WESTERCOL LAIRD RAPIDS

1-A B-18

Drilling Authority No.

Date Issued

WELL NAME Westerol ~~Laird~~ Laird Rapids 1-A 6-1

FIELD Wildcat Area: Fort Simpson

LOCATION: Unit 2 Section 18 Grid 61-30-121-45

Latitude 61°27' N. Longitude 121°47'40" W.

From Established Reference Marker

Rig Release Date: 10-3-54

Status D & A

Information Release Date 10-3-56

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.
	Well Completion Data.
	Work-over Report No.
	Application to Commingle Production before Measurement.
	Approval to Commingle Production before Measurement.
	Application to Amend Approval No. to Commingle Production before Measurement.
	Application for M.P.R.—Oil.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Field Abandonment Programme and Approval.
	Well Card.
	Well Visit.
	Daily Drilling Reports.

K. J. Christie
K. J. Waddell
B. Hale

CANADA

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH

(ABANDONMENT)
~~(COMPLETION)~~
~~(REPORT)~~ REPORT

By

(Strike out operations which do not apply)

To be submitted in triplicate in accordance with Section 70 of the Territorial Oil and Gas Regulations to the Conservation Engineer at Edmonton, Alberta.

Name of well Westerol Liard Rapids No. 1A Permit No. 374

~~Lease~~ No. .....

Registered owner New Ranchmen's Oil Co. Ltd. Drilling company Petcal Limited

Location: (Survey description) .....

North latitude 61°27' and West longitude 121°47'40"

Elevation: Ground 770 Kelly bushing 777 Depth 2467

Spudded Mar. 23/53 Finished drilling Mar. 10/54 Rig released Mar. 10/54

Deviations from vertical .....

CASING

	Size O.D. inches	Amount feet	Grade	New or used	Set at feet	Sacks cement
1.	7"	463'	J55	used	470.4'	125
2.	.....	.....	.....	.....	.....	.....
3.	.....	.....	.....	.....	.....	.....

TUBING

.....	.....	.....	.....	.....	.....

Status of well on completion of drilling dry and abandoned

Producing zone -

Cored intervals none

.....

.....

Interval logged: E-log to 2467 M-log -

R-log - Other -

DRILLSTEM TESTS

Test No.	Date	Interval tested	Duration	Results
1	Mar. 6/54	2207-2267	16 min.	Rec. 5' mud
2	Mar. 8/54	2389-2463	18 min.	Rec. 100' mud

(Over)

....

....

....

....

Perforations: (Gun.....) -
(Det.....) .....

Shooting: ...-..... .....

Hydraulically fracturing: .....-.....

Chemical treatment: .....-.....

Date initial production tests: ...-..... .....

Initial production data: .-.....

Pumping or flowing .....?.....

Plug back: .....-.....

Other: .....

....

.....

CEMENT PLUGS SET

From	To	Sacks cement	Felt At
Displaced	plug 15 sacks at 2100	.....	.....
.500...	..450...	.10 sacks	.....
..Welded plate on casing head		.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Electric log is appended: Yes..... No...X..

Radioactivity log is appended: Yes..... No..X...

Micrometer log is appended: Yes..... No..X...

Geologic record or strip log is submitted Yes..X... No.....

Results of tests for porousity, permeability, and saturation of each stratum containing oil, gas or water are submitted Yes..X... No.....

ADDITIONAL DETAILS AND COMMENTS

.....

.....

.....

Signed .....

Address .....

C A N A D A

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH

NOTICE OF INTENTION TO (ABANDON ; [illegible] ; [illegible]) A WELL

(Stoke out operations which do not apply).

To be submitted in triplicate to the Conservation Engineer at Edmonton, Alberta.

In accordance with Sections 60, 61, or 62 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to

.....Abandon.....the well named Mesterol Liard Rapids/on 1A Oil and Gas (Permit No. 374..) (Lease No. .....) registered in the name of New Ranchmen's Oil Co.Ltd.

Depth ...2467.....feet. Elevation above sea level: Ground surface .779..ft. Kelly bushing ...777..ft.

Location (if not accurately stated in Notice of Intention to Begin Drilling Operations):

..... (N of S boundary) (S of N boundary) of (Permit No. ....) (Lease No. .....) at approx .....N lat.

..... (W of E boundary) (E of W boundary) of (Permit No. ....) (Lease No. .....) at approx .....W lat.

Survey description North latitude 61°27'. and West longitude 121°47'40"....

CASING RECORD

Size O.D. inches	Weight lbs/ft.	Amount feet	Set at feet	Sacks cement	Method	To be withdrawn
1. ..7"..	..17#..	.463'.	.470.4'	.125..	displacement	.....
2.	.....	.....	.....	.....	.....	.....
3.	.....	.....	.....	.....	.....	.....

OIL, GAS and WATER

Encountered		Cement plugs to be set		
Oil from ...7. feet to .....feet.		From .....feet to.....feet with.....sacks		
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Gas from ...7. feet to ..... feet.		From .....feet to.....feet with.....sacks.		
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

(Over)

Water from ...f...feet to ..... feet. From.....feet to.....feet with.....sacks.

....

....

Bottom plug from .2100..feet to.....feet with.15...sacks

Surface plug from 500...feet to.450..feet with.10...sacks

Date of last operations ...Mar..19,.1954.....Total depth.2467.....

Nature of liquid in well .~~mud and cement~~.....Level from surface .....

Present condition of well in addition to above: .....

..... Welded plate on casing.....

.....

An electric log (will be) run. (strike out what is non-applicable)

Program of operation not included above: .....

....

.....

.....

Responsible agents of permittee or lessee in charge of operation:

At well ...N.J.Popeford..... At registered office: ..C.Warren Hunt.....
c/o Petcal Limited c/o Petcal Limited
Postal address Fort.Simpson,N.W.T. Postal address ..528.9th Avenue West,Calgary

It is understood that if changes in this Notice of Intention become necessary we will promptly notify you.

Dated at ...Calgary.....this ..25th....day of ...March.....1954..

Signed by .....C.W.Hunt...

This program is approved subject to the following provisions:

.....

.....

.....

Dept. of Resources & Development EDMONTON, ALTA.

.....APR..1..1954.....
Date

Petroleum Conservation Engineer

.....A.R.Irwin.....
Conservation Engineer

57959

NORLITE BUILDING

CANADA

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH

FEB [illegible] 19[illegible]

NOTICE OF INTENTION TO ~~COMMENCE~~ ~~CONTINUE~~ A WELL
~~(RESUME DRILLING)~~ ~~REDRILL~~
~~SUSPEND OPERATIONS~~

(Stoke out operations which do not apply)

To be submitted in triplicate to the Conservation Engineer at Edmonton, Alberta.

In accordance with Sections 60, 61, or 62 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to

Resume drilling the well named Fosterpl. Liard Petroleum Oil and Gas (Permit No. 374) ~~(Lease No. .....)~~ registered in the name of New Rainbow's [illegible] Co. ltd.

Depth 60' ~~into bottom~~ feet. Elevation above sea level: Ground surface .....ft. Kelly bushing 745 ft. estimated

Location (if not accurately stated in Notice of Intention to Begin Drilling Operations):

..... (N of S boundary / S of N boundary) of (Permit No. ..... / Lease No. .....) at approx .....N lat.

..... (W of E boundary / E of W boundary) of (Permit No. ..... / Lease No. .....) at approx .....N lat.

Survey description North latitude 61°27' and West longitude 121°47'40".....

CASING RECORD

Size O.D. inches	Weight lbs/ft.	Amount feet	Set at feet	Sacks cement	Method	To be withdrawn
1. 10¾"	.....	30'	38'	25	.....	.....
2.	.....	.....	.....	.....	.....	.....
3.	.....	.....	.....	.....	.....	.....

OIL, GAS and WATER

Encountered		Cement plugs to be set		
Oil from ..... feet to ..... feet.		From .....feet to.....feet	with.....sacks	
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
Gas from ..... feet to ..... feet.		From .....feet to.....feet	with.....sacks.	
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

noted in records

(Over)

Water from .....feet to ..... feet. From.....feet to.....feet with.....sacks.

....

....

Bottom plug from .....feet to.....feet with.....sacks

Surface plug from .....feet to.....feet with.....sacks

Date of last operations .April 20th. 1953.....Total depth. 552'.....

Nature of liquid in well .....Level from surface .....

Present condition of well in addition to above: .....

Conductor pipe cemented at 40'

Surface casing not yet run.

An electric log (will be) run. (strike out what is non-applicable)
(~~will not be~~)

Program of operation not included above: .....

No known fluid-bearing horizons.

Blowout preventer.

.....

Responsible agents of permittee or lessee in charge of operation:

At well N.J. Rompford, c/o Petcal Limited, Fort Simpson, N.W.T. Postal address .....

At registered office: C. Warren Hunt, Petcal Limited, 528 9th Avenue West, Calgary Postal address .....

It is understood that if changes in this Notice of Intention become necessary we will promptly notify you.

Dated at ~~Calgary~~.....this 1st.....day of February.....19 54

Signed by .....C.W. Hunt.....

This program is approved subject to the following provisions:

.....

.....

.....

Dept. of Resources & Development EDMONTON, ALTA. FEB 2 Petroleum Conservation F...

.....FEB 2.....
Date

C.B. Irwin
Conservation Engineer

Dept. of Resources & Development EDMONTON, ALTA. FEB 2 1954 ...m Conservation Engineer

C A N A D A

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH

noted in records

(~~ABANDONMENT~~
(~~COMPLETION~~) REPORT
(SUSPENSION)

(Stroke out operations which do not apply)

To be submitted in triplicate in accordance with Section 70 of the Territorial Oil and Gas Regulations to the Conservation Engineer at Edmonton, Alberta.

Name of well Westerol Liard Rapids No. 1A Permit No. 374
Lease No. .....

Registered owner New Ranchmen's Oil Co. Ltd. Drilling company West Territories Oils Ltd.

Location: (Survey description) North Latitude 61°27' and
West Longitude 121°47'40"

Elevation: Ground ?.....Kelly bushing 745 estimated.....Depth 552'

Spudded April 1, 1953 ...Finished drilling April 13, 1953 Rig released April 20, 1953

Deviations from vertical.....

CASING

	Size O.D. inches	Amount feet	Grade	New or used	Set at feet	Sacks cement
1.	10¾"	30'	?.	new	38'	25
2.	.....	.....	.....	.....	.....	.....
3.	.....	.....	.....	.....	.....	.....

TUBING

.....	.....	.....	.....	.....	.....

Status of well on completion of drilling Surface casing cemented. Drilling Depth 552'

Producing zone .....

Cored intervals .....

.....

.....

Interval logged: E-log ..... M-log .....

R-log ..... Other .....

DRILLSTEM TESTS

Test No.	Date	Interval tested	Duration	Results
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

(Over)

....

....

....

....

Perforations: (Gun.....) .....
(Det.....)

Shooting: ....

Hydraulically fracturing: .....

Chemical treatment: .....

Date initial production tests: ....

Initial production data: .....

Pumping or flowing .....

Plug back: .....

Other: .....

....

.....

CEMENT PLUGS SET

From	To	Sacks cement	Felt At
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Electric log is appended: Yes..... No.....

Radioactivity log is appended: Yes..... No.....

Micrometer log is appended: Yes..... No.....

Geologic record or strip log is / will be submitted Yes..... No.....

Results of tests for porosity, permeability, and saturation of each stratum containing oil, gas or water are / will be submitted Yes..... No.....

ADDITIONAL DETAILS AND COMMENTS

.....Moved out due to thawing muskeg.....

.....

.....

Signed .....C.C.Hunt.....

Address ~~Petcal Limited, 528 9th Ave. West,~~
Calgary

writer of outcrops on the permits in the Willowlake basin. Special attention was given to a structure detected on aerial photographs. This reconnaissance considered in the light of information gained from the British American-Hudson's Bay wells on the Mackenzie River to the west and in the light of operational difficulties experienced in overland drilling operations distant from our base at Fort Simpson (Liard Rapids well) forced us to the conclusion that sub-surface exploratory work such as stratigraphic drilling or the Willowlake basin permits would necessarily have to be postponed and money now available put into exploration on the permits to the south of Fort Simpson. In other words, regional subsurface geology, surface reconnaissance, and practical considerations reached during the summer of 1953 eliminated from our thinking all immediate intent to explore the subsurface of the Willowlake basin permits.

The fourth well on the summer program was the Jean Marie Creek well. This well found no porosity as had been hoped for down-dip and eliminated effectively the possibility of a stratigraphic trap in that sector of the permit spread held by our West Territories group.

Meanwhile, however, a well named California Standard Steen

River No. 1 had been drilled 100 miles southeast in the northwest corner of Alberta and had found a very large stratigraphic trap filled with gas. Although distant from the West Territories group permits, this well found an exactly equivalent geological section indicating a closely correlative terrane. It proved beyond a shadow of a doubt that the stratigraphic trap in the limestones of the basal upper Devonian and dolomite of the middle Devonian should be our primary objective. Our geologic program should aim to study this limestone-dolomite series down-dip from the Fort Simpson wells to determine whether comparable porosity exists in that direction.

It is at this stage in our geologic thinking that we now stand. The down-dip stratigraphic prospect is our principal objective. We are still, however, searching for porosity not proven to exist in our permit area. When we find that, we can start searching near it for oil.

Meanwhile, upper Devonian reefs are a secondary objective. If we can establish the occurrence of porous limestones and dolomites whether of reefal nature or not within the drillable depth range of our rig we will have completed our stratigraphic testing and will be ready for the next stage of locating the oil field within the trap which is

proved to exist.

At the present time, therefore, our plan is to re-enter the Liard Rapids well as soon as winter conditions permit. The results of that well should enable us to choose a new direction for our exploratory efforts.

Yours very truly,

C. WARREN HUNT
Chief Geologist

[illegible] LAND BANK Well

Location: South East tip of small lake ½ miles N.E. of Lime Rapids 1A well. (This wrong location)

K.B. approximately 735.

180-200 SAND - quartz - angular to round. Very poor sorting with yellow, orange and green grains.

Trace of granitic material.

Trace of green and buff limestone pebbles.

200-240 SAND AND GRANITIC FRAGMENTS - i.e. granite, micaceous and fero magnesium silicates - gneiss and schists.

10% - Brown to green limestone boulder fragments.

240-260 QUARTZ SAND AND GRANITIC FRAGMENTS - as above. Trace of buff to grey limestone pebble fragments.

260-275 GRAVEL - Composed of limestone and granitic rounded pebbles.

30% - Limestone pebbles and fragments.

275-290 GRAVEL - Composed of granitic material and a small percentage of limestone pebbles.

Trace of dark green to black shale.

290-300 GRAVEL - Composed of granitic and limestone pebbles.

Trace of dark green to black shale.

300-320 SHALE - Grey green to dark green - very calcareous - sandy to silty - grades into a green calcareous sandy siltstone.

50% - Gravel - Granitic and limestone pebbles, cuttings.

320-330 SHALE - Very sandy green - calcareous - In part it is an argillaceous green calcareous sandstone - very fine grained.

20% - Cuttings of Granitic pebbles and fragments.

330-340 SHALE - Green - very sandy - calcareous - micaceous.

360-390 SHALE - Green - very sandy - calcareous with beds of green calcareous silty sandstone. Very fine grained.
30% - Cavings - Granitic gravels.

390-360 SANDSTONE - Shaly - green - calcareous - micaceous - very fine grained - silty.
50% Granitic Gravels.

360-370 50% - Shale - Green - calcareous.
30% - Sandstone - Shaly green calcareous - very fine grain.
40% - Granitic gravel cavings.

370-380 60% Shale - Green - calcareous.
40% Sandstone - Shaly, calcareous, very fine grained, silty.
40% Granitic gravel cavings.

380-390 SHALE - Green - calcareous - in part very silty to sandy. Trace of brown smooth ostracod shells, trace of green crystalline limestone.
40% - Granitic gravels.

390-400 SHALE - Grey green to grey - slightly calcareous.
20% - Cavings, granitic materials.

400-410 SHALE - Green to greenish grey - in part noncalcareous.
50% Siltstone - green - calcareous - micaceous. Trace of green limestone sandy.
20% Cavings of granitic materials.

410-420 SILTSTONE - Green calcareous - micaceous.
30% - Shale - green - silty in part.
10% - Cavings of granitic materials.

420-430 SILTSTONE - Green - calcareous - Shaly in part.
10% - Shale - green
10% - Limestone, green, calcareous.
20% - Cavings buff limestone and granitic fragments.

4,30-4,40 SILTSTONE - Green - calcareous - shaly in part.

30% - Limestone - green - very silty in part.

10% - Shale - green.

10% - Cavings - Granitic materials and hard limestone.

4,40-4,50 SILTSTONE - Green - calcareous, shaly in part.

20% - Limestone - green - very silty.

10% - Shale, green.

10% - Cavings - granitic materials.

4,50-4,60 SILTSTONE - Green calcareous - shaly in part, micaceous.

20% - Shale - Green - micaceous.

20% - Cavings of granitic material.

Rig shut down and moved to new location.

[redacted]

160-266 The section contained within this interval is composed of fine to coarse grained quartz sand - very poor sorting - angular to rounded grains interbedded with layers of igneous material that ranges in size from pebbles and fragments of 1/4" to large boulders. Igneous materials are largely granite - ferro-magnesium Silicates schistified and gneissic Rocks.

266-275 This section is composed of primarily, grey to buff limestone or possibly a layer of limestone boulders.

275-440 This section is composed primarily of light to medium [redacted] shale. This shale has fine flakes of mica dispersed in it and is very calcareous in part. It grades into silty shale and also into a calcareous shaly siltstone and very fine sandstone in part.

PETEROL LIARD RAPIDS NO. 1A

DRILLING AND ABANDONMENT REPORT

Peteal Limited
526 9th Avenue
Calgary, Alberta.

March, 1954
C.Warren Hunt,
R.P.E.Alberta

WESTEROL LIARD RAPIDS NO. 1A

ELEVATIONS

Elevation checks were made on a number of estimated elevations related to Westerol Liard Rapids No. 1A in February 1954 by C.H.Hunt. Westerol Liard Rapids No. 1 was found to be 190 feet higher than Westerol Liard Rapids No. 1A. Westerol Liard Rapids No. 1A was found to be 6 feet above the level of the lake on the shore of which it was drilled. These two measurements were made by Brunton compass. Lake level taken from R.C.A.F. photogrammetry and barometers averaged at 764 feet. The height of the river bank adjoining the island in the Liard one mile southeast of Westerol Liard Rapids No. 1A was estimated to be 225 feet. It is probably between 50 and 100 feet up from the top of the river bank to the ground level of the 1A well, no measurement having been made although the distance having been traversed afoot by the writer.

1A 764+6 = 770
190
960

1

1A is 3½ Miles S. W. of No. 1 hole
(a wrong Location)

~~WESTROL~~ LIARD RAPIDS NO. 1A

LOCATION: Twp. 143, Rge. 21, W6M

G.L. 770 K.B. 777

SPUDDED: March 23, 1953
Drilled to 552' before moving out because of breakup
Moved back in and were rigging Feb. 6, 1954

SURFACE CASING: Set 463' 17# J55 and 20# J55; 7" casing at 470.4' on Feb. 23, 1954

LOG RUN: Halliburton electric log to 2459' on March 9, 1954

TOTAL DEPTH: 2467 by drilling rig.

DRILLING RIG RELEASED: March 10th, 1954

GEOLOGICAL MARKERS:

	Sample	Log
SIMPSON SHALE	375	-
BITUMINOUS SHALE	1995	1995
TERRITORIES FORMATION	2175	2175
STEEN RIVER FORMATION	2320	2316
FITZGERALD FORMATION	2360(?)	2355 (?)

WESTEROL LIARD RAPIDS NO.1A

CONCLUSIONS

Westerol Liard Rapids 1A was drilled basically as a stratigraphic test down-dip from the Fort Simpson area wells drilled in the summer of 1952 by West Territories Oils Limited. The well was located on the best known structure in the area, an anticline outcropping on the banks of the Liard River above the main rapids of that river. The anticline has a northeastward dip of about 20° and gave evidence of having about 200 to 300 feet of amplitude on the river section. No closure could be proved northwestward or southeastward in the direction of the axis because of the heavy glacial overburden in both directions.

On regional contouring the well was expected to find the bituminous shale at about 2275 feet. It found this shale at 1995 feet or about 280 feet higher than its anticipated regional position, thereby confirming the structure as expected.

Three feet of slightly porous limestone within the bituminous shale section showed a low degree of fluorescence indicative of oil staining. This section was not tested because of its thinness and extremely poor porosity. After entering the Territories limestone porosity was encountered and was tested at 2260 feet. As the hole had been caving badly it was felt necessary to pull the tester without even the usual one hour test duration although a long test was considered desirable. It was, however, evident no fluid was entering the pipe. It does not appear that anything was passed up.

Drilling was continued until porosity was penetrated in the Steen River formation and testing was postponed in the hope of finding better porosity and running an overall test of long duration. A thin section of Steen River formation, however, resulted in the well encountering anhydrite

before it had been expected. The effect of anhydrite on the mud caused very considerable additional caving of the hole and the necessity for thoroughly conditioning mud before testing and logging. When a test was finally made, it gave similar results to the earlier one, a puff and quickly dying blow. Due to the continuing reaction of the anhydrite on the mud in the hole it was thought necessary to pull the tester without further delay. The tester was pulled loose after being set 18 minutes and the packer was found to be stuck in the hole. However, after working the pipe for half an hour it was freed and pulled out.

All remaining mud on hand was necessary for further conditioning prior to logging. This was done and a log run almost to bottom. Examination of the log showed the only two porous intervals had been tested. The well was plugged and abandoned on March 10th in plenty of time to get equipment back to Fort Simpson before break-up.

CASING REPORT

Rig No. .....

NAME OF WELL Natural Light Rapids No.1 ..... DATE Dec.23/54

Make of Casing used
Size 7"
Weight 17 & 20#
No. of Threads 8
Range 1 & 2
Grade J-55

Type Casing Shoe Guide
Welded on? yes
Float Collar nil
Welded on?
Centralizers at

Welding Electric yes Acetylene
No. Collars Welded? 3

Scratchers at

Calcium Chloride 2%
Aquagel added
Cementing Co. Petrol Ltd.
Cementer Geotz
Helper Cenache

Drive Bushing Elevation 777
REMARKS:
Casing stuck 4' above bottom
cemented.

Distance Drive Bushing
to Bottom Cellar 7.40 Ft.
Distance Casing Bowl Flange
Above Bottom Cellar Ft.
Distance Top of Casing
Above Bottom Cellar 0 Ft.
Distance Casing Bowl Flange
Below Drive Bushing 470.4 Ft.
Total Amt. Casing Used
470.03 Ft. Ldg. Jt. Ft.
Total Amt. Casing Left
In Hole 463 EB Ft.
Depth of Shoe Below
Drive Bushing 470.4 Ft.
Time Rigging up to
Run Casing 2 Hrs.
Time Casing Started In Hole 12:00 A. M.
Time Running Casing 9 Hrs.
Time Started Circulating 9:00 A. M.
Time Stopped Circulating 9:30 A. M.
Time Started Cementing 9:45 A. M.
Time Cement in Pipe 9:55 A. M.
Time Plug on Bottom 10:15 A. M.
Plug measured in to displacement with 21 Bbls, by ~~Wireline~~, ~~pumped-float collar~~.)
No. Sax Cement Used 125 Sax.
Hours Cement to Set 48 Hrs.
Method of Cementing Petrol
Cement Returns? Yes or No no
Casing Landed in Clamps, Bradenhead,
Casing Suspender (State Make)

Bore hole around casing of such size and depth cellar could not be estimated.

TUBING RECORD

Size O. D.	Wt. Lbs/ft.	Coupling Type Thread	L. W. or S. S.	Grade	No. of Joints	Amount	Set at

PIPE TALLY

WELL Westerol Mard Rapids No. 1A

SIZE 7" WEIGHT 17 & 20 # GRADE J-55 BRAND used DATE Feb. 26/54

1	32.60 with shoe	21		41		61	
2	29.71	22		42		62	
3	31.21	23		43		63	
4	31.33	24		44		64	
5	20.82	25		45		65	
6	31.02	26		46		66	
7	30.31	27		47		67	
8	29.01	28		48		68	
9	30.63	29		49		69	
10	30.62	30		50		70	
Total	304.77	Total		Total		Total	
11	29.03	31		51		71	
12	31.30	32		52		72	
13	15.60	33		53		73	
14	15.56	34		54		74	
15	19.63	35		55		75	
16	15.62	36		56		76	
17	16.03	37		57		77	
18	15.60	38		58		78	
19	8.84	39		59		79	
20		40		60		80	
Total	165.06	Total		Total		Total	
Sub-Total	470.03	Sub-Total		Sub-Total		Sub-Total	
	-7.03						
Landed	463.00				Grand Total 1 - 80		

WELL RECORD

Well Sectoral Liard Basin 1 Area Ft. Simpson, N.W.T.

BIT RECORD

Size	8 3/4 FILLING BIT					
Make						
No. Used						
Type						
Avg. Ft. per Bit						

DRILLING MUD RECORD

Average Mud Condition					Mud Conditioners Used	
Depth From	Depth To	Weight Lbs./Gal	A.P.I. Vis.	A.P.I. Wtr., L.	Bentonites	55 sax aquagel
0	1614	10.2	52	8.4		140 sax gel
1614	1662	10.4	57	8.4	Wt. Material	nil
1662	2042	10.6	51	8.6		
2042	2116	11.1	52	7	Chemicals	50 lbs. tannex
2116	2219	10.3	50	10		50 lbs caustic
2219	2267	10.6	51	8.7	Other	6 sax sawdust
2267	2279	10.6	47	7.6		100 lbs. cementox 41 sax fiberseal
2279	2353	10.5	46	8.8	Total Mud Expense	
2353	2399	10.7	48	7.5		
2399	T.D.	10.5	47	10		

CEMENTING RECORD

Pipe Cemented	Surface			
Date	Feb. 23/54			
Kind of Cement	common			
No. of Sacks	125			
% Gel.				
Slurry Wt. Lbs./Gal.				
Amount Left in Pipe				
Height Above Shoe	470'			
Temperature Survey				
Hours Set	48			
Remarks:				

NORTHERN LIARD RAPIDS NO. 1A

BIT RECORD

#	Size	Make	Type	From	To	Hrs. run	
1.	9"	HTC	OSC	0	98	4	dull
2.	9"	"	"	0	40	6	"
3.	9"	"	"	40	278	7	"
4.	9"	"	"	278	308	4	"
5.	9"	"	"	308	488	10	"
6.	6 1/8	"	"	488	840	14½	"
7.	6 1/8	"	"	840	1305	19	"
8.	6 1/8	"	"	1305	1650	19½	"
9.	6 1/8	"	"	1650	1886	17	"
10.	6 1/8	"	"	1886	2080	14½	"
11.	6 1/8	"	"	2080	2206	12	"
12.	6 1/8	"	"	2206	2267	10½	"
13.	6 1/8	"	OWS	2267	2362	17	"
14.	6 1/8	"	"	2362	2463	14	"
15.	6 1/8"		"	2463	2470	1	"

WESTFROL LIARD RAPIDS NO. 1A

C.W.Hunt,
March, 1954

DITCH SAMPLE DESCRIPTIONS

Samples were caught from 570 feet in 1953 operation.

570-1995 Shale - light greyish green, soft, splintery, calcareous, slightly silty with thin interbeds of shaley limestone but otherwise homogeneous. Traces of white silty limestone occur in the samples 1360, 1510, 1560 and 1570. Shaley light green limestone is more prominent than usual in the samples 1630, 1640 and 1690. Siltstone and fine sandstone are more prominent than usual in samples 1670, 1700 and 1840. From 1900 to 1995 limestone, silt and pyrite are increasingly abundant. The pyrite is often in the form of round pellets. Limestone below 1940 becomes more sugary, continues tight.

1995-2040 80-90% green shale caving from above.
10-20% black bituminous shale - non-calcareous, very highly organic with some interbeds of corralline bituminous limestone.

2040-2070 70-80% green shale cavings.
20-30% black bituminous shale as above.

2070-2090 40-60% green shale cavings.
40-60% black bituminous shale as above.

2090-2175 20-40% green shale cavings.
60-80% black bituminous shale as above. Sample 2120 has trace of white sugary limestone with light brown angular limestone inclusions. Sample 2130 has traces of chalky, silty, white limestone. Sample 2150 has considerable bituminous limestone with light but definite oil stain and light fluorescence, very poor porosity. Sample 2155 contains only tight bituminous limestone. Conodonts were noted at 2175.

2175-2215 Limestone - medium grained, chalky, intercalated with black shale and silt, locally dolomitized. Has appearance of coral rubble.

2215-2225 Limestone as above. Traces of porosity locally. No stain, cut or fluorescence.

2225-2230 Limestone - buff, white or brown, locally bituminous, fine crystalline with local fair porosity, no cut or fluorescence to porous portions although some secondary calcite fluoresces.

2230-2255 Limestone as above. Good porosity locally, no fluorescence or cut.

2255-2260 Limestone - dark brown to buff, bituminous, coralline, hard, locally silty, sandy or cherty, fine crystalline, tight.

2260-2315 Limestone - dark brown to light brown, fine crystalline, very bituminous locally, traces of silt, some secondary crystallization of white calcite, no stain, fluorescence or cut, traces porosity.

2315-2320 Limestone - very bituminous, dark brown, fine granular, trace of porosity, no fluorescence or cut.

2320-2340 Limestone - fragmental, locally salty, light to dark brown, dense.

2340-2350 Limestone - white, microcrystalline, dense.

2350-2385 Dolomite - dark brown, microcrystalline, dense.

2385-2410 Dolomite - cryptocrystalline, medium brown with bituminous dark brown interbeds, locally fragmental, traces of white secondary calcite recrystallization, traces of porosity and light even stain simulating oil but probably originating from bituminous material, no fluorescence or cut.

2410-2430 Dolomite - very fine crystalline, medium dark brown, bituminous, with lighter color to recrystallized dolomite and limestone, traces of porosity, no fluorescence or cut.

2430-2445 Limestone - medium brown, cryptocrystalline, dense.

2445-2455 Limestone - partly dolomitized, dark brown, fine crystalline, interbedded with dense light to medium brown limestone, fair to good porosity, no fluorescence or cut.

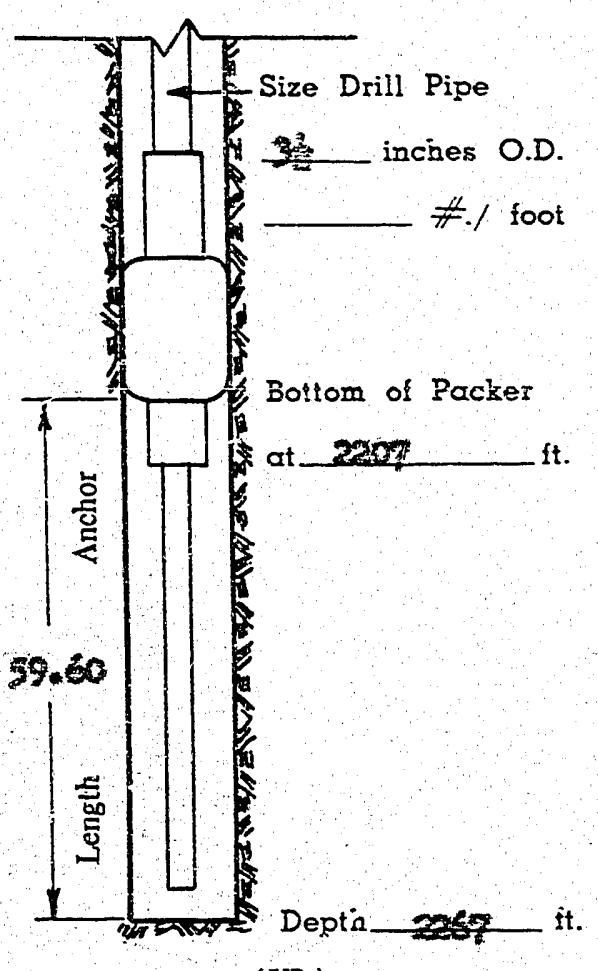
2455-2465 Limestone - light brown, dense, microcrystalline. Mud thickened badly at this point in drilling and required considerable treatment. Anhydrite is undoubtedly present in this zone although undetectable in the samples.

2465-2470 Limestone - dark brown, fine crystalline, dolomitic, fair to good porosity, no fluoresence or cut, no evidence of anhydrite in samples although mud deteriorated and thickened still further.

Drill Stem Test Report

Well Westcrol Liard Rapids No. 1A Test No. 1 Date Mar. 6/54

Testing Company Petcal using Johnston tool Operator J. Camacho & Gus Jensen



O.D. of Packer Rubber 5½" Size Choke ¼"
Type of Packer: Anchor Type X Hookwall _____
Formation Tested Territories Limestone
Zone Tested: From 2207 To 2267
Depth of Well 2267
Time Waiting on Tester -
Mud: Weight 10.6 A.P.I. Viscosity 52 Gel _____
Water Loss 6.5

Time Tester Started in Hole 8:30 A.M.
Time Tester on Bottom 10:05
Packer Set with — Wght. 2½ No., Points _____
Time Tester Opened 10:29 {a.m./p.m.} Duration open 16 min.
Time Tester Closed 10:45 {a.m./p.m.} Duration Shut in ____ min.
Time Packer Pulled Loose 10:45 {a.m./p.m.}
Packer Pulled Loose with — Wght. _____ No., Points ____
Time Tester Out of Hole 12:45

When Tool Opened: Blow Noticeable Yes X No ____
Air Displaced Yes X No ____
Mud Level Drop Yes ____ No X
Gas Reached Surface _____ {a.m./p.m.} _____ Minutes
Gas Flow _____ Mcf./day, Measured _____ Est. _____
Was flare lit, Yes _____ No _____ Length Flame _____
Size of Riser _____ Inches. I.D.

Description of {AIR/GAS} blow _____

Total Fluid in Drill Pipe: _____ Stands 5 Feet
Oil in Drill Pipe (Gassy)/(Dead) _____ Stands _____ Feet
Mud in Drill Pipe ~~(Gassy)~~/(Dead) _____ Stands 5 Feet
Water in Drill Pipe (Gassy)/(Dead) _____ Stands _____ Feet

Pilot Tube Measurements

Elapsed Time	Inches of H2O/Hg

Samples sent to _____ By: _____
Water: Salty, Sulphur, Brackish, Fresh. (Cross out terms that do not apply.)

Note: Samples of Oil and Water must be taken.

Remarks: _____

Put additional remarks or other information on back of sheet.

Present at Test ~~Camacho, Hunt, Courts and crew~~
Do you consider that test was satisfactory? Yes X No ____
Does chart show normal operation of tester? Yes X No ____
Pressure on chart (Hydrostatic) before tester opened 1150 #.
Pressure on chart (Flowing) with tester open 0 #.
B.H. Temperature _____ F° Shut in Pressure _____ #.
Is chart attached: Yes X No. _____ Who has it _____

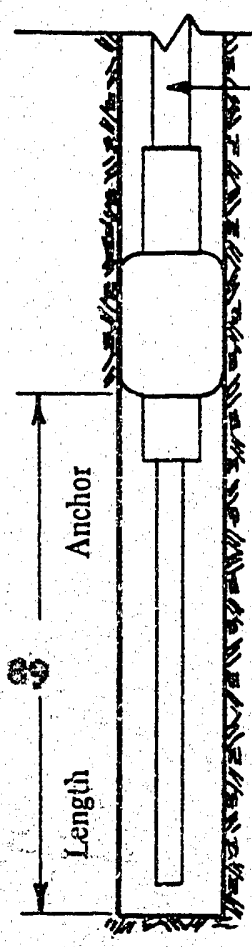
Note: Chart must be forwarded if pressure bomb is used, whether test successful or not.

Engineer J. Camacho

Drill Stem Test Report

Well Westcrel Lierd Rapids No.1A Test No. 2 Date March 8/54

Testing Company Tocal using Johnston tool Operator J.Camacho & Gus Jensen



O.D. of Packer Rubber 5½" Size Choke 1"
Type of Packer: Anchor Type X Hookwall
Formation Tested Steen River
Zone Tested: From 2389 To 2463
Depth of Well 2463
Time Waiting on Tester nil
Mud: Weight 10.6 A.P.I. Viscosity 53 Gel
Water Loss 8.2

Time Tester Started in Hole 2:30
Time Tester on Bottom 4:30
Packer Set with — Wght. 2½ No., Points 5,000
Time Tester Opened 4:58 {a.m./p.m.} Duration open 18 min.
Time Tester Closed 5:16 {a.m./p.m.} Duration Shut in ___ min.
Time Packer Pulled Loose 5:16 {a.m./p.m.}
Packer Pulled Loose with — Wght. 7 No. Points 14,000
Time Tester Out of Hole 8:10 P.M.

When Tool Opened: Blow Noticeable Yes X No
Air Displaced Yes No X
Mud Level Drop Yes No X
Gas Reached Surface {a.m./p.m.} Minutes
Gas Flow Mcf./day, Measured Est.
Was flare lit, Yes No Length Flame
Size of Riser Inches. I.D.

Description of {AIR/GAS} blow

Total Fluid in Drill Pipe: Stands 100 Feet
Oil in Drill Pipe {Gassy/Dead} Stands Feet
Mud in Drill Pipe {Gassy/Dead} Stands 100 Feet
Water in Drill Pipe {Gassy/Dead} Stands Feet

Pilot Tube Measurements

Elapsed Time	Inches of H2O/Hg

Samples sent to By:
Water: Salty, Sulphur, Brackish, Fresh. (Cross out terms that do not apply.)

Note: Samples of Oil and Water must be taken.

Remarks: ~~Pad let in when pipe varied in pulling out.~~
Put additional remarks or other information on back of sheet.

Present at Test ~~Camacho, Hunt, Scott & crew~~

Do you consider that test was satisfactory? Yes X No
Does chart show normal operation of tester? Yes X No
Pressure on chart (Hydrostatic) before tester opened 1500 #.
Pressure on chart (Flowing) with tester open 0 #.
B.H. Temperature F° Shut in Pressure #.
Is chart attached: Yes X No. Who has it

Note: Chart must be forwarded if pressure bomb is used, whether test successful or not.

Engineer J. Camacho

WESTROL LIARD RAPIDS NO. 1A — J.J.Camacho

SUMMARY REPORT

Road to well had been made to wellsite in early spring of 1953 and being mostly over muskeg and muskeg lakes was strictly a winter road.

Due to a heavy snowfall before freeze-up the muskeg had not frozen to a depth great enough to bear the weight of D-4 so trail was broken to lease with the snowmobile, followed by D-2 hired from mission.

As the snow on road was packed allowing frost to penetrate and freeze road bed, heavier loads hauled by our D-4 were moved to lease, where D-4 broke through muskeg, had to hire D-2 to make trip from Simpson to winch D-4 out then erect tent over D-4 and thaw ice, drain all oil sumps and fuel lines, pumps, etc.

Pump was loaded on sleigh and started to lease pulled by D-4 on Jan. 26th. Rig started at same time but thrust bearing went out on Simpson hill, had to wait repairs until C.P.A. flight Feb. 1st. Moving was carried on with D-7 and Chev. 2-ton truck.

Feb. 1st, 1954

Arrived at Simpson with repairs for rig clutch and assembled same night of Feb. 1st.

Feb. 2nd

Started rig to lease pulled by D-7 at 10:30 A.M. Gathering load for snowmobile.

Feb. 3rd

Started for lease with Snowbug. One shack half way to lease, found pump 30 miles from Simpson, sleigh had spread runners due to rough road. Rig 1/2 mile further had broken wheel and 3 flat tires due to same rough road. Max & Georz drove to Simpson for compressor to repair tires.

Feb. 4th

Drove to rig with crew. Loaded pump on stronger sleigh. Had D-4 go after Rowco unit and trailer shack. Worked on rig wheels and tires. Shack and Rowco unit and pump arrived at least at 12:00 A.M.

Feb. 5th

Repaired wheels and tires on rig and pulled rig in on single wheels. Arrived at 8:30 P.M.

Feb. 6th

Spotted sub structures, raised mast and guyed same. Due to lease being frozen to depth of one foot guy wire dead men had to be frozen in ice. This did not make too secure anchoring until severe cold froze crust thicker.

Feb. 7th

Rigged and set rat hole casing. Laid water line to lake. Mixing mud and heating water in pit. Started running tour.

Feb. 8th

Welded in flow line to conductor pipe. Put up pre febs around rig. Started drilling. Lost circulation at 40' K.B. Mixed mud and fiber seal. Ordered more 10$\frac{3}{4}$" casing and mud from Simpson.
Note. Fiberseal did not react to formation as well as sawdust, but due to no sawdust being available had to use fiberseal.
Note. Macogel mud would not make up into a good slurry, but tended to mix in pea-sized lumps and would not carry the lost circulation material which settled out when mud gun was stopped causing a lot of lost time cleaning out pump and plugged bits.

Feb. 9th

Mud and casing arrived at 2:00 A.M. mixed pit of mud and fiber-seal, pulled conductor pipe (which was loose). Reamed to 30' K.B. but could not get large boulders. Ran 9" bit and drilled to 135' to allow boulders to fall out of way. Mud line (spare Kelly hose) blew out. Hired Simpson for pipe to make mud line. Assembled mud line from drill pipe while waiting. Sent D-4 to Simpson for mud, equipment, etc. Ran out of oxygen to finish mud line.

Feb. 10th

Finished temporary mud line, mixed last 11 sax mud and fiber-seal. Load mud arrived at 2:30 P.M. Made mud heater from joint of 7" casing.
Note. Mud wouldn't mix right, had to heat water in pit, which thawed thin crust of frozen muskeg causing pit to enlarge, had to move pump back several times during this time. Temp. minus 25°-45°. Due to cold a lot of wood used to fire boiler, D-4 at Simpson, muskeg not frozen enough to chance D-7 hauling wood from wood camp. Trouble keeping enough steam to keep rig thawed out.

Feb. 11th

Reaming 10$\frac{3}{4}$" hole. Keeping rig thawed out.

Feb. 12th

Reamed to set 10$\frac{3}{4}$" casing. Set and cemented 41 ft. 10$\frac{3}{4}$". Temperature minus 25°-50°.

Feb. 13th

Finished cementing conductor pipe at 1:00 A.M. 50 sax 2% calcium chloride no return cement. Repaired mud pump, built pump house. Rigged flow line and general rig up.

Feb. 14th

Tested cement at 1:00 A.M. Cement still not set up. Rig and repair until 8:00 A.M. then drilled out. Lost circulation at 275 ft. in pea gravel. 30 sax mud on lease. Will have to make mud tank decided. Drove to Simpson for material.

Feb. 15th

Brought out last 20 sax mud. Hard time keeping wood on hand for boiler, short handed on rig, weather minus 45°. Waiting on oxygen.

Feb. 16th

Now have two-way radio. Bearings knocked out of Chev. truck. Load of 13 sax mud arrived from Hay River by Norseman plane. D-7 only motive power left. D-4 broken down. Rigged up 8 bbl. tank for water supply for boiler. Cutting up and remaking water tank into mud tank. Oxygen arrived at 9:30 P.M.

Feb. 17th

Due to extreme cold have bad time with water supply pump and lines. Constructing mud tank. Radio not operative due to weather. Got truck driver away for cement and material at 11:30 A.M. Hauling wood for boiler with D-7. All motors must be left running to keep warm.

Feb. 18th

Started sinking tank in pit at 12:00 A.M. winching pump ahead to fit tank. Rig new flow line to tank, cut up flat rock on sleigh to make settling tank in lieu of shaker. Made circulating head for drill pipe. Mixed mud, fiberseal and sawdust. Started cleaning out at 3:00 P.M.

Feb. 19th

Cleaning hole out, old hole very crooked, cleaned to 423' losing mud to gravel. Mixing mud and fiberseal. Horseman arrived at 2:00 P.M. Borrowed D-4 on road to Simpson to get fuel.

Feb. 20th

Mixing mud and fiberseal. Stuck drill pipe at 1:30 A.M. got loose at 6:00 A.M. Lost all but 13 sax mud - decided to try to run casing. Started at 4:00 P.M. Had to tong casing in, hole very crooked. Lost circulation completely at 120'.

Feb. 21

Casing in hole at 6:00 A.M. Heater in dog house exploded, while getting first aid to burns mud tank ran dry, pump picked up lost circulation material from bottom of tank and plugged casing shoe. Pulled casing, which had two holes in it. Welded same. Started in to clean out hole - circulating water - no mud on hand. Radio not working. Pipe stuck on bottom.

Feb. 22nd.

Jarring pipe loose. Made milling shoe for casing and circulating head. Milled and drilled casing to 470' K.B. Cemented with 125 sax cement, 2% calcium chloride and hot water 16# slurry. Had flash set on cement, casing stuck 5' off bottom. No returns.

Feb. 23rd.

Warren Hunt, welder and roughneck arrived by Wardair. Welding on rig and B.O.C.

Feb. 24th.

Head up with B.O.P and master valve, install flow line to shaker, make mud ditch from salvaged barrels, make mud line, etc.

Feb. 25th

Finished heading up. Otter arrived with 2 loads mud from Hay River. Drilled plug at 7:45 P.M. Trouble with bit plugging. Tested B.O.P. Water supply pump giving trouble.

Feb. 26th

Repairing water pump for 5 hours. Repair broken steam line. Work on rig lights.

Feb. 27th

Drilled to 840 ft. shoveling shale off shaker into hole around casing to try to fill same.

Feb. 28th

At Simpson to bring out D P Protectors. Drilling ahead.

Mar. 1st

Drilling ahead, losing mud to hole in casing. Mixed mud. Due to limited capacity of mud tank sand does not settle out of mud column causing a heavy mud and no way to treat to lower mud weight short of cleaning out tank and losing mud supply in tank.

Mar. 2nd

Pipe protectors dropped off C.P.A. on return flight from Norman Wells. Drilling ahead still losing about 6 bags mud per day to leak in casing.

Mar. 3rd

Drilling ahead, mix mud. Hired truck arrived with pipe protectors, fuel, mud saver. Sent D-4 driver to Simpson for our D-4, for parts and equipment and fuel.

Mar. 4th

Drilling. Radio transmission out.

Mar. 5th

Pulled out at 8:00 A.M. Mixed mud. Gibbeson arrived at noon with small load, roads tough. Max reports Chev. truck in bad shape.

Mar. 6th

Ran. D.S.T. from ~~2216~~ 2207-2276 15 min. test. Rec. 5' drilling mud. D-4 arrived with D-4 and 21 bbls. of fuel.

Mar. 7th

Drilling, trip to change bit. No radio communication.

Mar. 8th

Mud contaminated by anhydrite. Trouble with tight hole for 300 ft. off bottom, reamed and cleaned back to bottom, conditioned mud wit chemicals, mixed mud, ran D.S.T. No.2 ~~2374~~-2463. Tester stuck for one hour, got loose, ran in cleaning out from 2100 to 2210.

Mar. 9th

Cleaned to bottom, conditioned mud, drilled to 2470, conditioned mud, pulled out to log. Started log at 6:45 P.M. Started in with D.P. to run plug. 2389

Mar. 10th

Dropped plug of 15 sax cement at 2100'
Dropped plug of 10 sax from 450 to 500'.
Welded plate on casing.
Tore out rig. Loaded pump, got rig and cats ready for road.

Mar. 11th

To Yellowknife by Wardair. Brought out Fisher, McKay, Georz, Jensen, Howco men, myself and Warren Hunt, and parts of Johnston test tool.

TIME DRILLING RECORD

From To

No. of Bit ....

Well Name and Number: Esterol Liard Aplas 1A...

Sheet No. 1

Beginning Date Feb. 23/54

Ending Date .....

No. of Bit ....

Hours ....

Hours ....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1200	1205			9	6000	P.P. 500
1205	1210			11		P.P.R.100
1210	1215			11		
1215	1220			10		
1220	1225			7		
1225	1230			12		
1230	1235			10		10 min. core.
1235	1240			11		
1240	1245			10		
1245	1250			12		
1250	1255			8		
1255	1260			12		
1260	1265			9		10 min. core.
1265	1270			10		
1270	1275			11		
1275	1280			11		
1280	1285			12		
1285	1290			11		
1290	1295			9		mixing mud

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit .7.....	.....	.....
Hours	.....	.....
No. of Bit .S.W.G. - No.7	.....	.....
Hours	.....	.....

Well Name and Number: Testerol Mud Rapids No.1A

Sheet No. .....2.....

Beginning Date March 1/54.....

Ending Date .....March 1/54.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1295	1300			15	5000	
1300	1305			25		
1305	1310			10		trip
1310	1315			12		
1315	1320			12		
1320	1325			11		24 min. conn. reaming.
1325	1330			16		
1330	1335			21		
1335	1340			20		
1340	1345			21		
1345	1350			17		
1350	1355			16		
1355	1360			11		18 min. reaming conn.
1360	1365			11		
1365	1370			11		
1370	1375			16		
1375	1380			15		
1380	1385			19		
1385	1390			15		13 min. reaming conn.
1390	1395			13		
1395	1400			14		
1400	1405			12		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

		From	To
	No. of Bit	.....	.....
Sheet No. 3	Hours	.....	.....
Well Name and Number	Beginning Date Dec. 1st	No. of Bit 8	.....	.....
Westerol Lime Rapids No.1	Ending Date	Hours	.....	.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1405	1410			14	5	500 p.p.
1410	1415			14		150 r.p.m.
1415	1420			11		
1420	1425			19		(Ber.Rix) (conn.)
1425	1430			20		
1430	1435			12		
1435	1440			13		
1440	1445			15		
1445	1450			15		
1450	1455			25		conn. reaming.
1455	1460			10		
1460	1465			12		
1465	1470			15		
1470	1475			16		
1475	1480			18		con. reaming. circ.
1480	1485			12		
1485	1490			13		
1490	1495			13		
1495	1500			20		
1500	1505			14		
1505	1510			16		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Eastern [illegible] & Caplin 14

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1510	1515			34		Reaming, circ. coon.
1515	1520			11		
1520	1525			15		
1525	1530			15		
1530	1535			15		
1535	1540			15		
1540	1545			42		Reaming, circ. coon.
1545	1550			13		
1550	1555			17		
1555	1560			15		
1560	1565			15		
1565	1570			15		
1570	1575			35		
1575	1580			13		Coon.Reaming.circ.
1580	1585			15		
1585	1590			13		
1590	1595			12		
1595	1600			17		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Beatrice West Unit No. 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1600	1605			15		
1605	1610			26		Conn. & Reaming
1610	1615			19		
1615	1620			16		
1620	1625			10		Rig service. T.O.pump
1625	1630			13		
1630	1635			12		
1635	1640			10		12 min. reaming & conn.
1640	1645			15		
1645	1650			18		trip mix mud
1650	1655			13		ream 130 ft. to bottom
1655	1660			17		
1660	1665			15		
1665	1670			38		conn. reaming, circ. & ser.rig
1670	1675			10		
1675	1680			19		
1680	1685			12		
1685	1690			20		
1690	1695			20		
1695	1700			37		conn. reaming and circ.

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

		From	To
No. of Bit	9		
Hours			
No. of Bit			
Hours			

Well Name and Number: Liard Rapids 1A

Sheet No.

Beginning Date: Mar. 3

Ending Date

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1700	1705			20		
1705	1710			26		
1710	1715			19		
1715	1720			22		
1720	1725			20		
1725	1730			20		
1730	1735			15		Conn (changed singles)
1735	1740			19		reaming & circ. 35 min.
1740	1745			18		
1745	1750			18		
1750	1755			17		
1755	1760			17		
1760	1765			34		conn. reaming & circ.
1765	1770			20		
1770	1775			19		
1775	1780			20		
1780	1785			27		worked on pump
1785	1790			18		conn. reaming & circ.
1790	1795			16		
1795	1800			18		

This record is to be kept for each .... foot interval

TIME DRILLING RECORD

		From	To
	No. of Bit	.....	.....
Well	Sheet No.	Hours	.....	.....
Name and Number	Beginning Date	No. of Bit	.....	.....
Federal Liard Pgnide 14	Ending Date	Hours	.....	.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1800	1805			19		
1805	1810			18		
1810	1815			21		
1815	1820			22		
1820	1825			33		conn. reaming & circ.
1825	1830			19		20 min. ser. rig.
1830	1835			19		
1835	1840			20		
1840	1845			17		
1845	1850			20		
1850	1855			16		14 min. conn. & reaming.
1855	1860			23		
1860	1865			21		
1865	1870			23		
1870	1875			21		
1875	1880			22		
1880	1885			21		work on rotary chain
1885	1890			10		trip
1890	1895			18		
1895	1900			1½		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

		From	To
	No. of Bit		
	Hours		
	No. of Bit		
	Hours		

Well Name and Number: Federal Land Rapids 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
1900	1905			58		repaired rotary chain
1905	1910			14		
1910	1915			16		
1915	1920			30		core, reaming & circ.
1920	1925			17		
1925	1930			21		
1930	1935			19		
1935	1940			19		
1940	1945			22		
1945	1950			19		core & reaming & circ.
1950	1955			24		
1955	1960			24		
1960	1965			21		
1965	1970			20		
1970	1975			20		
1975	1980			24		core, & reaming & circ.
1980	1985			26		
1985	1990			19		
1990	1995			20		
1995	2000			21		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Pectoral Liard Reefs 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2000	2005			20		working on pump
2005	2010			45		com. & reaming
2010	2015			17		scr. swivel
2015	2020			23		
2020	2025			22		
2025	2030			20		
2030	2035			20		
2035	2040			34		com. & reaming.
2040	2045			26		
2045	2050			27		scr. rig.
2050	2055			26		
2055	2060			24		
2060	2065			24		
2065	2070			20		24 min. com. & reaming.
2070	2075			24		
2075	2080			25		
2080	2085			20		trip
2085	2090			14		
2090	2095			15		
2095	2100			14		com. reaming & circ.

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

			From	To
		No. of Bit	.....	.....
Well Name and Number	Sheet No.	Hours	.....	.....
	Beginning Date	No. of Bit	.....	.....
Centerol Lisc. Repl. 1	Ending Date	Hours	.....	.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2100	2105			10		
2105	2110			20		
2110	2115			26		
2115	2120			23		
2120	2125			29		
2125	2130			30		core & coring
2130	2131			5		
2131	2132			4		
2132	2133			4		
2133	2134			4		
2134	2135			5		
2135	2136			4		
2136	2137			3		
2137	2138			4		
2138	2139			4		
2139	2140			5		
2140	2141			4		
2141	2142			4		
2142	2143			4		
2143	2144			5		
2144	2145			4		
2145	2146			4		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

		From	To
	No. of Bit	.....	.....
Well	Sheet No.	Hours	.....	.....
Name and Number	Beginning Date	No. of Bit	.....	.....
Federal Liard Baptiste 16	Ending Date	Hours	.....	.....

DEPTH		TIME O'CLOCK		TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
From	To	From	To			
2146	2147			5		
2147	2148			6		
2148	2149			4		
2149	2150			5		
2150	2151			6		
2151	2152			5		
2152	2153			5		
2153	2154			5		
2154	2155			4		
2155	2156			5		
2156	2157			15		core & reaming
2157	2158			4		
2158	2159			3		
2159	2160			3		
2160	2161			3		
2161	2162			6		
2162	2163			4		
2163	2164			3		
2164	2165			5		
2165	2166			4		
2166	2167			5		
2167	2168			5		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well
Name and Number
Westerol Liard Region 1A
.....

Sheet No. .....
Beginning Date .....
Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2168	2169			5		
2169	2170			5		
2170	2171			7		
2171	2172			5		
2172	2173			7		
2173	2174			5		
2174	2175			7		
2175	2176			11		
2176	2177			11		
2177	2178			13		
2178	2179			8		
2179	2180			8		
2180	2181			11		
2181	2182			9		
2182	2183			11		
2183	2184			9		
2184	2185			12		core. & reaming
2185	2186			6		
2186	2187			10		
2187	2188			9		
2188	2189			8		
2189	2190			15		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

		From	To
	No. of Bit	.....	.....
Well Name and Number	Sheet No.	Hours	.....
	Beginning Date	No. of Bit	.....
General Land Beale LA	Ending Date	Hours	.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2190	2191			12		
2191	2192			9		
2192	2193			10		
2193	2194			9		
2194	2195			10		
2195	2196			10		
2196	2197			8		
2197	2198			10		
2198	2199			10		
2199	2200			10		
2200				10		
						Circ. 30 min - trip
	connection on telly					
2204	2205			10		
2205	2206			11		
2206	2207			14		
2207	2208			15		
2208	2209			15		
2209	2210			13		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Federal Liard Explde 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling: Breaks, etc.
2210	2211			14		
2211	2212			15		
2212	2213			16		
2213	2214			15		
2214	2215			15		
2215	2216			13		
2216	2217			18		
2217	2218			16		
2218	2219			16		bit balled up
2219	2220			4		mixing mud
2220	2221			2		
2221	2222			5		
2222	2223			5		
2223	2224			5		
2224	2225			6		
2225	2226			7		
2226	2227			6		
2227	2228			7		
2228	2229			7		
2229	2230			6		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

Well Name and Number: Westoral Island Parish No. 1A

Sheet No. .....
Beginning Date .....
Ending Date .....

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2230	2231			5		
2231	2232			6		
2232	2233			6		
2233	2234			6		
2234	2235			6		
2235	2236			6		
2236	2237			8		
2237	2238			6		
2238	2239			6		
2239	2240			7		
2240	2241			7		
2241	2242			7		
2242	2243			9		
2243	2244			7		
2244	2245			9		
2245	2246			9		
2246	2247			8		
2247	2248			6		
2248	2249			6		
2249	2250			6		Sand.
2250	2251			7		
2251	2252			6		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Esteerol Mard Rapids 1A .....

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2252	2253			7		
2253	2254			8		
2254	2255			7		
2255	2256			8		
2256	2257			9		
2257	2258			7		
2258	2259			12		
2259	2260			17		
2260	2261			16		
2261	2262			18		
2262	2263			19		
2263	2264			17		
2264	2265			16		
2265	2267			21		circ. to test & trip
						bit worn out, teeth
	Correction on pipe tally					and bearings.
	should be 2267 - T.D.					

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Waterol Unit Tract 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2267	2268			17		
2268	2269			15		
2269	2270			18		
2270	2271			19		
2271	2272			13		
2272	2273			16		
2273	2274			15		
2274	2275			15		
2275	2276			14		
2276	2277			17		
2277	2278			15		
2278	2279			19		
2279	2280			14		
2280	2281			12		
2281	2282			33		sand,lime & sand.
2282	2283			9		
2283	2284			9		
2284	2285			10		
2285	2286			10		
2286	2287			9		
2287	2288			8		
2288	2289			9		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit		
Hours		
No. of Bit		
Hours		

Well Name and Number: Westerol.Lizard.Rapids.No.14

Sheet No. ....

Beginning Date ....

Ending Date ....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2289	2290			11		
2290	2291			8		
2291	2292			10		
2292	2293			6		
2293	2294			14		
2294	2295			7		
2295	2296			9		
2296	2297			10		
2297	2298			10		
2298	2299			8		
2299	2300			9		
2300	2301			9		
2301	2302			10		
2302	2303			11		
2303	2304			9		
2304	2305			13		
2305	2306			11		
2306	2307			12		
2307	2308			7		
2308	2309			9		
2309	2310			11		
2310	2311			11		

This record is to be kept for each .... foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Pectoral Mart Pools 14

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2311	2312			9		1 ft. correction on kelly
2312	2313			26		conn. & circ.
2313	2314			7		
2314	2315			8		
2315	2316			7		
2316	2317			9		
2317	2318			10		
2318	2319			9		
2319	2320			10		
2320	221			9		
221	222			7		
222	223			?		
223	224			10		
224	225			8		
225	226			9		
226	227			10		
227	228			8		
228	229			7		
229	230			10		
230	231			10		
231	232			6		
232	233			11		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Western Lead Rapids 1

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2333	2334			8		
2334	2335			8		
2335	2336			10		
2336	2337			9		
2337	2338			10		
2338	2339			8		
2339	2340			9		
2340	2341			8		
2341	2342			8		
2342	2343			9		
2343	2344			16		Sam. & Ser. Anhyd.
2344	2345			10		
2345	2346			8		
2346	2347			8		
2347	2348			9		
2348	2349			7		
2349	2350			9		
2350	2351			10		
2351	2352			10		
2352	2353			10		
2353	2354			14		
2354	2355			9		Ser.Anh

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Westoral Hunt Eagle 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2355	2356			10		
2356	2357			10		
2357	2358			10		
2358	2359			10		
2359	2360			12		
2360	2361			10		
2361	2362			10		
2362	2363			5		trip
2363	2364			7		
2364	2365			8		
2365	3366			10		
2366	2367			9		
2367	2368			8		
2368	2369			8		
2369	2370			9		
2370	2371			11		
2371	2372			11		
2372	2373			9		
2373	2374			6		10 min. conn.
2374	2375			7		
2375	2376			8		
2376	2377			8		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Pentecost Liard Santos 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2377	2378			6		
2378	2379			7		
2379	2380			9		
2380	2381			9		
2381	2382			8		
2382	2383			6		
2383	2384			8		
2384	2385			8		
2385	2386			9		
2386	2387			9		
2387	2388			10		
2388	2389			10		mix mix
2389	2390			8		
2390	2391			8		
2391	2392			7		
2392	2393			9		
2393	2394			8		
2394	2395			8		
2395	2396			7		
2396	2397			5		
2397	2398			9		
2398	2399			9		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Pastoral Island Rapids 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2399	2400			6		
2400	2401			8		
2401	2402			8		
2402	2403			7		
2403	2404			21		core. & cor. rig
2404	2405			7		
2405	2406			6		
2406	2407			6		
2407	2408			6		
2408	2409			7		
2409	2410			7		
2410	2411			7		
2411	2412			6		
2412	2413			7		
2413	2414			8		
2414	2415			7		
2415	2416			6		
2416	2417			6		
2417	2418			7		
2418	2419			7		
2419	2420			7		
2420	2421			10		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Westerol Unit Replat 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH		TIME O'CLOCK		TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
From	To	From	To			
2421	2422			6		
2422	2423			7		
2423	2425			9		
2424	2425			9		
2425	2426			7		
2426	2427			8		
2427	2428			6		
2428	2429			9		
2429	2430			8		
2430	2431			9		
2431	2432			8		
2432	2433			16		coal.
2433	2434			5		
2434	2435			5		
2435	2436			6		
2436	2437			6		
2437	2438			7		
2438	2439			6		
2439	2440			7		
2440	2441			8		
2441	2442			7		
2442	2443			7		

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Eastern Light Replug No. 1A

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2443	2444			8		
2444	2445			9		
2445	2446			8		
2446	2447			7		
2447	2448			7		
2448	2449			9		
2449	2450			9		
2450	2451			9		
2451	2452			9		
2452	2453			10		
2453	2454			9		
2454	2455			8		
2455	2456			9		
2456	2457			9		
2457	2458			7		
2458	2459			8		
2459	2460			8		
2460	2461			10		
2461	2462			10		
2462	2463			9		tite

This record is to be kept for each .....foot interval

TIME DRILLING RECORD

	From	To
No. of Bit	.....	.....
Hours	.....	.....
No. of Bit	.....	.....
Hours	.....	.....

Well Name and Number: Federal Liard Rapids L-1

Sheet No. .....

Beginning Date .....

Ending Date .....

DEPTH From	DEPTH To	TIME O'CLOCK From	TIME O'CLOCK To	TIME ELAPSED MINUTES	WT. ON BIT IN 1000's	REMARKS:—Pump Pressure, R.P.M.'s, Time Out, Nature and Depths of Drilling, Breaks, etc.
2663	2664			7		
2664	2665			7		
2665	2666			7		
2666	2667			8		
2667	2668			13		
2668	2669			11		
2669	2670			15		

This record is to be kept for each .....foot interval

November 2nd, 1953

Petcal Limited,
528 9th Avenue West,
Calgary, Alberta.

Attention: E.H.LaBorde,Esq.

Dear Mr. LaBorde:

Northwest Territories: Comprehensive
Summary of Exploratory Work Done to Date

As requested for your letter to the Department of Resources and Development applying for credits for exploratory work on our permit spread in the Northwest Territories I am enclosing herewith a complete recount, step by step, of work done and conclusions reached from the time of permit issuance to the present.

When you informed me of your intention to conduct exploration in the Fort Simpson area the first steps taken were to consult Dr. T.A.Link, a man of considerable exploratory experience in the far north, and to read all geologic and explor-atory literature available at the Public Library and in our own files on the Mackenzie basin in general. These studies were followed immediately by a visit to the area by Mr. M.E.Hopnford,

who was to be in charge of operations on the ground, Mr. W.Jensen, a drilling contractor, and myself.

These studies and the visit to the area resulted in a number of basic decisions. Of primary importance was the decision that this area, unlike the Norman Wells area or the reef terrane just west of Great Slave Lake, did not have sufficiently good outcrops of Paleozoic strata for much surface geological work leading to the location of drillable prospects. A certain amount of surface mapping seemed to be worthwhile, however, and was decided upon as part of our program.

Since we were primarily operating in the Fort Simpson area with the idea of finding oil as quickly and cheaply as possible we soon became convinced that little could be done until a series of stratigraphic test wells were put down to determine whether prerequisite sedimentary rocks actually existed in the subsurface. Therefore, our first major decision on exploratory technique was to place emphasis on the drilling of stratigraphic test wells. At the same time a small amount of surface study was to be carried on.

Contributing to the decision to drill was our belief that the principal alternative exploratory method, a geophysical survey of some kind, would be almost as expensive as drilling, considerably less informative, and would require a follow-up stratigraphic drilling and structural program too great for our budget.

To begin the drilling program a preliminary judgment had to be made as to whether there existed approximately two, four or six thousand feet of sedimentary cover overlying the pre-Cambrian strata in the Fort Simpson area. As drilling equipment was different for these three depth ratings a risk was involved in any choice. A rig too small would drill inadequate depths; a rig too large would cost more to buy and operate and would cut down the number of wells drilled by being slow to move. It was believed, however, that 2000 to 3000 feet of Paleozoic sediments were to be expected. This judgment was based largely on the geologic reconnaissance done on the writers' first trip to the area with Mr. Wopnford and Mr. Jensen. This view of sedimentary thickness was not accepted by some other operators in the vicinity and later caused us some difficulty in obtaining financial

assistance and cooperative effort from them. As it turned out we reached pre-Cambrian in the first well and our worries about reaching all objectives were completely relieved.

When it had been decided that shallow drilling (2000 to 3000 feet) was the exploratory method most likely to yield quick and conclusive results an immediate study was made of the various problems which would have to be solved to undertake drilling in such a remote area. The usefulness of boats, barges, caterpillar tractors, trucks and airplanes were evaluated. The availability of labor was studied and means for servicing men and machines were analysed to the smallest detail. Cost estimation, of course, was carried on from the very start.

While the organization of machinery and manpower was in progress a detailed analysis of every scrap of geological information was undertaken to try to determine whether there was an area or several areas where the drill would have a better prospect of striking something interesting. In order to utilize the summer weather for drilling an immediate decision on the location of the first stratigraphic test well had to be made prior to any field work being

done. Thus, a large spread of aerial photographs were purchased and studied. Detailed cross-sections were constructed using all possible available information. Published reports were studied for clues to outcrops, oil and gas seepages and structural indications in general.

The aerial photograph analysis brought out evidence of persistent north dips of low magnitude to the northward from the Mackenzie River and east dips east of where the Mackenzie is flowing north. The strata showing these dips were traceable for miles and, based partly on evidence supplied by the literature and Dr. Link, were concluded to be probably "shadow" dips in poor outcrops of the Devonian Hay River shale or Simpson shale. Although the formation determination was later proved wrong, the structural interpretation did not appear improbable and lead to the conclusion that a general uplift over twenty miles long and ten miles wide of about oval form, trending east-west occupied the area between the Liard and Mackenzie Rivers, southeast of Fort Simpson. The strata in question turned out to be Tertiary lake beds. The dips may have been caused by uplift. If so, this structure might well have been a gentle drape fold over a large reef body. It

was determined, therefore, to place the initial wells as strategically as possible on this structure.

Meanwhile, as mentioned above, some purchases of equipment had been made but purchase of the major items was still under study. After a great deal more work along this line and negotiation with Mr. Jensen's drilling company the following equipment was purchased: one Cardwell Mobilehoist drilling rig with Caterpillar D-318 engine, Brewster blocks, table and swivel, Guiberson type-A blowout preventers, one Caterpillar D-4 tractor, one mud pump with General Motors diesel engine, an Emsco type D-175 pump, a half-ton Ford truck, a Chevrolet two-ton truck, an electric welding unit with Wisconsin engine and General Electric welder, a three-inch water pump with Wisconsin engine and Monarch pump, a $1\frac{1}{2}$ inch water pump with Briggs and Stratton motor and L.C.M. pump, a twin-engine landing-craft type barge with Chrysler industrial engines and landing gate, a gasoline-driven light plant, a diesel light plant, one yard at Fort Simpson comprising slightly less than one acre of land with a two-storey new log house fully equipped for cooking, sleeping and bathing and suiteble for housing a crew of

twenty men, auxiliary buildings including an ice house, a barn, a garage-workshop. One skow was purchased and one was built by the Company. These were put in service with three outboard engines, a 25 horsepower Johnson, a 22½ horsepower Evinrude, and a 10 horsepower Johnson. A complete tent camp was purchased and constructed and moved about for the drilling done during the summer of 1952.

Our company set up a complete organization to handle the drilling rig and approximately twenty-five men who were continuously employed through the summer in the Fort Simpson area. Heavy equipment was moved by truck to Hay River, Northwest Territories and freighted on commercial barges to the first drillsite. Personnel and light supplies were for the most part taken in by Canadian Pacific Airlines, whose weekly service was not bad for our purposes. There was an acute shortage of manpower throughout the oil industry in Canada at that time, a factor which made it increasingly difficult to obtain suitable men for such a remote project.

All equipment arrived in good order and drilling was commenced about July 1st, 1952 on the Westerol 3A well (on Permit No. 383). Difficulties were encountered immediately with boulders in the surface

materials and with cement not setting properly after the surface casing was landed. The difficulty of getting cement to set through permafrost was solved by heating the well bore after a boiler had been obtained and taken to the wellsite for that purpose. It was later found that the same result could be obtained by increasing the cement slurry weight well beyond the weights used commonly in other areas. Some ten days were lost in this manner.

The Westerol 3A well found the thin sedimentary cover above the basement rocks that had been hoped for, pre-Cambrian being encountered slightly above total depth of 2422 feet. Unfortunately, however, the Devonian reef which had been sought was not developed and, while the well found small oil showings in the middle Devonian, no substantial porosity was found.

Three further wells were drilled during the summer, the Westerol 7A (on Permit No. 390), the Westerol 4A (on Permit No. 384), and B.A.H.B.Trail Creek No. 1. In the writer's opinion three "clues" to location of oil fields were obtained by these wells. They succeeded in establishing very definitely an east-west strike and a south dip of some 35 feet per mile. Even this regional strike and dip requiring

three wells to determine it was a discovery of fundamental importance. Secondly, a showing of oil and some porosity was encountered in the Westerol 7A well in the middle Devonian. This seemed to point strongly toward the possible presence of a stratigraphic trap down-dip to the south, where the middle Devonian strata might open up sufficiently to be regarded as potential reservoir rocks. Thirdly, a slight thickening of the upper Devonian limestone where the reef, if present, would have grown in the 4A well pointed to a possible nearby occurrence of reef. Due to the fact that most of the production in Western Canada comes from reefs of the upper Devonian, the reef prospect in the Fort Simpson area had been considered to be the primary objective. However, with the "clues" as set forth above a stratigraphic trap in the middle Devonian was a close secondary prospect in our estimation. This prospect a year later was to become our primary objective in trying to prove the existence of potential reservoir conditions. Unless such proof could be obtained shortly the continuance of exploration in our opinion would become eccnomically unsound.

The 1952 summer program had also proved three things of negative interest but considerable geologic value. These were: (1) The

occurrence in the Fort Simpson area of the pre-Cambrian at 2000 to 3000 feet below the surface. (2) Proving at four different locations that no large reef mass existed and, therefore, that very large reef structures probably do not exist in the general area. Medium-sized to small reef masses might still, however, be present. (3) The presence of a widely distributed impermeable sedimentary sequence (implying an effective permeability barrier to up-dip oil migration in all formations but especially in the limestones occurring near the upper Devonian-middle Devonian contact). The summer program included enough wells over a large enough area to support these conclusions strongly.

Geologically it was evident that more stratigraphic testing down-dip was necessary to establish the illusive reservoir conditions. It was evident that more work near the possible "reef foot" at the Westerol 4A well would also be justified. At that time no well within 150 miles in all directions had shown any evidence of reservoir conditions either of reef or stratigraphic nature.

It was determined that three different operations would be undertaken. At the top of the list was the drilling of a well as f-r

down-dip as possible with the Cardwell rig. The location chosen was a known structure near the rapids of the Liard River. This well was our first choice because it would have good prospects of finding either reef or stratigraphic reservoir rock. The second item on the program was to drill a well south of the Westerol 7A well in search of a stratigraphic trap. The third was to attempt a limited seismic program around the Westerol 4A well, where there had been the hint of possible reef development.

As a matter of operational practicability the seismic program was undertaken first. As soon as this work was underway it became evident that results were not being obtained due to lack of adequate drilling equipment and the thick extremely variable overburden of Tertiary lake beds. As there seemed to be no hope of improving results the program was abandoned without delay. This work was done in the Fall of 1952.

At about the same time plans were consolidated for drilling of the Liard Rapids well and the well south of the Westerol 7A, the Jean Marie Creek well. In order to get the British American-Hudson's Bay group to drill Jean Marie Creek during the summer of 1953 our

company group agreed to drill all summer for them. With the summers' work forecast for 1953 we then organized a winter tractor train with sufficient road-building equipment and winter drilling and camp equipment to build fifty miles of road to the Westerol Liard Rapids No.1 wellsite and to drill the well during the Winter of 1952-53. The main items purchased were eleven logging sleighs, a D7 caterpillar with dozer blade, a portable caboose camp on sleighs, a caterpillar light plant and a snowmobile.

In the latter part of November, 1952, arrangements were made for purchase of the D7 "cat", bulldozer blade, seven logging sleighs, the portable living quarters, the snowmobile and some lighter equipment. Some personnel were taken on at this time.

On December 1st M.E.Wopnford arrived at Edmonton from Fort Simpson to commence organizing the "cat" train. The assembly operation began at Edmonton and Fort Nelson, B.C., the latter being the starting point. It progressed satisfactorily at first but soon ran into difficulties which were to result in failure to complete the Liard Rapids well during the Winter of 1952-53. Typical of these difficulties was that experienced in obtaining the D7 caterpillar. Although the local

Calgary supplier had faithfully promised one when needed we ultimately purchased the "cat" in North Dakota and a bulldozer blade to fit it in Toronto. Such difficulties caused not only unexpected and ultimately unbearable delays but the expenditure of many thousands of trucking bills and remedial measures. The need for taking these measures can only be attributed to the continual race against weather.

From mid-December equipment was being assembled at Fort Nelson, although this phase of the operation was greatly held up by lack of the caterpillar, which did not finally arrive until January 25th, just one month late. The train set out that night and during the next week struggled northward in temperatures of 35° to 60°F below zero, often with considerable wind, temperatures almost too cold for any effective work out-of-doors.

A number of basic deficiencies in the make-up of the train immediately developed. Primarily, the logging sleighs were not durable enough to carry the heavy loads of our equipment; and breakage began immediately after the train started. These difficulties were not unrecognized from the outset; but the equipment had been purchased as being the best and almost the only equipment of the sort offered on the market on

such short notice. Remedial measures and purchases of new equipment were immediately made; and after a delay of about ten days the train went through to Fort Simpson, some 250 miles, arriving on February 20th after running twenty-four hours per day all the way. The seven men who carried this job to completion repairing one accident after another, escaping one danger after another, and never resting adequately the whole time did nothing less than a herculean task. Needless to say, such a job would never have been undertaken had the extreme difficulties been anticipated.

Between February 20th and March 23rd, forty-three miles of new road was built and all drilling and camp equipment moved to the Liard Rapids wellsite. On March 23rd the well was spudded in. But at this point another of the misfortunes which dogged the winter operation caused delay. The well had been spudded in at the wrong location and the rig had to be moved after 460 feet of drilling was done. The error arose from a mistake in the identity of the lake on which the well was to be drilled. After a loss of eight days the correct well was spudded in on April 1st, 1953. Immediate difficulties developed with drilling in the surface sediments at this location. Caving sand, boulders and lost

Western 1A LIARD RAPIDS

circulation, made our difficulties the worst encountered by our drill in the Fort Simpson area. To remedy these difficulties a joint of 10$\frac{3}{4}$ inch casing for conductor pipe had to be located at the yard of Imperial Oil Limited at Norman Wells, cut into four segments, flown to Fort Simpson, freighted to the Liard Rapids wellsite, welded together again and cemented in position. This stopped the dangerous caving. But lost circulation difficulties continued, and when all mud and lost circulation materials available were completely used up, a chartered Bristol freighter had to be brought in with a load of new mud, cement and lost circulation materials. Drilling operations were satisfactorily resumed on April 10th and by April 13th the well was drilling at 552 feet, preparing to set 7" surface casing when a piston cracked and the rig was shut down for five days awaiting repairs. On April 18th the rig was repaired just in time to be moved from the muskeg wellsite barely in time to save it. The well, of course, was suspended until the muskeg should freeze solid enough to permit the rig to be brought back.

The thawing muskeg conditions would not permit taking the rig back to Fort Simpson. Therefore, an escape road which had been built to the bank of the Liard River, some ten miles east, was utilized. This

road had been built when the "cats" were not busy elsewhere and resulted in our being able to bring the rig out from the Liard Rapids site to the Fort Simpson area where it could be utilized during the coming summer.

During the initial operations of the Westerol Liard Rapids No.1A well some reconnaissance geology of the Rapids section was conducted. This work resulted in a better stratigraphic understanding of the Hay River formation and its relationship to the Simpson shale at the Liard Rapids, the distribution and nature of the glacial and Tertiary sands and gravels in the area, and a general confirmation of the Liard Rapids structure.

During the summer of 1953 the rig was engaged in drilling four wells for the British American-Hudson's Bay company group on the banks of the Mackenzie River as far as eighty miles down-river from Fort Simpson and forty miles up-river. This operation was the most efficient in the eighteen months of our Northwest Territories project, only a very few days during the entire summer having been lost through mechanical break-down. At the same time that the rig was drilling for British American and Hudson's Bay a reconnaissance was made by the

OVERLAND
DRILLING — SERVICING
DAILY DRILLING REPORT

Nº 1440

LOCATION Liard Rapids #1D TOUR 1 DATE Mar - 10 195

COMPANY TIME				CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time		Hour Start	Hour Stop	Elapsed Time	
				8⁰⁰	8⁰⁰		Laid down D.P. - Kelly,
					1		Rathole + drained
Ran in To Plug, Found Hole Sloughed							up mud lines + Pump.
again at 2110 Dropped 15 sack Plug							
Pulled out + Dropped Plug in casing							
From 470' To 500' Welded plate							
on Top of casing.							

1. Depth: From 2470 To D. .... Total .... Hours on Bottom ....
2. Wgt. D.P. Pts. .... Wgt. on Bit Pts. .... Rotary R.P.M. ....
3. Mud: Wgt. .... Vis. .... Gel. .... Pump Pressure .... R.P.M. ....
4. Survey: at .... Degrees .... Mud Added ....
5. Bit No. .... Type .... Size .... Footage .... Hrs. .... Condition ....
6. Bit No. .... Type .... Size .... Footage .... Hrs. .... Condition ....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands ....
No. Singles ....
No. Drill Collars ....
Ft. up on Kelly ....
Size of Drill Pipe ....
R.P.M. ....
Fuel Used ....

Derrick C. McKay
Cathead J. Wrigley
Floor H. Jensen
Boilerman C. Wappenford

Driller [signature]
Pusher ....
Engineer ....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1441

LOCATION Lac La Biche 1A TOUR ..... DATE March 1, 195..

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:15	8:15		Tearing out.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick M. Chayko
Cathead J. Goodall
Floor M. Antoine
Boilerman P. Laffert

Driller L. McLeese
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING

No. 1438

DAILY DRILLING REPORT

LOCATION Liard Rapids TOUR 1 DATE Mar-9-, 1951

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:45		Finished pulling out & laying down Tools
			8:45	9:00		Scr. Rig.
			9:00	9:15		Cleaning up.
			9:15	8:00		Running in 305 Stds. Tried To break circ. (Plugged bit) Pulled 5 Stds. broke circ. & Reaming & circ. To bottom.

1. Depth: From 2463 To 2463 Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 14 Type OWS Size 6 1/8 Footage — Hrs. — Condition New
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 78
No. Singles
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3 1/2
R.P.M.
Fuel Used

Derrick C. McKay
Cathead J. Wrigley
Floor E. McPherson
Boilerman L. Woppenford

Driller M. Fisher
Pusher
Engineer

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1439

LOCATION Liard Rapids #1A TOUR ..... DATE Nov 9, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Ser Rig
			8:15	8:45		Running to bottom.
			8:45	10:00		Drill Total depth 2470
			10:00	12:30		Condition mud to run E. Log.
			12:30	6:30		Pulling out. Working tight hole.
			6:30	8:00		Started to run E. Log

1. Depth: From 2463 To 2470 Total 7 Hours on Bottom 1¼
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added Kgel 6 bags. 50 lbs. Tannex 50 " Caustic.
5. Bit No. 14 Type OWS Size 6½ Footage 7 Hrs. 1¼ Condition running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 79
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 22
Size of Drill Pipe 3½
R.P.M. 160
Fuel Used Diesel

Derrick N. Chapko
Cathead J. Goodall
Floor M. Antoine
Boilerman P. Lafferty

Driller L. M. Green
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1436

LOCATION Liard Rapids "A" TOUR 1 DATE MAR-8, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Ser. Rig
			8:15	4:30		Drilling
			4:30	5:00		Circ.
			5:00	8:00		Pulled 9 Stds + working tight hole - Mixing Mud

1. Depth: From 2399 To 2463 Total 64 Hours on Bottom 8¼
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.5 Vis. 47 Gel ~~Wt.~~ 10.5 Pump Pressure 550 R.P.M. 56
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 13 Type OWS Size 6⅛ Footage 101 Hrs. 14 Condition —
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	78
No. Singles	1
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3½
R.P.M.	
Fuel Used	

Derrick C. McKay
Cathead J. Wrigley
Floor G. Jensen
Boilerman C. Woppenford

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1437

LOCATION Liard Rapids #1A TOUR ..... DATE Mar 8, 195..

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Ser. Rig
			8:15	12:30		Run back pit hole condition mud.
			12:30	2:30		Pulling out to test
			2:30	4:45		Picking up packer & making it up running
			4:45	5:05		Packer opened at 4:45 released at 5:05
			5:05	6:00		Stuck with packer
			6:00	8:00		Got it Loose Pulling out.

1. Depth: From 2463 To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 13 Type OWS Size 6¼ Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

DST #2. Interval 2374 To 2463
V.O. 15 Minutes. Good initial puff
Died in 2 min. Rec 100' of Drilling
Mud (This Rec was From working Stuck
D.P.)

No. Stands 78
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3½
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead T. Goodall
Floor A. Antoine C. Jensen (Tester)
Boilerman P. Lafferty

Driller L. M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1434

LOCATION Liard Rapids #1 TOUR 1 DATE MAR - 7, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Scr. Rig.
			8 15	8 00		Drilling

1. Depth: From 2279 To 2353 Total 74 Hours on Bottom 11 3/4
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.2 Vis. 46 ~~Gel~~ W. 9-8 Pump Pressure 550 R.P.M. 56
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 12 Type OWS Size 6 1/8 Footage 86 Hrs. 15 1/2 Condition Running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

41 - Bbls. Diesel
6 - " - R.P.M
2 - " - Gas

No. Stands 75
No. Singles 2
No. Drill Collars 1
Ft. up on Kelly 19
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor C. Jensen
Boilerman C. Woppenford

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1435

LOCATION Head Rapids #1A TOUR ..... DATE May 7 ....., 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Ser. Rig
			8 15	9 45		Drill
			9 45	2 00		Circ 15 Min Trip.
			2 00	6 00		Drill
			6 00	6 45		Mix mud.
			6 45	9 00		Drill

1. Depth: From 2353 To 2399 Total 46 Hours on Bottom 24
2. Wgt. D.P. Pts. 16,000 Wgt. on Bit Pts. 7,000 Rotary R.P.M. .....
3. Mud: Wgt. 10.7 Vis. 48 Gel. 7.3 Pump Pressure 650 R.P.M. 675
4. Survey: at ..... Degrees ..... Mud Added Kgell 3 bags
5. Bit No. 12 Type OWS Size 6 1/4 Footage 95 Hrs. 17 Condition Loose.
6. Bit No. 13 Type " Size " Footage 37 Hrs. 5 3/4 Condition running
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 76
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 4
Size of Drill Pipe 3 1/2
R.P.M. 100
Fuel Used Diesel

Derrick N. Chayko
Cathead T. Goodall
Floor E. McPherson
Boilerman P. Lafferty

Driller L. A. Boeve
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1432

LOCATION Liard Rapids "1-A" TOUR 1 DATE MAR. 6, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	8¹⁵		Ser. Rig.
			8¹⁵	3³⁰		Drilling
			3³⁰	4³⁰		Circ. To Test. - Thawed out
			4³⁰			Fill-up line - Blowing
						Mud line + Kelly
			4³⁰	7⁰⁰		Pulled out. - Filled hole
						every 20-Stds.
			7⁰⁰			Picked up + Making up
						Packer.

1. Depth: From 2219 To 2264 Total 45 Hours on Bottom 1 1/4
2. Wgt. D.P. Pts. ~~NIL~~ Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.6 Vis. 51 ~~Gel~~ W-L 8.7 Pump Pressure 500 R.P.M. 55
4. Survey: at ..... Degrees ..... Mud Added 10 bbl
5. Bit No. 12 Type 056 Size 6 1/8 Footage 45 Hrs. 10 1/2 Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 72
No. Singles c
No. Drill Collars 1
Ft. up on Kelly 13
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor G. Jensen
Boilerman C. Woppenford

Driller N. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1433

LOCATION Leduc Reeds #12 TOUR ..... DATE Mar 6 ....., 195 4

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	10:15		Running in with packer
			10:15	10:45		Packer opened at 10:32
						Released at 10:40
			10:45	12:30		Pulled out
			12:30	1:30		Break down packer
						Lay down
			1:30	3:30		Pick up Dr. Coll. Run in hole.
			3:30	4:15		Thawing out Kelly.
			4:15	8:00		Dri. 11

1. Depth: From 2267 To 2279 Total 12 Hours on Bottom 3¾
2. Wgt. D.P. Pts. 16,000 Wgt. on Bit Pts. 6,000 Rotary R.P.M. 80
3. Mud: Wgt. 10.6 Vis. 47 WL. Gel. 7.6 Pump Pressure 600 R.P.M.
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 12 Type D.W.S. Size 6¼ Footage 12 Hrs. 3¾ Condition Fair
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

D.S.T. #1. interval 2216 To 2276
V.O. 10:22 P.M.
V.C. 10:40 "
Good initial puff weak air blow
Died in 2 Min Rec 5' Drill Mud.

No. Stands	72
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	3
Size of Drill Pipe	3½
R.P.M.	80
Fuel Used	Diesel

Derrick N. Chaykowski
Cathead J. Goodall
Floor E. McPherson
Boilerman P. Lafferty

Driller: A. McGoerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1430

LOCATION Liard Rapids "1-A" TOUR 1 DATE MAR-5-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Ser. R. q.
			8 15	5 00		Drilling
			5 00	5 30		Circ.
			5 30	8 00		Pulled out

1. Depth: From 2116 To 84 Total 2200 Hours on Bottom 9
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.9 Vis. 47 ~~Gel~~ WL ..... Pump Pressure 550 R.P.M. 58
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 11 Type OSC Size 6 1/8 Footage 122 Hrs. 12 Condition loose
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 70
No. Singles c
No. Drill Collars 1
Ft. up on Kelly 15'
Size of Drill Pipe 3 1/2"
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor G Jensen
Boilerman G. Woppenford

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1431

LOCATION Lloyd Rapids "A-1" TOUR 1 DATE MAR - 5, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Service Rig.
			8 15	10 00		Starting water pump + Mixing mud.
			10 00	2 00		Running in + reaming
			2 00	2 30		W. O. pump.
			2 30	6 00		Drill
			6 00	8 00		Mixing Mud. Weld 3" nipple in flow line for mud saver can

1. Depth: From 2200 To 2219 Total 19 Hours on Bottom 3½
2. Wgt. D.P. Pts. 16,000 Wgt. on Bit Pts. 6,000 Rotary R.P.M. 80
3. Mud: Wgt. 10.3 Vis. 50 Gel wk. 10 Pump Pressure 550 R.P.M.
4. Survey: at ..... Degrees ..... Mud Added 10 bags K. Gel
5. Bit No. 12 Type OSC Size 6¼ Footage 19 Hrs. 3½ Condition running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

Tested B.O.P.

No. Stands 70
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3½
R.P.M. 80
Fuel Used Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor E. McPherson
Boilerman P. Lafferty

Driller L. M. Green
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING — SERVICING
DAILY DRILLING REPORT

No. 1428

LOCATION Laird Rapids N 1-A TOUR 1 DATE MAR 4-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Ser. Rig.
			8 15	9 15		Drilling.
			9 15	9 45		Repaired Rotary Chain
			9 45	8 00		Drilling.

1. Depth: From 1886 To 2042 Total 2042 Hours on Bottom 11¼
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.6 Vis. 51 W.L. 8.4 Pump Pressure 550 R.P.M. 56
4. Survey: at ..... Degrees ..... Water Added 8 bbls.
5. Bit No. 10 Type OSC Size 6 1/8 Footage 156 Hrs. 11¼ Condition Running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 65
No. Singles 6
No. Drill Collars 1
Ft. up on Kelly 25
Size of Drill Pipe 3½
R.P.M. 100
Fuel Used Diesel

Derrick C. McKay
Cathead T. Wrigley
Floor E. Jensen
Boilerman G. Woppenford

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1429

LOCATION Lloyd Rapids #1 TOUR ..... DATE Mar 4, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			9:00	8:15		Ser. rig.
			8:15	11:30		Drill
			11:30	5:00		Trip ream 60 ft, Test B.OP.
			5:00	8:00		Drill

1. Depth: From 2042 To 2116 Total 74 Hours on Bottom 6¼
2. Wgt. D.P. Pts. 14,000 Wgt. on Bit Pts. 6,000 Rotary R.P.M. 150
3. Mud: Wgt. 11.1 Vis. 52 Gel. w.c. 7 Pump Pressure 550 R.P.M. 56
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 10 Type OSC Size 6¾ Footage 194 Hrs. 14½ Condition Locked
6. Bit No. 11 Type " Size " Footage 26 Hrs. 3 Condition New
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 67
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 10
Size of Drill Pipe 3½
R.P.M. 150
Fuel Used Diesel

Derrick N. Chayka
Cathead J. Goodall
Floor E. McPherson
Boilerman P. Laffety

Driller L.M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1224

LOCATION Liard Rapids #1-A TOUR 1 DATE Mar-3, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Ser. Rig.
			8:15	8:00		Drilling

1. Depth: From 1662 To 1823 Total 161 Hours on Bottom 11 3/4
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. 10.4 Vis. 57 ~~Gel~~ WL 8.4 Pump Pressure 550 R.P.M. 58
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 9 Type OSC Size 6 1/8 Footage 173 Hrs. 12 1/2 Condition Running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	57
No. Singles	✓
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3 1/2
R.P.M.	
Fuel Used	

Derrick C. McKay
Cathead J. Wrigley
Floor G. Jensen
Boilerman C. Woppenford

Driller M. Fisher.
Pusher .....
Engineer .....

HONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING

DAILY DRILLING REPORT

No. 1225

LOCATION Liard Rapids #1 /TOUR ..... DATE Mar 3 ....., 195 4

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		Ser. rig.
			8 15	12 45		Drill
			12 45	1 45		Work. rotary chain.
			1 45	3 45		Pulling out of hole.
			3 45	4 15		Starting water pump & running pit & running water in pit.
			4 15	8 00		Running in & Reaming 12 ft to bottom.

1. Depth: From 1823. To 1886 Total 63 Hours on Bottom 4½
2. Wgt. D.P. Pts. 15,000 Wgt. on Bit Pts. 6,000 Rotary R.P.M. 150
3. Mud: Wgt. ..... Vis. 55 Gel. ..... Pump Pressure 530 R.P.M. 58
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 9 Type OSC Size 6¼ Footage 236 Hrs. 17 Condition Locked
6. Bit No. 10 Type OSC Size 6¼ Footage ..... Hrs. ..... Condition New.
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	60
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	40
Size of Drill Pipe	3½
R.P.M.	150
Fuel Used	Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor E. McPherson
Boilerman P. Lafferty

Driller L. M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING — SERVICING
DAILY DRILLING REPORT

No. 1222

LOCATION Laird Rapids #1-A TOUR 1 DATE Mar-2, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Scr. Rig
			8:15	8:00		Drilling

1. Depth: From 1414 To 1614 Total 1614 Hours on Bottom 11 3/4
2. Wgt. D.P. Pts. [illegible] Wgt. on Bit Pts. 2 1/2 Rotary R.P.M. 100
3. Mud: Wgt. 10.2 Vis. 52 ~~Gel.~~ Wt. 84 Pump Pressure 550 R.P.M. 58
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 7 Type OSC Size 6 1/8 Footage 309 Hrs. 18 Condition Running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 51
No. Singles
No. Drill Collars 1
Ft. up on Kelly 23
Size of Drill Pipe 3 1/2
R.P.M.
Fuel Used

Derrick C. McKay
Cathead J. Wrigley
Floor G. Jensen
Boilerman C. Woppenford

Driller M. Fisher
Pusher
Engineer

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1223

LOCATION Lind Rapids #1 TOUR ..... DATE Mar 2 ....., 195....

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:30		Rig Service W.O. Pump.
			8:30	10:15		Drilling.
			10:15	11:00		Steaming off Ts. Sl. & El. floor.
			11:00	12:15		Pulling out.
			12:15	3:00		Starting water pump. Mixing mud.
			3:00	7:15		Running in & reaming 130 ft.
			7:15	8:00		Pc. H.

1. Depth: From 1614 To 1662 Total 48 Hours on Bottom 2½
2. Wgt. D.P. Pts. 12,000 Wgt. on Bit Pts. 5,000 Rotary R.P.M. 150
3. Mud: Wgt. ..... Vis. 48 Gel. ..... Pump Pressure 550 R.P.M. 650
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 8 Type OSC Size 6¼ Footage 345 Hrs. 19¾ Condition Loose
6. Bit No. 9 Type OSC Size 6¼ Footage 12 Hrs. ¾ Condition Running
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	52
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	6
Size of Drill Pipe	3½
R.P.M.	150
Fuel Used	Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor T. Trindell
Boilerman P. Lafferty

Driller L. M. Goerz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1220

LOCATION Hard Rapids 41-A TOUR 1 DATE MAR-1, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	8¹⁵	¼	Ser. Rig
			8¹⁵	9⁰⁰	¾	Mixing Mud
			9⁰⁰	9⁴⁵		Drilling
			9⁴⁵	10⁴⁵		Pumping water + blowing lines
			10⁴⁵	1⁰⁰		Trip.
			1⁰⁰	1¹⁵		Blowing lines.
			1¹⁵	2⁰⁰		Trying to break circ.
			2⁰⁰	4⁰⁰		Pulled out to unplug bit
			4⁰⁰	4³⁰		Cleaning up.
			4³⁰	8⁰⁰		Running in + breaking circ every 10 stds. + reaming circ last five

1. Depth: From 1294 To 1305 Total 76 Hours on Bottom 20
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 8 Type OSC Size 6 1/8 Footage — Hrs. — Condition New
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 41
No. Singles —
No. Drill Collars 1
Ft. up on Kelly 49
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead T. Wrigley
Floor E. Jensen
Boilerman .....

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1221

LOCATION Liard Rapids #1 TOUR ..... DATE Mar. 1, 195...

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	14:30		Filling water tank, Mixing mud & tightening guylines
			14:30	8:00		Drilling.

1. Depth: From 1305 To 1414 Total 109 Hours on Bottom 6¼
2. Wgt. D.P. Pts. 10,000 Wgt. on Bit Pts. 5,000 Rotary R.P.M. 100
3. Mud: Wgt. 9.9 Vis. 50 Gel. w.l. 9 Pump Pressure 500 R.P.M. 650
4. Survey: at ..... Degrees ..... Mud Added 12 bags K. gel
5. Bit No. 8 Type OSC Size 6¼ Footage ..... Hrs. 6¼ Condition running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 44
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 5
Size of Drill Pipe 3½
R.P.M. 150
Fuel Used Diesel

Derrick N. Chayka
Cathead J. Goodall
Floor T. Tyndell
Boilerman E. Mepherson

Driller L. A. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1218

LOCATION Hard Rapids 4-18 TOUR 1 DATE Feb-28, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		SER. R.G.
			8 15	9 00		RUNNING IN.
			9 00	9 30		WORKING ON B.O.P
			9 30	10 00		DRILLING
			10 00	11 00		WORKING ON Flow Line
			11 00	8 00		DRILLING

1. Depth: From 840 To 1235 Total 1075 Hours on Bottom 9 1/2
2. Wgt. D.P. Pts. 3 1/2 4 Wgt. on Bit Pts. 2 1/2 Rotary R.P.M. 106
3. Mud: Wgt. ..... Vis. 42 Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 1 Type OSC Size 6 1/8 Footage 235 Hrs. 9 1/2 Condition RUNNING
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 33
No. Singles 2
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor C. Jensen
Boilerman C. Woppenford

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1219

LOCATION Laird Rapids A1 TOUR ..... DATE Feb 28, 195....

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	9³⁰		Servicing, gathering, con.
			8³⁰	9⁴⁵		Drilling.
			9⁴⁵	11¹⁵		W. O. pump motors
			11¹⁵	6³⁰		Drilling
			6³⁰	8⁰⁰		Mixing mud Thawing out mud mixer.

1. Depth: From 1075 To 1294 Total 219 Hours on Bottom 8½
2. Wgt. D.P. Pts. 5 Wgt. on Bit Pts. 3 Rotary R.P.M. 100
3. Mud: Wgt. ..... Vis. 37 Gel. ..... Pump Pressure 500 R.P.M. 700
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 7 Type OSC Size 6¾ Footage 454 Hrs. 18 Condition running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

Tested B.O.P.

No. Stands	40
No. Singles	✓
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3½
R.P.M.	100
Fuel Used	Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor T. Trindell
Boilerman C. Wopenford

Driller L.M. Boerma
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING

DAILY DRILLING REPORT

No. 1217

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 27, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Ser. Rig
			8:15	9:15		Drilling
			9:15	10:15		Work on Fill up line Valve. Tighten down. B.O.P.
			10:15	12:00		Drilling
			12:00	12:30		W. O. Water pump.
			12:30	1:30		Pulling out tool decs.
			1:30	7:30		Starting welder to weld casing to nipple in 7" valve.
			7:30	8:00		Pick up Drill collars steam tool out, make up Bit

1. Depth: From 791 To 840 Total 49 Hours on Bottom 2 3/4
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. 40 Gel. ..... Pump Pressure 250 R.P.M. 700
4. Survey: at ..... Degrees ..... Mud Added Water.
5. Bit No. ..... Type ..... Size ..... Footage 352 Hrs. 14 1/4 Condition Reuse
6. Bit No. 7 Type OSC Size 6 1/8 Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing. Supplies required, Repairs, etc.

No. Stands 26
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 18
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead J. Goodall
Floor T. Trindell
Boilerman C. Wopenford

Driller L. M. Boese
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1216

LOCATION Lloyd Rapid 5 #2 TOUR 1 DATE Feb-27, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8	8¹⁵		Scr. Rig
			8¹⁵	9⁰⁰		Working on Pump.
			9⁰⁰	3³⁰		Drilling
			3³⁰	3⁴⁵		Working on Pump
			3⁴⁵	8⁰⁰		Drilling

1. Depth: From 520 To 791 Total 271 Hours on Bottom 12½
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 6 Type OSC Size 6⅛ Footage 303 Hrs. 13½ Condition Running
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

	No. Stands .....
	No. Singles .....
	No. Drill Collars .....
	Ft. up on Kelly .....
	Size of Drill Pipe .....
	R.P.M. .....
	Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor G. Jensen
Boilerman S. Lewis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1215

LOCATION Lac La Biche TOUR ..... DATE Feb 26, 1957

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	9⁰⁰		Working on water pump.
			9⁰⁰	3³⁰		Pumping water mixing mud.
			3³⁰	5⁰⁰		Drilling.
			5⁰⁰	7⁰⁰		Working on water pump.
			7⁰⁰	7³⁰		Filling water tank.
						running water tank.
			7³⁰	8⁰⁰		Working on pump.

1. Depth: From 488 To 520 Total 32 Hours on Bottom 1½
2. Wgt. D.P. Pts. 6000 Wgt. on Bit Pts. 5000 Rotary R.P.M. 150
3. Mud: Wgt. ..... Vis. 40 Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 15 bags gel, 100 lbs. cement ox.
5. Bit No. 6 Type osc Size 6 Footage 32 Hrs. 1½ Condition Fair
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 16
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 29
Size of Drill Pipe 3½
R.P.M. 150
Fuel Used Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor T. Trindell
Boilerman C. Wopenland.

Driller L. M. Cocrz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1214

LOCATION Laird Rapids 7 TOUR 1 DATE Feb-26-56, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		See. R. g.
			8 15	10 00		Pulled 3 STds - To unplug BIT + Running back in.
			10 00	11 30		Pressured up (300# - OK)
			11 00	12 00		~~Circ~~ Circ - To clean out
			12 00	8 00		Working on water Pump.

1. Depth: From 486 To - Total 488 Hours on Bottom
2. Wgt. D.P. Pts. Wgt. on Bit Pts. Rotary R.P.M.
3. Mud: Wgt. Vis. Gel. Pump Pressure R.P.M.
4. Survey: at Degrees Mud Added
5. Bit No. 6 Type OSC Size 6 1/8 Footage Hrs. Condition
6. Bit No. Type Size Footage Hrs. Condition
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 14
No. Singles 14
No. Drill Collars 1
Ft. up on Kelly 6
Size of Drill Pipe 3 1/2
R.P.M.
Fuel Used

Derrick C. McKay
Cathead J. Wrigley
Floor O Jensen
Boilerman S. Howe

Driller M. Fisher
Pusher
Engineer

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING -- SERVICING
DAILY DRILLING REPORT

No. 1212

LOCATION Lloyd Rapids "A" TOUR 1 DATE Feb. 26, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
						Rigging up + Rigging up.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wesley
Floor G. Johnson
Boilerman S. Louis

Driller M. Fischer
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1213

LOCATION Lac La Biche #1 **TOUR** ..... **DATE** Feb 25, 195....

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	2:00		Rigging up shale shaker + tying down B.O.P.
			2:00	4:00		Starting pump motors priming pump
			4:00	5:00		Blowing Kelly + drill collar.
			5:00	5:45		Running in hole.
			5:45	6:45		Steaming water line + starting water pump.
			6:45	7:45		Drilling plug + shoe.
			7:45	8:00		Blowing Kelly + waterline for trip.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Surv[illegible]t ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 14
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick A. C. Hayes
Cathead T. Goodall
Floor T. Trindell
Boilerman C. Wopeford

Driller L. M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1211

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 2nd, 195...

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:00		Rigging up Released pressure 9:00
						Both Crews.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

Both Crews.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick .....
Cathead .....
Floor .....
Boilerman .....

Driller .....
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1210

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 23 ....., 195....

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			7⁰⁰	9⁰⁰		Pumping water + Thawing out cement unit.
			9⁰⁰	10³⁰		Cementing.
			10³⁰	8⁰⁰		W. O. C. Cleaning pumpout + draining cement unit.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick M. Chayka
Cathead J. Goodall
Floor M. Gontpointe
Boilerman C. Wopenford

Driller S. M. Goetz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1209

LOCATION Liards Rapids #1 **TOUR** 1 **DATE** Feb-23-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	10³⁰		Pulled out + WORKING Pipe loose.
			10³⁰	12⁰⁰		Rigging up To RUNGS
			12⁰⁰	2⁰⁰		PUMPING WATER + DRAINING WATER LINES.
			2⁰⁰	9³⁰		RUNNING CSG.
			9³⁰	10³⁰		(CEMENTING) CEMENTED W: TH 125 SAX + 150# Calcium Chloride. Plug down @ 10³⁰ P.M. Shoe @ 470 KB.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. W. Gilday
Floor T. Trindell
Boilerman S. Louis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1208

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 22, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	1 00		Trying to regain circ a hauling ice.
			1 00	4 30		Rigging up Joint of 7 in. casing to Jar pipe loose.
			4 30	5 30		Jarring pipe got it loose.
			5 30	8 00		Setting table back in place & Steaming water pump & starting it.

1. Depth: From 288 To ..... Total 288 Hours on Bottom .....
2. Wgt. D.P. Pts. 7000 Wgt. on Bit Pts. 7 Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 14
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3½
R.P.M. .....
Fuel Used .....

Derrick N. Chaykowski
Cathead J. Goodall
Floor M. Gutaine
Boilerman C. Wopenford

Driller L. M. Baerg
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1207

LOCATION Laird Rapids #1 TOUR 1 DATE Feb-22-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 15		CIRC.
			8 15	8 00		Lost CIRC. + Stuck Pipe.
						Working pipe.

1. Depth: From 488 To — Total 488 Hours on Bottom
2. Wgt. D.P. Pts. Wgt. on Bit Pts. Rotary R.P.M.
3. Mud: Wgt. Vis. Gel. Pump Pressure R.P.M.
4. Survey: at Degrees Mud Added
5. Bit No. Type Size Footage Hrs. Condition
6. Bit No. Type Size Footage Hrs. Condition
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands
No. Singles
No. Drill Collars
Ft. up on Kelly
Size of Drill Pipe
R.P.M.
Fuel Used

Derrick C. McKay
Cathead J. Wrigley
Floor T. Trendell
Boilerman S. Louis

Driller M. Fisher
Pusher
Engineer

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1206

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 21, 195...

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			5:00	8:00		Blowing out cement unit & getting it ready to cement.
			8:00	12:00		Trying to break circ. plugged shoe.
			12:00	3:30		Pulling casing out.
			3:30	6:30		Unplugging casing & drawing pins, changing elevators & steaming off tongs & slips.
			6:30	7:00		
			7:00	8:00		Running in hole.

1. Depth: From 486 To 488 Total 0 Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 5 Type 026 Size 9 Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	14
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3½
R.P.M.	
Fuel Used	

Derrick A. Chayko
Cathead J. Goodall
Floor E. McPherson
Boilerman C. Wepenteck

Driller L. M. Coerr
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1205

LOCATION Liard Rapids #1 TOUR 1 DATE Feb-21st, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			400	900		Help Running
			900	1100		Running Csg - Circ. +
			1100			working Csg @ 2200
						300'

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor T. Tourtil
Boilerman S. Louis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1204

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 20, 1957

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	9 00		Mixing Fiberseal
			9 00	11 30		Drilling
			11 30	3 30		Mixing mud + Fiberseal
						Pumping water in tank.
			3 30	5 00		Trip. Circ. Pulled out
						to run casing.
			5 00	8 00		Running casing.

1. Depth: From 428 To 488 Total 60 Hours on Bottom 2½
2. Wgt. D.P. Pts. 6000 Wgt. on Bit Pts. 6000 Rotary R.P.M. 180
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 13 sacks gel, 11 bags F. Seal
5. Bit No. 5 Type OSC Size 9 Footage 210 Hrs. 8 Condition Fair
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	14
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	6
Size of Drill Pipe	3½
R.P.M.	
Fuel Used	

Derrick N. Chayka
Cathead J. Goodall
Floor E. McPherson
Boilerman C. Wopenford

Driller A. M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1203

LOCATION Grand Rapids 7 TOUR ..... DATE Feb 20 ....., 195..

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:15		Scr. Rig
			8:15	2:00		Mixing Mud + E.B.P.
						Scrk
			2:00	6:00		Working Tight hole
			6:00	8:00		Cleaning To BTM.

1. Depth: From 428 To ..... Total 428 Hours on Bottom 2
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 20 SACKS GEL
5. Bit No. 5 Type OSC Size 9" Footage 120 Hrs. 5½ Condition RUNNING
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

10 SACKS FLOCELE

No. Stands .....
No. Singles 12
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3½
R.P.M. .....
Fuel Used .....

Derrick C. McKinzy
Cathead J. Wrigley
Floor T. Trudell
Boilerman S. Lewis

Driller M. Fischer
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1202

LOCATION Liard Rapids #1 TOUR 1 DATE Feb-19-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
8⁶⁰	8¹⁵					Scr. Rig
8¹⁵	8⁶⁰					Rigging up + blowing lines To drill. Ream To b Tm. - Pumping water + Thawing water lines.

1. Depth: From 278 To — Total 278 Hours on Bottom
2. Wgt. D.P. Pts. Wgt. on Bit Pts. Rotary R.P.M.
3. Mud: Wgt. VERY is. Gel. Pump Pressure R.P.M.
4. Survey: at Degrees Mud Added
5. Bit No. Type Size Footage Hrs. Condition
6. Bit No. Type Size Footage Hrs. Condition
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	
No. Singles	
No. Drill Collars	
Ft. up on Kelly	
Size of Drill Pipe	
R.P.M.	
Fuel Used	

Derrick C. McKay
Cathead J. Wadley
Floor T. Trendill
Boilerman S. Johns

Driller M. Fisher
Pusher
Engineer

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1201

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 19/ ....., 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	11:00		Pulled out of hole, Jetting pit + Filling water tank + Running back in hole.
			11:00	12:00		Drilling
			12:00	1:30		Plugged bit trying to break circ.
			1:30	2:00		Pulling out plugged bit.
			2:00	2:30		Changing bits Running in.
			2:30	6:00		Drilling.
			6:00	8:00		Mixing mud Filling Water tank.

1. Depth: From 278 To 428 Total 150 Hours on Bottom 4½
2. Wgt. D.P. Pts. 5000 Wgt. on Bit Pts. 5000 Rotary R.P.M. 200
3. Mud: Wgt. Fresh Vis. Heavy Gel. ..... Pump Pressure 100 R.P.M. 750
4. Survey: at ..... Degrees ..... Mud Added 6 bags gel
5. Bit No. 4 Type OSC Size 9 Footage 30 Hrs. 1 Condition Good
6. Bit No. 5 Type OSC Size 9 Footage 120 Hrs. 3½ Condition Good
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 12
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3½
R.P.M. 200
Fuel Used Diesel

Derrick N. Chaykoa
Cathead J. Goodall
Floor L. Norwegians
Boilerman S. Lewis

Driller L. M. Goerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1200

LOCATION Liard Rapids #1 **TOUR** ..... **DATE** Feb 18, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	8 03		Mixing mud and sawdust. Building box for settlings.

1. Depth: From 278 To 278 Total 278 Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 25 bags gel 6 " Sawdust.
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

	No. Stands
	No. Singles
	No. Drill Collars
	Ft. up on Kelly
	Size of Drill Pipe
	R.P.M.
	Fuel Used

Derrick N. Chayka
Cathead J. Goodall
Floor L. Norwegian
Boilerman C. Wopenford

Driller L. M. Goerz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1199

LOCATION Hard Rapids TOUR 1 DATE Feb-15, 195 4

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:00		Rigging up + spotting Mud Tank Mixing Mud – 2 sax

1. Depth: From 278 To — Total 278 Hours on Bottom C.L
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor T. Tremblay
Boilerman S. Louis

Driller M. Fuglsted
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1198

LOCATION Land Rapids #1 TOUR ..... DATE Feb 17, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	5 00		Works on mud tank.

1. Depth: From 278 To 278 Total 0 Hours on Bottom 0
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead T. Goodall
Floor L. Norwegian
Boilerman C. Wapenford

Driller L. M. Boer
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1197

LOCATION Liard Rapids TOUR 1 DATE Feb-17, 1959

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	8⁰⁰		Working on Mud Tank.

1. Depth: From 278 To — Total 278 Hours on Bottom Nil
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead I. Wrigley
Floor T. Tramill
Boilerman S. Louis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1196

LOCATION Liard Rapids #1 **TOUR** ..... **DATE** Feb 16 ....., 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			3:00	6:00		Wait on mud + mud tank.
						Keep rig thawed out.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

	No. Stands .....
	No. Singles .....
	No. Drill Collars .....
	Ft. up on Kelly .....
	Size of Drill Pipe .....
	R.P.M. .....
	Fuel Used .....

Derrick ..... M. Chayko .....
Cathead ..... J. Goodall .....
Floor ..... L. Norwegian .....
Boilerman ..... C. Wapentord .....

Driller ..... L.M. Goerz .....
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING — SERVICING
DAILY DRILLING REPORT

Nº 1195

LOCATION Lloyd Rapids TOUR 1 DATE Feb-11-54, 195

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:00		No - Mud + Mud TANK. Keep Rig Thawed out

1. Depth: From 278 To — Total 278 Hours on Bottom NIL
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C McKay
Cathead J Wrigley
Floor T Trundill
Boilerman S Lewis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

№ 1194

LOCATION [illegible] TOUR .... DATE [illegible], 195..

COMPANY TIME				CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time		Hour Start	Hour Stop	Elapsed Time	
				7:00	7:00		[illegible]
							Hauling mud?

1. Depth: From .... To .... Total .... Hours on Bottom ....
2. Wgt. D.P. Pts. .... Wgt. on Bit Pts. .... Rotary R.P.M. ....
3. Mud: Wgt. .... Vis. .... Gel. .... Pump Pressure .... R.P.M. ....
4. Survey: at .... Degrees .... Mud Added ....
5. Bit No. .... Type .... Size .... Footage .... Hrs. .... Condition ....
6. Bit No. .... Type .... Size .... Footage .... Hrs. .... Condition ....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands ....
No. Singles ....
No. Drill Collars ....
Ft. up on Kelly ....
Size of Drill Pipe ....
R.P.M. ....
Fuel Used ....

Derrick N. Chaylko?
Cathead J. Goodall?
Floor L. Flanagan?
Boilerman [illegible]

Driller L. M. Goerz?
Pusher ....
Engineer ....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1192

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 14, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00			W. on Orders. Repair rotary chain guard & weld slip handles. Cleaning rig.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead J. Goodall
Floor L. Norwegian
Boilerman C. Wopenford

Driller L. M. Odenz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1191

LOCATION Hard Rapids #1 TOUR 1 DATE Feb-14, 195<

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8AD	8'15		Ser. Rig
			8'15	11'00		Milling on Boulder
			11'00	11'30		Trip
			11.30	5'30		Drilling
			5'30	6'00		Repaired Rotary chain
			6'00	8'00		Drilling (Boulders)

1. Depth: From 218 To 278 Total 278 Hours on Bottom 10 3/4
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands 1
No. Singles 9
No. Drill Collars 1
Ft. up on Kelly 0
Size of Drill Pipe 3 1/2
R.P.M. .....
Fuel Used Diesl

Derrick G. McKay
Cathead J. Wrigley
Floor T. Trindle
Boilerman S. Louis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1190

LOCATION Liard Rapids #1 **TOUR** ..... **DATE** Feb 13, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	9⁰⁰		Rigging up to start drilling
			9⁰⁰	8⁰⁰		Drilling

1. Depth: From 40 To 218 Total 178 Hours on Bottom 11
2. Wgt. D.P. Pts. 4000 Wgt. on Bit Pts. 4000 Rotary R.P.M. 180
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 2 Ty OSC Size 9" Footage 218 Hrs. 11 Condition Fair
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General Fishing, Coring, Testing, Supplies required, Repairs, etc. 1 3/8

No. Stands	5
No. Singles	
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3 1/2
R.P.M.	180
Fuel Used	Diesel

Derrick N. Chayko
Cathead J. Goodall
Floor L. Norwegian
Boilerman C. Wopenford

Driller L.M. Boerz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1189

LOCATION Liard Rapids #1 TOUR 1 DATE Feb – 13, 1959

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			5pm	6pm		W.O.C.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required. Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor T. Trendle
Boilerman S. Lowes

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1188

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 12, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	8:00		W.O.C. Rigging up prefabe. for pump Cleaning up rig floor & tools.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead J. Goodall
Floor L. Norwegian
Boilerman C. Wopenford.

Driller L.M. Baerz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1187

LOCATION Liard Rapids #1 TOUR 1 DATE Feb-11, 1954

COMPANY TIME				CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time		Hour Start	Hour Stop	Elapsed Time	
8 00	8 15	1/4					Ser. Rig
8 15	12 00						Rigging up To Run 10 3/4
12 00	1 00						Csg - 46' + Running Spac
1 00	8 00						Cementing
							Drain mud box +
							All lines + cleaning
							up

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor T. Trindle
Boilerman S. Louis

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1186

LOCATION Land Rapids #11 TOUR ..... DATE Feb 11 ....., 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	1 00		Thawing out mudlines + stand pipe + water line.
			1 00	4 00		Rigging up cement unit + thawing it out. Filled tanks with water + heating water.
			4 00	6 00		Reaming 13½" hole to 40'.
			6 00	8 00		Making up 10¾" casing.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Catlead J. Goodall
Floor L. Norwegian
Boilerman C. Wapentard.

Driller L. M. Cocrz.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1184

LOCATION Liard Rapids A1 TOUR ..... DATE Feb 10, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	2 00		Rigging up steam heater for mudpit with a joint of 7" casing.
			2 00	8 00		Mixing mud + Fiberseal.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 32 bags 9 gel.
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick N. Chayko
Cathead J. Goodall
Floor L. Norwegian
Boilerman P. Lafferty

Driller L.M. Boerz.
Pusher .....
Engineer .....

MONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1183

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 9, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8⁰⁰	12⁰⁰		Rigging up new mud line.
			12⁰⁰	4⁰⁰		Mixing mud + Fiberseal
			4⁰⁰	4³⁰		Running in with D.C. tried to break circ.
			4³⁰	8⁰⁰		Plugged bit pulled out standing back D.C.
						Reaming from 0 to 40'

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 15 bags Augagel 18 " Fiberseal
5. Bit No. 2 Type OSC Size 9 Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....

General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor A. Chenier
Boilerman .....

Driller M. Fisher
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING — SERVICING
DAILY DRILLING REPORT

Nº 1182

LOCATION Liard Rapids No. 1 **TOUR** ..... **DATE** Feb 9, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8:00	11:00		Pulling out joint of 10¾ casing. Reaming with 13¾" bit to run more 10¾" casing.
			11:00	12:00		Filling pit with water
			12:00	1:30		Reaming with 13¾" bit.
			1:30	2:15		Tightening guy lines.
			2:15	5:15		Drilling with 9" bit.
			5:15	5:45		Pulling out working tight hole plugged bit burst mud line trying to break circ.
			5:45	8:00		Rigging up new mud line.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. 1 Type OSC Size 9 Footage 98 Hrs. 4 Condition Fair
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands	
No. Singles	1
No. Drill Collars	1
Ft. up on Kelly	0
Size of Drill Pipe	3½
R.P.M.	
Fuel Used	

Derrick N. Cinayko
Cathead J. Goodall
Floor L. Norwegian
Boilerman P. Lafferty

Driller L. M. Goertz
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1181

LOCATION Lloyd Rapids #1 TOUR ..... DATE Feb 8 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			9:00	2:00		W.O. Waiting on mud + Fiberseal. Put up prefab around rig.
			2:00	8:00		Mixing mud + Fiberseal Trying to regain circ.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 15 bags Aniagel 16 " Fiberseal.
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars 1
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C McKay
Cathead J. Wrigley
Floor R Chenier
Boilerman C. Wopenford.

Driller M. Fisher.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1180

LOCATION Land Rapids #1 TOUR ..... DATE Feb 8, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	9 00		W. O. Mud + Fiberseal Rigging up. Steam + water line.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

	No. Stands
	No. Singles
	No. Drill Collars
	Ft. up on Kelly
	Size of Drill Pipe
	R.P.M.
	Fuel Used

Derrick N. Chaykowski
Cathead M. Antoine
Floor J. Goodall
Boilerman P. Lafferty

Driller L. M. Cosens
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1179

LOCATION Laird Rapids #1 TOUR ..... DATE Feb 7, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	12 00		Finished drilling rathole.
			12 00	2 00		Started cleaning hole
			7 00	8		lost cir at 36 ft.
			2 00	8 00		Mixing mud + Fiber seal. Trying to regain Circ.

1. Depth: From 0 To HD Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added 25 Anagel, Bags, 6 Fiber seal,
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick C. McKay
Cathead J. Wrigley
Floor R. Chenier
Boilerman C. Wapenford

Driller M. Fisher.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

Nº 1178

LOCATION Liard Rapids #1 TOUR ..... DATE Feb 7, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			8 00	9 00		Rigging up.
			1 00	8 00		Drilling rat hole.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

.....

.....

.....

.....

.....

.....

.....

No. Stands .....

No. Singles .....

No. Drill Collars .....

Ft. up on Kelly .....

Size of Drill Pipe .....

R.P.M. .....

Fuel Used .....

Derrick N. Chayko

Cathead M. Gaffaine

Floor J. Woodall

Boilerman P. Lafferty

Driller L. M. Coertz.

Pusher .....

Engineer .....

PRINTERS LTD.

OVERLAND
DRILLING – SERVICING
DAILY DRILLING REPORT

No. 1177

LOCATION Liard Rapids No 4 TOUR ..... DATE Feb. 6, 1954

COMPANY TIME			CONTRACTOR'S TIME			REMARKS
Hour Start	Hour Stop	Elapsed Time	Hour Start	Hour Stop	Elapsed Time	
			7⁰⁰	6⁰⁰		Rigging up.

1. Depth: From ..... To ..... Total ..... Hours on Bottom .....
2. Wgt. D.P. Pts. ..... Wgt. on Bit Pts. ..... Rotary R.P.M. .....
3. Mud: Wgt. ..... Vis. ..... Gel. ..... Pump Pressure ..... R.P.M. .....
4. Survey: at ..... Degrees ..... Mud Added .....
5. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
6. Bit No. ..... Type ..... Size ..... Footage ..... Hrs. ..... Condition .....
7. General: Fishing, Coring, Testing, Supplies required, Repairs, etc.

No. Stands .....
No. Singles .....
No. Drill Collars .....
Ft. up on Kelly .....
Size of Drill Pipe .....
R.P.M. .....
Fuel Used .....

Derrick ..... McKay
Cathead ..... L. Bigley
Floor ..... R. Chenier
Boilerman ..... C. Wispenland

Driller ..... M. Fisher.
Pusher .....
Engineer .....

EDMONTON PRINTERS LTD.