

IMPERIAL CARTRIDGE F-72

Drilling Authority No.

Date issued

WELL NAME Imperial Cartridge F-72

FIELD Wildcat

Area: Willow Lake

LOCATION: Unit

Section

Grid

Latitude 63°11'19" N.

Longitude 120°29'04" W.

From Established Reference Marker

Rig Release Date: 31-3-60

Status D & A

Information Release Date 31-3-62

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.



Drilling Authority No.

Date Issued

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
Resources Division

WELL COMPLETION DATA

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

Well name and number IMP CARTRIDGE F-72

Permit No. P & NG 2795 Lease No.

Imperial Oil Limited Exploratory Licence No. Not available
(Permitter, Licensee)

Imperial Oil Limited Exploratory Licence No. Not available
(Operator)

Location: Unit F Section 72 Grid 63°20' 120°15'

Latitude 63°11'19" N Longitude 120°29'04" W

From Established Reference Marker S. 53435' W. 38547' from NE Bdy. Permit 2795

	DATE	DEPTH	Pool (S)
Spudded	Feb. 26/60		Interval(s) open to production
Suspended			
Resumed			
Finished Drilling			
Deepened			Elevation: Gr. 1418.1
Complete (gas/oil)			K.B. 1828.87
Abandoned	Mar. 31/60	2256	Drilling Contractor & Rig No. I.O.L.
Rig released	Mar. 31/60	2256	Contractor's Licence No.

CASING RECORD

Casing Size (Inches)	Weight	Amount	Set at—	Sacks of Cement	Method
1. 7			307.5	100	
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION		CORE RECORD					
	Depth	Sub-Sea	From	To	Rec.	From	To	Rec.
PLEISTOCENE			655	679		1112	1137	
Glacial Drift			756	779		1286	1301	
			785	823		1410	1429	
CRET/DEVONIAN	240	+ 1189	835	869		1440	1448	
			870	893		1620	1621	
DEVONIAN Carb.	731	+ 698	900	943		2041	2045	
			950	973		2081	2098	
DEVONIAN Anhyd.	1102	+ 327	975	1020				
PRECAMBRIAN	2233	- 804	1021	1044				
			1044	1062				
			1070	1093				
			1094	1108				

LOG RECORD

Run No.	Type of Log	From	To
1	Electric	2257	308
1	Induction	2249	308
1	Microlaterolog	2258	500
1	Gamma Ray	2249	200
1	Sonic	2243	306

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bulks, Jet)				SERVICING RECORD (Acidizing, Fracking, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
April 1/60	2254	1954	65 sax and 2x C&C 1/2								
	1200	900	64 sax and 2x C&C 1/2								
	400	200	42 sax and 2x C&C 1/2								
	Surface		5 sax.								

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	P.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.R.H.P.	P.F.R.H.P.	I.H.P.	F.H.P.	REMARKS
1			980	1044	5 & 45	25	45	201	201	134	201	502	502	Rec. 420' of black, sulphurous muddy water. BHT 57°F.
2			1400	1448	50 & 20	15	20	368	368	67	134	721	721	Rec. 245' muddy fresh water. BHT 62°F.
3			2020	2081	60	30	30	637	637	210	536	1022	1022	Rec. 100' of mud and 1040' of salty water. BHT 94°F.

Lab. No.	Sample	From	To	Source	Remarks	PRESENT STATUS OF WELL			
						Oil	Gas	Dry	Surp.
								Abandoned	

Company Imperial Oil Limited

Signed by D.P.Y. ()

Total Well File Clerk

Date November 21st, 1961.

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

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CANADA
Department of Northern Affairs and National Resources
Northern Administration Branch
Resources Division

APPLICATION TO CHANGE A WELL NAME

Application is made hereby to change the name of the well, recorded in the Well-names Register as -

Imp Cartridge B-72

(OLD NAME)

Imp Cartridge F-72

(NEW NAME)

LOCATION

Unit F Section: 72 Grid Area: 63°20'-120°15'

Lat. 63° 11' 19" Long. 120° 29' 04"

REASON FOR WELL NAME CHANGE:

Survey ties to topography and air photographs taken subsequent to the original proposal for location show the well to be in unit F of Section 72 of grid area 63° 20' -120° -15'.

Dated at: Dawson Creek, B.C. this 20th day of May, 1960.

Signed by: Copy (T.G.) T. G. Waimore

L. Keeling

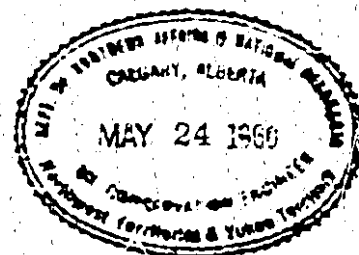
Title: District Exploration Engineer

Company: Imperial Oil Limited

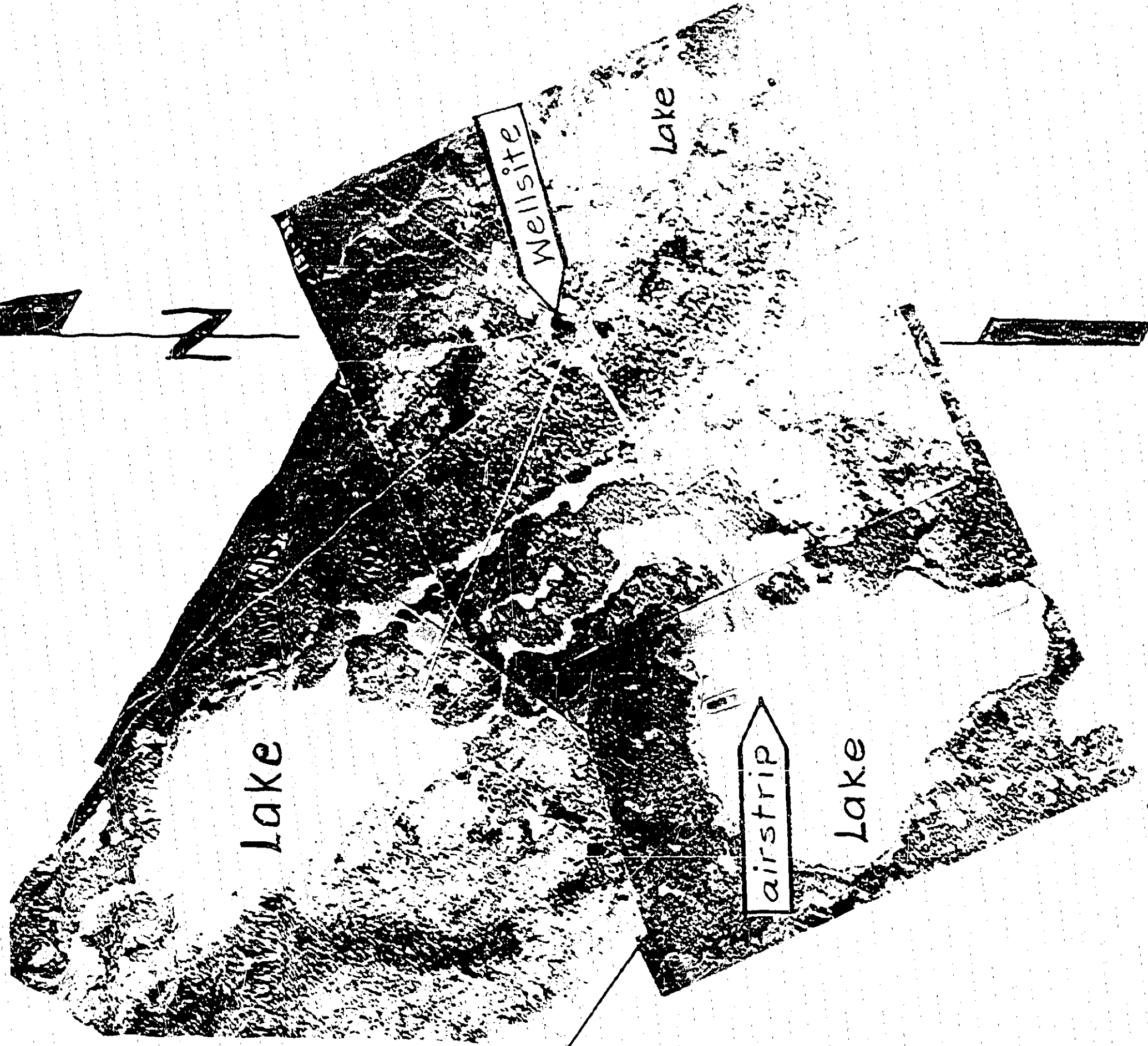
(FOR BRANCH USE ONLY)

This application has been examined and approved:

B. H. Shoms
Oil Conservation Engineer
N.W.T. & Y.T. Dept. of Northern
Affairs & National Resources -
Calgary, Alberta

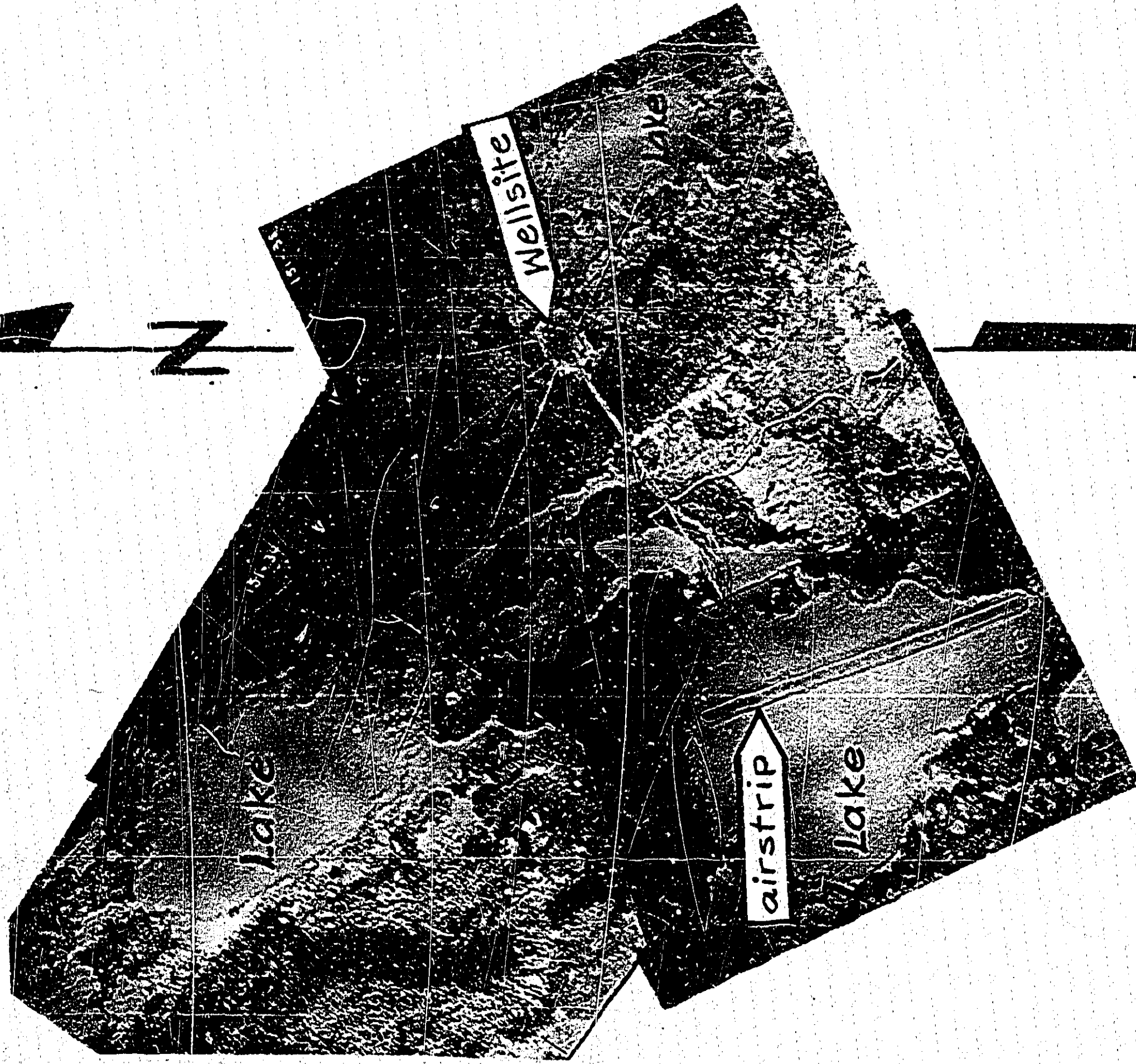


Imp Cartridge F-72

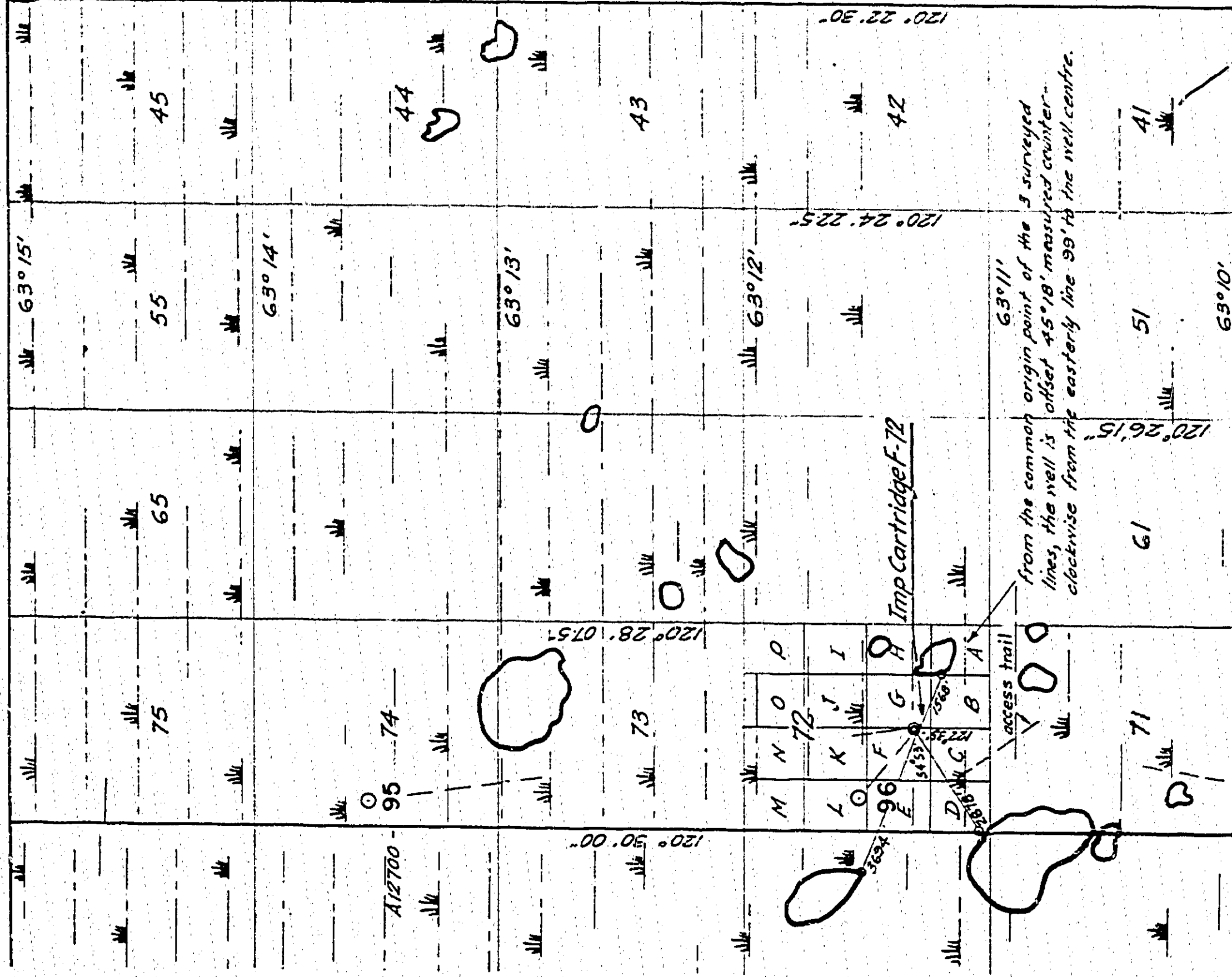


Imperial Oil Limited / air photo 11/5/57
showing well location, topography, and
points and part of a road route.
Photo to accompany location of
Section 11-70, approx. Flown April 1957
Com. by T. G. G. G. G. G.

Imp Cartridge F-72



Imperial Oil Limited air photo mosaic,
showing well location, topographic tie
points and part of access route.
Photo to accompany location plan.
Scale: 1"=900' approx. Flown: April 1960
Compiled: T.G. Warmore.



Location Plan for IMP CARTRIDGE F-72 in F-72-63°20'-120°15'
North West Territories . Scale: 2"=1 mile 1950
From Plan: Lat. 63°11'19" Long. 120°29'04"

LEGEND: Map Grid: Territorial Lands Act - Territorial Oil and Gas Regulations.
Due to remoteness of survey monuments the well is tied to topography for position.
Mapping by Canadian Aero Service Ltd, Ottawa, from R.C.A.F. photos flown in 1950.
Mapping control from shore photos.
Ground observation, I.O.L. photography and R.C.A.F. photos were used to confirm ground survey origins.
O denotes photo centres of R.C.A.F. photos. IMPERIAL OIL LIMITED
Ground survey control by: J. S. Watson B.C.S.

Nat. Topo. Series: 95P/5E

drawn by T.G.H.

K. S. Watson
Dist. Exp. Eng.

J. S. Watson
Witness

CT-4005

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

For the period from Feb. 26, 1960.

to March 31, 1960.

REPORT of ~~XXXXXXXXXX~~ of a Well
~~XXXXXXXXXX~~
 ABANDONMENT

Permit No. 7795.

Name of well . . . Imp Cartridge 3-72 Lease No.
 Registered owner Imperial Oil Limited. . . Drilling Company Warden Drilling Co.
 Location . . . 63° 11' N. Lat. 120° 29' W. Long.
 Survey description, if available
 Elevation: Ground . 1418.8 . . Last previous depth . 2251'
 Kelly bushing 1423.9 . . . Present depth
 Spudded . Feb. 26, 1960 Finished drilling Mar. 28/60
 March 31, 1960.
 Deviations from vertical . . . 0 - 1 1/2"

CASING RECORD

Date	Size O.D.	Weight lbs/ft	Grade	Set at feet	Sacks Cement	Top of Cement
1 Feb. 23/60	7"	20	J. 55	307.5	100	Surface
2						
3						
4						

TUBING RECORD

Size	Wt. Lbs/foot	Grade	Amount	Landed Depth	Remarks

Wellhead (Manufacturer) (Size) (Series)

Sections of well on completion of drilling	E-log	2257 - 308	Induction	2249 - 308
Producing Zone				
Injection Zone and formation				
Cord intervals	675 - 679	754 - 773	785 - 823	835 - 846
870 - 893	900 - 943	950 - 973	975 - 1020	1022 - 1024
1044 - 1052	1070 - 1093	1096 - 1108	1112 - 1137	1236 - 1300
1410 - 1429	1440 - 1448	1620 - 1621	1621 - 1623	2041 - 2045
2081 - 2098				
Interval logged: E-log	2257 - 308	Other logs	Induction	2249 - 308
R-log			Microlaterolog	2258 - 500
M-log			Gamma Sonic	2243 - 306
Velocity log			and Seismic Reference Survey	

The above logs ~~(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) ~~_____~~ ~~_____~~ ~~_____~~

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>
March 31	2254 - 1954	. . . 64 . . .	Displacement .	Not felt. . .
March 31	1200 - 900	. . . 64 . . .	Displacement .	. . 890' . . .
March 31	400 - 200	. . . 42 . . .	Displacement .	. . 208' . . .

. 5 sack cement plug set in top of casing steel plate and none . . .

. plate welded on.

Washed well sampler ~~XXXXXXXXXX~~ sent to Geological Survey of Canada, Calgary
will be

Cores will be stored at . . . Dawson Creek, B.C.

Core analysis (was made) of the Intervals ~~Not done~~
(to be made)

Oil analysis (was made) of the Intervals ~~None~~
(to be made)

Gas analysis (was made) of the Intervals ~~None~~
(to be made)

Water analysis ~~XXXXXXXXXX~~ (are) of the Intervals.
(to be made) 980 - 1044; 1400 - 1448
2020 - 2081

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

ADDITIONAL DETAILS AND COMMENTS

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.

Signed. COPY {Original} J.G. RILEY Address Dawson Creek, B.C.
{Signed}

Date . . April 14th, 1960

(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.)

FORM "C"

C A N A D A

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCE DIVISION

ABANDON

NOTICE OF INTENTION TO

or

a Well

~~Strike out operation which does not apply~~

(Strike out operation which does not apply)

In accordance with Sections 68 & 69 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to

~~Abandon~~ the well name: ~~Imperial Oil Ltd.~~ on Oil

and Gas Permit No. ~~2795~~ Registered in the name of ~~Imperial Oil Ltd.~~
Lease No.

Depth ~~2246~~ feet. Ground surface ~~1418~~ ft.
Elevation above sea level: Kelly bushing ~~1428.9~~ ft.

Location ~~69° 11'~~ N. Lat. ~~120° 29'~~ W. Long.

~~53435~~ (S. of N. boundary) of (Permit No. ~~2795~~)
~~38547~~ (W. of E. boundary) of (Lease No. ~~2795~~)
~~2795~~ (2. of W. boundary) of (Permit No. ~~2795~~)
~~2795~~ (Lease No.)

Survey description, if available

CASING RECORD

Size O.D. inches	Weight lbs/ft	Grade	Amount feet	Set at feet	Sacks cement	Method	to be withdrawn
1 . 7 . .	20	J-55	300	307.5	100	Displacement	Kil . . .
2							
3							
4							

OIL, GAS AND WATER

Oil from ~~Kil~~ feet to . . . feet From . . . feet to . . . feet with
. sacks cement

Oil from ~~Kil~~ feet to . . . feet From . . . feet to . . . feet with
. sacks cement

Gas from 112 . . . feet to feet From feet to feet with
sacks of cement.

Gas from 111 . . . feet to feet From feet to feet with
sacks of cement.

Water from 189 . . . feet to 104 . . . feet From 1450 . . . feet to 1350 . . . feet with 30 . . .
1410 1448 sacks cement.

Water from 2020 . . . feet to 2022 . . . feet From 2246 . . . feet to 1970 . . . feet with 75 . . .
sacks cement.

Surface and bottom plugs:

1. from 360 . . . feet to 250 . . . feet with 40 . . . sacks cement.
2. from feet to feet with sacks cement.
3. from feet to feet with sacks cement.

Date of last operation . . . March 29th, 1960 Total depth 2246

Nature of liquid left in well drilling mud . . . Level from surface . to surface . .
on suspension or abandonment

The following logs will be run Electro logs, Microlaterolog.
hydrocarbon

Produced from . . N.A. zone and
on abandonment of a well which has been on production.

Present condition of well in addition to above . . . N.A.

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

Program of operation not included above 5 sack cement plug set in top of
surface casing and a steel plate and name plate welded on.

Responsible agents of permittee or lessee in charge of operation:

At well A. J. McCaskill Postal address Imperial Oil Limited
Dawson Creek, B. C.
300 - 9th Avenue, S. E.,
At registered office V. J. Moroney . . . Postal address Calgary, Alberta.

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

Dated at Dawson Creek, B. C. this 29th . . . day of March 19. 60

Signed by Copy (Original Signed) A. J. McCaskill

This program is approved subject to the following provisions

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

1st April 1960
Date

B. H. Shams
Oil Conservation Engineer

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

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. 2795. . . registered in the name of Lease No.

. . . Imperial Oil Limited

TYPE OF WELL:

Wildcat Wildcat

Development

Expected total depth . . . 2400 feet, in the

formation of . . . Precambrian age.

The well will be located at . 63° 11' N. Lat. 120° 29' . . W. Long.

. 53.433 (Permit No. 2795)
(S. of N. boundary) of (Lease No.)
. 38.347 (W. of E. boundary) of (Permit No. 2795)
(S. of E. boundary) (Lease No.)

Survey description of Location, if known . . to be forwarded

Approximate surface elevation of . . 1418 feet above sea level.

Name of well . . . Imp Cartridge B-72

Type of drilling rig Pilling 2500

Expected date of commencement . . . February 22nd, 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
7"	2000	J.55	Seamless	New	300+	Sufficient to cement surface.
1.						
2.						
3.						

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

Drilling conditions are not known at this time. Normal safe practices for control of unexpected drilling problems will be used. Surface casing will be set to sufficient depth to control surface waters.

will
An electric log be run Other logs will be run
~~will not~~ ~~will not~~

STRUCTURE TEST PROGRAM

Proposed number of holes Maximum well depth
enclosed within an area bounded by

. N. Latitudes

. W. Longitudes

will
An electric log be run Other logs will be run
will not will not

Name and address of drilling contractor . Warden Drilling Limited
304 Mobile Oil Building,
.
CALGARY, Alberta.
.

Responsible agents of permittee or lessee in charge of operation:

At well . J. J. McCaskill Postal address Dawson Creek, B. C.

At registered
office . V. J. Moroney Postal address Imperial Oil Limited,
300 - 9th Avenue S. W.,
CALGARY, Alberta.

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

Dawson
Dated at Creek, this 12th day of February . . . 1960
B.C.

Signed by
District Exploration Engineer

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

18th February 1960
Date

B. H. Shoms.
Oil Conservation Engineer.

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

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

CONFIDENTIAL

DGP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

SUMMARY OF WELL DATA

<u>Location</u>	: To be forwarded	63° 11' 19" <i>120° 34' 04" 27° 04"</i>
<u>Elevation</u>	: Ground 1418.8'; K.B. 1428.9'	
<u>Permit</u>	: N.W.T., P. & N.G. Permit 2795	
<u>Contractor</u>	: Warden Drilling Co.	
<u>Operator</u>	: Imperial Oil Limited	
<u>Permitter</u>	: Imperial Oil Limited	
<u>Classification</u>	: New Field Wildcat	
<u>Spudded</u>	: February 26, 1960	
<u>Completed Drilling</u>	: March 28, 1960	
<u>Total Depth</u>	: 2256' - 2258' - 5 ch/mounting	
<u>Well Status</u>	: Dry and Abandoned	
<u>Rig Released</u>	: March 31, 1960	
<u>Hole Size</u>	: 9" 0' - 318'; 6 1/2" 318' - 2256'	
<u>Casing</u>	: 7" x 308'; c. 100 + 2% CaCl ₂	
<u>Geological</u>	: A. W. Walker M. Mazurkewich	0" - 2098' 2098' - 2256'
<u>Drilling</u>	: Warden	

Summary - cont'd

Formation Log

PLEISTOCENE	
Glacial Drift	
CRETACEOUS SHALE	240' (-1189')
DEVONIAN SHALE	560' (+ 869')
Keg River Formation	731' (+ 698')
Chinchaga Formation	1102' (- 327')
PRE-DEVONIAN	2020' (- 591')
PRECAMERIAN	2233' (- 804')
Final Total Depth	2256' (- 827')

Cores

Core No.	Interval	Formation	Recovered
1	555' - 679'	Devonian Shale	12'
2	756' - 779'	Keg River	21'
3	785' - 823'	"	35'
4	835' - 869'	"	24'
5	870' - 893'	"	21'
6	900' - 943'	"	42'
7	950' - 973'	"	22'
8	975' - 1020'	"	44'
9	1021' - 1044'	"	23'
10	1044' - 1062'	"	13'
11	1070' - 1093'	"	22'
12	1094' - 1108'	"	14'
13	1112' - 1137'	Chinchaga	25'
14	1286' - 1301'	"	15'
15	1410' - 1429'	"	17'
16	1440' - 1448'	"	8'
17	1620' - 1621'	"	1'
18	1621' - 1623'	"	2'
19	2041' - 2045'	PRE-DEVONIAN	3'
20	2081' - 2098'	"	17'

Flugs

No.	Interval	Cement
1	2254' - 1954'	C-65 + 2% CaCl ₂
2	1200' - 900'	C-64 + 2% CaCl ₂
3	400' - 200'	C-42 + 2% CaCl ₂
4	Surface	5 sacks

DIP CARTRIDGE B-72

-3-

Summary - cont'd

LOGS

Type	Run	Date	From	To
Electric Log	1	March 29, 1960	2257'	308'
Induction Log	1	March 30, 1960	2249'	308'
Microlaterolog	1	March 30, 1960	2258'	500'
Gamm. Ray	1	March 30, 1960	2249'	200'
Sonic Log	1	March 29, 1960	2243'	306'
Seismic Reference Survey		March 30, 1960		

D.S.T.'s

DST #1. (980'-1044') Recovered 420' black sulphurous muddy water. 1st VO. 5 mins; ISI. 25 mins; VO. 45 mins; FSI. 45 mins; IHP. 502; 1st IFP. 100; 1st FFP. 134; 1st SIP. 201; 2nd IFP. 100; 2nd FFP. 201; 2nd SIP. 201; FHP. 502; B.H.T.°F. 57.

DST #2. (1400'-1448'); Recovered 245' muddy fresh water. First VO. 50 mins; ISI. 15 mins; VO. 20 mins; FSI. 20 mins; IHP. 721; 1st IFP. 51; 1st FFP. 67; 1st SIP. 368; 2nd IFP. 94; 2nd FFP. 134; 2nd SIP. 368; FHP. 721; B.H.T.°F. 62°.

DST #3. (2020'-2081') Recovered 100' mud & 1040' salty water. ISI. 30 mins; VO. 60 mins; FSI. 30 mins; IHP. 1022; 1st IFP. 218; 1st FFP. 252; 1st SIP. 637; 2nd IFP. 218; 2nd FFP. 536; 2nd SIP. 637; FHP. 1022; B.H.T.°F. 94°.

— H. Tatham —

Geologist

HT:rf
Dawson Creek
April 1960

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

LITHOLOGICAL DESCRIPTION

- 10' - 240' Sands, gravels and blue clay.
- 240' - 550' Shale, medium grey, fissile, bentonitic, silty in part, pyritic in part.
- 550' - 733' Shale, dark grey, fissile, bituminous pyritic in part, brown streak, local development of abundant pyritized spines with occasional hexacts. Occasional traces of brown-black microchitinous fragments.
- 733' - 1007' Limestones, buff, grey browns, predominantly lime mud section to 800'. Becomes micritic skeletal (with crinoids brachs, gastropods) and locally skeletal micritic. Below 888' becomes fairly well sorted skeletal with interbeds of well sorted cemented pellet and/or cemented skeletal. Thin green/grey stringers of shale throughout. Limestone becoming argillaceous to shaly below 960'. Earthy dolomite interbeds below 981' showing relict textures with traces of matrix and earthy porosity.
- 1007' - 1020' Dolomite, grey-brown, micro to crypto, relict skeletal texture, traces fine vuggy porosity.
- 1020' - 1060' Dolomite, light brown, cryptocrystalline to dark brown, microcrystalline, argillaceous with bituminous partings, trace to occasionally fair vuggy porosity.
- 1060' - 1102' Breccia of light medium dark brown dolomite and green shale (solution collapse breccia).
- 1102' - 1396' Anhydrite, bluish grey, crystalline, brecciated appearance dolomite matrix in part.
- 1396' - 1496' Dolomite, brown, micro to cryptocrystalline, slightly anhydritic, trace calcareous, shale laminae scattered trace vuggy porosity.
- 1496' - 1603' Anhydrite, brown to light grey, microcrystalline, slightly dolomitic.

Litho Description

- 1603' - 1970' Dolomite, buff, brown, grey, micro to cryptocrystalline, slightly anhydritic, very slightly argillaceous in part, tight. Top 30' sandy (fine to medium well rounded and frosted quartz grains grading to dolomitic sandstone in part) and silty (or siliceous ?) tight.
 1680'-1710' Very hard, silty (or siliceous ?)
 1800'-1830' Traces of gypsum chalky and clear crystalline, traces of quartzose sand.
 Below 1820' Rare crinoid ossicles.
 1850'-1970' Thin bands of dark grey-brown, slightly bituminous, slightly argillaceous dolomite, tight. Trace chert below 1960'.
- 1970' - 2020' Dolomite, dark grey, microcrystalline, bituminous argillaceous with up to 20% buff microcrystalline dolomite patches in it (skelets ?) tight.
- 2020' - 2043' Sandstone, white to light grey, very fine to fine, well rounded clear quartz grains, trace dead oil staining, trace porosity. Lost circulation @ 2026'.
- 2043' - 2237' Sandstone, interbedded with some dolomite and shale; Sandstone, light green, some light pink, quartzose, very fine to fine grained, subrounded, very hard, well cemented with clear quartz cement, silty, trace green argillaceous flecks, tight; Shale, light green some pinkish, waxy; Dolomite, very light buff, micro to cryptocrystalline, tight.
- 2237' - 2256' Granite, pink, white, green, black feldspars, quartz, hornblende, somewhat weathered.
- 2256' Bottom of hole.

DIP GAUGE 2-72 1-72 (30° N°; 120° 15°)

COLE 51

655' - 675' Recovered 12'

655' - 675'
24'

Shale, dark gray, bituminous, rare pyrite bands,
smooth structures (vertical and up to 20° to
vertical) lined with fine pyrite crystals.

Strata found:

31, 24, 21, 20, 23, 24, 24, 20, 15, 10, 11, 9,
8, 9, 10, 9, 9, 11, 10, 11, 11, 10, 9, 10.

— A. W. Waller —

Geologist

AWW:rf
Dawson Creek
March 1960

BP CASCADIA 1-12 1-75 73° 20'; 120° 10'

Core #2

750' - 770' Incrusted 21'

750' - 760'
10'

Limestone, brown-grey, micritic, crystalline, bituminous scattered fusillids, lamula with occasional bands of fine skeletal-micritic limestone. Thin bands of dark grey shale (2" to 4") thick.

760' - 770'
11'

Limestone, brown grey, micritic-skeletal banded with spherite, broken brachiopods, fusillids etc. Shale partings containing large broken brach., also large isolated corals at 773', bituminous, thick.

Coring Times:

24, 15, 20, 15, 17, 14, 13, 14, 12, 13, 13, 13, 17, 20, 24, 20, 14, 13, 14, 20, 26, 30 jammed.

— A. W. Walker —

Geologist

AW:rf
Dutton Creek
March 1966

EMP CAMPBELL 1-72 2-72 63° 2' N; 170° 15' W

CORE #1

735' - 723' Recovered 35'

735' - 723'
38'

Limestone, gray-brown, micritic-skeletal, bituminous, argillaceous, with thin dark grey shale bands. Numerous small fractures infilled with white calcite along which small fragments have occurred. Skeletal material mainly fine but some coarse fragments of brachs and alveol. growths in dark bituminous matrix in bands of 3"-4" within micritic-skeletal limestone.

Coring Times:

12, 9, 9, 7, 7, 9, 12, 6, 3, 7, 6, 6, 6, 8, 6,
4, 4, 5, 6, 7, 7, 7, 7, 8, 10, 10, 12, 10, 7, 7, 7,
7, 5, 7, 17, 22, 21.

— A. W. Walker —

Geologist

AMW:rf
Dawson Creek
March 1960

LOG #1

835' - 860' Recovered 25'

835' - 840'
5'

Limestone, brown, finely broken up skeletal material (70%) in micritic matrix, slightly bituminous, slightly crystalline occasional large corals (Aulopora) and stromatopora numerous stylolite and white calcite infilling fractures, light.

840' - 842'
2'

Limestone, brown-luff, medium to coarse skeletal material (30%) in granular to micritic skeletal (7) matrix, light. (Coarse skeletal mainly gastropods and brachiopods).

842' - 845'
3'

Limestone, large (up to 3") aulopora and stromatopora in dark grey, bituminous limestone or finely broken up skeletal matrix, light.

845' - 847'
2'

Limestone, brown luff, as 40-42'.

847' - 851'
4'

Limestone, brown, occasional large corals and stromatopora. In finely broken up skeletal limestone, slightly bituminous, light.

851' - 854'
3'

Limestone as 40-42'.

854' - 862'
8'

Limestone, brown, unaltered limestone mainly, matrix of finely brown cryptocrystalline skeletal and micritic.

862' - 869'
7'

Limestone, brown luff as 40-42'.

Corin - Timor:

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.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

DIP CARTRIDGE 3-72

1272 01° 20'; 120° 15'

CORE 75

870' - 893' Recovered 21'

870' - 874'
4'

Limestone, grayish buff, laminated coarse grained micrites (possible algal growths?) bituminous and pyritic partings, light.

874' - 883'
11'

Limestone, brown, skeletal, coarse brachiopods and gastropods in a very fine to micro granular matrix of pelletal skeletal well rounded material with some cemented vatic pellet limestone interbeds, light. Some laminated micrites (stroma or algal?).

883' - 893'
5'

Limestone, brown, skeletal, dominantly fine to medium (70%) grained well rounded poor sorted skeletal material, coarse fragments of brachiopods and gastropods 20%, cemented with crystalline calcite (10%) light.

Coring Times:

24, 17, 17, 10, 13, 20, 10, 10, 10, 10, 10, 12, 15, 12,
12, 15, 9, 12, 9, 5, 9, 24, 24.

— A. W. Walker —

Geologist

AW:rf
Dawson Creek
March 1960

LRP 241-102-1-22

2-72 (3° 30'; 120° 15')

Core 57

95' - 973' Recovered 22'

950' - 960'
12'

Limestone, brown, scattered coarse skeletal material (10%) in microgranular to very fine pelletal material, cemented with crypto-grained calcite (15%), tight.

962' - 965'
3'

Limestone, grey-green, argillaceous to shale, trace anhydrite, tight with small irregular bedding planes.

965' - 968'
3'

Thinly laminated limestone, grey-green as above and shale, dark grey-green, calcareous, fissile to wavy.

968' - 973'
5'

Limestone, brown, cemented pelletal with vague algal growths (20%) very fine to coarse microgranular pellets (5%), 15% crypto-grained cement, tight.

Core 58:

21, 15, 12, 12, 17, 12, 12, 15, 13, 12, 13, 13, 12,
15, 16, 1, 16, 18, 16, 25, 22, 31, 26.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #9.

1021' - 1044' Recovered 2 feet.

1021'-1044'
23'

Dolomite, brown, micro to cryptocrystalline, finely bedded with shaly bedding planes, slightly argillaceous, argillaceous at base, some slump structures, sulphurous odour, mainly tight to trace of vuggy porosity, fair at 1028'-289', 1030'-304', 1035'-1035' & 1038'-1040'. Rare bands non dolomitized slightly argillaceous micrite, tight.

Coring Times:

4, 4, 4, 4, 4, 6, 4, 4, 5, 5, 10, 5, 5, 4, 10, 5, 5,
6, 13, 10, 3, 3, 3.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

IME CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.S. 1429'

CORE #10.

1044' - 1062' Recovered 13 feet.

1044' - 1060'
16'

Dolomite, brown-buff, micro to cryptocrystalline, argillaceous with shale interbeds, rare bands of micritic-skeletal limestone, trace porosity, fair in part.

1060' - 1061'

Shale, grey-green, waxy.

1061' - 1062'

Dolomite, brown-buff, microcrystalline, argillaceous brecciated and recemented, tight.

Core Log Times:

8, 8, 6, 6, 9, 7, 11, 5, 5, 8, 10, 10, 13, 8, 4, 4,
10, 23.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

IMP CARTRIDGE 5-72

B-72 63° 20'; 120° 15'

E.B. 1429'

CORE #11.

1070' - 1093' Recovered 22'

1070' - 1093'
23'

Breccia, varicoloured, boulders of up to 6" of dolomite and green and grey shale in matrix of same composition, traces of porosity but mainly tight.

Coring Times:

12, 10, 10, 12, 2, 11, 8, 11, 6, 6, 5, 5, 5,
5, 5, 5, 5, 5, 8, 9, 9, 9, 28.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

DMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1:29'

CORE #12.

1094' - 1108' Recovered 14 feet.

1094' - 1098'
4'

Breccia of dolomite and green waxy shale, tight.

1098' - 1102'
4'

Dolomite, brown, microcrystalline, bituminous
partings, anhydrite and with some anhydritic
infilling, tight.

1102' - 1108'
6'

Anhydrite, white to light grey, microcrystalline.
tight with brecciated dolomite interbeds, tight.

Coring Times:

10, 9, 9, 8, 9, 10, 12, 12, 10, 10, 10, 10,
10. Pulled to gyp-end.

Top Anhydrite 1102'.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

IMP CARTRIDGE S-72

S-72 63°20'; 120° 15'

E.B. 1429'

CORE #13.

1112' - 1137' Recovered 25'

1112' - 1115.3'
3.5'

Dolomite, brown, crypto to microcrystalline,
anhydritic to very anhydritic, shale laminae,
tight.

1115.5' - 1137'
21.5'

Anhydrite, bluish-grey, brecciated appearance
with minor cryptocrystalline brown dolomite
matrix, tight.

Coring Times:

16, 34, 23, 17, 11, 24, 14, 9, 12, 15, 15, 18, 20,
30, 18, 23, 23, 11, 23, 23, 21, 23, 18, 19, 20.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

MP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #14.

1286' - 1301' Recovered 15 feet.

1286' - 1290.5'
4½'

Anhydrite, white, finely crystalline, hair line partings and infilling of sut cracks of argillaceous dolomites and shales.

1290.5' - 1301'
10½'

Anhydrite breccia, chalky buff and white crystalline anhydrite fragments (fine to 1 foot diameter) in a matrix of argillaceous anhydritic brown to dark brown cryptocrystalline dolomite. Some gypsum veining at low angles to horizontal. Strong sulphurous odour.

Coring Times:

13, 12, 13, 13, 10, 12, 10, 12, 10, 10, 10, 10, 10, 8.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

DMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #14-

1286' - 1301' Recovered 15 feet.

1286' - 1290.5'
4½'

Anhydrite, white, finely crystalline, hair line partings and infilling of sun cracks of argillaceous dolomites and shales.

1290.5' - 1301'
10½'

Anhydrite breccia, chalky buff and white crystalline anhydrite fragments (fine to 1 foot diameter) in a matrix of argillaceous anhydrite - brown to dark brown cryptocrystalline dolomite. Some gypsum veining at low angles to horizontal. Strong sulphurous odour.

Coring Times:

13, 12, 13, 13, 10, 12, 10, 18, 10, 10, 10, 10, 10, 8.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

DMP CARTRIDGE 8-72

B-72 53° 20'; 120° 15'

K.B. 1429'

CORE #15.

1410' - 1429' Recovered 17'

1410' - 1420'
10'

Dolomite, brown, microcrystalline to cryptocrystalline, slightly anhydritic, shaly carbonaceous laminae, scattered poor vuggy porosity, scattered medium calcite crystals (skeletal ?)

1420' - 1424'
4'

Breccia, light brown cryptocrystalline dolomite and micro to cryptocrystalline in dark brown, slightly anhydritic, dolomite matrix, scattered poor ineffective vuggy porosity.

1424' - 1429'

Dolomite, dark brown, micro to cryptocrystalline, scattered trace vuggy porosity, scattered medium calcite crystals (skeletal ?).

Coring Times:

2, 5, 4, 4, 4, 4, 4, 4, 5, 15, 5, 5, 5, 15, 15, 15, 26, 14.

— A. W. Walker —

Geologist

AW:rf
Dawson Creek
March 1960

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #16.

1440' - 1448' Recovered 8'.

1440' - 1448'
8'

Dolomite, brown, micro to cryptocrystalline, slightly calcareous, slightly anhydritic (anhydrite patches in fractures) shaly laminae in part, bands of breccia (dolomite fragments as above in dolomite matrix as above) rare scattered vugs.

Coring Ticks

10, 8, 8, 11, 10, 8, 9, 11.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

D.P. CARTRIDGE R-72

B-72 63° 20' 120° 15'

K.B. 1429'

CORE 217

1620' - 1621' Recovered 5"

Dolomite, pale grey, cream, cryptocrystalline,
dense hard appearance with thin shale partings
(light grey appears to be 30-40% chertified
giving a hard dense rock.

— M. Mazurkewich —

Geologist

MZ:rf
Dawson Creek
March 1960

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #18

1621' - 1623' Recovered 1' 9"

Dolomite, as above.

— M. Mazurkewich —

Geologist

MZ:rf
Dawson Creek
March 1960

DMP CARTRIDGE 2-72

3-72 63° 20'; 120° 15'

K.B. 1420'

CORE #19

2041' - 2045' Recovered 3'

Sandstone, light grey green, quartzose, fine to medium grained, dolomitic, rounded, trace to good intercrystalline (leached) porosity, with minor grey green cryptocrystalline dolomite.

Coring Times:

13, 11, 40, 30.

— M. Mazurkevich —

Geologist

MM:rf
Dawson Creek
March 1960

IMP CARTRIDGE B-72

B-72 63° 20'; 120° 15'

K.B. 1429'

CORE #20

2081' - 2098' Recovered 16' 6"

Interbedded sandstone and shale; Sandstone, light green, some reddish at base, quartzose, mostly very fine to fine grained, rounded to subrounded ? siliceous cement, some argillaceous material, extremely hard (resembles a quartzite) very slightly dolomitic in part, slightly anhydritic, maybe more anhydritic than it. appears, fractures across the grains; Shale, as thin interbeds, light green to grey green, waxy, fairly soft.

Coring TIEER:

21, 19, 20, 10, 6, 10, 10, 13, 14, 12, 17, 24,
26, 14, 12, 21, 34.

— M. Mazurkewich —

Geologist

MZ:rf
Dawson Creek
March 1960

WEEKLY CHRONOLOGICAL WELL REPORT

Well DMP CALTRIDGE 1-72

Location 3-72 63° 20'; Elev. 1428.9'
120° 15'

District Peace River

Week Ending March 1, 1960 Report No. 1

Date	Total Depth	Progress	Days	REMARKS
Feb. 27	64'	64'	1	Spudded 5:15 p.m. February 26, 1960. Drilled surface to 64' with CSC-3 - 9". Tried to drill with water. Had to mix mud. <u>Lithology:</u> Sand and gravel.
Feb. 28	318'	254'	2	Hole caving. Mixing mud. Pulled bit. Drilled 64'-228' with bit #2 CSC 9" @ 180 RPM, 104WT, 330 GPM. Tripped. Drilled 228'-318' with bit #3, 9", @ 180 RPM, 10M lb. wt., 330 GPM. <u>Lith:</u> Sand and gravel to 240'; 240'-318' Shale, medium grey, carbonaceous soft (Cretaceous).
Feb. 29	318'	0	3	Conditioned mud and hole. Ran 9 jts., 299.22' of 7", 20 lb. J-55, R-2, SC, new casing. Landed @ 307.50' I.B. Cemented with 100 sacks + 2% CaCl ₂ . P.D. 10:20 p.m. February 28, 1960.
March 1	620'	302'	4	Drilled out collar @ 2:00 a.m. Pressured up to 700 psi. Drilled out shoe and drilled 318'-602' with bit #4 6 1/4", CSC, 10M 180 RPM, 330 GPM. <u>Lith:</u> Shale, grey to 520', 520'-620' Shale, dark grey, bituminous.

— A. W. Walker —

Geologist

WEEKLY CHRONOLOGICAL WELL REPORT

Well IMP CARTRIDGE B-72

Location B-72 63° 20'; Elev 1429'
120° 15'.

District Peace River

Week Ending March 8, 1960 Report No. 2

Date	Total Depth	Progress	Days	REMARKS
March 2	756'	136'	5	Drilled 620'-625' with bit #4 6 1/2" OSC @ 180 RPM, 10M lb.wt. & 250 GPM. Measured out 30' correction - add 30'. Cut core 655'-679' with 5" Boyles dia. bit @ 8,000 lb.wt., 110 RPM & 770 GPM. Recovered core. Reamed rat-hole to 6 1/2" with bit #5 M4N, 6 1/2" and drilled 679'-756' @ 180 RPM, 10M lb.wt. and 250 GPM. 620'-730' Shale as above. 730'-756' Limestone, buff micritic, <u>tight</u> .
March 3	784'	28'	6	Condition mud. Pull to core. Cut Core #2. (756'-779') Recover, core #2. Reamed 756'-779' with M4N, 6 1/2" and drilled 779'-785' @ 14M lb.wt., 180 RPM & 230 GPM. Limestone, micritic, <u>tight</u> .
March 4	835'	51'	7	Tripped to core. Cut & recovered core #3 (785'-823'). Reamed 785'-823' to 6 1/2" and drilled 823'-835' with W7, bit #7 @ 8,000, 120 RPM & 230 GPM. Limestone, skeletal, micritic, <u>tight</u> .
March 5	893'	58'	8	Cut core #4 (835'-869') Jammed off. Rec. core. Reamed 835'-869' to 6 1/2" with bit #10 DWV and drilled to 870'. Pulled to core. Cut core #5 (870'-893') Recovered core #5. Core #4. 835'-869'; Recovered 24 feet. Limestone, interbedded clean buff skeletal and dark bituminous skeletal/large stroms and corals, <u>tight</u> . Core #5. 870'-893'; Recovered 21 feet. Limestone, skeletal, coarse, brachs and gasts, in very fine to microgranular skeletal/pellet matrix.
March 6	943'	50'	9	Reamed 870'-893' with bit #10 and drilled 893'-900' @ 180 RPM, 10,000 lb.wt. and 230 GPM. Tripped to core. Cut core #6 (900'-943') with Boyle 5" dia. bit #72-59. Core #2 cut with 72-59 good & straight. Cores #3, 4, 5 cut with 71-59 were spiralled. Pulled core and recovered. Outer barrel twisted off leaving a dutch man in the safety joint box. Ran in with overshot. Pulling @ 8 a.m. Core #6. 900'-943' Recovered 42 feet. Limestone, micaceous to skeletal, <u>tight</u> .

WEEKLY CHRONOLOGICAL WELL REPORT

Well **DMP CARTRIDGE B-72**

Location **B-72 63° 20'; 120° 15'** Elev **1429'**

District **Peace River**

Week Ending **March 8, 1967** Report No. **2**
page -2-

Date	Total Depth	Progress	Days	REMARKS
March 7	973'	30'	10	Recovered outer core barrel on first fishing attempt. Reamed 900-43' and drilled to 948' with bit #10. Ran junk sub after recovering 4 pieces of iron on last core (3 on bit pieces of twisted off barrel, 1 on jars bit tooth), drilled 945'-950' Cut core #7 (950'-73') Limestone.
March 8	1021'	48'	11	Drilled 973'-975' with bit #10 O.W. Cut core #8 975'-1020'. Recovered, reamed. Ran in for core #9. Interbedded limestone and dolomite.

— A. W. Walker —
Geologist

WEEKLY CHRONOLOGICAL WELL REPORT

Well DMP CARTRIDGE B-72

Location B-72 63° 20';
120° 15'. Elev 1429'

District Peace River

Week Ending March 15, 1960 Report No. 3

Date	Total Depth	Progress	Days	REMARKS
March 9	1062'	41'	12	Cut core #9, 1021'-1044'. Reamed to 1044'. Ran DST #1, 980'-1044'. Cut core #10; 1044'-1062'; Recovering core at 8 a.m. Core #9. 1021'-1044'; Recovered 23'. Dolomite brown, micro to cryptocrystalline, trace to occasionally fair porosity. DST #1. 980'-1044'; 1st F. 5; 1st SI. 25; 2nd F. 45; 2nd SI. 45; G.I.P. Weak air blow dying at 40 mins. Rec. 420' fresh water, slightly muddy. H.P. 486-486; S.I.P. 189-189; 1st F.P. 108-135; 2nd F.P. 81-189; B.H.T. 57°F.
March 10	1108'	46'	13	Recovered core #10. Reamed 1044'-1062' and drilled to 1070' with bit #11RR OWV. Cored (1070'-1093') core #11. Reamed 1070'-1093' drilled to 1094' with bit #11RR OWV. Cut core #12 (1044'-1108') Recovered core @ 8 a.m. Core #10. Dolomite. Recovered 13'. Core #11. Breccia. Recovered 22'. Core #12. Breccia dolomite, anhydrite. Recovered 14'.
March 11	1137'	29'	14	Pulled core #12 to gyp mud after viscosity rose out of control. Gyped mud. Cut core #13 (1112-37'). Core #12. 1094'-1108'; Recovered 14'. Breccia, dolomite and anhydrite. Core #13. 1112'-1137'; Recovered 25'. Anhydrite with top 4' anhydrite dolomite.
March 12	1286'	149'	15	Recovered core #13. Reamed 1112'-1137' with OWV bit #13, 6 1/4" and drilled 1137'-1286' @ 19,000 lb.wt. 100 RPM and 230 GPM. Interbedded anhydrite, primary dolomite and shale. Core #13. 1112'-32'; Recovered 25'. 5' Primary dolomite brown. 20' Anhydrite, white, bluish brown.
March 13	1301'	15'	16	Tripped for new bit. Ran in with core bbl. for core #14. Cut 11' lost pump pressure and bit would not core @ 3:00 a.m. March 12th. W.O. pump to 7:30 a.m. Cure 2' in meantime. Core #14. (1286'-1301') Recovered 15'.

WEEKLY CHRONOLOGICAL WELL REPORT

Well DMP CARTRIDGE B-72

Location B-72 63° 20'; Elev 1429'
120° 15'.

District Peace River

Week Ending March 15, 1960 Report No. 3
page -2-

Date	Total Depth	Progress	Days	REMARKS
March 13 - cont'd				Anhydrite and breccia with argillaceous dolomite cementing large anhydrite fragments.
March 14	1429'	128'	17	Recovered core #14. Drilled 1301'-1410' with bit #14, 6 1/2" O.W., @ 100 RPM, 14,000 lb. wt. & 230 RPM. Pulled to core. Cut core #15, 1410'-1429'; Recovering core & 8 a.m. 1301'-1394' Anhydrite, as above. 1394'-1410' Dolomite, brown, crypto to microcrystalline, <u>tight</u> .
March 15	1448'	19'	18	Core #15. Recovered. Reamed 1410'-29' and drilled to 1440' with bit #15 M.K. Pulled to core. Cut & recovered core #16 1440'-8' Ran DST #2. Running in to ream @ 800. Core #15. 1410'-1429'; Recovered 17'. Dolomite, cryptocrystalline, breccia bands, <u>scattered poor porosity</u> . Core #16. 1440'-8'; Recovered 8'. As above. DST #2. 1400'-48'; 1st flow 5; 1st SI. 15; 2nd Flow 20; 2nd SI. 20; GIP. WAB. Rec. 245' muddy fresh water. HP. 721-721; SIP. 378-378; 1st FP. 51-67; 2nd FP. 84-134; BHT. 62°F.

— A. W. Walker —

Geologist

WEEKLY CHRONOLOGICAL WELL REPORTWell IMP CARTRIDGE B-72Location B-72 63° 20'; Elev 1429'
120° 15'District Peace RiverWeek Ending March 22/60 Report No. 4

Date	Total Depth	Progress	Days	REMARKS
March 16	1588'	140'	19	Reamed 1440'-1448' and drilled 1448'-1535' with OSC 6 1/2" bit #16 @ 12,000 lb & 200 RPM & 230 GPM. Tripped for new bit. Drilled 1535'-88' with bit #17 OWV 6 1/2" @ 12,000, 100 RPM and 230 GPM. 1448'-97' Dolomite, as above. 1497'-1588' Anhydrite.
March 17	1623'	35'	20	Drilled to 1620' with bit #17, tripped. Cut Core #17 1620'-21' would not get @ 1'. Changed dia. bits. Cut 1621'-3' and bit refused to dir. Core #17. 1620'-1' Recovered 5". Core #18. 1621'-3' Recovered 1' 9". Dolomite light green-grey, cryptocrystalline, siliceous, pyritic.
March 18	1711'	88'	21	Reamed 1620'-1623' and drilled 1623'-1680' with bit #18 MAN 6 1/2" @ 12000 lb, 120 rpm & 230 GPM. Tripped for bit. Drilled 1680'-1711' with bit #19 OWV 6 1/2" @ 8-10,000 lb wt. 70-125 RPM, 250 GPM. Dolomite, buff, micro to cryptocrystalline, <u>tight</u> .
March 19	1788'	77'	22	Drilled 1711'-1720' with bit #19. Tripped. Drilled 1720'-1760' with bit #20, W7 @ 8-15M 90-125 RPM & 230 GPM. Tripped, drilled 1760'-38' with bit #21 OWV @ 90 RPM, 15M lb wt., and 230 GPM. Dolomite, buff, microcrystalline, <u>tight</u> .
March 20	1864'	76'	23	Drilled 1788'-1800' with bit #21. Tripped. Drilled 1800'-364 with bit #22 @ 8,000 lb. 150 RPM, 250 GPM. Tripped, drilled 1836'-1864' with bit #23 @ 12,000, 120 RPM & 230 GPM. Dolomite, as above.

WEEKLY CHRONOLOGICAL WELL REPORT

Well DCP CARTRIDGE B-72

Location B-72 63° 20'; Elev 1429'
120° 15'

District Peace River

Week Ending March 22/60 Report No. 4

Page -2-

Date	Total Depth	Program	Class	REMARKS
March 21	1946'	82'	24	Drilled 1864'-75' with bit #23. Tripped for bit. Drilled 1875'-1914' with bit #24, 6 1/2" G 16,000 lb. wt., 120 RPM & 230 GPM. Tripped for bit. Drilled 1914'-46' with bit #25 at 10,000 lb, 150 RPM & 230 GPM. Dolomite, as above.
March 22	2041'	95'	25	Drilled 1946'-81' with bit #25 @ 10-12,000 lb. wt., 120 RPM, 230 GPM. Tripped. Lost circulation @ 2026'. Regained circulation drilled ahead 2041'. Drilled 1981'-2041' with PR bit #15, 6 1/2" G 10-15,000 lb. 120 RPM, 230 GPM. 1946'-2020' Dolomitic, buff, microcrystalline in dark grey, argillaceous bitumen dolomite matrix, <u>tight</u> . 2020'-2040' Sandstone, white, very fine to fine rounded quartz grains, dolomitic, <u>trace porosity</u> .

— A. W. Walker —

Geologist

WEEKLY CHRONOLOGICAL WELL REPORT

Well IMP CARTRIDGE B-72

Location S-72 63° 20'; Elev 1429'
120° 15'

District Peace River

Week Ending March 29/60 Report No. 5

Date	Total Depth	Progress	Days	REMARKS
March 23	2081'	40'	26	Cut core #19; 2041'-5' Recovered, drilled 2049'-2082' with bit #29, 6 1/2", OWV @ 15,000 lb. wt., 120 RPM & GPM. Losing mud while drilling. Core #19. 2041'-5' Recovered 3'. Sandstone fine to medium, light grey green trace porosity with minor grey green crypto-crystalline dolomite. 2045'-82' Very poor samples - Mainly dolomite as above, some sand and green waxy shale.
March 24	2098'	17'	27	Pull to test. Ran DST #3. 2020'-2081'; ISI 30 mins; VO. 60 mins; FSI. 30 mins; Rec'd 100' mud & 1040' water, salty. I.H.P. 1026; F.H.P. 1026; ISIP. 633; ESTP. 633; I.F.P. 229; F.F.P. 540; B.H.T. 108°F Ran in to core, cored #20. 2081'-2098' with dia. 77-59 @ 110 RPM in 5 1/2 hrs @ 3000 lbs. Rec'd 16 feet 6". Core #20. 2081'-2098'; Recovered 16'6". Interbedded sandstone and shale; Sandstone light green some reddish at base, mostly very fine to fine grained, siliceous cement extremely hard (resembles a quartzite) some argillaceous material and slightly anhydritic, maybe more anhydritic than it appears, fractures across the grains; Shale as thin interbeds, light green to grey-green, waxy fairly soft. Running in hole to drill.
March 25	2098'	0	28	Finished running in. Reaming rat-hole. String new drilling line. Pipe stuck in hole. Work pipe. Mig to spot diesel fuel. Spotted 1/2 barrel every hour & work pipe.
March 26	2119'	21'	29	Pulled out stuck pipe. Ran in with new bit, reamed to 2098'. Drilled 2098'-2119' with HTG, OWV bit #28 in 5 1/2 hrs @ 58-100 RPM & 12,000 lbs. Tripping. Sandstone pink very hard quartzose, silty, siliceous dolomitic in part, minor shale, tight.

WEEKLY CHRONOLOGICAL WELL REPORT

Well IMP CARTRIDGE B-72

Location B-72 63° 20'; Elev 1429'
120° 15'

District Peace River

Week Ending March 29/60 Report No 5
page -2-

Date	Total Depth	Progress	Days	Remarks
March 27	2174'	55'	30	Finished trip. Drilled 2119'-2174' with HTC, W7, 6 1/4" bit no 29 in 6 1/2 hrs @ 12,000 and 100 RPM. Tripped, drilled 2174'-2174' with HTC, W7 6 1/4" bit #30 in 8 1/2 hrs @ 100 RPM and 12,000 lbs. Interbedded sandstone, some dolomite & minor shale; sandstone light green to light gray quartzose, siliceous, silty, subrounded to rounded, fine grained, <u>tight</u> ; Dolomite very light buff microcrystalline, <u>tight</u> ; Shale light green & reddish, waxy in part.
March 28	2246'	72'	31	Finished trip. Drilled 2174'-2211' with HTC, W7, 6 1/4" bit #31 in 6 1/2 hrs @ 16,000 lbs & 80-100 RPM. Tripped, drilled 2211'-2246' with HTC, W7, 6 1/4" bit #32 in 8 hrs @ 80-100 RPM and 16,000 lbs. 2174'-2233' Sandstone with some interbedded shale & minor dolomite, light green, quartzose extremely hard, silica cemented silty, subrounded ? some scattered greenish argillaceous flecks, <u>tight</u> , Shale, up to 15% light green, waxy, fairly hard in part, fissile. 2233'-2246' Granite, black, green, pink, white, large crystals (phenocrystals) of feldspar, hornblende & quartz.
March 29	2251'	5'	32	Tripped, drilled 2246'-2251' with HTC, W7R 6 1/4" bit #33 in 2 hrs @ 100 RPM & 16,000 lbs. F.T.D. 2251'. Circulate wait on logging unit. Granite as above.

— M. Mazurkewich —

Geologist

WEEKLY CHRONOLOGICAL WELL REPORT

Well IMP CARTRIDGE B-72

Location B-72 62° 20'; Elev 1429' KB
120° 15'

District Peace River

Week Ending April 5, 1960 Report No 6

Date	Total Depth	Program	Days	REMARKS
March 30	2251'	0'	33	Ran Sonic log & Electric log.
March 31	2251'	0'	34	Ran Induction log, and Microlateral log, Ran Gamma Ray log and Velocity survey. Rig to run plugs.
April 1	2251'	0'	35	Ran plug #1 2254'-1954', c. 65 + 2% CaCl ₂ p.d. 2 a.m. Ran Plug #2. 1200'-900', c- 64 + 2% CaCl ₂ p.d. 3:40 a.m. Felt at 890' at 11 a.m. Ran Plug #3. 400'-200', c. 42 + 2% CaCl ₂ p.d. 1 p.m. Felt at 208 at 9 p.m. Set c.5 in surface casing, welded plate. <u>Rig Released 11 p.m. March 31, 1960.</u>

— M. Mazurkewich —

Geologist

DW CARTER 221-1-72 2-72 (3' 20'; 120° 15')

Weekly Drill Report #7 for Week Ending March 1, 1960

F.B. 1429'

Depth : 650'

Drilled : Surface to 315' - 4" surface hole.
315' to 650' - 4"

Total Footage for Week : 650'

Coring : Ran 3 joints, 300', 7", 20 1/2". J-95, R-2, SC coring.
Landed @ 30' 15" F.B.
Cemented with 100 sacks + 2% CaCl₂. Good returns.
F.B. 10:20 a.m. February 23, 1960.

Markers : Base of Drift 640' F.B.
Top Cretaceous 340' "
Top M. Devonian 260' "

Stratigraphy : 230 feet of loose sand and gravel with some clay
and boulders overlying 120' of basaltic Cretaceous
shales at the Cartridge location. To date 95'
of Middle Devonian dark grey, bituminous shales
have been penetrated.

— A. K. Walker —

Geologist

Witness
Dawson Creek
March 1960

IMP CARTRIDGE B-72

B-72 63° 30'; 120° 15'

Weekly Geological Well Report #2 for Week Ending March 8, 1960

K.B. 2429'

Depth : 1021'

Drilled : From 650' - 655' - 5'
 679' - 756' - 77'
 779' - 785' - 6'
 823' - 835' - 12'
 869' - 870' - 1'
 893' - 900' - 7'
 943' - 950' - 7'
 973' - 975' - 2'
 1020' - 1021' - 1'

Cored : From 655' - 679' - 24' Recovered 14'
 756' - 779' - 23' " 21'
 785' - 823' - 38' " 35'
 835' - 869' - 34' " 24'
 870' - 893' - 23' " 21'
 900' - 943' - 43' " 42'
 950' - 973' - 23' " 22'
 975' - 1020' - 45' " 44'

Total Footage for Week : 371'

Markers : Keg River Formation 731' (+ 698')
 Keg River Dolomite 1007' (+ 422')

Reservoirs : Trace to occasionally fair vuggy porosity was encountered at 1020' in a cryptocrystalline brown buff dolomite.

Remarks : 276' of limestone was penetrated at Cartridge compared with 112' @ Imp Windflower and a total Keg River formation of 290' @ Windflower. Either the Keg River is much thicker at this location or the dolomite at the base is much thinner (or both !). The limestones penetrated were usually micritic skeletal, occasionally skeletal or pelletal or micrite. One band @ 842'-45' contained large (Aulopora ?) and Stromatoporoids.

— A. W. Walker —

Geologist

AWW:rf
 Dawson Creek
 March 1960

DSP CARTRIDGE 5-72 5-72 63° 20'; 120° 15'

Weekly Geological Well Report #3 for Week Ending March 15, 1960

K.S. 1420'

Depth : 1448'

Drilled : from 1062' - 1070' - 8'
1092' - 1094' - 1'
1108' - 1112' - 4'
1137' - 1286' - 149'
1301' - 1410' - 109'
1427' - 1448' - 11'

Cored : from 1021' - 1062' - 41' Recovered 36'
1070' - 1093' - 23' " 22'
1094' - 1108' - 14' " 14'
1112' - 1137' - 25' " 25'
1286' - 1301' - 15' " 15'
1410' - 1427' - 17' " 17'
1440' - 1448' - 8' " 8'

Total Footage for Week : 427'

Tests : DST #1. 980'-1044'; Keg River Formation:
Recovered 420' dark sulphurous muddy water.
DST #2. 1400'-1448'; Recovered 245' muddy
fresh water.

Markers : Chinchaga Formation 1060' (+ 369')

Reservoirs : Scattered vuggy porosity in micro to cryptocrystalline
dolomites at the base of the Keg River Formation
tested 420' of sulphurous muddy water. This porosity
is widespread being represented in the 4 NWT wells
drilled by I.O.L. this winter.
Scattered vuggy porosity in similar dolomites below
the Chinchaga Formation tested 245' of fresh muddy
water. This zone tested fresh water at Windflower
and Lac Tache.

Weekly Report #3.

Remarks

1. A solution collapse breccia found at the top of the Chinchaga formation at Cartridge was not found at Windflower.
2. The collapse breccias formed below the Chinchaga formation in Cartridge were represented to a lesser extent in Windflower but were not recognized as such (I thought the odd chips that I saw were relict skeletal texture).
3. A correlation with Windflower suggests a Pre-Devonian age for the dolomite below 1393' - no red colour was observed but the chocolate brown colour of the highest beds of dolomite may be closely kin to the red on which the Pre-Devonian is being picked. If this is so 1393' is the Pre-Devonian top.

— A. W. Walker —

Geologist

AWW:rf
Dawson Creek
March 1960

DVP CARTRIDGE B-77 3-77 63° 20'; 120° 15'

Weekly Geological Well Report #4 for Week Ending March 27, 1960

K.E. 1429'

Depth : 2041'

Drilled : from 1428' - 1430' - 177'
1623' - 2041' - 418'

Cored : from 1620' - 1621' - 1' Recovered 5"
1621' - 1623' - 2' Recovered 1' 5"

Total Footage for Week : 593'

Remarks : Approximately 100' of porous (trace to very occasionally poor fine vuggy porosity) micro to cryptocrystalline dolomite was penetrated below the Chinchaga anhydrite. Lithologically and thickness wise this seems to correlate with the section from 763' to 860' at Windflower. A second massive anhydrite (110' thick) underlain by 30' of sandy and silty dolomite grading to sandstone does not appear to have an equivalent in Windflower. If this is so it would account for some of the thickening of the (Pre-Dev. ?) section in Cartridge.

Further thickening also seems to be prevalent in the primary dolomites below this second anhydrite of the sandstone encountered at 2020' in Cartridge is directly equivalent to the sandy dolomites at 1156' in Windflower. The total thickening to date of the Pre-Devonian of the above correlation holds is approximately 200 feet.

Not all the dolomite can be considered primary because below 1920' up to 20% of the dolomite was skeletal material.

Dark grey bituminous dolomite bands which were found at about 1100' at Windflower were in evidence in the section at Cartridge below 1850' and the section from 1970' to 2020', was completely dark grey, bituminous dolomite.

The sandstone encountered at 2020' consisted of very fine to fine clear well rounded quartz grains with a dolomitic cement. Traces of porosity were visible and this will be tested if sufficient thickness is encountered.

— A. W. Walker —

Geologist

AWW:rf
April 1960
Dawson Creek

DAILY MUD RECORD

WELL NAME Imp Cartridge # B-72

LOCATION B-72 - 68°20' - 140°15'

DATE	DEPTH	ADDITIVES			PROPERTIES				REMARKS & OPERATIONS
		GEL	CAUSTIC	WATER	WT.	VISC.	W.L.	F.C.		P.H.
Feb 27	64	2500	20						Drilling surface hole
Feb 28	318	900			9.2	70			"
Feb 29	319	3000	30						Running casing
March 1	620								WOC Run casing
March 2	756			50	8.8	35			Drilling Casing
March 3	784	1300	25	50	9.2	17			Casing Running
March 4	835				8.9	3.7			Casing Running
March 5	893	500			9	30	10.9		"
March 6	945	900			9.4	40			" Fishing
March 7	973				9.8	40			"
March 8	1021				9.8	40			"
March 9	1062				9.7	40			"
March 10	1108				9.6	44	11.9		Testing
March 11	1157	Hydrogel 900	25	Water 750	9.5	58		8	Cased and Grout Drilling
March 12	1268				9.5	47	9		Drilling
March 13	1301			25	10.4	55	8.4		Coring WOC Pump
March 14	1429				9.4	58	8		Drilling Casing
March 15	1448				9.1	37	8		Coring, Drilling, Testing
March 16	1508				10.5	42			Drilling
March 17	1623				10.9	45		5	Coring Drilling
March 18	1711	600			10.8	39	9		Drilling
March 19	1788	600		50	10.2	47	7.8		Drilling
March 20	1869				10.1	42	10		Drilling
March 21	1946	400			10.6	42	14.4		Drilling
March 22	2041	500		25	10.9	40	13.2		Drilling
March 23	2081	3600		25	10.6	42			Test casing, Drilling, Testing
March 24	2000				10.7	45			Coring Running
March 25	2050	1700		Fireproof 45	10.7	65			Drill pipe, Load
March 26	2115				9.5	52			Drilling

DAILY MUD RECORD

WELL NAME Imp Cartridge #8-72 LOCATION B-72 - 63°30' - 120°15'

[illegible]

BIT RECORD

WELL Imp Cartilage # B-72 LOCATION B-72 - 69°20' - 10°15' CONTRACTOR Wardman Rig 2
 DATE SPUDDED February 26, 1960 F.T.D. 2257 F.T.D REACHED March 28, 1960

NO.	SIZE	MAKE	TYPE	DEPTH IN FEET	F.T.C.	HRS.	WEIGHT	RPM.	GPM.	SERIAL	FORMATION	REMARKS
1	9"	H.T.C.	OSC-3	10	69	59	—	190	250	78764	Sand & Gravel	Dull
2	9"	H.T.C.	OSC	64	228	164	12,000	180	250	89147	Glacial Sand & gravel	Dull
3	9"	H.T.C.	OSC	238	318	90	11,000	180	250	97293	Sand, gravel, shale	Good
4	6 1/2"	H.T.C.	OSC	318	655	337	11,000	180	250	69627	Shale	Good
5	5"	Boyle	OWV	655	679	24	8,000	110	120	71-59	Shale	Good
6	6 1/2"	Sec	MAN	679	756	77	12,000	200	230	985835	limonite, brown	Good
7	5"	Boyle	OWV	756	779	23	8,000	110	150	71-59	limonite, brown	Good
8	5"	H.T.C.	OWV	779	785	23	8,000	200	230	71112	Durium limestone	Good. Brownish
9	5"	Boyle	OWV	785	823	38	8,000	110	170	71-59	Durium limestone	New bit
10	6 1/2"	Sec	MAN	823	835	11	8,000	200	220	372603	Durium limestone	Good. Brownish
11	5"	Boyle	OWV	835	869	34	8,000	110	165	71-59	Durium limestone	Good
12	5"	H.T.C.	OWV	869	870	34	12,000	180	230	37261	Durium limestone	Good
13	5"	Boyle	OWV	870	893	23	8,000	110	175	71-59	Durium limestone	Good
14	6 1/2"	H.T.C.	OWV	893	900	7	12,000	180	230	37261	Durium limestone	Good
15	5"	Boyle	OWV	900	943	43	8,000	110	230	72-59	Durium limestone	Good
16	5"	H.T.C.	OWV	943	950	7	8,000	120	240	37261	Durium limestone	Good
17	5"	Boyle	OWV	950	973	23	8,000	110	165	71-59	Durium limestone	Good
18	5"	H.T.C.	OWV	973	1010	45	8,000	120	165	72-59	Durium limestone	Good
19	5"	Boyle	OWV	1010	1020	1	8,000	180	230	72-59	Durium limestone	Good
20	5"	H.T.C.	OWV	1020	1021	1	8,000	120	230	72-59	Durium limestone	Good
21	5"	Boyle	OWV	1021	1044	23	8,000	120	165	71-59	Durium limestone	Good
22	5"	H.T.C.	OWV	1044	1062	18	8,000	110	165	71-59	Durium limestone	Good
23	5"	Boyle	OWV	1062	1070	18	8,000	110	165	71-59	Durium limestone	Good
24	5"	H.T.C.	OWV	1070	1093	23	8,000	110	165	71-59	Durium limestone	Good
25	5"	Boyle	OWV	1093	1094	1	8,000	110	165	71-59	Durium limestone	Good
26	5"	H.T.C.	OWV	1094	1108	14	8,000	110	165	71-59	Durium limestone	Good

BIT RECORD

WELL MP CARTRIDGE # 8-72 LOCATION 6-72-68'20'-120'15' CONTRACTOR Warden Rig #2
 DATE SPUDDED Feb 26/60 F.T.D. 2251 F.T.D REACHED 11/10/60 28 1960

NO.	SIZE	MAKE	TYPE	DEPTH IN FEET	FIG.	HRS.	WEIGHT	RPM	GPM	SERIAL	FORMATION	REMARKS
11 RR	6 1/2"	H.T.C.	OWV	1107	74	1/2	5000	180	230	73245	Dol. & Haly. Devonian	Good mud
5 RR	5"	Boyle	O	1112	25	8	8000	110	115	72-59	Devonian Haly. & Dol.	Good
13	6 1/2"	H.T.C.	OWV	1137	149	18	18000	100	230	75101	Devonian Haly. & Dol.	Dull
12 RR	5"	Boyle	O	1286	15	2 1/2	8000	110	180	77-59	Devonian Haly. & Dol.	Good
14	6 1/2"	H.T.C.	OWV	1301	15	2 1/2	8000	110	230	790435	Devonian Haly. & Dol.	Good
12 RR	6"	Boyle	O	1410	19	3	6000	110	150	77-59	Devonian Dol.	Good
15	6 1/2"	Sec	HQV	1427	11	1/2	5000	110	230	392-406	Devonian Dol.	Good
12 RR	5"	Boyle	O	1440	8	1 1/2	6000	100	155	77-59	Dol. & Haly.	Fair
16	6 1/2"	H.T.C.	O.S.C.	1449	87	9 1/2	11000	200	230	67572	Dol. & Haly.	Dull
17	6 1/2"	H.T.C.	OWV	1535	85	1 1/2	8000	110	230	57530	Dol. & Haly.	Dull
12 RR	5"	Boyle	O	1620	1	1	4-12,000	80-100	165	77-59	Dol. & Haly.	officer was small
5 RR	5"	Boyle	O	1621	2	1 1/2	4-12,000	80-100	165	72-59	Dol. & Haly.	officer was small
18	6 1/2"	Sec	HQV	1623	57	2 1/2	10-12,000	200	230	390464	Dol. & Haly.	Dull
19	6 1/2"	H.T.C.	OWV	1680	90	9 1/2	8-16,000	70-85	250	66978	Dol. & Haly.	Dull
20	6 1/2"	H.T.C.	W7	1720	43	9 1/2	8-16,000	90-100	250	70110	Dol. & Haly.	Dull
21	6 1/2"	H.T.C.	OWV	1762	34	9 1/2	8-16,000	90-100	250	67799	Dol. & Haly.	Dull
22	6 1/2"	H.T.C.	OWV	1800	56	9	8-16,000	120	230	66866	Dol. & Haly.	Dull
23	6 1/2"	H.T.C.	OWV	1836	39	8 1/2	12,000	120	230	67791	Dol. & Haly.	Dull
24	6 1/2"	H.T.C.	OWV	1875	39	9 1/2	10,000	120	230	66870	Dol. & Haly.	Dull
25	6 1/2"	H.T.C.	OWV	1914	67	11 1/2	10-12,000	120	230	37244	Dol. & Haly.	Dull
26 RR 15	6 1/2"	Sec	HQV	1981	60	9 1/2	15,000	120	230	392-406	Dol. & Haly.	labeled. See. Hall
27A	6 1/2"	H.T.C.	W7R	2043	5	3	8,000	110	190	72025	Dev. & Haly. Sand	Dull
12 RR	5"	Boyle	O	2041	4	1 1/2	12,000	90	105	77-59	Dev. & Haly. Sand	Dev.
12 RR	5"	Boyle	O	2051	17	5 1/2	6,000	110	185	77-59	Dev. & Haly. Sand	Permaged.
27	6 1/2"	H.T.C.	OWV	2041	40	4 1/2	15,000	110	210	37227	Dev. & Haly.	Dull
28A	6 1/2"	H.T.C.	OWV	2081	7	1 1/2	12,000	120	210	66865	Dev. & Haly.	Good (shut in hole)
28	6 1/2"	H.T.C.	OWV	2088	21	5 1/2	15,000	100	220	37211	Dev. & Haly. Sand	Dull

2058 2113

BIT RECORD

WELL Imp CARTBRIDGE # B-72 LOCATION 8-72-63° 20'-120° 15' CONTRACTOR Warden Rig # 2
DATE SPUNDED Feb 26/60 F.T.D. 2251 F.T.O REACHED March 28, 1960

[illegible]

SURVEY:

WELL NAME: 1-Cont'd-8-72

LOCATION: 8-22-63-20-1225

[illegible]

IMPERIAL OIL LIMITED
PEACE RIVER DISTRICT

DRILL STEM TEST REPORT #1

Well Name...Imp. Cartridge #B-72...Formation...Kaz. River...Date...March 8/68.
Location...B-22-43°20'-120°15'K.B.1429...Interval tested from 95.0...to 104.4...
Basis for test...Dolomite, brown mud. to crypt. crystalline, v. mggy...
...porosity, poor. occasionally fair...
Results...Res. 420' black sulfurous...muddy water...

TESTING DATA

Well Depth...104.4...Full Hole Size...6 1/4"...Drill Pipe: OD 2 1/2" Weight 19.3...
Grade...E...Joint Type...1F...Capacity 1.26 gal/ft
Ret Hole Top...Ret Hole Size...Drill Collars: OD 4 1/2" Weight 240...
Joint Type...1F...Capacity 1.72 gal/ft
Size Top Choke...1/2"...Size Bottom Choke...1/2" 2 1/2"
Packer Type...Conventional...No. of Packers...1...Packer Size...5 1/4"
Bomb Type...Anarada...No. of Bombs...2...Bomb Ranges...1475 (top)...2100 (bottom).
Position of Bombs...98.6'...104.3'...Hours on Clock...6...
Cushion: Type...Air Chamber: Vol...
Amount...Length...
Drilling Mud: Type...Gel...Weight...9.5...Visc...44...W.L...NaCl...Ph...
Recovery Mud: Type...Weight...Visc...W.L...NaCl...Ph...

	Time	Duration	
Tester Started in hole	4:45 PM		Weight set on packer 24,000 lbs.
Tester on Bottom	5:15 PM		
Packer Set	6:40 PM		Mud level drop...Nil...feet
Tool Open	7:20 PM	5	
Tool Closed	7:25	75	
Tool Open on 1/2" choke	7:50	25	Pulled packer loose with 811 lbs.
	8:15	20	
Tool Closed	8:35	25	
Pulled Packer loose	9:10		
Started out of hole	9:30		
Tester out of hole	12:00		

FLOW AND RECOVERY DATA: How Measured.....

Time	Pressure	Riser	Mcf/day	Time	Pressure	Riser	Mcf/day
1				7	.....	.....	.....
2				8	.....	.....	.....
3				9	.....	.....	.....
4				10	.....	.....	.....
5				11	.....	.....	.....
6				12	.....	.....	.....

Liquid to Surface Mud....mins, Oil....mins, Water....mins, Est. rate.....

TOTAL FLUID IN DRILL PIPE

(including water cushion) Type	Stands	Feet	ppm NaCl
1 <i>Black sulfureous mudwater</i>	<i>4.4</i>	<i>4.20</i>	.....
2			
3			
4			
5			
6			

Sampling Position Sample No. Position Salinity of water.....ppm NaCl
 (Feet above packer)
 *1* *60'* Gravity of oil.....OAPI
 Gas (Sweet.....Sour.....)

Samples sent for analysis to.....

FIELD PRESSURE DATA: (Check if blanked off)

Top Bomb ()	Bottom Bomb (✓)
1.H.P. <i>48.6</i> 2nd I.F.P. <i>31</i>	1.H.P. <i>502</i> 2nd I.F.P. <i>100</i>
1st I.F.P. <i>148</i> 2nd F.F.P. <i>189</i>	1st I.F.P. <i>100</i> 2nd F.F.P. <i>200</i>
1st F.F.P. <i>125</i> 2nd S.I.P. <i>189</i>	1st F.F.P. <i>134</i> 2nd S.I.P. <i>201</i>
1st S.I.P. <i>189</i> F.H.P. <i>48.6</i>	1st S.I.P. <i>200</i> F.H.P. <i>502</i>
B.M.T. <i>52</i> OF.	B.M.T. <i>57</i> OF.

Do charts show normal operation...*Yes*..... Was test satisfactory...*Yes*.....

Remarks (Explain misruns etc.): *Packer was set on bottom 49 in. before tool was opened. In this time the pressure below the packer bled off to formation pressure.*

Test No. *1* Signature *AW Walker*
 Testing Co. *Eastland* Title *Geologist*
 Operator *J. Fenton* Well Name Imp. *Cartridge # B-72*
8-72 63° 20' - 120° 15'

T.G. EASTLAND — testers Ltd.

R.R. NO. 2 NORTH • EDMONTON, ALBERTA

SERVICE REPORT

TEST No. One
Date March 8/60
Ticket No. 4657

Well Name: IMPERIAL CARTRIDGE B-72

L.S.D. 63°20' 120° 15'

Formation Tested: Tight Hole

TEST RESULT DATA

TYPE OF TEST: ☒ Standard ☐ Duals ☐ Straddle ☐ Casing

Started in Hole: 4:45 PM Tool Opened: 7:50 PM

From: _____ To: _____ Tail Pipe: _____

Initial Shut-in: 25 Min. Flow Period: 40 Min

Main Hole Depth: _____ Rat Hole Depth: _____

Final Shut-in: 45 Min. Out of Hole: 10:30 PM

Hole Size Tested: 1044' Main Hole _____ Rat Hole _____

Choke Bottom: 1" - 1/2"

Casing Depth: 307' Size: 7" Weight: 20#

Choke Surface: 1/8"

Type of Drill Pipe: I.F. Tubing: _____

Flow Rate: _____ Mcf/day Flare Line Riser: _____

Type of Packer(s): Straight wall

Mcf/day measured by: _____

Size of Rubber Element(s): 5 1/2"

Fluid Cushion: _____ Max. Well Temp: _____ °F

REMARKS: Tool set 40 minutes before initial port opened. Tool opened on 1/2" port for 25 minutes, on 1" for 20 minutes.

DRUG. FLUID: Viscosity: 44 Weight: 9.6 W.L. 9.8

FIELD (est.) _____ CORRECTED _____

Initial Hydrostatic Pressure psig 520

Shut-In Press. #1 After 25 Min. psig 223

Initial Flowing Pressure psig 120

Max. Flowing Pressure psig 223

Shut-In Press. #2 After 45 Min. psig 223

FLUID RECOVERY: _____

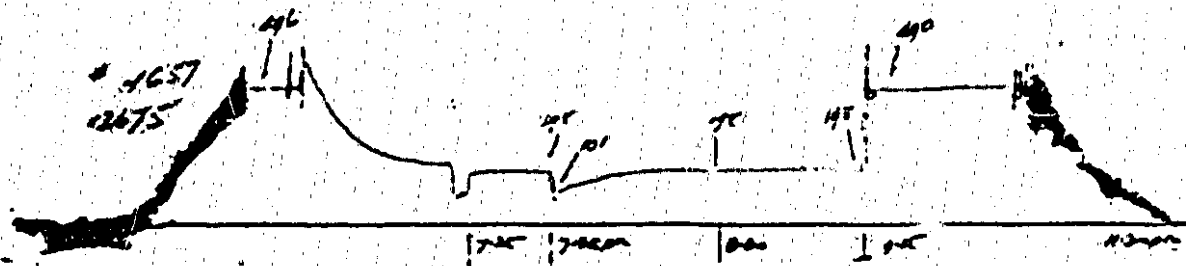
PRESENT DURING TEST

Your Representative A. W. Walker

Our Operator G. Fenton

Toolpusher W. Workman

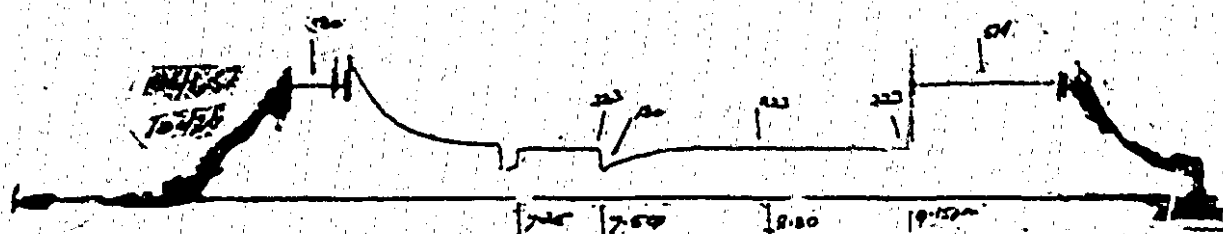
Drig. Contractor Wardean Rig #2



Inside recorder

RECORDER No. 12675 ELEMENT RANGE: 0-1675 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 986'
RECORDER No. 10426 ELEMENT RANGE: 0-2100 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 1043'

Outside recorder



T.C. EASTLAND testers ltd.

DRILL STEM TEST PRESSURE REPORT

Well Name: Imperial Cartridge B-72

Date: March 8/60 Test No. One Ticket # 4657

Interval: Tight Hole Formation: Tight Hole

Gauge No. 10426 Depth of Element 1043' B.H. Temp. 57°F (est.)

Cal. Equation $P_c = 1088.2 - 0.1$

	Time	T	Press. psig
Initial Hydro-static	-----		520
	7:25 pm	0	144
Initial Shut-in	7:28	3	223
	7:31	6	223
	7:34	9	223
	7:37	12	223
	7:40	15	223
	7:43	18	223
	7:46	21	223
	7:49	24	223
	7:50	25	223

Flowing Pressure	-----		120
			223
Final Shut-in	8:30 pm	0	223
	8:33	3	223
	8:36	6	223
	8:39	9	223
	8:42	12	223
	8:45	15	223
	8:48	18	223
	8:51	21	223
	8:54	24	223
	8:57	27	223
	9:00	30	223
	9:03	33	223
	9:06	36	223
	9:09	39	223
	9:12	42	223
	9:15	45	223
Final Hydro-static	-----		514

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

DRILL STEM TEST REPORT # 2

Well Name. *Imp. Cartridge T.B. 72*.....Formation *Pale. Devonian*.....Date *March 14/60*...

Location. *S. 72-63° 30' - (72° 35')*.....K.B. *6429*.....Interval tested from *140' A*.....to *142' B*.....

Basis for test... *2 shots, down, none to surface, negative, scattered, poor, very poorly*

Results..... *See 245' muddy fresh water*.....

TESTING DATA

Well Depth... *144.8*.....Full Hole Size... *6 1/2"*.....Drill Pipe: *OD 3 1/2"* Weight *13.3*...

Grade *E*.....Joint Type *IF*.....Capacity *1.76 gal/ft*

Rat Hole Top... *144.0*.....Rat Hole Size... *5"*.....Drill Collars: *OD 4 3/4"* Feet *240'*

Joint Type *IF*.....Capacity *1.72 gal/ft*

Size Top Choke... *1/8"*.....Size Bottom Choke... *1/8" 3/4"*

Packer Type... *Conventional*.....No. of Packers... *1*.....Packer Size... *5 1/4"*

Bomb Type... *Amercade*.....No. of Bombs... *2*.....Bomb Ranges... *167.5 (6p), 2100 (6m)*

Position of Bombs... *1406*.....*A/B*.....Hours on Clock *6*

Cushion: Type... **.....Air Chamber: Vol... **

Amount... **.....Length... **

Drilling Mud: Type *Gyp*... Weight *9.4*... Visc. *42*... W.L. *8*... NaCl **... Ph. *8*

Recovery Mud: Type... Weight... Visc... W.L... NaCl... Ph...

	Time	Duration	
Tester Started in hole	<i>9.45 AM.</i>	.....	Weight set on packer <i>244</i> lbs.
Tester on Bottom	<i>12.36 AM.</i>	.....	
Packer Set	<i>12.44</i>	.....	Mud level drop..... <i>4</i> feet
Tool Open	<i>12.51</i>	.....	
Tool Closed	<i>12.56</i>	.....	Pulled packer loose with <i>44</i> lbs.
Tool Open	<i>on 1/2" choke 1.11</i>	.....	
	<i>on 7/8" 1.21</i>	.....	
Tool Closed	<i>1.31</i>	.....	
Pulled Packer loose	<i>1.55</i>	.....	
Started out of hole	<i>2.00</i>	.....	
Tester out of hole	<i>3.45</i>	.....	

FLOW AND RECOVERY DATA: Flow Measured.....

Time	Pressure Riser	Mc./day	Time	Pressure Riser	Mc./day
1.....			7.....	.....	.....
2.....			8.....	.....	.....
3.....			9.....	.....	.....
4.....			10.....	.....	.....
5.....			11.....	.....	.....
6.....			12.....	.....	.....

Liquid to Surface Mud.....mins, Oil.....mins, Water.....mins, Est. rate.....

TOTAL FLUID IN DRILL PIPE

(including water cushion) Type	Stands	Feet	ppm NaCl
1 <u>Muddy water</u>	<u>5</u>	<u>245</u>	<u>.....</u>
2.....			
3.....			
4.....			
5.....			
6.....			

Sampling Position Sample No. Position Salinity of water Fresh ppm NaCl
 (Feet above pacier) 1 120' Gravity of oil OAPI
2 0' Gas (Sweet Sour)

Samples sent for analysis to.....

FIELD PRESSURE DATA: (Check it blanked off)

Top Bomb ()		Bottom Bomb (✓)	
1.H.P. <u>72.2</u>	2nd I.F.P. <u>81</u>	1.H.P. <u>72.1</u>	2nd I.F.P. <u>84</u>
1st I.F.P. <u>54</u>	2nd F.F.P. <u>147</u>	1st I.F.P. <u>51</u>	2nd F.F.P. <u>134</u>
1st F.F.P. <u>68</u>	2nd S.I.P. <u>37.8</u>	1st F.F.P. <u>67</u>	2nd S.I.P. <u>36.8</u>
1st S.I.P. <u>37.8</u>	F.H.P. <u>72.2</u>	1st S.I.P. <u>36.8</u>	F.H.P. <u>72.1</u>
B.H.T. <u>42</u>	OF.	B.H.T. <u>62</u>	OF.

Do charts show normal operation Yes..... Was test satisfactory Yes.....

Remarks (Explain misruns etc.).....

Test No. 2..... Signature AW Walker.....Testing Co. Eastland..... Title Geologist.....Operator G. Fenton..... Well Name Imp. Contingency #0.7.2.....

T.G. EASTLAND — testers ltd.

10000 4 NORTH • EDMONTON, ALBERTA

SERVICE REPORT

TEST No. TWO
Date March 14/60
Ticket No. 4658

Well Name: IMPERIAL CARTRIDGE B-72

L.S.D. 63° 20' 120° 15'

Formation Tested: Tight Hole

TEST RESULT DATA

TYPE OF TEST: ☒ Standard ☐ Dual ☐ Straddle ☐ Casing

Started in Hole: 9:45 PM Tool Opened: 1:11 a.m.

From: _____ To: _____ Tail Pipe: _____

Initial Shut-in: 15 Min. Flow Period: 20 Min

Main Hole Depth: 1440' Rat Hole Depth: _____

Final Shut-in: 20 Min. Out of Hole: 3:45 a.m.

Hole Size Tested: 6 1/2" Main Hole _____ Rat Hole _____

Choke Bottom: 1/2" - 1/4"

Casing Depth: 307' Size: 7" Weight: 20'

Choke Surface: 1"

Type of Drill Pipe: IF Tubing: _____

Flow Rate _____ Met/day Flare Line Riser: _____

Type of Packer(s): Straight wall

Met/day measured by: _____

Size of Rubber Element(s): 5 1/2"

Fluid Cushion: _____ Max. Well Temp.: 62 °F

REMARKS: Tool opened on 1/2" port for 10 minutes. Open on 1/4" port for 10 minutes.

DRUG. FLUID: Viscosity: _____ Weight: _____ W.L. _____

Tool on initial port for 5 minutes.

FIELD (est.) _____ CORRECTED _____

PRESENT DURING TEST

Your Representative A. W. Walker

Initial Hydrostatic Pressure psig 730

Our Operator G. Fenton

Shut-In Press. #1 After 15 Min. psig 373

Toolpusher W. Workman

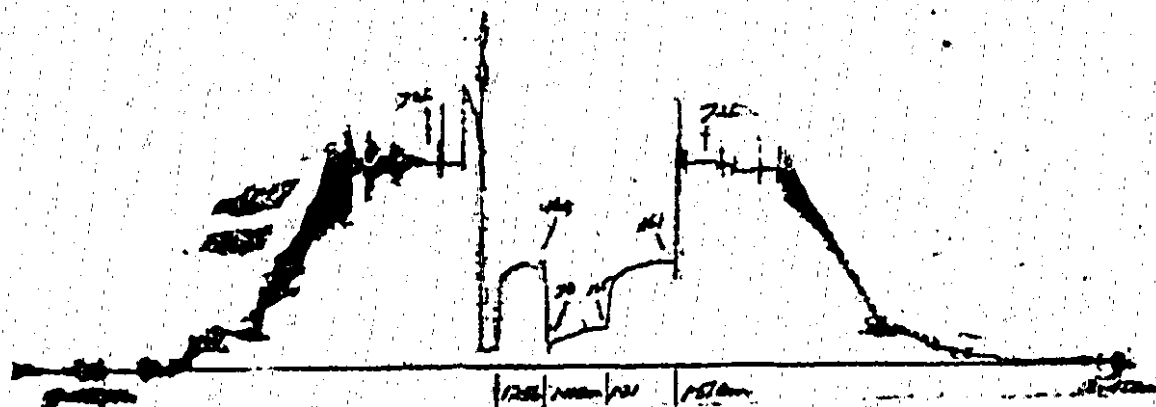
Initial Flowing Pressure psig 77

Drig. Contractor Wardean Rig #2

Max. Flowing Pressure psig 139

Shut-In Press. #2 After 20 Min. psig 366

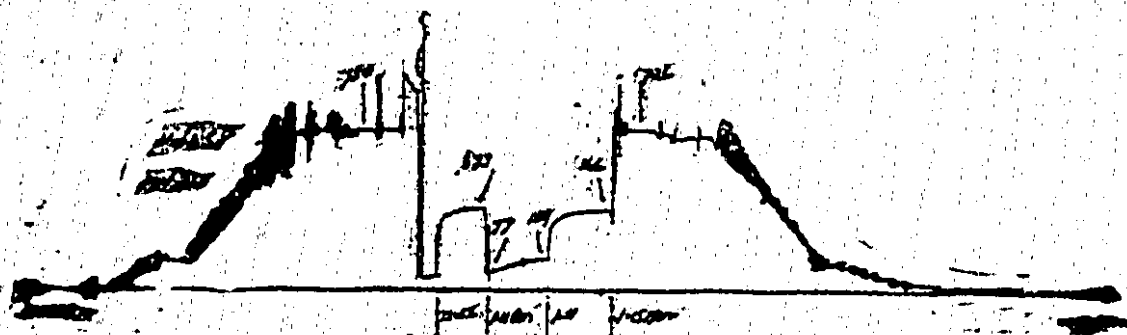
FLUID RECOVERY



Outside recorder

RECORDER No. 12675 ELEMENT RANGE: 0-1675 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 1406
RECORDER No. 10426 ELEMENT RANGE: 0-2100 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 1418

Inside recorder



TIME

Form No. T-20

T.G. EASTLAND testers ltd.

DRILL STEM TEST PRESSURE REPORT

Well Name: Imperial Cartridge B-72 (63°20' 120° 15')

Date: March 14, 1960 Test No. Two Ticket # 4658

Interval: Tight Hole Formation: Tight Hole

Gauge No. 33426 Depth of Element: 1418' B.H. Temp. 62°F

Cal. Equation $P_c = 1088.2 - 0.1$

	Time	T	Press. psig
Initial Hydro- static	-----		730
	12:56am	0	68
Initial Shut-in	12:59	3	346
	1:02	6	360
	1:05	9	367
	1:08	12	371
	1:11	15	373

Flowing Pressure	-----		77
			139
Final Shut-in	1:31 am	0	139
	1:34	3	325
	1:37	6	347
	1:40	9	356
	1:43	12	361
	1:46	15	365
	1:49	18	366
	1:51	20	366

Final
Hydro-
static ----- 726

IMPERIAL OIL LIMITED

PEACE RIVER DISTRICT

DRILL STEM TEST REPORT #3

Well Name...IMP. CARTRIDGE B-72.....Formation...Pre-Devonian.....Date March 23, 1960

Location...B-7263°20'; 120°15'...K.B...1429'...Interval tested from...2020'...to...2081'...

Basis for test...Sandstone, light grey green, fine to medium grained, fair to

...Good intergranular and leached porosity, and losing mud.

Results...Recovered 100' mud, & 1040' water, salty...G.I.P., Strong air blow

...throughout.

TESTING DATA

Well Depth...2081'.....Full Hole Size...6 1/2".....Drill Pipe: 003 1/2 Weight...13.3.

Grade...E.....Joint Type...IF.....Capacity...260 gal/ft

Rat Hole Top...-.....Rat Hole Size...-.....Drill Collars: 004 1/2 Feet...-.....

Joint Type...IF.....Capacity...172 gal/ft

Size Top Choke...1/8".....Size Bottom Choke...1/8, 1/4, 3/8

Packer Type...Conventional.....No. of Packers...1.....Packer Size...5 1/2"

Bomb Type...Apprada.....No. of Bombs...2.....Bomb Ranges...1675 (top), 2100 (Bottom)

Position of Bombs...2027'; 2080'.....Hours on Clock...6 hrs.

Cushion: Type...-.....Air Chamber: Vol...-

Amount...-.....Length...-

Drilling Mud: Type...GYP.. Weight...10.6...Visc...4.2...W.L...13.0...NaCl...-...Ph...-

Recovery Mud: Type...GYP.. Weight...-.....Visc...-.....W.L...-.....NaCl...-...Ph...-

	Time	Duration	
Tester Started in hole	10:15	.....	Weight set on packer...25,000 lbs.
Tester on Bottom	11:45 p.m.	.....	
Packer Set	12:00 p.m.	.....	Mud level drop.....No.....feet
Tool Open	12:13 p.m.	5 mins, IFP	
Tool Closed	12:18 p.m.	30 mins, ISI	Pulled packer loose with...-...lbs.
Tool Open on 1/4"	12:48 p.m.	20 mins.)	
1/4" 20 mins.		20 mins.)	60 min. VO
Tool Closed 1/4" each	1:48 p.m.	20 mins.)	
Pulled Packer loose	2:18 p.m.	30 mins. FSI.	
Started out of hole	2:25 p.m.	.....	
Tester out of hole	4:20 p.m.	.....	

FLOW AND RECOVERY DATA: (See page 1 for details)

Time	Pressure (psi)	Rate (bbl/hr)	Time	Pressure (psi)	Rate (bbl/hr)
1					
2					
3					
4					
5					
6					

Flowed to Surface (Mud) mins. Oil mins. Water mins. (See page 1 for details)

TOTAL FLUID IN DRILL PIPE

(Including water cushion) Type	Stand	Feet	ppm NaCl
1 Mud	3 1/3	100	.....
2 Water, salty	34 2/3	1020	80-87,000 ppm
3	.....	.....	.....
4	.....	.....	.....
5	.....	.....	.....
6	.....	.....	.....

Sampling Position	Sample No.	Position	Salinity of water.....ppm NaCl
.....	1	600'	.....
(Feet above packer)	2	2'	Gravity of oil.....GAPI
.....	.....	.....	Gas (lb/MMBtu).....Sour.....

Samples sent for analysis to.....

FIELD PRESSURE DATA: (Check 1 if blanked off)

Top Bomb ()				Bottom Bomb ()			
1st I.F.P.	1026	2nd I.F.P.	229	1st I.F.P.	1022	2nd I.F.P.	218
1st F.F.P.	175	2nd F.F.P.	540	1st F.F.P.	218	2nd F.F.P.	536
1st S.I.P.	216	2nd S.I.P.	633	1st F.F.P.	252	2nd S.I.P.	637
1st S.I.P.	633	F.H.P.	1026	1st S.I.P.	637	F.H.P.	1022
B.H.T.	108	OF.	.....	B.H.T.	94	OF.	.....

Do charts show normal operation..... Was test satisfactory.....

Remarks (Explain misruns etc.).....

Schlumberger analysis of water samples.....

(1) .11 - 56° 80,000 ppm. (2) .1 - 58° 87,000 ppm.

Test No. #3 Signature M. Mazurkewich

Testing Co. Eastland Testers Title Geologist

Operator Fenton Well Name Imp Cartridge B-72

B-72 63° 20'; 120° 15'

T.G. EASTLAND — testers ltd.

RR. 402 S. NORTH • EDMONTON, ALBERTA

SERVICE REPORT

TEST No. Three
Date March 23, 1960
Ticket No. 4659

Well Name: IMPERIAL CARTRIDGE B-72

LSD B-72 - 63°20' - 120°15'

Formation Tested: Tight Hole

TEST RESULT DATA

TYPE OF TEST: ☒ Standard ☐ Duals ☐ Straddle ☐ Casing

Started in Hole: 10 a.m. Tool Opened: 12:48 pm

From: To: Tail Pipe:

Initial Shut-in: 30 Min. Flow Period: 60 Min

Main Hole Depth: 2081' Rat Hole Depth:

Final Shut-in: 30 Min. Out of Hole: 4 pm

Hole Size Tested: 6 1/2" Main Hole Rat Hole

Choke Bottom: 1/4" - 1/2" 1/4"

Casing Depth: 307' Size: 7" Weight: 20#

Choke Surface: 1/8"

Type of Drill Pipe: 1.5" Tubing:

Flow Rate Mc/day Flare Line Riser:

Type of Packer(s): Straight wall

Mc/day measured by:

Size of Rubber Element(s): 5 1/2"

Fluid Cushion: Max. Well Temp: °F

REMARKS: Tool opened on 1/4" port for 20

DRUG. FLUID: Viscosity Weight: W.L.

minutes; on 1/2" port for 20 minutes; on 1/4"

FIELD (est) CORRECTED

port for 20 minutes.

Initial Hydrostatic Pressure psig 1053

Shut-In Press. #1 After 30 Min. psig 651

Initial Flowing Pressure psig 246

Max. Flowing Pressure psig 569

Shut-In Press. #2 After 30 Min. psig 650

FLUID RECOVERY:

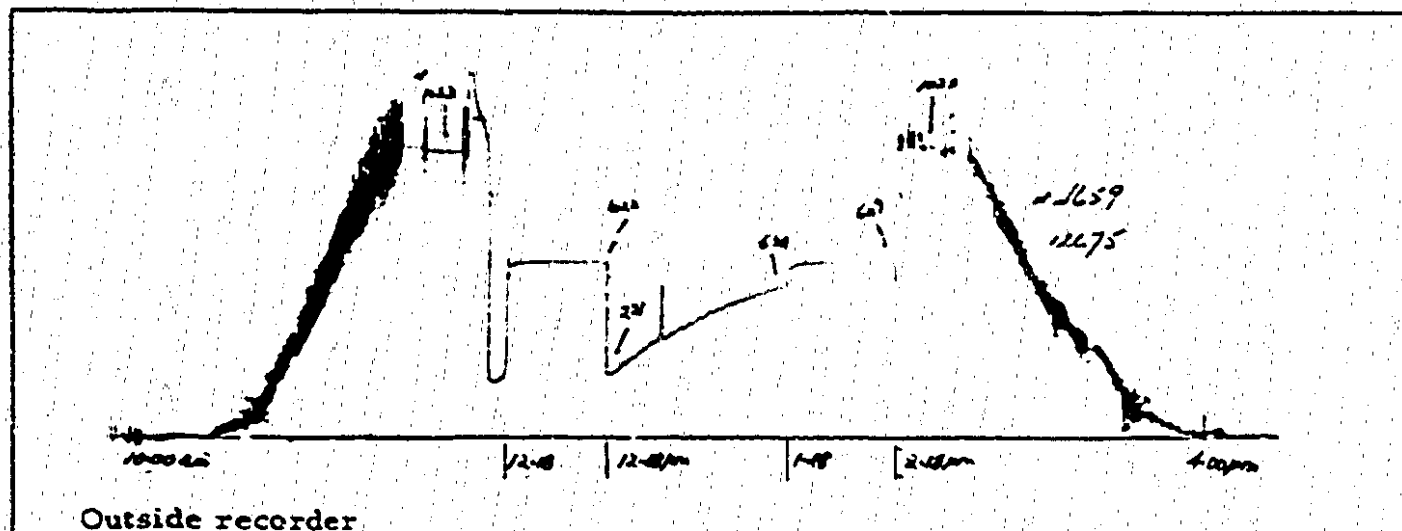
PRESENT DURING TEST

Your Representative M. Mozurkevich

Our Operator G. Fenton

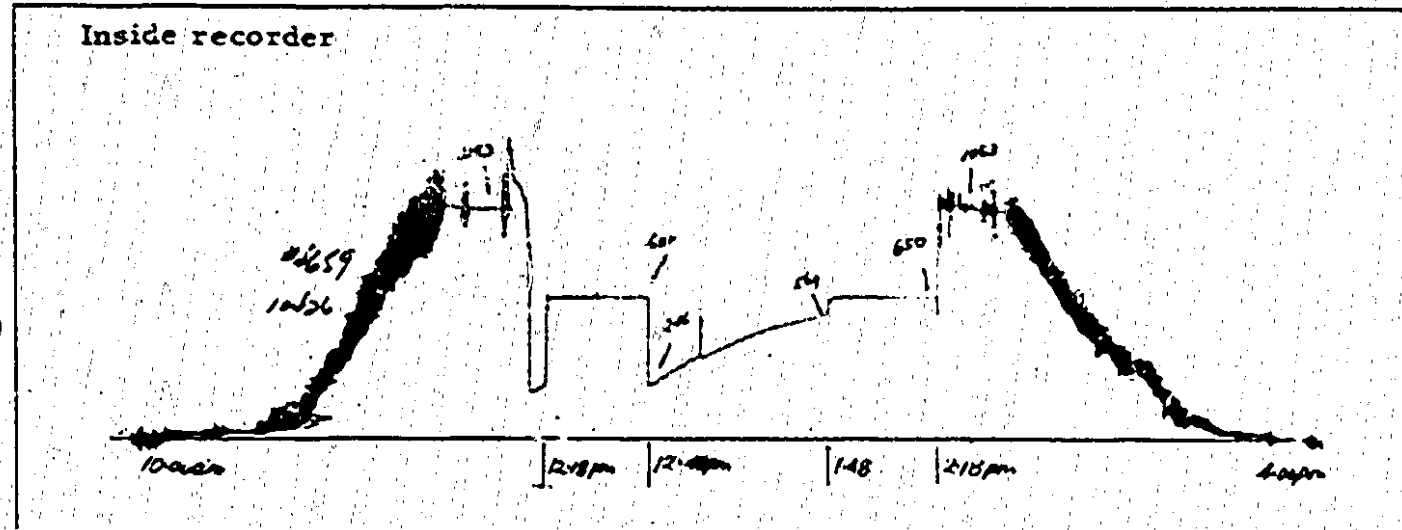
Toolpusher W. Workman

Drig Contractor Wardean Rig #2



Outside recorder

RECORDER No. 12675 ELEMENT RANGE: 0-1675 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 2027'
RECORDER No. 10426 ELEMENT RANGE: 0-2100 PSI CLOCK SPEED: 6 HRS. RECORDER DEPTH: 2080'



Inside recorder

TIME

Form No. T-22

T.G. EASTLAND testers Ltd.

DRILL STEM TEST PRESSURE REPORT

Well Name: Imperial Cartridge B-72 63°20' -120°15'

Date: March 23, 1960 Test No. Three Ticket # 4659

Interval: Formation:

Gauge No. 10426 Depth of Element 2080' B.H. Temp. 80°F est.

Cal. Equation $2088.2 - 0.1$

	Time	T	Press. psig
Initial Hydro-static	-----		1053
	12:18pm	0	250
Initial Shut-in	12:21	3	644
	12:24	6	647
	12:27	9	650
	12:30	12	651
	12:33	15	651
	12:36	18	651
	12:39	21	651
	12:42	24	651
	12:45	27	651
	12:48	30	651

Flowing Pressure	-----		246
			569
Final Shut-in	1:48pm	0	569
	1:51	3	650
	1:54	6	650
	1:57	9	650
	2:00	12	650
	2:03	15	650
	2:06	18	650
	2:09	21	650
	2:12	24	650
	2:15	27	650
	2:18	30	650

Final Hydro-static ----- 1053

IMP. CARTRIDGE LTD. SEC. TWN. RGE. W. Contractor *Harold* Type Rig *FALLING* Month *MAR 31* Day *31* 19 *66*

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																							
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation																																	
2254					6 1/4					2258					6 1/4	<i>Schlumberger (Csg checks at 308)</i>																																											
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																																
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																																	
COLLAR						DRILLING STRING				DRILL COLLARS				COLLAR						DRILLING STRING				DRILL COLLARS				COLLAR						DRILLING STRING				DRILL COLLARS																					
DATA																				DATA																				DATA																			
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																																
Bit Serial No.						Table R.P.M.				Bit Serial No.						Table R.P.M.				Bit Serial No.						Table R.P.M.																																	
Jet or Conventional -						Nozzle Size				Jet or Conventional -						Nozzle Size				Jet or Conventional -						Nozzle Size																																	
SURVEYS		Kind	at	Ft.		Deg. off		Kind		at	Ft.		Deg. off		Kind		at	Ft.		Deg. off																																							
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																																								
No. 1		On Line	Circulating					On Line		Circulating					On Line		Circulating																																										
No. 2																																																											
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																																		
		<i>ABANDONMENT PLUG #1</i>																		<i>FELT PLUG #2 @ 890' @ 11:40 AM</i>																		<i>FELT #3 PLUG AT 208' @ 9 PM</i>																					
		<i>RAN 64 SAX + 27 CALC² TO CEMENT INTERVAL 2254 TO 1954</i>																		<i>PLUG #3 RAN 42 SAX + 27 CALC² TO CEMENT INTERVAL 400-200</i>																																							
		<i>DISPLACE W/15 BBL'S</i>																		<i>PLUG DOWN AT 1 PM</i>																																							
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																																						
		<i>PLUG DOWN AT 2 AM</i>																																																									
DETAIL OF OPERATIONS AND REMARKS		<i>PLUG #2</i>																		<i>WAIT ON CEMENT</i>																		<i>RIG RELEASED</i>																					
		<i>RAN 64 SAX + 27 CALC² TO CEMENT INTERVAL 1200-900</i>																		<i>PULL UP + RUN PLUG #3</i>																		<i>11 PM</i>																					
		<i>DISPLACE 7 BBL'S</i>																		<i>WAIT ON CEMENT</i>																		<i>MARCH 31/66</i>																					
		<i>PLUG DOWN AT 3:40 AM</i>																		<i>1. H. 3.</i>																		<i>WAIT ON CEMENT</i>																					
																																						<i>5 say of cement on surface and weld on plate and sign.</i>																					
Driller		<i>R. D. H.</i>																		Driller <i>W. J. Jones</i>																		Driller <i>R. L. Reynolds</i>																					

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Timehrs. Total Company Timehrs. Toolpusher *W. J. Jones* Approved by

Total Contract Timehrs. Total Company Timehrs. Toolpusher [Signature] Approved by _____

GATRIER - B-72

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

LSD. SEC. TWN. RGE. W.

Contractor WARRIANType Rig FAIRBANKMonth MARCH Day 29 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH	From	To	Hole Made	Hole Size	Formation
1254			6	6 1/4	1-RANITE

DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
3 1/2		69	224P		189-37	

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR	6	4 3/4	1 1/2	189-37	

DATA	46000

BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed
27	W7R		3 3/4			8' 10'		

SURVEYS	Kind	at	Ft.	Deg. off
SLUSH PUMP RECORD No. 1 No. 2				

MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
4:00	47	9.9				
6:00	47	9.9				

CORING	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.

DETAIL OF OPERATIONS AND REMARKS	From	To	Hrs.
5:20 RIG UP	11:00	12:15	1 1/4
FINISH OUT	12:15	12:15	1/2
RUN IN	12:15	12:15	1 1/2
CIR WAITING ON			
WOL T RUCK	12:15	1:30	2 1/2
PULL 20 SINGLES	1:30	1:50	1/2

DRILLER	Driller	Driller
<u>A. B. Smith</u>	<u>M. J. Smith</u>	<u>A. B. Smith</u>

HEADING UP & DRG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTO: CONDITIONING MUD:
FISHING: TRIPPING:
CIRCULATING: CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W O ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:MNFR. DRILLING LINE IN USE
MNFR. OF KELLY HOSE IN USE

REEL SERIAL No.

HOSE SERIAL No.

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher W. J. Smith

Approved by

LSD

SEC

TWN

RGE

W

Contractor

WARRFAN

Type Rig

FARMER

Month

MARCH

Day

25 1968

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation	From		To	Hole Made	Hole Size	Formation	From		To	Hole Made	Hole Size	Formation														
2232 2247		12'	6 1/4"	L-GRANITE	2247 2252		5'	6 1/4"	PRANIT	2252 2254																						
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.											
3 1/2		—	68	14P	189.37	—	—	3 1/2		—	69	24 up	189-37	—	—	3 1/2		—	69	189-37	—											
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL												
COLLAR		6	4 3/4	1 1/2	189.37	DRILLING STRING	DRILL COLLARS	COLLAR		6	4 3/4	1 1/2	189	DRILLING STRING	DRILL COLLARS	COLLAR		6	4 3/4	1 1/2	189.37	DRILLING STRING	DRILL COLLARS									
DATA		46.000					DATA		46.000					12.000					DATA													
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled	Reamed	No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled	Reamed	No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled	Reamed		
36		W7				4 1/2	2246	12000	32'	—	37		W7				3 3/4		12000	6		37		W7								
Bit Serial No.		4719 / 172835					Table R.P.M.		120		Bit Serial No.		74755					Table R.P.M.		90		Bit Serial No.		74755					Table R.P.M.		60	
Jet or Conventional		—					Nozzle Size		1 1/2		Jet or Conventional		—					Nozzle Size		—		Jet or Conventional		—					Nozzle Size		FULL	
SURVEYS		Kind	at	Ft.	Deg. off	Kind		at	Ft.	Deg. off	Kind		at	Ft.	Deg. off																	
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size													
No. 1		On Line	Circulating					On Line		Circulating					On Line		Circulating															
No. 2				300	12	60	2 1/4					300	12	60	2 1/4					300	12	58	1 1/4									
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS											
12:00		40	102					3:00		10				PELL 1000	8		60	10.2	6	8												
2:00		40	102					4:00		10				PRESER 2.5	10		50	10.2	6	8												
4:00								5:00		10				MIXED LIT 300																		
								5:00		11				WATER																		
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.											
DETAIL OF OPERATIONS AND REMARKS		From	To	Hrs.	From		To	Hrs.	From		To	Hrs.																				
SEA PULL FILL		12:00	12:05	1/4	AIR SERV.		8:00	8:15	1/4	PAIN IN HOLE		4	4:30	1/2																		
DRILL		12:05	3:30	3 1/4	DRILL		8:15	10:00	1 3/4	RIG SET		4:30	5	1/2																		
PULL FOR BIT		3:00	4:00	1/2	CIRC. WAIT ON LOG		10:00	3:30	3	CIRCULATING		5	10:30	5 1/4																		
WORK ON AIRLINES		4:00	4:30	1/2	TRUCK, CONN. MUD					PULLED W. 69570		10:50	12	1 1/4																		
FINISH OUT		4:30	5:30	1	PULLED 120, STD		3:30	4:00	1/2																							
RUN IN		5:30	7:00	1 1/2	TO WORK HOLE																											
SET 41 DRAHS		7:00	7:15	1/4																												
REAM		7:15	7:30	1/4																												
DRILL		7:30	8:00	1/2																												
Driller		F. Decker					Driller					W. Jones					Driller					A. E. Reynolds										

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

B-7 10L CARTRIDGE

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

LSD. SEC. TWN. RGE. W.

Contractor WARFEARType Rig FAIRBANKMonth MARCH Day 27 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation						
		2161	2174	13	6 1/4	SANDSTONE						2171	2211	27	6 1/4							2211	2232	21	6 1/4							
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					
		2 1/2		66	14 4P	189.37	—					3 1/2		67	6 1/2	189-37						3 1/2		68	15 4	187.37						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						
COLLAR		6	4 3/4	1 1/2	189.37	DRILLING STRING				COLLAR		6	4 3/4	1 1/2	189	DRILLING STRING				COLLAR		6	4 3/4	1 1/2	189.37	DRILLING STRING						
DATA		37.000								DATA		37.000								DATA		43.000										
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			
		34	W7			8 1/4		14.00	30				35	W7	8 1/4		6 1/2		12.00	27 8'				36	W7			6 1/4	23.11	16.00	27	
		Bit Serial No. <u>42961</u> / <u>4691</u> Table R.P.M. <u>120</u>										Bit Serial No. <u>4691</u> Table R.P.M. <u>100</u>										Bit Serial No. <u>4718</u> Table R.P.M. <u>80</u>										
		Jet or Conventional - <u>1 1/2</u> Nozzle Size										Jet or Conventional - <u>1 1/2</u> Nozzle Size										Jet or Conventional - <u>FULL</u> Nozzle Size										
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off									
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size													
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating																
No. 2				300	14	60	2 1/4					300	12	65	3 1/4					300	12	58	5 1/4									
MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS									
		12:00	43	9.8							10	55	1.0			WATER				6	42	10.2	6	8								
		2:00	43	9.8							12	45	1.0							8	44	10.2	6	8								
		4:00	43	9.8							2	45	10.2	12.4	8					10	40	10.2	6	8								
											1	42	10.2																			
CORING		From	To	Ft. Cor'd	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cor'd	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cor'd	Ft. Rec'd.	Core No.	Type Bbl.											
DETAIL OF OPERATIONS AND REMARKS		SERVILE R.I.E. 12:00/12:55 1/4							R.I.E. SERV. 8:00/8:55 1/4							Rig set 4 430 1/2																
		FINISH RUN IN 8:15/8:45 1/2							TRIP TO CHANGE BIT 430/730 3																							
		REAM / DRILL 8:45/1:30 4 3/4							DRILL REPAIRS WEIGHT 120/730 12 4 1/4																							
		WORK ON PUMP 1:30/2:30 1																														
		DRILL 2:30/4:00 1 1/2																														
Driller		<u>R. BEATEN</u>							Driller <u>W. J. J. J.</u>							Driller <u>W. J. J. J.</u>																

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:CONDITIONING MUD:
TRIPPING:
CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W O ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC:MNFR. DRILLING LINE IN USE
MNFR. OF KELLY HOSE IN USEREEL SERIAL No.
HOSE SERIAL No.DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY
YES ☒ NO ☐

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher W. J. J. J.

Approved by

Total Contract Time hrs. Total Company Time hrs. Toolpusher W. J. ... Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

Location CRATIDGE LSD 112 SEC TWN W RGE W Contractor WARDEN Type Rig Talking 25th Month 3 Day 25 1966

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.										
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation						
2098										2098										2098		2111	13	6 1/4						
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					
3 1/2				63		36000				3 1/2					36000				3 1/2			64	17 up	189-37						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				
COLLAR		6	4 3/4	1 1/2	18937	DRILLING STRING				COLLAR		6	4 3/4	1 1/2	1892	DRILLING STRING				COLLAR		6	4 3/4	1 1/2	189	DRILLING STRING				
DATA										DATA		36000								DATA		36000								
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE	
31		owd									31		owd						10'		32		owd	9		3		12000	13	25'
Bit Serial No.						Table R.P.M.				Bit Serial No.						Table R.P.M.				Bit Serial No.		37211				Table R.P.M. 100				
Jet or Conventional -						Nozzle Size				Jet or Conventional -						Nozzle Size				Jet or Conventional -						Nozzle Size				
SURVEYS		Kind	at	Ft.	Deg. off				Kind		at	Ft.	Deg. off				Kind		at	Ft.	Deg. off									
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size									
No. 1		On Line	Circulating						On Line		Circulating						On Line		Circulating											
No. 2																	300		12"	65	5 1/4									
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			
																											PRESER-25			
																											50 9.9			
																											50 9.9			
																											53 10			
																											53 10			
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.					From		To	Hrs.					From		To	Hrs.									
RIG SET		12		1230	1 1/2					SERVICE TIME		800		815	1 1/4					RIG SERV.		400		415	1 1/4					
FINISHED RIG TO SPOT OIL		1230		330	3					SPOT OIL EVERY										FINISH OUT.		415		445	3 1/2					
SPOT OIL		330		5	1 1/2					1/2 HOUR 1/2 BBL. 515										RUN IN WITH BIT.		445		600	1 1/4					
MAKING OIL EVERY										WORKING - STUCK										REAMING.		600		630	1/2					
AT 1/2 HOUR ONE 1/2 BBL. 8		8		3						PULLING OUT		300		400						PUT UP NEW KELLY HOSE		630		730	1					
										FIRM		8:00		8:15						REAM.		730		830	1					
										PULLING OUT		300		400						WORK ON PUMP.		830		900	1/2					
																				DRILL.		900		1200	3					
Driller		<u>A. L. Reynolds</u>								Driller		<u>DEPTCH</u>								Driller		<u>John Jones</u>								

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by

Loc. CARTRIDGE LSD. B 72 SEC. TWN. RGE. W. Contractor W. H. R. E. A. N. D. I. G. Type Rig TAILING 2500 Month 3 Day 24 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																										
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation																				
		2023	2098	13	5							2090			6 1/4							2098																								
		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																			
		3 1/2		63		189.37						3 1/2		63	8 1/4	189.37						3 1/2		63	8 1/4	189.37																				
DRILLING STRING	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																		
	COLLAR	6	2 3/4	1 1/2	189.37	DRILLING STRING				DRILL COLLARS				COLLAR				DRILLING STRING				DRILL COLLARS				COLLAR	6	4 3/4	1 1/2	DRILLING STRING				DRILL COLLARS												
	DATA	36.000														DATA	36.000																DATA	36.000												
BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																
	30	Δ										31	OWU										31	OWU																						
	Bit Serial No. <u>D RR</u> Table R.P.M. <u>100</u>												Bit Serial No. <u>66862</u> Table R.P.M. <u>120</u>												Bit Serial No. Table R.P.M.																					
Jet or Conventional - Nozzle Size												Jet or Conventional - Nozzle Size <u>1 1/2</u>												Jet or Conventional - Nozzle Size																						
SURVEYS	Kind	at				Ft.				Deg. off						Kind	at				Ft.				Deg. off						Kind	at				Ft.				Deg. off						
	HOURS												HOURS												HOURS																					
SLUSH PUMP RECORD	No. 1	On Line	Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size					No. 1	On Line	Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size					No. 1	On Line	Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																	
	No. 2			700	12	42	5 1/4					No. 2			300	12	60	5 1/4					No. 2			300	12	65	5 1/4																	
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																		
CORING	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.							From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.							From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																
	2083	2098	17		20																																									
DETAIL OF OPERATIONS AND REMARKS	Rig set												Rig serv.												Rig serv.																					
	DILG												COND. MUD.												COND. MUD.																					
	WORK ON MUD PUMP												WORK ON PUMP												WORK ON PUMP																					
	CUT												CUT												CUT																					
	PULLED OUT JOINTS VERY HARD												PULLED OUT JOINTS VERY HARD												PULLED OUT JOINTS VERY HARD																					
	TO BRNKE												TO BRNKE												TO BRNKE																					
	RECOVER CUT												RECOVER CUT												RECOVER CUT																					
SFR & LAID DOWN CABLE												SFR & LAID DOWN CABLE												SFR & LAID DOWN CABLE																						
STARTED IN HOLE												STARTED IN HOLE												STARTED IN HOLE																						
Driller <u>A. L. Reynolds</u>												Driller <u>F. BEATCH</u>												Driller <u>W. M. Jones</u>																						

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. M. Jones Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

LOC. CRATER, ELSD. B 12 SEC. 13 TWN. 13 RGE. 13 W. Contractor WARDEN OIL Type Rig T-12 Month 3 Day 23 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																															
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation																											
		2081	2081	40	6 1/4							2081											2081	2081		5 1/2																									
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																								
		3 1/2		63	18 1/4	187	37							63	18 1/4	189	37							3 1/2		63	17	189	37																						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																									
COLLAR		6	4 3/4	1 1/2		DRILLING STRING				DRILL COLLARS				COLLAR		8	4 3/4	1 1/2	189	DRILLING STRING				DRILL COLLARS				COLLAR		6	4 3/4	1 1/2	189	DRILLING STRING				DRILL COLLARS													
DATA		35000										DATA		36000										DATA		36000																									
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																						
		29	24W	4 1/2		4 1/2	2081	15000	40				29	24W			4 1/2	2081		40				30	0	11		1	12000	2																					
		Bit Serial No. 37227 Table R.P.M. 120										Bit Serial No. 37227 Table R.P.M. 120										Bit Serial No. 77-59 0 Table R.P.M. 110																													
		Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size																													
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off																				
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																				
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating				On Line		Circulating				On Line		Circulating																							
No. 2				200	12	50	5 3/4																																												
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																				
							25' 185' PRESSURE								DST. 3. - 20 20 - 81, V.O. 60 MIN.																																				
							Rec. 1st mud, 1040' salt water.																																												
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																				
																	2081		2083	2			20		DIAMOND																										
DETAIL OF OPERATIONS AND REMARKS				From	To	Hrs.			From		To	Hrs.			From		To	Hrs.					From	To	Hrs.																										
		RIG SER.		12	1200	1/2			SERV. SER.		800	815	1/4			RIG SERV.		400	415	1/4			FINISH BREAK LAY DOWN TOOL		415	5:00	3/4																								
		RUN IN HOLE		1230	230	2			GIR		815	845	1/2			FINISH BREAK LAY DOWN TOOL		415	5:00	3/4			RUN IN HOLE STDS, PULL BACK																												
		REAR.		200	300	1			PULL TO TEST		845	1000	1 1/4			OUT TO CORE.		5:00	6:30	1 1/2			PICK UP & BBL.		6:30	7:15	3/4																								
		D.L.G.		330	8	4 1/2			MORNING UP TREN		1000	1045	3/4			RUN IN TO CORE.		7:15	8:45	1 1/2			WORK ON PUMP.		8:45	10:30	2 1/2																								
									RUN IN		1045	1200	1 1/4			CIRC.		10:30	11:00	1/2			CORE #20		11:00	12:00	1																								
									TESTING.		1200	230	2 1/2																																						
									PULL OUT		230	345	1 1/4																																						
									BRACK TREN		345	400	1/4																																						
Driller		A. B. R. - W. H.										Driller										B. L. A. T. C. H.										Driller										J. M. J. O. N. E. R.									

HEADING UP & DRIG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Time _____ hrs. Total Company Time _____ hrs. Toolpusher _____ Approved by _____

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

Imperial Oil Ltd. LSD. B7.2 SEC. TWN. RGE. W. Contractor *Wardman Oil* Type Rig *2* Month *3* Day *22* 19*60*

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.													
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation									
		2022	2041	19	6"4							2041											2041										
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.						
		3 1/2		60	284P	239.16							3 1/2		60	284P	239.16							3 1/2				239-16					
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL							
COLLAR		8	4 3/4	1 1/2	239.16	DRILLING STRING				COLLAR		8	4 3/4	1 1/2	239.16	DRILLING STRING				COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING							
DATA						36 000				10 000				DATA						38,000				DATA						36 000			
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				
		27	M4N	2 20	2 20	9 1/2	2041	10 000	60				28	M4N			1		4 000	20'				29	D	7 00	9 30	2 1/2	2025	8 000			
		Bit Serial No. 332206				Table R.P.M. 120						Bit Serial No. 72075				Table R.P.M. 170						Bit Serial No.				Table R.P.M.							
		Jet or Conventional -				Nozzle Size FULL						Jet or Conventional -				Nozzle Size 1 1/2						Jet or Conventional -				Nozzle Size							
SURVEYS		Kind	at	Ft.		Deg. off				Kind		at	Ft.		Deg. off				Kind		at	Ft.		Deg. off									
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size										
No. 1		On Line	Circulating							On Line		Circulating						On Line		Circulating													
No. 2				375	12	58	5 1/4							400	12	60	2 1/4							8 00	12	44	5 1/4						
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						
							36 000 GELL																										
							21 SANDWICH																										
							7 FIBERGLASS																										
							2 GELL BLOCK																										
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.								
					Note														2041		2025	5	3		DIAMOND								
DETAIL OF OPERATIONS AND REMARKS		Rig serv		From	To	Hrs.	SERVILE H.T.				From		To	Hrs.	RIG SERV.				From		To	Hrs.	RIG SERV.										
		DILG		1230	1	1 1/2	PULL OUT				8 15		9 30	1 1/4	INSTALL NEW AIRLINES				4 00		4 15	1 1/2	INSTALL NEW AIRLINES										
		Lost circulation		1230	1	1 1/2	RUN IN COLLARS				9 30		10 00	1 1/2	RUN IN				4 15		5 45	1 1/2	RUN IN										
		Dilig & losing circ		1	5 30	4 1/2	PULL COLLARS				10 00		10 30	1 1/2	C.I.R.				5 45		6 30	3 1/4	C.I.R.										
		Started and		5 30	7 30	2	RUN IN JUNK SUB				10 30		11 45	1 1/4	CORING H				6 30		7 00	1 1/2	CORING H										
				7 30	8	1 1/2	TEAM & CIR JUNK SUB				11 45		12 15	1 1/2	PULL OUT				7 00		9 30	2 1/2	PULL OUT										
							PULL TO GEAR				11 2		2 42	1 1/2	RECOVER CORE, JAMMED IN AIR				9 30		11 00	1 1/2	RECOVER CORE, JAMMED IN AIR										
							PULL 2 1/2 33 3/4				11 2		2 42	1 1/2	SERV, LAY DOWN B.B.S.				11 00		11 45	3 1/4	SERV, LAY DOWN B.B.S.										
							Running in				33		4 00	1 1/2					11 00		11 45	3 1/4											
							Driller <i>A. E. Reynolds</i>									Driller <i>R. Benoit</i>									Driller <i>W. J. ...</i>								

HEADING UP & DRLG. OUT: CLASSES OF TIME BREAKDOWN: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher *W. J. ...*

Approved by

Imp. CAR. R. 154SD. 379 SEC. TWN. RGE. W. Contractor WARDEN Type Rig JA 1511.525.00 Month 3 Day 2 1966

1st Tour From: 12:00 Midnight To: 3:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																							
DEPTH		From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation																																					
		32	1946	6 1/4	LIME				1946	1981	32	6 1/4	DOLOMITE				1981	2022	41	6 1/4																																							
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.				Core Bbl. Ft.																															
			46	3						3 1/2	28	28.40	239-16					3 1/2	59	17 up	239-16																																						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																																			
COLLAR		DRILLING STRING																		DRILL COLLARS		COLLAR		DRILLING STRING																		DRILL COLLARS																	
DATA		34.000																		DATA		31.000																		DATA																			
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed																																
			5 1/2		5 1/2		10.000	32			27	OWN		11 3/4		12.000	67			27	OWN		3				13.000																																
		Bit Serial No. <u>37244-392606</u> Table R.P.M. <u>120</u>										Bit Serial No. <u>392606</u> Table R.P.M. <u>120</u>										Bit Serial No. <u>392606</u> Table R.P.M. <u>120</u>																																					
		Jet or Conventional - <u>Nozzle Size</u>										Jet or Conventional - <u>Nozzle Size</u>										Jet or Conventional - <u>Nozzle Size</u>																																					
SURVEYS		Kind	at	Ft.	Deg. off		HOURS On Line Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	Kind	at	Ft.	Deg. off		HOURS On Line Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	Kind	at	Ft.	Deg. off		HOURS On Line Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																									
SLUSH PUMP RECORD No. 1 No. 2																				400 12 60 5 1/4																		400 60 60 5 1/4																					
MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS										Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS										Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS																						
																	8:00	43	10.5																																								
																	10:00	43	10.5														6	50	10.4				WATER																				
																	18:00	45	10.5														8	45	10.4				GEL 500																				
																	2:00	46	10.5														10	40	10.4				REVER. 25																				
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																																		
DETAIL OF OPERATIONS AND REMARKS		From	To	Hrs.											From	To	Hrs.											From	To	Hrs.																													
		SERVILE F.L. DOP'S 800 8:15 1/4										8:15 230 6 1/4										RIG SERV. 400 4:15 1/4																																					
		PRINN 8:15 230 6 1/4										FINISH RUN IN 4:15 5:00 3/4										29 RILH. 5:00 12:00 7																																					
		PULL FOR BIT 230 330 1																																																									
		8 5 1/2 RUNNING IN 330 400 1/2																																																									
Driller		R. BEATCH										Driller										J. M. JAMES																																					

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:
 Total Contract Timehrs. Total Company Timehrs. Toolpusher R. BEATCH Approved by J. M. JAMES

APCARIAND, ALSD. 72 SEC. TWN. RGE. W. Contractor WARRICK Type Rig Trailing 2 Month Day 2 1964

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																					
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation																	
		1836	1864	29	6 1/4							1864	1885	21	6 1/4	DOLomite						1885	1914	29	6 1/4																
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.														
		3 1/2		54		239.16							3 1/2		54	4 1/2	239.16							3 1/2		55	5 1/2	239-16													
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL															
COLLAR		8	4 3/4	1 1/2	239.16	DRILLING STRING				DRILL COLLARS				COLLAR		8	4 3/4	1 1/2	239.16	DRILLING STRING				DRILL COLLARS				COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING				DRILL COLLARS			
DATA						32000	10000				DATA						23916	34000				DATA						35000													
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed												
		24	OWN	5 3/4		5 3/4		11000	29				24	OWN			8 1/2	1875	12000	40				25	OWN	4	11	9 1/4	1414	16000	39										
		Bit Serial No. 67791				Table R.P.M. 150						Bit Serial No. 67791 - 66870				Table R.P.M. 120						Bit Serial No. 66870				Table R.P.M. 120															
		Jet or Conventional -				Nozzle Size Full						Jet or Conventional -				Nozzle Size 1 1/2						Jet or Conventional -				Nozzle Size															
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off																		
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																						
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating																									
No. 2				375	12	58	5 1/4					400	12	60	5 1/4					100	12	60	5 1/4																		
MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES - POUNDS		Time		Visc.	Wt.	W.L.	pH	ADDITIVES - POUNDS		Time		Visc.	Wt.	W.L.	pH	ADDITIVES - POUNDS																		
		4	41	10.5	6	8					43	10.6							4	45	10.6			WATER																	
		5	40	10.5	6	8					1000	43	10.6	14.4	8					6	42	10.6			GEL. 1100																
											1200									8	42	10.6																			
											200	45	10.6							10	42	10.6																			
																				1																					
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																				
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	From		To	Hrs.	From		To	Hrs.																												
		Rig Set		12	1230	1/2	SERVICE RIG - BOPs		800	815	1/4	RIG SERV.		400	415	1/4																									
		Run in Hole		1230	2	1 1/2	DRILL		815	1100	23 1/4	DRILL		415	1100	6 3/4																									
		D-Log		2	2	5	PULL FOR BIT		1100	1230	1 1/2	TRIP FOR BIT		1100	1200	1																									
		Change bit in SWIRL		215	2	1/2	RUN IN		1230	130	1	PULLED OUT 40 STD																													
		D-Log		215	8	3/4	RUN IN		130	400	2 1/2																														
Driller		A. L. Ryan				Driller				F. BEATCH				Driller				W. J. G. G. G.																							

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. G. G. G. Approved by

IMP. CARTRIDGE LSD. 1.22 SEC. TWN. RGE. W. Contractor WARDHAM DRILL Type Rig FAILING Month MARCH Day 19 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation						DEPTH		From	To	Hole Made	Hole Size	Formation						DEPTH		From	To	Hole Made	Hole Size	Formation						
		1762	1787	25	6 1/4	DOLOMITIC								1787	1813	26	6 1/4									1813	1836	23	6 1/4	DOLOMITIC						
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					
		3 1/2		49	1 1/4	239-16								3 1/2		52	19	239-16								3 1/2		53	244P	239-16						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						
COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING						COLLAR		8	4 3/4	1 1/2	239-16	DRILLING STRING						COLLAR		8	4 3/4	1 1/2	239-16	DRILLING STRING						
DATA		33000										DATA		32000 10000										DATA		34000										
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			
		22	OWR	1		7		16000						22	OWR	1 1/2		9 3/4	1601	8000	39						23	OWR	9		1836	12000	79			
		Bit Serial No. 67799 Table R.P.M. 70												Bit Serial No. 67799 Table R.P.M. 130												Bit Serial No. 66866 Table R.P.M. 120										
		Jet or Conventional - Nozzle Size												Jet or Conventional - Nozzle Size FULL												Jet or Conventional - Nozzle Size 1 1/2										
SURVEYS		Kind	at	Ft.	Deg. off			SURVEYS		Kind	at	Ft.	Deg. off			SURVEYS		Kind	at	Ft.	Deg. off															
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size													
		On Line	Circulating							On Line		Circulating						On Line		Circulating																
				400	12	65	5 1/4							325	12	58	5 1/4																			
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS									
		2	50	10.6	8-5	8						10	40	10.5	6	8						400	42	10.1												
		4	50	10.6	11	11						9	41	10.5	6	8						600	42	10.1												
		6	11	11	11	11																800	42	10.1	10.8											
		8			85	8																1000	42	10.1												
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.													
DETAIL OF OPERATIONS AND REMARKS		RIG SERV. 1200 12:15 1/4										DETAIL OF OPERATIONS AND REMARKS		Rig serv 8 830 1/4										DETAIL OF OPERATIONS AND REMARKS		SERVILE F.T. 400 4:15 1/4										
		FINISH RUN IN 12:15 1:00 3/4												DRILL 830 11:15 2 3/4												DRILL 4:15 10:15 6 1/2										
		DRILL 1:00 8:00 7												TRIP 11:15 1:30 2 1/2												FULL FOR BIT 10:15 12:00 1 1/4										
														DRILL 1:30 4 2 1/4																						
Driller		<u>Wm. Spencer</u>										Driller		<u>W. C. Reynolds</u>										Driller		<u>F. D. Hatch</u>										

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC:

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

IMP. CARTRIDGE LSD B. 22 SEC. TWN. RGE. W. Contractor WARREN DRILL Type Rig FAIRING Month MARCH Day 18 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																							
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation																																			
		1680	1711	31	6 1/4							1711	1739	28	6 1/4							1739	1762	23	6 1/4	Dolomite																																	
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																																
		3 1/2		47	30	239	16						3 1/2		47	2	239	16						3 1/2		45	9	239																															
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																																	
COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING				DRILL COLLARS				COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING				DRILL COLLARS				COLLAR		8	4 3/4	1 1/2	239	DRILLING STRING				DRILL COLLARS																					
DATA		22000																		DATA		239.000																		DATA		239.000																	
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																														
		20	OWV	12:13		7 3/4		16000	31				20	OWV	12:13		7 3/4		16000	31				21	OWV			9 1/4		12,000	21																												
		Bit Serial No. 66873 Table R.P.M. 70										Bit Serial No. 66873 Table R.P.M. 70										Bit Serial No. 70110 Table R.P.M. 125										Bit Serial No. 70110 Table R.P.M. 90																											
		Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size																											
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off																												
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																												
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating				On Line		Circulating				On Line		Circulating																															
No. 2				400	12	60	2 1/4					300	12	58	5 1/2					300	12	60	2 1/4																																				
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																												
		2	50	106	8-6		MY, L.O. JET 600				10	40	112	6	8					400	42	102																																					
		4	55	106			water													600	42	102	45	8																																			
		6	60	11							2	42	142	6	8					800	47	102	45	8																																			
		8	60	11	60																																																						
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																												
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.			From		To	Hrs.			From		To	Hrs.			From		To	Hrs.																																				
		RIG SERV.		12:00	12:15	1/4			RIG SERV		2	8:30	1/4			SERVILE RIG		4:00	4:15	1/4																																							
		DRILL		12:15	8:00	7 3/4			DRILL		8:30	10	1 1/2			DRILL		4:15	10:00	5 3/4																																							

Total Contract Timehrs. Total Company Timehrs. Toolpusher [Signature] Approved by _____

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

IMP. CARTRIDGE LSD. B. 72 SEC.

TWN.

RGE.

W.

Contractor WARRIOR DRILLINGType Rig FAIRLINEMonth MARCH Day 6 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.													
	From	To	Hole Made	Hole Size	Formation	From	To	Hole Made	Hole Size	Formation	From	To	Hole Made	Hole Size	Formation									
	1535	1588	53	6 1/4		1588	1620	32	6 1/4		1620	1633	3	5 1/2										
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.						
	3 1/2		42	2 up	239		3 1/2		43	DOWN	239	5' 8 1/2		3 1/2	44	44	28	239						
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						
	COLLAR	8	4 3/4	1 1/2	239	DRILLING STRING	DRILL COLLARS	COLLAR	6	4 3/4	1 1/2	239	DRILLING STRING	DRILL COLLARS	COLLAR	8	7 3/4	1 1/2	239	DRILLING STRING	DRILL COLLARS			
BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE
	18	OWV	1		7		15000		18	OWV	5 1/4	2 1/2	12 1/2	1620	10000	25		19	9		2 1/4		4000	25
	Bit Serial No.	37530					Table R.P.M.	100	Bit Serial No.						Table R.P.M.		Bit Serial No.	77-59					Table R.P.M.	90
	Jet or Conventional						Nozzle Size		Jet or Conventional						Nozzle Size		Jet or Conventional						Nozzle Size	3 1/2
SURVEYS	Kind	at		Ft.		Deg. off		Kind	at		Ft.		Deg. off		Kind	at		Ft.		Deg. off				
	SLUSH PUMP RECORD	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	SLUSH PUMP RECORD	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	SLUSH PUMP RECORD	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			
	No. 1	On Line	Circulating					No. 1	On Line	Circulating					No. 1	On Line	Circulating							
	No. 2			300	12	65	5 1/4	No. 2			300	12	58	5 1/4	No. 2			700	12	40	2 1/4			
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				
	2	40	10.5					10	40	10.5					600	40	10.9							
	4	43	10.6					12	41	10.5														
	6	40	10.6					12	42	10.5														
CORING	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.						
DETAIL OF OPERATIONS AND REMARKS	From	To	Hrs.	From	To	Hrs.	From	To	Hrs.															
	RIG SERV.	12:00	12:15	1/4	RIG SERV.	8	8:30	1/2	RIG SERV.	4:00	4:30	1/2												
	WORK ON AIR-COMP.	12:15	1	3/4	DRILL	8:30	11:5	4 1/4	CORING #17	4:30	5:30	1												
	DRILL	1	8	7	PULLED OUT	11:5	2:15	1	PULL OUT	5:30	6:30	1												
				PULLED OUT	2:15	2:45	3/4	CHANGE BITS	6:30	6:45	1/4													
				PULLED OUT	2:45	3:15	3/4	RUN IN	6:45	7:45	1													
				RAN IN HILL	3:15	4	1 1/4	RIG	7:45	8:15	1/2													
				PULLED UP 2 SINGLE	4			CORING #18	8:15	9:30	1 1/4													
								PULL OUT	9:30	10:30	1													
								RECOVER CORE LAY BBL.	10:30	11:00	1/2													
								RUN IN	11:00	12:00	1													
Driller	<u>Wm. Jones</u>						Driller	<u>W. R. Rydell</u>						Driller	<u>P. B. A. T. U. H.</u>									

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE: REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY?

DRILLING:

REAMING:

FISHING:

CIRCULATING:

TRIPPING:

CORING:

W.O.C.

D.S. TESTING:

W O ORDERS:

RIG REPAIRS:

MISCELLANEOUS:

CONDITION HOLE:

WORKING PIPE:

LOST CIRC.:

MNFR. DRILLING LINE IN USE

MNFR. OF KELLY HOSE IN USE

REEL SERIAL No.

HOSE SERIAL No.

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY?

YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher W. R. Rydell

Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

 IMP. CARTRIDGE LSD. R. SEC. TWN. RGE. W. Contractor WARDEN DRILL Type Rig FAIRLIND Month MARCH Day 15 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation						
		1448	1448	8 8	6 1/4	11						1448	1528	80	6 1/4							1238	1238	7	6 1/4							
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.							
		3 1/2		39	422	239				3 1/2			40	422	239										239							
		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL							
		COLLAR	8	4 3/4	1 1/2		DRILLING STRING			COLLAR			18	4 3/4	1 1/2	DRILLING STRING			COLLAR			8	4 3/4	1 1/2	DRILLING STRING							
		DATA	28000								DATA		28000								DATA		28000									
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			
		18	OSC	7.30				8000	8		18		OSC	7				1000	50		18		OSC				8 3/4		1200	87		
		Bit Serial No. 67577					Table R.P.M.					Bit Serial No. 67577					Table R.P.M.					Bit Serial No.					Table R.P.M.					
		Jet or Conventional -					Nozzle Size					Jet or Conventional -					Nozzle Size					Jet or Conventional -					Nozzle Size					
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off	
RESEUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size				
		On Line	Circulating						On Line		Circulating						On Line		Circulating						On Line		Circulating					
		1448							40								300							12								
		Time	Visc.	Wt.	W L	pH	ADDITIVES - POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES - POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES - POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES - POUNDS	
		8					1000		8						1000		8					1000		8					1000			
MUD RECORD		DST, 2 - 1410' - 1448' V.O. 20 MIN.		REC. 245' muddy water		10 40 10.5'		12 41 10.5'		2 42 10.5'																						
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.											
		1448																														
DETAIL OF OPERATIONS AND REMARKS		From	To	Hrs.	From		To	Hrs.	From		To	Hrs.																				
		R.I.P. SERV	12:00	12:15	1/4		R.I.P. SERV		8	8:30	1/4	SERVING R.I.P.		12:00	4:15	3/4																
		FINISH RUN IN	12:15	12:45	1/2		DRG		8:30	12	3/4	DRG		4:15	6:00	1 3/4																
		DET TOOK & TEST	12:45	2:00	1 1/4		SET UP BRACKS		12	12:30	1/2	PULL OUT		6:00	7:00	1																
		PULL OUT W/ TEST	2:00	3:45	1 3/4		DRG		12:30	4	3/4	WORK ON GUM		7:00	11:00	4																
		BREAK DOWN TOOL	3:45	4:45	1							REPAIR IN		11:00	12:00	1																
		LAY DOWN COLLARS TWO	4:45	5:15	1/2																											
		RUN IN TO BEAM & DRILL	5:15	6:45	1 1/2																											
		WORK ON AIRLINES	6:45	7:30	3/4																											
		REANI, X	7:30	8:00	1/2																											
Driller		Driller							Driller																							

 HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

 Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. Williams Approved by

Location CARLIN, LSD. B.L. SEC. TWN. RGE. W. Contractor WARRICK DRILLING Type Rig Drilling 31" W Month 3-11 Day 14 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																						
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation																		
		1410	1428	18	5"							1410	1440	30	6"							1440	1448	8	2"																	
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																		
		3 1/2		37	12 1/2	24803 55-28					3 1/2		37	14	29803 55-55					3 1/2		38	22 1/2	298.03 23-82																		
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																		
	COLLAR	10	4 3/4	1 1/2	24 1/2	DRILLING STRING DRILL COLLARS				COLLAR	10	4 3/4	1 1/2	24 1/2	DRILLING STRING DRILL COLLARS				COLLAR	10	4 3/4	1 1/2	24 1/2	DRILLING STRING DRILL COLLARS																		
DATA		32.000										DATA		32.000										DATA		32.000																
BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE Drilled Reamed																
	17	D	3:15	6:40	2 3/4	1428	8000			17	M4H	2		2	1440	12	15			18	D			13 1/4	8000	8-6000																
	Bit Serial No. 77-57 DIAMOND Table R.P.M. 110										Bit Serial No. 392606 Table R.P.M. 200										Bit Serial No. 47-29 Table R.P.M. 100																					
	Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size																					
SURVEYS	Kind	at				Ft.				Deg. off				Kind	at				Ft.				Deg. off				Kind	at				Ft.				Deg. off						
	HOURS On Line Circulating										Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS On Line Circulating										Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS On Line Circulating										Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
SLUSH PUMP RECORD No. 1 No. 2		800										12	49	5 1/4																700										12	42	2 1/4
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																		
CORING	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																		
	1410	1428	18	17	#14	DIAMOND													1440	1448				16																		
DETAIL OF OPERATIONS AND REMARKS	RIG SERV. 12:00 12:15 1/4										PULLED out CURT 8 830 1/2										SERVILE F.T. 4:15 5:30 1 1/4																					
	RUN IN 12:15 1:30 1 1/4										RECURSER CURT 830 930 1										PULLED out CURT 5:30 6:00 1/4																					
	WORK ON PUMP 1:30 2:00 1/2										LADDER DOWN CORE B. 930 10 1/2										CORING F.T. 6:00 7:45 1 3/4																					
	CLEAN HOLE TO BOTTOM 2:00 3:15 1 1/4										RIG SERV 10 11:30 1/2										PULLED out 7:45 8:45 1																					
	CORE # 15 3:15 5:45 2 1/2										RAN IN HOLE 1030 1230 2										RE-LOADED CORE 8:45 9:30 3/4																					
	WORK ON PUMP 5:45 6:30 3/4										REAR 1230 130 1										LAY DOWN BBL'S 9:30 9:45 1/4																					
	CORE 6:30 6:55 1/4										PULLED 130 2 1/2										MARKY P TESSAL TOOK 9:45 11:00 1 1/4																					
	PULL OUT 6:55 8:00 1 1/4										PULLED out 2 330 1 1/2										RUNNING IN 11:00 12:00 1																					
											PULLED up me C.M.B. 330 9 1/2																															
	Driller <u>Wm. Jones</u>										Driller <u>A. E. Reynolds</u>										Driller <u>F. BEATCH</u>																					

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:

CONDITIONING MUD:
TRIPPING:
CORING:

CASING:
W.O.C.
D.S. TESTING:

LOGGING:
W O ORDERS:
RIG REPAIRS:

RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:

REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:

MNFR. DRILLING LINE IN USE
MNFR. OR KELLY HOSE IN USE

REEL SERIAL No.
HOSE SERIAL No.

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY
YES NO

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher W. J. Wackman

Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

B-72 LSD SEC. TWN. RGE. W Contractor W. H. R. PEARL Type Rig ROTARY Month MARCH Day 13 1966

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation										
		1296	1296	-	5"					1286	1338	1359	6 1/4"					1338	1410	72	6 1/4"											
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.									
		3 1/2"		33	25	48.03	29-51			3 1/2"		34	25	298.03				3 1/2"		36	25	48.03	298.03									
		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									
		COLLAR	10	4 3/4	1 1/2	248	DRILLING STRING			COLLAR	10	4 3/4	1 1/2	298.03	DRILLING STRING			COLLAR	10	4 3/4	1 1/2	298.03	DRILLING STRING									
		DATA										DATA										DATA										
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE					
				7:30		1/2		8000							1/2			34	13			16	6 1/4	11:40		9 1/4	1410	14500	124	14		
		Bit Serial No. <u>077-59</u> Table R.P.M. <u>110</u>										Bit Serial No. <u>390425</u> Table R.P.M. <u>120</u>										Bit Serial No. <u>390425</u> Table R.P.M. <u>120</u>										
		Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size <u>Full</u>										Jet or Conventional - Nozzle Size <u>1 1/2"</u>										
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off	
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size											
		On Line	Circulating	800	12	49	2 1/4"				300	12	60	2 1/4"				300	12	60	2 1/4"											
No. 1																																
No. 2																																
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS											
									4	37	9.4	9		WATER		4:00	37	9.2														
																6:00	37	9.2	8	8												
																8:00	38	9.4														
																10:00	38	9.4														
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.											
		1296	1297	1		#14	DIAMOND		1296	1338	13	13		DIAMOND																		
DETAIL OF OPERATIONS AND REMARKS				From	To	Hrs.					From	To	Hrs.					From	To	Hrs.												
		RIG SERV		12:00	12:55	1/4			RIG SERV		8	8:30	1/2			SERVILE FT.		4:00	4:55	1/4												
		WORK ON PUMP		12:55	7:30	7 1/4			PULLED OUT CORE		8:30	9:30	1			DRAIN		4:55	9:30	5 1/4												
		CORE #14		7:30	8:00	1/2			PACED CORE		9:30	10	1/2			AIR		9:30	10:00	1/2												
									LIFTED CORE		10	10:30	1/2			PUMP TO CORE																
									RAN IN WITH BIT		10:30	12	1 1/2			SURVEY		10:00	11:55	1 1/4												
									REDR		12	1:30	1 1/2			PICK UP MAKE UP CORE PORE PORE		11:55	12:00	3/4												
									PLOG		12:00	4	3 1/2																			
Driller		<u>W. H. R. PEARL</u>										Driller <u>W. H. R. PEARL</u>										Driller <u>F. BEATCH</u>										

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. H. R. PEARL Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

B-72 LSD SEC. TWN. RGE. W. Contractor W. R. J. RAN Type Rig FEARLESS Month MARCH Day 19 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.															
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation									
		1240	1286	46	6 1/4							1286	1299	13	5"							1296	1296		5'										
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.								
		3 1/2		32	74P	298.03						3 1/2		33	274P	298.03	24-51									274P	298.03	2951							
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				
		13	OWU			18 1/4									11.30		3 1/4		8000																
SURVEYS		Kind	at		Ft.		Deg. off		SURVEYS		Kind	at		Ft.		Deg. off		SURVEYS		Kind	at		Ft.		Deg. off		SURVEYS		Kind	at		Ft.		Deg. off	
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	
		On Line	Circulating								On Line	Circulating								On Line	Circulating								On Line	Circulating					
				300	12	60	5 1/4						700	12	45	5 1/4																			
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	
		12:00	53	9.9												PRESSE 25' Pd.																			
		4:00	53	9.9	11.2	8																													
		6:00	54	9.9									55	10.4																					
													55	10.4	8.4	9.0																			
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	
											1286	1299	13			IF 14 DIAMOND																			
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.
		12:00		12:15	1/4	SERVILE R.I.L.				8:00		8:15	1/4			RIG SERV				4		4:30	1/2												
		12:15		7:30	7 1/4	DRILL				8:15		8:45	1/2			FINISH OUT						12													
		7:30		8:00	1/2	START OUT				8:15		9:15	1/2			PICK & MAKE UP CORE BBL																			
										9:15		10:45	1 1/2			RUN IN. BLOW KELLY																			
										10:45		11:00	1/4			CIRC.																			
										11:00		11:30	1/2			WORK ON PUMP																			
										11:30		7:30	3			CORE # 14																			
										2:30		3:00	1/2			CORE W.O. PUMP																			
										3:00		3:15	1/4			CORE HERE																			
										3:15		4:00	3/4			CHANGE IN PUMP																			
																Driller <u>R. Blatch</u>																			
																Driller <u>W. M. Jones</u>																			
																Driller <u>A. E. Reynolds</u>																			

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. M. Jones Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

I.O.L. ART. R. D.L.L.
B72

LSD. SEC. TWN. RGE. W.

Contractor WARPEANType Rig FAIRBANKSMonth MARCH Day 11 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.															
From		To		Hole Made		Hole Size		Formation		From		To		Hole Made		Hole Size		Formation		From		To		Hole Made		Hole Size		Formation							
1112		1137		25'		2"		ANHYDRITE		1137		1162		25'		6 1/4"		LIME		1162		1240		78'		6 1/4"									
Size-D.P.		Stands		Singles		Kelly		Drill Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill Collar Ft.		Core Bbl. Ft.		Size-D.P.		Stands		Singles		Kelly		Drill Collar Ft.		Core Bbl. Ft.	
3 1/2		—		27		24P		240.03		2582'		3 1/2		—		28		10UP		298-03		—		3 1/2		—		31		237		29803		—	
DRILLING STRING										DRILLING STRING										DRILLING STRING															
DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL		DRILL		Number		OD		ID		Length		INDICATOR WEIGHT OF TOTAL	
COLLAR		8		4 3/4		1 1/2		240.03		DRILLING STRING		COLLAR		10		4 3/4		1 1/2		248		DRILLING STRING		COLLAR		10		4 3/4		1 1/2		298		DRILLING STRING	
DATA										DATA										DATA															
No. Type Time On Bottom At Time Pulled At Total Hours Run Depth Pulled Weight On Bit M. Pounds Drilled Reamed										No. Type Time On Bottom At Time Pulled At Total Hours Run Depth Pulled Weight On Bit M. Pounds Drilled Reamed										No. Type Time On Bottom At Time Pulled At Total Hours Run Depth Pulled Weight On Bit M. Pounds Drilled Reamed															
12.4 0 7 1/4 8000 22										13 0WV 12 4 14000 25 25										13 0WV 1 1/2 11 1/2 17000 1.3															
BIT RECORD										BIT RECORD										BIT RECORD															
Bit Serial No. 72-59 Table R.P.M. 110										Bit Serial No. 75101 Table R.P.M. 100										Bit Serial No. 75101 Table R.P.M. 110															
Jet or Conventional - Nozzle Size 3 1/2										Jet or Conventional - Nozzle Size										Jet or Conventional - Nozzle Size															
Kind at Ft. Deg. off										Kind at Ft. Deg. off										Kind at Ft. Deg. off															
HOURS										HOURS										HOURS															
On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		On Line		Circulating		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size	
				800		12		45		5 1/4						250		12"		65		5 1/4						300		300		60		5	
MUD RECORD										MUD RECORD										MUD RECORD															
Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS	
12.0		51		9.6																				4		47		9.5		9		8			
2.0		51		9.6																				6		47		9.5		9		8			
4.0		52		9.6		10.8		8.																9		48		9.5		9		8			
6.0		52		9.6								2		52		9-5								12		47		9.5		9		8			
CORING										CORING										CORING															
From		To		Ft. Cored		Ft. Rec'd.		Core No.		Type Bbl.		From		To		Ft. Cored		Ft. Rec'd.		Core No.		Type Bbl.		From		To		Ft. Cored		Ft. Rec'd.		Core No.		Type Bbl.	
11.2		1137		25'				#13				1102		1137		25'		25'		#13		DIAMOND													
DETAIL OF OPERATIONS AND REMARKS										DETAIL OF OPERATIONS AND REMARKS										DETAIL OF OPERATIONS AND REMARKS															
SERVILE TO										RIG SERV										Rig serv															
CORING #13										FINISH PULL OUT										DOLG															
START OUT										RECOVER CORE #13																									
										SERV. LAY DOWN BBLs																									
										RUN IN STEAMING PIPE																									
										REAMING																									
										DRILLING																									
Driller <u>BEATCH</u>										Driller <u>W.M. Jones</u>										Driller <u>R. Reynolds</u>															

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:CLASSES OF TIME BREAKDOWN
TOTCO: CONDITIONING MUD:
FISHING: TRIPPING:
CIRCULATING: CORING:CASING:
W.O.C.
D.S. TESTING:LOGGING:
W O ORDERS:
RIG REPAIRS:RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:MNFR. DRILLING LINE IN USE
MNFR. OF KELLY HOSE IN USE

REEL SERIAL No.

HOSE SERIAL No.

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY

YES NO

Approved by

Total Contract Time

Total Company Time

Toolpusher

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

LSD..... SEC..... TWN..... RGE..... W.....

Contractor WARDEN

Type Rig Frith

Month MARCH Day 10 1960

	1st Tour From: 12:00 Midnight To: 8:00 a.m.						2nd Tour From: 8:00 a.m. To: 4:00 p.m.						3rd Tour From: 4:00 p.m. To: 12:00 p.m.																																						
DEPTH	From		To	Hole Made	Hole Size	Formation	From		To	Hole Made	Hole Size	Formation	From		To	Hole Made	Hole Size	Formation																																	
	1094		1108	14	2"		1094		1108	REMAINING 1/4			1108		1112	4	6 1/4	Lime																																	
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																																	
	3 1/2		26	1 1/2	298.03	55' 8 1/2'	3 1/2		26	4 1/2	298.03		3 1/2		26	down	298.03	55' 8 1/2'																																	
	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																																	
	COLLAR	10	4 3/4	1 1/2	298.03	DRILLING STRING	DRILL COLLARS	COLLAR	10	4 3/4	1 1/2	298	DRILLING STRING	DRILL COLLARS	COLLAR	8	4 3/4	1 1/2	298.18	DRILLING STRING	DRILL COLLARS																														
	DATA 28,000						DATA 28,000						DATA 3,000																																						
BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																									
	10 RR	D			2 3/4		2,000	14		11	OWV	3 1/2		1		1,000	14		11	OWV	3 1/4		3/4	11:21 AM		9																									
	Bit Serial No. 77-29						Table R.P.M. 110						Bit Serial No. 372H8						Table R.P.M. 180						Bit Serial No. 72-59						Table R.P.M. 100																				
	Jet or Conventional -						Nozzle Size 3 1/2						Jet or Conventional -						Nozzle Size						Jet or Conventional -						Nozzle Size																				
SURVEYS	Kind	at				Ft.	Deg. off				Kind	at				Ft.	Deg. off				Kind	at				Ft.	Deg. off																								
	HOURS						Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS						Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS						Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																					
SLUSH PUMP RECORD	No. 1	On Line	Circulating				800	12	45	5 1/4						350	12	65	5 1/4																																
No. 2																																																			
MUD RECORD	Time	Visc.	Wt.	WL	pH	ADDITIVES — POUNDS												Time	Visc.	Wt.	WL	pH	ADDITIVES — POUNDS												Time	Visc.	Wt.	WL	pH	ADDITIVES — POUNDS											
	4:00	37	9.6	102	8																		WATER 30 BBL's PLASTER 13 SACKS MY-LO-JEL 9 SACK PRESERVATIVE 100 SPIERSEN 50 CAUSTIC 15 LBS												11	SE	9.5														
																							55 46																												
CORING	From	To	Ft. Cored	Ft. Rec'd	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd	Core No.	Type Bbl.																																	
	1094	1108	14	14	72																																														
DETAIL OF OPERATIONS AND REMARKS	SERVILE FR.						From	To	Hrs.	RIG SERV						From	To	Hrs.	DILG						From	To	Hrs.																								
	PULL TO CORE						11:00	12:15	1 1/4	WORK ON AIR-LINES						8:00	8:15	1/4	circulating						4:00	4:15	1/4																								
	TICK MAKE UP CORE BBLE						12:15	1:00	3/4	RUN IN						8:15	8:30	1/4	PULLED OUT						4:15	4:30	1/4																								
	RUN IN						1:00	1:30	1/2	BLOW KELLY, W.O. SHAKER						8:30	9:30	1	Rig set						4:30	4:45	1/4																								
	CIR.						1:30	2:30	1 1/2	CIRC. CHANGE OVER MUD						9:30	10:30	1	Picked up core 13						4:45	5:00	1/4																								
	GORING #12						2:30	3:45	2 3/4	WORK ON SHAKER MOTOR						10:30	2:30	4	SLIPED LINE & GET						5:00	5:15	1/4																								
	PULL OUT						3:45	7:00	1 1/4	REMAINING.						2:30	3:00	1/2	Run in hole						5:15	5:30	1/4																								
	RECOVER CORE						7:00	7:45	3/4							3:00	4:00	1	Circulating covered						5:30	5:45	1/4																								
	LAY DOWN BBLES						7:45	8:00	1/4										Coring						5:45	6:00	1/4																								
	Driller T. BEATCH												Driller Wm Jones												Driller E.R. Smith																										

HEADING UP & DRLG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO:
FISHING.
CIRCULATING:

CONDITIONING MUD:
TRIPPING:
CORING:

CASING:
W.O.C.
D.S. TEST

LOGGING:
W O ORDERS:
BIG REPAIRS.

RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION: POOR

REAMING CLEANING:
WORKING PIPE:
LOFT GIRC

MNFR. DRILLING LINE IN USE

REEL SERIAL No.

**DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY**

YES NO

Total Contract Timehrs

Total Company Timehrs.

Toolpusher

Approved by _____

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT 13

Imperial 5-72 LSD

SEC. TWN. RGE. W.

Contractor WARDEAN

Type Rig FAIRLINE

Month MARCH Day 9 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH	From	To	Hole Made	Hole Size	Formation
	1044	1062	18'	8"	

DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
	3 1/2		22	18"	298.03	55.85

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR	10	4 3/4	1 1/2	298.03	

DATA	26000				
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BIT RECORD	No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE
	10RR	3			3 1/2		8000	18

Bit Serial No.		Table R.P.M.	
77-59		10	

Jet or Conventional		Nozzle Size	

SURVEYS		Kind		at		Ft.		Deg. off	
SLUSH PUMP RECORD		HOURS		On Line		Circulating		Pump Press	

No. 1		No. 2	

MUD RECORD		Time		Visc.		Wt.		W L		pH		ADDITIVES — POUNDS	
		40		41		9.6							

CORING		From		To		Ft. Cored		Ft. Rec'd.		Core No.		Type Bbl.	
		1044		1062		18				10			

DETAIL OF OPERATIONS AND REMARKS		From		To		Hrs.	
SERVICE RIG		12:00		12:41		1/4	

RIG SERV		From		To		Hrs.	
RECOVER CORE #10		8:00		8:15		1/4	

Rig SERV		From		To		Hrs.	
CORING		9:15		9:45		1/4	

PULLED OUT		From		To		Hrs.	
		6:45		7:30		1/4	

RECOVER CORE		From		To		Hrs.	
		7:30		8:45		1/4	

RUN IN		From		To		Hrs.	
		8:45		10:00		1 1/4	

REANI 5" TO 6 1/4" HOLE		From		To		Hrs.	
		10:00		10:45		3/4	

DRILL		From		To		Hrs.	
		10:45		11:15		1/2	

PULL OUT		From		To		Hrs.	
		11:15		12:15		1	

PICK UP & MAKE UP CORE BBL		From		To		Hrs.	
		12:45		1:00		3/4	

RUN IN CIRC		From		To		Hrs.	
		1:00		2:30		1 1/2	

WORK ON PUMP		From		To		Hrs.	
		2:30		3:00		1/2	

CORE #11		From		To		Hrs.	
		3:00		4:00		1	

Driller		From		To		Hrs.	
B. B. B.		12:00		12:41		1/4	

HEADING UP & DRG. OUT:

CLASSES OF TIME BREAKDOWN

TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No.

FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No.

CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

Approved by

YES NO

Imp. CURTIS GASD. B72 SEC. TWN. RGE. W. Contractor WARDEN Type Rig Drilling 2500 Month 3 Day 8 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																															
DEPTH		From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation																													
		972	1021	46	6 1/4	LIME				1021	1044	28	23	REMAIN				1044																																	
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																												
		3 1/2	-	23	2'40"	298.03	-			3 1/2		24	8'40"	298.03	55'-24																																				
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																											
COLLAR		10	4 3/4	1 1/2	298.03	DRILLING STRING				COLLAR	10	4 3/4	1 1/2	298	DRILLING STRING				COLLAR					DRILLING STRING																											
DATA		28800										28800																																							
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE																								
		11	DM			234		2000	1	42	10	D	8.15	10.43	2 1/4	10.44	7000		28																																
		11	DM			234		2000	1	42	11	DM	2.5	3.30	3 1/4	10.44	6000		23																																
Bit Serial No.		73248 - 77-29										Table R.P.M. 100										Bit Serial No.		Table R.P.M. 110																											
Jet or Conventional -												Nozzle Size										Jet or Conventional -		Nozzle Size																											
SURVEYS		Kind	at	Ft.	Deg. off				Kind	at	Ft.	Deg. off				Kind	at	Ft.	Deg. off																																
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																																
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating																																			
No. 2				300	12	60	2 1/4					800	12	45	5 1/4																																				
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																										
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																										
		1021	1044	23	23	#9	DIAMOND																																												
DETAIL OF OPERATIONS AND REMARKS		From	To	Hrs.					From	To	Hrs.					From	To	Hrs.																																	
		8:00	8:15	1/4	SERVILE F.L.				8:00	8:15	1/4	RIG SERV				8:00	8:15	1/4	PULLER out.																																
		8:15	10:45	2 1/4	LAY DOWN CORE BBL				8:15	10:45	2 1/4	COREING #9.				8:15	10:45	2 1/4	RIG SET																																
		10:45	11:45	1	RUN IN TO REAM				10:45	11:45	1	JAMER CORE REAM. PULL OUT				10:45	11:45	1	PICKED UP PACKER																																
		11:45	1:00	1/4	REAM				11:45	1:00	1/4	RECOVER CORE & LAY DOWN BBL				11:45	1:00	1/4	RAM IN HOLE																																
		1:00	2:15	1 1/4	PULL OUT				1:00	2:15	1 1/4	RUN IN				1:00	2:15	1 1/4	SET PACKER																																
		2:15	3:00	3/4	TIE MAKE UP CORE BBL				2:15	3:00	3/4	REAMING				2:15	3:00	3/4	LAW DOWN PR																																
		3:00	3:30	1/2	TIE IN				3:00	3:30	1/2	CIRC TO TEST				3:00	3:30	1/2	PULLER out PACKER																																
		3:30	4:00	1/2	REPAIR KELLY HOSE				3:30	4:00	1/2	PULLING OUT				3:30	4:00	1/2	LAW DOWN PACKER																																
		4:00	4:12	1/2	GIR																																														
Driller		R. BEATCH										Driller										W. Jones										Driller										A. E. Reynolds									

HEADING UP & DRG. OUT:
DRILLING:
REAMING:

CLASSES OF TIME BREAKDOWN
TOTCO:
FISHING:
CIRCULATING:

CONDITIONING MUD:
TRIPPING:
CORING:

CASING:
W.O.C.
D.S. TESTING:

LOGGING:
W O ORDERS:
RIG REPAIRS:

RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:

REAMING CLEANING:
WORKING PIPE:
LOST CIRC:

MNFR. DRILLING LINE IN USE
MNFR. OF KELLY HOSE IN USE

REEL SERIAL No.
HOSE SERIAL No.

DID YOU CHECK BLOWOUT
PREVENTER EQUIPMENT TODAY
YES NO

Total Contract Time.....hrs.

Total Company Time.....hrs.

Toolpusher.....

Approved by.....

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

SEC. _____ TWN. _____ RGE. _____ W. _____ Contractor WARDEAN Type Rig FAIRLINE Month MARCH Day 7 1964

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation										
		950	972	22	5	LIME						972	975	8	6 1/4							975	1020	45	5											
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.											
		3 1/2	—	22	17 4/8	298.03	555.85			3 1/2		—	22	16 1/4	298.03	555.24			3 1/2		—	24	32	237.95	555.29											
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL										
COLLAR		10	4 3/4	1 1/2	298.03	DRILLING STRING				COLLAR		10	4 3/4	1 1/2	298	DRILLING STRING				COLLAR		8	4 3/4	1 1/2	237.95	DRILLING STRING										
DATA		26.000								DATA		26.000								DATA		26.000														
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE							
		89	D			6 3/4	972	8000	22	—	10		D							3		22	10		D											
		Bit Serial No. 72-57				Table R.P.M. 110						Bit Serial No. 37261-77-59				Table R.P.M. 180						Bit Serial No. 7759				Table R.P.M. 112										
		Jet or Conventional -				Nozzle Size 3/8						Jet or Conventional -				Nozzle Size						Jet or Conventional -				Nozzle Size										
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off					
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size					
No. 1		On Line	Circulating					On Line		Circulating				On Line		Circulating				On Line		Circulating				On Line		Circulating								
No. 2				700	12	45	5 1/4					700	12	65	5 1/4					800	12	41	5 1/4													
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					
		200	40	9.4													6		42	9.4	9.8	9.5			8		40	9.4	9.8	9.5						
		400	40	9.4																																
		600	40	9.4	9.8	9.2			45		9.4																									
		800	40	9.4																																
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	
		950	972	22	—	47	—	972		975	22	—	47	—	975		1020	45	—	—	—	975		1020	45	—	—	—	—	975		1020	45	—	—	—
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.			
		SERVILE FIL.		1200	1215	1/4	RIG SERV.		800	8:15	1/4	WORK ON PUMP		4	4:15	1/4	FINISH PULL OUT		8:15	8:45	1/2	RIG SER.		4:15	4:30	1/4	RECOVER-CORE 47, BLAY		8:45	9:00	1/4	CULING		4:30	10:30	6
		CORING		1215	1230	1/4	DOWN CORE BBL'S		9:00	9:15	1/4	PULLED OUT		10:30	11:30	1	LOAD NO. 1, CORE BBL. ON TRUCK		9:15	9:30	1/4	RECOVERY CORE		11:30	12	1/2	RUN IN TO REAM		9:30	11:00	1 1/2					
		START OUT		1230	800	1/2	WORK ON SWIVEL										REAMING-5" 6 1/4"		11:00	12:30	1 1/2						PULL OUT		12:30	1:30	1					
							PUT NEW SWIVEL IN CORE BBL 130545		1:30	2:45	1 1/4						RUN IN CORE BBL'S		2:45	3:45	1 1/4						DRILLER		W. O. P. H. N. P.	3:45	4:00	1/4				
							DRILLER		W. O. P. H. N. P.	3:45	4:00	1/4						DRILLER		W. O. P. H. N. P.	3:45	4:00	1/4													

CLASSES OF TIME BREAKDOWN: HEADING UP & DRG. OUT: TOTCO: DRILLING: REAMING: CONDITIONING MUD: TRIPPING: CORING: CASING: W.O.C. D.S. TESTING: LOGGING: W.O. ORDERS: RIG REPAIRS: RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE: REAMING CLEANING: WORKING PIPE: LOST CIRC.: MNFR. DRILLING LINE IN USE: REEL SERIAL No.: MNFR. OF KELLY HOSE IN USE: HOSE SERIAL No.: DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY: YES NO

Total Contract Time _____ hrs.

Total Company Time _____ hrs.

Toolpusher W. O. P. H. N. P.

Approved by _____

Loc. CARIBBEAN 512 SEC. 12 TWN. 12 RGE. W Contractor WARDMAN Type Rig 2500 Varing Month 3 Day 6 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.													
DEPTH		From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation											
		929	943	14	5	LIME				943	948	5	6 1/4	LIME				948	950	2	6 1/4	LIME											
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.										
		3 1/2	28	298.03	25.85				3 1/2	21	18.47	248.03				3 1/2	21	13	298.03														
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									
COLLAR		10	4 3/4		298.03	DRILLING STRING				COLLAR	10	4 3/4		298	DRILLING STRING				COLLAR	8	4 3/4		298	DRILLING STRING									
DATA		26.000								DATA										DATA		29.000											
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE						
		9	D			3 1/4		8000	14		8	CMV	12	3 00	3 3/4	949	5000	25	2 1/3	9		D											
Bit Serial No.		12-59				Table R.P.M.				110				Bit Serial No.		37261				Table R.P.M.				180				Bit Serial No.		Table R.P.M.			
Jet or Conventional -						Nozzle Size				3 1/2				Jet or Conventional -						Nozzle Size				3 1/2				Jet or Conventional -		Nozzle Size			
SURVEYS		Kind	at	Ft.	Deg. off		Kind		at	Ft.	Deg. off		Kind		at	Ft.	Deg. off		Kind		at	Ft.	Deg. off		Kind		at	Ft.	Deg. off				
SLUSH PUMP RECD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		
No. 1		On Line	Circulating	600	12	40	2 1/4	On Line		Circulating	3:00	12	65	5 1/4	On Line		Circulating				On Line		Circulating				On Line		Circulating				
No. 2																																	
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					
							LOST OUTER CORE DRL																										
							TWISTED OFF.																										
		12:00	40	9.2																													
		2:00	40	9.2																													
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		
		929	943	43	41	6																											
DETAIL OF OPERATIONS AND REMARKS		From	To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.	From		To	Hrs.					
		5:00	5:15	1/4	BIG SERV.		8:00	8:15	1/4	RIG SERV		4	4:30				REPAIR STEAM HEATER		4:30														
		5:15	5:40	3 3/4	FINISH PULLING OUT		8:15	10:00	1 3/4	RECOVERED FISH							PUT NEW UNION IN STAND																
		5:40	5:50	1	RECOVER CORP		10:00	11:00	1	BREAK-LAY-DOWN OVER-							PIPE RAMP IN HERE WITH																
		5:50	6:00	1/4	L-A-Y DOWN INER DRL		11:00	12:00	1	SHOT CORE BALS.							JUNK SUB																
		6:00	6:30	1/2	MAKE UP OVERSIT		12:00	2:15	2 1/2	RUN IN TO REAM.							CROWDING MLY		8	8:30													
		6:30	7:30	1	RUN IN		2:15	3:00	3/4	REAMING 5" TO 6 1/4"							PULLED OUT TO COR		9:30	9:30													
		7:30	7:45	1/4	GIR - WORK OVERSIT		3:00	4:00	1	DRILL							PICKED UP CORE BOARD		10:30	11:15													
		7:45	8:00	1/4	START OUT					PULL OUT							RAMP IN HERE		11:15	12:00													
Driller		R. BEATCH						Driller						W. M. Jones						Driller						A. L. Ray							

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE: REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY: YES NO

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. M. Jones Approved by

Loc. Carriaga LSD. 92 SEC. 12 TWN. 12 RGE. 12 W. Contractor WARDEN 9145 Type Rig TAILING 2500 Month 3 Day 4 1962

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.											
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation					
		870	893	23	5'	LIME						870	900	6 1/4	30	LIME						900	900	2	5"	LIME					
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				
		3 1/2		19	7 1/2	8	2					3 1/2		19	3 1/2	298.03	55:55					3 1/2		20	Down	298.03	55:55				
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL					
COLLAR		8				DRILLING STRING				COLLAR		10	7 3/4	1 1/2	298.03	DRILLING STRING				COLLAR		10	4 3/4	1 1/2	298	DRILLING STRING					
DATA						26000				DATA						26000				DATA						26000					
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		
		9	4	5		5		8000	23				8	4000		13/4		10000	7 23				9	4	4.00		6		8000		
Bit Serial No.						Table R.P.M. 90				Bit Serial No.						Table R.P.M. 180				Bit Serial No.						Table R.P.M. 110					
Jet or Conventional -						Nozzle Size				Jet or Conventional -						Nozzle Size 1 1/2				Jet or Conventional -						Nozzle Size					
SURVEYS		Kind	at	Ft.	Deg. off				Kind		at	Ft.	Deg. off				Kind		at	Ft.	Deg. off										
SLUSH PUMP RECORD		HOURS		Pump Press.	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press.	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press.	Length of Pump Stroke	Strokes Per Min.	Liner Size												
No. 1		On Line	Circulating	800	12 1/2	46	5 1/4	On Line		Circulating	550	12	60	5 1/4	On Line		Circulating	600	12	45	5 1/4										
No. 2																															
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				
		4	39	9													WATER 40 BBIL						4	40	9-H						
		6	40	9									1000	38	9		FILL #900						6								
													1200	38	9								8	40	9-H						
													300	40	90								10								
																							12								
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				
		870	893	23			A				900		901	1							901		929	28			DIAMOND				
DETAIL OF OPERATIONS AND REMARKS						From	To	Hrs.	DETAIL OF OPERATIONS AND REMARKS								From	To	Hrs.	DETAIL OF OPERATIONS AND REMARKS								From	To	Hrs.	
						12	12:15	1/4	RIG SER								830	830	1/4	RIG SER								400	4:15	1/4	
						12:15	1:15	1 1/2	FINISH RUN IN HOLE								830	9:15	1/4	RECOVER CORE LAY BBL								4:15	5:00	3/4	
						1:15	2	1/4	Circulating								9:15	10:30	1 1/4	MIX MUD								5:00	6:30	1 1/2	
						2	2:15	1/4	PUMP MOTOR STOPPED								10:30	11:15	3/4	RUN IN TO REAM								6:30	12:00	5 1/2	
						2:15	2:30	1/4	Circulating								11:15	12:15	1	REAMING 23"											
						2:30	2:30	1/4	Coring								12:15	1:00	3/4	DRILL 7'											
						2:30	2:30	5	STARTING out								1:00	1:15	1/4	COR											
						2:30	8	1/2									1:15	2:00	3/4	PULL TO COR											
																	2:00	2:30	1/2	MAKE UP COR BBL											
																	2:30	3:15	3/4	RUN IN TO COR											
																	3:15	4:00	1/2	COR 315-350 COR											
																				COR 315-350 COR											
Driller						Driller								Driller																	

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. Westman Approved by

Loc. CARRISALD 572 SEC. 1 TWN. 1 RGE. 1 W. Contractor WARREN Type Rig 5-1111-2500 Month 3 Day 4 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.												
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation								
		835'	835'	0	6 1/4"	LIME						835'	869'	33	5"	LIME						884'	870'	1	6 1/4"							
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.							
		3 1/2		17	5' up	8	5' 8" 5'					3 1/2	-	15	0	230.03 5' 5" 8"					3 1/2		18	3' up	298-03 5' 5" 8"							
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						
COLLAR						DRILLING STRING				DRILLING STRING				DRILL COLLARS				COLLAR						DRILLING STRING				DRILL COLLARS				
DATA										DATA								25000				DATA						26000				
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			
									Drilled	Reamed									Drilled	Reamed									Drilled	Reamed		
		Bit Serial No. 9				Table R.P.M.						Bit Serial No. 71-59				Table R.P.M. 110						Bit Serial No. 37261				Table R.P.M. 180						
		Jet or Conventional -				Nozzle Size						Jet or Conventional -				Nozzle Size						Jet or Conventional -				Nozzle Size						
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off	
SLUSH PUMP RECORD		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		
		On Line	Circulating								On Line	Circulating										On Line	Circulating									
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS							
							WATER																									
							500 GELL																									
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.											
									835'	869'	33		#4			835'	869'	34	24	4	Diamond											
DETAIL OF OPERATIONS AND REMARKS		From		To	Hrs.	SERVILE 4.6 BOR		From		To	Hrs.	MIG SERV		From		To	Hrs.	MIG SERV		From		To	Hrs.									
		12		1230	1/2	CORKING #4		815		930	1 1/4	CORKING #4		11:55		12:00	1/2	CORKING #4		11:55		12:00	1/2									
		1230		130	1	WORK ON PUMP		930		945	1/4	SERV PULL OUT		11:55		12:00	3/4	SERV PULL OUT		11:55		12:00	3/4									
		130		2	1/2	BORING		945		1000	6 1/4	RECOVER CORE		12:00		12:00	1/2	RECOVER CORE		12:00		12:00	1/2									
		2		930	2 1/4							SERV LAYDOWN CORE BBL.		6:00		6:30	1/2	SERV LAYDOWN CORE BBL.		6:00		6:30	1/2									
		530		1								WORK ON PUMP		6:30		7:00	1/2	WORK ON PUMP		6:30		7:00	1/2									
		530		1								RUN IN TO REAM		7:00		8:00	1	RUN IN TO REAM		7:00		8:00	1									
		8		2 1/4								REMAINING 5" JOEY HOLE		8:00		8:30	1/4	REMAINING 5" JOEY HOLE		8:00		8:30	1/4									
												DRILL ONE FT.		8:30		9:45	1 1/4	DRILL ONE FT.		8:30		9:45	1 1/4									
												CIRC		9:45		10:00	1/4	CIRC		9:45		10:00	1/4									
												PICK UP CORE		10:00		11:55	1 1/4	PICK UP CORE		10:00		11:55	1 1/4									
												RUNNING IN		11:55		12:00	1/2	RUNNING IN		11:55		12:00	1/2									

Driller

G. E. Rynd

Driller

R. BEATH

Driller

PICK UP CORE 11:55 12:00 1/2
RUNNING IN 11:55 12:00 1/2

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES ☒ NO ☐
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC:

Total Contract Timehrs.

Total Company Timehrs.

Toolpusher

W. J. ...

Approved by

Log Carriage LSD 372 SEC..... TWN..... RGE..... W..... Contractor WARRINGTON Type Rig Trailing 2100 Month 3/6/0 Day 3 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.													
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation									
		752	785	5	6 1/4	LIME						752	822	37	5	LIME						823	835	1	6 1/4								
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.								
		3 1/2		15	DOWN	29 F03						3 1/2		17	18 1/2	220.03	22.80					3 1/2		17	18 1/2	248-03							
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL							
COLLAR		6			29 F03	DRILLING STRING				COLLAR		8	4 3/4	1 1/2	23 1/2	DRILLING STRING				COLLAR		10	4 3/4	1 1/2	248	DRILLING STRING							
DATA					26 000	15 000				DATA					25 000					DATA					25 000								
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				
		5	B7	3 1/2		RR		2 000	24				7	B	9 1/2		2 1/2		2 000	37				8	MHIN	4 1/2		2 1/2		11 000	12		
		6	C																														
		Bit Serial No. RR					Table R.P.M. 210					Bit Serial No. 71-59					Table R.P.M. 110					Bit Serial No. R.R.					Table R.P.M. 180						
		Jet or Conventional -					Nozzle Size F6LL					Jet or Conventional -					Nozzle Size					Jet or Conventional -					Nozzle Size OPT 11						
SURVEYS		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off	
SLUSH PUMP RECORD		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size			
No. 1		On Line		Circulating		3 00		12 1/2		60		5 1/2		3 30		12		70		2 1/4		On Line		Circulating		8 00		12		37		5 1/4	
No. 2																																	
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS								
		4	40	9.2							10 00	38	9							4	38	9											
		6	41	9.2							12 00	38	9							6													
											2 00	38	9	1 1/2	9					8													
																				10	37	8-9											
																				12	37	8-9											
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.								
											785	822	37		3					822	823	1	38	#3									
DETAIL OF OPERATIONS AND REMARKS		From		To		Hrs.		RAN IN HOLE TO REAM		From		To		Hrs.		SERVICE TIE BOP'S		From		To		Hrs.		RIG SERV. 1100-4 15 1/4		From		To		Hrs.			
		12		1		1				8 15		1/4				CORING		4 15		4 15		1/2				4 15		4 15		1/2			
		1		1 1/2		1/4		RIG SER		8 30		1/4				MAKE UP CORE BBL'S		5 30		9 10		3/4				5 45		5 45		1			
		1 15		2 15		1		WORK ON MUD PUMP		9 30		3/4				RUN IN		9 30		9 10		3/4				5 45		6 15		1/2			
		2 15		5 45		3 1/2		REAM		9 50		1/2				CORING		9 50		9 30		1/2				6 15		6 15		1/2			
		5 45		6 15		1/2		CIRCULATING		9 30		3 3/4				CORING		9 30		10 15		3 3/4				6 45		7 30		3/4			
		6 15		6 30		1/4		LAD DOWN 7" D.C.		10 15		1				WORK ON PUMP		10 15		2 15		1				7 30		8 30		1			
		6 30		7 30		1		PULLED AND		2 15		1 3/4				CORING		2 15		4 00		1 3/4				8 30		9 15		3/4			
								PICKED UP ONE HALF C.B.																		9 15		12 00		2 1/4			
Driller		A. R. Reynolds				Driller				R. B. ATCH				Driller				Wm. Jones															

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. Workman Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT 6

2nd CARTRIDGE B12 SEC. TWN. RGE. W. Contractor WARDEN D.L.G. Type Rig FALKING Month MARCH Day 2 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.												2nd Tour From: 8:00 a.m. To: 4:00 p.m.												3rd Tour From: 4:00 p.m. To: 12:00 p.m.											
DEPTH		From	To	Hole Made	Hole Size	Formation						DEPTH		From	To	Hole Made	Hole Size	Formation						DEPTH		From	To	Hole Made	Hole Size	Formation					
		60.5	75.6	101	6 1/4	SHALE								72.7	76.4	8	8 1/4	LIME								76.4			6 1/4	LIME					
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.					Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.						
		3 1/2		15	28	29803						3 1/2			12	20 P	29803	2085					3 1/2			14	3 up	29803	55-85						
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL						DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL					
COLLAR		10	4 3/4		29803	DRILLING STRING						COLLAR		10	4 3/4		29803	DRILLING STRING						COLLAR		10	4 3/4	1 1/2	29803	DRILLING STRING					
DATA		26000					15000					DATA		25000										DATA		25000									
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE			No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				
		5	MAN	3 3/4		3 3/4		12000	161	24				2		MAN		3 3/4				101				2			4:15	9:15	7 3/4	779	7000		
		Bit Serial No. 385835					Table R.P.M. 200							Bit Serial No. 385835					Table R.P.M. 110							Bit Serial No. 272-59					Table R.P.M. 110				
		Jet or Conventional -					Nozzle Size 3 1/2							Jet or Conventional -					Nozzle Size 1 1/2							Jet or Conventional -					Nozzle Size				
SURVEYS		Kind	at		Ft.		Deg. off				Kind		at		Ft.		Deg. off				Kind		at		Ft.		Deg. off								
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size			HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size				
		On Line	Circulating							On Line		Circulating						On Line		Circulating						On Line		Circulating							
		No. 1		200	12 1/4	60	5 1/4						600	12	45	3 1/4						200	12	38						200	12	38	5 1/4		
		No. 2																																	
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS					Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS						
		WATER												WATER												H 41 9-2					BICARD 50.				
														10. 42 90												6 38 9-2									
														2. 30 92												8 37 9-2									
																										10									
																										12									
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.	
										75.6		76.4	8						76.4		77.4	15	21	2											
DETAIL OF OPERATIONS AND REMARKS		Rig Start					12.00 12 1/4 1 1/4 Hrs.					SERVILE F.L. B.P.					800 815 1/4					RIG SERV					400 4:15 1/4								
		PULLED WIRE CORE RUN IN					12.15 115 1					CLEAN SETTLING TANK					815 900 3/4					COREING					4:15 9:15 5								
		LAD DOWN CORE BBL					215 325 1/2					CONDITION MUD					900 1015 1 1/4					BLOW KELLY					4:15 9:30 1/4								
		RUN IN					215 345 1					PUMP TO CORE					1015 1115 1					PULL OUT					9:30 10:45 1 1/4								
		REMOVED					345 5 1 1/4					MAKE UP CORE BBL					1115 1230 1 1/4					RECOVER CORE 2					10:45 11:15 1/2								
		DELG					5 230 2 3/4					RUN IN					1230 115 3/4					LAY DOWN CORE BBL					11:15 11:30 1/4								
		Circulating To Core					230 8 1/2					SPR. ON BOTTOM					115 130 1/4					RUNNING IN TO REAM					11:30 12:00 1/2								
												CORING #2					130 400 2 1/2																		
Driller		A. E. Roy molder										Driller		F. BEATCH										Driller		Wm. Jones									

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OR KELLY HOSE IN USE HOSE SERIAL No. YES NO

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.: YES NO

Total Contract Timehrs. Total Company Timehrs. Toolpusher W.D. Wilson Approved by

W.P. CRANFORD SEC. TWN. RGE. W. Contractor WARDEN DIS Type Rig TAILING 25' Month MARCH Day 1 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																					
DEPTH		From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation				From	To	Hole Made	Hole Size	Formation																			
		318	620	302	6"	SHALE				620	650	30	6 1/4	SHALE				655			5"																				
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.																		
				11	24	27007				3 1/2		11	10 up	298	29-68			3 1/2		2	14 up	298	29-68																		
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL																	
COLLAR		9	4 3/4		27007	DRILLING STRING				COLLAR	10	4 3/4			DRILLING STRING				COLLAR	10	4 3/4	1 1/2	298	DRILLING STRING																	
DATA										DATA									DATA	26000																					
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE														
		3	6853	9		9		8000	312		4	054			4 1/4		10000	327	-	5	0	4.30	1130	6 1/2	679	8000															
		Bit Serial No. 69627				Table R.P.M. 200					Bit Serial No. 69627				Table R.P.M. 180					Bit Serial No.				Table R.P.M. 110																	
		Jet or Conventional -				Nozzle Size Full					Jet or Conventional -				Nozzle Size OPEN					Jet or Conventional -				Nozzle Size																	
SURVEYS		Kind	at		Ft.		Deg. off			Kind	at		Ft.		Deg. off			Kind	at		Ft.		Deg. off																		
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size																				
No. 1		On Line	Circulating							On Line	Circulating						On Line	Circulating																							
No. 2				200	12	60	5 1/4					200	12	65	2 1/4				500	12	45	5 1/4																			
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS																		
							50 SODA ASH								WATER																										
							WATER								WATER																										
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.																		
																		655	679	24			0																		
DETAIL OF OPERATIONS AND REMARKS										SERVILE P.L. 400 415 Hrs.																															
		PUT ON CHALK HOSE								WORK ON SHARPER								RIG SERV																							
		THAW OUT ROTARY TABLE								DRILL								CIRC HOLE TO CORE																							
		RAN IN HOLE								RIG HOOK UP STAR RECORDER								COREING #1																							
		RECORDED UP TO 700.								PULL TO CORE								WORK ON PUMP.																							
		DILG OUT PLUG								PUT ON NEW K. HOSE								COREING																							
		DILG								MAKE UP CORE BBL								RESTRING RECORDER LINE																							
										RAN IN CORE BBL								COREING																							
										REPAIR HOSE END								BLOW KELLY, PULLING OUT																							
										P.L.																															
Driller		A. L. Reynolds								Driller								F. BEATCH								Driller								W. M. Jones							

 CLASSES OF TIME BREAKDOWN
 HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

Total Contract Timehrs. Total Company Timehrs. Toolpusher Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

#3

LSD..... SEC..... TWN..... RGE..... W..... Contractor *W.A.* Type Rig *FAILING* Month *FEB* Day *28* 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.															
DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation				DEPTH		From	To	Hole Made	Hole Size	Formation									
		228	348	90	9"							318			9"							318													
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.								
						269							2		20' 4"	269																			
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									
COLLAR		9	4 1/4		269	DRILLING STRING				COLLAR		9	4 1/4		269	DRILLING STRING				COLLAR						DRILLING STRING									
DATA						SUB 420				DATA						2000				DATA															
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE				
		3	OSC	4		4		8000	90				3	OSC			4		7		90														
SURVEYS		Bit Serial No. 97292				Table R.P.M. 200				SURVEYS		Bit Serial No. 97292				Table R.P.M.				SURVEYS		Bit Serial No.				Table R.P.M.									
		Conventional -				Nozzle Size 3 1/16						Jet or Conventional -				Nozzle Size						Jet or Conventional -				Nozzle Size									
SLUSH PUMP RECORD		Kind		at		Ft.		Deg. off		SLUSH PUMP RECORD		Kind		at		Ft.		Deg. off		SLUSH PUMP RECORD		Kind		at		Ft.		Deg. off							
		HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size				HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size				HOURS		Pump Press		Length of Pump Stroke		Strokes Per Min.		Liner Size	
		On Line		Circulating										On Line		Circulating												On Line		Circulating					
No. 1				2.00		12.		60		5 1/4																									
No. 2																																			
MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS				MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS				MUD RECORD		Time	Visc.	Wt.	W.L.	pH	ADDITIVES — POUNDS						
		12	40	9.3			3.0 CAUSTIC																	RAN 300' 7" 20LB. STEWART & LLOYDS R.											
		2	40	9.3			3.0 GELL SALT																	SC 80TH TO 307.50 KB.											
		4	50	9.3																				CEMENTED WITH 100 SACKS CEMENT											
		6	61	9.3																				+ 2% CASC PLUG DOWN 1020 PM.											
		7	70	9.3																				GOOD RETURNS											
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.						
DETAIL OF OPERATIONS AND REMARKS						From	To	Hrs.		DETAIL OF OPERATIONS AND REMARKS						From	To	Hrs.		DETAIL OF OPERATIONS AND REMARKS						From	To	Hrs.							
		THAW out MUD PUMP				12	1	1				SERVING RIG				8:00	8:12	1/4				RIG SERV				4:00	4:15	1/4							
		RIG SERV				1	130	1/2				GIR				8:12	9:30	1 1/4				FINISH RUN CASING				4:15	7:00	2 3/4							
		MIXED MUD				130	3	1 1/2				WORK ON PUMP				9:30	12:00	2 1/2				PUT ON CIRC. HEAD.				7:00	7:15	1/4							
		D.R.G.				3	7	9				PUMP OUT				12:00	1:00	1				CIRC. CASING.				7:15	8:15	1							
		MIXED MUD CIRCULATING				7	8	1				RUN IN				1:00	2:00	1				RIG CEMENT UNIT				8:15	9:00	3/4							
												GIR				2:00	2:30	1/2				CEMENTING				9:00	10:00	1							
												SURVEY PUMP OUT				2:30	3:30	1				WAIT ON CEMENT				10:00	12:00	2.							
												RUN CASING.				3:30	4:00	1/2																	
Driller		A. E. REYNOLDS								Driller		R. B. BATH								Driller		W. M. JAMES													

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY

DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO

REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC:

Total Contract Timehrs. Total Company Timehrs. Toolpusher *W. J. Williams* Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

7/2

 Location: Cartledge LSD. B-12 SEC. W TWN. W RGE. W Contractor WARDEN DRILL Type Rig FAIRING Month FEB. Day 27 1960

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.														
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation										
		36	69	24	9"	SAND, M. mud						69	143	24	9"	CRAY						143	225	85	9"	L-PAVE SAND								
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.			Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.									
		3 1/2			DOWN	28-									15	123																		
		DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL			DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL									
		COLLAR	1			28	DRILLING STRING			COLLAR			5			DRILLING STRING			COLLAR			7	4 3/4			DRILLING STRING								
		DATA	6.000								DATA		20.000								DATA		90.000											
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE					
		1	OSC	2		6 1/2		24	69				2	ASC	2		2			74				2	9"		12 30	6 3/4	228	10.00	162			
		Bit Serial No. 98964					Table R.P.M. 180					Bit Serial No. 89197					Table R.P.M. 200					Bit Serial No. 89147 - 97892					Table R.P.M. 180							
		Jet or Conventional -					Nozzle Size					Jet or Conventional -					Nozzle Size					Jet or Conventional -					Nozzle Size							
SURVEYS		Kind	at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off		Kind		at		Ft.		Deg. off			
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size						
		On Line	Circulating						On Line		Circulating						On Line		Circulating						On Line		Circulating							
		No. 1					70		5 1/4						12		60		5 1/2										12		60		6 1/4	
		No. 2																																
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS			Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS									
		12					WATER														400	70	92											
		2	30				GELL 9.00														600	70	92											
		4	35																		800	70	92											
		6	35																		1000	70	92											
		8																																
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.			From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.									
DETAIL OF OPERATIONS AND REMARKS				From	To	Hrs.				From		To	Hrs.				From		To	Hrs.														
		RIG SERV		12	12:15	1/4				RIG SERV		8	8:30	1/2				SERVILE RIG																
		SERV SWIVAL		12:15	1	3/4				mixed mud		8:30	1:30	9				DRILL																
		CUT CENTER FROM BIT		1	1:15	1/4				DELG		1:30	2:30	1				WORK ON PUMP																
		RUN IN 7" COLLAR		1:15	1:30	1/4				TRIP & SURVEY		2:30	3	1/2				TRIP FOR BIT																
		WORK ON PUMP		1:30	2:00	1/2				DELG		3	4	1				RUN IN																
		DRILL, HOLE CAVING		2:00	3:00	1																												
		DRILL		3:00	3:15	1/4																												
		WORK ON AIR COMPRESSOR		3:15	4:30	1 1/4																												
		DRILL		4:30	7:00	2 1/2																												
		Driller		M. J. J. J.		7:00	8:00		1	Driller		A. E. Reynolds						Driller		R. B. P. T. C. H.														

HEADING UP & DRG. OUT: DRILLING: REAMING: CLASSES OF TIME BREAKDOWN: TOTCO: FISHING: CIRCULATING: CONDITIONING MUD: TRIPPING: CORING: CASING: W.O.C. D.S. TESTING: LOGGING: W O ORDERS: RIG REPAIRS: RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE: REAMING CLEANING: WORKING PIPE: LOST CIRC.: MNFR. DRILLING LINE IN USE: REEL SERIAL No.: MNFR. OF KELLY HOSE IN USE: HOSE SERIAL No.: DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY: YES NO

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. J. J. Approved by

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT

#1

Contractor Eastbridge P 72 LSD SEC. TWN. RGE. W. Contractor Type Rig Month FEB Day 26 19 60

1st Tour From: 12:00 Midnight To: 8:00 a.m.										2nd Tour From: 8:00 a.m. To: 4:00 p.m.										3rd Tour From: 4:00 p.m. To: 12:00 p.m.																			
DEPTH		From	To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation				From		To	Hole Made	Hole Size	Formation															
DRILLING STRING		Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.				Size-D.P.		Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.												
DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL				DRILL		Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL													
COLLAR						DRILLING STRING				COLLAR						DRILLING STRING				COLLAR						DRILLING STRING													
DATA																				DATA																			
BIT RECORD		No.	Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE		No.		Type	Time On Bottom At	Time Pulled At	Total Hours Run	Depth Pulled	Weight On Bit M Pounds	FOOTAGE										
									Drilled	Reamed									Drilled	Reamed									Drilled	Reamed									
		Bit Serial No. _____ Table R.P.M. _____										Bit Serial No. _____ Table R.P.M. _____										Bit Serial No. <u>98964</u> Table R.P.M. <u>180</u>																	
		Jet or Conventional - _____ Nozzle Size _____										Jet or Conventional - _____ Nozzle Size _____										Jet or Conventional - _____ Nozzle Size _____																	
SURVEYS		Kind	at			Ft.			Deg. off			Kind		at			Ft.			Deg. off			Kind		at			Ft.			Deg. off								
SLUSH PUMP RECORD		HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size								
		On Line	Circulating						On Line	Circulating					On Line	Circulating					On Line	Circulating					On Line	Circulating											
MUD RECORD		Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS				Time		Visc.	Wt.	W L	pH	ADDITIVES — POUNDS												
CORING		From	To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.				From		To	Ft. Cored	Ft. Rec'd.	Core No.	Type Bbl.												
DETAIL OF OPERATIONS AND REMARKS																				SERVILLE R.I. 400 415 1/4 THAW RAT HOLE GAS. 712 312 1 SPUD & DRINK 512 812 3 MIX MUD 812 1000 13/4 AIR HOLE CLEAN 1000 1030 1/2 WORK ON PUMP 1030 1100 1/2 PICK UP 7" COLLAR BLUE-UP BIT PUNK 1100 1200 1																			
Driller.....		Driller.....																		Driller..... <u>R. PATCH</u>																			

HEADING UP & DRG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING: MNFR. DRILLING LINE IN USE REEL SERIAL No. DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY
 DRILLING: FISHING: TRIPPING: W.O.C. W O ORDERS: MISCELLANEOUS: WORKING PIPE: MNFR. OF KELLY HOSE IN USE HOSE SERIAL No. YES NO
 REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

Total Contract Timehrs. Total Company Timehrs. Toolpusher W. J. WALKER Approved by