

MURPHY CANADA ALEXANDRA
FALLS NO. 1

Drilling Authority No.

Date Issued

WELL NAME Murphy Canada Alexandra Falls No. 1

FIELD Wildcat

Area: Alexandra Falls

LOCATION: Unit

Section

Grid

Latitude 60°28' 26.61" N.

Longitude 116°51' 33.84" W.

From Established Reference Marker

Rig Release Date: 28-2-60

Status D & A

Information Release Date 28-2-62

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.

Murphy Alexandra 1

Location: Latitude 60° 28' 26.88" N;
Longitude 116° 51' 39.84" W.

Elevation: F.S. 985.5

Total Depth: 3137'

Drilled: 1960

Cores and samples stored at Geological Survey of Canada, Calgary

Log by: W. E. Belyea

<u>Depth</u> (feet)	<u>Lithology</u> <i>Tathlina Formation</i>
0' - 30'	Limestone, light grey, fine-grained, argillaceous, silty, calcilutite; grey shale laminae, mica-flakes; scattered brachiopod and crinoid fragments; pyrite associated with organic matter; scattered dark grey-coated pebbles and pyrite at 20'-30'
30' - 50'	Limestone, buff, fine-grained, calcilutite; scattered fossil fragments, in part silicified; siliceous spicules; some greenish-grey calcareous shale
50' - 80'	Shale, grey and brownish grey, with carbonaceous specks, calcareous, silty; grades to silty limestone; scattered brachiopod fragments
80' - 100'	Limestone, buff, fine-grained, fossiliferous, scattered coarse fossil fragments and dark grey-stained pebbles; some green silty shale
100' - 160'	Shale and limestone, greyish-brown, highly silty, varies from more to less limey; abundant scattered brachiopod fragments
160' - 170'	Shale, silty, calcareous as above; some dark brown shale with brown streak
170' - 180'	Shale and silty limestone, more limey than above
180' - 190'	Shale, greenish grey, silty; silty limestone layers
190' - 230'	Limestone, buff, fine-grained, silty; scattered brachiopods and crinoids; grey inclusions at 190'-200'; shale, greyish-brown, silty
230' - 280'	Siltstone, grey, calcareous, micaceous; green mineral, possibly glauconite; grey-green shale inter-laminated
280' - 300'	Limestone, buff, fine-grained, comminuted shell debris; a little grey sandstone with black grains; brown shale laminae; crinoids and brachiopods
300' - 330'	Limestone, as above; siltstone, greyish-green, argillaceous; green mineral (glauconite?); scattered shell fragments
330' - 380'	<i>Twin Falls Formation</i> Limestone, buff, fine to medium-grained, calcarenitic; scattered corals, brachiopod and crinoid fragments; siltstone, greyish-green; shale, grey-green, calcareous; scattered pyrite; dark grey-stained pebbles at 360'-370'

<u>Depth</u>	<u>Lithology</u>
380' - 390'	Siltstone, grey, calcareous; crinoid and brachiopod fragments; grades to limestone; some green shale
400' - 440'	Limestone and siltstone; limestone, grey and buff, fine to medium-grained, calcarenite; scattered corals, brachiopods and crinoids; silty, grades to siltstone, grey, argillaceous; grey and dark grey shale laminae; shaly material interbedded with siltstone and limestone
440' - 450'	Limestone, buff, fine to medium-grained, silty; brachiopods, crinoids; green shaly siltstone with small dark-stained pebbles
450' - 500'	Limestone, buff, fine to medium-grained, calcarenite; brown shale laminae; some grey limestone with conchinated fossil debris; abundant brachiopod and crinoid remains; coarser at 490'-500', grey shale partings common
510' - 520'	Shale, grey, massive, calcareous; varies to marl; some buff, fine to medium-grained limestone; ostracods
520' - 570'	Limestone, buff, fine to medium-grained; grey shaly limestone and shale, silty; a little greenish-grey siltstone; grey and brownish-grey shale partings or laminae, scattered brachiopods; bryozoa at 560' - 570'
570' - 580'	Limestone, light yellow brown, fine-grained, argillaceous, silty; darker brown shale laminae
580' - 620'	Limestone, buff, fine to coarse-grained matrix containing abundant stromatoporoid and coral fragments; in part coarse crinoidal limestone; top has coarse crinoidal limestone in green waxy shale (suggests re-working); dark brown shale partings
620' - 630'	Limestone with dark grey-coated pebbles; grey to green-grey siltstone and shale; scattered fossil fragments
630' - 660'	Limestone, marly, grey, argillaceous, silty; scattered fossil fragments, some black coated; scattered pyrite
660' - 760'	Limestone, grey, fine-grained, argillaceous, varies to buff, fine-grained to aphanitic; scattered crinoid fragments; shale, grey to greenish-grey; some bands of coarser limestone with crinoids, bryozoa at 750'-760'
760' - 770'	Limestone, as above, with dark-coated grains; brachiopods, crinoids
770' - 790'	Limestone, buff, fine to coarse-grained, calcarenite matrix with scattered dolomite rhombs; stromatoporoids or algae, brachiopods; grey shale

Depth

Lithology

790' - 800'	limestone, as above, but lacking stromatopora or alga fragments
800' - 840'	Siltstone and limestone; siltstone, gray, slightly argillaceous; greenish grey shale partings, dark grains, possibly carbonaceous specks; glauconites? crinoids, tentaculites
840' - 890'	Siltstone, and shale, grey to greenish grey, calcareous; some bands of limestone, grey, largely composed of fossil fragments; chiefly brachiopod and crinoid debris: stromatopora at 880'-890'
890' - 900'	Siltstone, shale, some limestone as above
900' - 920'	Missing
920' - 940'	Shale, greenish grey, calcareous, silty, varies to siltstone; some fragments of limestone, may be cavings
940' - 1010'	Shale, greenish grey, in part silty, carbonaceous specks; limestone, siltstone, probably interlaminated with shale
1010' - 1040'	Shale, as above, grey, silty; a little grey, dense limestone with crinoid fragments
1040' - 1080'	Shale, olive grey; a little grey, dense limestone
1080' - 1110'	Shale, greenish grey, calcareous
1110' - 1120'	Shale, as above; a little grey limestone and siltstone
1120' - 1130'	Shale, as above, fragments of lingulid brachiopod?
1130' - 1140'	Shale, as above; limestone, yellow-brown, fine-grained, argillaceous, chunky
1140' - 2100'	Shale, greenish-grey, calcareous; zones with siltstone laminae
2100	Slave Point

.....

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DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

For the period from . FEBRUARY 25th, 1960.

to . FEBRUARY 28th, 1960.

REVISED
 REPORT of ABANDONMENT of a Well

Permit No. . 1327.

Name of well . MURPHY-CANADA ALEXANDRA FALLS NO. 1 Lease No.

Registered owner . MURPHY-CANADA OIL COMPANY Drilling Company . PETER BANDER DRILLING

Location . . . 60° 28' 24.48" N. Lat. 116° 51' 33.84" . . . W. Long. >

Survey description, if available
 (Corrected from 1010')

Elevation: Ground . . 925 . . . Last previous depth

Kelly bushing . . 985.55 . Present depth . . 3,137'

Spudded January 21st, 1960 . . Finished drilling Feb. 26 Rig Released

. ? 2.4. Feb. 28th.

Deviations from vertical . . Max. 45° 45' . . Average 2°

CASING RECORD

Date	Size O.D.	Weight lbs/ft	Grade	Set at feet	Sacks Cement	Top of Cement
1 Jan 29	8-5/8	24	J-55	364	190	To surface
2.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .
3.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .
4.. . .	.. . .	.. . .	.. . .	.. . .	.. . .	.. . .

TUBING RECORD

Size	Wt. Lbs/foot	Grade	Amount	Landed Depth	Remarks
.. . .					
.. . .			NONE		
Wellhead		(Manufacturer)		(Size)	 (Series)

Pumping or flowing

Plug back

Other

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CEMENT PLUGS SET

<u>Date</u>	<u>Plug set at</u>	<u>Sacks cement</u>	<u>Method</u>	<u>Top found at</u>
Feb. 26.	3137. - 2900	. . . 77 . . .	{ Displaced.	. . . 2900 <i>Not found</i>
Feb. 26.	2700 - 2400	. . . 90 . . .	{ through .	. . . 2369 . .
Feb. 27.	2350 - 2000	. . . 120 . . .	{ Drill . .	. . . 1814 . .
Feb. 27.	440 - 238	. . . 65 . . .	{ Pipe . .	. . . 240 . .
Feb. 28.	20 - 0	. . . 12 . . .	{ Manually.	

Washed well samples have been sent to Geological Survey of Canada, Calgary
will be

Cores will be stored at Calgary, Alberta.

Core analysis (was made) of the Intervals . 2145 - 2164.
(to be made)

Oil analysis (was made) of the Intervals.
(to be made)

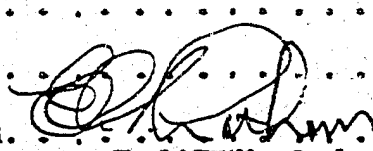
Gas analysis (was made) of the Intervals.
(to be made)

Water analysis (was made) of the Intervals.
(to be made)

The above analyses (are)
(will be) submitted in accordance with Section 70(2) of
the Regulations.

ADDITIONAL DETAILS AND COMMENTS

. . . A two inch pipe, four feet above ground level was placed at centre of well
to identify well location.

Signed.  Address . . . Amarex Oil Company. . .
E. T. LATHAM, Genl. Supt. 703 - 5th St. S.W.,
Date . . February 29th, 1960. Calgary, Alberta.

(To be submitted in triplicate in accordance with Sections
68, 69, 70 and 71, of the Territorial Oil and Gas Regulations
to the Oil Conservation Engineer at Calgary, Alberta.)

PLAN OF WELL LOCATION MURPHY-CANADA ALEXANDRA FALLS NO.1 NORTHWEST TERRITORIES

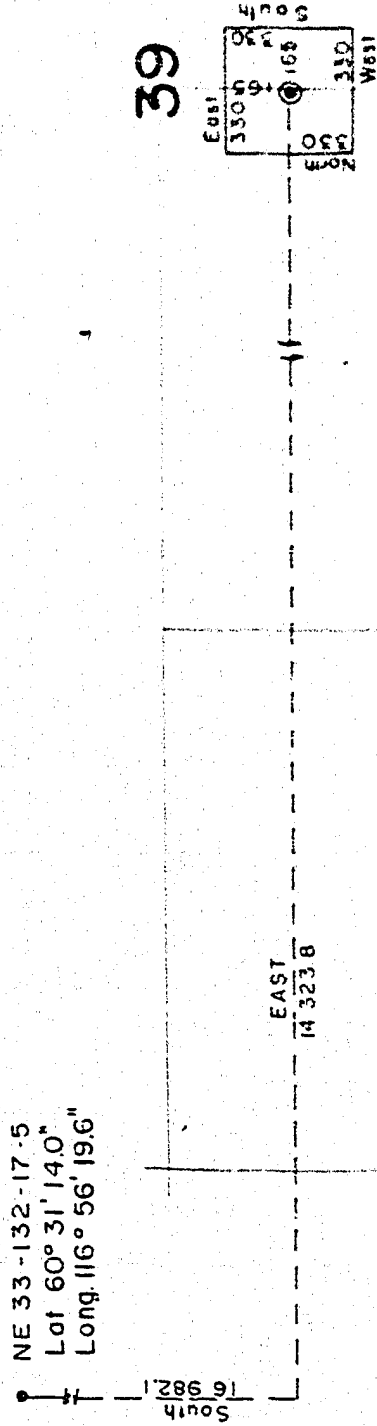
LATITUDE: 60° 28' 26.68" LONGITUDE: 116° 51' 33.84"

UNIT F SECTION 39 GRID AREA 60° 30' - 116° 45'

Elevation: 975 ground Datum: BM NE 34-132-17-5 (Elev. 948.25)

Scale: 500 feet = 1 inch

NE 33-132-17-5
Lat 60° 31' 14.0"
Long 116° 56' 19.6"



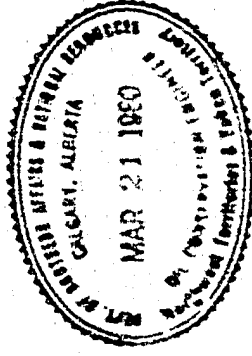
TRAVERSE INFORMATION		
Origin of traverse NE 33-132-17-5		
Station	Distance	Bearing
NE 33	5 676 00	N 89° 59' 50" E
NE 34 (w/ FM)	1 122 00	N 85° 59' 50" E
84-60-1	8 816 70	S 03° 16' 10" E
2	5 832 70	S 03° 35' 30" E
3	2 838 25	S 35° 50' 30" E
4	4 960 55	S 89° 53' 30" E
Loc		

Legend:
 • Survey monument found
 ⊙ Well location
 Area.

Well site 250 Ac

Coordinates

16 982.1 South of NE 33-132-17-5
 14 323.8 East of NE 33-132-17-5
 337' South of N Bd, Unit F
 5' West of E Bdy Unit F



Note:

All distances checked.
 Bearings referred to meridian through NE 33-132-17-5 and derived from
 N Bdy 34-132-17-5.

I Earl Edward Little of the Town of Fort St John, BC, Dominion Land Surveyor
 make oath and say that I was present at and did personally superintend the
 survey represented by this plan and that the survey and plan are correct.
 The said survey was completed on the 14th day of March 1960.

Sworn before me this
 16 day of March 1960

DLS

Operator: MURPHY-CANADA OIL COMPANY

[Signature]
[Signature]

A Commissioner for taking affidavits within the Province of British
 Columbia

APPROVED

Surveyor General

OTTAWA

FORM "B"

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

For the period from FEBRUARY 26th, 1960
to FEBRUARY 28th, 1960.

REPORT of ~~COMPLETION~~
~~WORK~~
~~RECOMPLETION~~ of a Well
~~SUSPENSION~~
~~ABANDONMENT~~

Permit No. 1397.

Name of well MURPHY-CANADA, ALEXANDRA FALLS NO. 1. Lease No.
Registered owner MURPHY-CANADA OIL COMPANY. Drilling Company PETER BANDER DRILLING
Location . . . 63° 28' N. Lat. 116° 34' W. Long.
Survey description, if available
(Corrected from 1010')
Elevation: Ground 976 Last previous depth
Kelly bushing. 986.55 Present depth . . . 3,137'
Spudded . . January 21st, 1960 Finished drilling Feb. 26 Rig Released
7 P.M. Feb. 28th.
Deviations from vertical . . Max. 4° 45' - Average 2°

CASING RECORD

Date	Size O.D.	Weight lbs/ft	Grade	Set at feet	Sacks Cement	Top of Cement
1 <u>Jan. 29</u>	<u>8-5/8</u>	<u>24</u>	<u>J-55</u>	<u>364</u>	<u>190</u>	<u>To surface</u>
2.						
3.						
4.						

TUBING RECORD

Size	Wt. Lbs/foot	Grade	Amount	Landed Depth	Remarks
.					
.		<u>NONE</u>			
Wellhead		(Manufacturer).	(Size).	(Series)	

Producing Zone and formation

Cord intervals

..... 2143 - 2164 - Recovered 12 feet

Interval logged: E-log⁺ (Induction) 338-3132'. Other logs . Sonic . Gamma . 200Q-3135'.

R-log

M-log 2000 - 31.35' . . .

Velocity log

The above logs ~~(will be)~~
(will be) submitted in accordance with Section 65 of the Regulations.

DRILL STEM TESTS

[illegible]

(If space insufficient, attach further sheet)

(Strike out the non-applicable) (Completion) (Rework) (Recompletion)

Perforations Bullet.

Shootings

Hydraulic fracturing

Chemical treatment

Date initial production tests

Initial production data

Pumping or flowing

Plug back

Other

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CEMENT PLUGS SET

<u>Date</u>	<u>Plug set at</u>	<u>Sacks cement</u>	<u>Method</u>	<u>Top found at</u>
Feb. 26	3137. - 2900	. . . 77. . .	(Displaced . .	- 2900
Feb. 26	2700 - 2400	. . . 120 . .	((	. 2419
Feb. 27	2300 - 2000	. . . 120 . .	(	. 1980
Feb. 27	440 - 220	. . . 60 . .	(Drill	. 450 - 250 .
Feb. 28	20 - 0	. . . 12 . .	(Pipe	
			Manually. . .	

Washed well samples have been sent to Geological Survey of Canada, Calgary
will be

Cores will be stored at . . . **Calgary, Alberta**

Core analysis (was made) of the Intervals . 2143. - 2164
(to be made)

Oil analysis (was made) of the Intervals.
(to be made)

Gas analysis (was made) of the Intervals.
(to be made)

Water analysis (was made) of the Intervals.
(to be made)

The above analyses (are)
(will be) submitted in accordance with Section 70(2) of
the Regulations.

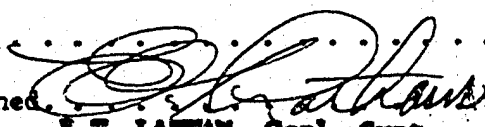
ADDITIONAL DETAILS AND COMMENTS

.

. A 2 inch pipe, four feet above ground level, was placed at centre of well
bore to identify well location.

.

.

Signed  Address **Amurco Oil Company**
E.T. LATHAM, Genl. Supt. **703 - 5th St. S.W.,**
Date **February 29th, 1960** **Calgary, Alberta.**

(To be submitted in triplicate in accordance with Sections
68, 69, 70 and 71, of the Territorial Oil and Gas Regulations
to the Oil Conservation Engineer at Calgary, Alberta.)

CANADA

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

ABANDON

or

A Wall

(Strike out operation which does not apply)

In accordance with Sections 43 & 49 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to

Permit No. 1397.

And Gas

Lease No.

Registered in the name of . ~~Murphy-Canada~~
Oil Company . 703 . 5th St. S.W. . Calgary .

Ground surface . . 976 . . . ft.
Depth - 3137 . . feet. Elevation above sea level:

Ground surface . . 976 . . . ft.

Depth - 3137. feet. Elevation above sea level:

Kelly bushing . 986.55 . . ft.

Location . 60° 28' N. Lat. . 116° 54' W. Long.

. (N. of S. boundary) (Permit No.)
 (S. of N. boundary) of (Lease No.)
 (W. of E. boundary) of (Permit No.)
 (E. of W. boundary) (Lease No.)

Survey description, if available

CASING RECORD

<u>Size O.D.</u> <u>inches</u>	<u>Weight</u> <u>lbs/ft</u>	<u>Grade</u>	<u>Amount</u> <u>feet</u>	<u>Set at</u> <u>feet</u>	<u>Sacks</u> <u>cement</u>	<u>Method</u>	<u>to be</u> <u>withdrawn</u>
1 2-5/8	24	J-55		364	190		HOME
2							
3							
4							

OIL, GAS AND WATER

Oil from . ~~212~~ .feet tofeet Fromfeet tofeet with
sacks cement

Oil from . **#1** . feet to feet From feet to feet with
 sacks cement

Surface and bottom plugs:

1. from 3137 .feet to 2900 .feet with . 77 .sacks cement.
2. from 2700 .feet to 2400 .feet with .129 .sacks cement.
3. from 2300 .feet to 2000 .feet with 120 .sacks cement.
4. from 440 feet to 220 feet with 60 sacks cement
5. from 20 feet to Surface 10 sacks cement
Date of last operation . February 18th, 1960. Total depth . . 3137' . . .
Nature of liquid left in well Heavy Drilling Mud level from surface . . Pull . . .
on suspension or abandonment

The following logs
have been

run E. Log (Induction) 338 - 3132', Sonic -
Gamma 2000 - 3135', Micro Caliper 2000 -
3135'.

Produced from . . . ~~No Production~~ . . . zone and . . .
on abandonment of a well which ~~has~~ been on production.

Present condition of well in addition to above
 **Inactive, standing full of drilling fluid.**

On abandonment or suspension of drilling we shall comply with Sections 68, 69 and 70 of the Regulations.

Program of operation not included above. Two inch pipe protruding from centre of well bore four feet above ground level to identify well location. Clean up and level surface to close to original condition.

Responsible agents of permittee or lessee in charge of operation:

At well Mr. Angus McKenzie Postal address May River, N.W.T.
F.G. Kirby - Expl. Mgr. Amarex Oil Company
At registered office E.T. Latimer, Genl. Supt. Postal address 703 - 5th St. S.W.,
Calgary, Alberta

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

dated at Calgary this 4th day of March 1960.

Signed by
GENERAL SUPERINTENDENT.

This program is approved subject to the following provisions

..... confirming oral approval to abandon.....
.....
.....
.....

..... 7th March 1960.....
Date

..... B. H. Shum.....
Oil Conservation Engineer

(To be submitted in triplicate to the Oil Conservation
Engineer at Calgary, Alberta.)

C A N A D A

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

NOTICE OF INTENTION TO BEGIN DRILLING OPERATIONS

or

TO CARRY OUT A STRUCTURE TEST PROGRAM

In accordance with Section 58 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. . L397. . registered in the name of
Lease No.

Murphy-Canada Oil Company

TYPE OF WELL:

Wildcat WILDCAT

Development

Expected total depth 3,200 feet, in the

formation of . . . ~~PreCambrian~~ . . . age.

The well will be located at . . . 60° 28' . . . N. Lat. 116° 56' . . . W. Long.

11,000' (New or S. boundary) (Permit No. 1387)

to that † (S. of N. boundary) of (Lease No.)

(W. of E. boundary) of (Permit No.)
 (E. of W. boundary) (Lease No.)

Survey description of Location, if known

Approximate surface elevation of . . . 1.010 . . . feet above sea level.

Name of well . . . Murphy-Canada Alexandria Falls No. 1

Type of drilling rig . . . **Rotary**

Expected date of commencement . . . January 5th, 1960

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

	<u>Size O.D.</u> <u>Inches</u>	<u>Weight</u> <u>lbs/ft</u>	<u>Grade</u>	<u>Brand</u>	<u>New or</u> <u>Used</u>	<u>Estimated</u> <u>Depth</u>	<u>Sacks of</u> <u>Cement</u>
1.	8-5/8	26	J-55	JGL	New	310	200
2.	5-1/2	14	J-55	JGL	If Production established, casing		
3.	will be run and cemented at a depth relative to information obtained and as approved by Conservation Engineer.						

FORM "A"

C A N A D A

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

NOTICE OF INTENTION TO BEGIN DRILLING OPERATIONS

OR

TO CARRY OUT A STRUCTURE TEST PROGRAM

In accordance with Section 58 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. . 1397 . . registered in the name of Lease No.

Murphy-Canada Oil Company.

TYPE OF WELL:

Wildcat **WILDCAT**

Development

Expected total depth **1,200** feet, in the

formation of **Proterozoic** age.

The well will be located at . . . **60° 28'** N. Lat. **116° 54'** W. Long.

13,600' † (~~N. of S. boundary~~) (Permit No. . . **1397**)

19,750' † (S. of N. boundary) of (Lease No.)

19,750' † (~~W. of E. boundary~~) of (Permit No.)

(E. of W. boundary) (Lease No.)

Survey description of Location, if known

.

Approximate surface elevation of . . . **1,010** feet above sea level.

Name of well . . . **Murphy-Canada Alexandra Falls No. 1**

Type of drilling rig . . . **Rotary**

Expected date of commencement . . . **January 5th, 1960**

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

Size O.D. Inches	Weight lbs/ft	Grade	Brand	New or Used	Estimated Depth	Sacks of Cement
1. 8-5/8	 24	 J-55	 SL	 New	 310	 200
2. 5-1/2	 14	 J-55	 SL	If Production established, casing		
3.	will be run and cemented at a depth relative to information obtained and as approved by Conservation Engineer.					

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

..... Slava Field Approximately 2,000'
..... Fraser's Approximately 2,700'
..... Compton Wash Approximately 3,100'
.....

An electric log will be run Other logs will be run Micro Log &
will will possibly
will will R. A.

STRUCTURE TEST PROGRAM

~~Proposed number of holes . . . 23 . . . Maximum well depth . . . 900 . . .~~
~~enclosed within an area bounded by~~

~~. 60° . 00' to 60° 30' . N. Latitudes~~

~~. 116° 15' to 117° 00' . W. Longitudes~~

An electric log will be run Other logs will be run possibly
will will R. A.

Name and address of drilling contractor ~~Seaton Engineering & Drilling Co., Ltd.,~~
Peter Bayden Drilling Ltd., . . .
.....
.....

Responsible agents of permittee or lessee in charge of operation:

At well ~~Amurex Oil Company~~ Postal address Bay River, E.W.F. . .

At registered E.T. LATHAM AMUREX OIL COMPANY
office F.G. KIRBY Postal address .703-.5th.ST..S.W. CALGARY

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

Dated at CALGARY, this 18th . . . day of DECEMBER . . . 19 59 . .

Signed by E.T. Latham

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

..... Attention is drawn to Section 60 subsections 2. and 3
of the Territorial Oil and Gas Regulations.
.....
.....
.....

21 Dec., 1959.

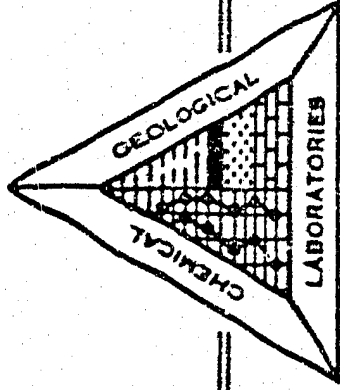
Date

B.H. Thomas
Oil Conservation Engineer.

(To be submitted in triplicate to the Oil Conservation Engineer at least 15 days prior to the commencement of drilling)

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON — CALGARY — REGINA — FORT ST. JOHN



March 15, 1960

Laboratory Report Number C2757

Alexander Falls #1

(2145.0' - 2163.6')

10568 - 114 St.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON, ALBERTA

FULL DIAMETER CORE STUDY

PHONES 25624
47562

OPERATOR **Murphy-Canada Oil Company**

LOCATION **116° 51' 39" N. Long.
67° 04' 30" N. Lat.**

FIELD

Northwest Territories

WELL NO.

Alexander Falls #1

FORMATION

DEPTHS **2145.0'-2163.6'** DATE **March 15, 1960** LAB NO. **C2757**

Footage of

formation cored

No. of representative samples selected for analysis

10.

FEET OF CORE:

Received at laboratory for analysis

18.6'

Compared (to tested samples)

7.2'

Represented by samples

11.4'

Dame sections not represented

Badly fractured sections not represented

SUMMARY OF REPRESENTED SECTIONS:

Weighted average porosity

2.20 %

Maximum porosity

5.7 %

Weighted average K_H permeability

0.01 md.

Minimum porosity

1.0 %

Weighted average K' permeability (ON 16.6')

<0.01 md.

Maximum K_H permeability

0.05 md.

Weighted average vertical permeability

<0.01 md.

Minimum K_H permeability

<0.01 md.

Weighted average maximum permeability

0.01 md.

Maximum vertical permeability

<0.01 md.

Porosity Feet

40.88

Minimum vertical permeability

<0.01 md.

CORE WITH MAXIMUM PERMEABILITY:

10.0 md. or greater

between 1.0 and 9.9 md.

less than 1.0 md.

inclusive

Footage

10.6'

Weighted average porosity

%

%

2.20

Weighted average K_H permeability

md.

md.

0.01 md.

Weighted average vertical permeability

md.

md.

<0.01 md.

Porosity feet

40.88

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Operator **Murphy-Canada Oil Company** Well No. **Alexander Falls #1** Lab. No. **G2757** Date **March 15, 1960**

Sample Number	Midpoint of Sample in ft.	Representative of Feet	Footage Rep.	Vertical Permeability md.	K' md.	Porosity %	Porosity Feet	Description
Core Number 1								
1	2145.4	2145.0-2146.0	1.0	<0.01	<0.01	2.2	2.20	R1 D C
2	2146.2	2146.0-2147.0	1.0	<0.01	<0.01	3.4	3.40	R2 D SV C
3	2147.7	2147.0-2148.0	1.0	<0.01	<0.01	2.5	2.50	R2 D C
4	2148.5	2148.0-2149.0	1.0	<0.01	<0.01	4.0	4.00	R2 D SV C
5	2149.5	2149.0-2150.0	1.0	<0.01	<0.01	4.2	4.20	R2 D SV C
6 *	2150.5	2150.0-2151.0	1.0	<0.01	0.02	5.7	5.70	R2 D SV C VF
7*	2151.7	2151.0-2152.0	1.0	<0.01	<0.01	1.6	1.60	R2 D C VF
Similar to #8		2152.0-2153.0	1.0	<0.01	<0.01	1.1	1.10	R2 D C VF
8	2153.4	2153.0-2154.0	1.0	<0.01	<0.01	1.1	1.10	R2 D C VF
Similar to #8		2154.0-2155.6	1.6	<0.01	<0.01	1.1	1.76	R2 D C VF
Similar to #9		2155.6-2157.0	1.4	<0.01	<0.01	2.4	3.36	R2 D C VF
Similar to #9		2157.0-2158.0	1.0	<0.01	<0.01	2.4	2.40	R2 D C VF
9	2158.6	2158.0-2159.4	1.4	<0.01	<0.01	2.4	3.36	R2 D C VF
Similar to #10		2159.4-2161.0	1.6	<0.01	<0.01	1.0	1.60	R2 D C
10	2162.0	2161.0-2163.0	2.0	<0.01	<0.01	1.0	2.00	R2 D C
Similar to #10		2163.0-2163.6	0.6	<0.01	<0.01	1.0	0.60	R2 D C

* Conventional Small Plug Analysis.

CORE DESCRIPTION SYMBOLS

R1	Slightly reactive to cold 15% HCl
R2	Reactive to cold 15% HCl
D	Dense
C	Cracks
SV	Slightly Vuggy
VF	Open Vertical Fracture
K _H	Maximum Horizontal Permeability
K _V	Taken 90° to the Horizontal Permeability

PROVINCE *N.W.T.*

LAST	0126
CASINO	8/8

TUBING	SET AT
OR LINER	338

FORMATION
: SHOW CORE RECOVERY:

1000

ION	DEPTH	REV.

OPERATIONS IN SEQUENCE AND REMARKS

R. P. & CH

RC SAMPLE

27 June Co

99129 up 31
99129

READ DW

FORMATION
(SHOW CORE RECOVERY)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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LOCATION	DEPTH	DEV.

OPERATIONS IN SEQUENCE AND REMARKS

256116

FEAR OF GOD

U. C. U.

SHOULD READ

FORMATION
(SHOW CORE & RECOVERY)

GIRANITE.

SECTION	DEPTH	DEV.

OPERATIONS IN SEQUENCE AND MEMORANDUM

Pump.

9. 15201

PC of (30 May)

SHOULD READ

WELL NO. MURPHY CANADA OIL ALEX #1	LOCATION 60°38'N 116°54'W	FIELD OR AREA WILDCAT	PROVINCE N.W.T.
CONTRACTOR PETER BAWDEN DRILL CO	RIG NO. LEE, C, MOORE	MANUFACTURER OILWELL	LAST CASING TUBING 63 14
DRILL PIPE 45	TYPE/JOINT FT	PRIME MOVERS	SIZE 8 1/2
STATION			WEIGHT 24
			GRADE J-55
			NO. OF 10
			10-55
			338
			190
			4 9/16 C.A.H.A.

TIME DISTRIBUTION - HOURS			
NO.	DRILLING ASSEMBLY AT END OF TOUR	BIT RECORD	MUD RECORD
45	STANDS B.P. 2693.14	BIT NO. 12	TIME 3096
12	SINGLES B.P. 372.07	SIZE 1 1/2	WEIGHT 3096
		HTC	VISC. SEC. 14
		WTR	W.L.C.C. 63
		CUT	FLTR. CR. 14
		OUT	NO. 3
		001	CONV. 4
		97920	TIME LOG
		3096	ELAPSED TIME
		3075	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1	STANDS B.P. 279	TOTAL FTS. 21	1200 1215 4
	BIT ON C.R. 8	TOTAL NO. RUN 6.4	1215 200 1 1/2
		CONV. OF BIT 0.00	200 645 4 1/2
		REARER NO. 28	200 700 4
		REARER TYPE	200 800 1
	TOTAL 3096.00		
	WT. OF STRING 612.00		

TIME DISTRIBUTION - HOURS			
NO.	DRILLING ASSEMBLY AT END OF TOUR	BIT RECORD	MUD RECORD
41	STANDS B.P. 2694.09	BIT NO. 17	TIME 3096
12	SINGLES B.P. 30.03	SIZE 1 1/2	WEIGHT 3096
		HTC	VISC. SEC. 170
		WTR	W.L.C.C. 23
		CUT	FLTR. CR. 23.2
		OUT	NO. 10.5
		001	CONV. 10.5
		97920	TIME LOG
		3113	ELAPSED TIME
		3075	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1	STANDS B.P. 279	TOTAL FTS. 28	800 845 3/4
	BIT ON C.R. 8	TOTAL NO. RUN 11.34	845 900 1/4
		CONV. OF BIT 0.00	900 230 2 1/2
		REARER NO. 1402	230 300 1/2
		REARER TYPE	300 400 1
	TOTAL 3113.00		
	WT. OF STRING 612.00		

TIME DISTRIBUTION - HOURS			
NO.	DRILLING ASSEMBLY AT END OF TOUR	BIT RECORD	MUD RECORD
45	STANDS B.P. 2694.09	BIT NO. 17	TIME 3096
1	SINGLES B.P. 30.03	SIZE 1 1/2	WEIGHT 3096
		HTC	VISC. SEC. 170
		WTR	W.L.C.C. 23
		CUT	FLTR. CR. 23.2
		OUT	NO. 10.5
		001	CONV. 10.5
		97920	TIME LOG
		3113	ELAPSED TIME
		3075	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1	STANDS B.P. 279	TOTAL FTS. 28	800 845 3/4
	BIT ON C.R. 8	TOTAL NO. RUN 11.34	845 900 1/4
		CONV. OF BIT 0.00	900 230 2 1/2
		REARER NO. 1402	230 300 1/2
		REARER TYPE	300 400 1
	TOTAL 3113.00		
	WT. OF STRING 612.00		

[illegible]

N. W. J.

je-5

PRIME MOVERS

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

[illegible]

DRILLER W. H. L. L. L. L.

[illegible]

WELL: MURPHY CANADA Alex H-1
CONTRACTOR: PETER BOWEN DRILLING CO.
PRIME MOVERS: 475 514

LOCATION: 60°32'N 116°54'W
RIG NO: 11
DEPT: LEE C. McURE

FIELD OR AREA: W. L. DEPT
MANUFACTURER: OILWELL
LINES: 6 1/2
STROKES: 14

PROVINCE: N.W.T.
LAST CASING: 338
TUBING: 180
OR LINER: 470 Casing

SIZE: 9 5/8
WEIGHT: 24
GRADE: J-55
NO. 275: 12
NO. CAS. NO: 10-5

TIME DISTRIBUTION - HOURS
MORNING TOUR FROM: 4 3/4
DAY TOUR FROM: 2 1/2
EVENING TOUR FROM: 1 1/4

DRILLING ASSEMBLY AT END OF TOUR
STANDS: 37
SINGLES: 12
D.C.: 6 1/8
O.D.: 372.07
I.D.: 30.00
TOTAL: 2554.82
WT. OF STRING: 62,000

BIT RECORD
BIT NO: 11
SIZE: 7 7/8
HTC
D.W.V.
LWT
QNT
5310
2550
2478
TOTAL FTS: 72
TOTAL HR. RUN: 1 1/2
COND. OF BIT: FAIR
REARER NO.:
REARER TYPE:

MUD RECORD
TIME: 12:30
WEIGHT: 9.0
VISC. SEC: 10.4
W.L.C.C: 10.2
FLTH. CH: 3/32
FV: 11.0
MUD & CHEMICALS ADDED: STARCH 250

FOOTAGE
FROM: 2534
TO: 2558
DEVIATION: 3 1/2

FORMATION
SHOW CORE RECOVERY: 1
D.R.G. SER. V. BORE
SURVEY
TRIP FOR BIT # 12
BLIND TRANS.

STEEL LINE MEASUREMENT
SHOULD READ: 321
DRILLER: J. W. H. H. H.

DRILLING ASSEMBLY AT END OF TOUR
STANDS: 36
SINGLES: 1
D.C.: 6 1/8
O.D.: 372.07
I.D.: 30.00
TOTAL: 2590.00
WT. OF STRING: 62,000

BIT RECORD
BIT NO: 12
SIZE: 7 7/8
HTC
D.W.V.
LWT
QNT
86761
2550
40
TOTAL FTS: 54
TOTAL HR. RUN: 5/4
COND. OF BIT: FAIR
REARER NO.:
REARER TYPE:

MUD RECORD
TIME: 9:00
WEIGHT: 9.0
VISC. SEC: 11.6
W.L.C.C: 10.4
FLTH. CH: 3/32
FV: 10.5
MUD & CHEMICALS ADDED: GEL 2000 LBS, DAROHITE 1000 LBS, LIME 500 LBS, CASTIC 400 LBS, HALCOSEAL 6 SKS

FOOTAGE
FROM: 2558
TO: 2590
DEVIATION: 3 1/2

FORMATION
SHOW CORE RECOVERY: 1
D.R.G. SER. V. BORE
D.R.G. - ADJUST CIRC
PULL UP 15 STANDS
BUILDING BEL PACK PHASE # 2

STEEL LINE MEASUREMENT
SHOULD READ: 321
DRILLER: J. W. H. H. H.

DRILLING ASSEMBLY AT END OF TOUR
STANDS: 37
SINGLES: 12
D.C.: 6 1/8
O.D.: 372.07
I.D.: 30.00
TOTAL: 2590.00
WT. OF STRING: 62,000

BIT RECORD
BIT NO: 12
SIZE: 7 7/8
HTC
D.W.V.
LWT
QNT
86761
2550
49
TOTAL FTS: 74
TOTAL HR. RUN: 7/4
COND. OF BIT: RUN
REARER NO.:
REARER TYPE:

MUD RECORD
TIME: 12:22
WEIGHT: 9.0
VISC. SEC: 10.4
W.L.C.C: 10.2
FLTH. CH: 3/32
FV: 11.0
MUD & CHEMICALS ADDED: DARO SEAL 14 SKS, DIESEL FUEL 20 BRLS, GEL 6100 LBS, SANDUST 271 SKS

FOOTAGE
FROM: 2590
TO: 2599
DEVIATION: 3 1/2

FORMATION
SHOW CORE RECOVERY: 1
D.R.G. SER. V. BORE
BUILD BEL PACK PHASE # 2
RUN IN
CLEAN OUT TO BOTTOM
DRAINING
PULL UP 2 STDS - Pump PHASE INTO FORMATION
HEED OK - RUN IN - BREAK CIRC
DRAINING

STEEL LINE MEASUREMENT
SHOULD READ: 321
DRILLER: J. W. H. H. H.

[illegible]

	SIZE	WEIGHT	GRADE	NO. JTS.	NO. CDS. MD.
LAST					
CASING	8 3/8	24	J-55	10	10.55
TUBING	NET WT	CONTENT	REMARKS		
ON LINE	338	190	4 7/8 CASHZ		

DRILLING ASSEMBLY AT END OF TOUR			BIT RECORD			MUD RECORD			FOOTAGE		CORR		FORMATION (SHOW CORE RECOVERY)		PUMP NO.		PUMP NO.		METHOD	
NO.	STANDS S.P.	1908.61	BIT NO.	9	TIME	1200	FROM	TO	DR. D. CORR. C	NO.	FORMATION	W.T. ON BIT	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000	W.T. ON 10000
32	STANDS S.P.	1908.61	BIT NO.	9	TIME	1200	2299	2310	12			80	22	42	6 1/2	58				
12	6 1/8	372.07	SIZE	7 1/4	W.C.C.	240														
			TYPE	OSC16	W.C.C.	8.4														
			NO.	CUT	PLTR. CR.	3/32														
			SIZE	OUT	NO.															
			SER. NO.	36764	NO. CONT. %															
			DEPTH OUT																	
			DEPTH IN	2256																
1	5 7/8	2.79	TOTAL FTS.	54																
			TOTAL NO. RUN	34																
			COND. OF BIT	LN																
			WEARER NO.																	
			WEARER TYPE																	
			WT. OF STRING	51000																
RIG SCR ✓ BOB. OK. DRUG SLOWLY LOSING VOLUME CIRC. BUILDING VOLUME PULL 10 SIPS BUILDING BACK PACK Plug #1																				
STEEL LINE MEASUREMENT SHOULD READ DRILLER																				
NO. 32 STANDS S.P. 1908.61 BIT NO. 9 TIME 1200 FROM 2310 TO 2338 28'D CORR. 12 FORMATION W.T. ON BIT 80 W.T. ON 10000 28 W.T. ON 10000 400 W.T. ON 10000 6 1/2 W.T. ON 10000 58																				
NO. 12 6 1/8 372.07 SIZE 7 1/4 W.C.C. 240 TYPE OSC16 W.C.C. 8.4 NO. CUT PLTR. CR. 3/32 SIZE OUT NO. 36764 NO. CONT. % DEPTH OUT DEPTH IN 2256 TOTAL FTS. 82 TOTAL NO. RUN 634 COND. OF BIT WEARER NO. WEARER TYPE WT. OF STRING 51000																				
BUILDING BACK PACK Plug #1 SER RIG CHECK B.O.P's RUN IN CLEAN OUT FILL DRUG SURVEY DRUG																				
STEEL LINE MEASUREMENT SHOULD READ DRILLER																				
NO. 33 STANDS S.P. 1908.88 BIT NO. 9 TIME 1200 FROM 2338 TO 2375 37'D CORR. 12 FORMATION W.T. ON BIT 80 W.T. ON 10000 28 W.T. ON 10000 400 W.T. ON 10000 6 1/2 W.T. ON 10000 58																				
NO. 12 6 1/8 372.07 SIZE 7 1/4 W.C.C. 240 TYPE OSC16 W.C.C. 8.4 NO. CUT PLTR. CR. 3/32 SIZE OUT NO. 36764 NO. CONT. % DEPTH OUT DEPTH IN 2256 TOTAL FTS. 102 TOTAL NO. RUN 9 COND. OF BIT WEARER NO. WEARER TYPE WT. OF STRING 51000																				
DRINKING SER RIG - CHECK B.O.P's PULL OUT BUILD VOLUME IN TANKS RUN IN CLEAN 12' TO BOTTOM DRILLING																				
STEEL LINE MEASUREMENT SHOULD READ DRILLER																				

SIGNATURE OF CONTRACTOR'S REPRESENTATIVE

SIGNATURE OF OPERATOR'S REPRESENTATIVE

[Signature]

PROVINCE		N.W.T.	
LAST		SIZE	85/8
CABING		DET AT	
TUBING			32
OR LINER			

SIZE	WEIGHT	GRADE	NO. OF	NO. COIL NO.
85/9	24#	T-55	10	10.10
DET AT	CENTRY	REMARKS		
338	190	0.45% Crack		

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[illegible]

PROVINCE	N.W.T.
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LAST
CASINO
CASINO

TUBING
ON LINE

FOR
SHOW CO

(continued)

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OPERATIONS IN SEASIDE

1. D. C.

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U.K.L.
J.N.N

G, RC

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WULD READ

1 SHOW

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1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

SECTION	
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OF OPERATIONS IN NEG

S. P.

222

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SHOULD READ

SHOW

Country	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050
Japan	7	8	10	12	14	16	18	20	22	24	26
Germany	10	11	12	13	14	15	16	17	18	19	20
France	11	12	13	14	15	16	17	18	19	20	21
Italy	12	13	14	15	16	17	18	19	20	21	22
Spain	13	14	15	16	17	18	19	20	21	22	23
Sweden	14	15	16	17	18	19	20	21	22	23	24
United Kingdom	15	16	17	18	19	20	21	22	23	24	25
United States	16	17	18	19	20	21	22	23	24	25	26
Canada	17	18	19	20	21	22	23	24	25	26	27
South Korea	18	19	20	21	22	23	24	25	26	27	28
China	19	20	21	22	23	24	25	26	27	28	29
India	20	21	22	23	24	25	26	27	28	29	30
Brazil	21	22	23	24	25	26	27	28	29	30	31
South Africa	22	23	24	25	26	27	28	29	30	31	32
Indonesia	23	24	25	26	27	28	29	30	31	32	33
Nigeria	24	25	26	27	28	29	30	31	32	33	34
Kenya	25	26	27	28	29	30	31	32	33	34	35
Uganda	26	27	28	29	30	31	32	33	34	35	36
Zambia	27	28	29	30	31	32	33	34	35	36	37
Malawi	28	29	30	31	32	33	34	35	36	37	38
Mozambique	29	30	31	32	33	34	35	36	37	38	39
Angola	30	31	32	33	34	35	36	37	38	39	40
Guinea	31	32	33	34	35	36	37	38	39	40	41
Sierra Leone	32	33	34	35	36	37	38	39	40	41	42
Liberia	33	34	35	36	37	38	39	40	41	42	43
Ivory Coast	34	35	36	37	38	39	40	41	42	43	44
Ghana	35	36	37	38	39	40	41	42	43	44	45
Senegal	36	37	38	39	40	41	42	43	44	45	46
Gambia	37	38	39	40	41	42	43	44	45	46	47
Sierra Leone	38	39	40	41	42	43	44	45	46	47	48
Liberia	39	40	41	42	43	44	45	46	47	48	49
Ivory Coast	40	41	42	43	44	45	46	47	48	49	50
Ghana	41	42	43	44	45	46	47	48	49	50	51
Senegal	42	43	44	45	46	47	48	49	50	51	52
Gambia	43	44	45	46	47	48	49	50	51	52	53
Sierra Leone	44	45	46	47	48	49	50	51	52	53	54
Liberia	45	46	47	48	49	50	51	52	53	54	55
Ivory Coast	46	47	48	49	50</						

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SECTION

OF OPERATIONS IN SEC

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Bill

SHOULD READ

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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

[illegible]

SIGNATURE OF CONTRACTOR'S REPRESENTATIVE

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Walter S. Hanting

PERMANENT

DRILLING ASSEMBLY AT END OF TOUR				BIT RECORD				MUD RECORD				FOOTAGE		CORRECTION		FORMATION (SHOW CORE RECOVERY)		ROTARY TIME		PUMP TIME		PUMP NO.		PUMP NO.		METHOD	
NO.	STANDS D.P.	FEET	BIT NO.	TIME	WEIGHT	W.L.C.C.	FLTR. CL.	NO. CONT.	FROM	TO	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
29	STANDS D.P.		BIT NO.	1230	200	700			2160	2145																	
12	SINGLES D.P.		BIT NO.	1012	102	103																					
	D.C.	6 1/8	W.C.	61	67	92																					
	D.C.	32.07	W.C.	10.6																							
1	STANDS D.P.	2.15	BIT NO.	75																							
	SINGLES D.P.		BIT NO.																								
	D.C.		W.C.																								
	D.C.		W.C.																								
1	STANDS D.P.	2.19	BIT NO.	25																							
	SINGLES D.P.		BIT NO.																								
	D.C.		W.C.																								
	D.C.		W.C.																								
1	STANDS D.P.	40.00	BIT NO.																								
	SINGLES D.P.		BIT NO.																								
	D.C.		W.C.																								
	D.C.		W.C.																								
1	STANDS D.P.	2.79	BIT NO.	25																							
	SINGLES D.P.		BIT NO.																								
	D.C.		W.C.																								
	D.C.		W.C.																								
1	STANDS D.P.	40.00	BIT NO.																								
	SINGLES D.P.		BIT NO.																								
	D.C.		W.C.																								
	D.C.		W.C.																								

[illegible]

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SIGNATURE OF CONTRACTOR'S REPRESENTATIVE

SIGNATURE OF OWNER'S REPRESENTATIVE

DECEMBER

[illegible]

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TIME DISTRIBUTION - HOURS																																			
	MORNING	DAY	EVE.																																
BE UP & TEND DOWN																																			
DRILLING ACTUAL		6	5 1/4																																
HEAVING ?		1 1/2																																	
CONDITIONING MUD & CIRCULATIONS		1 1/4																																	
TRIP	1		2																																
SERVICE			1 1/4																																
OR OPERATION, SURVEY																																			
TEST S.O.P.																																			
OUT OF THE LINE																																			
WORKING																																			
DRILLING																																			
WIRE LINE LOGGING																																			
WINDMILL GRABBING & CEMENTING																																			
WAITING ON U. CEMENT	2																																		
WELL SHED TEST																																			
OTHER	5 1/2	4	1 1/2																																
FINISH																																			
<table border="1"> <thead> <tr> <th colspan="4">TIME SUMMARY</th> </tr> <tr> <th></th> <th>MORNING</th> <th>DAY</th> <th>EVE.</th> </tr> </thead> <tbody> <tr> <td>A. WORKING</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B. TRIPPING, TRIP</td> <td></td> <td></td> <td></td> </tr> <tr> <td>C. SHEDDING</td> <td></td> <td></td> <td></td> </tr> <tr> <td>D. TESTING</td> <td></td> <td></td> <td></td> </tr> <tr> <td>E. ADDITIONAL</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TOTAL</td> <td>8</td> <td>8</td> <td>8</td> </tr> </tbody> </table>				TIME SUMMARY					MORNING	DAY	EVE.	A. WORKING				B. TRIPPING, TRIP				C. SHEDDING				D. TESTING				E. ADDITIONAL				TOTAL	8	8	8
TIME SUMMARY																																			
	MORNING	DAY	EVE.																																
A. WORKING																																			
B. TRIPPING, TRIP																																			
C. SHEDDING																																			
D. TESTING																																			
E. ADDITIONAL																																			
TOTAL	8	8	8																																
<table border="1"> <thead> <tr> <th colspan="4">TIME SUMMARY</th> </tr> <tr> <th></th> <th>MORNING</th> <th>DAY</th> <th>EVE.</th> </tr> </thead> <tbody> <tr> <td>DAY WORK</td> <td></td> <td></td> <td></td> </tr> <tr> <td>NIGHT WORK</td> <td></td> <td></td> <td></td> </tr> <tr> <td>WELL WORK</td> <td></td> <td></td> <td></td> </tr> <tr> <td>OTHER</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TOTAL DAY WORK</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				TIME SUMMARY					MORNING	DAY	EVE.	DAY WORK				NIGHT WORK				WELL WORK				OTHER				TOTAL DAY WORK							
TIME SUMMARY																																			
	MORNING	DAY	EVE.																																
DAY WORK																																			
NIGHT WORK																																			
WELL WORK																																			
OTHER																																			
TOTAL DAY WORK																																			
SIGNATURE OF CONTRACTOR'S REPRESENTATIVE																																			
SIGNATURE OF OPERATOR'S REPRESENTATIVE																																			
REMARKS																																			

NO.

STANDS D.P.

FT.

BIT NO.

TIME

FROM

TO

DR. D

DR. C

NO.

FORMATION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

8

240"

75

HTC

W.C.C.

502

8

248"

05C3

1K14

1

274"

86722

MUD & CHEMICALS ADDED

BICARB 250 lbs

GEL 17 SAX

SAW/DUST 15 SAX

KELLY DOWN 1200"

TOTAL 502"

WT. OF STRING 150

DRILLER

W. O. C.

NO.

STANDS D.P.

FT.

BIT NO.

TIME

FROM

TO

DR. D

DR. C

NO.

FORMATION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

8 1/2

50767"

1

778

HTC

40

45

45

8

248.4"

05C3

416

1

274"

86722

MUD & CHEMICALS ADDED

GEL 25 5/8"

CIPART 50#

SP/DUST 5 5/8"

BICARB 105#

KELLY DOWN 200"

TOTAL 779.12"

WT. OF STRING 300

DRILLER

Frank Taskak

NO.

STANDS D.P.

FT.

BIT NO.

TIME

FROM

TO

DR. D

DR. C

NO.

FORMATION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

DEPTH

DEV.

DIRECTION

10

596.50"

1

778

HTC

530

800

900

1

30.15"

778

HTC

HTC

9.7

9.6

9.6

12

372.07"

05C3

416

MUD & CHEMICALS ADDED

GEL 800#

FAIR DRUG SP/DRUG 105#

KELLY DOWN 12.00"

TOTAL 1020.04"

WT. OF STRING 38.000

DRILLER

W. O. C.

DRILLING ASSEMBLY AT END OF TOUR				BIT RECORD				MUD RECORD				FOOTAGE		FORMATION (SHOW CORE RECOVERY)				ROTARY				PUMP				PUMP NO.				PUMP NO.			
NO.	STANDS D.P.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	FROM	TO	CLAMPED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
1	STANDS D.P.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	1700	1800	6	W.O.C.																
2	SINGLES D.P.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	1800	1900	6	W.O.C.																
3	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	1900	2000	6	W.O.C.																
4	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2000	2100	6	W.O.C.																
5	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2100	2200	6	W.O.C.																
6	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2200	2300	6	W.O.C.																
7	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2300	2400	6	W.O.C.																
8	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2400	2500	6	W.O.C.																
9	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2500	2600	6	W.O.C.																
10	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2600	2700	6	W.O.C.																
11	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2700	2800	6	W.O.C.																
12	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2800	2900	6	W.O.C.																
13	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	2900	3000	6	W.O.C.																
14	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	3000	3100	6	W.O.C.																
15	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	3100	3200	6	W.O.C.																
16	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR. CA.	NO. CONT. %	TYPE	AMT.	TYPE	AMT.	3200	3300	6	W.O.C.																
17	D.C.	PT.	BIT NO.	TIME	SIZE	WEIGHT	W.L.C.C.	FLTR.																									

[illegible]

PROVINCE	N.W.T.
LAST	
CASING	
TUBING	
ON LINER	

[illegible]

[illegible]

PROVINCE	<i>N. W. T.</i>	
LAST		
CASING		
TUBING		
OR LINER		

SIZE	WEIGHT	GRADE	NO. ITS.	NO. CUL. NO.
NET WT	CEMENT	REMARKS		

[illegible]

[illegible]

WELL **MURPHY CANADA ALEXANDRA #1**
 CONTRACTOR **PETER BOWDEN & CO.**

LOCATION **HAY RIVER**
 DERRICK **11**
 PRIME MOVERS **LEE C. MOORE**

FIELD OR AREA **WILDCAT**PROVINCE **N.W.T.**

LAST CASING
 TUBING
 OR LINER

FORMATION
 (SHOW CORE RECOVERY)

TIME DISTRIBUTION - HOURS

MORN. DAY EVE
 1 1/2 1/2
 1/2
 13 1/2 16 5 3/4
 1 2 1/2

14

8 8 8

8 8 8

8 8 8

8 8 8

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8 8 8

DRILLING ASSEMBLY AT END OF TOUR				BIT RECORD		MUD RECORD		FOOTAGE		FORMATION		DETAILS OF OPERATIONS IN REVERSE AND REMARKS	
NO.	STANDS D.P.	FT.	BIT NO.	TIME	WEIGHT	W.C.C.	FROM	TO	DR. D. NO.	DR. D. COR. C.	NO.	FORMATION	REMARKS
10	6 1/8	310.55	5	HTC	OSCIG	RR	326	335	RM	180	25	6 1/8	
							335	350	DRG				

DRILLER **G. McCormick**

DRILLING 12 1/4" Hole
Pick up DRILL COLLAR & TURN
DRILL 7 3/8" Hole