CIRCULATING			
TRIPS	2½		2
DEVIATION SURVEY	½		½
TEST B.O.P		VU	
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER	½		½
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
23	STANDS DP	1449.62 FT.	RUN NO.	10	11
1	SNGLS. DP	FT.	SIZE	6¾	6¾
29	D.C. 2¼ ID 4¾ OD	875.94 FT.	MFG.	REED	H.T
	RMR BODY OD	FT.	TYPE	YM	OWC
1	STB BODY OD	8.35 FT.	NOZ. NO.	3	3
	SUBS OD	FT.	NOZ. SIZE	9/16	5/16
	BIT OR C.B.	FT.	SER. NO	808166	30373
		FT.	DEPTH OUT	2334	
	KELLY DOWN	27 FT.	CUMULATIVE HOURS RUN	10½	1¼
	TOTAL	2360.71 FT.	COND. OF BIT	321	
WT. OF STRING	50000 LBS.		REAMER CUTTER NO.		
			TYPE		

DRILLER Gmc Bride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¾		2270	2360		120	35	575	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2230	17							

REMARKS

12⁰⁰	12³⁰	DRILL
12³⁰	12⁴⁵	SERV RIG
12⁴⁵	2¹⁵	DRILL
2¹⁵	2⁴⁵	SURVEY
2⁴⁵	4¹⁵	DRILL
4¹⁵	6⁴⁵	TRIP CHECK BOPs
6⁴⁵	8⁰⁰	DRILL

MUD RECORD

TIME	6⁰⁰		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
25	STANDS DP	FT.	RUN NO.	11
1	SNGLS. DP	15728 FT.	SIZE	6¾
29	D.C. ID OD	875.94 FT.	MFG.	HT
	RMR BODY OD	FT.	TYPE	DWC
	STB BODY OD	FT.	NOZ. NO	3
	SUBS OD	FT.	NOZ. SIZE	5/8
	BIT OR C.B.	FT.	SER. NO.	383373
		FT.	DEPTH OUT	2483
	KELLY DOWN	26 FT.	CUMULATIVE HOURS RUN	9
	TOTAL	2483 FT.	COND. OF BIT	2-2-1
WT. OF STRING	50 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER Mc Donnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		2360	2483		120	35	575	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰	8¹⁵	RIG SERV CHECK BOP
8¹⁵	4⁰⁰	DRILL

MUD RECORD

TIME	9	11	2
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
27	STANDS DP	1697.29 FT.	RUN NO	12
1	SNGLS. DP	FT.	SIZE	6¾
29	D.C ID OD	875.94 FT.	MFG.	SEC
	RMR BODY OD	FT.	TYPE	H7
	STB BODY OD	FT.	NOZ. NO.	3
	SUBS OD	FT.	NOZ. SIZE	9/16
	BIT OR C.B.	FT.	SER NO	577936
		FT.	DEPTH OUT	
	KELLY DOWN	30.00 FT.	CUMULATIVE HOURS RUN	5¼
	TOTAL	2603 FT.	COND. OF BIT	
WT OF STRING	50000 LBS.		REAMER CUTTER NO.	
			TYPE	

DRILLER Gmc Bride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¼		2483	2603		120	35	575	5½	66			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
	2385	12							

REMARKS

4⁰⁰	4¹⁵	RIG SERV CHECK BOP
4¹⁵	4³⁰	SURVEY
4³⁰	6³⁰	TRIP LAY DOWN STABILIZER CHECK BLIND RAMS
6³⁰	9⁴⁵	DRILL
9⁴⁵	10⁰⁰	SURVEY
10⁰⁰	1⁰⁰	DRILL

MUD RECORD

TIME	16⁰⁰		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

A00

C.P.-38 **DAILY DRILLING REPORT** REPORT NO. 11 DATE FEB 19/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 6 SEC. 40 TWP. 9'26" RGE. 12 W. 5'-12"W4
WELL NAME: SHELL BLACKWATER LAKE No. G-52
PROVINCE: N.W.T.

CONTRACTOR: RIGENT DRILLING RIG No. 21
DRILL PIPE STRING NO. 20 SIZE 3½ TOOL JOINT 4½ OD TYPE THD. I.F

OPERATOR'S REPRESENTATIVE: B Cumming
CONTRACTOR'S TOOL PUSHER: A. Kleffeik

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Fasco	D-300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
7"	20 J-55	0	240				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	7½	4¾	0
REAMING			
CIRCULATING			
TRIPS		2	¼
DEVIATION SURVEY		½	½
TEST B.O.P		¼	
CUT OFF DRILL LINE		½	
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER CIRC & C	¼		¼
WASHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
19	STANDS DP	1171.11 FT.	RUN NO.	9
	SNGLS. DP	FT.	SIZE	6¾
	D.C. 2¼ ID		MFG.	SEC.
29	4¾ OD	875.24 FT.	TYPE	M4N
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	16.35 FT.	SIZE	5/8
	SUBS OD	FT.	SER. NO	719525
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	8
	KELLY DOWN	21 FT.	COND. OF BIT	
	TOTAL	2084 FT.	REAMER CUTTER NO.	
	WT. OF STRING	49000 LBS.	TYPE	

DRILLER: G McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¾		2041	2084	43'	160	4	525	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁰⁰ 5¹⁵ DRILL
5¹⁵ 5³⁰ SERVICE
5³⁰ 8⁰⁰ DRILL

MUD RECORD

TIME	600
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
W.F.C.			

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
19	STANDS DP	FT.	RUN NO.	9
1	SNGLS. DP	1202.63 FT.	SIZE	6¾
	D.C. ID		MFG.	SEC
29	OD	875.94 FT.	TYPE	M4N
	RMR BODY OD	16.35 FT.	NOZ. NO	3
	STB BODY OD	FT.	SIZE	5/8
	SUBS OD	FT.	SER. NO.	719525
	BIT OR C.B.	FT.	DEPTH OUT	2108
		FT.	CUMULATIVE HOURS RUN	12¾
	KELLY DOWN	14 FT.	COND. OF SIT	2-2-1
	TOTAL	2108 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4¾		2084	2108	24'	160	6	575	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2025	14½							

REMARKS

8⁰⁰ 8¹⁵ RIG SERV CHECK B.O.P
8¹⁵ 11³⁰ DRILL
11³⁰ 12⁰⁰ SURVEY
12⁰⁰ 1³⁰ DRILL
1³⁰ 3¹⁵ PULL OUT CHECK RAMS RUN IN D.C
3¹⁵ 3⁴⁵ SLIP LINE
3⁴⁵ 4⁰⁰ RUN IN

LAY DOWN ~~STABILIZER~~ REAMER

MUD RECORD

TIME	9	11	1
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
W.F.C.			

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
22	STANDS DP	1356.57 FT.	RUN NO	10
	SNGLS. DP	FT.	SIZE	6¾
	D.C. ID		MFG.	REED
29	OD	875.90 FT.	TYPE	YM
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	9.35 FT.	SIZE	9/16
	SUBS OD	FT.	SER NO	408166
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	7
	KELLY DOWN	30 FT.	COND. OF BIT	
	TOTAL	2270 FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		2108	2270	162'	120	32	575	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
2110	16	~~3130~~	2170	17				

REMARKS

4⁰⁰ 4¹⁵ FINISH RUN IN
4¹⁵ 4³⁰ RIG SERV
4³⁰ 7⁴⁵ DRILL
7⁴⁵ 8⁰⁰ SURVEY
8⁰⁰ 10⁴⁵ DRILL
10⁴⁵ 11⁰⁰ SURVEY
11⁰⁰ 12⁰⁰ DRILL

MUD RECORD

TIME	6
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
W.F.C.			

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 10 DATE Feb 18/64

OPERATOR	LOCATION LSD. SEC. TWP. RGE. W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	6-11-42-20-4 / 1320 FNL 660 FWL	SHELL ET AL KNIGHT LAKE	6-11	ALTA.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT	TYPE THD.
RICHMOND DRILLING	21	5	4½ OD	LF

OPERATOR'S REPRESENTATIVE: H.S. Knudsen

CONTRACTOR'S TOOL PUSHER: R. Mulford

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	EMSCO	D300	16"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	J-55	0	1210				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5½	7¼	4½
REAMING			
CIRCULATING			
TRIPS	2½		2½
DEVIATION SURVEY	½	½	½
TEST B.O.P		¼	
CUT OFF DRILL LINE			
REPAIR RIG			½
CORING			
WIRE LINE LOGGING			
OTHER			¼
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
17	STANDS DP	1049.16 FT.	RUN NO.	7	8
	SNGLS. DP	FT.	SIZE	6¾	6¾
29	D.C. ID / OD	875.78 FT.	MFG.	REED	HT
			TYPE	Y51	DWV
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	7/32	7/32
	SUBS OD	16.3 FT.	SER. NO	A13235	71654
	BIT OR C.B.	FT.	DEPTH OUT	1949	
		FT.	CUMULATIVE HOURS RUN	15½	2¾
	KELLY DOWN	30 FT.	COND. OF BIT	121	
	TOTAL	1970.4 FT.	REAMER CUTTER NO.		
	WT. OF STRING	48000 LBS.	TYPE		

DRILLER: Jim Baird

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		1921	1970		140	3	575	6½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1907	12½°							

REMARKS

1200 - 345 Drill
2" - 200 Drop Survey
200' - TRIP CHECK BOP
8" - 800 DRILL

MUD RECORD

TIME	600
WEIGHT	8.5
VISC	28
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
18	STANDS DP	1109.14 FT.	RUN NO.	8	
	SNGLS. DP	FT.	SIZE	6¾	
29	D.C. ID / OD	875.94 FT.	MFG.	HT	
			TYPE	DWV	
	RMR BODY OD	16.35 FT.	NOZ. NO	3	
	STB BODY OD	FT.	NOZ. SIZE	5/8	
	SUBS OD	FT.	SER. NO.	71654	
	BIT OR C.B.	FT.	DEPTH OUT		
		FT.	CUMULATIVE HOURS RUN		
	KELLY DOWN	16 FT.	COND. OF BIT		
	TOTAL	2017 FT.	REAMER CUTTER NO.		
	WT. OF STRING	LBS.	TYPE		

DRILLER: McCaroway

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7¼		1970	2017		140	8	575	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1933	13		1962	13¾				

REMARKS

600 - 815 RIG SERV CHECK BOP
815 - 915 DRILL
915 - 930 SURVEY
930 - 230 DRILL
230 - 245 SURVEY
245 - 400 DRILL

MUD RECORD

TIME	9	11	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
19	STANDS DP	1109.14 FT.	RUN NO	8	9
	SNGLS. DP	FT.	SIZE	6¾	6¾
29	D.C. ID / OD	875.94 FT.	MFG.	HT	SEC
			TYPE	DWV	MAH
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	16.35 FT.	NOZ. SIZE	5/8	7/32
	SUBS OD	FT.	SER NO	71654	717537
	BIT OR C.B.	FT	DEPTH OUT	2040	
		FT.	CUMULATIVE HOURS RUN	14¼	¼
	KELLY DOWN	40.50 FT.	COND. OF BIT	221	
	TOTAL	2041.99 FT.	REAMER CUTTER NO.		
	WT OF STRING	LBS.	TYPE		

DRILLER: McCaroway / MacBaird

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4½		2017	2041		160	9	575	5½	66			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
1992	14							

REMARKS

400 - 415 RIG SERV CHECK BOP
415 - 715 DRILL
715 - 745 WK ON PUMP
745 - 900 DRILL
900 - 915 SURVEY
915 - 1145 TRIP CHECK BOP CIRCULATE & COND ON SURVEY
1145 - 12° DRILL

MUD RECORD

TIME	800		
WEIGHT	8.5		
VISC	25		
W.L.-C.C.		14	
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 9 DATE FEB 17/64

OPERATOR	LOCATION LSD.	SEC.	TWP.	RGE.	W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	64°9'30"N 122°		22'		W	SHELL BLACKWATER LAKE	G-2	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO.	SIZE	TOOL JOINT	OD
RIGHT DRILLING	21	2	3½	TYPE THD.	I.F.

OPERATOR'S REPRESENTATIVE: W.S. Cameron

CONTRACTOR'S TOOL PUSHER: B. Thaffeus

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36 J-55	0	244				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	6½	5¾	7½
REAMING			
CIRCULATING			
TRIPS		1¾	
DEVIATION SURVEY	1½	½	½
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS W/O D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
13	STANDS DP	833.47 FT.	RUN NO.	6
1	SNGLS. DP	FT.	SIZE	6¾
29	D.C. ID 2¼ OD 4½	875.94 FT.	MFG.	HT
			TYPE	OWV
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	5/8
	SUBS STAB OD	16.35 FT.	SER. NO	9/1643
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	14½
	KELLY DOWN	33 FT.	COND. OF BIT	
	TOTAL	1758.94 FT.	REAMER CUTTER NO.	
	WT. OF STRING	48000 LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6½		1689	1758		140	5	550	5½	67			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1653	10°		1689	10°				

REMARKS

12:00 - 1:30 DRILL
1.30 - 2:00 SURVEY
2:00 - 5:00 DRILL
5:00 - 6:00 TWO SURVEYS (OFF MAIN RUN)
6:00 - 5:00 DRILL

MUD RECORD

TIME	12:00	4:00	6:00
WEIGHT	8.6	8.5	8.5
VISC	25	25	25
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
12	STANDS DP	FT.	RUN NO.	6	7
1	SNGLS. DP	495.35 FT.	SIZE	6¾	6¾
29	D.C. ID OD	875.94 FT.	MFG.	HT	REED
			TYPE	OWV	YSI
	RMR BODY OD	FT.	NOZ. NO	3	3
	STB BODY OD	16.35 FT.	NOZ. SIZE	5/8	9/16
	SUBS OD	FT.	SER. NO.	9/1643	E13235
	BIT OR C.B.	FT.	DEPTH OUT	1766	
		FT.	CUMULATIVE HOURS RUN	17¾	5¼
	KELLY DOWN	20 FT.	COND. OF BIT	2-2-I	1-5
	TOTAL	1807 FT.	REAMER CUTTER NO.		
	WT. OF STRING	48— LBS.	TYPE		

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		1758	1807		140	10	550	5½	67			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1720	10½		1750	11				

REMARKS

8:00 - 8:30 DRILL
8:30 - 8:45 RIG SERV. CHECK B.O.P. - DROP SURVEY
8:45 - 10:30 TRIP CHECK BLIND RAMS
10:30 - 2:00 DRILL
2:00 - 2:15 SURVEY
2:15 - 4:00 DRILL

MUD RECORD

TIME	11	1	3
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
16	STANDS DP	1017.58 FT.	RUN NO	7
1	SNGLS. DP	FT.	SIZE	6¾
29	D.C ID OD	875.94 FT.	MFG.	REED
			TYPE	YSI
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	16.35 FT.	NOZ. SIZE	9/16
	SUBS OD	FT.	SER NO	E13235
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	12¾
	KELLY DOWN	12 FT.	COND. OF BIT	
	TOTAL	1921.83 FT.	REAMER CUTTER NO.	
	WT OF STRING	48000 LBS.	TYPE	

DRILLER: McConnery / J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7½		1807	1921		140	6	550	5½	67			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
1750	11½		1842	12				

REMARKS

4:00 - 6:00 DRILL
6:00 - 6:15 SURVEY SHOT RG
6:15 - 10:00 DRILL
10:00 - 10:15 SURVEY
10:15 - 12:00 DRILL

MUD RECORD

TIME	18		
WEIGHT	8.5		
VISC	28		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.-38 **DAILY DRILLING REPORT** REPORT NO. 8 DATE FEB. 16/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. SEC. TWP. RGE. W.: 64° 9' 20" N 122° 5' 22" W.
WELL NAME: SHELL BLACKWATER LAKE G-52
No.: G-52
PROVINCE: N.W.T.

CONTRACTOR: REGENT DRILLING CO. RIG No.: 21
DRILL PIPE STRING NO. SIZE: 2 3½
TOOL JOINT: 4½ OD
TYPE THD.: L.F.
OPERATOR'S REPRESENTATIVE: K.B. [illegible]
CONTRACTOR'S TOOL PUSHER: R. [illegible]

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 300	14"
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	J-55	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	6¾	5½	7
REAMING			
CIRCULATING			
TRIPS		1¾	
DEVIATION SURVEY	1	¼	1
TEST B.O.P.	¼	¼	
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	9	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P.:
HRS W/O D.P.:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
9	STANDS DP	855.70 FT.	RUN NO.	1
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. 2¼ ID		MFG.	HT
29	4¾ OD	875.94 FT.	TYPE	OWV
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	5/16
	SUBS OD	16.74 FT.	SER. NO	91656
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	9¼
	KELLY DOWN	22 FT.	COND. OF BIT	
	TOTAL	1500 FT.	REAMER CUTTER NO.	
	WT. OF STRING	43 M LBS.	TYPE	

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		1419	1500		140	10	900	6¾	48			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	1379	¾°		1408	¾°		1438	¾°	

REMARKS

1200	1215	SERV. R.C.
1215	1230	SURVEY
1230	400	DRILL
400	430	SURVEY
430	615	DRILL
615	630	SURVEY CIRC TANK
630	800	DRILL

MUD RECORD

TIME	1200	200	600
WEIGHT	8.5	8.5	8.5
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
11	STANDS DP	677.75 FT.	RUN NO.	5	6
	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	HT	HT
29	OD	875.94 FT.	TYPE	OWV	OWV
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	5/16	5/16
	SUBS OD	16.35 FT.	SER. NO.	91656	91643
	BIT OR C.B.	FT.	DEPTH OUT	587	
		FT.	CUMULATIVE HOURS RUN	13¾	
	KELLY DOWN	35 FT.	COND. OF BIT	2-2-1	
	TOTAL	1605 FT.	REAMER CUTTER NO.		
	WT. OF STRING	LBS.	TYPE		

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		1500	1605		140	10	800	6¾	48			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	1500	¾°		1530	¾°				

REMARKS

800	815	RIG SERV. + B.O.P.
815	1045	DRILL
1045	1100	SURVEY
1100	100	DRILL
100	115	SURVEY
115	300	TRIP CHECK BLIND RAMS
300	400	DRILL

MUD RECORD

TIME	9	11	1
WEIGHT	8.5	8.5	8.6
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
12	STANDS DP	771.75 FT.	RUN NO	6
1	SNGLS. DP	FT.	SIZE	6¾
	D.C. 2 7/16 ID		MFG.	HT
29	4¾ OD	875.94 FT.	TYPE	OWV
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	5/8
	SUBS STAB. OD	16.74 FT.	SER NO	91643
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	8
	KELLY DOWN	25 FT.	COND. OF BIT	
	TOTAL	1689 FT.	REAMER CUTTER NO.	
	WT OF STRING	47 M LBS.	TYPE	

DRILLER: McConnery / J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		1605	1689		140	15	550	6½	67			

DEVIATION RECORD:	DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
	1554	¾°		1585	¾°		1627	10°	

REMARKS

400	445	DRILL
445	500	SURVEY + RIG SERV
500	630	DRILL
630	645	SURVEY
645	1015	DRILL
1015	1045	SURVEY
1045	1200	DRILL

MUD RECORD

TIME	5	800	
WEIGHT	8.6	8.6	
VISC	28	28	
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 7 DATE Feb 15-64

OPERATOR	LOCATION LSD.	SEC.	TWP.	RGE.	W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	(11 of 01)	20	N	12	21	Pincher Cr.	C-57	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT	TYPE THD.
Poole Well	21	4½	4½ OD	11

OPERATOR'S REPRESENTATIVE	CONTRACTOR'S TOOL PUSHER
R.S. Cumpson	D. Schaffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36 J55	0	740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5¼	7	5½
REAMING			
CIRCULATING			
TRIPS	3¾		2
DEVIATION SURVEY	¼	¾	¼
TEST B.O.P.	½	¼	¼
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER		¼	
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
6	STANDS DP	FT.	RUN NO.	3	4
1	SNGLS. DP	398.92 FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	H.T.	H.T.
29	D.C. OD 4¾	875.96 FT.	TYPE	OWV	OWV
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	9/16	out
	SUBS OD	FT.	SER. NO	9116-2	14628
	BIT OR C.B.	FT.	DEPTH OUT	1272	
		FT.	CUMULATIVE HOURS RUN	10	4½
	KELLY DOWN	34 FT.	COND. OF BIT		
	TOTAL	1308.94 FT.	REAMER CUTTER NO.		
WT. OF STRING		117 LBS.	TYPE		

DRILLER: Jim Kilbourn

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		1267	1308		160	15	800	6¾	58			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1272	7½							

REMARKS

12⁰⁰	1²⁰	Drill
1²⁰	1³⁰	Dev. survey Lewis Rig
1³⁰	3³⁰	Trip pick up Reamer
3³⁰	8⁰⁰	Drill

MUD RECORD

TIME	1⁰⁰	3⁰⁰	5⁰⁰
WEIGHT	8.3	8.4	8.5
VISC	27	27	27
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
7	STANDS DP	461.47 FT.	RUN NO.	4	
1	SNGLS. DP	FT.	SIZE	6¾	
	D.C. ID		MFG.	H.T.	
29	D.C. OD	875.94 FT.	TYPE	OWV	
	RMR BODY OD	FT.	NOZ. NO.	CUT	
	STB BODY OD	FT.	NOZ. SIZE	OUT	
	SUBS OD	FT.	SER. NO.	64628	
	BIT OR C.B.	FT.	DEPTH OUT		
		FT.	CUMULATIVE HOURS RUN	11½	
	KELLY DOWN	31 FT.	COND. OF BIT		
	TOTAL	1368.35 FT.	REAMER CUTTER NO.		
WT. OF STRING		42000 LBS.	TYPE		

DRILLER: J. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
7		1308	1355		160	4	800	6¾	58			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1314	8°	42 44	1344	8°				

REMARKS

6⁰⁰	6¹⁵	Dr. LC
6¹⁵	6³⁰	Serv. Rig
6³⁰	6⁴⁵	Survey
6⁴⁵	11⁰⁰	Drill
11⁰⁰	1⁴⁵	Survey Run Tank
1⁴⁵	4⁰⁰	Drill

MUD RECORD

TIME	8⁰⁰	12⁰⁰	2⁰⁰
WEIGHT	8.6	8.7	8.7
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
8	STANDS DP	492.38 FT.	RUN NO	4	5
	SNGLS. DP	FT.	SIZE	6¾	6¾
	D.C. ID		MFG.	H+	H+
29	D.C. OD	875.94 FT.	TYPE	OWV	OWV
	RMR BODY OD	FT.	NOZ. NO.	cut	cut
	STB BODY OD	FT.	NOZ. SIZE	out	out
	SUBS OD	16.35 FT.	SER NO	64628	91656
	BIT OR C.B.	FT	DEPTH OUT	1370	
		FT.	CUMULATIVE HOURS RUN	14½	2½
	KELLY DOWN	35 FT.	COND. OF BIT		
	TOTAL	1419 FT.	REAMER CUTTER NO.		
WT OF STRING		LBS.	TYPE		

DRILLER: McConnell

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5½		1358	1419		160	4	800	6¾	58			
					125	12	"	"	"			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
1366	8°							

REMARKS

4⁰⁰	4¹⁵	Rig Serv + B.O.P
4¹⁵	7¹⁵	Drill
7¹⁵	7³⁰	Surveys
7³⁰	9³⁰	Trip pick up Reamer + Hole Stabilizer
9³⁰	12⁰⁰	Drill

MUD RECORD

TIME	5⁰⁰	7⁰⁰	10⁰⁰
WEIGHT	8.6	8.6	8.7
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P. 38

DAILY DRILLING REPORT

REPORT NO. 6 DATE Feb 14 - 64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION LSD. 64° 01' 20" SEC. N TWP. 122° RGE. 55' W. 12" W. WELL NAME Blackwater Sabe No. G-52 PROVINCE N.W.T.
CONTRACTOR: Regent RIG No. 21
DRILL PIPE STRING NO. SIZE 2 3½ TOOL JOINT 4½ OD TYPE THD. IF
OPERATOR'S REPRESENTATIVE
CONTRACTOR'S TOOL PUSHER R. Shuffrick

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO
9⅝	36 J55	0	761.0		

CEMENT USED: NWT
OTHER:

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	6¼	5¾	6½
REAMING			
CIRCULATING			
TRIPS		1½	
DEVIATION SURVEY	½	½	¼
TEST B.O.P Sonic	¼		¼
CUT OFF DRILL LINE			
REPAIR RIG	1		
CORING			
WIRE LINE LOGGING			
OTHER		¼	1
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS		8	8

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD

REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
5	STANDS DP	307.90 FT.	RUN NO.	2
	SNGLS. DP	FT.	SIZE	6¾
	ID		MFG.	Sec
29	D.C. 4½ OD	875.94 FT.	TYPE	56
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	7/8
	SUBS OD	FT.	SER. NO	H81245
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	6¼
	KELLY DOWN	10 00 FT.	COND. OF BIT	
	TOTAL	1193.84 FT.	REAMER CUTTER NO.	
WT. OF STRING	38 00 LBS.		TYPE	

DRILLER: Wm. Kilkenny.

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¼		1106	1193		100	15-18	800	6¾	58			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1160	1¼		1190	5¼				

REMARKS

12 00	12 15	Service Rig
12 15	3 15	Drill.
3 15	3 30	Survey.
3 30	5 30	Drill.
5 30	6 30	Take Half Hammer trimm off stand Pipe clean Threads + Replace.
6 30	7 45	Drill
7 45	8 00	Survey.

MUD RECORD

TIME	12	12	5 00
WEIGHT	8.4	8.4	8.4
VISC	27	27	27
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
5	STANDS DP	339.95 FT.	RUN NO.	2	3
1	SNGLS. DP	FT.	SIZE	6¾	6¾
	ID		MFG.	SEC	H.T.
29	D.C. 4½ OD	875.94 FT.	TYPE	56	OWU
	RMR BODY OD	FT.	NOZ. NO.	3	3
	STB BODY OD	FT.	NOZ. SIZE	7/8	7/8
	SUBS OD	FT.	SER. NO.	45 1245	91647
	BIT OR C.B.	FT.	DEPTH OUT	1223	
		FT.	CUMULATIVE HOURS RUN	9¾	2½
	KELLY DOWN	27 FT.	COND. OF BIT	231	
	TOTAL	1240.84 FT.	REAMER CUTTER NO.		
WT. OF STRING	40 000 LBS.		TYPE		

DRILLER: McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¾		1193	1240		160	4	800	6¾	56			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1223	6½							

REMARKS

8 00	8 15	SERV. RIG
8 15	11 45	DRILL
11 45	12 00	SURVEY
12 00	1 45	TRIP
1 45	4 00	DRILL

MUD RECORD

TIME	8 00	12 00	2 00
WEIGHT	8.5	8.5	8.4
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
6	STANDS DP	368.02 FT.	RUN NO	3
	SNGLS. DP	FT.	SIZE	6¾
	ID		MFG.	HT
29	D.C OD	875.94 FT.	TYPE	OWU
	RMR BODY OD	FT.	NOZ. NO.	3
	STB BODY OD	FT.	NOZ. SIZE	7/8
	SUBS OD	FT.	SER NO	916 47
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	8¼
	KELLY DOWN	24 FT.	COND. OF BIT	
	TOTAL	1267 FT.	REAMER CUTTER NO.	
WT OF STRING		LBS.	TYPE	

DRILLER: McConnery

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6½		1240	1267		160	4-2	800	6¾	56			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
1240	8							

REMARKS

400	415	RIG SERV
415	615	DRILL
615	630	SURVEY
630	645	DRILL
645	745	LOST CIRC MIX SAWDUST + BUILD UP VOLUME + CIRC
745	1200	DRILL

LOST APPROX 100 bbls MUD.

MUD RECORD

TIME	5	7	10
WEIGHT	8.4	8.4	8.4
VISC	28	28	28
W.L.-C.C.			
FLTR CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SAWDUST	90 SXS		

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 5 DATE Feb. 13/74

OPERATOR	LOCATION LSD. SEC. TWP. RGE. W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	64 11 " 2 " N. 10 55 12 W4	Bluefort Lake	C-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT OD / TYPE THD.
Rigint	21		

OPERATOR'S REPRESENTATIVE	CONTRACTOR'S TOOL PUSHER
R.B. Cowlard	

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D 375	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
9⅝	36 ppf H-40	0	74			55	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		6¾	5
REAMING			
CIRCULATING			
TRIPS		2¼	
DEVIATION SURVEY		½	3¼
TEST B.O.P	3¼		
CUT OFF DRILL LINE			
REPAIR RIG	4		
CORING			
WIRE LINE LOGGING			
OTHER	2¼	3¼	
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	9	4	

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY			BIT RECORD	
	STANDS DP		FT.	RUN NO.	1
	SNGLS. DP		FT.	SIZE	6¾
	D.C. ID			MFG.	Sec
23	D.C. OD	701.50	FT.	TYPE	M44N
	RMR BODY OD		FT.	NOZ. NO.	3
	STB BODY OD		FT.	NOZ. SIZE	14
	SUBS OD		FT.	SER. NO	636504
	BIT OR C.B.		FT.	DEPTH OUT	
			FT.	CUMULATIVE HOURS RUN	6½
	KELLY DOWN	39	FT.	COND. OF BIT	
	TOTAL	740.50	FT.	REAMER CUTTER NO.	
	WT. OF STRING		LBS.	TYPE	

DRILLER Tom Kilkenny

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12⁵⁰ 12¹⁵ 12" service Rig
12¹⁵ 1⁰⁰ Blow Kelly Pick up 3rd Stand Program Test all B.O.P. 1500# test
1⁰⁰ 1²⁰ Test 3½ Rams + Hydril
1²⁰ 3¹⁵ Work on Union on Stand Pipe
3¹⁵ 6¹⁵ change Liner Seals in Pump
6¹⁵ 7⁰⁰ Tripping out Plug + test.
7⁰⁰ 7¹⁵ change liner Seals in Pump.
7¹⁵ 8⁰⁰ Tripping out.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY			BIT RECORD	
2	STANDS DP	123.60	FT.	RUN NO.	1
	SNGLS. DP		FT.	SIZE	6¾
	D.C. ID			MFG.	SEC
26	D.C. OD	258.55	FT.	TYPE	M44N
	RMR BODY OD		FT.	NOZ. NO.	3
	STB BODY OD		FT.	NOZ. SIZE	14
	SUBS OD		FT.	SER. NO.	636504
	BIT OR C.B.		FT.	DEPTH OUT	
			FT.	CUMULATIVE HOURS RUN	6¾
	KELLY DOWN	40.50	FT.	COND. OF BIT	
	TOTAL	952.6	FT.	REAMER CUTTER NO.	
	WT. OF STRING	36000	LBS.	TYPE	

DRILLER Jim Bridle

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
6¾		740	952		100	25 15	800	6¾	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
910	3°							

REMARKS

8⁰⁰ 8¹⁵ SERV. RIG
8¹⁵ 11³⁰ DRILL
11³⁰ 12⁰⁰ CIRC. SURVEY CHANGE SAVER SUB.
12⁰⁰ 2³⁰ DRILL
2³⁰ 3⁰⁰ SURVEY
3⁰⁰ 4⁰⁰ DRILL

MUD RECORD

	8⁰⁰	12⁰⁰	2⁰⁰
TIME			
WEIGHT	8.4	8.4	8.4
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY			BIT RECORD	
4	STANDS DP		FT.	RUN NO	1
1	SNGLS. DP	278.05	FT.	SIZE	6¾
	D.C ID			MFG.	SEC
26	D.C OD	788.55	FT.	TYPE	M44N
	RMR BODY OD		FT.	NOZ. NO.	3
	STB BODY OD		FT.	NOZ. SIZE	5/8
	SUBS OD		FT.	SER NO	636504
	BIT OR C.B.		FT	DEPTH OUT	1106
			FT.	CUMULATIVE HOURS RUN	11¾
	KELLY DOWN	40	FT.	COND. OF BIT	3-2-1
	TOTAL	1106	FT.	REAMER CUTTER NO.	
	WT OF STRING		LBS.	TYPE	

DRILLER M Cheeseman

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5		952	1106		100	15	900	6¾	60			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION
975	2¼		1035	1½		1100	2½	

REMARKS

4⁰⁰ 5⁰⁰ DRILL
5⁰⁰ 5¹⁵ SURVEY - RIG SERV + B.O.P
5¹⁵ 6⁴⁵ DRILL
6⁴⁵ 7⁰⁰ SURVEY
7⁰⁰ 9³⁰ DRILL
9³⁰ 9⁴⁵ SURVEY
9⁴⁵ 11⁰⁰ TRIP PICK UP 3 COLLARS + RACK

MUD RECORD

	4	6	8
TIME			
WEIGHT	8.4	8.4	8.4
VISC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 4 DATE Feb 12 - 64

OPERATOR	LOCATION LSD. SEC. TWP. RGE. W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	64°01'20" N 122°55'-12" west	Blackwater Sec.	G-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT OD / TYPE THD.
Regent	21		

OPERATOR'S REPRESENTATIVE: B. Cowles — CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	D-300	14
2.			
3.			

CASING & LINER RECORD

	SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER
				740				

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING	12		
TRIPS			
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER Vic Tan 4 8			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS.

OPERATOR'S TIME

HRS. W/O R.

HRS. W/O D.P.

HRS. STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID		MFG.	
	D.C. OD	FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Wm Kilberry.

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

REMARKS

12 00 12 30 Circulating Casing
12 30 Cementing & Pump Ran 18 Jts of 9⅝ - 36# - J55 New Casing
20 Plug Down 723' Landed @ 740'
2 00 8 00 WOC. Ran 300 Sks. Portland cement w/ 2% CaCl2
Hit Plug 1800# Plug Down 2 AM
Ran 50 sks Cement from Top.

MUD RECORD: TIME / WEIGHT / VISC / W.L.-C.C. / FLTR. CK. / PH / SD. CONT.

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID		MFG.	
	D.C. OD	FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Mc Bride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

REMARKS

8 00 4 00 Back off Landing Jt. Put on Bowl Nipple up B.O.Ps

MUD RECORD: TIME / WEIGHT / VISC / W.L.-C.C. / FLTR. CK. / PH / SD. CONT.

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C ID		MFG.	
	D.C OD	FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER: Mc Conney

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

REMARKS

4 00 10 15 Finish Nipple up
10 15 10 30 Test Blind Rams
10 30 12 00 Pick up 3 D.C on Rack & Run in D.C in Derrick

MUD RECORD: TIME / WEIGHT / VISC / W.L.-C.C. / FLTR. CK. / PH / SD. CONT.

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 3 DATE Feb. 11-64

OPERATOR	LOCATION	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	LSD 20 SEC 12 TWP. 55 RGE. 11 W.	Shell Blackwater Sabs	G52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT OD / TYPE THD.
Regent	21		

OPERATOR'S REPRESENTATIVE: W S Emmerson — CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL		2¾	
REAMING			
CIRCULATING	2½	2¼	1
TRIPS	2½	2	1½
DEVIATION SURVEY			¼
TEST B.O.P	Singles		
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING		3½	
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			5
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS W/O D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
11	D.C. ID 2¼	504.24	MFG.	
	D.C. OD	112.08 FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	4.57 FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	90 FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	20 FT.	COND. OF BIT	
	TOTAL	721 FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION — 617

REMARKS

12 — 12 — Lay down H½ Kelly
2 — 3 — Ream Kelly hole in.
3 — 4 — Run in
4 — 5 — Core
5 — 6 — Drilling
6 — 7 — Circ
7 — 8 — Start out.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	4A
19	SNGLS. DP ID 2¼	594.20 FT.	SIZE	13¾
4	D.C. 6½ OD	112.08 FT.	MFG.	H.T.
			TYPE	05C
	RMR BODY OD	FT.	NOZ. NO	3
	STB BODY OD	FT.	NOZ. SIZE	20 5/8
2	SUBS OD	4.57 FT.	SER. NO.	12816
1	BIT OR C.B.	94 FT.	DEPTH OUT	940
		FT.	CUMULATIVE HOURS RUN	9¼
	KELLY DOWN	38.70 FT.	COND. OF BIT	
	TOTAL	940 FT.	REAMER CUTTER NO.	
	WT. OF STRING	35000 LBS.	TYPE	

DRILLER Jno McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2¾		721	940		140	20	300	6½	53			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

REMARKS

8:00 — 9:15 — TRIP
9:15 — 11:15 — CIRC.
11:15 — 2:00 — DRILL
2:00 — 2:15 — CIRC.
2:15 — 3:45 — PULL OUT RUN IN 4-6" COLLARS.
3:45 — 4:00 — REAM KEYSEAT @ 720'

MUD RECORD

TIME	8:00	10:00
WEIGHT	10.6	10.6
VISC	68	68
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT.		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C ID		MFG.	
	D.C OD	FT.	TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER NO	
	BIT OR C.B.	FT	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER McConney

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV | DIRECTION | DEPTH | DEV | DIRECTION

REMARKS

¼ — 4:00 — 4:15 — RIG SERV
½ — 4:15 — 4:45 — FINISH RUNIN
1 — 4:45 — 5:45 — CIRC
1½ — 5:45 — 7:00 — PULL OUT - LAY DOWN 6½" DRILL COLLARS
½ — 7:00 — 9:30 — RIG UP TO RUN CASING
4 — 9:30 — 12:00 — RUNING CASING

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. 2 DATE Feb 10 - 64

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. [illegible] SEC. TWP. RGE. W.

WELL NAME: Black Water Sec.

No. G 52

PROVINCE: N.W.T.

CONTRACTOR: Regent RIG No. 21

DRILL PIPE STRING NO. SIZE | TOOL JOINT OD | TYPE THD.

OPERATOR'S REPRESENTATIVE: [illegible]

CONTRACTOR'S TOOL PUSHER: [illegible]

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO

CEMENT USED | OTHER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	5¼	3¾	4
REAMING	¼		
CIRCULATING		¾	½
TRIPS	1½	2½	1½
DEVIATION SURVEY	½	¼	
TEST B.O.P.			¼
CUT OFF DRILL LINE			
REPAIR RIG		½	3¼
CORING			
WIRE LINE LOGGING			
OTHER	¼	¼	1
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
	STANDS DP	FT.	RUN NO.	2A	3A
	SNGLS. DP	FT.	SIZE	13 3/4	13 3/4
4	D.C. 6½ ID	112.08	MFG.	Ace	Reed
18	OD	461.37 FT.	TYPE	S3	VT3A
	RMR BODY OD	FT.	NOZ. NO.		3
9	STB BODY OD	FT.	SIZE		3/4
2	SUBS OD	4.57 FT.	SER. NO	Rig	Rig
	BIT OR C.B.	FT.	DEPTH OUT	430	
		FT.	CUMULATIVE HOURS RUN	11	4½
	KELLY DOWN	17 FT.	COND. OF BIT	Bald.	
	TOTAL	595.02 FT.	REAMER CUTTER NO.		
WT. OF STRING	35000 LBS.		TYPE		

DRILLER: W. Kilkenny

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
5¼		477	595	168'	160	12	400	6¾	65			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
490	¾		580	1°				

REMARKS

12⁰⁰ 12¹³ Drill
12¹³ 1⁴⁵ Tag fill. Ck. Bit. Hole Tight
1⁴⁵ 2¹⁵ Ream 30' to Bottom
2¹⁵ 11⁰⁰ Drill
11⁰⁰ 11¹⁵ Tighten Union on standpipe
11¹⁵ 11³⁰ Drill
11³⁰ 11⁴⁵ Survey
11⁴⁵ 7¹⁵ Drill.

Survey 7¹⁵-7³⁰
Drill 7³⁰-7⁴⁵
Repair Pumps 7⁴⁵-8⁰⁰

MUD RECORD

TIME	2⁰⁰	4⁰⁰	6⁰⁰
WEIGHT	10#	10⁴	10⁴
VISC	60	70	75
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
	STANDS DP	FT.	RUN NO.	3A	4A
	SNGLS. DP	FT.	SIZE	13¾	13¾
4	D.C. 6½ ID	112.08	MFG.	Reed	H.T
14	OD	573.48 FT.	TYPE	VT3A	OSC
	RMR BODY OD	FT.	NOZ. NO	3	3 1
	STB BODY OD	FT.	SIZE	¾	¾ ¾
2	SUBS OD	4.57 FT.	SER. NO.	R.T.P.	72816
1	BIT OR C.B.	.90 FT.	DEPTH OUT	618	
		FT.	CUMULATIVE HOURS RUN	5½	2½
	KELLY DOWN	22 FT.	COND. OF BIT	3,11	
	TOTAL	692.95 FT.	REAMER CUTTER NO.		
WT. OF STRING	35000 LBS.		TYPE		

DRILLER: [illegible]

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
3¾		595	692		160	15	400	6¾	64			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
679	1¼							

REMARKS

8⁰⁰ 8¹⁵ S-RU-R.G.
8¹⁵-8⁴⁵ WK on Pump
8⁴⁵-10⁰⁰ DRILL
10⁰⁰ 10¹⁵ CIRC.
10¹⁵ 12⁴⁵ TRP Bit #1 @ 430' C10' To BTM.
12⁴⁵-1¹⁵ CIRC. (Dit Ballfound)
1¹⁵ 2³⁰ DRILL
2³⁰ 2⁴⁵ SURVEY
2⁴⁵-4⁰⁰ DRILL

MUD RECORD

TIME	8⁰⁰	12⁰⁰	2⁰⁰
WEIGHT	10.4	10.4	10.
VISC	75	84	73
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		
	STANDS DP	FT.	RUN NO	4A	
	SNGLS. DP	FT.	SIZE	12 3/4	
19	D.C ID	584.20	MFG.	HT	
4	OD	112.08 FT.	TYPE	OSC	
	RMR BODY OD	4.57 FT.	NOZ. NO.		
	STB BODY OD	FT.	SIZE	¾-¾-¾	
	SUBS OD	FT.	SER NO	72816	
	BIT OR C.B.	.90 FT	DEPTH OUT	721	
		FT.	CUMULATIVE HOURS RUN	16½	
	KELLY DOWN	20 FT.	COND. OF BIT		
	TOTAL	721 FT.	REAMER CUTTER NO.		
WT. OF STRING		LBS.	TYPE		

DRILLER: [illegible]

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4		692	721		160	20	400	6¾	64			

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

400 4¹⁵ RIG SERV
4¹⁵ 4⁴⁵ DRILL
4⁴⁵ 5³⁰ REPAIR PUMP
5³⁰ 9⁰⁰ DRILL
9⁰⁰-9³⁰ CIRC
9³⁰ 11⁰⁰ MEASURE OUT
11⁰⁰ 12⁰⁰ BLOWING KELLY + LAYING DOWN SAME

MUD RECORD

TIME	4	6	8
WEIGHT	10.4	10.4	10.
VISC	75	74	7.
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 1 DATE Feb 9/64

OPERATOR: Shell Oil Company of Canada, Limited
LOCATION: LSD 01 20 SEC N 122 TWP 55 RGE 12 W W
WELL NAME: Blackwater Lake No. G-52 PROVINCE: N.W.T.
CONTRACTOR: Pegant RIG No. 21
DRILL PIPE STRING NO. SIZE: TOOL JOINT OD: TYPE THD.
OPERATOR'S REPRESENTATIVE: W.S. Cunningham
CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Emsco	300	14
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL	2 1/4	1 1/4	7
REAMING			
CIRCULATING		1/4	
TRIPS		1 1/4	
DEVIATION SURVEY	1/4	1/2	3/4
TEST B.O.P. Rams	1/4		1/4
CUT OFF DRILL LINE			
REPAIR RIG	1 1/2	1/2	
CORING			
WIRE LINE LOGGING			
OTHER	3 1/4	3/4	
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS	8	8	

TIME SUMMARY (OFFICE USE ONLY)
CONTRACTOR'S TIME HRS:
OPERATOR'S TIME:
HRS. W/D.P:
HRS WO/D.P:
HRS STANDBY

WIRE LINE RECORD
REEL NO
NO OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. or TRIPS SINCE LAST CUT
CUMULATIVE TON MI. or TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY	FT.
	STANDS DP	
	SNGLS. DP	
4	D.C. 6 1/2 ID / OD	112.08
	RMR BODY OD	
	STB BODY OD	
2	SUBS OD	4.37
	BIT OR C.B.	
	KELLY DOWN	27
	TOTAL	143.65
	WT. OF STRING	LBS.

DRILLER: Wm. Kilkenny.

BIT RECORD

RUN NO.	1A
SIZE	13 3/4
MFG.	sec
TYPE	S3
NOZ. NO.	
NOZ. SIZE	
SER. NO	
DEPTH OUT	
CUMULATIVE HOURS RUN	7 1/4
COND. OF BIT	
REAMER CUTTER NO.	
TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
2 3/4		0	143	143'	120	cdd	150	6 1/4	50			

DEVIATION RECORD: DEPTH 60 DEV. 1/2 DIRECTION

REMARKS

12:00 – 1:00 Spud in. Drill.
1:00 – 1:30 Service & Survey.
1:30 – 2:30 Drill.
2:30 – 4:00 Service & tighten Kelly & Kelly Cock.
4:00 – 4:30 Drill.
4:30 – 7:30 Working tight Connection.
7:30 – 8:30 Drill

MUD RECORD

TIME	2:00	4:45	8
WEIGHT			
VISC	48	49	120
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	22 00		
Quick	1 gal		

DAY TOUR

NO.	DRILLING ASSEMBLY	FT.
	STANDS DP	
4	SNGLS. DP 6 ID	112.08
4	D.C. 4 3/4 OD	123.14
	RMR BODY OD	
	STB BODY OD	
2	SUBS OD	4.57
	BIT OR C.B.	
	KELLY DOWN	23.04
	TOTAL	262.78
	WT. OF STRING	20.000 LBS.

DRILLER: J. McBride

BIT RECORD

RUN NO.	1A	2A
SIZE	13 3/4	13 3/4
MFG.	SEC	SEC
TYPE	S3	S3
NOZ. NO.	3	3
NOZ. SIZE	3/4 1/2	3/4 1/2
SER. NO.	RERUN	RERUN
DEPTH OUT	167	262
CUMULATIVE HOURS RUN	8 4	3 3/4
COND. OF BIT	3 1 1	
REAMER CUTTER NO.		
TYPE		

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
4 3/4		143	262	119'	160	6	2500	6 1/4	70			

DEVIATION RECORD: DEPTH 156 DEV. 1 1/2 DIRECTION; DEPTH 218 DEV. 1/4 DIRECTION

REMARKS

8:00 – 8:15 – DRILL
8:15 – 8:45 – WK. TIGHT HOLE OIL CONN. (GENERAL)
8:45 – 9:15 – SURVEY STRD. P.U.
9:15 – 10:00 – DRILL
10:00 – 10:15 – CIRC. CLEAN HOLE
10:15 – 11:30 – TRIP
11:30 – 12:30 – DRILL
12:30 – 12:45 – SURVEY
12:45 – 1:15 – R-PAIR ROTARY CHAIN
1:15 – 4:00 – DRILL

MUD RECORD

TIME	8:00	12:00	2:00
WEIGHT			
VISC	130	115	110
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT.			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY	FT.
	STANDS DP	
4	SNGLS. DP 6 1/4 ID	112.08
10	D.C. 4 3/4 OD	307.40
	RMR BODY OD	
	STB BODY OD	
2	SUBS OD	7.27
	BIT OR C.B.	
	KELLY DOWN	3
	TOTAL	427
	WT OF STRING	LBS.

DRILLER: McCarron

BIT RECORD

RUN NO	2A
SIZE	13 3/4
MFG.	SEC
TYPE	S3
NOZ. NO.	
NOZ. SIZE	3/4
SER NO	RERUN
DEPTH OUT	
CUMULATIVE HOURS RUN	10 3/4
COND. OF BIT	
REAMER CUTTER NO.	
TYPE	

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN
		262	427	165'	160	12	250	6 1/4	70			

DEVIATION RECORD: DEPTH 270 DEV. 1 1/4 DIRECTION; DEPTH 330 DEV. 1 DIRECTION; DEPTH 395 DEV. 1/8 DIRECTION

REMARKS

4:00 – 4:15 RIG SERV
4:15 – 5:15 DRILL
5:15 – 5:30 SURVEY
5:30 – 7:15 DRILL
7:15 – 7:30 SURVEY
7:30 – 10:30 DRILL
10:30 – 10:45 SURVEY
10:45 – 12:00 DRILL

MUD RECORD

TIME	3:00	8:00	11:00
WEIGHT			
VISC	95	80	95
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
QUICK GEL	015 2 SXS	12 GA2	

C.P.—38 **DAILY DRILLING REPORT** REPORT NO. 0 DATE Feb 8-64

OPERATOR	LOCATION LSD.	SEC.	TWP.	RGE.	W.	WELL NAME	No.	PROVINCE
Shell Oil Company of Canada, Limited	64 %	01	20 "N	122½	55' 12" W	Blackwater Sakc.	G-52	N.W.T.

CONTRACTOR	RIG No.	DRILL PIPE STRING NO. SIZE	TOOL JOINT OD / TYPE THD.
Regent Drilling	21		

OPERATOR'S REPRESENTATIVE: W B Cumming

CONTRACTOR'S TOOL PUSHER: R. Mackenzie

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING			
TRIPS			
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS:

OPERATOR'S TIME:

HRS. W/D.P:

HRS WO/D.P:

HRS STANDBY

WIRE LINE RECORD

REEL NO

NO OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. or TRIPS SINCE LAST CUT

CUMULATIVE TON MI. or TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO. / SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
WT. OF STRING		LBS.	TYPE	

DRILLER: Wm Bulkeley

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

12^00 1^30 Cementing Conductor Pipe

1^30 3^00 Rig up to Drill Rat Hole.

3^00 6^00 Shut down for Petro flow line & Rigging up.

6^00 8^00 Start to Drill Rat hole.

Ran 15' Set Cement for Conductor Pipe.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	1A
	SNGLS. DP	FT.	SIZE	13 3/4
	D.C. ID / OD	FT.	MFG.	S.C.
	RMR BODY OD	FT.	TYPE	S3
	STB BODY OD	FT.	NOZ. NO.	3 1
	SUBS OD	FT.	SIZE	20 ½
	BIT OR C.B.	FT.	SER. NO.	R.T.D
		FT.	DEPTH OUT	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	
	TOTAL	FT.	COND. OF BIT	
WT. OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: G. McBride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8^00 11^00 Dig Rat Hole

11^00 5^00 R.U. PTS Spud in Mud KB To ground 13.50

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	30 Sks.		
Caustic Soda PS			
Quikvis	1 Gal		

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C ID / OD	FT.	MFG.	
	RMR BODY OD	FT.	TYPE	
	STB BODY OD	FT.	NOZ. NO.	
	SUBS OD	FT.	SIZE	
	BIT OR C.B.	FT	SER NO	
		FT.	DEPTH OUT	
	KELLY DOWN	FT.	CUMULATIVE HOURS RUN	
	TOTAL	FT.	COND. OF BIT	
WT OF STRING		LBS.	REAMER CUTTER NO.	
			TYPE	

DRILLER: Mc Conney

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4^00 12^00 Rig up.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

C.P.—38

DAILY DRILLING REPORT

REPORT NO. _____ DATE Feb 7 - 64

OPERATOR: Shell Oil Company of Canada, Limited

LOCATION LSD. _____ SEC. _____ TWP. _____ RGE. _____ W. _____

WELL NAME: Blackwater Lake No. _____ PROVINCE _____

CONTRACTOR: Regent Drilling RIG No. 21

DRILL PIPE STRING NO. SIZE _____ TOOL JOINT OD _____ TYPE THD. _____

OPERATOR'S REPRESENTATIVE: W B Lunden

CONTRACTOR'S TOOL PUSHER: R. Mackenzie

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

CASING & LINER RECORD

SIZE	WT. & GR.	DEPTH SET FROM	DEPTH SET TO	PERFORATIONS FROM	PERFORATIONS TO	CEMENT USED	OTHER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
DRILLING ACTUAL			
REAMING			
CIRCULATING			
TRIPS			
DEVIATION SURVEY			
TEST B.O.P			
CUT OFF DRILL LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
OTHER			
FISHING			
COMPLETING (A) PERFORATING			
(B) RUNNING TUBING			
(C) SWABBING			
(D) TESTING			
(E) ACIDIZING			
(F) ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

CONTRACTOR'S TIME HRS: _____

OPERATOR'S TIME: _____

HRS. W/D.P: _____

HRS WO/D.P: _____

HRS STANDBY _____

WIRE LINE RECORD

REEL NO _____

NO OF LINES _____ SIZE _____

FEET SLIPPED _____

FEET CUT OFF _____

PRESENT LENGTH _____

TON MI. or TRIPS SINCE LAST CUT _____

CUMULATIVE TON MI. or TRIPS _____

NO. OF DAYS FROM SPUD _____

CUMULATIVE ROTATING HRS. _____

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: L Blair

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

Unload truck @ D.C. 12⁰⁰ - ⁰⁰
Cut up Kelly — 1⁰⁰ - 3⁰⁰
Drill conductor pipe 3⁰⁰ - 8⁰⁰

4½ Spudder at 10 ft level in conductor
Dug pit out Spudder by Sand

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO.	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
	SUBS OD	FT.	SER. NO.	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	FT.	COND. OF BIT	
	TOTAL	FT.	REAMER CUTTER NO.	
	WT. OF STRING	LBS.	TYPE	

DRILLER: Wm Bilodeau

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS.	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

REMARKS

8⁰⁰ - 8¹⁵ Service Rig
8¹⁵ - 4⁰⁰ Drilling Conductor Pipe Hole.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	
	STANDS DP	FT.	RUN NO	
	SNGLS. DP	FT.	SIZE	
	D.C. ID / OD	FT.	MFG.	
			TYPE	
	RMR BODY OD	FT.	NOZ. NO.	
	STB BODY OD	FT.	NOZ. SIZE	
1	SUBS OD 6.625	4.00 FT.	SER NO	
	BIT OR C.B.	FT.	DEPTH OUT	
		FT.	CUMULATIVE HOURS RUN	
	KELLY DOWN	35 FT.	COND. OF BIT	
	TOTAL	39.00 FT.	REAMER CUTTER NO.	
	WT OF STRING	LBS.	TYPE	

DRILLER: Jim Bride

HRS. DRLD.	CORE NO.	FROM	TO	FORMATION (SHOW CORE RECOVERY)	ROTARY R.P.M.	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD PUMPS RUN

DEVIATION RECORD:

DEPTH	DEV.	DIRECTION	DEPTH	DEV	DIRECTION	DEPTH	DEV	DIRECTION

REMARKS

4⁰⁰ - 5³⁰ RIG CONDUCTOR PIPE Hole
5³⁰ - 12⁰⁰ W/I.D. CONDUCTOR P.P. 25' CEMENT W/ 50 SKS.

MUD RECORD

TIME	
WEIGHT	
VISC	
W.L.-C.C.	
FLTR CK.	
PH	
SD. CONT.	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.