

PROGRESS REPORT

on the

DRILLING, CORING, TESTING and ABANDONMENT

of the

NORTHWEST TERRITORIES HEART LAKE # 1 WELL

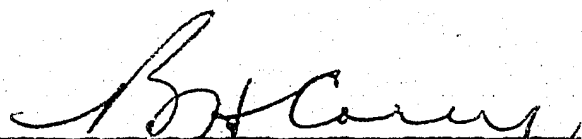
located at

Latitude 60° , $48'$, $18''$ North; Longitude 116° , $35'$
 $6''$ West.

- Heart Lake, N.W.T. -

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Approved by:


B. H. Corey - Production Manager

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Typed: March 15th, 1954.

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S C O P E

This report covers the drilling, coring, testing and abandonment of the Northwest Territories Heart Lake No. 1 Well, located at Latitude 60° 48' 18" North, Longitude 116° 35' 6" West.

All available information has been included from the time the well was spudded until it had been drilled, cored, drill stem tested and finally abandoned in the Presqu'ile Dolomite.

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DATA PERTINENT TO DRILLING, CORING, TESTING AND ABANDONMENT

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Name of Company: Northwest Territories Oils Limited

Name of Well: N.W.T. Heart Lake No. 1

Legal Description: Latitude - 60° 48' 18" North
Longitude - 116° 35' 6" West

Elevations: Ground ~~774.6~~ ^{774.6} 796 (Survey by R. Burger) } *Corrected Survey.*
Kelly Bushing - ~~804.8~~ ^{783.3} 783.3 } *24 May 55*
289.

Drilling Contractor: General Petroleums of Canada Limited
Rig F-55 J. E. Routledge - toolpusher

Surface Casing: Set at 74.26'
65.42', 7", 20#, 8 Rd.Thd., Rge. 2, J-55,
Stewart and Lloyds casing. Cemented with
a total of 30 sax Portland cement plus
30 sax Plaster of Paris by General Petroleums.
No returns were obtained so annulus was bailed
and a large cave at 10' was filled to surface
with Cement and Plaster.

Geological Markers:

	<u>Cores & Samples</u> <u>R. J. Burger</u>
Hay River Shale	22'
Slave Point Limestone	1170' ?
Presqu'ile Limestone	1370' ?
" Reef	1429'

Cored Intervals: 1284 - 1299' (Diamond Cores)
1604 - 1615' (Diamond Cores)

Formation Tests: D.S.T. No. 1 1146 - 1189' - Slave Point Lime-
stone: Valve open 60 minutes. Recovered 420'
dead sulphur water.

D.S.T. No. 2 1412 - 1433' - Presqu'ile
Dolomite: Valve open 60 minutes. Sustained
air blow. Recovered 1110' salty sulphur water.

Total Depth: 1757'

Cement Plugs: Plug No. 1 1342 - 1450' - with 25 sax cement.
Plug No. 2 50 - 80' - with 8 sax cement.
Casing cut off below ground level, 5 sax
cement set in top of casing and a steel plate
welded over same.

Date Well Spudded: February 3, 1954

Date Drilling Completed: February 24, 1954

Date Rig Released: February 25, 1954

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Preface to Daily Progress Report
on the
Drilling, Coring, Testing and Abandonment of
N.W.T. Heart Lake No. 1

Crews arrived at the location of the rig on the south shore of the Mackenzie River, just east of the Kakisa River on December 15, 1953, and began moving equipment to the new location. Due to the prevailing low temperatures and difficult terrain encountered between the storage site and the new wellsite, the building of roads and transport of rig and equipment was not completed until January 31, 1954.

DAILY PROGRESS REPORT

<u>Date</u>	<u>From</u>	<u>To</u>	<u>Footage</u>	<u>Remarks</u>
<u>February 1</u>				Completed rigging up and mixed mud to stop lost circulation in suction pits.
<u>February 2</u>				Picked up 9" OSC bit and dug 10' of rat-hole in 11 hours. Mixed mud to control lost circulation.
<u>February 3</u>		8	8	Drilled rathole to a depth of 32' in 18-1/2 hours. Changed bits after 18 hours drilling rathole at 20' and pulled pipe after 11-1/2 hours drilling rathole at 32'. Set in rathole casing and picked up 9" OSC bit. Spudded the well in at 9:00 PM and drilled ahead for 3 hours.
<u>February 4</u>	8	74	66	On bottom, drilling with 9" OSC bits for 18 hours. Bits were changed after 15-1/2 hours at 17' and pipe was pulled after 5-1/2 hours at 74'. Boulder cavings made tripping and connections difficult.
<u>February 5</u>	74			Rigged up and ran casing as follows:

DAILY PROGRESS REPORT (CONT'D)

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Date	From	To	Footage	Remarks
<u>February 5</u> (cont'd)	74			Started rigging to run casing 12:30 AM Casing started in hole 1:00 AM Casing all in 4:00 AM Started cementing 9:00 AM Cement all in pipe 9:10 AM Plug down 9:30 AM Ran and cemented 65.42', 7", 20#, 8 Rd. Thd., Rgs. 2, J-55, Stewart and Lloyds casing. The belled end of the casing was landed 74.26' below kelly bushing, which was 8.84' above ground level. The casing was cemented with a total of 30 sax Portland Cement plus 30 sax Plaster of Paris (1500#) by General Petroleum with Jim Routledge operating. The plug was pushed to bottom by lowering drill collars on top of same. Cement returns were not obtained so annulus was bailed and a large cave at 10' was filled with cement and plaster. <u>Note:</u> While running casing, boulders kept caving in and had to be bailed out. Stood cemented 8 hours.
<u>February 6</u>	74			Stood cemented 4 hours to a total of 12 hours. Installed blowout preventer, nipped up same and ran in 6 1/8" OSC bit to top of plug at 52'. Repaired rig shelter which had been damaged by a high wind and drilled on plug for 4 hours.
<u>February 7</u>	74	456	382	Drilled out plug and cement to bottom in 1/2 hour and drilled ahead with 6 1/8" OSC bits for 15-1/4 hours. Changed bits after 5-1/2 hours drilling at 146'. A survey showed: 1/2° @ 300'
<u>February 8</u>	456	867	411	On bottom, drilling with 6-1/8" OSC bits for 12-1/4 hours. Bits were changed after 12-3/4 hours at 516' and again after 11-3/4 hours at 783'. A survey showed: 1/2° @ 600'
<u>February 9</u>	867	1189	322	On bottom, drilling with 6-1/8" OSC bit for 13-3/4 hours. Pulled pipe after 17-1/4 hours at 1189', laid back bit and made up packer. Began running in with tester. A survey showed: 3/4° @ 1095'

DAILY PROGRESS REPORT (CONT'D)

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<u>Date</u>	<u>From</u>	<u>To</u>	<u>Footage</u>	<u>Remarks</u>
<u>February 10</u>	1189	1284	95	Finished running in, seated packer and opened tool for test. <u>D.S.T. No. 1 - 1146 to 1189'</u> Formation - Slave Point Hole diameter to 1189' 6 1/8" O.D. of Packer Rubber 5 3/4" Length of anchor below packer 43 ft. Valve open 60 min. Tester shut in nil min. There was a noticeable air blow dying two minutes after the tool was opened and the mud level in the casing did not drop. When the drill pipe was pulled, 420' (2.42 bbls.) of dead sulphur water were recovered. The test was considered to be mechanically satisfactory and was performed by General Petroleum (Dowell Rental) with J. Routledge operating. Broke down and laid back tester, picked up new 6-1/8" OSC bit and ran in. Drilled ahead for 6 hours and circulated for 1 hour waiting on orders.
<u>February 11</u>	1284	1373	89	Pulled pipe, laid back drill collars and bit and picked up core barrel and 6-1/8" Truco diamond core bit. Ran in and cored ahead for 2-1/2 hours to 1299'. Pulled pipe, laid back coring equipment and handled core. One core was handled and for 15' cut, 15' were recovered or 100%. Made up drill collars and new 6-1/8" OSC bit and ran in. On bottom, drilling for 6 hours.
<u>February 12</u>	1373	1433	60	On bottom, drilling with 6-1/8" OSC bit for 5 hours. Circulated to clean hole for 1 hour and pulled out pipe after 11 hours at 1433'. Laid back bit, made up tester and ran in. Seated packer and opened tool for test. <u>D.S.T. No. 2 - 1412 to 1433'</u> Formation - Presquille Dolomite Hole diameter to 1433' 6 1/8" O.D. of Packer Rubber 5 3/4" Length of anchor below packer 21 ft. Valve open 60 min. Tester shut in nil min.

DAILY PROGRESS REPORT (CONT'D)

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Date	From	To	Footage	Remarks
<u>February 12</u>	1373	1433	60	D.S.T. No. 2 cont'd There was a good initial air blow when the tool was opened and the mud level in the casing did not drop. The air blow was sustained throughout the test. When the drill pipe was pulled, 1110' (8.24 bbls.) of salty sulphur water were recovered. The test was considered to be mechanically satisfactory and was performed by General Petroleum (Dowell Rental) with J. Routledge operating. Broke down tester and laid back same. Picked up 6-1/8" OSC bit and ran in.
<u>February 13</u>	1433	1540	107	Repaired rotary clutch in 8 hours and drilled ahead for 9-1/2 hours. Began pulling pipe after 9-1/2 hours at 1540'. A survey showed: 3/4° @ 1520'
<u>February 14</u>	1540	1600	60	Finished pulling pipe. Changed to 6-1/8" OWS bit and ran in. Drilled ahead for 12-1/2 hours to 1600' and lost circulation. Mixed mud and sawdust and pumped same down hole for 5-1/4 hours trying to regain lost circulation.
<u>February 15</u>	1600			Ran out of mud and sawdust after 5 hours trying to regain lost circulation. Pulled out pipe and stood 17 hours waiting on more mud.
<u>February 16</u>	1600			Cleaned up around rig and lease while standing 24 hours waiting on mud.
<u>February 17</u>	1600			Stood 24 hours waiting on mud.
<u>February 18</u>	1600			Mud and lost circulation materials arrived on the lease at 6:00 AM. Ran in with used 6-1/8" OWS bit and circulated mud and sawdust for 19 hours. Regained some circulation around 12:00 midnight.
<u>February 19</u>	1600	1615	15	Regained circulation in 1-1/2 hours, circulated for 1 hour and drilled ahead for 1/4 hour to 1602'. Lost circulation again, regaining same in 1-3/4 hours. Drilled ahead for 1/2 hour to 1604' and again lost circulation. Regained circulation after 6-1/2 hours, pulled pipe, laid back bit and made up

DAILY PROGRESS REPORT (CONT'D)

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Date	From	To	Footage	Remarks
<u>February 19</u> (cont'd)	1600	1615	15	core barrel and 6-1/8" Diamond core bit. Ran in, reamed 90' to bottom in 2-1/2 hours and cored ahead to 1615' in 2 hours. Began pulling pipe.
<u>February 20</u>	1615	1655	40	Pulled pipe, handled core and for 11' cut, 11' were recovered or 100%. Laid back coring equipment and picked up new 6-1/8" OWS bit. Ran in and drilled ahead for 6-1/2 hours to 1655'. Lost circulation and mixed mud and sawdust for 2-1/2 hours trying to regain same.
<u>February 21</u>	1655	1679	24	On bottom, drilling with 6-1/8" OWS bit for 3-3/4 hours. Regained and lost circulation each time cavernous section penetrated. Caverns as large as 4-1/2' encountered.
<u>February 22</u>	1679	1693	14	Drilled ahead, continually losing circulation for 1-1/4 hours. Mixed 25 sax cement plus 4% Gel and pumped same into lost circulation zone. Pulled pipe and stood 8-1/2 hours waiting on cement to set.
<u>February 23</u>	1693	1756	63	Picked up new 6-1/8" OWS bit, ran in and felt plug at 1678'. Circulated to condition mud for 3-1/4 hours and drilled out cement plug in 1/4 hours. Cleaned out hole and circulated for 4-1/2 hours before drilling ahead for 8-3/4 hours.
<u>February 24</u>	1756	1757	1	Drilled ahead for 1/4 hour to 1757', circulated hole clean for 1/4 hour and pulled out 10 singles. Stood 7-1/2 hours waiting on orders. Rigged up and ran cement plugs as follows: <u>Plug No. 1</u> 1450 - 1342' cemented with 25 sax cement. Plug down at 11:30 AM. <u>Plug No. 2</u> 80 - 50' cemented with 8 sax cement. Plug down at 3:00 PM.
<u>February 25</u>	1757			Cut off casing just below ground level, set in 5 sax cement and welded steel plate over same. Rig was released and preparations to move to new location were begun.

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SURVEY RECORD

<u>Date</u>	<u>Depth</u>	<u>Deviation</u>
February 7th, 1954	300	1/2°
February 8th, 1954	600	1/2°
February 9th, 1954	1095	3/4°
February 13th, 1954	1520	3/4°

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MUD RECORD

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Date	Depth	Mud Wt. No./U.S. Gal.	Visc.	Gel.	H ₂ O Loss cc.	Filter Cake 1/32"	pH	Additives
Feb. 20	1628							700# Dril-gel
20	1655	8.9	70	74	12	2		Water
21	1664	8.8	74					Dril-gel; water
21	1666	Losing circulation.						2000# Dril-gel; water
21	1679	Heavy mud						Sawdust
22	1693	Heavy mud						Dril-gel; sawdust; water
22	1693	Run cement plug						
23	1693		40					100# Quebracho; dril-gel.
23	1713							3000# Dril-gel; water
23	1756							10 sax Fibertex; 300# Dril-gel; water.

CORE AND SAMPLE DESCRIPTIONS

- by R. J. Burger

- 0 - 10 Limestone and granite boulders, some gravel limestone-cream to grey, dense. Varied assemblage of igneous sedimentary and metamorphic rocks. (Hodge podge sample).
- 10 - 20 Limestone - cream, dense, cryptocrystalline, much igneous material.
- TOP HAY RIVER SHALE 22'
- 20 - 30 Limestone - chiefly cream, cryptocrystalline, much vari-colored igneous, material; few chips grey-green calcareous shale.
- 30 - 40 Shale - grey-green, firm, calcareous; few brachiopod fragments. (Sample poor, chiefly igneous cavings).
- 40 - 50 Shale - grey-green, as above.
- 50 - 60 Shale - as above, slightly waxy in part.
- 60 - 70 Shale - grey, slightly greenish, firm, grading to a shaly limestone in part.
- 70 - 90 Shale - light grey, calcareous, firm, fossiliferous in part.
- 90 - 130 Shale - as above, micro-micaceous; trace pyrite.
- 130 - 150 Shale - light green, as above; some dark grey shale; minor amount argillaceous limestone.
- SIMPSON SHALE 150'?
- 150 - 170 Shale - (70%) as above.
Shale - (20%) light brown fissile micro-micaceous.
Limestone-(10%) light grey, very argillaceous, dense.
- 170 - 180 Shale - (30%) light green, fissile, soft, micro-micaceous. (20%) light brown, fissile, soft, micro-micaceous. (50%) limestone to limy shale - limestone grey argillaceous.
- 180 - 190 Shaly Limestone to limy shale - as above (60%)
(40%) light green, soft, calcareous shale, as above.
- 190 - 210 Limy shale to some shaly limestone - as above.

- 210 - 230 Shale - (60%) soft, green, fissile, micromicaceous, some grey. (40%) shaly limestone to limy shale - grey, dense, as above.
- 230 - 250 Shaly Limestone to limy shale - grey, some slightly brownish, trace limestone.
- 250 - 270 Shale - as above, grey-green, rough textured. Limestone - (20%) cream to buff, dense, micro-crystalline.
- 270 - 280 Shale - (60%) grey-green, fissile, micro-micaceous, flaky. Limestone - (30%) grey, argillaceous shaly, finely granular, dense. Limestone - (10%) brownish, as above.
- 280 - 290 Shale - (60%) grey-green, as above. Limestone - (30%) grey, argillaceous, finely granular, (may be a rough textured limy shale). Limestone - (10%) buff, dense, micro-crystalline.
- 290 - 300 Shale - (70%) as above, grey-green. Limestone - (20%) grey, argillaceous, dense. Limestone - (10%) buff, cryptocrystalline.
- 300 - 320 Shale - (70%) grey-green, calcareous, flaky. Shaly limestone (30%) grey, medium granular, compact, argillaceous.
- 320 - 340 Limestone - (50%) light grey, some buff, micro-crystalline (50%) shale grey-green, as above.
- 340 - 360 Shale - limy, light grey, rough textured.
- 360 - 370 Shale - (50%) light grey, rough textured, as above. (50%) light grey, green.
- 370 - 380 Shale - as above, brown and petroliferous in part.
- 380 - 400 Shale - grey, white, some brownish, rough textured, shale to shaly, granular, argillaceous limestone.
- 400 - 410 Limy Shale - brownish to dark grey-brown, petroliferous, rough textured.
- 410 - 430 Limy Shale - chiefly light grey-green, brown tinged, rough textured.
- 430 - 450 Shale - grey, white to grey-green, flaky, some firm and limy.
- 450 - 460 Shale - grey, white to grey-green, calcareous.

- 460 - 480 Limestone - (60%) light grey, slightly greenish, some buff (caving?) dense, argillaceous. (40%) shale grey-green, calcareous.
- 480 - 490 Limestone - (35%) light grey, greenish, as above.
Shale - (35%) grey-green, as above.
Shale - (30%) grey-black, slightly calcareous.
- 490 - 500 Shale - (70%) grey-green, as above.
Limestone - (20%) buff to brown, some grey, dense to finely crystalline, some buff, medium granular limestone.
- 500 - 510 Shale - (50%) grey-black, fissile, micro-micaceous, slightly calcareous.
- 510 - 530 Shale - grey-green, as above, (30%) buff limestone (caving from bottom of suction pit).
- 530 - 540 Shale - (60%) as above, grey-green, some grey-black.
Limestone - (30%) buff to cream (caving?).
Limestone - (10%) grey, argillaceous, dense.
- 540 - 550 Shale - grey-black, some brownish, micro-micaceous.
- 550 - 560 Shale - grey to grey-green, limy, firm.
- 560 - 570 Shale - (40%) as above.
Shale - (60%) brown to black, calcareous, firm, micro-micaceous.
- 570 - 600 Shale - as above, chiefly grey-green, micro-micaceous.
- 600 - 610 Shale - black to grey-black, slightly calcareous some brownish.
- 610 - 630 Shale - chiefly grey-green, as above. Minor black to grey-black shale.
- 630 - 650 Shale - grey-green and grey-black; minor light grey, dense limestone.
- 650 - 680 Shale - grey-green and grey-black, as above.
- 680 - 690 Shale - (60%) as above.
Limestone - (40%) light grey, fragmental, dense, argillaceous.
- 690 - 700 Shale - (70%) grey-green, limy, firm.
Limestone - (30%) light grey, argillaceous, dense, fragmental.
- 700 - 710 Shale - grey-green, as above.

710 - 720	Shale - brownish to grey-black, micro-micaceous.
720 - 740	Shale - grey-green, soft, flaky, few crinoid plates.
740 - 760	Shale - greyish-brown, some olive colored.
760 - 800	Shale - light green, calcareous, as above; smooth textured; brachiopod fragments.
800 - 820	Shale - as above, light grey, slightly greenish, firm, rough textured.
820 - 940	Shale - light grey, smooth textured, calcareous.
940 - 960	Shale - grey-green, firm, calcareous.
960 - 970	Shale - (80%) grey-green, as above. Limestone - (20%) cream to brown, finely granular; trace <u>fair porosity</u> , few chips (caving from suction pit).
970 - 990	Shale - light grey, firm, some hard and limy. Limestone - (20%) cream to brownish, dense to finely granular, argillaceous; some <u>fair inter-granular porosity</u> . No staining; no fluorescence; no cut. (caving from suction pit).
990 - 1000	Limestone - (50%) cream to buff, as above; some <u>inter-granular porosity</u> . (caving, as above). Shale - Limestone - (50%) grey, finely granular, compact.
1000 - 1010	Shaly Limestone - light grey, dense. Shale - Limestone - (30%) light brown; trace <u>poor to fair porosity</u> (picking up gravel from suction pit?).
1010 - 1020	Shale - Limestone - light grey, dense. Crinoid plate fragments, trace pyrite. Limestone - (20% - 30%) cream to white (cavings).
1020 - 1040	Shale - Limestone - light grey, finely granular, compact.
1040 - 1050	Shale - Limestone - as above.
1050 - 1060	Shale - Limestone - light grey, granular to dense and compact; minor grey brownish, slightly vitreous limestone.
1060 - 1080	Shale - Limestone - light grey, white tinged.
1080 - 1090	No sample.

- 1090 - 1100 Shale - Limestone - (60%) light grey, dense.
Limestone - (20%) buff, few chips with fair inter-crystalline porosity (caving?)
- 1100 - 1120 Shale - Limestone - (80%) light grey, dense, some medium granular.
Limestone - (10% - 20%) buff (cavings).
- 1120 - 1130 Shale - Limestone - (90%) grey-brown, as above.
Limestone - (10%) buff (cavings).
- 1130 - 1140 Shale - Limestone - (40%) grey, dense.
Limestone - (10%) buff, some fair intergranular porosity.
Shale - (50%) black, some olive colored, slightly calcareous.
- 1140 - 1150 Shale - Limestone - (90%) as above, grey.
Limestone - (10%) buff, fine to medium crystalline, slightly vitreous; poor to fair inter-crystalline porosity; slight oil staining; no cut with carbon tetrachloride; no acid reaction. (cavings?)
- 1150 - 1160 Limestone - (80%) grey, dense, as above.
Limestone - (10%) buff, vitreous, dense.
Limestone - (10%) buff, fine to medium crystalline, oil stained in part; some inter crystalline porosity.
- TOP SLAVE POINT 1170' ?
- 1170 - 1180 Limestone - (80%) chiefly buff to brownish, fine to medium granular; fair inter-granular porosity.
Limestone - (20% - 30%) cream to white, fragmental.
- 1180 - 1190 Limestone - as above, buff to brownish; some cream white, dense, cryptocrystalline; poor fine vuggy porosity; few chips fair vuggy porosity.
- 1190 - 1240 Limestone - buff to brown, fine to medium granular, compact; some limestone, cream, dense, crypto-crystalline.
- 1240 - 1260 Limestone - greyish to slightly brown, fine to medium granular argillaceous, slightly vitreous.
- 1260 - 1280 Limestone - grey, coarsely crystalline, fragmental fossiliferous, much pyrite.
- 1280 - 1284 Limestone - light grey-brown, finely crystalline; trace greenish, waxy shale?

Diamond Core No. 1 - 1284 - 1299' Recovered 15'

Limestone - light brown, very argillaceous to shaly, dense to finely crystalline; fossiliferous, mottled appearance toward base with many pyrobitumen and shaly partings.

1300 - 1330

Limestone - shaly, light to medium brown, as above, dense to fine and some medium crystalline.

1330 - 1360

Limestone - creamy, brownish, finely crystalline, dense.

1360 - 1370

Limestone - as above; some greenish, waxy calcareous shale.

TOP PRESQU'ILE 1370' ?

1370 - 1380

Limestone - as above.

1380 - 1400

Limestone - as above, darker brown, dense to finely crystalline.

1400 - 1410

Limestone - light grey, medium crystalline to fragmental; shale - few chips slightly waxy, greenish in part, fine conglomerate. Abundant pyrite.

1410 - 1420

Limestone - brown, as above, medium to coarsely crystalline, compact, trace poor to fair inter-crystalline porosity.

TOP PRESQU'ILE REEF 1429'

1420 - 1430

Dolomite - buff, medium to coarsely crystalline, fair to good inter-crystalline porosity. No apparent oil staining.

1430 - 1440

Dolomite - buff to light brown, fine to medium crystalline, fair inter-crystalline porosity.

1440 - 1450

Dolomite - as above, creamy brown, vitreous.

1450 - 1460

Dolomite - as above, whitish to cream.

1460 - 1470

Dolomite - as above, some pure white.

1470 - 1480

Dolomite - white medium to coarsely crystalline, compact. Trace "apple" or bright emerald green shale.

1480 - 1490

Dolomite - white, as above, medium to coarsely crystalline, abundant calcite.

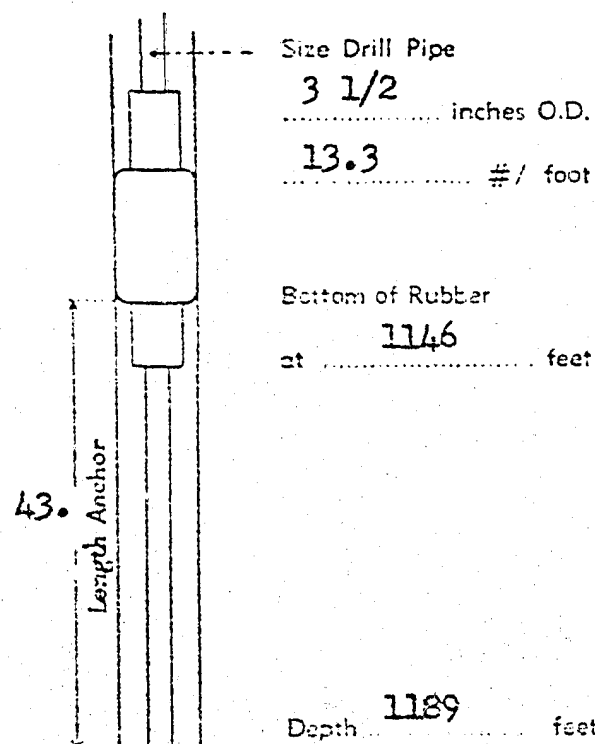
- 1490 - 1530 Dolomite - white, fine to medium to coarsely crystalline, much calcite in well developed rhombic crystals. Vitreous, compact; some poor inter-crystalline porosity. Trace limestone.
- 1530 - 1540 Dolomite - brownish, as above; one chip heavy oil stained.
- 1540 - 1550 Dolomite - dark brown, some black; medium crystalline rhombic crystals; trace pyrite.
- 1550 - 1570 Dolomite - (40%) buff to dark brownish-black, (50%) white. Some mottled white and buff. Fine to medium crystalline, some poor inter-crystalline porosity largely compact.
- 1570 - 1580 Dolomite - as above.
- 1580 - 1590 Dolomite - as above, well developed calcite rhombic crystals may indicate geodes or vugginess.
- 1590 - 1600 Dolomite - light grey, medium crystalline, relatively homogeneous, fair inter-crystalline porosity, no oil staining, soft.
- Diamond Core No. 2 - 1604 - 1615' Recovered 11.0'
- 1604 - 1607 Dolomite - grey brownish, mottled, white, medium crystalline to coarsely crystalline. Heterogeneous breccia infilled with white to slightly bluish, coarsely crystalline, compact dolomite, scattered vugs.
- 1607 - 1616 Dolomite - buff, mottled white, medium crystalline. Many scattered large vugs, some 4" and larger with calcite intergrowths. White dolomite infilling of vugs and fractures, many euhedral secondary calcite crystals in vugs. Strong sulphur smell throughout core.
- 1615 - 1620 Dolomite - buff, coarsely crystalline (poor sample).
- 1620 - 1630 Dolomite - buff and white, medium to coarsely crystalline.
- 1630 - 1640 Dolomite - chiefly white, coarsely crystalline, compact.
- 1640 - 1660 Dolomite - white, as above, some slightly bluish, some dark brownish dolomite, abundant euhedral calcite.
- 1660 - 1670 Dolomite - as above, trace buff limestone; small brachiopod.

CORE AND SAMPLE DESCRIPTIONS (CONT'D)

- 1670 - 1680 Dolomite - (60%) as above, white and buff.
Tinged. (40% - +) limestone, buff, finely granular;
trace yellowish amorphous sulphur.
- 1680 - 1690 Limestone - (40%) light greyish buff, finely
crystalline, some medium granular cavernous; trace
pyrite. Dolomite - (60%) as above.
- 1690 - 1700 Limestone - as above (poor sample) chiefly cavings.
- 1700 - 1710 Limestone - dolomitic, buff, finely granular;
some poor inter-granular porosity.
- 1710 - 1720 Dolomite - (80%) cream, medium to coarsely crystalline,
some pure white coarsely crystalline dolomite.
Limestone - (20%) grey-buff, to grey finely granular.
- 1720 - 1730 Dolomite - white to cream, medium to coarsely
crystalline.
- 1730 - 1740 Dolomite - cream, medium crystalline - granular
compact, abundant calcite; evidence of vugs.
- 1740 - 1750 Dolomite - creamy, white, to some buff finely
crystalline; trace pyrite, cavernous.
- 1750 - 1757 Dolomite - as above, some dark brown, finely
crystalline, cavernous.

- - - o o - - -

Drill Stem Test Report

Date February 10th, 1954.Name of Well N. W. T. Heart Lake # 1Test No. 1, Run 1Testing Company General Petroleums - Dowell RentalOperator J. Routledge

Size Drill Pipe

3 1/2

inches O.D.

13.3

#/ foot

Bottom of Rubber

at 1146

feet

O.D. of Packer Rubber 5 3/4"Size Choke 3/8"Type of Packer: Anchor Type X

Hookwall

Formation Tested Slave PointDepth of Well 1189'Zone Tested: From 1146'To 1189'Time Waiting on Tester NilMud: API Viscosity 48 Gel. 52 Weight 9.6Time Tester started in hole 2:00 AM" " On Bottom 8:15 AM" " Opened 9:10 AM (Reset 9:38 AM)" " Closed 10:10 AM (dropped dart No. 2)" " Pulled Loose 10:10 AM" " Out of Hole 1:00 PMWeight: Set on Packer 10.5 Thousand Lbs.; To Pull Packer Loose 10.0 Thousand Lbs.No. Lines 6 Size Line 3/4"When tool was opened: Was blow noticeable, Yes X No ; Air Displaced, Yes X No Did mud level drop in casing; Yes No XGas Flow: Thousand cf/day. Measured with Pitot tube by Estimated by Size riser: 2 inches, I.D.; Was flare lit, Yes No X; Length of flame feetTotal fluid in drill pipe: 14 Stands 420 Feet Bbls.Oil in drill pipe { Gassy } Stands Feet Bbls.
 { Dead }Mud in drill pipe { Gassy } Stands Feet Bbls.
 { Dead }Water in drill pipe { ~~Gassy~~ } 14 Stands 420 Feet 2.42 Bbls.
 { Dead }

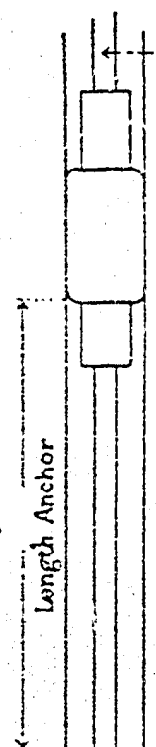
Note: Samples of Oil and Water must be taken.

Samples ~~not taken~~ at wellsite. By Water: ~~Soluble~~ Sulphur, ~~Brackish~~ Fresh. (Cross out terms that do not apply.)Remarks:

Put additional remarks or other information on back of sheet.

Present at test: J. Routledge; D. Weber & crew; R. J. Burger.Do you consider that test was satisfactory? Yes X No Does chart show normal operation of tester? Yes No chart No Pressure on chart (Hydrostatic) before tester opened p.s.i." " " (Flowing) with tester open p.s.i. (shut in) p.s.i.Is chart attached: Yes No X Who has it Engineer/Inspector R. J. Burger.

Drill Stem Test Report

Date February 12th, 1954.Name of Well N. W. T. Heart Lake No. 1Test No. 2, Run 1Testing Company General Petroleum - Dowell RentalOperator J. Routledge

Size Drill Pipe

3 1/2 inches O.D.13.3 #/ foot

Bottom of Rubber

at 1412 feetDepth 1433 feetO.D. of Packer Rubber 5 3/4"Size Choke 3/8"Type of Packer: Anchor Type ☒

Hookwell

Formation Tested Presqu'ileDepth of Well 1433Zone Tested: From 1412 To 1433Time Waiting on Tester nilMud: API Viscosity 50 Gel. 54 Weight 9.8Time Tester started in hole 12:00 Noon" " On Bottom 3:00 PM" " Opened 3:30 PM" " Closed 4:30 PM" " Pulled Loose 4:30 PM" " Out of Hole 6:00 PMWeight: Set on Packer 10.5 Thousand Lbs.; To Pull Packer Loose 10.0 Thousand Lbs.No. Lines 6 Size Line 3/4"When tool was opened: Was blow noticeable, Yes ☒ No ☐ ; Air Displaced, Yes ☒ No ☐Did mud level drop in casing; Yes ☐ No ☒Gas Flow: ☐ Thousand cf/day. Measured with Pitot tube by

Estimated by

Size riser: 2 inches, I.D.; Was flare lit, Yes ☐ No ☒ ; Length of flame ☐ feetTotal fluid in drill pipe: ☐ Stands ☐ Feet ☐ Bbls.Oil in drill pipe ☐ { Gassy } ☐ Stands ☐ Feet ☐ Bbls.Mud in drill pipe ☐ { Gassy } ☐ Stands ☐ Feet ☐ Bbls.Water in drill pipe ☒ { Gassy } 37 Stands 1110 Feet 8.24 Bbls.

Note: Samples of Oil and Water must be taken.

Samples ~~submitted~~ at wellsite By ☐Water: Salty, Sulphur, ~~Brackish~~ Fresh. (Cross out terms that do not apply.)Remarks: Salty, sulphur water. Air blow sustained.

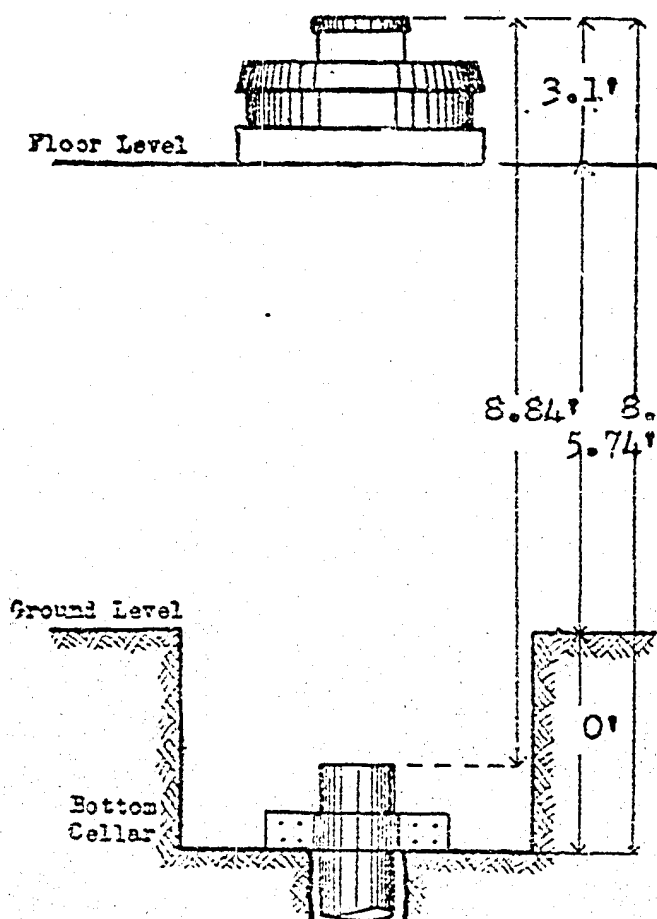
Put additional remarks or other information on back of sheet.

Present at test: J. Routledge, C. Spornitz, R. J. Burger.Do you consider that test was satisfactory? Yes ☒ No ☐Does chart show normal operation of tester? Yes ☐ No chart No ☐Pressure on chart (Hydrostatic) before tester opened ☐ p.s.i." " " (Flowing) with tester open ☐ p.s.i. (shut in) ☐ p.s.i.Is chart attached: Yes ☐ No ☒ Who has it ☐

Casing Report

NAME OF WELL N. W. T. Heart Lake # 1

DATE February 5th, 1954.



Make of Casing Stewart & Lloyds
 Size 7" Weight 20# No. of Threads 8
 Short or Long Threads Grade J-55
 Make and Type of Casing Shoe Belled end
 Make and Type of Collar Welded on?
 Centralizers at
 Welding—Electric X Acetylene
 No. of Joints Welded one
 Welding Co. General Petroleum Operator A. J. Weber
 Scratchers at
 Calcium Chloride Added
 Aquagel Added
 Cementing Co. General Petroleum
 Cementer J. Routledge Helper Rig crew
 Drive Bushing Elevation 804.84'

Distance Drive Bushing to Ground Level 8.84 Ft.
 Total Amount of Casing Used (including Landing Joint) 65.42 Ft.
 Distance Top of Casing Landed Below Kelly Drive Bushing 8.84 Ft.
 Total Amount of Casing Left in Hole 65.42 Ft.
 Depth of Shoe Below Drive Bushing 74.26 Ft.
 Time Rigging up to Run Casing 1/2 Hrs. Time Casing Started in Hole 1:00 A. M.
 Time Running Casing 3 Hrs. Time Started Circulating not circulated M.
 Time Stopped Circulating - M. Time Started Cementing 9:00 A. M.
 Time Cement in Pipe 9:10 A. M. Time Plug on Bottom 9:30 A. M.
 Plug Measured into 58 ft. by Wire Line or displaced with Bbls.
 Bumped on Collar or Baffle Plate with P.S.I.
 Number of Sacks Cement Used see below Sacks: Hours Cement Set 12 Hrs.
 Method of Cementing Cement Returns? no Yes or No.
 Casing Landed in Clamps, Casinghead, Casing Suspender (State Make)

REMARKS:

Used 30 sax Portland cement, plus 30 sax Plaster of Paris. Pushed plug to 58' with drill pipe. No returns on cement so annulus bailed and a large cave in first 10' was filled with cement and plaster.

Engineer/Inspector R. J. Burger.

Time Drilling and / or Coring Record

22

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
8	9	8:25	8:30	5		
9	10	8:30	8:36	6		
10	11	8:36	9:55	79		
11	12	9:55	10:55	60		
12	13	10:55	4:30	335		
13	14	4:30	7:50	200		
14	15	7:50	9:40	110		
15	16	9:40	9:52	12		
16	17	9:52	10:02	10		
17	18	10:02	10:30	28		
18	19	10:30	10:52	22		
19	20	10:52	11:03	11		
20	21	11:03	12:00	57		
21	22	12:00	12:05	5		
22	23	12:05	12:09	4		
23	24	12:09	12:13	4		
24	25	12:13	12:53	40		
25	26	3:00	3:20	20		
26	27	3:20	3:26	6		
27	28	3:26	3:33	7		
28	29	3:33	3:38	5		
29	30	3:38	3:43	5		
30	31	3:43	3:48	5		
31	32	3:48	3:52	4		
32	33	7:50	8:00	10		
33	34	8:00	8:03	3		
34	35	8:03	8:05	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft / Hr.	REMARKS
From	To	From	To			
35	36	8:05	8:06	1		
36	37	8:06	8:07	1		
37	38	8:07	8:08	1		
38	39	8:08	8:09	1		
39	40	8:09	8:11	2		
40	41	8:11	8:12	1		
41	42	8:12	8:13	1		
42	43	8:13	8:15	2		
43	44	8:15	8:16	1		
44	45	8:16	8:18	2		
45	46	8:18	8:20	2		
46	47	8:20	8:22	2		
47	48	8:22	8:24	2		
48	49	8:24	8:27	3		
49	50	8:27	8:30	3		
50	51	8:30	8:35	5		
51	52	8:35	8:41	6		
52	53	8:41	8:46	5		
53	54	8:46	8:50	4		
54	55	8:50	8:53	3		
55	56	8:53	8:56	3		
56	57	8:56	8:59	3		
57	58	8:59	9:04	5		
58	59	9:04	9:07	3		
59	60	9:07	9:10	3		
60	61	9:10	9:14	4		
61	62	9:14	9:18	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
62	63	9:43	9:46	3		Connection.
63	64	9:46	9:49	3		
64	65	9:49	10:00	11		
65	66	10:00	10:03	3		
66	67	10:03	10:06	3		
67	68	10:06	10:08	2		
68	69	10:08	10:11	3		
69	70	10:11	10:14	3		
70	71	10:14	10:17	3		
71	72	10:17	10:31	14		
72	73	10:31	10:42	11		
73	74	10:42	10:53	11		
74	75	1:45	1:50	5		
75	76	5:00	5:03	3		
76	77	5:03	5:06	3		
77	78	5:06	5:10	4		
78	79	5:10	5:14	4		
79	80	5:14	5:17	3		
80	81	5:17	5:19	2		
81	82	5:19	5:21	2		
82	83	5:21	5:23	2		
83	84	5:23	5:26	3		
84	85	5:26	5:31	5		
85	86	5:31	5:35	4		
86	87	5:35	5:39	4		
87	88	5:39	5:44	5		
88	89	5:44	5:47	3		

Time Drilling and / or Coring Record

25

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
89	90	5:47	5:50	3		
90	91	6:04	6:08	4		
91	92	6:08	6:10	2		
92	93	6:10	6:13	3		
93	94	6:13	6:16	3		
94	95	6:16	6:20	4		
95	96	6:20	6:23	3		
96	97	6:23	6:27	4		
97	98	6:27	6:33	6		
98	99	6:33	6:37	4		
99	100	6:37	6:42	5		
100	101	6:42	6:47	5		
101	102	6:47	6:52	5		
102	103	6:52	6:57	5		
103	104	6:57	7:02	5		
104	105	7:02	7:07	5		
105	106	7:07	7:12	5		
106	107	7:12	7:17	5		
107	108	7:17	7:21	4		
108	109	7:21	7:26	5		
109	110	7:26	7:30	4		
110	111	7:30	7:34	4		
111	112	7:34	7:38	4		
112	113	7:38	7:43	5		
113	114	7:43	7:49	6		
114	115	7:49	7:54	5		
115	116	7:54	8:00	6		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
116	117	8:00	8:06	6		
117	118	8:06	8:20	14		
118	119	8:20	8:30	10		
119	120	8:30	8:42	12		
120	121	8:42	8:53	11		
121	122	8:53	9:03	10		Connection
122	123	9:26	9:33	7		
123	124	9:33	9:40	7		
124	125	9:40	9:47	7		
125	126	9:47	9:57	10		
126	127	9:57	10:07	10		
127	128	10:07	10:16	9		
128	129	10:16	10:21	5		
129	130	10:21	10:24	3		
130	131	10:24	10:26	2		
131	132	10:26	10:27	1		
132	133	10:27	10:29	2		
133	134	10:29	10:32	3		
134	135	10:32	10:35	3		
135	136	10:35	10:38	3		
136	137	10:38	10:40	2		
137	138	10:40	10:42	2		
138	139	10:42	10:45	3		
139	140	10:45	10:48	3		
140	141	10:48	10:51	3		
141	142	10:51	10:55	4		
142	143	10:55	11:02	7		

Time Drilling and / or Coring Record

27

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
143	144	11:02	11:09	7		
144	145	11:09	11:16	7		
145	146	11:16	11:27	11		
146	147	12:50	12:54	4		Rig service.
147	148	12:54	12:56	2		
148	149	12:56	12:57	1		
149	150	12:57	12:58	1		
150	151	12:58	12:59	1		
151	152	12:59	1:00	1		
152	153	1:10	1:11	1		
153	154	1:11	1:12	1		
154	155	1:12	1:13	1		
155	156	1:13	1:14	1		
156	157	1:14	1:15	1		
157	158	1:15	1:16	1		
158	159	1:16	1:17	1		
159	160	1:17	1:18	1		
160	161	1:18	1:19	1		
161	162	1:19	1:20	1		
162	168	1:20	1:22	2		
164	166	1:22	1:24	2		
166	168	1:24	1:26	2		
168	170	1:26	1:28	2		
170	172	1:28	1:31	3		
172	174	1:31	1:33	2		
174	176	1:33	1:36	3		
176	178	1:36	1:39	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
178	180	1:39	1:41	2		
180	182	1:48	1:51	3		Connection.
182	184	1:51	1:56	5		
184	186	1:56	2:00	4		
186	188	2:00	2:03	3		
188	190	2:03	2:07	4		
190	192	2:07	2:10	3		
192	194	2:10	2:12	2		
194	196	2:12	2:15	3		
196	198	2:15	2:18	3		
198	200	2:18	2:20	2		
200	202	2:20	2:25	5		
202	204	2:25	2:30	5		
204	206	2:30	2:35	5		
206	208	2:35	2:39	4		
208	210	2:39	2:42	3		
210	212	2:42	2:45	3		
212	214	2:45	2:50	5		
214	216	2:55	2:57	2		Connection
216	218	2:57	3:00	3		
218	220	3:00	3:02	2		
220	225	3:02	3:06	4		
225	230	3:06	3:15	9		
230	235	3:15	3:23	8		
235	240	3:23	3:31	8		
240	243	3:31	3:37	6		
243	245	3:52	3:55	3		Connection

Time Drilling and /or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
245	250	3:55	4:00	5		
250	255	4:00	4:07	7		
255	260	4:07	4:15	8		
260	265	4:15	4:23	8		
265	270	4:23	4:32	9		
270	273	4:32	4:37	4		
273	275	4:50	4:52	2		Connection.
275	280	4:52	4:59	7		
280	285	4:59	5:06	7		
285	290	5:06	5:13	7		
290	295	5:43	5:48	5		
295	300	5:48	5:53	5		
300	304	5:53	5:57	4		
304	305	6:30	6:32	2		
305	310	6:32	6:36	4		
310	315	6:36	6:40	4		
315	320	6:40	7:07	5		23 mins. - repair light plant.
320	325	7:07	7:15	8		
325	330	7:15	7:23	8		
330	335	7:23	7:31	8		
335	340	7:43	7:51	8		Connection.
340	345	7:51	8:02	11		
345	350	8:02	8:10	8		
350	355	8:10	8:18	8		
355	360	8:18	8:27	9		
360	365	8:27	8:37	10		

Time Drilling and / or Coring Record

30

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
365	370	8:52	8:59	7		Connection.
370	375	8:59	9:03	4		
375	380	9:03	9:11	8		
380	385	9:11	9:20	9		
385	390	9:20	9:34	14		
390	395	9:34	9:43	9		
395	400	9:55	10:03	8		Connection.
400	405	10:03	10:11	8		
405	410	10:11	10:19	8		
410	415	10:19	10:30	11		
415	420	10:30	10:41	11		
420	425	10:41	10:52	11		
425	430	11:09	11:16	7		Connection.
430	435	11:16	11:24	8		
435	440	11:24	11:31	7		
440	445	11:31	11:40	9		
445	450	11:40	11:49	9		
450	455	11:49	11:56	7		
455	456	11:56	11:59	3		Connection .
456	457	12:08	12:12	4		
457	458	12:12	12:15	3		
458	459	12:15	12:18	3		
459	460	12:18	12:21	3		
460	461	12:21	12:23	2		
461	462	12:23	12:25	2		
462	463	12:25	12:28	3		
463	464	12:28	12:30	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
464	465	12:30	12:32	2		
465	466	12:32	12:35	3		
466	467	12:35	12:37	2		
467	468	12:37	12:39	2		
468	469	12:39	12:41	2		
469	470	12:41	12:44	3		
470	471	12:44	12:46	2		
471	472	12:46	12:49	3		
472	473	12:49	12:51	2		
473	474	12:51	12:54	3		
474	475	12:54	12:56	2		
475	476	12:56	12:58	2		
476	477	12:58	1:01	3		
477	478	1:01	1:04	3		
478	479	1:04	1:06	2		
479	480	1:06	1:09	3		
480	481	1:09	1:11	2		
481	482	1:11	1:14	3		
482	483	1:14	1:16	2		
483	484	1:16	1:19	3		
484	485	1:19	1:21	2		
485	486	1:21	1:24	3		
486	487	1:24	1:26	2		
487	488	1:26	1:29	3		Connection ³
488	489	1:38	1:40	2		
489	490	1:40	1:43	3		
490	491	1:43	1:46	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
491	492	1:46	1:48	2		
492	493	1:48	1:50	2		
493	494	1:50	1:53	3		
494	495	1:53	1:55	2		
495	496	1:55	1:57	2		
496	497	1:57	2:00	3		
497	498	2:00	2:03	3		
498	499	2:03	2:05	2		
499	500	2:05	2:08	3		
500	501	2:08	2:11	3		
501	502	2:11	2:13	2		
502	503	2:13	2:16	3		
503	504	2:16	2:18	2		
504	505	2:18	2:21	3		
505	506	2:21	2:24	3		
506	507	2:24	2:26	2		
507	508	2:26	2:29	3		
508	509	2:29	2:32	3		
509	510	2:32	2:35	3		
510	511	2:35	2:38	3		
511	512	2:38	2:41	3		
512	513	2:41	2:44	3		
513	514	2:44	2:47	3		
514	515	2:47	2:50	3		
515	516	2:50	2:52	2		
516	517	2:52	2:55	3		
517	518	2:55	2:58	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
518	519	2:58	3:01	3		
519	520	3:01	3:04	3		
520	521	4:44	4:46	2		Connection.
521	522	4:46	4:48	2		
522	523	4:48	4:50	2		
523	524	4:50	4:52	2		
524	525	4:52	4:54	2		
525	526	4:54	4:56	2		
526	527	4:56	4:58	2		
527	528	4:58	5:01	3		
528	529	5:01	5:03	2		
529	530	5:03	5:05	2		
530	531	5:05	5:07	2		
531	532	5:07	5:10	3		
532	533	5:10	5:12	2		
533	534	5:12	5:14	2		
534	535	5:14	5:17	3		
535	536	5:17	5:19	2		
536	537	5:19	5:21	2		
537	538	5:21	5:24	3		
538	539	5:24	5:27	3		
539	540	5:27	5:30	3		
540	541	5:30	5:32	2		
541	542	5:32	5:35	3		
542	543	5:35	5:38	3		
543	544	5:38	5:40	2		
544	545	5:40	5:43	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
545	546	5:43	5:46	3		
546	547	5:46	5:49	3		
547	548	5:49	5:52	3		
548	549	5:52	5:55	3		
549	550	5:55	5:57	2		
550	551	5:57	6:00	3		
551	552	6:00	6:14	14		Connection
552	553	6:14	6:16	2		
553	554	6:16	6:17	1		
554	555	6:17	6:20	3		
555	556	6:20	6:22	2		
556	557	6:22	6:25	3		
557	558	6:25	6:27	2		
558	559	6:27	6:30	3		
559	560	6:30	6:32	2		
560	561	6:32	6:34	2		
561	562	6:34	6:37	3		
562	563	6:37	6:40	3		
563	564	6:40	6:43	3		
564	565	6:43	6:45	2		
565	566	6:45	6:48	3		
566	567	6:48	6:50	2		
567	568	6:50	6:53	3		
568	569	6:53	6:56	3		
569	570	6:56	6:58	2		
570	571	6:58	7:01	3		
571	572	7:01	7:04	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
572	573	7:04	7:07	3		
573	574	7:07	7:11	4		
574	575	7:11	7:14	3		
575	576	7:14	7:17	3		
576	577	7:17	7:20	3		
577	578	7:20	7:23	3		
578	579	7:23	7:26	3		
579	580	7:26	7:30	4		Connection
580	581	7:45	7:48	3		
581	582	7:48	7:51	3		
582	583	7:51	7:53	2		
583	584	7:53	7:56	3		
584	585	7:56	7:59	3		
585	586	7:59	8:02	3		
586	587	8:02	8:05	3		
587	588	8:05	8:08	3		
588	589	8:08	8:10	2		
589	590	8:10	8:13	3		
590	591	8:13	8:16	3		
591	592	8:16	8:19	3		
592	593	8:19	8:22	3		
593	594	8:22	8:24	2		
594	595	8:24	8:26	2		
595	596	8:26	8:28	2		
596	597	8:28	8:30	2		
597	598	8:30	8:32	2		
598	599	8:32	8:35	3		

Time Drilling and / or Coring Record

36

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
599	600	8:35	8:37	2		
600	601	8:37	8:40	3		
601	602	8:40	8:43	3		
602	603	8:43	8:46	3		
603	604	8:46	8:49	3		
604	605	8:49	8:51	2		
605	606	8:51	8:54	3		
606	607	8:54	8:57	3		
607	608	8:57	9:00	3		
608	609	9:00	9:03	3		
609	610	9:03	9:07	4		Connection.
610	611	9:21	9:23	2		
611	612	9:23	9:26	3		
612	613	9:26	9:28	2		
613	614	9:28	9:31	3		
614	615	9:31	9:34	3		
615	616	9:50	9:53	3		
616	617	9:53	9:56	3		
617	618	9:56	9:58	2		
618	619	9:58	10:01	3		
619	620	10:01	10:04	3		
620	621	10:04	10:07	3		
621	622	10:07	10:09	2		
622	623	10:09	10:11	2		
623	624	10:11	10:13	2		
624	625	10:13	10:15	2		
625	626	10:15	10:18	3		

Time Drilling and / or Coring Record

37

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
626	627	10:18	10:20	2		
627	628	10:20	10:23	3		
628	629	10:23	10:26	3		
629	630	10:26	10:29	3		
630	631	10:29	10:32	3		
631	632	10:32	10:35	3		
632	633	10:35	10:38	3		
633	634	10:38	10:41	3		
634	635	10:41	10:43	2		
635	636	10:43	10:46	3		
636	637	10:46	10:48	2		
637	638	10:48	10:51	3		
638	639	10:51	10:54	3		
639	640	10:54	10:57	3		Connection.
640	641	11:14	11:17	3		
641	642	11:17	11:19	2		
642	643	11:19	11:21	2		
643	644	11:21	11:23	2		
644	645	11:23	11:26	3		
645	646	11:26	11:28	2		
646	647	11:28	11:31	3		
647	648	11:31	11:34	3		
648	649	11:34	11:36	2		
649	650	11:36	11:39	3		
650	651	11:39	11:42	3		
651	652	11:42	11:45	3		
652	653	11:45	11:48	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
653	654	11:48	11:51	3		
654	655	11:51	11:54	3		
655	656	11:54	11:57	3		
656	657	11:57	12:01	4		
657	658	12:01	12:04	3		
658	659	12:04	12:07	3		
659	660	12:07	12:10	3		
660	661	12:10	12:13	3		
661	662	12:13	12:16	3		
662	663	12:16	12:19	3		
663	664	12:19	12:20	1		
664	665	12:20	12:21	1		
665	666	12:21	12:23	2		
666	667	12:23	12:24	1		
667	668	12:24	12:25	1		
668	669	12:25	12:26	1		
669	670	12:26	12:27	1		
670	671	1:28	1:29	1		Connection.
671	672	1:29	1:30	1		
672	673	1:30	1:31	1		
673	674	1:31	1:32	1		
674	675	1:32	1:34	2		
675	676	1:34	1:36	2		
676	677	1:36	1:38	2		
677	678	1:38	1:40	2		
678	679	1:40	1:42	2		
679	680	1:42	1:43	1		

Time Drilling and/or Coring Record

39

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
680	681	1:43	1:55	1		11 mins. out - kelly hose winding up.
681	682	1:55	1:56	1		Repair same
682	683	1:56	1:58	2		
683	684	1:58	2:00	2		
684	685	2:00	2:02	2		
685	686	2:02	2:04	2		
686	687	2:04	2:06	2		
687	688	2:06	2:08	2		
688	689	2:08	2:10	2		
689	690	2:10	2:12	2		
690	691	2:12	2:14	2		
691	692	2:14	2:16	2		
692	693	2:16	2:17	1		
693	694	2:17	2:19	2		
694	695	2:19	2:22	2		
695	696	2:22	2:23	1		
696	697	2:23	2:24	1		
697	698	2:24	2:26	2		
698	699	2:26	2:28	2		
699	700	2:28	2:30	2		
700	701	2:30	2:32	2		
701	702	2:45	2:46	1		Connection.
702	703	2:46	2:48	2		
703	704	2:48	2:50	2		
704	705	2:50	2:52	2		
705	706	2:52	2:54	2		

Time Drilling and / or Coring Record

40

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
706	707	2:54	2:55	1		
707	708	2:55	2:57	2		
708	709	2:57	2:59	2		
709	710	2:59	3:00	1		
710	711	3:00	3:01	1		
711	712	3:01	3:03	2		
712	713	3:03	3:05	2		
713	714	3:05	3:07	2		
714	715	3:07	3:09	2		
715	716	3:09	3:11	2		
716	717	3:11	3:13	2		
717	718	3:13	3:15	2		
718	719	3:15	3:17	2		
719	720	3:17	3:19	2		
720	721	3:19	3:20	1		
721	722	3:20	3:22	2		
722	723	3:22	3:24	2		
723	724	3:24	3:26	2		
724	725	3:26	3:28	2		
725	726	3:28	3:30	2		
726	727	3:30	3:32	2		
727	728	3:32	3:34	2		
728	729	3:34	3:36	2		
729	730	3:36	3:38	2		
730	731	3:38	3:40	2		
731	732	3:52	3:54	2		Connection.

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
732	733	3:54	3:56	2		
733	734	3:56	3:58	2		
734	735	3:58	4:00	2		
735	736	4:00	4:02	2		
736	737	4:02	4:04	2		
737	738	4:04	4:06	2		
738	739	4:06	4:09	3		
739	740	4:09	4:11	2		
740	741	4:11	4:13	2		
741	742	4:13	4:15	2		
742	743	4:15	4:17	2		
743	744	4:17	4:19	2		
744	745	4:19	4:20	1		
745	746	4:20	4:21	1		
746	747	4:21	4:24	3		
747	748	4:24	4:26	2		
748	749	4:26	4:28	2		
749	750	4:28	4:30	2		
750	751	4:30	4:32	2		
751	752	4:32	4:34	2		
752	753	4:34	4:36	2		
753	754	4:36	4:38	2		
754	755	4:38	4:40	2		
755	756	4:40	4:42	2		
756	757	4:42	4:44	2		
757	758	4:44	4:46	2		
758	759	4:46	4:47	1		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
759	760	4:47	4:48	1		
760	761	4:48	4:50	2		
761	762	5:06	5:07	1		Connection.
762	763	5:07	5:09	2		
763	764	5:09	5:11	2		
764	765	5:11	5:13	2		
765	766	5:13	5:15	2		
766	767	5:15	5:17	2		
767	768	5:17	5:19	2		
768	769	5:19	5:21	2		
769	770	5:21	5:23	2		
770	771	5:23	5:25	2		
771	772	5:25	5:27	2		
772	773	5:27	5:29	2		
773	774	5:29	5:31	2		
774	775	5:31	5:33	2		
775	776	5:33	5:35	2		
776	777	5:35	5:37	2		
777	778	5:37	5:39	2		
778	779	5:39	5:42	3		
779	780	5:42	5:44	2		
780	781	5:44	5:47	3		
781	782	5:47	5:49	2		
782	783	5:49	5:51	2		
783	784	5:51	5:53	2		
784	785	5:53	5:55	2		
785	786	5:55	5:57	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
786	787	5:57	5:59	2		
787	788	5:59	6:02	3		
788	789	6:02	6:04	2		
789	790	6:04	6:06	2		
790	791	6:06	6:08	2		
791	792	6:08	6:10	2		
792	793	6:10	6:13	3		
793	794	8:45	8:47	2		Repair swivel.
794	795	8:47	8:49	2		
795	796	8:49	8:51	2		
796	797	8:51	8:53	2		
797	798	8:53	8:55	2		
798	799	8:55	8:57	2		
799	800	8:57	8:58	1		
800	801	8:58	9:00	2		
801	802	9:00	9:02	2		
802	803	9:02	9:04	2		
803	804	9:04	9:06	2		
804	805	9:06	9:08	2		
805	806	9:08	9:10	2		
806	807	9:10	9:12	2		
807	808	9:12	9:13	1		
808	809	9:13	9:15	2		
809	810	9:15	9:17	2		
810	811	9:17	9:19	2		
811	812	9:19	9:21	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
812	813	9:21	9:23	2		
813	814	9:23	9:25	2		
814	815	9:25	9:27	2		
815	816	9:27	9:27	2		
816	817	9:27	9:29	2		
817	818	9:29	9:31	2		
818	819	9:31	9:33	2		
819	820	9:33	9:34	1		
820	821	9:34	9:35	1		
821	822	9:35	9:37	2		
822	823	9:37	9:39	2		
823	824	9:39	9:41	2		
824	825	9:56	9:58	2		Connection
825	826	9:58	10:00	2		
826	827	10:00	10:02	2		
827	828	10:02	10:04	2		
828	829	10:04	10:07	3		
829	830	10:07	10:09	2		
830	831	10:09	10:11	2		
831	832	10:11	10:13	2		
832	833	10:13	10:15	2		
833	834	10:15	10:17	2		
834	835	10:17	10:19	2		
835	836	10:19	10:21	2		
836	837	10:21	10:24	3		
837	838	10:24	10:26	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed	Rate	REMARKS
From	To	From	To	Minutes	Ft./Hr.	
838	39	10:26	10:28	2		
39	40	10:28	10:30	2		
40	41	10:30	10:32	2		
41	42	10:32	10:35	3		
42	43	10:35	10:37	2		
43	44	10:37	10:40	3		
44	45	10:40	10:43	3		
45	46	10:43	10:45	2		
46	47	10:45	10:46	1		
47	48	10:46	10:47	1		
48	49	10:47	10:48	1		
49	50	10:48	10:50	2		
850	51	10:50	10:52	2		
51	52	10:52	10:54	2		
52	53	10:54	10:56	2		
53	54	10:56	10:59	3		
54	55	11:14	11:16	2		Connection
55	56	11:16	11:18	2		
56	57	11:18	11:20	2		
57	58	11:20	11:22	2		
58	59	11:22	11:24	2		
59	60	11:24	11:26	2		
860	61	11:26	11:28	2		
61	62	11:28	11:30	2		
62	63	11:30	11:32	2		
63	64	11:32	11:34	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
864	65	11:34	11:37	3		
65	66	11:37	11:40	3		
66	67	11:40	11:43	3		
67	68	11:43	11:46	3		
68	69	11:46	11:50	4		
69	70	11:50	11:53	3		
70	71	11:53	11:56	3		
71	72	11:56	12:00	4		
72	73	12:00	12:03	3		
73	74	12:03	12:06	3		
74	75	12:06	12:09	3		
75	76	12:09	12:13	4		
76	77	12:13	12:16	3		
77	78	12:16	12:19	3		
78	79	12:19	12:22	3		
79	80	12:22	12:25	3		
880	81	12:25	12:28	3		
81	82	12:28	12:31	3		
82	83	12:31	12:34	3		
83	84	12:34	12:38	4		
84	85	12:38	12:41	3		Connection
85	86	12:55	12:57	2		
86	87	12:57	1:00	3		
87	88	1:00	1:04	4		
88	89	1:04	1:07	3		
89	90	1:07	1:10	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
890	91	1:10	1:13	3		
91	92	1:13	1:16	3		
92	93	1:16	1:19	3		
93	94	1:19	1:22	3		
94	95	1:22	1:25	3		
95	96	1:25	1:28	3		
96	97	1:28	1:31	3		
97	98	1:31	1:34	3		
98	99	1:34	1:37	3		
99	900	1:37	1:40	3		
900	01	1:40	1:44	4		
01	02	1:44	1:47	3		
02	03	1:47	1:50	3		
03	04	1:50	1:53	3		
04	05	1:53	1:57	4		
05	06	1:57	2:00	3		
06	07	2:00	2:03	3		
07	08	2:03	2:07	4		
08	09	2:07	2:10	3		
09	10	2:10	2:14	4		
910	11	2:14	2:16	2		
11	12	2:16	2:19	3		
12	13	2:19	2:22	3		
13	14	2:22	2:25	3		
14	15	2:25	2:28	3		
15	16	2:28	2:31	3		Connection

Time Drilling and / or Coring Record

48

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
916	17	2:45	2:48	3		
17	18	2:48	2:50	2		
18	19	2:50	2:52	2		
19	20	2:52	2:55	3		
20	21	2:55	2:58	3		
21	22	2:58	3:01	3		
22	23	3:01	3:03	2		
23	24	3:03	3:06	3		
24	25	3:06	3:09	3		
25	26	3:09	3:12	3		
26	27	3:12	3:15	3		
27	28	3:15	3:18	3		
28	29	3:18	3:21	3		
29	30	3:21	3:24	3		
930	31	3:24	3:27	3		
31	32	3:27	3:29	2		
32	33	3:29	3:32	3		
33	34	3:32	3:35	3		
34	35	3:35	3:38	3		
35	36	3:38	3:41	3		
36	37	3:41	3:44	3		
37	38	3:44	3:47	3		
38	39	3:47	3:50	3		
39	40	3:50	3:53	3		
940	41	3:53	3:56	3		
41	42	3:56	3:59	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
942	43	3:59	4:02	3		
43	44	4:02	4:05	3		
44	45	4:05	4:08	3		
45	46	4:08	4:11	3		
46	47	4:11	4:14	3		Connection
47	48	4:42	4:44	2		
48	49	4:44	4:47	2		
49	50	4:47	4:51	4		
50	51	4:51	4:54	3		
51	52	4:54	4:57	3		
52	53	4:57	5:00	3		
53	54	5:00	5:03	3		
54	55	5:03	5:06	3		
55	56	5:06	5:09	3		
56	57	5:09	5:12	3		
57	58	5:12	5:15	3		
58	59	5:15	5:18	3		
59	60	5:18	5:21	3		
960	61	5:21	5:24	3		
61	62	5:24	5:28	4		
62	63	5:28	5:32	4		
63	64	5:32	5:35	3		
64	65	5:35	5:38	3		
65	66	5:38	5:41	3		
66	67	5:41	5:46	5		
67	68	5:46	5:54	8		
68	69	5:54	6:00	6		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
969	70	6:00	6:06	6		Circulating sample
70	71	6:50	6:55	5		
71	72	6:55	6:59	4		
72	73	6:59	7:02	3		
73	74	7:02	7:05	3		
74	75	7:05	7:08	3		
75	76	7:08	7:11	3		
76	77	7:11	7:14	3		Connection
77	78	7:27	7:30	3		
78	79	7:30	7:32	2		
79	80	7:32	7:34	2		
980	81	7:34	7:36	2		
81	82	7:36	7:38	2		
82	83	7:38	7:40	2		
83	84	7:40	7:43	3		
84	85	7:43	7:46	3		
85	86	7:46	7:49	3		
86	87	7:49	7:52	3		
87	88	7:52	7:55	3		
88	89	7:55	7:58	3		
89	90	7:58	8:01	3		
990	91	8:01	8:04	3		
91	92	8:04	8:07	3		Circulating sample
92	93	8:59	9:02	3		
93	94	9:02	9:05	3		
94	95	10:25	10:29	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
995	96	10:29	10:32	3		
96	97	10:32	10:34	2		
97	98	10:34	10:36	2		
98	99	10:36	10:38	2		
99	1000	10:38	10:40	2		
1000	02	10:40	10:43	3		
02	03	10:43	10:46	3		
03	04	10:46	10:49	3		
04	05	10:49	10:52	3		
05	06	10:52	10:55	3		
06	07	10:55	10:58	3		Connection & circulating sample
07	08	11:33	11:35	2		
08	09	11:35	11:37	2		
09	10	11:37	11:39	2		
1010	11	11:39	11:41	2		
11	12	11:41	11:43	2		
12	13	11:43	11:46	3		
13	14	11:46	11:48	2		
14	15	11:48	11:52	4		
15	16	11:52	11:54	2		
16	17	11:54	11:56	2		
17	18	11:56	11:58	2		
18	19	11:58	12:00	2		
19	20	12:00	12:02	2		
1020	21	12:02	12:04	2		
21	22	12:04	12:06	2		

Time Drilling and / or Coring Record

52

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1022	23	12:06	12:08	2		
23	24	12:08	12:10	2		
24	25	12:10	12:13	3		
25	26	12:13	12:16	3		
26	27	12:16	12:18	2		
27	28	12:18	12:19	1		
28	29	12:19	12:21	2		
29	30	12:21	12:23	2		
1030	31	12:23	12:25	2		
31	32	12:25	12:27	2		
32	33	12:27	12:29	2		
33	34	12:29	12:31	2		
34	35	12:31	12:34	3		
35	36	12:34	12:37	3		
36	37	12:37	12:40	3		
37	38	12:58	1:00	2		Connection, tighten swedge to goose-neck on swivel.
38	39	1:00	1:02	2		
39	40	1:02	1:04	2		
1040	41	1:04	1:06	2		
41	42	1:06	1:08	2		
42	43	1:08	1:09	1		
43	44	1:09	1:10	1		
44	45	1:10	1:11	1		
45	46	1:11	1:12	1		
46	47	1:12	1:13	1		
47	48	1:13	1:15	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1048	49	1:15	1:17	2		
49	50	1:17	1:19	2		
50	51	1:19	1:21	2		
51	52	1:21	1:23	2		
52	53	1:23	1:25	2		
53	54	1:25	1:27	2		
54	55	1:27	1:29	2		
55	56	1:29	1:31	2		
56	57	1:31	1:33	2		
57	58	1:33	1:34	1		
58	59	1:34	1:36	2		
59	60	1:36	1:38	2		
1060	61	1:38	1:41	3		
61	62	1:41	1:43	2		
62	63	1:43	1:45	2		
63	64	1:45	1:47	2		
64	65	1:47	1:49	2		
65	66	1:49	1:51	2		
66	67	1:51	1:53	2		
67	68	2:06	2:08	2		Connection
68	69	2:08	2:10	2		
69	70	2:10	2:12	2		
1070	71	2:12	2:13	1		
71	72	2:13	2:14	1		
72	73	2:14	2:16	2		
73	74	2:16	2:18	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1074	75	2:18	2:19	1		
75	76	2:19	2:20	1		
76	77	2:20	2:22	2		
77	78	2:22	2:24	2		
78	79	2:24	2:26	2		
79	80	2:26	2:28	2		
1080	81	2:28	2:30	2		
81	82	2:30	2:32	2		
82	83	2:32	2:34	2		
84	85	2:34	2:36	2		
85	86	2:36	2:38	2		
86	87	2:38	2:40	2		
87	88	2:40	2:42	2		
88	89	2:42	2:44	2		
89	90	2:44	2:46	2		
1090	91	2:46	2:48	2		
91	92	2:48	2:50	2		
92	93	2:50	2:52	2		
93	94	2:52	2:53	1		
94	95	2:53	2:55	2		
95	96	2:55	2:56	1		
96	97	2:56	2:58	2		
97	98	2:58	3:00	2		
98	99	4:05	4:07	2		Connection; jet pits conditioned mud.
99	1100	4:07	4:09	2		
1100	01	4:09	4:10	1		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1101	02	4:10	4:11	1		
02	03	4:11	4:12	1		
03	04	4:12	4:13	1		
04	05	4:13	4:14	1		
05	06	4:14	4:15	1		
06	07	4:15	4:16	1		
07	08	4:16	4:17	1		
08	09	4:17	4:18	1		
09	10	4:18	4:19	1		
1110	11	4:19	4:20	1		
11	12	4:20	4:21	1		
12	13	4:21	4:22	1		
13	14	4:22	4:24	2		
14	15	4:24	4:26	2		
15	16	4:26	4:28	2		
16	17	4:28	4:30	2		
17	18	4:30	4:32	2		
18	19	4:32	4:33	1		
19	20	4:33	4:34	1		
1120	21	4:34	4:35	1		
21	22	4:35	4:36	1		
22	23	4:36	4:37	1		
23	24	4:37	4:39	2		
24	25	4:39	4:40	1		
25	26	4:40	4:42	2		
26	27	4:42	4:43	1		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1127	28	4:43	4:44	1		
28	29	4:44	4:46	2		
29	30	5:02	5:03	1		Connection
30	31	5:03	5:04	1		
31	32	5:04	5:05	1		
32	33	5:05	5:06	1		
33	34	5:06	5:07	1		
34	35	5:07	5:08	1		
35	36	5:08	5:09	1		
36	37	5:09	5:10	1		
37	38	5:10	5:11	1		
38	39	5:11	5:12	1		
39	40	5:12	5:13	1		
40	41	5:13	5:14	1		
41	42	5:14	5:15	1		
42	43	5:15	5:16	1		
43	44	5:16	5:17	1		
44	45	5:17	5:19	2		
45	46	5:19	5:20	1		
46	47	5:20	5:21	1		
47	48	5:21	5:23	2		
48	49	5:23	5:24	1		
49	50	5:24	5:26	2		
1151	52	5:26	5:27	1		
52	53	5:27	5:29	2		
53	54	5:29	5:30	1		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1154	55	5:30	5:31	1		
55	56	5:31	5:32	1		
56	57	5:32	5:34	2		
57	58	5:34	5:35	1		
58	59	5:35	5:37	2		
59	60	5:55	5:56	1		Connection
1160	61	5:56	5:58	2		
61	62	5:58	5:59	1		
62	63	5:59	6:00	1		
63	64	6:00	6:01	1		
64	65	6:01	6:02	1		
65	66	6:02	6:03	1		
66	67	6:03	6:04	1		
67	68	6:04	6:05	1		
68	69	6:05	6:06	1		
69	70	6:06	6:07	1		
1170	71	6:07	6:08	1		
71	72	6:08	6:09	1		
72	73	6:09	6:10	1		
73	74	6:10	6:11	1		
74	75	6:11	6:12	1		
75	76	6:12	6:13	1		
76	77	6:13	6:14	1		
77	78	6:15	6:16	2		
78	79	6:16	6:18	2		
79	80	6:18	6:19	1		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1180	81	6:19	6:21	2		
81	82	6:21	6:22	1		
82	83	6:22	6:24	2		
83	84	6:24	6:26	2		
84	85	6:26	6:28	2		
85	86	6:28	6:29	1		
86	87	6:29	6:30	1		
87	88	6:30	6:32	2		
88	89	6:32	6:34	2		
89	90	4:49	4:51	2		
1190	91	4:51	4:53	2		
91	92	5:18	5:19	1		Connection; tighten swivel.
92	93	5:19	5:20	1		
93	94	5:20	5:22	2		
94	95	5:22	5:23	1		
95	96	5:23	5:24	1		
96	97	5:24	5:25	1		
97	98	5:25	5:26	1		Shut down to install sample catcher
98	99	5:50	5:51	1		box.
99	1200	5:51	5:53	2		
1200	01	5:53	5:55	2		
01	02	5:55	5:56	1		
02	03	5:56	5:57	1		
03	04	5:57	5:59	2		
04	05	5:59	6:01	2		
05	06	6:01	6:03	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1206	07	6:03	6:05	2		
07	08	6:05	6:07	2		
08	09	6:07	6:09	2		
09	10	6:09	6:11	2		
10	11	6:11	6:13	2		
11	12	6:13	6:15	2		
12	13	6:15	6:16	1		
13	14	6:16	6:18	2		
14	15	6:18	6:20	2		
15	16	6:20	6:22	2		
16	17	6:22	6:24	2		
17	19	6:24	6:26	2		
19	20	6:26	6:28	2		
1220	21	6:28	6:30	2		
21	22	7:23	7:25	2		Connection; install new sample catcher.
22	23	7:25	7:27	2		
23	24	7:27	7:29	2		
24	25	7:29	7:31	2		
25	26	7:31	7:33	2		
26	27	7:33	7:35	2		
27	28	7:35	7:37	2		
28	29	7:37	7:39	2		
29	30	7:39	7:41	2		
1230	31	7:41	7:43	2		
31	32	7:43	7:45	2		
32	33	7:45	7:47	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1233	34	7:47	7:48	1		
34	35	7:48	7:50	2		
35	36	7:50	7:52	2		
36	37	7:52	7:54	2		
37	38	7:54	7:56	2		
38	39	7:56	7:58	2		
39	40	7:58	8:00	2		
1240	41	8:00	8:02	2		
41	42	8:02	8:04	2		
42	43	8:04	8:07	3		
43	44	8:07	8:10	3		
44	45	8:10	8:13	3		
45	46	8:13	8:16	3		
46	47	8:16	8:19	3		
47	48	8:19	8:22	3		
48	49	8:22	8:25	3		
49	50	8:25	8:28	3		
1250	51	8:28	8:31	3		
51	52	8:31	8:34	3		
52	53	8:40	8:49	3		Connection
53	54	8:49	8:52	3		
54	55	8:52	8:55	3		
55	56	8:55	8:58	3		
56	57	8:58	8:59	1		
57	58	8:59	9:01	2		
58	59	9:01	9:03	2		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1259	60	9:03	9:06	3		
60	61	9:06	9:10	4		
61	62	9:10	9:14	4		
62	63	9:14	9:17	3		
63	64	9:17	9:21	4		
64	65	9:21	9:25	4		
65	66	9:25	9:28	3		
66	67	9:28	9:31	3		
67	68	9:31	9:35	4		
68	69	9:35	9:38	3		
69	70	9:38	9:41	3		
70	71	9:41	9:45	4		
71	72	9:45	9:49	4		
72	73	9:49	9:52	3		
73	74	9:52	9:55	3		
74	75	9:55	9:59	4		
75	76	9:59	10:02	3		
76	77	10:02	10:06	4		
77	78	10:06	10:10	4		
78	79	10:10	10:13	3		
79	80	10:13	10:16	3		
1280	81	10:16	10:19	3		
81	82	10:19	10:22	3		
82	83	10:22	10:25	3		
83	84	10:50	10:53	3		Connection; heat slide on chuck. Shut down to circulate sample from bottom hole.

Time Drilling and / or Coring Record

62

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1284	85	10:10	10:17	7		Core #1
85	86	10:17	10:26	9		
86	87	10:26	10:35	9		
87	88	10:35	10:44	9		
88	89	10:44	10:53	9		
89	90	10:53	11:02	9		
90	91	11:02	11:10	8		
91	92	11:10	11:18	8		
92	93	11:18	11:25	7		
93	94	11:25	11:33	8		
94	95	11:33	11:40	7		
95	96	11:40	11:48	8		
96	97	11:48	11:55	7		
97	98	11:55	12:02	7		
98	99	12:02	12:11	9		
99	1300	6:05	6:09	4		
1300	01	6:09	6:13	4		
01	02	6:13	6:17	4		
02	03	6:17	6:21	4		
03	04	6:21	6:24	3		
04	05	6:24	6:27	3		
05	06	6:27	6:30	3		
06	07	6:30	6:33	3		
07	08	6:33	6:35	2		
08	09	6:35	6:38	3		
09	10	6:38	6:42	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1310	11	6:42	6:46	4		
11	12	6:46	6:50	4		
12	13	6:50	6:53	3		
13	14	7:21	7:25	4		Connection; repair rod lubricator pulley on pump.
14	15	7:25	7:28	3		
15	16	7:28	7:31	3		
16	17	7:31	7:34	3		
17	18	7:34	7:38	4		
18	19	7:38	7:42	4		
19	20	7:42	7:46	4		
1320	21	7:46	7:50	4		
21	22	7:50	7:54	4		
22	23	7:54	7:58	4		
23	24	7:58	8:02	4		
24	25	8:02	8:06	4		
25	26	8:06	8:10	4		
26	27	8:10	8:14	4		
27	28	8:14	8:18	4		
28	29	8:18	8:22	4		
29	30	8:22	8:26	4		
1330	31	8:26	8:29	3		
31	32	8:29	8:33	4		
32	33	8:33	8:37	4		
33	34	8:37	8:41	4		
34	35	8:41	8:45	4		
35	36	8:45	8:49	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1336	37	8:49	8:53	4		
37	38	8:53	8:57	4		
38	39	8:57	9:01	4		
39	40	9:01	9:05	4		
40	41	9:05	9:09	4		
41	42	9:09	9:13	4		
42	43	9:13	9:17	4		
43	44	9:36	9:40	4		Connection
44	45	9:40	9:44	4		
45	46	9:44	9:48	4		
46	47	9:48	9:52	4		
47	48	9:52	9:56	4		
48	49	9:56	10:00	4		
49	50	10:00	10:04	4		
1350	51	10:04	10:09	5		
51	52	10:09	10:13	4		
52	53	10:13	10:17	4		
53	54	10:17	10:21	4		
54	55	10:21	10:25	4		
55	56	10:25	10:29	4		
56	57	10:29	10:34	5		
57	58	10:34	10:39	5		
58	59	10:39	10:44	5		
59	60	10:44	10:49	5		
1360	61	10:49	10:55	6		
61	62	10:55	11:01	6		

Time Drilling and / or Coring Record

65

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1362	63	11:01	11:07	6		
63	64	11:07	11:13	6		
64	65	11:13	11:17	4		
65	66	11:17	11:21	4		
66	67	11:21	11:25	4		
67	68	11:25	11:29	4		
68	69	11:29	11:33	4		
69	70	11:33	11:38	5		
1370	71	11:38	11:43	5		
71	72	11:43	11:48	5		
72	73	11:48	11:53	5		
73	74	12:08	12:13	5		
74	75	12:13	12:19	6		
75	76	12:19	12:26	7		
76	77	12:26	12:31	5		
77	78	12:31	12:36	5		
78	79	12:36	12:42	6		
79	80	12:42	12:48	6		
1380	81	12:48	12:54	6		
81	82	12:54	1:00	6		
82	83	1:00	1:06	6		
83	84	1:06	1:11	5		
84	85	1:11	1:17	6		
85	86	1:17	1:24	7		
86	87	1:24	1:30	6		
87	88	1:30	1:37	7		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1388	89	1:37	1:44	7		
89	90	1:44	1:50	6		
90	91	1:50	1:58	8		
91	92	1:58	2:04	6		
92	93	2:04	2:10	6		
93	94	2:10	2:17	7		
94	95	2:17	2:21	4		
95	96	2:21	2:25	4		
96	97	2:25	2:30	5		
97	98	2:30	2:35	5		
98	99	2:35	2:40	5		
99	1400	2:40	2:45	5		
1400	01	2:45	2:50	5		
01	02	2:50	2:56	6		
02	03	2:56	3:02	6		
03	04	3:02	3:08	6		
04	05	3:08	3:14	6		
05	06	3:19	3:25	6		Connection
06	07	3:25	3:29	4		
07	08	3:29	3:33	4		
08	09	3:33	3:37	4		
09	10	3:37	3:41	4		
1410	11	3:41	3:46	5		
11	12	3:46	3:51	5		
12	13	3:51	3:55	4		
13	14	3:55	4:01	6		

Time Drilling and / or Coring Record

67

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1414	15	4:01	4:06	5		
15	16	4:06	4:12	6		
16	17	4:12	4:19	7		
17	18	4:19	4:27	8		
18	19	4:27	4:33	6		
19	20	4:33	4:40	7		
1420	21	4:40	4:47	7		
21	22	4:47	4:53	6		
22	23	4:53	4:58	5		
23	24	4:58	5:04	6		
24	25	5:04	5:11	7		
25	26	5:11	5:16	5		
26	27	5:16	5:20	4		
27	28	5:20	5:25	5		
28	29	5:25	5:30	5		
29	30	5:30	5:33	3		
1430	31	5:33	5:35	2		
31	32	5:35	5:37	2		
32	33	6:59	7:02	3		Circulating
33	34	7:52	7:55	3		
34	35	7:55	7:59	4		
35	36	7:59	8:04	5		
36	37	8:04	8:08	4		
37	38	8:08	8:12	4		
38	39	8:12	8:16	4		
39	40	8:16	8:20	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1440	41	8:20	8:24	4		
41	42	8:24	8:28	4		
42	43	8:28	8:32	4		
43	44	8:32	8:36	4		
44	45	8:36	8:40	4		
45	46	8:40	8:45	5		
46	47	8:45	8:49	4		
47	48	8:49	8:54	5		
48	49	8:54	8:59	5		
49	50	8:59	9:03	4		
1450	51	9:03	9:06	3		
51	52	9:06	9:10	4		
52	53	9:10	9:15	5		
53	54	9:15	9:20	5		
54	55	9:20	9:26	6		
55	56	9:26	9:30	4		
56	57	9:30	9:34	4		
57	58	9:34	9:38	4		
58	59	9:38	9:41	3		
59	60	9:41	9:44	3		
1460	61	9:44	9:47	3		
61	62	9:47	9:51	4		
62	63	9:51	9:55	4		
63	64	9:55	9:59	4		
64	65	9:59	10:03	4		Connection
65	66	10:32	10:36	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1466	67	10:36	10:40	4		
67	68	10:40	10:43	3		
68	69	10:43	10:47	4		
69	70	10:47	10:50	3		
70	71	10:50	10:54	4		
71	72	10:54	10:58	4		
72	73	10:58	11:02	4		
73	74	11:02	11:06	4		
74	75	11:06	11:09	3		
75	76	11:09	11:13	4		
76	77	11:13	11:17	4		
77	78	11:17	11:21	4		
78	79	11:21	11:26	5		
79	80	11:26	11:30	4		
1480	81	11:30	11:34	4		
81	82	11:34	11:39	5		
82	83	11:39	11:43	4		
83	84	11:43	11:46	3		
84	85	11:46	11:50	4		
85	86	11:50	11:55	5		
86	87	11:55	12:00	5		
87	88	12:00	12:05	5		
88	89	12:05	12:10	5		
89	90	12:10	12:14	4		
1490	91	12:14	12:18	4		
91	92	12:18	12:22	4		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1492	93	12:22	12:26	4		
93	94	12:26	12:31	5		
94	95	12:53	12:57	4		Connection; pull blocks down with cat line.
95	96	12:57	1:01	4		
96	97	1:01	1:05	4		
97	98	1:05	1:09	4		
98	99	1:09	1:13	4		
99	1500	1:13	1:17	4		
1500	01	1:17	1:21	4		
01	02	1:21	1:25	4		
02	03	1:25	1:30	5		
03	04	1:30	1:35	5		
04	05	1:35	1:39	4		
05	06	1:39	1:45	6		
06	07	1:45	1:51	6		
07	08	1:51	1:56	5		
08	09	1:56	2:02	6		
09	10	2:02	2:09	7		
1510	11	2:09	2:15	6		
11	12	2:15	2:23	8		
12	13	2:23	2:30	7		
13	14	2:30	2:38	8		
14	15	2:38	2:45	7		
15	16	2:45	2:52	7		
16	17	2:52	2:58	6		
17	18	2:58	3:08	10		

Time Drilling and / or Coring Record

71

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1518	19	3:08	3:20	12		
19	20	3:20	3:30	10		
20	21	3:30	3:39	9		
21	22	3:39	3:47	8		
22	23	3:47	3:56	9		
23	24	3:56	4:05	9		
24	25	4:24	4:31	7		
25	26	4:31	4:38	7		
26	27	4:38	4:46	8		
27	28	4:46	4:55	9		
28	29	4:55	5:04	9		
29	30	5:04	5:12	8		
1530	31	5:12	5:20	8		
31	32	5:20	5:29	9		
32	33	5:29	5:38	9		
33	34	5:38	5:47	9		
34	35	5:47	5:56	9		
35	36	5:56	6:06	10		
36	37	6:06	6:15	9		
37	38	6:15	6:20	5		
38	39	6:20	6:33	13		
39	40	6:33	6:43	10		
1540	41	3:55	4:10	15		
41	42	4:10	4:22	12		
42	43	4:22	4:34	12		
43	44	4:34	4:45	11		

Time Drilling and / or Coring Record

72

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1544	45	4:45	4:55	10		
45	46	4:55	5:05	10		
46	47	5:05	5:15	10		
47	48	5:15	5:25	10		
48	49	5:25	5:35	10		
49	50	5:35	5:46	11		
1550	51	5:46	5:57	11		
51	52	5:57	6:11	14		
52	53	6:11	6:25	14		
53	54	6:25	6:36	11		
54	55	6:36	6:47	11		Connection
55	56	7:15	7:25	10		
56	57	7:25	7:35	10		
57	58	7:35	7:45	10		
58	59	7:45	7:55	10		
59	60	7:55	8:07	12		
1560	61	8:07	8:18	11		
61	62	8:18	8:30	12		
62	63	8:30	8:44	14		
63	64	8:44	8:52	8		
64	65	8:52	9:01	9		
65	66	9:01	9:09	8		
66	67	9:09	9:22	13		
67	68	9:22	9:39	17		
68	69	9:39	9:58	19		
69	70	9:58	10:16	18		

Time Drilling and / or Coring Record

73

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1570	71	10:16	10:33	17		
71	72	10:33	10:45	12		
72	73	10:45	11:00	15		
73	74	11:00	11:15	15		
74	75	11:15	11:30	15		
75	76	11:30	11:47	17		
76	77	11:47	12:04	17		
77	78	12:04	12:20	16		
78	79	12:20	12:37	17		
79	80	12:37	12:53	16		
1580	81	12:53	1:08	15		
81	82	1:08	1:23	15		
82	83	1:23	1:38	15		
83	84	1:38	1:53	15		
84	85	1:53	2:13	20		
85	86	2:13	2:30	17		
86	87	2:50	3:05	15		Connection; tighten chuck guide.
87	88	3:05	3:20	15		
88	89	3:20	3:35	15		
89	90	3:35	3:48	13		
1590	91	3:48	3:59	11		
91	92	3:59	4:10	11		
92	93	4:10	4:26	16		
93	94	4:26	4:37	11		
94	95	4:37	4:47	10		
95	96	4:47	5:00	13		

Time Drilling and / or Coring Record

74

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1596	97	5:00	5:12	12		
97	98	5:12	5:22	10		
98	99	5:22	5:32	10		Losing circulation
99	1600	5:32	5:42	10		
1600	01					
01	02					
02	03					
03	04					
04	05	8:25	8:37	12		
05	06	8:37	8:46	9		Core #2
06	07	8:46	8:57	11		
07	08	8:57	9:09	12		
08	09	9:09	9:22	13		
09	10	9:22	9:32	10		
1610	11	9:32	9:42	10		
11	12	9:42	9:53	11		
12	13	9:53	10:06	13		
13	14	10:06	10:17	11		
14	15	10:17	10:28	11		
15	16	2:20	2:30	10		
16	17	2:30	2:39	9		
17	18	2:39	2:49	10		
18	19	2:49	2:59	10		
19	20	2:59	3:07	8		
1620	21	3:12	3:17	5		Connection
21	22	3:17	3:22	5		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1622	23	3:22	3:28	6		
23	24	3:28	3:32	4		
24	25	3:32	3:42	10		
25	26	3:42	3:49	7		
26	27	3:49	3:56	7		
27	28	3:56	4:05	9		
28	29	4:05	4:14	9		
29	30	4:14	4:22	8		
1630	31	4:22	4:28	6		
31	32	4:28	4:35	7		
32	33	4:35	4:44	9		
33	34	4:44	4:58	14		
34	35	4:58	5:06	8		
35	36	5:06	5:15	9		
36	37	5:15	5:26	11		
37	38	5:26	5:39	13		
38	39	5:39	5:48	9		
39	40	5:48	5:58	10		
1640	41	5:58	6:14	16		
41	42	6:14	6:25	9		
42	43	6:25	6:31	6		
43	44	6:31	6:38	7		
44	45	6:38	6:46	8		
45	46	6:46	6:52	6		
46	47	6:52	7:06	14		
47	48	7:06	7:20	14		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1674	75	11:30	11:31	1		
75	76	11:31	11:32	1		
76	77	11:32	11:33	1		
77	78	11:33	11:45	12		
78	79	11:45	12:00	15		
79	80	12:00	12:00	0		Drop through cavity; circulation lost.
80	81	4:30	4:31	1		
81	82	4:31	4:42	11		
82	83	4:42	4:56	14		
83	84	4:56	5:12	16		
84	85	5:12	5:19	7		
85	86	5:19	5:22	3		
86	87	5:22	5:26	4		
87	88	5:26	5:29	3		
88	89	5:29	5:31	2		
89	90	5:31	5:34	3		
1690	91	5:34	5:36	2		
91	92	5:36	5:38	2		
92	93	5:38	5:41	3		
93	94	8:50	8:55	5		
94	95	8:55	8:57	2		
95	96	8:57	8:59	2		
96	97	8:59	9:01	2		
97	98	9:01	9:07	6		
98	99	9:07	9:10	3		
99	1700	9:10	9:13	3		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1648	49	7:20	7:35	15		
49	50	7:35	7:50	15		
50	51	8:20	8:28	8		Connection; clean pump valves.
51	52	8:28	8:37	9		
52	53	8:37	8:51	14		
53	54	8:51	9:05	14		
54	55	9:05	9:19	14		
55	56	2:26	2:38	12		
56	57	2:38	2:51	13		
57	58	2:51	3:01	10		
58	59	3:01	3:11	10		
59	60	3:11	3:19	8		
1660	61	3:19	3:22	3		
61	62	3:22	Fell in			
62	63	Fell in				
63	64	3:25				Lost circulation
64	65	10:45	10:46	1		
65	66	10:46	10:51	5		
66	67	9:45	9:55	10		
67	68	9:55	10:02	7		
68	69	10:17	10:22	5		Cleaned pump.
69	70	10:22	10:37	15		
1670	71	10:37	10:50	13		
71	72	10:50	11:03	13		
72	73	11:03	11:18	15		
73	74	11:18	11:30	12		

Time Drilling and / or Coring Record

78

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1700	01	9:03	9:07	4		Change watches.
01	02	9:07	9:10	3		
02	03	9:10	9:14	4		
03	04	9:14	9:16	2		
04	05	9:16	9:18	2		
05	06	9:18	9:20	2		
06	07	9:20	9:21	1		
07	08	9:21	9:25	4		
08	09	9:25	9:28	3		
09	10	9:28	9:31	3		Connection
1710	11	3:20	3:30	10		
11	12	3:30	3:51	21		
12	13	3:51	4:05	14		
13	14	4:05	4:13	8		
14	15	4:13	4:25	12		
15	16	4:25	4:31	6		
16	17	4:31	4:38	7		
17	18	4:38	4:43	5		
18	19	4:43	4:50	7		
19	20	4:50	5:02	12		
1720	21	5:02	5:14	12		
21	22	5:14	5:26	12		
22	23	5:26	5:37	11		
23	24	5:37	5:51	14		
24	25	5:51	6:01	10		
25	26	6:01	6:11	10		

Time Drilling and / or Coring Record

DEPTH		TIME O'CLOCK		Time Elapsed Minutes	Rate Ft./Hr.	REMARKS
From	To	From	To			
1726	27	6:11	6:24	13		
27	28	6:24	6:40	16		
28	29	6:40	6:54	14		
29	30	6:54	7:02	8		
30	31	7:02	7:10	8		
31	32	7:10	7:20	10		
32	33	7:20	7:31	11		
33	34	7:31	7:42	11		
34	35	7:42	7:54	12		
35	36	7:54	8:05	11		
36	37	8:05	8:12	7		
37	38	8:12	8:20	8		
38	39	8:20	8:30	10		
39	40	8:30	8:40	10		
1740	41	8:40	8:50	10		
41	42	8:59	9:09	10		Connection
42	43	9:09	9:30	21		
43	44	9:30	9:52	22		
44	45	9:52	10:07	15		
45	46	10:07	10:15	8		
46	47	10:15	10:23	8		
47	48	10:23	10:34	11		
48	49	10:34	10:42	8		
49	50	10:42	10:51	9		
1750	51	10:51	11:04	13		
51	52	11:04	11:23	19		

D I S T R I B U T I O N

Twelve copies of the foregoing report were completed in March, 1954.

Space is provided below for convenience in recording the distribution of this report.

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General Petroleum of Canada Limited

RIG No. ESS LOCATION HEART LAKE #1AREA NWTDATE FEB 25/54

DAY WORK RECORD

No 9199

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.
Driller A. J. WILSON 8
Derrick
Motor-man
Floor J. MOON 8
Floor L. LAFERTY 8
Mechanic R. STEINER 8
Extra A. NORMAN 8
Injuries:

Remarks:

Tour — 8 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.
Driller C. M. SPORNITZ 8
Derrick C. P. EVANS 8
Motor-man
Floor J. THOMAS 8
Floor H. ST. ARNEAULT 8
Mechanic A. STRASBURG 8
Extra A. ARYCHUCK 8
Injuries:

Remarks:

Tour — 4 p.m. to Midnight
Specify actual hrs. worked Hrs.
Driller
Derrick
Motor-man
Floor
Floor
Mechanic
Extra
Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1757											
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
1						6	9				
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					Gals.
Visc.						No. 2					
Gel.						No. 3					Bbls.
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
1											
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					Gals.
Visc.						No. 2					
Gel.						No. 3					Bbls.
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
1											
MUD	4 p.m.	5 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					Gals.
Visc.						No. 2					
Gel.						No. 3					Bbls.
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

Company Time REMOVAL FROM HEAD.
GRIND VALVE CHUCK TO PUMP MOTOR.
SET TAPPETS. PUT ON NEW
FUEL LINE + ASSEMBLED
CHANGED OIL + FILTERS UOIL
TAKEN DOWN PREPAR
DISMANTLING RIG + EQUIPMENT.
LOWERED DERRICK.
CAT ORIENTED BY AIRCRAFT
FOUND NEW LOCATION 2 MILES
SOUTH DEWARIS LAKE.

Company Time Cont'r Time

Company Time Cont'r Time

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor Time Hrs.

Total Company Time Hrs.

Toolpusher PP Sledge

Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. 555 LOCATION HEART LAKE #1AREA N.W.T.DATE FEB 21/54

DAY WORK RECORD

MAR 1 1954 No. 9198

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
Specify actual hrs. worked		1756	1	1757	1 1/4	14000		5 1/2	2874		187	1412
Driller	<u>A. WIEBER</u>											
Derrick												
Motor-man	<u>J. MORIA</u>											
Floor	<u>R. LAFFERTY</u>											
Floor	<u>R. STENNER</u>											
Mechanic												
Extra	<u>A. NORMAN</u>											
Injuries:												
Remarks:												

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
Specify actual hrs. worked												
Driller												
Derrick												
Motor-man												
Floor												
Floor												
Mechanic												
Extra												
Injuries:												
Remarks:												

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
Specify actual hrs. worked												
Driller	<u>C. M. SPORNITZ</u>											
Derrick	<u>C. E. EVANS</u>											
Motor-man	<u>J. THOMAS</u>											
Floor	<u>H. STORNEAULT</u>											
Floor												
Mechanic												
Extra	<u>A. ARYCHICK</u>											
Injuries:												
Remarks:												

REMARKS	TIME		
	Start	Stop	Interval
Rig Service	1200	1230	1/2
Drilling	1230	1245	1/4
Circulating	1245	1300	1/4
PULLED 10 SINGLES AND TESTED B.P.	1300	1330	1/2
WAITING ORDERS FOR ABANDONMENT PLUGS	1330	1800	6 1/2
WAIT ORDERS	500	900	1
RIG TO CEMENT	900	1030	1 1/2
CEMENT PLUG #1			
1450 - 1342 - 25 SACS	1130	1130	1
TRIP OUT	1130	100	1 1/2
CEMENT PLUG #2			
80 - 50 - 8 SACS	100	300	2
CEMENT			
CLEANING UP PUMP AND RIG FLOOR - DRAINER UP.	300	600	3
Company Time			
Cont'r Time			
Company Time			
Cont'r Time			
Company Time			
Cont'r Time			
Company Time			
Cont'r Time			

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack
B.O.P. Test-Operated Time Results

Total Contractor Time Hrs.
Total Company Time Hrs.

Toolpusher
Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. E-51 LOCATION N.W.T. HEART LAKE 1AREA N.W.T.DATE FEB. 23 6-4

DAY WORK RECORD No. 9197

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.
Driller A. WEBER 14
Derrick J.
Motor-man J. MORIN 14
Floor L. LAFFERTY 14
Floor R. STIENGER 14
Mechanic
Extra A. NORMAN 15
Injuries:

Remarks:

Tour — 8 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.
Driller
Derrick
Motor-man
Floor
Floor
Mechanic
Extra
Injuries:

Remarks:

Tour — p.m. to Midnight
Specify actual hrs. worked Hrs.
Driller C. M. Sparrow 12
Derrick
Motor-man C. P. Evans 12
Floor J. Thomas 12
Floor H. Stoddart 12
Mechanic A. Macgregor 12
Extra A. Gifford 12
Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1693				13500		54	2874		187		
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
10	6 1/8	OWS	78593	3600	70	20	1				IN
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					
Visc.						No. 2					
Gel.						No. 3					
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1693	20	1713	1	13500		55	2874		1.87	28.24	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
10	6 1/8	OWS	78593	3600	70	20	1				IN
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					
Visc.						No. 2					
Gel.						No. 3					
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1713	43	1756	7 3/4	14000		56	2874		1.87	15.12	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
10	6 1/8	OWS	78593	4900	75		8 3/4				IN
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.						No. 1					
Visc.						No. 2					
Gel.						No. 3					
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

RIG SERVICE

JETTING UP MUD PIT

PICK UP D.C. POT ON NEW BIT

CONDITIONING MUD - REPAIRING

TRIP IN AND FEELING FOR PLUG

CLEANING PUMP

MIXING MUD

Company Time

Cont'r Time

Company Time	Cont'r Time	Interval
1200	1230	1/2
1230	1300	1/2
1300	1400	1/2
1400	1500	1/2
1500	1600	1/2
1600	1700	1/2
1700	1800	1/2
1800	1900	1/2
1900	2000	1/2
2000	2100	1/2
2100	2200	1/2
2200	2300	1/2
2300	2400	1/2

Company Time

Cont'r Time

Company Time	Cont'r Time	Interval
400	600	2
600	615	1/4
615	1200	5 3/4

N.B. R.C. SERVICE - B.C.P.

CHECK - GROSS GROSS - WHILE

CONDITIONING MUD

Company Time

Cont'r Time

Total Contractor Time Hrs.

Toolpusher

Total Company Time Hrs.

Approved by

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

THIS COPY TO CONSERVATION BOARD, (MAIL TO FIELD OFFICE)

DAY WORK RECORD **MAR 1 1954** **Nº 9196**

AREA 4-10-1-1 DATE FEB 22 1951

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
1693	10											
Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives		Motor, Hours		NEXT OIL CHANGE AT		FUEL	
Wt.							No. 1				Gel	
Visc.							No. 2				WATER	
Gel.							No. 3				Bl	
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
General:												

REMARKS	TIME		
	Start	Stop	Interval
RIG SERVICE	1200	1230	1/2
DRILLING	1230	1245	1/4
LOST CIRCULATION MIXING MUD	1245	1400	2 1/4
AND SAW DUST			
CLEANING PUMP	1400	1430	1/2
DRILLING	1430	545	1 1/4
LOST CIRCULATION	545		
MIXING MUD	545	800	2 1/4
Company Time	Cont'r Time		
RUNNING CEMENT PLUG	900	1200	1
AND CLEANING OUT			
MIXED CEMENT	1200		
RAW PLUG + DISPLACEMENT		200	2:00
PULLED OUT OF HOLE	2:00	3:30	1 1/2
WELDED THROUGH LEVER			
FOR CATHOD	3:30	4:00	1/2
Company Time	Cont'r Time		
WOC	4:00		
HAULED WATER - REPAIR			
PIPE RACK CLEANING UP			
LEASE + RIG - CHECK MUD +			
CHEMICALS ON HAND			
SOILING WOOD		12:00	8
Company Time	Cont'r Time		

Total Contractor TimeHrs.

Total Company TimeHrs.

Toolpusher James L. [Signature]

Approved by _____

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. 553 LOCATION MOUNT HEART LAKEAREA N.W.T. DATE FEB 21/50

DAY WORK RECORD

No. 9195

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.

Specify actual hrs. worked Hrs.

Driller AJ WIEBER 12

Derrick

Motor-man J. ALLEN 12Floor L. FERTY 12Floor R. STANER 12

Mechanic

Extra A. NORMAN 10

Injuries:

Remarks:

Tour — 8 a.m. to 4 p.m.

Specify actual hrs. worked Hrs.

Driller

Derrick

Motor-man

Floor

Floor

Mechanic

Extra

Injuries:

Remarks:

Tour — 4 p.m. to Midnight

Specify actual hrs. worked Hrs.

Driller C.M. SHAPIRO 12

Derrick

Motor-man R.P. EVANS 12Floor J. THOMAS 12Floor H. ST. ARNEZULT 14Mechanic H. STROSBURG 12Extra B. CRYCHUK 12

Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly											
1655	9	1664	1.25	13000		53	28.74		1.87	14.61											
Bit No.	9	Size	6 1/8	Type	OWS	Ser. No.	79633	Weight	70	RPM	49	Ft. Drilled		Hrs.		Ft. Reamed		Hrs.		Form.	Condition
MUD	12 Mm.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL											
Wt.		816		816		No. 1					Gals.										
Visc.		26		70		No. 2					WATER										
Gel.						No. 3					Bbls.										
Pump Pressure		175		175		No. 4															
Pump R.P.M.		56		56		No. 5															
W.L.	F.C.	P.H.	At SURVEYS Degrees		TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip										
			1520 314		General:																

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly											
1664	2	1666	1/4 HR	13000		53	28.74		1.87	14.61											
Bit No.	9	Size	6 1/8	Type	OWS	Ser. No.	79633	Weight	70	RPM	45	Ft. Drilled		Hrs.		Ft. Reamed		Hrs.		Form.	Condition
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL											
Wt.						No. 1					Gals.										
Visc.					2000 LBS GEL	No. 2					WATER										
Gel.						No. 3					Bbls.										
Pump Pressure					WATER	No. 4															
Pump R.P.M.						No. 5															
W.L.	F.C.	P.H.	At SURVEYS Degrees		TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip										
					General:																

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly											
1666	13	1679	2	13000		53	28.74		1.87	1.61											
Bit No.	9	Size	6 1/8	Type	OWS	Ser. No.	79633	Weight	70	RPM	70	Ft. Drilled		Hrs.		Ft. Reamed		Hrs.		Form.	Condition
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL											
Wt.						No. 1					Gals.										
Visc.						No. 2					WATER										
Gel.						No. 3					Bbls.										
Pump Pressure						No. 4															
Pump R.P.M.						No. 5															
W.L.	F.C.	P.H.	At SURVEYS Degrees		TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip										
					General:																

REMARKS	TIME		
	Start	Stop	Interval
RIG SERVICE	12:00	12:30	1/2
MIXING MUD	12:30	1:00	1/2
CLEANING PUMP	1:00	2:00	1
DRILLING	2:00	3:30	1 1/2
LOST CIRCULATION MIXING AND	3:30		
DRILLING	11:00	11:15	1/4
DRILLING	11:15	12:00	3/4
PILLED ONE CLEARED ONE	12:00		
ONE TWO BELOW RIG REPAIRING			
ON RIG REPAIRING STEELS			4:00
REPAIRING ON RIG AND			
EQUIPMENT	4:00	7:30	3 1/2
MIXED SANDOUST	7:30	9:45	2 1/4
DRILLING	9:45	10:00	1/4
CLEANED PUMP	10:00	10:15	1/4
DRILLING	10:15	12:00	1 3/4

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack
 B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher
 Total Company Time Hrs. Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

Nº 9194

MAR 1 1965

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Irds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1628	27	1655	5	13000		53	28.74		1.87 1.67	25.31

Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Ruamed	Hrs.	Form.	Condition
Pencil	9	6 7/8	0415	99633	86000	15	40	6 1/2				LN

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL
Wt.	8.7		8.9			No. 1		
Visc.	70		70		-GEL	No. 2		
Gel.	74		74		WATER	No. 3		
Pump Pressure	175		175			No. 4		
Pump R.P.M.	56		56			No. 5		

W.L.	F.C.	P.H.
12.0	2 1/2	
At	SURVEYS	Degrees
152.0		3/4

TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip

General:

[illegible]

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

THIS COPY TO CONSERVATION BOARD

Toolpusher *[Signature]*

Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION NWT HEART LAKE #1 AREA NWT DATE FEB 19/54

DAY WORK RECORD

№ 9193

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.	
Specify actual hrs. worked	Hrs.
Driller A. J. WEBER	11
Derrick	
Motor man T. MORIN	12
Floor L. LAFFERTY	12
Floor R. STEINER	12
Mechanic	
Extra A. NORMAN	10
Injuries:	

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft./Up On Kelly		
1600	4	1604 1/2	19:00	51	27.75	-	5-48	14.50				
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
Record	8	6 7/8	OWS	79768	3000	100	6.4	13 1/4				nd
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.					4000 GEL	No. 1		Gals.				
Visc.					30 SAWDUST	No. 2		WATER				
Gel.						No. 3		Bbls.				
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.	TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip				
At	SURVEYS	Degrees										
General:												

Tour—8 a.m. to 4 p.m.	
Specify actual hrs. worked	Hrs.
Driller	
Derrick	
Motor-man	
Floor	
Floor	
Mechanic	
Extra	
Injuries:	

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Spool		
Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours			NEXT OIL CHANGE AT	FUEL		
Wt.					2800 GEL. 25 SANDUST.	No. 1				Gals.		
Visc.						No. 2				WATER		
Gel.						No. 3				Bbls.		
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
General:												

Tour—4 p.m. to Midnight	
Specify actual hrs. worked	Hrs.
Driller C. M. SPORNITZ	12
Derrickman P. EVANS	12
Motor-man	
Floor J. THOMAS	6
Floor H. ST. ARNEAULT	12
Mechanic J. STEASBURG	12
Extra A. ARYCHUCK	12
Injuries:	

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
1604	11	1615	2	14200		51				30		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Roamed	Hrs.	Form.	Condition
Record	6	6 1/8	TRUCO	6122	3000	80	26	4 1/2				OK.
			8	-13H								
MUD					Additives		Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.	4 p.m.	6 p.m.	8 p.m.	10 p.m.			No. 1				Gals.	
Visc.							No. 2				WATER	
Gel.							No. 3				Bbls.	
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.	F.C.	P.H.										
At	SURVEYS		Degrees									
General: CORE # 2 - 1604 - 1615 - REC 11.0'												

REMARKS	TIME		
	Start	Stop	Interval
RIG SERVICE	12 ⁰⁰	12 ³⁰	1/2
MIXED MUD + SAWDUST	12 ³⁰	2 ⁰⁰	1 1/2
CIRCULATE	2 ⁰⁰	3 ⁰⁰	1
DRILLING	3 ⁰⁰	3 ¹⁵	1/4
LOST CIRCULATION - MIX MUD	3 ¹⁵	5 ⁰⁰	1 3/4
CIRCULATE	5 ⁰⁰	5 ³⁰	1/2
DRILLING	5 ³⁰	6 ⁰⁰	1/2
MIX MUD + SAWDUST	6 ⁰⁰	8 ⁰⁰	2
AND CIRCULATE			
Company Time	Cont'r Time		
MIXED MUD + SAWDUST	8 ⁰⁰		
REGAINED LOST CIRCULATION	12 ³⁰	4 ^{1/2}	
TRIP OUT	12 ³⁰	3 ⁰⁰	2 1/2
MAKE UP CR + SERVICE	3 ⁰⁰	4 ⁰⁰	1
Company Time	Cont'r Time		
RIG SERVICE	4 ⁰⁰	4 ³⁰	1/2
TRIP IN	4 ³⁰	6 ⁰⁰	1 1/2
CLEAN 90' TO BOTTOM	6 ⁰⁰	8 ³⁰	2 1/2
CUT CORE #2	8 ³⁰	10 ³⁰	2
TRIP OUT	10 ³⁰	12 ⁰⁰	1 1/2
Company Time	Cont'r Time		

Company Time	Cont'r Time
10:00	10:00
10:15	10:15
10:30	10:30
10:45	10:45
11:00	11:00
11:15	11:15
11:30	11:30
11:45	11:45
12:00	12:00
12:15	12:15
12:30	12:30
12:45	12:45
1:00	1:00
1:15	1:15
1:30	1:30
1:45	1:45
2:00	2:00
2:15	2:15
2:30	2:30
2:45	2:45
3:00	3:00
3:15	3:15
3:30	3:30
3:45	3:45
4:00	4:00
4:15	4:15
4:30	4:30
4:45	4:45
5:00	5:00
5:15	5:15
5:30	5:30
5:45	5:45
6:00	6:00
6:15	6:15
6:30	6:30
6:45	6:45
7:00	7:00
7:15	7:15
7:30	7:30
7:45	7:45
8:00	8:00
8:15	8:15
8:30	8:30
8:45	8:45
9:00	9:00
9:15	9:15
9:30	9:30
9:45	9:45
10:00	10:00
10:15	10:15
10:30	10:30
10:45	10:45
11:00	11:00
11:15	11:15
11:30	11:30
11:45	11:45
12:00	12:00
12:15	12:15
12:30	12:30
12:45	12:45
1:00	1:00
1:15	1:15
1:30	1:30
1:45	1:45
2:00	2:00
2:15	2:15
2:30	2:30
2:45	2:45
3:00	3:00
3:15	3:15
3:30	3:30
3:45	3:45
4:00	4:00
4:15	4:15
4:30	4:30
4:45	4:45
5:00	5:00
5:15	5:15
5:30	5:30
5:45	5:45
6:00	6:00
6:15	6:15
6:30	6:30
6:45	6:45
7:00	7:00
7:15	7:15
7:30	7:30
7:45	7:45
8:00	8:00
8:15	8:15
8:30	8:30
8:45	8:45
9:00	9:00
9:15	9:15
9:30	9:30
9:45	9:45
10:00	10:00
10:15	10:15
10:30	10:30
10:45	10:45
11:00	11:00
11:15	11:15
11:30	11:30
11:45	11:45
12:00	12:00
12:15	12:15
12:30	12:30
12:45	12:45
1:00	1:00
1:15	1:15
1:30	1:30
1:45	1:45
2:00	2:00
2:15	2:15
2:30	2:30
2:45	2:45
3:00	3:00
3:15	3:15
3:30	3:30
3:45	3:45
4:00	4:00
4:15	4:15
4:30	4:30
4:45	4:45
5:00	5:00
5:15	5:15
5:30	5:30
5:45	5:45
6:00	6:00
6:15	6:15
6:30	6:30
6:45	6:45
7:00	7:00
7:15	7:15
7:30	7:30
7:45	7:45
8:00	8:00
8:15	8:15
8:30	8:30
8:45	8:45
9:00	9:00
9:15	9:15
9:30	9:30
9:45	9:45
10:00	10:00
10:15	10:15
10:30	10:30
10:4	

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated	Time	Results
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Total Contractor TimeHrs.

Total Company Time Hrs.

Toolpusher _____

Approved by _____

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

Nº 9191

NOTE—Please show **FOOTAGE** made while "Control Drilling" as well as **HOURS**.

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
Record												
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours			NEXT OIL CHANGE AT	FUEL		
Wt.						No. 1				Gals.		
Visc.						No. 2				WATER		
Gel.						No. 3				Bbls.		
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
General:												

[illegible]

Total Contractor TimeHrs. Tool/pusher *[Signature]*
Total Company TimeHrs. Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION NWT HEART LAKE #1 AREA NWT DATE FEB 16/57

DAY WORK RECORD

Nº 9190

NOTE—Please show **FOOTAGE** made while "Control Drilling" as well as **HOURS**.

Tour — Midnight - 8 a.m.	
Specify actual hrs. worked	Hrs.
Driller <u>A. J. WEBER</u>	<u>8</u>
Derrick	
Mechanic <u>T. MORIN</u>	<u>12</u>
Floor <u>L. LAFFERTY</u>	<u>8</u>
Floor <u>R. STEINER</u>	<u>12</u>
Mechanic	
Extra <u>B. NORMAN</u>	<u>10</u>
Injuries:	

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
1600												
Bit Record	Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives			Motor Hours		NEXT OIL CHANGE AT		FUEL
Wt.								No. 1				Gals.
Visc.								No. 2				WATER
Gel.								No. 3				Bbls.
Pump Pressure								No. 4				
Pump R.P.M.								No. 5				
W.L.	F.C.	P.H.	TRIPS		TON MILES		TOTAL	Line Slipped	Line Length	Next Slip		
At	SURVEYS		Degrees		General: MR NEIL CAMPBELL - COMINCO GEOLOGIST VISITED LEASE.							

Tour—8 a.m. to 4 p.m.	
Specify actual hrs. worked	Hrs.
Driller	
Derrick	
Motor-man	
Floor	
Floor	
Mechanic	
Extra	
Injuries:	

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly					
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition			
Record															
MUD				Additives			Motor Hours		NEXT OIL CHANGE AT		FUEL				
Wt.	8 a.m.	10 a.m.	12 noon	2 p.m.				No. 1				Gas			
Visc.								No. 2				WATER			
Gel.								No. 3				Bbl			
Pump Pressure								No. 4							
Pump R.P.M.								No. 5							
W.L. F.C. P.H.				TRIPS		TON MILES		TOTAL		Line Slipped		Line Length		Next Slip	
At SURVEYS Degrees				General:											

Tour—4 p.m. to Midnight		
	Specify actual hrs. worked	Hrs.
Driller	C. M. SPORNITZ	8
Driller	G. P. EVANS	
Motor-man		
Floor	J. THOMAS	8
Floor	H. ST ARNEAULT	12
Mechanic	A. STRASBURG	12
Extra	A. ARY CHUCK	12
Injuries:		

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition

MUD					Additives	Motor Hours		NEXT OIL CHANGE AT	FUEL
4 p.m.	6 p.m.	8 p.m.	10 p.m.			No. 1			Go
Wt.						No. 2			WATER
Visc.						No. 3			Bb
Gel.						No. 4			
Pump Pressure						No. 5			
Pump R.P.M.									

W.L.	F.C.	P.H.
At	SURVEYS	Degrees

TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip

General:

REMARKS	TIME		
	Start	Stop	Interval
WAITING MUD + SAWDUST			
- CLEANING ICE FROM CELLAR + RIG.			
- CUTTING WOOD FOR BOILER			
- HAULED WATER + HEATING			
- REPAIRED BUNKHOUSE			
- MADE TARPULIN WELDING SHOP			
- CLEAN LEASE + TOOLHOUSE			
- ALL CREWS WORKING DAYLIGHTS EXCEPT MEN WATCHING BOILER + MOTORS.			
Company Time	Cont'r Time		
AS ABOVE			
Company Time	Cont'r Time		
AS ABOVE			
Company Time	Cont'r Time		

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated	Time	Results
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Total Contractor TimeHrs. Toolpusher *[Signature]*

Total Company Time Hrs. Approved by _____

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

RIG No. FS5 LOCATION HEART LAKE #1

RIG No. FS5 LOCATION HEART LAKE #1

AREA NWT

DATE FEB 15/54

DAY WORK RECORD

FFS 22 1054 **Nº 9189**

NOTE—Please show **FOOTAGE** made while "Control Drilling" as well as **HOURS**.

Tour — Midnight - 8 a.m.	
Specify actual hrs. worked	Hrs.
Driller A.J. WEBER	12
Derrick	
Motor-man	
Floor L. LAFFERTY	12
Floor J. MORIN	12
Mechanic K. STEINER	10
Extra A. NORMAN	8
Injuries:	

Remarks: STEINER WORKED OVER
HELPING WELDER.

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
1600												
Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL		
Wt.						No. 1				Gals.		
Visc.					3000 # GEL	No. 2				WATER		
Gel.					27 Bags	No. 3				Bbls.		
Pump Pressure					Samplest	No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.	TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip			
At	SURVEYS		Degrees		General:							

Tour—8 a.m. to 4 p.m.	
Specify actual hrs. worked	Hrs.
Driller	
Derrick	
Motor-man	
Floor	
Floor	
Mechanic	
Extra	
Injuries:	

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly

Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL
Wt.						No. 1		Gels
Visc.						No. 2		WATER
Gel.						No. 3		Bbls
Pump Pressure						No. 4		
Pump R.P.M.						No. 5		

W.L.	F.C.	P.H.
At	SURVEYS	Degrees

TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip

General:

Tour—4 p.m. to Midnight		
	Specify actual hrs. worked	Hrs.
Driller	C. M. SPORNITZ	8
Derrick	G. P. EVANS	8
Motor-man		
Floor	J. THOMAS	8
Floor	H. STARNETT	12
Mechanic	A. STRASSBURG	12
Extra	A. ARYCHUK	12
Injuries:		

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
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Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours		NEXT OIL CHANGE AT	FUEL
Wt.						No. 1			Gas
Visc.						No. 2			WATER
Gel.						No. 3			Bbls
Pump Pressure						No. 4			
Pump R.P.M.						No. 5			

W.L.	F.C.	P.H.
At	SURVEYS	Degrees

TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip

General:

[illegible]

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor TimeHrs. Toolpusher

Total Company TimeHrs. Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. 555 LOCATION N.W.T. HEART LAKE #1 AREA N.W.T. DATE FEB 13/54

DAY WORK RECORD

No. 9187

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.Driller AJ. WEBER 12

Derrick

Motor-man J. MORIN 12Floor L. LAFFERTY 12Floor P. STEINER 12

Mechanic

Extra A. NORMAN 8

Injuries:

Remarks:

Tour—8 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.

Driller

Derrick

Motor-man

Floor

Floor

Mechanic

Extra

Injuries:

Remarks:

Tour—4 p.m. to Midnight
Specify actual hrs. worked Hrs.Driller B.M. Sparrow 12

Derrick

Motor-man C.R. Evans (room)Floor J. THOMAS 12Floor H. STARRGALT 12Mechanic R. STROSSBERG 12Extra A. ARYCHUK 12Injuries: NIL

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1433										

Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
7	6 1/2	OSC	81448	4-8	100	90	7				14

MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL
Wt.						No. 1		Gals.
Visc.						No. 2		WATER
Gel.						No. 3		Bbls.
Pump Pressure						No. 4		
Pump R.P.M.						No. 5		

W.L.	F.C.	P.H.	At	SURVEYS	Degrees	General:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1433	90	1523	7	11,500		48	28.74		1.67	1.72

Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
7	6 1/2	OSC	81448	4-8	100	90	7				14

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL
Wt.		9.8		9.0		No. 1		Gals.
Visc.		38		32	WATER	No. 2		WATER
Gel.		40		34		No. 3		Bbls.
Pump Pressure		175		175		No. 4		
Pump R.P.M.		55		56		No. 5		

W.L.	F.C.	P.H.	At	SURVEYS	Degrees	General:
10.5	21.5					

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1523	17	1540	2 1/2	11,500		49	28.74		1.67	15.02

Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
7	6 1/2	OSC	81448	3-4000	90	107	9 1/2			HAISTING	

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL
Wt.	9.0	9.0				No. 1		Gals.
Visc.	33	33				No. 2		WATER
Gel.	35	35				No. 3		Bbls.
Pump Pressure	175	175				No. 4		
Pump R.P.M.	55	55				No. 5		

W.L.	F.C.	P.H.	At	SURVEYS	Degrees	General:
10.5	21.5					DRILLING VERY HARD AND ROUGH
1520		314°				UNABLE TO USE MUCH WEIGHT

REMARKS

REPAIRED PITARY CLUTCH 12⁰⁰
* PAINTED PUMP 8⁰⁰ 8

Company Time Cont'r Time

RIG SERVICE 5⁰⁰ 8³⁰ 1/2
DRILLING 8³⁰ 12³⁰ 4
GET PITS AND WATER 2²⁰ 1⁰⁰ 1/2
DRILLING 1⁰⁰ 4⁰⁰ 3

Company Time Cont'r Time

RIG SERVICE + SURVEY 4⁰⁰ 4²⁰ 1/2
DRILLING 4³⁰ 7⁰⁰ 2 1/2
DRAIN + STEAM OUT AND LINE AND KOLLY 7⁰⁰ 7³⁰ 1/2TENSION ADJUSTING PIN BACKEN ON HAISTING PULLEY CLUTCH DISMANTLED AND REPAIRED SAME 7³⁰ 10³⁰ 3
HAISTING 10³⁰ 12⁰⁰ 1 1/2

Company Time Cont'r Time

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher R. S. Lodge

Total Company Time Hrs. Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION HEART LAKE #1AREA NWTDATE FEB 12/54

DAY WORK RECORD

No. 9186

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.

Specify actual hrs. worked Hrs.

Driller A.J. WEBER 12

Derrick

Motor-man J. MOAIN 12Floor L. LAFFERTY 12Floor R. STEINER 12

Mechanic

Extra A. NORMAN 8

Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.V.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1373	60	1433	5	11000	45		28.74			3.20	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
6	6 1/8	OSC	81453	9000	120	134	11				FAIR
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.				9.8			No. 1				
Visc.				50			No. 2				
Gel.				54			No. 3				
Pump Pressure				175			No. 4				
Pump R.P.M.				54			No. 5				
W.L.	9.8	F.C.	3/32	P.H.	9.5						
At	SURVEYS	Degrees									
1095				3/4							
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

COLD WEATHER - BLOCKS HAVE TO BE PULLED DOWN DERRICK WHEN TRIPPING.

Tour — 8 a.m. to 4 p.m.

Specify actual hrs. worked Hrs.

Driller

Derrick

Motor-man

Floor

Floor

Mechanic

Extra

Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.							No. 1				
Visc.							No. 2				
Gel.							No. 3				
Pump Pressure							No. 4				
Pump R.P.M.							No. 5				
W.L.		F.C.		P.H.							
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

Tour — 4 p.m. to Midnight

Specify actual hrs. worked Hrs.

Driller C.M. SPORRITS 12

Derrick

Motor-man G.P. EVANSON 8Floor J. THOMAS 12Floor H. STORNEAULT 12Mechanic R. STASBOUC 12Extra A. DRYCHUK 12

Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
						45	28.74		1.67	4.64	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
7	6 1/8	OSC	31448								IN
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.							No. 1				
Visc.							No. 2				
Gel.							No. 3				
Pump Pressure							No. 4				
Pump R.P.M.							No. 5				
W.L.		F.C.		P.H.							
At	SURVEYS	Degrees									
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip						
General:											

Company Time Cont'r Time

RIG SERVICE

TRIP OUT

MAKE UP TESTER

TRIP IN

SETTING TESTER

TESTER SET

Company Time Cont'r Time

TESTER SET

HOISTED PACKER

BROKE DOWN AND LAYED

DOWN - DUE TO ITCH TO RUN

OFF SULPHUR WATER

PICKED UP D/COLLOR - MADE

UP BIT #7 - LAM IN HOLE

THAWING TOOL BITS DURING

TRIP

THAWING OUT SWIVEL - CHUCK

CLEARING ICE FROM RIG

FLOOR - STEERING OUT LINES

Company Time Cont'r Time

Total Contractor Time Hrs.

Toolpusher

Total Company Time Hrs.

Approved by

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

FEB 11/54

DAY WORK RECORD

Nº 9185

NOTE—Please show **FOOTAGE** made while "Control Drilling" as well as **HOURS**.

Tour — Midnight - 8 a.m.	
Specify actual hrs. worked	Hrs.
Driller <u>A. J. WEBER</u>	<u>12</u>
Derrick	
Floor <u>Motor man J. MORIN</u>	<u>12</u>
Floor <u>A. LAFFERTY</u>	<u>12</u>
Floor <u>K. STEINER</u>	<u>12</u>
Mechanic	
Extra <u>A. NORMAN</u>	<u>10</u>
Injuries:	
Remarks:	

Fresh	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.D. Ft.	Subs. Ft.	Ft. Up On Kelly		
1284						40	2874		- 85 - 95			
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
Record	6	6 1/2	TRUCO	0122-13H				GOMG	1M			
MUD					Additives		Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.							No. 1				Gals.	
Visc.							No. 2				WATER	
Gel.							No. 3				Bbls.	
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.					TRIPS		TON MILES		TOTAL		Line Slipped	
F.C.											Line Length	
P.H.											Next Slip	
AT SURVEYS Degrees												
					General:							

[illegible]

Tour—8 a.m. to 4 p.m.	
Specify actual hrs. worked	Hrs.
Driller	
Derrick	
Motor-man	
Floor	
Floor	
Mechanic	
Extra	
Injuries:	
Remarks:	

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1287	18	1299	2 1/2	11000		40	2374		85 .95	15.41

Bit Record	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
	6	6 7/8	TRULO	0122-3W	6000	75	15	27 1/2				Good
			0									

MUD		8 a.m.	10 a.m.	12 noon	2 p.m.	Additives		Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.								No. 1				Gals.	
Visc.								No. 2				WATER	
Gel.								No. 3				Bbls.	
Pump Pressure								No. 4					
Pump R.P.M.								No. 5					

W.L.	F.C.	P.H.
At	SURVEYS	Degrees

TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip

General:

[illegible]

Tour—4 p.m. to Midnight		
	Specify actual hrs. worked	Hrs.
Driller	C. W. SPARNITZ	12
Derrick		
Mechanic	C. P. EVANS-COOK	
Floor	J. THOMAS	12
Floor	H. STARNERDULT	12
Mechanic	A. STRASBORG	12
Extra	A. ARYCHUCK	12
Injuries:		
Remarks:		

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly
1299	74	1373	6	11600	5	43	28.74		1.67 1.87	1.96

Bit Record	No.	Size	Type	Sur. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
	6	6 7/8	OSC	81453	9000	150	74	6				1st

MUD				4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives		Motor Hours		NEXT OIL CHANGE AT	FUEL		
Wt.						82				No. 1			Gas		
Visc.						38		WATER		No. 2			WATER		
Gel.						34				No. 3			Bbl		
Pump Pressure						135				No. 4					
Pump R.P.M.						59				No. 5					
W.L.				11.0	F.C.	435	P.H.	TRIPS		TON MILES		TOTAL	Line Slipped	Line Length	Next Slip
At				SURVEYS				Degrees							
				1095				34°							

General:

[illegible]

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor TimeHrs.

Toolpusher

Total Company TimeHrs.

Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION HEART LAKE #1AREA NWT DATE FEB 10/54

DAY WORK RECORD

No. 9184
Feb 17 1954

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.
Driller A.J. WEBER 12
Derrick
Motor-man
Floor J. MORIN 12
Floor L. LAFFERTY 12
Mechanic R. STEINER 12
Extra A. NORMAN 10
Injuries:

Remarks:

Tour—8 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.
Driller
Derrick
Motor-man
Floor
Floor
Mechanic
Extra
Injuries:

Remarks:

Tour—4 p.m. to Midnight
Specify actual hrs. worked Hrs.
Driller C.M. SPORNITZ 12
W. A. HARTCHUK 8
Motor-man
Floor J. THOMAS 12
Floor H. STARRAULT 12
Mechanic A. STRASBOURG 12
Extra G. P. EVANS (COOK)
Injuries:

Remarks: A. ARCHUCK TO
RECEIVE FLOOR PAY
PR.

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.							No. 1					
Visc.							No. 2					
Gel.							No. 3					
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip							
General:												

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.							No. 1					
Visc.							No. 2					
Gel.							No. 3					
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip							
General:												

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.							No. 1					
Visc.							No. 2					
Gel.							No. 3					
Pump Pressure							No. 4					
Pump R.P.M.							No. 5					
W.L.	F.C.	P.H.										
At	SURVEYS	Degrees										
TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip							
General:												

REMARKS	TIME	Start	Stop	Interval
RIG SERVICE		1200	1230	1/2
RUNNING IN TESTER				
BLOCK RUNNING VERY SLOW BECAUSE OF COLD WEATHER		1230		
DRILLLINE JUMPED SHEAVE IN BLOCKS - 3 TIMES			300	7 1/2
Company Time	Cont'r Time			
RIG SERVICE		800	830	1/2
FINISH TRIP IN SET TESTER		830	900	1/2
TESTER SET		900	1000	1
TRIP OUT		1000	1230	2 1/2
14-WET SINGLES				
BROKE DOWN TESTER AND LAYED DOWN		1230	1.00	1/2
RAM IN HOLE - HEATING ALL TOOL JTS		1.00	3.00	2
BLEW OUT LINES - HEATED CHUCK AND SWIVEL - CLEANED RIO floor		3.00	4.00	1
Company Time	Cont'r Time			
RIG SERVICE		4.00	4.30	1/2
DRILLING		4.30	6.00	1 1/2
RE-packed glands on pump		6.00	6.30	1/2
DRILLING		6.30	11.00	4 1/2
CIRCULATING OIL-SAMPLES		11.00	12.00	1
WAITING ON ORDERS				
Company Time	Cont'r Time			

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack
B.O.P. Test-Operated Time Results

Total Contractor TimeHrs.

Toolpusher

Total Company TimeHrs.

Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION NWT HEART LAKE #1 AREA NWT DATE FEB 7/54

DAY WORK RECORD

No. 9181

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.
Driller A.J. WEBER 12
Derrick
Motor-man
Floor L. LAFFERTY 12
Floor J. MORIN 12
Mechanic R. STEINER 12
Extra A. NORMAN 8
Injuries:

Remarks:

Tour—8 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.
Driller
Derrick
Motor-man
Floor
Floor
Mechanic
Extra
Injuries:

Remarks:

Tour—4 p.m. to Midnight
Specify actual hrs. worked Hrs.
Driller C.M. SPORNITZ 12
Derrick
Motor-man
Floor J. THOMAS 12
Floor H. STARNERULT 12
Mechanic A. STASBURG 12
Extra G.P. EVANS-(COOK)
Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
74	42	116	2	—	—	3	28.74	—	—	5	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
1	6 1/8	OSC	79305	ALL	150	42	2	—	—	—	IN
DRILLED CEMENT + BARGE 4 1/2 HRS											
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.					No. 1			Gals.			
Visc.					No. 2			WATER			
Gel.					No. 3			Bbls.			
Pump Pressure					No. 4						
Pump R.P.M.					No. 5						
W.L.	F.C.	P.H.									
At	SURVEYS	Degrees									
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
116	139	255	6 3/4	5000	—	7	28.74	—	—	18.79	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
1	6 1/8	OSC	79305	ALL	150	72	5 1/2	(DRILLED 4 1/2 HRS (PLUG) + CHANGE)	—	—	LOOSE
2	6 1/8	OSC	81458	5000	175	109	3 1/4	—	—	—	IN
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.					No. 1			Gals.			
Visc.					No. 2			WATER			
Gel.					No. 3			Bbls.			
Pump Pressure					No. 4						
Pump R.P.M.					No. 5						
W.L.	9.5	F.C.	4 1/2	P.H.	8.0						
At	SURVEYS	Degrees									
General:											

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
255	201	456	6 1/2	6000	—	13	28.74	—	—	64	
Bit No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
2	6 1/8	OSC	81458	6000	175	310	9 3/4	—	—	—	IN
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL			
Wt.					No. 1			Gals.			
Visc.					No. 2			WATER			
Gel.					No. 3			Bbls.			
Pump Pressure					No. 4						
Pump R.P.M.					No. 5						
W.L.	10.0	F.C.	2 1/2	P.H.	8.0						
At	SURVEYS	Degrees									
General:											

REMARKS	TIME		
	Start	Stop	Interval
RIG SERVICE	12:00	12:30	1/2
DRILLING CUT CEMENT	12:30	1:00	1/2
CHANGING OVER MUD	1:00		
AND HAULING WATER		5:00	4
DRILLING	5:00	6:00	1
WORK ON PUMP	6:00	7:00	1
DRILLING	7:00	8:00	1
Company Time			
Cont'r Time			
RIG SERVICE	8:00	8:30	1/2
DRILLING	8:30	12:00	3 1/2
TRIP OUT-CHANGE BIT	12:00	12:30	1/2
RAN IN HOLE	12:30	12:45	1/4
DRILLING	12:45	4:00	3 1/4
Company Time			
Cont'r Time			
RIG SERVICE	4:00	4:30	1/2
DRILLING	4:30	5:30	1
CLEAN VALVES ON PUMP + SHELLEY	5:30	6:00	1/2
DRILLING	6:00	6:30	1/2
REPAIR LIGHT PLANT	6:30	7:00	1/2
DRILLING	7:00	12:00	5
Company Time			
Cont'r Time			

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor Time Hrs.

Total Company Time Hrs.

Toolpusher

Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. 155 LOCATION HEART LAKE #1AREA HWTDATE FEB 6/54

DAY WORK RECORD

No 9180

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.
Driller A. J. WEBER 12
Derrick
Motor-man
Floor L. LAFFERTY 12
Floor J. MORIN 12
Mechanic R. STEINER 12
Extra A. NORMAN 10
Injuries:

Remarks:

Tour — 3 a.m. to 4 p.m.
Specify actual hrs. worked Hrs.
Driller C. M. SPURDIN 12
Derrick
Motor-man
Floor H. STARNER 12
Floor J. THOMAS 12
Mechanic A. STANSBURG 12
Extra G. P. EVANS 10
Injuries:

Remarks:

Tour — 4 p.m. to Midnight
Specify actual hrs. worked Hrs.
Driller
Derrick
Motor-man
Floor
Floor
Mechanic
Extra
Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.						No. 1						Gals.
Visc.						No. 2						WATER
Gel.						No. 3						Bbls.
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.				TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip	
At	SURVEYS	Degrees				General:						

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.						No. 1						Gals.
Visc.						No. 2						WATER
Gel.						No. 3						Bbls.
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.				TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip	
At	SURVEYS	Degrees				General:						

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly		
Bit	No.	Size	Type	Ser. No.	Weight	RPM	Ft. Drilled	Hrs.	Ft. Reamed	Hrs.	Form.	Condition
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours	NEXT OIL CHANGE AT	FUEL				
Wt.						No. 1						Gals.
Visc.						No. 2						WATER
Gel.						No. 3						Bbls.
Pump Pressure						No. 4						
Pump R.P.M.						No. 5						
W.L.	F.C.	P.H.				TRIPS	TON MILES	TOTAL	Line Slipped	Line Length	Next Slip	
At	SURVEYS	Degrees				General:						

700 OF PLUG @ 52'

REMARKS	TIME		
	Start	Stop	Interval
W.O.C	1200	200	2
NIPLING UP BOP	200	330	1 1/2
REPAIR LIGHT PLANT GENERATOR	2330	730	4
NIPLING UP BOP	70	800	1 1/2
Company Time			
Cont'r Time			
CHECKING P.D. & MAKING F.D. 500 TROUGH.			
HI-WIND BLEW DOWN TENT			
TEARING IT BEYOND REPAIR			
MAKING POLE FRAME-			
WORK AROUND RIG AND			
PUMP & SUCTION PIT.	400	8	
Company Time			
Cont'r Time			
COVERED IN RIG WITH 400			
CANVAS FROM TENT.	500	4	
DRILLING OUT PLUG.	500	1500	4
- PLUG TURNING WITH BIT			
IN CASING.			
Company Time			
Cont'r Time			

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack
B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher [Signature]
Total Company Time Hrs. Approved by
Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

General Petroleum of Canada Limited

RIG No. F55 LOCATION HEART LAKE #1AREA NWTDATE FEB 4/57

DAY WORK RECORD

No 9178

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hrs. worked Hrs.Driller A. J. WEBER 12Floor L. LAFFERTY 13

Motor-man

Floor J. MORIN 12Floor K. STEINER 12

Mechanic

Extra A. NORMAN 10

Injuries:

Remarks:

Remarks:

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Remarks:

From 8 Footage 6 To 14 Hrs. on Bottom 7 1/2 Wt. D.P.M. Lbs. Stds. Singles D.C. Ft. C.B. Ft. Subs. Ft. Ft. Up On Kelly 18.

Bit No. Size Type Ser. No. Weight RPM Ft. Drilled Hrs. Ft. Reamed Hrs. Form. Condition

2A 9 OSC 18793 ALL 150 14 11 1/2 IN

REVIEW FROM RATHOLE.

MUD 12 Mn. 2 a.m. 4 a.m. 6 a.m. Additives Motor Hours NEXT OIL CHANGE AT FUEL

Wt. No. 1 Gals.

Visc. No. 2 WATER Bbls.

Gel. No. 3

Pump Pressure No. 4

Pump R.P.M. No. 5

TRIPS TON MILES TOTAL Line Slipped Line Length Next Slip

W.L. F.C. P.H. At SURVEYS Degrees General:

Remarks:

Remarks:

Remarks:

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REMARKS TIME Start Stop Interval

RIG SERVICE 12:00 12:30 1/2

DRILLING 12:30 8:00 7 1/2

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Remarks:

Totco Ring on Bit No. D.P. Caliper Date Results From Pipe Rack

B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher

Total Company Time Hrs. Approved by

THIS COPY TO CONSERVATION BOARD. (MAIL TO FIELD OFFICE)

LOCATION HEART LAKE #1

AREA NWT

DATE FEB 2/54

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

ED. 10, 1954

Shift - 8 a.m.
 Hrs. worked
WEBER 12
LAFFERTY 12
J. MORIN 12
R. STEINER 13
 Mechanic
 Extra A. NORMAN 10
 Injuries:

Remarks:

Tour—8 a.m. to 4 p.m.
 Specify actual hrs. worked
 Driller C. M. SPANITZ 12
 Derrick
 Motor-man
 Floor H. ST. ARNEAULT 12
 Floor J. THOMAS 12
 Mechanic A. STRASBURG 12
 Extra C. P. EVANS COOK
 Injuries:

Remarks:

Tour—4 p.m. to Midnight
 Specify actual hrs. worked
 Driller
 Derrick
 Motor-man
 Floor
 Floor
 Mechanic
 Extra
 Injuries:

Remarks:

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
1A	9	OSC		ALL			20	18	RATHOLE	DULL	
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.						No. 1				Gals.	
Visc.						No. 2				WATER	
Gel.						No. 3				Bbls.	
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.	TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip		
At	SURVEYS	Degrees	General:								

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
2A	9	OSC		ALL			7 1/2	RATHOLE		IN	
MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.						No. 1				Gals.	
Visc.						No. 2				WATER	
Gel.						No. 3				Bbls.	
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.	TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip		
At	SURVEYS	Degrees	General:								

From	Footage	To	Hrs. on Bottom	Wt. D.P.M. Lbs.	Stds.	Singles	D.C. Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	
0	8	8	3							29	
2A	9	OSC		ALL			12	11 1/2	RATHOLE	FAIR	
2A	9	OSC		ALL			8	3		IN	
NE RUN FROM RATHOLE											
MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	Additives	Motor Hours		NEXT OIL CHANGE AT		FUEL	
Wt.						No. 1				Gals.	
Visc.						No. 2				WATER	
Gel.						No. 3				Bbls.	
Pump Pressure						No. 4					
Pump R.P.M.						No. 5					
W.L.	F.C.	P.H.	TRIPS		TON MILES	TOTAL	Line Slipped	Line Length	Next Slip		
At	SURVEYS	Degrees	General:								

REMARKS	TIME		
	Start	Stop	Interval
RIG SERVICE + REPAIR	1200	1000	1
DRILLING RATHOLE	1000	800	8
CHANGED BITS	800	830	1/2
DRILLING RATHOLE	830	400	7 1/2
A. NORMAN CUTTING + HAULING WOOD FOR BOILER.			
DRILLING RATHOLE	400	800	4
PUT IN RATHOLE CASING	800	900	1
SPUDDER 9 PM			
DRILLING	900	1200	3

Totco Ring on Bit No. D.P. Calipered Date Results From Pipe Rack
 B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher
 Total Company Time Hrs. Approved by

Drilling Authority No.
Date Issued

WELL NAME N.W.T. Heart Lake No. 1 F-29
FIELD Wildcat Area: Alexandra Falls
LOCATION: Unit F Section 29 Grid 60-50-116-30
Latitude 60°48'18" N. Longitude 116°35'06" W.
From Established Reference Marker

Rig Release Date: 25-2-54
Status D & A
Information Release Date 25-2-56

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.

DATE RECEIVED

LOGS:

Name

Run No. _____

Type

Interval

ANALYSES:

Sample

Lab. No.

Formation

Interval

A.O.F Potential

Formation

Interval

MC.F.D.

Test Data

DRILL STEM TESTS:

No.

Formation

Interval

CANADA

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH

(ABANDONMENT)

(COMPLETION)

(REPAIRS)

REPORT

(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 **N.W.T. Heart Lake #1** Permit No. **522**
Consolidated Mining & Smelting Company Lease No. **522**
 Registered owner **Consolidated Mining & Smelting Company** Drilling company **General Petroleum Ltd.**
 Location: (Survey description) **69°-48'-18"-N. Long.**
110°-35'-8"-W. Lat.
 Elevation: Ground **796'** Kelly bushing **804.7'** Depth **1787**
 Spudded **Jan. 31st** Finished drilling **Feb. 24th** Rig released **Feb. 28th**
 Deviations from vertical

CASING

	Size O.D. inches	Amount feet	Grade	New or used	Set at feet	Sacks cement
1.	7"	63'		new	63 to surface	20
2.						
3.						

TUBING

Status of well on completion of drilling **Dry Hole**
 Producing zone **None**
 Cored intervals **#1 - 1284-1288 - Rec 13'**
#2 - 1434-1438 - Rec 11'
 Interval logged: E-log **2-log**
R-log Other

DRILLSTEM TESTS

Test No.	Date	Interval tested	Duration	Results
#1	Feb. 11-34	1148-1188	1	425' - non salty-sulphur water
#2	Feb. 13-34	1412-1438	1 hr.	1110' - salty water

(Over)

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

Shooting: **None**

Hydraulically fracturing:None.....

Chemical treatment:

Date initial production tests: ~~None~~.....

Initial production data:None.....

Pumping or flowing ~~None~~

Plug back:None.....

Other:None.....

<u>From</u>	<u>To</u>	<u>Sacks cement</u>	<u>Felt At</u>
-------------	-----------	---------------------	----------------

#1 -1450' -1343' 25... 15' off bottom

12 80 50 8

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

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

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 submitted Yes..X... No.....

ADDITIONAL DETAILS AND COMMENTS

N. V. T. PETROLIUMS LTD.

Signed W. S. Brownell
Address

C A N A D A

DEPARTMENT OF RESOURCES AND DEVELOPMENT
NORTHERN ADMINISTRATION AND LANDS BRANCH

NOTICE OF INTENTION TO

(ABANDON
(SUSPEND DRILLING) A WELL
(RECONDITION)

(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 N. W. T. Hunt Lake #1 on Oil and Gas (Permit No. 323.) registered in the name of Consolidated Mining & Smelting Ltd.

Depth 1737 feet. Elevation above sea level: Ground surface ft. Kelly bushing ft.

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

(N of S boundary) of (Permit No.) at approx. 118°-33'-8" W. lat.
(S of N boundary) of (Lease No.) at approx. 118°-33'-8" W. lat.
(W of E boundary) of (Permit No.) at approx. 118°-33'-8" W. lat.
(E of W boundary) of (Lease No.) at approx. 118°-33'-8" W. lat.

Survey description

CASING RECORD

Size O.D. inches	Weight lbs/ft.	Amount feet	Set at feet	Sacks cement	Method	To be withdrawn
1.						
2.						
3.						

OIL, GAS and WATER

Encountered

Cement plugs to be set

Oil from feet to feet. From feet to feet with sacks

None

Gas from feet to feet. From feet to feet with sacks.

None

Entered in Oil Record
Date March 4, 1954
By [Signature]

(Over)

Water from 1145' feet to 1189' feet.
D.S.T. #1 429' non salty
Sulphur water.....

From 1413' feet to 1433' feet
D.S.T. #2 1110' salty
Sulphur water.....

#1 Bottom plug from 1430' feet to 1342' feet with 35 sacks

#2 Surface plug from 30' feet to 30' feet with 3 sacks

Date of last operations Feb. 24th - 54 Total depth 1757'

Nature of liquid in well Level from surface

Present condition of well in addition to above:

An electric log (will not 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 J. Rontledge At registered office: Hay River, N.W.T.

Postal address Postal address

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

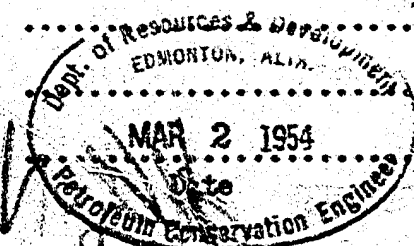
Dated at Edmonton this 24th day of Feb. 1954

Signed by Per

Pc

This program is approved subject to the following provisions:

Conformity with Section 60 (3) and (4)
of the Regulations

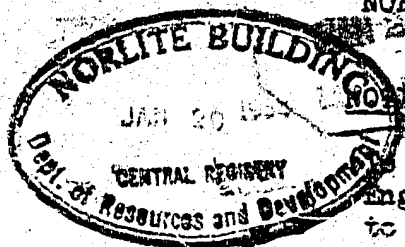


Conservation Engineer

C A N A D A

DEPARTMENT OF RESOURCES AND DEVELOPMENT

NORTHERN ADMINISTRATION AND LANDS BRANCH



NOTICE OF INTENTION TO BEGIN DRILLING OPERATIONS

be submitted in triplicate to the Conservation Engineer at Edmonton, Alberta at least 15 days prior to the commencement of drilling).

In accordance with Section 59 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to begin drilling a well on Oil and Gas Permit No. 322, registered in the name of Lease No.

Consolidated Mining and Smelting Co.

TYPE OF WELL:

Stratigraphic test: **X WNB**

Wildcat: **.....**

Structure Test: **.....**

Development: **.....**

Anticipated number of holes **...1...** (Required for Structure Test Only)

Expected total depth: **..2480....** feet.

The well will be located:

.....(N of S boundary) of (Permit No.....) at approx **80°-48'-18"** Lat } **WNB**
(S of N boundary) (Lease No.....)
(W of E boundary) of (Permit No.....) at approx **116°-35'-14"** Long.
(E of W boundary) (Lease No.....)

Survey description of location: **None**

Approximate surface elevation of **.....775'** feet above sea level.

Name of well: **.....Heard Lake #1**

Type of drilling rig: **.....Felling #35 Rotary**

Expected date of commencement: **.....January 20th, 1954**

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

Size O.D. inches	Weight lbs/foot	Grade	Brand	New or used	Estimated depth	Sacks of cement
1. 7"	23 lb.	.....	.....	..New	..75'	..35..
2. ....	.....	.....	.....	.....	.....	.....
3. ....	.....	.....	.....	.....	.....	.....

Expected depth of water, gas and oil horizons and method of control:

Proposed as follows:	Depth	Sub-sea
Hay River Limestone (Lower Member)	Surface	.....
Hay River Shale	85'	-700'
Slave Point Detrital Limestone	1185'	-400'
Slave Point Limestone	1280'	-475'
Preston L.	1480'	-575'
Pine Point	1650'	-665'
Fitzgerald Dolomite	2230'	-1455'
Red Beds (evaporites)	2350'	-1565'
Precambrian	2480'	-1675'

(over)

An electric log ~~will~~ (will not) be run.

The well will be drilled by: **General Petroleum Ltd.**..... (name of company)

Responsible agents of permittee or lessee in charge of operation:

At well: **J. Routledge**..... At registered office: **Matthews**.....

Postal address: **Hay River, N.W.T.** Postal address: **224 - 9th Ave. W.**.....

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

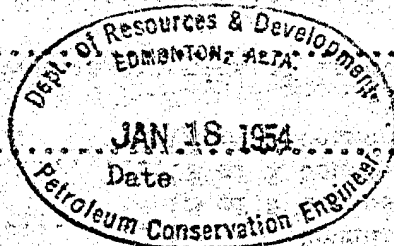
Dated at **Edmonton, Alta.** this **6th**.....day of **January**,.....19 **54**

Signed by **N.W.T. PETROLEUM LTD.**...

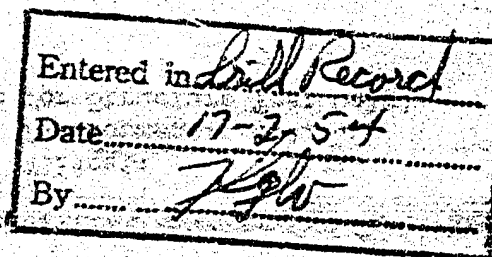
Per:

W. L. Brintnell
W. L. BRINTNELL

This program is approved subject to the following provisions (if any):



C. B. Linn
Conservation Engineer



N W T
Heart Lake
No. 1
60° 48'
116 35'
The Consolidated Mining and Smelting Company of Canada Limited

HAY RIVER OIL

SUMMARY OF EXPLORATION FOR THE
PERIOD OCTOBER 14th, 1953 to APRIL 14th, 1954

By abandonment dated October 9th, 1953, Cominco reduced its oil and gas holdings to the three permits, Nos. 322, 323 and 324. Early in 1954, an agreement was reached with N.W.T. Petroleum Limited whereby this company would drill one or more wells on Cominco's permits.

During the period under review, General Petroleum of Canada Limited, as drill contractor for N.W.T. Petroleum Limited, completed a well on Permit No. 322. This well, known as Heart Lake No. 1, was abandoned at 1,757 feet, and the attached log gives the details of this test.

Early in April another well site was prepared near Cominco's earlier test hole, G3, situated on Permit No. 324.

Attachs. Drill Log Heart Lake No. 1

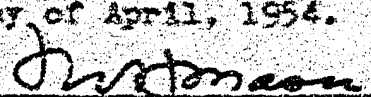
Respectfully Submitted By:


L. Feller
Exploration Superintendent

LI:em
Mines Division
Trail, B. C.
April 9, 1954

Certified to be a true copy of a report relating to Petroleum and Natural Gas Permits Nos. 322, 323 and 324 covering ground near Hay River, N.W.T.

Dated at Trail, British Columbia, this 19th day of April, 1954.


A Notary Public in and for the Province of British Columbia.

The Consolidated Mining and Smelting Company of Canada Limited

N.W.T. HEART LAKE NO 1

Latitude - 60° 48' 18" N
 Longitude - 116° 35' 6" W
 Elevation - Ground 796', Kelly Bushing 804.84'
 Contractor - General Petroleum of Canada, Ltd.
 Depth - 1,757 feet
 Date Well Spudded - February 3, 1954
 Date Drilling Completed - February 24, 1954

Cored Intervals - 1,284 to 1,299', 1,604 to 1,615'
 Formation Tests -

D.S.T. No. 1 1146-1189' - Valve open
 60 minutes. Recovered 420' dead
 sulphur water.

D.S.T. No. 2 1412-1433' - Valve open
 60 minutes. Sustained air blow.
 Recovered 1110 feet salty sulphur
 water.

Cement Plugs - Plug No. 1 1342-1450' - 25 sks. cement
 Plug No. 2 50- 80' - 8 sks. cement
 Surface - Steel plate & 5 sks. cement

DRILL LOG

<u>From</u>	<u>To</u>	<u>Description</u>
0	10	Limestone and granite boulders, some gravel limestone-cream to grey, dense. Varied assemblage of igneous sedimentary and metamorphic rocks. (Hodge podge sample).
10	20	Limestone - cream, dense, cryptocrystalline, much igneous material.
		<u>TOP HAY RIVER SHALE 22'</u>
20	30	Limestone - chiefly cream, cryptocrystalline, much vari-colored igneous, material; few chips grey-green calcareous shale.
30	40	Shale - grey-green, firm, calcareous; few brachiopod fragments. (Sample poor, chiefly igneous cavings).
40	50	Shale - grey-green, as above.
50	60	Shale - as above, slightly waxy in part.
60	70	Shale - grey, slightly greenish, firm, grading to a shaly limestone in part.
70	90	Shale - light grey, calcareous, firm, fossiliferous in part.
90	130	Shale - as above, micro-micaceous; trace pyrite.
130	150	Shale - light green, as above; some dark grey shale; minor amount argillaceous limestone.
		<u>SIMPSON SHALE 150'</u>
150	170	Shale - (70%) as above. Shale - (20%) light brown fissile micro-micaceous. Limestone - (10%) light grey, very argillaceous, dense.

<u>From</u>	<u>To</u>	<u>Description</u>
170	180	Shale - (30%) light green, fissile, soft, micro-micaceous. (20%) light brown, fissile, soft, micro-micaceous. (50%) limestone to limy shale - limestone grey argillaceous.
180	190	Shaly Limestone to limy shale - as above (60%) (40%) light green, soft, calcareous shale, as above.
190	210	Limy shale to some shaly limestone - as above.
210	230	Shale - (60%) soft, green, fissile, micromicaceous, some grey. (40%) shaly limestone to limy shale - grey, dense, as above.
230	250	Shaly Limestone to limy shale - grey, some slightly brownish, trace limestone.
250	270	Shale - as above, grey-green, rough textured. Limestone - (20%) cream to buff, dense, micro-crystalline.
270	280	Shale - (60%) grey-green, fissile, micro-micaceous, flaky. Limestone - (30%) grey, argillaceous shaly, finely granular, dense. Limestone - (10%) brownish, as above.
280	290	Shale - (60%) grey-green, as above. Limestone - (30%) grey, argillaceous, finely granular, (may be a rough textured limy shale). Limestone - (10%) buff, dense, micro-crystalline.
290	300	Shale - (70%) as above, grey-green. Limestone - (20%) grey, argillaceous, dense. Limestone - (10%) buff, cryptocrystalline.
300	320	Shale - (70%) grey-green, calcareous, flaky. Shaly limestone (30%) grey, medium granular, compact, argillaceous.
320	340	Limestone - (50%) light grey, some buff, micro-crystalline (50%) shale grey-green, as above.
340	360	Shale - limy, light grey, rough textured.
360	370	Shale - (50%) light grey, rough textured, as above. (50%) light grey, green.
370	380	Shale - as above, brown and petroliferous in part.
380	400	Shale - grey, white, some brownish, rough textured, shale to shaly, granular, argillaceous limestone.
400	410	Limy Shale - brownish to dark grey-brown, petroliferous, rough textured.
410	430	Limy Shale - chiefly light grey-green, brown tinged, rough textured.
430	450	Shale - grey, white to grey-green, flaky, some firm and limy.
450	460	Shale - grey, white to grey-green, calcareous.
460	480	Limestone - (60%) light grey, slightly greenish, some buff (caving?) dense, argillaceous. (40%) shale grey-green, calcareous.

<u>From</u>	<u>To</u>	<u>Description</u>
480	490	Limestone - (35%) light grey, greenish, as above. Shale - (35%) grey-green, as above. Shale - (30%) grey-black, slightly calcareous.
490	500	Shale - (70%) grey-green, as above. Limestone - (20%) buff to brown, some gray, dense to finely crystalline, some buff, medium granular limestone.
500	510	Shale - (50%) grey-black, fissile, micro-micaceous, slightly calcareous.
510	530	Shale - grey-green, as above, (30%) buff limestone (caving from bottom of suction pit).
530	540	Shale - (60%) as above, grey-green, some grey-black. Limestone - (30%) buff to cream (caving?). Limestone - (10%) grey, argillaceous, dense.
540	550	Shale - grey-black, some brownish, micro-micaceous.
550	560	Shale - grey to grey-green, limy, firm.
560	570	Shale - (40%) as above. Shale - (60%) brown to black, calcareous, firm, micro-micaceous.
570	600	Shale - as above, chiefly grey-green, micro-micaceous.
600	610	Shale - black to grey-black, slightly calcareous some brownish.
610	630	Shale - chiefly grey-green, as above. Minor black to grey-black shale.
630	650	Shale - grey-green and grey-black; minor light grey, dense limestone.
650	680	Shale - grey-green and grey-black, as above.
680	690	Shale - (60%) as above. Limestone - (40%) light grey, fragmental, dense, argillaceous.
690	700	Shale - (70%) grey-green, limy, firm. Limestone - (30%) light grey, argillaceous, dense, fragmental.
700	710	Shale - grey-green, as above.
710	720	Shale - brownish to grey-black, micro-micaceous.
720	740	Shale - grey-green, soft, flaky, few crinoid plates.
740	760	Shale - greyish-brown, some olive colored.
760	800	Shale - light green, calcareous, as above; smooth textured; brachiopod fragments.
800	820	Shale - as above, light grey, slightly greenish, firm, rough textured.
820	940	Shale - light grey, smooth textured, calcareous.
940	960	Shale - grey-green, firm, calcareous.

<u>From</u>	<u>To</u>	<u>Description</u>
960	970	Shale - (80%) grey-green, as above. Limestone - (20%) cream to brown, finely granular; trace <u>fair porosity</u> , few chips (caving from suction pit).
970	990	Shale - light grey, firm, some hard and limy. Limestone - (20%) cream to brownish, dense to finely granular, argillaceous; some <u>fair inter-granular porosity</u> . No staining; no fluorescence; no cut. (caving from suction pit).
990	1000	Limestone - (50%) cream to buff, as above; some <u>inter-granular porosity</u> . (caving, as above). Shale-Limestone - (50%) grey, finely granular, compact.
1000	1010	Shaly Limestone - light grey, dense. Shale - Limestone - (30%) light brown; trace <u>poor to fair porosity</u> (picking up gravel from suction pit?).
1010	1020	Shale - Limestone - light grey, dense. Crinoid plate fragments, trace pyrite. Limestone - (20% - 30%) cream to white (cavings).
1020	1040	Shale - Limestone - light grey, finely granular, compact.
1040	1050	Shale - Limestone - as above.
1050	1060	Shale - Limestone - light grey, granular to dense and compact; minor grey brownish, slightly vitreous limestone.
1060	1080	Shale - Limestone - light grey, white tinged.
1080	1090	No sample.
1090	1100	Shale - Limestone - (60%) light grey, dense. Limestone - (20%) buff, few chips with fair inter-crystalline porosity (caving?).
1100	1120	Shale - Limestone - (80%) light grey, dense, some medium granular. Limestone - (10% - 20%) buff (cavings).
1120	1130	Shale - Limestone - (90%) grey-brown, as above. Limestone - (10%) buff (cavings).
1130	1140	Shale - Limestone - (40%) grey, dense. Limestone - (10%) buff, <u>some fair intergranular porosity</u> . Shale - (50%) black, some olive colored, slightly calcareous.
1140	1150	Shale - Limestone - (90%) as above, grey. Limestone - (10%) buff, fine to medium crystalline, slightly vitreous; <u>poor to fair inter-crystalline porosity</u> ; slight oil staining; no cut with carbon tetrachloride; no acid reaction. (cavings?).
1150	1160	Limestone - (80%) grey, dense, as above. Limestone - (10%) buff, vitreous, dense. Limestone - (10%) buff, fine to medium crystalline, oil stained in part; <u>some inter crystalline porosity</u> .

TOP SLAVE POINT 1170' ?

<u>From</u>	<u>To</u>	<u>Description</u>
1170	1180	Limestone - (80%) chiefly buff to brownish, fine to medium granular; <u>fair inter-granular porosity</u> . Limestone - (20% - 30%) cream to white, fragmental.
1180	1190	Limestone - as above, buff to brownish; some cream white, dense, cryptocrystalline; <u>poor fine vuggy porosity</u> ; few chips <u>fair vuggy porosity</u> .
1190	1240	Limestone - buff to brown, fine to medium granular, compact; some limestone, cream, dense, cryptocrystalline.
1240	1260	Limestone - greyish to slightly brown, fine to medium granular argillaceous, slightly vitreous.
1260	1280	Limestone - grey, coarsely crystalline, fragmental fossiliferous, much pyrite.
1280	1284	Limestone - light grey-brown, finely crystalline; trace greenish, waxy shale?
<u>Diamond Core No. 1 - 1284 - 1299' Recovered 15'</u>		
		Limestone - light brown, very argillaceous to shaly, dense to finely crystalline; fossiliferous, mottled appearance toward base with many pyrobitumen and shaly partings.
1300	1330	Limestone - shaly, light to medium brown, as above, dense to fine and some medium crystalline.
1330	1360	Limestone - creamy, brownish, finely crystalline, dense.
1360	1370	Limestone - as above; some greenish, waxy calcareous shale.
<u>TOP PRESQU'ILE 1370' ?</u>		
1370	1380	Limestone - as above.
1380	1400	Limestone - as above, darker brown, dense to finely crystalline.
1400	1410	Limestone - light gray, medium crystalline to fragmental; shale - few chips slightly waxy, greenish in part, fine conglomerate. Abundant pyrite.
1410	1420	Limestone - brown, as above, medium to coarsely crystalline, compact, trace <u>poor to fair inter-crystalline porosity</u> .
<u>TOP PRESQU'ILE REEF 1420'</u>		
1420	1430	Dolomite - buff, medium to coarsely crystalline, <u>fair to good inter-crystalline porosity</u> . No apparent oil staining.
1430	1440	Dolomite - buff to light brown, fine to medium crystalline, <u>fair inter-crystalline porosity</u> .
1440	1450	Dolomite - as above, creamy brown, vitreous.
1450	1460	Dolomite - as above, whitish to green.
1460	1470	Dolomite - as above, some pure white.

<u>From</u>	<u>To</u>	<u>Description</u>
1470	1480	Dolomite - white medium to coarsely crystalline, compact. Trace "apple" or bright emerald green shale.
1480	1490	Dolomite - white, as above, medium to coarsely crystalline, abundant calcite.
1490	1530	Dolomite - white, fine to medium to coarsely crystalline, much calcite in well developed rhombic crystals. Vitreous, compact; <u>some poor inter-crystalline porosity</u> . Trace limestone.
1530	1540	Dolomite - brownish, as above; one chip heavy oil stained.
1540	1550	Dolomite - dark brown, some black; medium crystalline rhombic crystals; trace pyrite.
1550	1570	Dolomite - (40%) buff to dark brownish-black, (50%) white. Some mottled white and buff. Fine to medium crystalline, <u>some poor inter-crystalline porosity</u> largely compact.
1570	1580	Dolomite - as above.
1580	1590	Dolomite - as above, well developed calcite rhombic crystals may indicate geodes or vugginess.
1590	1600	Dolomite - light grey, medium crystalline, relatively homogeneous, fair inter-crystalline porosity, <u>no oil staining</u> , soft.
<u>Diamond Core No. 2 - 1604 - 1615' Recovered 11.0'</u>		
1604	1607	Dolomite - grey brownish, mottled, white, medium crystalline to coarsely crystalline. Heterogeneous breccia infilled with white to slightly bluish, coarsely crystalline, compact dolomite, scattered vugs.
1607	1615	Dolomite - buff, mottled white, medium crystalline. Many scattered large vugs, some 4" and larger with calcite intergrowths. White dolomite infilling of vugs and fractures, many euhedral secondary calcite crystals in vugs. Strong sulphur smell throughout core.
1615	1620	Dolomite - buff, coarsely crystalline (poor sample).
1620	1630	Dolomite - buff and white, medium to coarsely crystalline.
1630	1640	Dolomite - chiefly white, coarsely crystalline, compact.
1640	1660	Dolomite - white, as above, some slightly bluish, some dark brownish dolomite, abundant euhedral calcite.
1660	1670	Dolomite - as above, trace buff limestone; small brachiopod.
1670	1680	Dolomite - (60%) as above, white and buff. Tinged. (40% - +) limestone, buff, finely granular; trace yellowish amorphous sulphur.
1680	1690	Limestone - (40%) light greyish buff, finely crystalline, some medium granular cavernous; trace pyrite. Dolomite - (60%) as above.

<u>From</u>	<u>To</u>	<u>Description</u>
1690	1700	Limestone - as above (poor sample) chiefly cavings.
1700	1710	Limestone - dolomitic, buff, finely granular; some <u>poor inter-granular porosity</u> .
1710	1720	Dolomite - (80%) cream, medium to coarsely crystalline, some pure white coarsely crystalline dolomite. Limestone - (20%) grey-buff, to grey finely granular.
1720	1730	Dolomite - white to cream, medium to coarsely crystalline.
1730	1740	Dolomite - cream, medium crystalline - granular compact, abundant calcite; evidence of vugs.
1740	1750	Dolomite - creamy, white, to some buff finely crystalline; trace pyrite, cavernous.
1750	1757	Dolomite - as above, some dark brown, finely crystalline, cavernous.
		- - - o o - - -

Reference: Copy No. 7 of "Progress Report on the Drilling, Coring, Testing
& Abandonment of H.W.T. Heart Lake No. 1, Hay
River, E.N.T."

LT:em
Mines Division
March 28, 1934

cc: R. Jure
P.E. Hirst
E. Campbell
M. E. Mason (2)✓
File (1)

The Consolidated Mining and Smelting Company of Canada Ltd.

HAY RIVER OIL

Summary of exploration during second eighteen month period of permits until October 14th, 1954.

Early in 1954 an agreement was reached with N.W.T. Petroleum, Limited whereby this company would explore Cominco's permits Nos. 322, 323 and 324. This company drilled two wells terminating work on April 30th due to road conditions. Further testing of Escarpment Lake No. 1 well will be done when access is again possible.

a) Items of Expenditure

c.f. attached statement

b) Location of Work Done

Two holes were drilled as follows:

1. Heart Lake No. 1 well - Lat. $60^{\circ} 48' 18''$ N., Long. $116^{\circ} 35' 6''$ W., on permit 322.
2. Escarpment Lake No. 1 well - Lat. $60^{\circ} 35' 43''$ N., Long. $116^{\circ} 13' 0''$ W., on permit 324.

c) Permits upon which Work is to be Applied

The work is to be applied on permits 322, 323 and 324 which were grouped under the Regulations.

d) Specific Purpose for Each Item of Expenditure

All expenditures were for the purpose of drilling the above two wells.

e) Summary of Work Done

Development consisted of drilling two wells to test the Presqu'ile formation for oil and gas. A summary of these drill logs is:

	<u>Heart Lake No. 1</u>
Depth	1757
Lat.	$60^{\circ} 48' 18''$ N
Long.	$116^{\circ} 35' 6''$ W
Elev. Ground	796'
Date Spudded	February 3, 1954
Date Completed	February 24, 1954
Cored Intervals	1284-1299 1604-1615
Formation Tests	D.S.T. 1 - 1146-1189 2 - 1112-1133
Results	Nil

Heart Lake No. 1

<u>From</u>	<u>To</u>	<u>Formation</u>
0	22	Limestone, overburden

Hay River Shale

22	150	Shale, gray green
----	-----	-------------------

Simpson Shale

150	1370	Shale and limestone
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Presqu'ile Limestone

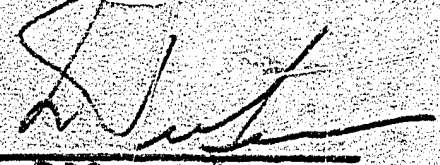
1370	1420	Limestone
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Presqu'ile Dolomite

1420	1757	Dolomite
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END OF HOLE
Cement plugs set at
1342'-1450' and 50'-60'
and hole abandoned.

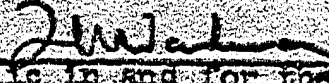
Submitted by:


L. Telfer

From
Mines Division
September 15th, 1954

EXHIBIT "B"

This is Exhibit "B" referred to in the Statutory Declaration of Henry Cleburne Siegarich declared before me the 27th day of September, 1954.


A Notary Public in and for the Province of
British Columbia.