

CDR CPOG CHEVRON MILLS

LAKE J-74

WELL NAME: CDR CPOG Chevron Mills Lake J-74
FIELD: Wildcat Area:
LOCATION: Unit J Section 74 Grid 61-20-118-00
Latitude 61-13-37.5 Longitude 118-13-47.768
From Established Reference Marker
U.W.I.R. 61.22708 -- 118.22994 Rig Release Date: 3rd April 1967
U.W.I.No. 300J746120118000 Status D & A
Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
16-12-66	Application for a Drilling Authority.
21-8-67	Well Completion Data. Well History Report.
18-9-67	Application to Amend a Drilling Authority. Application to change a Well Name.
18-9-67	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.
	Data for Back Pressure Test on Natural Gas Wells — Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells — Vitter's Method.
	M.P.R. — Oil — Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report Logs. Large scale Small scale

Drilling Authority No. 143

Date Issued.....Dec. 20/88.....

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT 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: **CON CPOO Chevron Mills Lake J-74**

Permit No. 3110 Lease No.

Chevron Standard Limited **Exploratory Licence No. 1833**
(Permitter, Licensee, Lessee)

Central-Del Rio Oils Limited (Operator) Exploratory Licence No. 1036

Location: Unit J Section 74 Grid 61 21' 114° 00'

Latitude 61° 13' 37.5" Longitude 118° 13' 47.782"

From Established Reference Marker N/4 Sec. 36 140-2-5 (Branch Mark)

Universal Well Location Reference..... 61.2370° N 118.2304° W

	DATE	DEPTH
Spudded	Mar 18/67	
Suspended		
Resumed Operations		
Finished Drilling	Apr 1/67	2287
Deepen-1		
Complete (gas/oil)		
Abandoned	Apr 3/67	2294
Rig released	Apr 3/67	

Pool(s)..... Wildcat

Interval(s) open to production..... None - dry

..... hole

Elevation: Gr. 807 K.B. 818.4

Rig No. 17

Drilling Contractor Big Indian Drilling Co. Ltd.

Contractor's Business Licence No. 24358

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at --	Sacks of Cement and Additives
1. 7"	J-55	209/ft.	254.01	263.21	105 sacks cement plus 2 1/2 CuCl ₂
2.					
3.					
4.					
5.					
6.					

[illegible]

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
1967											
Apr. 2	2289	1900	120 sacks + 2% CaCl ₂ . Felt at 2037'. Ran 50 sacks on top of plug.				None.				None.
Apr. 3	318	215	50 sacks + 2% CaCl ₂ . Felt at 170'. Ran 5 sacks at top of surface pipe, welded on plate and erected monument.								

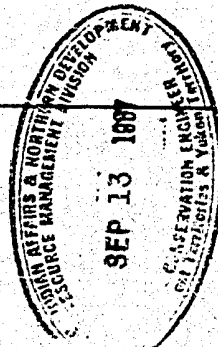
DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.L. Mins.	F.S.L. Mins.	L.S.L.R.H.P.	F.S.L.R.H.P.	L.P.R.H.P.	F.F.R.H.P.	L.H.P.	F.H.P.	REMARKS
1	Mar 30/67	Basal Keg River	2075	2152	170	50	112	1048	1053	618	1048	1076	1073	Recovered 2152' of sulphurous salt water.

ANALYSIS				PRESENT STATUS OF WELL			
Lab. No.	Sample	From	To	Source	Remarks	Oil	(Interval)
CHI-2-1357	Water	2075'	2152'	DST #1	Sampled from top of tool.		
						Gas	(Interval)
						Dry	Abandoned
						Susp.	

Company CENTRAL-DELRIO OIL & LTO.
 Signed by [Signature]
 Title Staff Engineer
 Date Aug 31 1967

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





File No. _____
Drilling Authority No. **242**

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION

Application to Abandon a Well or Suspend Drilling

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

Name and number of well **CNR CP06 (Chevron Hills Lease J-74)**
Location: Unit **J** Section **74** Grid **61° 20' N, 115° 00' W**
Latitude **61° 13' 37.8" N** Longitude **115° 13' 47.14" W**
From Established Reference Marker **N/4 Sec. 24-142-2-4 (Church Mtn.)**
Universal Well Location Reference **61,23700° N; 115,23804° W**
Permit No. **3110** Lease No. _____

Date of commencement of proposed program _____

(Previous, Present, Future)

OIL, GAS, AND WATER ENCOUNTERED (Depths)

Oil at _____
Gas at _____
Water at **Surface water at 2015 - 2120'**
Total Depth **2387'** Date of last operations _____
Present condition of well **Dry and abandoned.**

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Filled
1. 7"	201	254.01	203.21	105 sacks normal plus	
2.				2 1/2 CaCl₂	none
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

No.	Flag	Geological Formation	Number of Sacks of Cement	Remarks
1	2387 - 1900	Proterozoic - Horn River Shale	120 sz	Feet.
2	315 - 215	Surface casing	50 sz	Feet.
	Weld on steel plate.			

The following logs have been run **Induction Electrical Log 204 - 2120', Sonic Log 204 - 2285'.**
Other operations proposed _____

Operations to be carried out by **Central-Dei Hie Oils Limited**
Address **736-8th Avenue S.W., Calgary, Alberta** Contractor Licence No. **34355**
Responsible Agent in field **J. M. Gibson** Address **1515 - 5 Ave. S.W.**
Dated **1st** this **May** 19 **67**
Signed by **[Signature]** Company **Central-Dei Hie Oils Limited**
Title **Staff Engineer** Operator's Exploratory Licence No. **1023**

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

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

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

Confirming oral approval given by Mr. A. R. Coed on the 31st of March 1967

Dated **18th September**, 19 **67**

Forms to be submitted in triplicate to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

File No.

Drilling Authority No. **242**

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION

Application to Amend a Drilling Authority

This application, in triplicate, must be submitted and approved before commencing operations. If the well location is changed, this application must be accompanied where required, with a plan of survey approved by the Surveyor General.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made to amend Drilling Authority No. **242**, concerning **COR C700 Chevron Mills Lake J-74**

(Name and Number of Well)

The following amendments are required: **To abandon the well at 61° 13' 37.5"**

115° 13' 49.7" which had suffered a twist off and to skid the rig and start

over at 61° 13' 37.5" 115° 13' 47.768".

Reasons for the amendments: **While drilling at 120 feet, twisted off bit sub, filled hole with cement and skidded rig.**

Dated at **Calgary, Alberta**, this **31st** day of **August**, 19 **67**

Signed by *[Signature]*

Title

Staff Engineer

Company

Central-Del Rio Oils Limited

(For Resource Management Division use only)

APPROVED

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

UNIVERSAL WELL LOCATION REFERENCE: 61.22709° E., 115.2294° W.

Date **18th September**, 19 **67**

[Signature]
Oil Conservation Engineer

Forms to be submitted to the Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

CDE CPOG CHEVRON MILLS LAKE J-74

April 5, 1967

TOTAL DEPTH 2,287' - abandoned

CORE #1 - 2,090' - 2,121'. Recovered 31'

CORE #2 - 2,121' - 2,152'.

DST #1 - 2,075' - 2,152'. Recovered 2,022' sulphurous
salt water.

Preflow 3 mins.

ISI 60 "

VO 120 "

PSI 120 "

I.S.I.P. 1020

I.F.P.

I.H.P. 1070

F.S.I.P. 1,020

F.P.P. 600 to 1020

F.H.P. 1010

PLUG #1 - 2,287' - 1,900' / 120 sacks + 2% CaCl_2
Felt @ 2,037' and added 50
sacks cement

PLUG #2 - 315' - 215' / 50 sacks + 2% CaCl_2
Felt @ 170'

RIG RELEASED: 3rd April 1967

FINAL REPORT

CIR CPOG CHEVRON MILLS LAKE J-74

March 28, 1967

Depth 2,090' - preparing to cut core

SPUD DATE: First Hole - 18th March 1967

Second " - 19th March 1967

CDE CPOG CHEVRON MILLS LAKE J-74

March 22, 1967

FIRST HOLE - Drilled to 249' when sub dropped in hole. Ran 67 sacks cement in hole and abandoned

SECOND HOLE - skidded rig 15' east

DEPTH 268' - drilling

8 jts. 7" 20# J-55 landed at 263.21' K.B./105 sacks cement + 2 $\frac{1}{2}$ % CaCl₂

Elevation: K.B. to Ground 9.4'

SPUD DATES - not known



DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCE MANAGEMENT DIVISION

Application for a Drilling Authority

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

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

Name and number of well CDR CPOG Chevron Mills Lake J-74
Location: Unit J Section 74 Grid 61° 20' 119° 00'
Latitude 61° 21' 22" 13° 37.5" Longitude 118° 13' 49.7"
From Established Reference Marker

Elevation: Ground K.B. feet above sea-level.
Well is expected to produce from The Lonely Lane formation at a depth
of about 2700 feet.
Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. 3110 Lease No. Acreage 61596
Permittee, licensee, or leasee Chevron Standard Limited
Exploratory Licence No. 1036 1023
Surface owned by Crown or Crown
(If alternate submit name and address of owner and occupant.)
Petroleum and natural-gas rights owned by Crown

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

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	Thread	New or Used	Estimated Depth	Sections of Cement
1. 7"	20#	J-55	Seamless	New	250	110
2. 4½"	9.5#	J-55	Seamless	New	2700	75*
3.						
4. *if required for well completion						
5.						

Expected water, gas, and oil horizons and type of control equipment. Lonely Lane, Middle Devonian.
To be controlled by adequately weighted drilling mud and blowout preventers
until casing is set or the well abandoned.

Well will be drilled with (Rotary) Rig No. 17 by Big Indian Drilling Co. Ltd.
(Cable) (Drilling Contractor or company)

1318 - 9th Ave. S.E., Calgary

Responsible agent of applicant:— Contractor's Business Licence No. 24358

At well J. M. Gibson At registered office J. M. Gibson

Address 736-8 Ave. S.W., Calgary Address 736-8th Avenue S.W., Calgary, Alta.

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

Dated at Calgary, Alberta, this 13 day of December 19 66

Signed by J. M. Gibson Company Central-Del Rio Oils Limited

Title Staff Engineer Operator's Licence No. 1036

(For Resource Management Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—
The Company will submit to this office, on Tuesday of each week, the
latest reports received by radio on the progress of the well.

Dated 16th December 19 66

Oil Conservation Engineer

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

R. J. Burger
Consulting Geologist
630 Guinness House
Calgary, Alberta.

Telephone: 262-5475.

*Received
Sept 14/67*
April 4, 1967.

Department of Northern Affairs,
Resource Development and Natural Resources Branch,
Northwest Territories, Canada.

Dear Sir:

Re: Well History Report
CDR CPOG CHEVRON HILLS LAKE J-74
Unit J, Sec. 74 Grid 61° 20' N., 118° 00' W.

Pursuant to Section 101 (2) of the Canada Oil and Gas Drilling and Production Regulations, the following report has been prepared as outlined in your letter of requirements dated August 1965. Section I follows; Section II to V are included in the enclosed report.

Section I - Summary of Well Data

- | | |
|------------------------------------|--|
| (a) <u>Well Name and Number</u> | CDR CPOG CHEVRON HILLS LAKE J-74 |
| (b) <u>Permitter</u> | Chevron Standard Licencees: Central-Del Rio Oils Limited |
| (c) <u>Name of Operator</u> | Central-Del Rio Oils Limited
736 - 8 Ave. S.W., Calgary, Alberta. |
| (d) <u>Location</u> | Unit J, Section 74, Grid 61° 20' N., 118° 00' W. |
| (e) <u>Co-ordinates</u> | Latitude 61° 13 min. 37.55 sec. Longitude 118° 13 Min. 47.766 Sec. |
| (f) <u>Lease No. or Permit No.</u> | 3110 |
| (g) <u>Drilling Contractor</u> | Big Indian Drilling Co. Ltd. Rig #17
Cardner Denver \$2000 truck mounted. |
| (h) <u>Drilling Authority</u> | ¹⁶
242 issued 23 Dec. 1966. |
| (i) <u>Classification</u> | Now field wildcat. |
| (j) <u>Elevations</u> | Ground: 607' N.B.: 615.4' |
| (k) <u>Spudded</u> | ¹⁶
4 P.M. March 19, 1967. |
| (l) <u>Completed Drilling</u> | 1:00 P.M. April 1, 1967. |
| (m) <u>Total Depth</u> | 2257' |

- (a) Well Status
- (b) Rin Released
- (c) Hole Size
- (d) Casing

Dry and abandoned.

Midnight April 3, 1967.

1 1/2" O.D. 2 1/4" I.D.

Ran 8 joints 7" 20 lb. J-55 8 rd thread
Rgs. 2 5/8 & C Japanese casing. Talled
@ 234.01' and set @ 263.21' K.B. with
103 sacks normal Canada Cement, plus
2 1/2 CuCl₂. Welded all joints.
Plug down 9:36 P.M. March 20, 1967.
Good returns. K.B. to ground 9.40.

Yours truly,

S. J. Burger
S. J. Burger, P. Geol.

AJB:db

WELL REPORT

COR CPGC CHEVRON MILLS LAKE J-74

Unit J, Section 74 Grid 61° 20' E., 116° 00' W.

MILLS LAKE AREA

Northwest Territories - Canada.

April 4, 1967.

R. J. Burger, P. Geol.
830 Guinness House,
Calgary, Alberta.

Telephone: 262-5475.

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REPORT OF WELL DATA

Well Name: CRR CPOR CHEVON HILLS LANE J-74

Location: Unit J Section 74 Grid 61° 20' E., 118° 00' W.

Co-ordinates: Latitude 61° 13 Min. N. Sec. Longitude 118° 13 Min. 47.763 Sec.

Elevation: Ground 607° K.B. 616.6'

Final Total Depth: Driller: 2257' Schlumberger: 2257'

Classification: Wildcat.

Drilling Contractor: Big Indian Drilling Co. Ltd. Rig #17

Drilling Supervisor: Ted Mulligan.

Equipment: Drawworks: Gardner Drive #2000 Truck mounted; Power off
Cable: 220 H.P. Truck motor.
Pump: Gardner Denver # X D power off Cable
220 H.P. truck motor.
Derrick: Gardner Denver 60' Mast.
Substructure: 8' high made from L-84-80y.

Operator: Central-Del Rio Oils Limited.

Spudded: 12:43 P.M. March 18, 1967 drilled to 129' twisted off
skidded 15' east Spudded 4 P.M. March 19, 1967.

Rig Released: Midnight April 3, 1967.

Status: Dry and abandoned.

Logs: Induction Electrical Log 254-2266'
Bore Hole Compensated Sonic Log 254-2263'

Surface Casing: Ran 8 joints 7 30 lb. J-55 8 rd thread Reg. 2 ST & C
Japanese casing. Talled @ 254.01' and set @ 263.21'
K.B. with 105 sacks normal Canada cement, plus 2 1/2
CaCl₂. Welded all joints. Plug down 9:36 P.M.
March 20, 1967. Good returns. K.B. to ground 9.40.

Cores: Core #1 2090-2121' Cut 31' Rec. 31' (Keg River)
Core #2 2121-2152' Cut 31' Rec. 30' (Keg River)

Drill Stem Test: #1 - 2075-2152' (Basal Keg River)
Pre flow 30 min.; I.S.I. 60 Min.; V.O. 120 min...
F.S.I. 120 Min. Good initial puff, strong air blow on
pre flow, good air blow decreasing to nil in 90 min.
during flow period. No gas to surface.
HP 1070, PHP 1010, I.S.I.P. 1020, F.S.I. 1010 I.F.P. 600,
F.F.P. 120.
Recovery: 2122' sulphurous salt water.
Temperature: 96° F. Test Mechanically Satisfactory.

Field
Pressure

REPORT OF WELL B I (cont'd)

Plugs:

- 120
4- (500)
#1 - 2137-1900' 130 sacks, felt at 2017'. Ran 50 sacks.
#2 - 215-215' 50 sacks, felt at 217'. Ran 1170'.
#3 - 5 sacks at top of surface casing.
Welded on steel plate and erected monument.

Analysis:

Water

CBH-2-1357

DST #1 2075' - 2152'. Bottom

FORMATION TOPS

COR CPOG CHEVRON HILLS LAKE 3-74
Unit J Loc. 74 Grid 69° 29' N. 116° 00' W.

Ground: 607'
 Z.B.: 516.4'

<u>Electric Log Top</u>	<u>Depth</u>	<u>Subsea</u>
May River Shale	1160'	(516')
Hills Lake Member	1744'	(-1128')
Horn River Shale	1874'	(-1258')
Louely Bay	1960'	(-1344')
Local Keg River Platform	2004'	(-1400')
Chinshaga	2130'	(-1526')
Green Shale	2179'	(-1575')
Red Beds	2234'	(-1630')
Granite Wash	2258'	(-1654')
Pre-Cambrian	2276'	(-1672')

Final Total Depth

Driller 2287' (-1671.5)
 Schlumberger 2287' (-1671')

-4-

WATER DESCRIPTION

COR CPOC CHEVONNE MILLS LAKE 1-74
01° 29' N., 115° 00' W.

Ground: 607'
K.B. 615.4'

Samples from 0 to 260' destroyed when boiler burned up.
Drilling time indicates Bay River Limestone absent.
Top Bay River Shale from drilling time at 100'.

- 270-400' SHALE light gray green slightly calcareous slightly micro-micaceous soft.
- 400-500' SHALE light green and gray green soft flaky in part.
- 500-570' SHALE gray green and light green slightly micro-micaceous, soft.
- 570-690' SHALE gray green and light green slightly micro-micaceous.
- 690-870' SHALE gray green and light gray, firm, slightly micro-micaceous.
- 870-1000' SHALE light gray green and light green slightly micro-micaceous, firm.
- 1000-1150' SHALE light gray green to light green slightly micro-micaceous slightly calcareous.
- 1150-1380' SHALE gray green some dark gray bituminous flecked in part.
- 1380-1500' SHALE gray green and dark gray bituminous flecked in part.
- 1500-1700' SHALE gray green micro-micaceous splintery, some dark gray SHALE, slightly bituminous flecked.

TOP MILLS LAKE MEMBER 1744' (-1128')

- 1700-1750' SHALE gray green micro-micaceous slightly calcareous much SHALE dark gray to light gray calcareous firm.
- 1750-1760' SHALE dark gray splintery.
- 1760-1770' SHALE as above some LIMESTONE light gray dense argillaceous.
- 1770-1780' LIMESTONE - light gray slightly brownish in part, micro-crystalline dense argillaceous abundant SHALE gray green and dark gray.
- 1780-1790' SHALE dark gray and gray black lisy, grading to shaly LIMESTONE.
- 1790-1810' SHALE light green micro-micaceous splintery some LIMESTONE light gray argillaceous dense.
- 1810-1820' LIMESTONE light gray micro-crystalline argillaceous dense.

TOP BERN RIVER SHALE 1874' (-1258')

- 1820-1830' SHALE light gray green and dark gray micro-siliceous calcareous splintery.
- 1830-1930' SHALE & LIMY SHALE dark gray to gray black some SHALE light gray green splintery.
- 1930-1990' SHALE dark gray and gray black slightly bituminous, calcareous.
- TOP LOVELY BAY 1990' (-1374')
- 1990-2000' SHALE dark gray and gray black as above some Limestone dark brownish bituminous argillaceous.
- 2000-2020' Limestone light brown micro-crystalline dense some slightly chalky, abundant shaleavings.
- 2020-2030' Limestone medium brown micro-crystalline dense; slightly fine fossiliferous.
- 2030-2040' Limestone light gray brown and medium brown micro-crystalline dense some slightly chalky.
- 2040-2060' Samples missing.
- 2060-2080' Limestone light brown and medium brown micro-crystalline dense some slightly chalky.
- 2080-2094' Limestone as above. Minor Limestone light brown medium crystalline poor fine pin point porosity light brown oil stained.

TOP BASAL KEE RIVER PLATFOOH 2096' (-1409')

Cora 0'. 2090-2121' Cora 32' Eas. 31'
Penetration meter 21, 29, 15, 5, 13, 14, 11, 10, 11, 17, 13, 15, 10, 12, 10, 10, 14, 12, 15, 22, 15, 22, 14, 16, 15, 15, 16, 11, 4, 11, 14.

- 3.3' Limestone dark brown micro-crystalline dense.
- 1.3' Limestone medium brown to light brown micro-crystalline to fine crystalline oil stained some poor inter-crystalline porosity.
- 1.9' Limestone light gray micro-crystalline dense.
- 2.1' Dolomite light brown micro-crystalline oil stained tight.
- 4.4' Limestone dark brown micro-crystalline dense.
- 17.6' Limestone dark brown micro-crystalline dense some light brown oil stained.
- 4.0' Dolomite light brown micro-crystalline to fine crystalline oil stained. Scattered poor to fair porosity. Skeletal.

Cora has 4.0' poor to fair porosity.
1.3' poor inter crystalline porosity.

Cora 62

2121-2132' Cut 21' Rec. 10'

Penetration Data: 12, 12, 13, 10, 13, 10, 19, 14, 18, 30, 18, 14, 15, 13, 15, 19, 12, 16, 17, 14, 15, 15, 17, 16, 13, 17, 17, 16, 14, 16, 12.

6.8'

DOLomite light brown micro-crystalline tight light brown oil stained.

13.2'

ANhydrite grey white and light brown micro-crystalline dense, interbedded with DOLomite light brown micro-crystalline dense.

Cora is tight.

TOP CHENOWETH 2130' (-1514')

2152-2170'

ANhydrite light grey and light brown, dense, some DOLomite light brown micro-crystalline to crypto-crystalline dense.

2170-2180'

ANhydrite & DOLomite cream and light brown micro-crystalline tight.

TOP GREEN SHALE 2172' (-1563')

2180-2200'

DOLomite cream micro-crystalline argillaceous dense, slightly chalky.

2200-2210'

DOLomite as above trace SHALE light green very trace quartz grains white medium to coarse angular.

2210-2230'

SHALE grey green and dark grey micro-micaceous minor (10%) loose loose unconsolidated quartz grains medium grained, angular to sub-rounded frosted. Trace rust red shale.

TOP RED BEDS 2236' (-1618')

2230-2240'

SHALE grey green and dark grey minor light green trace rust red and minor shale. Some (10%) loose unconsolidated quartz grains. Medium grained, angular to subrounded, frosted.

2240-2250'

SHALE rust red and pink soft some loose unconsolidated quartz and feldspar grains.

TOP GRANITE WASH 2250' (-1634')

2250-2260'

GRANITE WASH pink and white, feldspar biotite and quartz grains and fragments medium to coarse grained tight, no staining. Some light green very shale.

2260-2276'

GRANITE WASH as above. Trace PYRITE some black hornblende.

TOP PRE-CAMBRIAN 2276' (-1660')

2276-2287'

GRANITE pink and white, feldspar quartz hornblende and biotite fragments tight no staining.

Note: Pre-Cambrian top picked from samples and drilling time.

Final total depth Driller
Schirmerger

2287' (-1671')
2287' (-1671')

R. J. Burger, P. Geol.

DRILL STEM TEST REPORT

Test No. 1
Date: March 29, 1967.

Well Name CHEVYRAN J-74 Drilling Co. B. J. Service Operator: R. Biancetta

O.D. Factor Rubber 3 1/2" Hole Size 6 1/4" Choke Size 1 1/2"

Length of Tail Pipe 77' Drill Pipe Size 3 1/2" Perforations 16'

Well Weight 9.4 Viscosity 61 Water Loss 7.8 PH 4.0

Interval tested: 2075-2132'

Formation: Ken River

Time:	Tool started in hole:	<u>1 P.M.</u>	Tool on bottom:	<u>4:07 P.M.</u>
	Tool opened:	<u>5:40 P.M.</u>	Tool closed:	<u>7:40 P.M.</u>
	Tool pulled loose:	<u>7:50 P.M.</u>	Tool out of hole:	<u>Midnight</u>

Pressures:	I.H.P.	<u>1070</u>	F.S.P.	<u>1016</u>	} Field Pressures
	I.S.I.P.	<u>1025</u>	F.S.I.P.	<u>1010</u>	
	I.F.P.	<u>600</u>	F.F.P.	<u>1020</u>	

Remarks: Preflow 30 min. I.S.I. 60 min. Valve open 120 minutes
final shut in 120 minutes. Good initial puff, strong air blow
on pre flow, good air blow decreasing to nil in 90 minutes
during flow period. No gas to surface.

Recovery: 2121' sulphurous salt water.

Temperature: 96° F.

Test Mechanically Satisfactory.

R. J. Burger, Geologist.

SURVEY RECORD

Depth	Deviation
101'	1/4°
161'	0
265'	1/8°
374'	1/2°
427'	0
782'	3/4°
1098'	1/8°
1375'	1/2°
2020'	1°
2267'	1/4°

BIT RECORD

Bit #	Size	Make	Type	Serial #	Depth Out	Feet	Hours	Accum. Hours
1A	9 7/8	Smith	DT	88	205	703	2 3/4	13 3/4
1	6 1/4	Smith	DT	345849	1257	939	23 3/4	36 1/2
2	6 1/4	Smith	DT	38300	2011	734	19 1/2	56
3	6 1/4	Smith	DT2G	60249	2090	7	5 1/4	61 1/4
4	6 1/4	McC-OLSON		7018C	2152	60	15 1/2	76 3/4
5	6 1/4	EMD	YEL	875139	2237	85	14 1/2	91 1/4
6	6 1/4	EMD	YEL	875143	2277	40	7	98 1/4
7	6 1/4	EMD	YEL	Dropped in hole.				
8	6 1/4	EMD	YEL	827146	2287	10	5 1/4	103 1/2

LOG RECORD

Salt Gel	53 sacks
Super Gel	164 sacks
Plaster	35 sacks
MAAP	130 lbs.
Preservative	75 lbs.
Starch	61 sacks
CNC	25 lbs.

DAILY PROGRESS REPORTS

CRS CPOG CHEVON'S HILL LAKE J- 74.

March 18/67 Depth (8 A.M.) 129' Progress: 129' On Bottom: 8 1/2 hours
Operation: Twist off at top of bell sub.

Mud Properties

Visc. 55

Additives

Plaster	8 sacks
Super Gel	35 sacks
Salt Gel	10 sacks

Remarks: Spudded 11:45 P.M. March 18, 1967.

Twisted off 4:45 A.M. March 19, 1967 at 129' top of bell sub.

4 3/4 hours	Rig to spud
4 1/4 hours	Mix Mud
1 1/4 hours	Work on Pump
3 1/4 hours	Blac.
2 1/4 hours	Thru Kelly hose

March 20/67 Depth (8 A.M.) 246' Progress: 246' On Bottom: 13 3/4 hours.
Operation: drilling.

Mud Properties

Visc. 64 wt. 9.7

Remarks: Skidded rig 13' East. Spudded 4 P.M. March 19, 1967.

2 hours	Skid rig and rig up
1 1/2 hours	Pump repairs
3/4 hours	Surveys

March 21/67 Depth (8 A.M.) 268' Progress: 22' On Bottom: 2 hours
Operation: waiting on cement.

Mud Properties

Visc. 55 wt. 9.8

Remarks: Ran 67 sack plug in abandoned surface hole.

Boiler burned down 1:30 P.M. March 20, 1967.

4 1/4 hours	Circulated hole & rigged up to heat water.
3 hours	Ran casing
1/2 hour	Ran cement
13 hours	Wait on cement.

Ran 5 joints 7" 20 lb. J-55 8 rd bga. 2 St & C Japanese casing
called at 254.01' and set at 263.21' K.B. with 105 sacks normal
Canada cement and 2 1/2 CaCl₂. Welded on all joints.
Plug down @ 9:36 P.M. March 20, 1967. Good returns.
K.B. to ground 9.40'.

March 22/67 Depth (8 A.M.) 268' Progress: 0
Operation: waiting on boiler.
Remarks: Hipped up waiting on boiler.

March 23/67 Depth (8 A.M.) 268' Progress: 0
Operation: Waiting on Boiler.
Remarks: Waiting on boiler and repairs to light plant.
Plant not generating Power (Exciter not working) 3 PM Mar. 22/67.

March 24/67 Depth (8 A.M.) 255' Progress: 0
 Remarks: Boiler arrived 1:30 P.M. March 23, 1967.
 Fired up and started thawing lines 2:30 A.M. March 24/67.
 Welded on mud line off air chamber on mud pump.
 5 A.M. March 24, 1967.
 Jammed up 9:30 A.M. to 1:00 P.M.
 Drilled out 1:00 P.M. to 2:30 P.M. March 24/67.

March 25/67 Depth (8 A.M.) 333' Progress: 337' On Bottom: 14 1/4 hours.
 Operation: drilling.

Mud Properties

Visc. Water

Wt. 9.0

Additives

SAPP 25 lbs.

Remarks: 3 1/2 hours Pressure up
 1 1/2 hours drill out
 1 3/4 hours Service rig and surveys
 1 " Clean mud tanks
 1 " Handle overshot and fish
 1 " Repair pump
 Twist off at Box 7 335' top of fish at 75' K.B.

March 26/67 Depth (8 A.M.) 1542' Progress: 337' On Bottom: 12 3/4 hours.
 Operation: drilling.

Mud Properties

Visc. Water

Additives

SAPP 75 lbs.

Remarks: 1 1/2 hours Rig Service & check B.O.P.
 1/2 " Clean mud tank
 1 1/4 " Run 120' to bottom
 1 1/2 " Unplug bit and drill collar
 1/4 " Survey
 1/2 " Repack swivel

March 27/67 Depth (8 A.M.) 2011' Progress: 469' On Bottom: 15 1/4 hours.

Mud Properties

Visc. 42

Wt. 9.2

W.L. 10.5

P.H. 8.0

Additives

SAPP 25 lbs.

Starch 10 sacks

Preservative 25 lbs.

Plaster 4 sacks

Super Col 25 sacks

Remarks:

Measured out - Board Tally 2019.24' doubled strapped to 2021.32.

Made 3' correction.

1 1/4 hours Survey & Dump tanks
 2 " Service rig repair swivel
 3/4 " Repair flow line
 1/2 " circulate to bottom 20'.

March 28/67 Depth (8 A.M.) 2090' Progress: 79' On Bottom: 4 1/2 hours.

Operation: Running core bbl. 90' to bottom.

Mud Properties

Visc. 48 Wt. 9.3

W.L. 5.0 PH 8.0

Additives

Super Col 20 sacks

Salt Gel 15 sacks

Starch 18 sacks

Plaster 10 sacks

March 28/67 (cont'd)

Remarks: 1 1/2 hours

7 "

2 1/2 "

3 "

3/4 "

1 "

Shale Shaker not working, changed motors, motor shorting out.

SWIVEL repair

Work on light plant & shale shaker motor, clean mud tank & build volume.

Service & rig B.O.P., Survey

Ram to bottom & drill 20' by mistake.

Circulate hole clean

pick up core barrel

March 29/67 Depth (8 A.M.) 2148' Progress: 50' On Bottom: 14 1/2 hours.

Operation: coring.

Mud Properties

Visc. 63

Wt. 9.4

W.L. 7.6

PH 8.0

Additives

Super Gel 12 sacks

Starch 4 sacks

Remarks: 1 1/4 hours

2 "

3/4 "

1 "

1 "

Service Rig & repair shale shaker

Ram 50' to bottom.

Build up volume in Tank Core #1

Circulate core bbl. to bottom Core #2

Handle Core

Repair flow line

March 30/67 Depth (8 A.M.) 2158' Progress: 10' On Bottom: 3 hrs.

Operation: drilling.

Mud Properties

Visc. 50

Wt. 9.4

W.L. 7.6

PH 8.0

Additives

Plaster 4 sacks

Starch 4 sacks

Super Gel 12 sacks

Remarks: 1 1/4 hours

2 "

1 1/4 "

6 "

1 "

3/4 "

1 3/4 "

Handle core & lay down bbl.

Make up packer

Head up, shld 30' to bottom

Testing

Break down tools

Rig Service & B.O.P.'s

Ram 35' with new bit.

March 31/67 Depth (8 A.M.) 2271' Progress: 113' On Bottom: 16 1/4 hours.

Operation: drilling.

Mud Properties

Visc. 82

Wt. 9.4

W.L. 8.4

PH 8.0

Additives

Plaster 4 sacks

Starch 10 sacks

Super Gel 35 sacks

Salt Gel 10 sacks

Remarks: 3 1/4 hours

3/4 "

1/2 "

Service Rig, B.O.P. & repairs

Mix Mud

Chen 30' to bottom.

April 1/67 Depth (E.A.M.) 2278' Progress: 7' On Bottom: 7 1/2 hours
Operation: drilling.

Mud Properties

Visc.	52
Wt.	9.6
W.L.	6.4
PH	8.0

Additives

Salt Gel	10 sacks
Super Col	5 sacks
Starch	6 sacks
Plaster	8 sacks
CNC	25 lbs.

Remarks: Dropped 7' pipe running in.

Top of fish at 1532' screwed in and jarred loose
11:15 P.M. March 31, 1967.

1 3/4 hours	Big service & repair
2 "	work on boiler
5 1/4 "	Mix and circulate
1 3/4 "	Fish and jar loose

Schlumberger arrived 10:45 A.M. April 1, 1967.

A. Burger, P. Geol.

[illegible]



DRILL-STEM TEST DATA

Well Name	Cam Oils Chevron	Test No	1
Well Number	Mills Lake J-74	Zone Tested	
Company	Central-Valley Oil Co. Limited	Interval	2075 - 2152
Comp Rep	T. Mulligan	Tester	H. Blanchette
		Date	March 30, 1967

Preflow _____ mins ISI _____ mins Flow _____ mins FSI _____ mins

Type of Test Single Bottom
Hole

DEPTH

	REC No _____ HR CLOCK _____	REC No <u>1051</u> HR CLOCK <u>12</u>	REC No _____ HR CLOCK _____
Initial Hydro Mud Press		1076	
Initial Static Press		1048	
Initial Flow Press		618	
Final Flow Press		1046	
Final Shut-in Press		1053	
Final Hydro Mud Press		1073	

Mud Drop _____ Fluid Loss 7.8 Mud Weight 9.4

Viscosity 61 Temperature 96° F Net Pay Tested _____

Top Packer Depth _____ Bottom Packer Depth _____ Total Depth _____

Drill Pipe Size _____ Wt _____ Drill Collar I.D. _____ Ft Run _____

Surface Choke Size _____ Bottom Choke Size 1/4" Main Hole Size 6 1/4"

Anchor Size _____ Rat Hole Size _____ Feet of Rat Hole _____

Cushion Amount _____ Type _____ Rubber Size 5 1/4"

Fluid Recovery Total Feet 2122

Recovered 2122 Feet of Sulphurous Salt Water

Recovered _____ Feet of _____

Gas Recovery _____ How Measured _____

_____ mins.	Press Rdg. _____	= _____	MCF/Day
_____ mins.	Press Rdg. _____	= _____	MCF/Day
_____ mins.	Press Rdg. _____	= _____	MCF/Day
_____ mins.	Press Rdg. _____	= _____	MCF/Day

REMARKS G.I.P. Strong air blow on preflow. Good air blow on flow
period, decreasing to nil in 90 mins.



DST PRESSURE INCREMENTS

Recorder No 1221

Depth

Points	INITIAL CIP				FINAL CIP			
	Time Defl.	T + 0	$\frac{T+0}{0}$	PSIG	Time Defl.	T + 0	$\frac{T+0}{0}$	PSIG
1				615	0			1051
2				1034	5			1051
3	10			1040	10			1052
4	15			1043	15			1052
5	20			1044	20			1052
6	25			1045	25			1052
7	30			1046	30			1052
8	35			1046	35			1052
9	40			1047	40			1052
10	45			1048	45			1052
11	50			1048	50			1052
12	55				55			1052
13					60			1052
14					65			1053
15					70			1053
16					75			1053
17					80			1053
18					85			1053
19					90			1053
20					95			1053
21					100			1053
22					105			1053
23					110			1053
24					112			1053



CORE LABORATORIES-CANADA LTD.
PETROLEUM RESERVOIR ENGINEERING
EDMONTON CALGARY REGINA
WATER ANALYSIS



File CBH-2-1357

Company Central-Del Rio Oils Limited
Well Name CDR CPOG Chevron Mills Lk 1-74 Sample No. _____
Formation Keg River Depth 2075' - 2152'
61 13°37' 50" N
Location 118 13°49' 70" W Field Mills Lake Area Province Northwest Territories
Date Sampled March 29, 1967 Date Analyzed April 6, 1967 Analyst WV
Sampled From DST No. 1 (Bottom) By _____
Recovery _____ Elevation KB 607'

Constituents:

1. Total Solids 207,038 mg/liter 2. pH 5.82 3. Sp.Gr. 1.1433 @60°F.
4. Resistivity 0.050 Ohm-meters @ 78 °F 5. H₂S Present

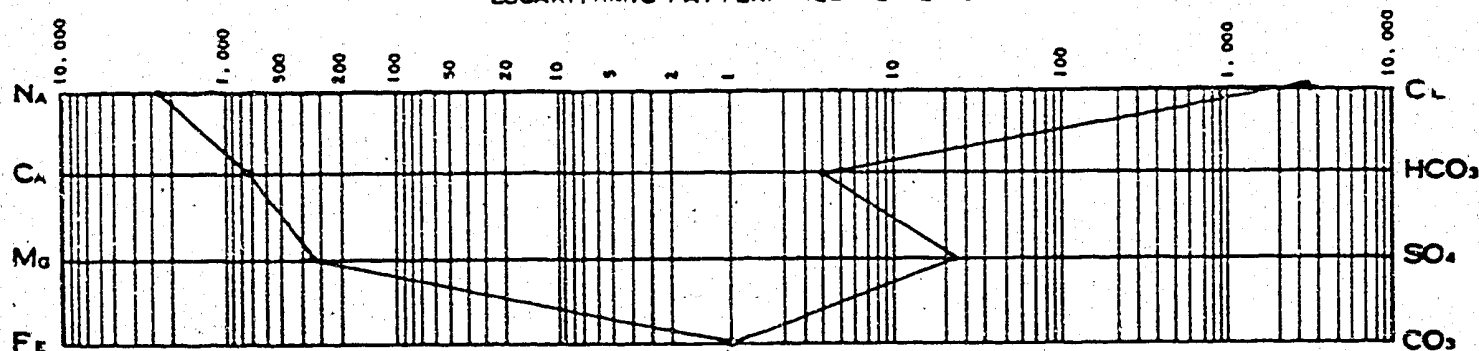
MILLIGRAMS PER LITER

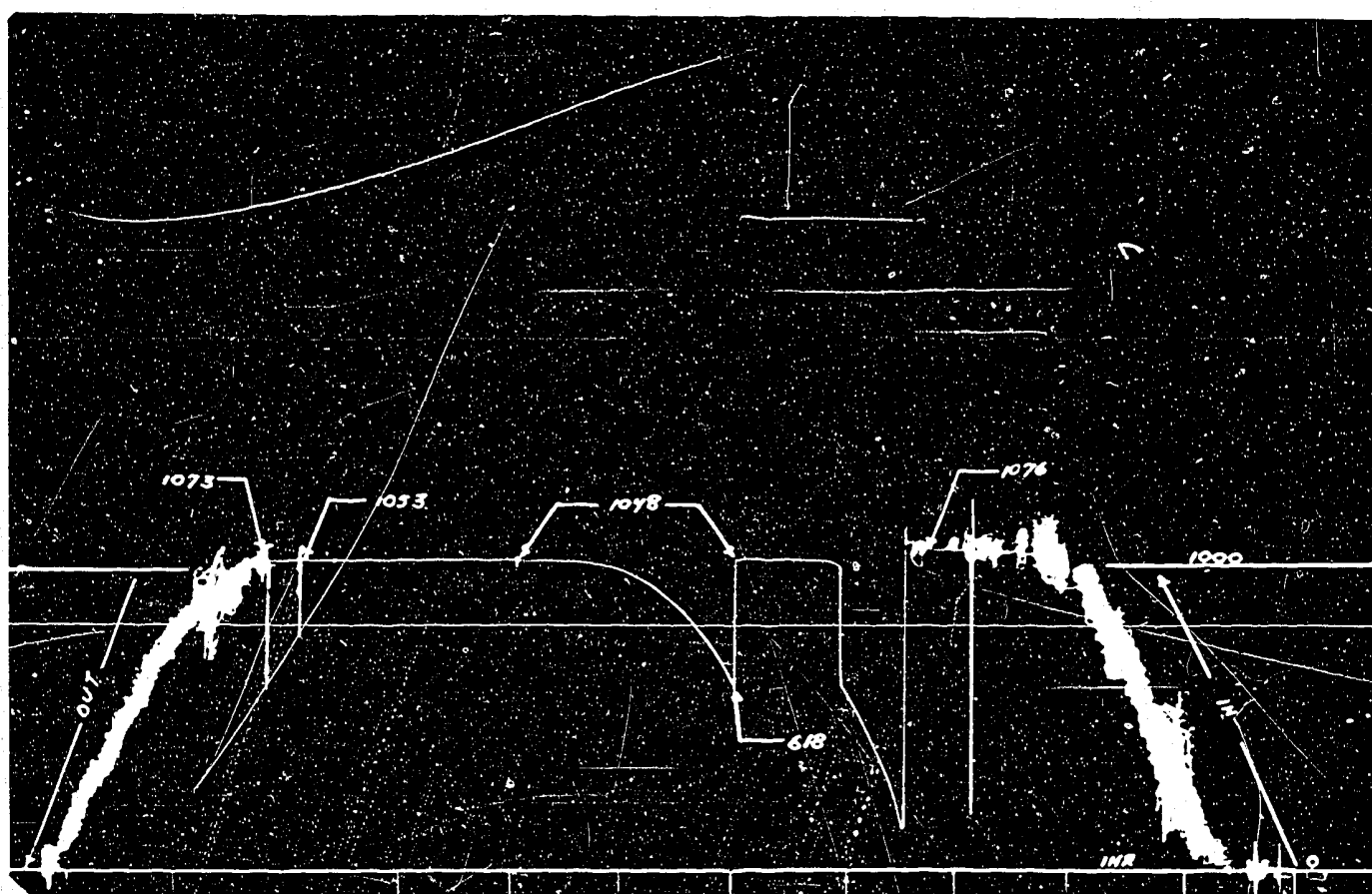
Na & K	Ca	Mg	Fe	Ba		Cl	HCO ₃	SO ₄	CO ₃	OH	
59,326	14,468	4031	Absent	Absent		127,852	241	1120	-	-	

MEQ PER LITER

2579.4	722.0	331.3				3605.4	4.0	23.3	-	-	
--------	-------	-------	--	--	--	--------	-----	------	---	---	--

LOGARITHMIC PATTERN MEQ PER LITER





PROJECT NO.....

RIG. NO.	17	LOCATION	ALLIANCE LAKE 274	LOG	NEW	DATE	APR 12 1961	LOCATION	
				AVERAGE TIME	LOST DRILL TIME				
						TEST			
						CLASS			
						REMARKS			
								TIME	

[illegible]

RIG. NO. 17 LOCATION MISSISSAUGA J. 74 SQR. N.W.T. DATE 4/1/67 LOCATION DATE 4/1/67

T O U R	MIDN.	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	STRATIGRAPHIC LOG	PUMP TEST	CLASS	REMARKS	TIME						
																		START	STOP	INTERVAL				
1	8 A.M.	AF:	AT:	2277	2278																			
		% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.									
		MUD 12MN. 2A.M. 4A.M. 6A.M.														PUMP		PUMP		SURVEY				
		WT.																						
		VISC.																						
		GEL																						
		W. L.	F.C.	P.H.																				
		ADDITIVES: WATER	25 GALS.																					
		1.	25 GALS.																					
		2.	25 GALS.																					
2	8 A.M.	AF:	AT:	2278	2279	2287																		
		% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.									
		MUD 8 A.M. 10A.M. 12 N.H. 2 P.M.														PUMP		PUMP		SURVEY				
		WT.																						
		VISC.																						
		GEL																						
		W. L.	F.C.	P.H.																				
		ADDITIVES: WATER	25 GALS.																					
		1.	25 GALS.																					
		2.	25 GALS.																					
3	4 P.M.	AF:	AT:																					
		% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.									
		MUD 4 P.M. 6 P.M. 8 P.M. 10 P.M.														PUMP		PUMP		SURVEY				
		WT.																						
		VISC.																						
		GEL																						
		W. L.	F.C.	P.H.																				
		ADDITIVES: WATER	25 GALS.																					
		1.	25 GALS.																					
		2.	25 GALS.																					

DATE _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER 1/c *McKinnis*
TOTAL COMPANY TIME _____ HRS. APPROVED BY *Del Mueggion*

PROJECT NO.

FIG. NO.	LOCATION	DATE	LOCATION	DATE	TIME
17	MULLAKE J-74 COR. NW 1/4	3/20/81			

RIG NO.		LOCATION										DATE		TIME		
LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF	LOST DRILL TIME WAIT ON WATER	CLASS	REMARKS	START	STOP	INTERVAL
TOUR 1																
AF: 2152 57 6																
MUD 12M. 2A.M. 4A.M. 6A.M.																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
SURVEY																
WT. 38 50 200 60 2152																
VISC. 38 50																
GEL. 38 50																
W.L. F.C. P.H.																
W. TRUCK																
MOB. PUMP																
GENERAL																
CREW TIME SUMMARY																
DRILLER W. FORSYTH																
HELPER E. BAUMMOND																
HELPER A. H. COCHRANE																
TOTAL																
INJURIES AND REMARKS:																
TOUR 2																
AF: 2157 196 38																
MUD 8A.M. 10A.M. 12M. 2P.M.																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
SURVEY																
WT. 40 13 45 17 200 60 2157																
VISC. 40 13 45 17 200 60 2157																
GEL. 40 13 45 17 200 60 2157																
W.L. F.C. P.H.																
W. TRUCK																
MOB. PUMP																
GENERAL																
CREW TIME SUMMARY																
DRILLER W. FORSYTH																
HELPER E. BAUMMOND																
HELPER A. H. COCHRANE																
TOTAL																
INJURIES AND REMARKS:																
TOUR 3																
AF: 2196 222 41																
MUD 4P.M. 6P.M. 8P.M. 10P.M.																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
PUMP PRESS RPM DEPTH PRESS RPM DEPTH AT DEG. LOG TO DEPTH																
SURVEY																
WT. 40 13 45 17 200 60 2196																
VISC. 40 13 45 17 200 60 2196																
GEL. 40 13 45 17 200 60 2196																
W.L. F.C. P.H.																
W. TRUCK																
MOB. PUMP																
GENERAL																
CREW TIME SUMMARY																
DRILLER W. FORSYTH																
HELPER E. BAUMMOND																
HELPER A. H. COCHRANE																
TOTAL																
INJURIES AND REMARKS:																

PROJECT NO....

[illegible][illegible]

RIG. NO. 17 LOCATION MILLS LAKE I-74 S.O.R. M.T.L. DATE 2/24/67 LOCATION DATE

T O U R	MIDN.	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	STRATIGRAPHIC LOC	PUMP TEST	CLASS	REMARKS	TIME				
																		START	STOP	INTERVAL		
1	8 A.M.	AF:	AT:	2055	2090					35								DRILL 6 1/4 HOLE	12:00	12:45	45	
		% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.			DRILL 6 1/4 HOLE	12:45	1:15	30	
		BIT RECORD																	DRILL 6 1/4 HOLE	1:15	2:00	45
		MUD	12MN.	2A.M.	4A.M.	6A.M.													DRILL 6 1/4 HOLE	2:00	2:45	45
		WT.	9.2	9.2															DRILL 6 1/4 HOLE	2:45	3:30	45
		VISC.	48	48															DRILL 6 1/4 HOLE	3:30	4:15	45
		GEL																	DRILL 6 1/4 HOLE	4:15	5:00	45
		W.L.	F.C.	P.H.															DRILL 6 1/4 HOLE	5:00	5:45	45
		ADDITIVES: WATER																	DRILL 6 1/4 HOLE	5:45	6:30	45
		W. TRUCK																	DRILL 6 1/4 HOLE	6:30	7:15	45
2	8 A.M.	AF:	AT:	2090	2110														DRILL 6 1/4 HOLE	7:15	8:00	45
		% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.				DRILL 6 1/4 HOLE	8:00	8:45	45
		BIT RECORD																	DRILL 6 1/4 HOLE	8:45	9:30	45
		MUD	8 A.M.	10 A.M.	12 N.H.	2 P.M.													DRILL 6 1/4 HOLE	9:30	10:15	45
		WT.	9.2	9.3	9.4	9.9													DRILL 6 1/4 HOLE	10:15	11:00	45
		VISC.	48	52	61	67													DRILL 6 1/4 HOLE	11:00	11:45	45
		GEL																	DRILL 6 1/4 HOLE	11:45	12:30	45
		W.L.	F.C.	P.H.															DRILL 6 1/4 HOLE	12:30	1:15	45
		ADDITIVES: WATER																	DRILL 6 1/4 HOLE	1:15	2:00	45
		W. TRUCK																	DRILL 6 1/4 HOLE	2:00	2:45	45
3	4 P.M.	AF:	AT:	2110	2120														DRILL 6 1/4 HOLE	2:45	3:30	45
		% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.				DRILL 6 1/4 HOLE	3:30	4:15	45
		BIT RECORD																	DRILL 6 1/4 HOLE	4:15	5:00	45
		MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.													DRILL 6 1/4 HOLE	5:00	5:45	45
		WT.	9.2	9.4															DRILL 6 1/4 HOLE	5:45	6:30	45
		VISC.	53	60															DRILL 6 1/4 HOLE	6:30	7:15	45
		GEL																	DRILL 6 1/4 HOLE	7:15	8:00	45
		W.L.	F.C.	P.H.															DRILL 6 1/4 HOLE	8:00	8:45	45
		ADDITIVES: WATER																	DRILL 6 1/4 HOLE	8:45	9:30	45
		W. TRUCK																	DRILL 6 1/4 HOLE	9:30	10:15	45
4	4 P.M.	AF:	AT:	2120	2130														DRILL 6 1/4 HOLE	10:15	11:00	45
		% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.				DRILL 6 1/4 HOLE	11:00	11:45	45
		BIT RECORD																	DRILL 6 1/4 HOLE	11:45	12:30	45
		MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.													DRILL 6 1/4 HOLE	12:30	1:15	45
		WT.	9.2	9.4															DRILL 6 1/4 HOLE	1:15	2:00	45
		VISC.	53	60															DRILL 6 1/4 HOLE	2:00	2:45	45
		GEL																	DRILL 6 1/4 HOLE	2:45	3:30	45
		W.L.	F.C.	P.H.															DRILL 6 1/4 HOLE	3:30	4:15	45
		ADDITIVES: WATER																	DRILL 6 1/4 HOLE	4:15	5:00	45
		W. TRUCK																	DRILL 6 1/4 HOLE	5:00	5:45	45

CREW TIME SUMMARY

DRILLER	HELPER	DRILLING AND OTHER RIG OPER.	PUMPTIME	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
Wm Forsyth	Ed Brummond						8
Charles Hoshins							8
TOTAL							16

INJURIES AND REMARKS:

DRILLER Wm Forsyth

COMPANY TIME 8 CONTR TIME 8

LOCATION MILAS 54-100 NT 5-74 DATE 3/27/67

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER 1/6 _____
TOTAL COMPANY TIME _____ HRS. APPROVED BY Paul Henderson

DATE _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER i/c _____
TOTAL COMPANY TIME _____ HRS. APPROVED BY: Del M. [Signature]

..DATE - March 25 - -

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER 1/4 _____
TOTAL COMPANY TIME _____ HRS. APPROVED BY Joe M. Sullivan

LOCATION M. H. L. L. L. L.

DATE. Dec 6 24 1957

- LOCATION

DATE 2-2-67

Form with multiple sections for logging drilling operations, including tables for hole data, pump test results, and crew time summaries. The form is divided into three main horizontal sections, each corresponding to a different hole or operation. Each section contains a header with 'TOUR' and 'T.O.' indicators, followed by a table of hole data (HOLE NO., FROM, TO, etc.), a table of pump test results (PUMP, PRESS, RPM, etc.), and a table of crew time summaries (CREW TIME SUMMARY, DRILLER, HELPER, etc.). The form is filled with handwritten data and signatures.

TOUR	T.O.	DATE	LOCATION	TIME
1	8 A.M.	11/11/52	264 300	11:00
2	8 A.M.	11/11/52	264 300	11:00
3	4 P.M.	11/11/52	200 470	4:30

RIG. NO. 11

LOCATION MOUNTAIN I-74 COR

DATE 7-23-67

LOCATION I-74 MOUNTAIN I-74 COR DATE 7-23-67

TOUR	MIDN.	T.O.	LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	STRATIGRAPHIC LOG		PUMP TEST		CLASS	REMARKS	TIME						
															FROM TIME	TO TIME	DESCRIPTION	DEPTH TO WATER IN FT.			START	STOP	INTERVAL				
1			AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD				12MN.	2A.M.	4A.M.	6A.M.	PUMP				PUMP				SURVEY								
			WT.																								
			VISC.																								
			GEL.																								
			W. L.																								
			ADDITIVES: WATER																								
			1.																								
			2.																								
2	8 A.M.		AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD				8 A.M.	10 A.M.	12 N.M.	2 P.M.	PUMP				PUMP				SURVEY								
			WT.																								
			VISC.																								
			GEL.																								
			W. L.																								
			ADDITIVES: WATER																								
			1.																								
			2.																								
3	4 P.M.		AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD				4 P.M.	6 P.M.	8 P.M.	10 P.M.	PUMP				PUMP				SURVEY								
			WT.																								
			VISC.																								
			GEL.																								
			W. L.																								
			ADDITIVES: WATER																								
			1.																								
			2.																								
4	MIDN.		AF:	AT:																							
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.											
			MUD				4 P.M.	6 P.M.	8 P.M.	10 P.M.	PUMP				PUMP				SURVEY								
			WT.																								
			VISC.																								
			GEL.																								
			W. L.																								
			ADDITIVES: WATER																								
			1.																								
			2.																								

TOTAL CONTRACT TIME _____ HRS.

TOOLPUSHER OR DRILLER I/C _____

TOTAL COMPANY TIME _____ HRS.

APPROVED BY _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER CR. DRILLER 1/c _____
TOTAL COMPANY TIME _____ HRS. APPROVED BY: Ed Mulligan

RIG. NO. 17 LOCATION 2242 L.L. T-74 A.W.T. C.O.R. DATE 3/21/67 LOCATION _____ DATE _____

TOUR	MIDN.	T.O.	LT:	LF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	STRATIGRAPHIC LOG		PUMP TEST		CLASS	REMARKS	TIME					
															FROM FT.	TO FT.	RATE IN 16 PM	DESCRIPTION			DEPTH TO WATER IN FT.	START	STOP	INTERVAL		
1	8 A.M.	T.O.	AF:	AT:																						
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.										
			BIT RECORD																							
			MUD	12MN.	2A.M.	4 A.M.	6 A.M.																			
			WT.																							
			VISC.																							
			GEL.																							
			W.L.	F.C.	P.M.																					
			ADDITIVES: WATER																							
			1.																							
2.																										
3.																										
CREW TIME SUMMARY			DRILLING AND OTHER RIG OPER.			PUMPTST			REPAIRS & MAINTENANCE			RIG UP OR TEAR DOWN			LOST TIME TRAVEL TIME			TOTAL HOURS								
DRILLER <u>Jim Brown</u>																										
HELPER <u>Ed. Brown</u>																										
HELPER <u>Charles Brown</u>																										
TOTAL																										
INJURIES AND REMARKS:																										
2	8 A.M.	T.O.	AF:	AT:																						
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.										
			BIT RECORD																							
			MUD	8 A.M.	10 A.M.	12 N.M.	2 P.M.																			
			WT.																							
			VISC.																							
			GEL.																							
			W.L.	F.C.	P.M.																					
			ADDITIVES: WATER																							
			1.																							
2.																										
3.																										
CREW TIME SUMMARY			DRILLING AND OTHER RIG OPER.			PUMPTST			REPAIRS & MAINTENANCE			RIG UP OR TEAR DOWN			LOST TIME TRAVEL TIME			TOTAL HOURS								
DRILLER <u>W. Forsyth</u>																										
HELPER <u>Ed. Brown</u>																										
HELPER <u>Arvid R. Cockrane</u>																										
TOTAL																										
INJURIES AND REMARKS:																										
3	4 P.M.	T.O.	AF:	AT:																						
			% LEFT	COND	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REAMED	HRS.	FORM	% LEFT	COND.										
			BIT RECORD																							
			MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.																			
			WT.																							
			VISC.																							
			GEL.																							
			W.L.	F.C.	P.M.																					
			ADDITIVES: WATER																							
			1.																							
2.																										
3.																										
CREW TIME SUMMARY			DRILLING AND OTHER RIG OPER.			PUMPTST			REPAIRS & MAINTENANCE			RIG UP OR TEAR DOWN			LOST TIME TRAVEL TIME			TOTAL HOURS								
DRILLER																										
HELPER																										
HELPER																										
TOTAL																										
INJURIES AND REMARKS:																										

TOTAL CONTRACT TIME _____ HRS.

TOOLPUSHER OR DRILLER 1/c

TOTAL COMPANY TIME _____ HRS.

APPROVED BY

Jim Mulligan

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER i/c _____
TOTAL COMPANY TIME _____ HRS. APPROVED BY Paul W. [Signature]

BIG INDIAN DRILLING CO. LTD.

PROJECT NO.

BIG INDIAN DRILLING CO. LTD.

PROJECT NO.

RIG. NO. 17

LOCATION CDR. Mills Lake 374

DATE March 19

LOCATION

DATE

TOUR	TIME	CLASS	REMARKS	TIME		
				START	STOP	INTERVAL
1	8 A.M.		Condition mud pump 12" pump rig Leaking from pump Time to drill out 4:15 No bit Treated off from ball seal. Pump mud line Went on O.D. 445 800	12:30	1:12	
				12:30	3:45	1:15
				3:45	4:15	30
				4:15		
				4:15		
				4:15		
				4:15		
				4:15		
				4:15		
				4:15		
DRILLER <i>Thom Brown</i> COMPANY TIME _____ CONTR TIME _____						
2	8 A.M.		RIG SERVICE UNDER 8:00 Cement pump to stop, stop 10:00 Rig up 2:30 Work on boiler. Steam pump Prime pump.	2:30	3:30	1:00
				3:30	4:00	30
				4:00		
				4:00		
				4:00		
				4:00		
				4:00		
				4:00		
				4:00		
				4:00		
DRILLER <i>Ed. Taylor</i> COMPANY TIME _____ CONTR TIME _____						
3	4 P.M.		Spud 9:30 Water Drill 9:30 Mud pump Mud pump Mud pump	4:00	4:45	45
				4:45	5:15	30
				5:15	10:30	5:15
				10:30	11:00	30
				11:00	11:30	30
				11:30	12:00	30
				12:00		
				12:00		
				12:00		
				12:00		
DRILLER <i>ARI MOORE</i> COMPANY TIME _____ CONTR TIME _____						

RIG. NO. 17		LOCATION MILES LAKE 5-74 N.W.T. COR.		DATE MAR 1967		LOCATION 215167		DATE											
LT:	IF:	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	AVERAGE TIME PER LOAD OF W.	LOST DRILL TIME WAIT ON WATER	STRATIGRAPHIC LOG / PUMP TEST		CLASS	REMARKS	TIME			
AF:	AT:											FROM FT. / TIME	TO FT. / RATE IN 162 M.	DESCRIPTION / DEPTH TO WATER IN FT.			START	STOP	INTERVAL
T O U R I																			
MUD 12MN. 2A.M. 4A.M. 6A.M.																			
PUMP PRESS RPM DEPTH TRESS RPM DEPTH AT DEG. LOG TO DEPTH																			
WT. VISC. GEL. W.L. F.C. P.H. W. TRUCK MOB. PUMP																			
DRILL MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER MIDN. 4A.M.																			
TEMPERATURE: WIND VELOCITY: RAIN, SNOW, FOG, ETC.																			
GENERAL																			
CREW TIME SUMMARY																			
DRILLER																			
HELPER																			
HELPER																			
TOTAL																			
INJURIES AND REMARKS:																			
T O U R 2																			
MUD 8A.M. 10A.M. 12N.M. 2P.M.																			
PUMP PRESS RPM DEPTH TRESS RPM DEPTH AT DEG. LOG TO DEPTH																			
WT. VISC. GEL. W.L. F.C. P.H. W. TRUCK MOB. PUMP																			
DRILL MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER 8A.M. NOON																			
TEMPERATURE: WIND VELOCITY: RAIN, SNOW, FOG, ETC.																			
GENERAL																			
CREW TIME SUMMARY																			
DRILLER																			
HELPER																			
HELPER																			
TOTAL																			
INJURIES AND REMARKS:																			
T O U R 3																			
MUD 4P.M. 6P.M. 8P.M. 10P.M.																			
PUMP PRESS RPM DEPTH TRESS RPM DEPTH AT DEG. LOG TO DEPTH																			
WT. VISC. GEL. W.L. F.C. P.H. W. TRUCK MOB. PUMP																			
DRILL MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER 4P.M. 8A.M.																			
TEMPERATURE: WIND VELOCITY: RAIN, SNOW, FOG, ETC.																			
GENERAL																			
CREW TIME SUMMARY																			
DRILLER																			
HELPER																			
HELPER																			
TOTAL																			
INJURIES AND REMARKS:																			
T O U R 4																			
MUD 4P.M. 6P.M. 8P.M. 10P.M.																			
PUMP PRESS RPM DEPTH TRESS RPM DEPTH AT DEG. LOG TO DEPTH																			
WT. VISC. GEL. W.L. F.C. P.H. W. TRUCK MOB. PUMP																			
DRILL MOTOR HOURS FUEL GALS. NEXT OIL CHANGE AT WEATHER 4P.M. 8A.M.																			
TEMPERATURE: WIND VELOCITY: RAIN, SNOW, FOG, ETC.																			
GENERAL																			
CREW TIME SUMMARY																			
DRILLER																			
HELPER																			
HELPER																			
TOTAL																			
INJURIES AND REMARKS:																			

200-16
up off 16

DRILLER

COMPANY TIME

CONTR. TIME

TOTAL CONTRACT TIME

TOTAL COMPANY TIME

TOOLPUSHER OR DRILLER 1/c

APPROVED BY