CDR CPOG CHEVRON MILLS
LAKE J-74

Drilling Authority No. 242
Date Issued December 16, 1966

WELL NAME: CDE 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. 61.2278 -- 118.2299

U.W.I.No. 300J76120118000

Rig Release Date: 3rd April 1967
Status D & A
Information Release Date

CHANGE OF NAME:

DATE RECEIVED		INDEX
16-12-66		Application for a Drilling Authority.
31-8-67		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

NAMR 52-90 (7-65)

Drilling Authority No. 242
Date Issued Dec. 16/66

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: CRR CPOE Chevron Hills Lake J-74

Permit No. 2110 Lease No.

Chevron Standard Limited (Permittee, Licensee, Lessee) Exploratory Licence No. 1022

Central-Del Rio Oils Limited (Operator) Exploratory Licence No. 1006

Location: Unit J Section 74 Grid 61° 21', 118° 00'

Latitude 61° 13' 37.5" Longitude 118° 13' 47.700"

From Established Reference Marker N/4 Sec. 2b, 160-0-6 (Beach Marb)

Universal Well Location Reference 61.22700° N 118.[illegible]° W

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

Pool(s) Wildcat

Interval(s) open to production Sump - dry hole

Elevation: Gr. 607 K.B. 616.4

Rig No. 17

Drilling Contractor Big Indian Drilling Co. Ltd.

Contractor's Business Licence No. 24200

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at –	Sacks of Cement and Additives
1. 7"	J-55	20#/ft.	204.01	203.31	100 sacks cement plus 2½% $CaCl_2$
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION Depths	ELEVATION Sub-Sea
Hay River Shale	100'	+ 516'
Hills Lake Member	1744	-1120
Sans River Shale	1874	-1250
Lonely Bay	1900	-1274
Basal Hay River Platform	2000	-1400
Chinchaga	2130	-1514
Green Shale	2170	-1553
Red Beds	2204	-1610
Granite Wash	2250	-1634
Pre-cambrian	2276	-1660

CORE RECORD

From	To	Rec.	From	To	Rec.
2090	2121	31			
2121	2150	30			

LOG RECORD

Run No.	Type of Log	From	To
1	Induction Electrical	204	2280
1	Borehole Compensated Sonic	204	2280

IAND 13-00(2) (3-67)

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date 1967	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
Apr. 2	2000	1900	120 sacks + 2% $CaCl_2$. Felt at 2027'. Ran 20 sx on top of plug.				None.				None.
Apr. 2	315	215	80 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.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	Mar 20/67	Basal King River	2075	2122	120	20	112	1048	1053	618	1048	1076	1073	Recovered 2122' of sulphurous salt water.

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks
CER-S-1207	Water	2075'	2122'	DST #1	Sampled from top of tool.

SEP 13 1967

PRESENT STATUS OF WELL

Oil		(Interval)
Gas		(Interval)
Dry		Abandoned
Susp.		

Company CENTRAL-DEL RIO OILS LTD.

Signed by [illegible]

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. 948

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: Gulf Chevron Hills Lake A-94

Location: Unit J Section 94 Grid 61° 20', 110° 00'
Latitude 61° 10' 27.6" N Longitude 110° 10' 47.700" W
From Established Reference Marker S/4 Sec. 32-120-6-4 (Marsh Hut)
Universal Well Location Reference 61.2[illegible]° N, 110.[illegible]° W

Permit No. 3110 Lease No.

(Position, Township, Island)

Date of commencement of proposed program

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at
Gas at
Water at Saline water at 2075 - 2150'.
Total Depth 2207' 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 Pulled
1.	7"	20#	204.01	200.21	100 sacks cement plug	
2.					2½% CaCl2	none
3.						
4.						
5.						

PROPOSED ABANDONMENT PROGRAM

No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	2207 - 1850	Precambrian - Dave River Shale	150 sx	Foul.
2	210 - 210	Surface casing	50 sx	Foul.
	Weld on steel plate.			

The following logs have been run Induction Electrical log 204 - 2200', Sonic log 204 - 2200'.
Other operations proposed

Operations Address Gulf-Chevron Hills Lake S.E., Calgary, Alberta
Responsible Agent in field J. E. Gibson
Dated at Calgary, this 18th day of May 67
Signed by
Title Staff Engineer
Company Gulf-Chevron Hills Lake Limited
Operator's Exploratory Licence No. 1020

Contractor Licence No. 24020
Address 2010 - 9 Ave. S.E.

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. E. Good on the 31st of March 1967

Dated 18th September, 19 67

Oil Conservation Engineer

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

IAND 53-44 (3) (3-67)

File No.

Drilling Authority No. 948

CANADA

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. 948, concerning CRB CPOG Chevron Hills Lake J-74

(Name and Number of Well)

The following amendments are required: To abandon the well at 61° 13' 37.5" 118° 13' 48.7" which had suffered a twist off and to skid the rig and start over at 61° 13' 37.5" 118° 13' 47.705".

Reasons for the amendments: While drilling at 120 foot, 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: 61.2270° N., 118.2294° W.

[signature]

Date 18th September, 19 67

Oil Conservation Engineer [signature]

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

IAND 53-00-3 (3-67)

CDR CPOC 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	"
FO	120	"
FSI	120	"

I.S.I.P.	1020	F.S.I.P.	1,020
I.F.P.		F.F.P.	600 to 1020
I.H.P.	1070	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

CNR 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

CPR 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% $CaCl_2$

Elevation: K.B. to Ground 9.4'

SPUD DATES - not known

File No.

Drilling Authority No. 242

Department of Indian Affairs and Northern Development
Resource & Economic Development Group

[redacted]

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'; 118° 00'

Latitude: 61° [redacted] 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 [redacted] 2700 feet.

Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. 3110 Lease No. Acreage 61596

Permittee, licence, or lessee: Chevron Standard Limited

Exploratory Licence No. [redacted] 1023

Surface owned by Crown or (If allocated submit name and address of owner and occupant.): Crown

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	Brand	New or Used	Estimated Depth	Sacks 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 [signature] 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 [signature]
Oil Conservation Engineer

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

NANR 12-65-1 (7-65)

Universal Well Location Reference: 61.22709° N 118.23047° W

Well Report

C D R CPOG CHEVRON MILLS LAKE J-74

Unit J Sec. 74 Grid 61° 20'N,118° 0' W.

MILLS LAKE AREA

Northwest Territories - Canada.

26-11-4-2

R. J. Berger
Consulting Geologist
430 Calgary Tower
Calgary, Alberta.

Telephone: 261-5475.

Received Sept 4/67

April 6, 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. 4 Grid 61° 20' N., 116° 20' 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) Well Name and Number — CDR CPOG CHEVRON HILLS LAKE J-74

(b) Permittee — Chevron Standard Licensee: Central-Del Rio Oils Limited

(c) Name of Operator — Central-Del Rio Oils Limited
736 - 8 Ave. S.W., Calgary, Alberta.

(d) Location — Unit J, Section 74, Grid 61° 20' N., 116° 00' W.

(e) Co-ordinates — Latitude 61° 13 min. 37.56 sec. Longitude 116° 13 min. 47.760 sec.

(f) Lease No. or Permit No. — 3110

(g) Drilling Contractor — Big Indian Drilling Co. Ltd. Rig #17
Gardner Denver #2000 truck mounted.

(h) Drilling Authority — 242 issued 12 Dec. 1966.

(i) Classification — New field wildcat.

(j) Elevations — Ground: 607' K.B.: 616.4'

(k) Spudded — 4 P.M. March 19, 1967.

(l) Completed Drilling — 1:00 P.M. April 1, 1967.

(m) Total Depth — 2207'

(4) Well Status — Dry and abandoned.

(5) Rig Released — Midnight April 5, 1967.

(6) Hole Size — 6 1/4"

(7) Casing — Ran 8 joints 7" 20 lb. J-55 8 rd thread Rge. 2 lt & C Japanese casing. Tailled @ 254.01' and set @ 263.21' K.B. with 105 sacks normal Canada Cement, plus 2 1/2% $CaCl_2$. Welded all joints. Plug down @ 9:36 P.M. March 30, 1967. Good returns. K.B. to ground 9.40.

Yours truly,

R. J. Burger, P. Geol.

RJB:db

WELL REPORT

GOR CROW CONVOCATION WELLS LAKE J-74

Unit J, Section 74 Grid 61° 33' S., 116° 00' W.

WELLS LAKE AREA

Northwest Territories - Canada.

April 4, 1967.

E. J. Burger, P. Geol.
630 Guinness House,
Calgary, Alberta.

Telephone: 262-5475.

INDEX

	PAGE
Summary of Drill Data	1
Formation Tops	3
Sample Descriptions	4
Drill Stem Test Report	7
Survey Record	8
Bit Record	8
Mud Record	8
Daily Progress Reports	9

[illegible]

Well Name:	CDM CPOG CHEVRON [illegible] J-74
Location:	Unit J Section 74 Grid 61° 30' N., 110° 30' W.
Co-ordinates:	Latitude 61° 13 Min. 32.5Sec. Longitude 110° 13 Min. 47.748 Sec.
Elevation:	Ground 607' K.B. 616.4'
Final Total Depth:	Driller: 2287' Schlumberger: 2287'
Classification:	Wildcat.
Drilling Contractor:	Big Indian Drilling Co. Ltd. Rig #17
Drilling Supervisor:	Ted Mulligan.
Equipment:	Draworks: Gardner Denver #2000 Truck mounted; Power off Cummins, 350 H.P. Truck motor. Pump: Gardner Denver F X D power off Cummins 335 H.P. truck motor. Derrick: Gardner Denver 60' Mast. Substructure: 8' high made from LDH-Bay.
Operator:	Central-Del Rio Oils Limited.
Spudded:	12:45 P.M. March 16, 1967 drilled to 139' 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 264-1208' Bore Hole Compensated Sonic Log 264-2283'
Surface Casing:	Ran 6 joints 7 20 lb. J-55 8 rd thread Rge. 2 ST & C Japanese casing. Tallied 254.01' and set 263.21' K.B. with 185 sacks normal Canada cement, plus 2 1/2% CaCl2. Welded all joints. Plug down 9:30 P.M. March 20, 1967. Good returns. K.B. to ground 9.40.
Cores:	Core #1 2090-2121' Cut 31' Rec. 31' (Keg Sives) Core #2 2121-2152' Cut 31' Rec. 30' (Keg Sives)
Drill Stem Tests:	#1 - 2075'2152' (Basal Keg River) Pre flow 30 min.; I.S.I. 60 Min.; F.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. ISP 1070, FHP 1010, I.S.I.P. 1020, F.S.I. 1010 I.F.P. 900, F.F.P. 120. Recovery: 3122' sulphurous salt water. Temperature: 96° F. Test Mechanically Satisfactory.

PROGRESS OF WELL P.T. (cont'd)

Plugs: #1 - 2157-1900' 150 sacks; fell at 2037'
#2 - 215- 215' 30 sacks; no load.
#3 - 5 sacks at top of surface casing.
welded on steel plate and covered permanent.

Analysis:

Water LRB-2-1357 DST #1 2075' - 2152'. Bottom

FORMATION TOPS

CDR CPOG GERVAISE HILLS LAKE J-24
Unit J Lsd. 24 Sec16 68° 30' N., 116° 00' W.

Ground: 607'
K.B.: 616.4'

Electric Log Top	Depth	Subsea
Hay River Shale	1097'	(516')
Hills Lake Member	1744'	(-1122')
Keen River Shale	1874'	(-1252')
Lonely Bay	1990'	(-1374')
Sawal Keg River Platform	2096'	(-1480')
Chinchaga	2130'	(-1514')
Green Shale	2179'	(-1563')
Red Beds	2234'	(-1618')
Granite Wash	2250'	(-1634')
Pre-Cambrian	2276'	(-1660')

Final Total Depth

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

SAMPLE DESCRIPTIONS

CRA CPOG CHEVRON HELLS LAKE J-74
61° 29' N., 115° 00' W.

Ground: 607'
K.B. 616.4'

Samples from 0 to 300' destroyed when boiler burned up.
Drilling time indicates Hay River Limestone absent.
Top Hay River Shale from drilling time at 100'.

270-400'	SHALE light grey green slightly calcareous slightly micro-micaceous soft.
400-500'	SHALE light green and grey green soft flaky in part.
500-570'	SHALE grey green and light green slightly micro-micaceous, soft.
570-690'	SHALE grey green and light green slightly micro-micaceous.
690-870'	SHALE grey green and light grey, firm, slightly micro-micaceous.
870-1000'	SHALE light grey green and light green slightly micro-micaceous, firm.
1000-1150'	SHALE light grey green to light green slightly micro-micaceous slightly calcareous.
1150-1300'	SHALE grey green some dark grey bituminous flecked in part.
1300-1500'	SHALE grey green and dark grey bituminous flecked in part.
1500-1700'	SHALE grey green micro-micaceous splintery, some dark grey SHALE, slightly bituminous flecked.

TOP HELLS LAKE FORM 1744' (-1128')

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

TOP HAY RIVER SHALE 1874' (-1258')

1880-1900' SHALE light gray green and dark gray micro-micaceous calcareous splintery.

1900-1930' SHALE & LIME SHALE dark gray to gray black some SHALE light gray green splintery.

1930-1960' SHALE dark gray and gray black slightly bituminous, calcareous.

TOP LOWER ARK 1990' (-4374')

1960-2000' 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 shale cavings.

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.

2080-2090' LIMESTONE as above. Minor LIMESTONE light brown medium crystalline poor fine pin point porosity light brown oil stained.

TOP BASAL ORR SAND PLATTEVIL 2096' (-4488')

Core #1 2090-2121' Cut 31' Rec. 31'
Penetration rate: 21, 29, 13, 5, 13, 14, 11, 10, 11, 17, 13, 15, 10, 12, 10, 10, 14, 12, 10, 22, 10, 22, 14, 14, 13, 15, 15, 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.
2.2' DOLOMITE light brown micro-crystalline oil stained tight.
4.4' LIMESTONE dark brown micro-crystalline dense.
13.6' 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.

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

Core #2 — 2121-2132' Cut 11' Rec. 10'
Penetration Rates: 13, 12, 13, 10, 13, 10, 19, 16, 18, 20, 16, 14, 13, 13, 15, 19, 15, 16, 17, 14, 13, 13, 17, 16, 13, 17, 17, 16, 14, 16, 12.

4.5' DOLOMITE light brown micro-crystalline tight light brown oil stained.

7.5' ANHYDRITE gray white and light brown micro-crystalline dense, interbedded with DOLOMITE light brown micro-crystalline dense.

Core is tight.

THE ANHYDRITE 2130' (-1314')

2132-2170' ANHYDRITE light gray 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.

THE GREEN SHALE 2170' (-1353')

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.

2210-2220' SHALE gray green and dark gray micro-micaceous minor (10%) loose loose unconsolidated quartz grains medium grained, angular to subrounded frosted. Trace rust red shale.

THE RED BED 2224' (-1416')

2220-2240' SHALE gray green and dark gray minor light green trace rust red and maroon 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 fieldspar grains.

THE GRANITE WASH 2250' (-1426')

2250-2260' GRANITE WASH pink and white, feldspar biotite and quartz grains and fragments medium to coarse grained tight, no staining. Some light green waxy shale.

2260-2276' GRANITE WASH as above. Trace PYRITE some black hornblende.

THE PRE-CAMBRIAN 2276' (-1440')

2276-2287' GRANITE pink and white, fieldspar quartz hornblende and biotite fragments tight no staining.
Note: Pre-Cambrian top picked from samples and drilling time.

Final total depth driller 2287' (-1471')
Schlumberger 2287' (-1471')

E. J. Burger, P. Geol.

DRILL STEM TEST REPORT

Test No. 1
Date: March 29, 1967.

Well Name [illegible] Testing Co. [illegible] Operator: [illegible]

O.D. Packer Rubber 5 1/2" Hole Size 5 1/2" Choke Size 1/2"

Length of Drill Pipe 77' Drill Pipe Size 3 1/2" Perforations 30'

Mud Weight 9.6 Viscosity 51 Water Loss 7.2 PH 8.0

Interval tested: 2073-2122' Formation: [illegible]

Time: Tool started in hole: 1 P.M. Tool on bottom: 4:07 P.M.
Tool opened: 5:00 P.M. Tool closed: 7:00 P.M.
Tool pulled loose: 7:30 P.M. Tool out of hole: Midnight

Pressures:					
	I.H.P.	1070	F.H.P.	1010	Field Pressures
	I.S.I.P.	1020	F.S.I.P.	1010	
	I.F.P.	600	F.F.P.	1020	

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: 2122' sulphurous salt water.

Temperature: 96° F.

Test Successfully Satisfactory.

S. J. Berger, Geologist.

[illegible] REPORT

Depth	Deviation
101'	1/4°
161'	0°
265'	1/4°
374'	1/2°
497'	0°
722'	3/4°
1030'	1/4°
1375'	1/2°
1990'	1°
2287'	3/4°

BIT REPORT

Bit #	Size	Make	Type	Serial #	Depth Out	Feet	Hours	Accum. Hours
1A	9 7/8	Smith	DT	88	360	360	13 3/4	13 3/4
1	6 1/4	Smith	DT	303059	1257	897	22 3/4	36 1/2
2	6 1/4	Smith	DT	30300	2011	754	19 1/2	56
3	6 1/4	Smith	DT3G	40249	2090	79	5 1/4	61 1/4
4	6 1/4	[illegible]-UP-REAMER		70160	2152	60	13 1/2	74 3/4
5	6 1/4	[illegible]	TT.	176139	2237	85	16 1/2	91 1/4
6	6 1/4	[illegible]	TT.	176143	2277	40	7	98 1/4
7	6 1/4	[illegible]	T3G	Dropped in hole.				
8	6 1/4	[illegible]	T51	117146	2287	10	5 1/4	103 1/2

MUD REPORT

Salt Gel	33 sacks
Super Gel	184 sacks
Plaster	38 sacks
SAAP	100 lbs.
Preservative	73 lbs.
Starch	61 sacks
QNC	23 lbs.

DAILY PROGRESS REPORT

[illegible] CONTROL WELLS LAST [illegible] 76.

March 19/67 Depth (6 A.M.) 129' Progress: 129' On Bottom: 6 1/2 hours
Operation: Twist off at top of bell nub.

Mud Properties
Visc. 46

Additives
Plaster 8 sacks
Super Gel 33 sacks
Salt Gel 10 sacks

Remarks: Spudded 12:45 P.M. March 18, 1967.
Twisted off 4:45 A.M. March 19, 1967 at 129' top of bell nub.

4 3/4 hours	Rig to spud
4 1/4 hours	Rig Down
1 1/4 hours	Work on Pump
3 1/4 hours	Wait.
2 1/4 hours	Thaw Kelly hose

March 20/67 Depth (6 A.M.) 240' Progress: 240' On Bottom: 13 3/4 hours.
Operation: Drilling.

Mud Properties
Visc. 44 Wt. 9.7

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

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

March 21/67 Depth (6 A.M.) 260' Progress: 22' On Bottom: 2 hours
Operation: Waiting on cement.

Mud Properties
Visc. 45 Wt. 9.6

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 6 joints 7" 20 lb. J-55 8 rd Rge. 2 rt & 4 Japanese casing tallied at 254.01' and set @ 263.21' K.B. with 145 sacks normal Canada cement and 2 1/2% CaCl2. Welded on all joints.
Plug down @ 9:30 P.M. March 20, 1967. Good returns.
K.B. to ground 9.40'.

March 22/67 Depth (6 A.M.) 260' Progress: 0
Operation: Waiting on boiler.
Remarks: Rigged up waiting on boiler.

March 23/67 Depth (6 A.M.) 260' 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 (6 A.M.) 246' 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 oil air chamber on mud pump.
6 A.M. March 24, 1967.
Pressured 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 (6 A.M.) 453' Progress: 207' On Bottom: 14 1/4 hours.
Operation: drilling.

Mud Properties	Additives	
Visc. Water	Q-broxin	25 lbs.
Wt. 9.0		

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 Bum 3	435' top of fish at 75' K.B.	

March 26/67 Depth (6 A.M.) 1542' Progress: 607' On Bottom: 12 3/4 hours.
Operation: drilling.

Mud Properties	Additives	
Visc. Water	Q-broxin	75 lbs.

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

March 27/67 Depth (6 A.M.) 2011' Progress: 469' On Bottom: 13 1/4 hours.

Mud Properties		Additives	
Visc.	42	Q-broxin	25 lbs.
Wt.	9.2	Starch	10 sacks
W.L.	10.1	Preservative	25 lbs.
P.H.	8.0	Plaster	4 sacks
Remarks:		Super Gel	25 sacks

Measured out - Board Tally 2019.24' doubled strapped to 2022.32.
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 (6 A.M.) 2090' Progress: 79' On Bottom: 4 1/2 hours.
Operation: Running core bbl. 90' to bottom.

Mud Properties	Additives	
Visc. 48 Wt. 9.3	Super Gel	20 sacks
W.L. 5.0 PH 8.0	Salt Gel	15 sacks
	Starch	15 sacks
	Plaster	10 sacks

March 28/67 (cont'd)

Remarks:	4 1/2 hours	Swivel repair
	7 "	Work on light plant & shale shaker motor, Clean mud tank & build volume.
	2 1/2 "	Service & rig B.O.P., Survey
	3 "	Ream to bottom & drill 30' by mistake.
	3/4 "	Circulate hole clean
	1 "	pick up core barrel

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

March 29/67 Depth (B.M.) 2140' Progress: 50' On Bottom: 14 1/2 hours.
Operations: coring.

Mud Properties		Additives	
Visc.	43	Super Gel	12 sacks
Wt.	9.4	Starch	4 sacks
W.L.	7.6		
PH	8.0		

Remarks:	1 1/4 hours	Service Rig & repair shale shaker
	2 "	Ream 90' to bottom.
	3/4 "	Build up volume in Tank Core #1
	1 "	Circulate core bbl. to bottom Core #2
	1 "	Remake Core
	1 "	Repair flow line

March 30/67 Depth (B.M.) 2150' Progress: 10' On Bottom: 3 hrs.
Operations: drilling.

Mud Properties		Additives	
Visc.	50	Plaster	4 sacks
Wt.	9.4	Starch	4 sacks
W.L.	7.9	Super Gel	12 sacks
PH	8.0		

Remarks:	1 1/4 hours	Handle core & lay down bbl.
	2 "	Make up packer
	1 1/4 "	Head up, ckld 30' to bottom
	4 "	Tearing
	1 "	Break down tools
	3/4 "	Rig Service & B.O.P.'s
	1 3/4 "	Ream 35' with new bit.

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

Mud Properties		Additives	
Visc.	42	Plaster	4 sacks
Wt.	9.4	Starch	13 sacks
W.L.	6.4	Super Gel	35 sacks
PH	8.0	Salt Gel	10 sacks

Remarks:	3 1/4 hours	Service Rig, B.O.P. & repairs
	3/4 "	Rig Dwd
	1/2 "	Chan 30' to bottom.

April 1/67 Depth (6 A.M.) 2375' Progress: 7' On Bottom: 2 1/2 hours
Operations: drilling.

Mud Properties		Additives	
Visc.	43	Salt Gel	14 sacks
Wt.	9.4	Super Gel	5 sacks
W.L.	8.4	Starch	6 sacks
PH	8.5	Plaster	8 sacks
		CMC	25 lbs.

Remarks: Dropped 742' pipe running in.
Top of fish at 1532' screwed in and jarred loose 11:13 P.M. March 31, 1967.

4 3/4	hours	Rig service & repair
1	"	work on boiler
5 1/4	"	Rig mud circulate
1 3/4	"	fish and jar loose

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

E. Burger, F. Geol.

D. S. T. REPORT

BJ SERVICE DIVISION
BORG-WARNER (CANADA) LIMITED

BJ

TESTING REPORT

DRILL-STEM TEST DATA

Well Name and Field Johnson		Test No. 1	
Well Number Hills Lake 2-74		Zone Tested	
Company Centralmont Oil Gas Limited		Interval 2075 - 2152	
Comp Rep T. Mullican	Tester H. Blanchette	Date March 31, 1967	

Period 30 mins SI 20 mins Flow [illegible] mins FSI 110 mins

Type of Tool Single Bottom Hole	BC No.	BC No. 1451	BC No.
	HR CLOCK	HR CLOCK	HR CLOCK
DEPTH			
Initial Hydro Mud Press		1076	
Initial Shut-in Press		1043	
Initial Flow Press		616	
Final Flow Press		754	
Final Shut-in Press		1023	
Final Hydro Mud Press		1073	

Mud Type _____ Fluid Loss 7.8 Mud Weight 9.4

Viscosity 42 Temperature 26° C Pay Zone Tested _____

Top Packer Depth _____ Bottom Packer Depth _____ Total Depth _____

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

Surface Choke Size _____ Bottom Choke Size 5/8" Main Hole Size 6 3/4"

Anchor Size _____ Bar Hole Size _____ Feet of Bar Hole _____

Cushion Amount _____ Type _____ Rubber Size 5/8"

Fluid Recovery Total Feet 2152

Recovered 2152 Feet of Sulphurous Salt Water

Recovered _____ Feet of _____

Gas Recovery Flow Measured _____

_____ mins Press Rdg _____ = _____ MCF Day

_____ mins Press Rdg _____ = _____ MCF Day

_____ mins Press Rdg _____ = _____ MCF Day

_____ mins Press Rdg _____ = _____ MCF Day

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

A

DST PRESSURE INCREMENTS

Recorder No. 1001 Depth

Points	INITIAL CIP				FINAL CIP			
	Time Delt	T+θ	T+θ / θ	PSIG	Time Delt	T+θ	T+θ / θ	PSIG
1	0			613	0			1051
2				1034	5			1051
3	10			1042	10			1052
4	15			1043	15			1052
5	20			1044	20			1052
6	25			1045	25			1052
7	30			1045	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 CDH-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'

Location 61 15'57 50"NL 118 15'49.70"WL Field Mills Lake Area Province Northwest Territories

Date Sampled arch 29, 1967 Date Analyzed April 6,1967 Analyst BV

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. H_2S Present

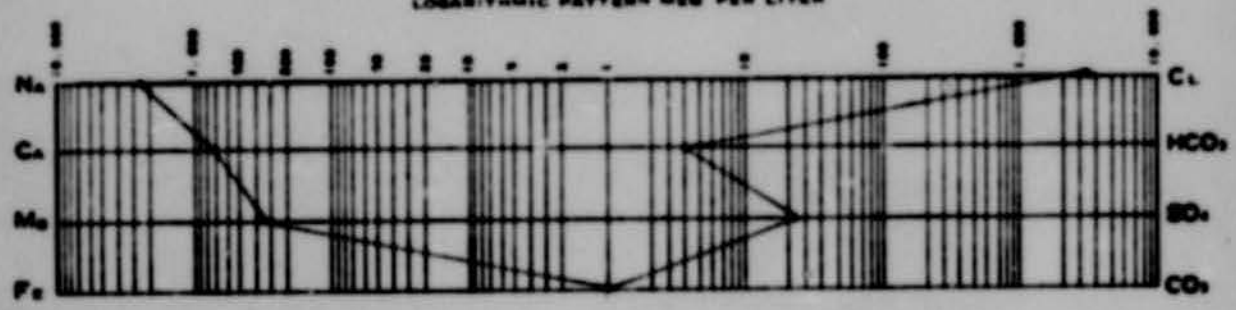
MILLIGRAMS PER LITER

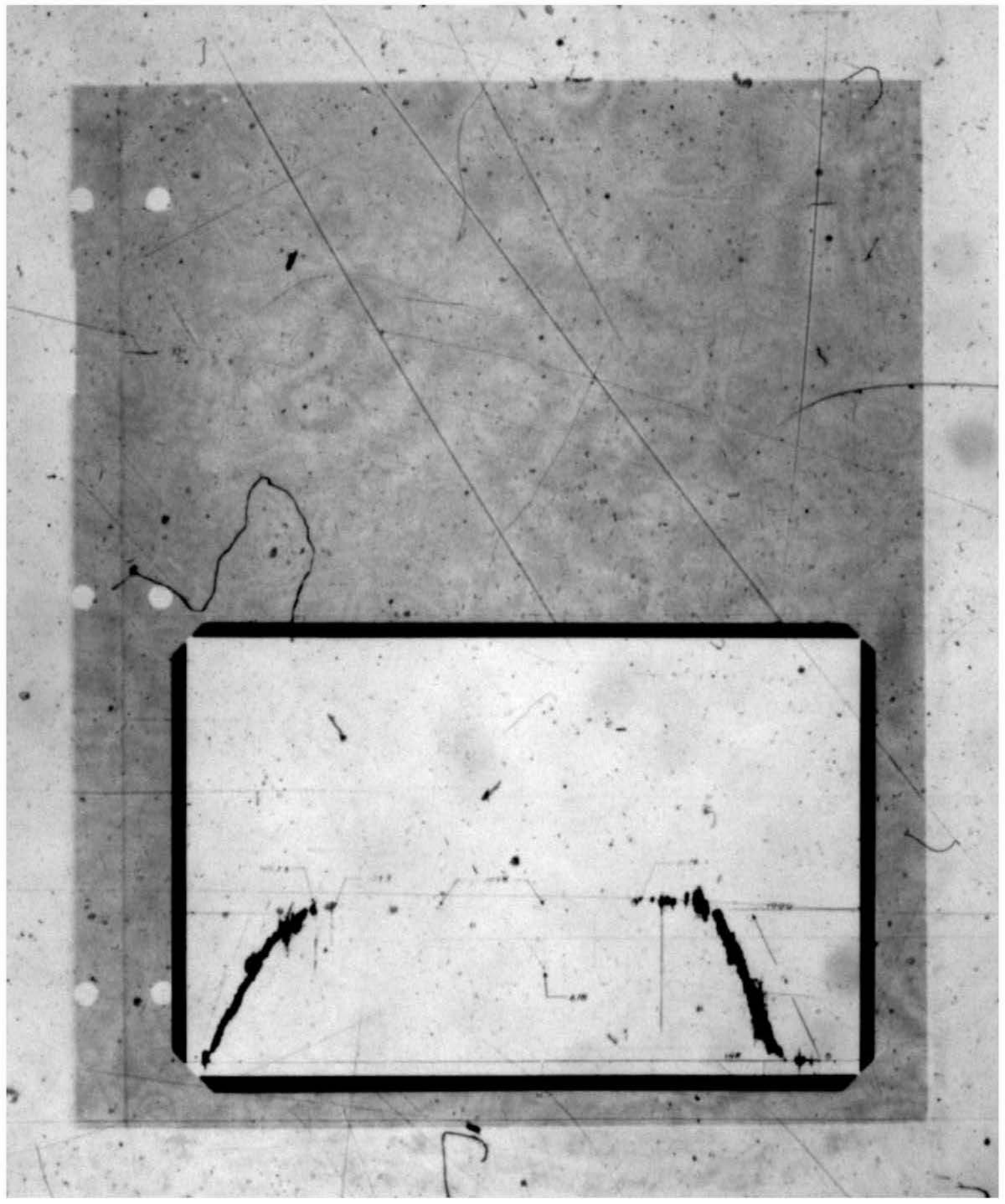
Na & K	Ca	Mg	Fe	Ba		Cl	HCO_3	SO_4	CO_3	OH	
59,326	14,460	4031	Absent	Absent		127,852	241	1120	-	-	

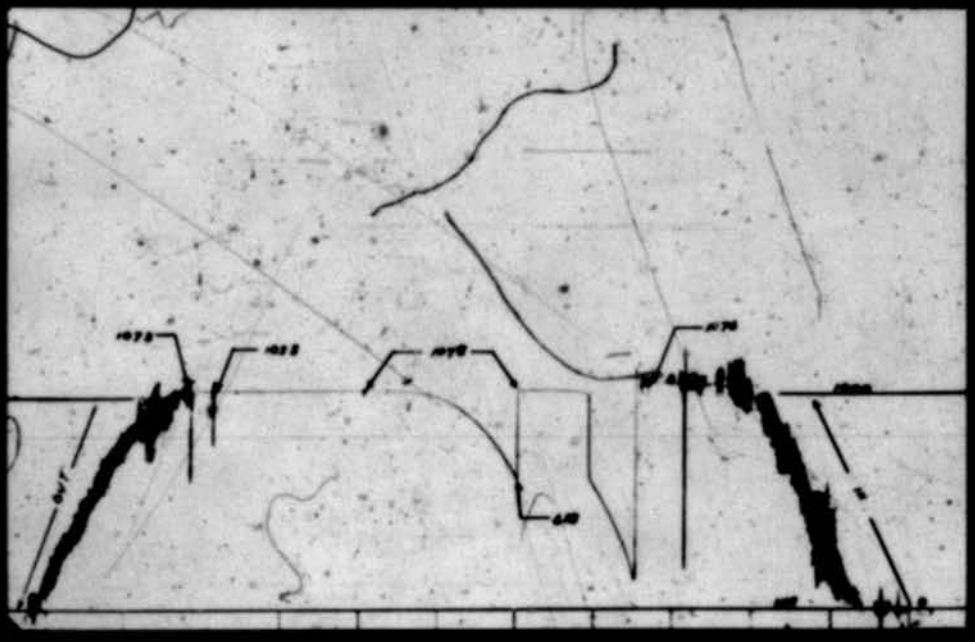
MEQ PER LITER

2579.4	722.0	331.3				3605.4	4.0	23.3	-	-	

LOGARITHMIC PATTERN MEQ PER LITER







SCHLUMBERGER

BOREHOLE COMPENSATED SONIC LOG

SCHLUMBERGER OF CANADA Calgary, Alberta

COMPANY	CENTRAL-DEL RIO OILS LIMITED
WELL	CDR CPOG CHERRIN HILLS LAKE
FIELD	WILDCAT
PROVINCE	NORTHWEST TERRITORIES
LOCATION	UNIT J SEC 74

Date	1 APR 67
Run No.	ONE
First Reading	3180
Last Reading	254
Feet Measured	2921
Depth Reached	3181
Bottom Driller	3181
Bottom Logger	3184
Casing Driller	263
Casing Logger	263
Mud Density	10
Viscosity	9.5
Mud pH	102
Fluid Loss	-
Mud Resistivity	-
Rm	8.960 @ 4
Rmf	0.53 @ 70 °F
Rmc	0.63 @ 50 °F
Max. Rec. Temp.	0.75 @ 55 °F
Bit Size	7 7/8"
Spacing	2
Elev. Rig Floor	2 ABS
Truck No.	7502 EDM
Recorded By	BLUE
Witnessed By	BURGER

Permanent Datum	GL
Log Measured From	KB
Elev.	607
Other Services	FDS
Elev. KB	615
Elev. GL	607
Elev. DF	

Run Service Order	15341
Date	1 APR 67
Depth Driller	3181
Depth Logger	3184
Bottom Logged Interval	3180
Top Logged Interval	1750
Casing Driller	263
Casing Logger	263
Bit Size	7 7/8"
Type Fluid in Hole	GEL CHEM
Dens.	10
Visc.	102
pH	9.5
Fluid Loss	-
Source of Sample	PIT
Rm @ Meas. Temp.	8.960 @ 4
Rmf @ Meas. Temp.	0.53 @ 70
Rmc @ Meas. Temp.	0.63 @ 50
Source: Rmf Rmc	M M
Rm @ BHT	0.75 @ 55
Time Since Circ.	5 HRS
Max. Rec. Temp.	55
Equipment Location	8-23
Recorded By	BLUE
Witnessed By	BURGER

Run Service Order	15341
Date	1 APR 67
Depth Driller	3181
Depth Logger	3184
Bottom Logged Interval	3180
Top Logged Interval	1750
Casing Driller	263
Casing Logger	263
Bit Size	7 7/8"
Type Fluid in Hole	GEL CHEM
Dens.	10
Visc.	102
pH	9.5
Fluid Loss	-
Source of Sample	PIT
Rm @ Meas. Temp.	8.960 @ 4
Rmf @ Meas. Temp.	0.53 @ 70
Rmc @ Meas. Temp.	0.63 @ 50
Source: Rmf Rmc	M M
Rm @ BHT	0.75 @ 55
Time Since Circ.	5 HRS
Max. Rec. Temp.	55
Equipment Location	8-23
Recorded By	BLUE
Witnessed By	BURGER

RUN SERIAL NO. 24 R.K.F.

REMARKS

Drilling Stopped 1750 1 APR

Condition Hole Stopped 3185 1 APR

Total Depth Reached 3181

Total Depth Logged 3180

Run Service Order 15341

Date 1 APR 67

Rmf Source CPL

Rmf 0.53

Rmc 0.63

Rm 8.960

Rm @ BHT 0.75

Max. Rec. Temp. 55

Equipment Location 8-23

Recorded By BLUE

Witnessed By BURGER

Caliper No. B108

Caliper Check 8.75

Panel No. 3115

Tools No. 3115

Operator Tom

GAMMA RAY CALIBRATION

Background CPS 50

Test Source CPS 570

Gain Switch Position 8.53

Panel Serial No. Top Bot

Gain 300 300

Zero 50 50

Speed in FPM 30

CALIPER

Hole diameter in inches

SONIC INTERVAL TRANSIT TIME microseconds per foot

50 150

90 190

140 240

DEPTHS

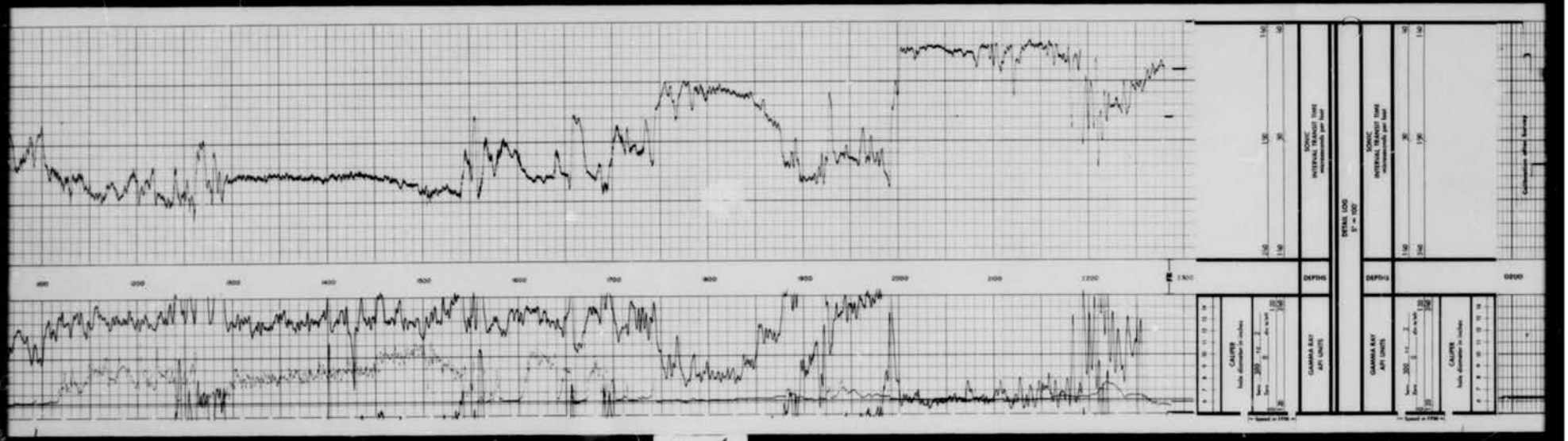
00 0300 0400 0500 0600 0700 0800 0900 1000 100

Casing

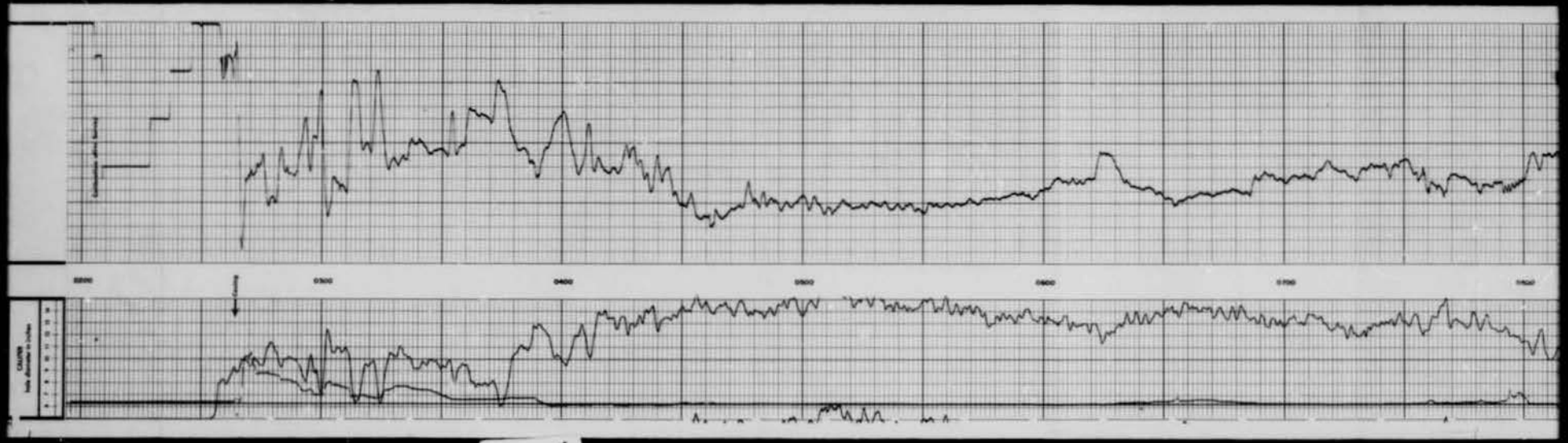
GAMMA RAY API UNITS

0 100

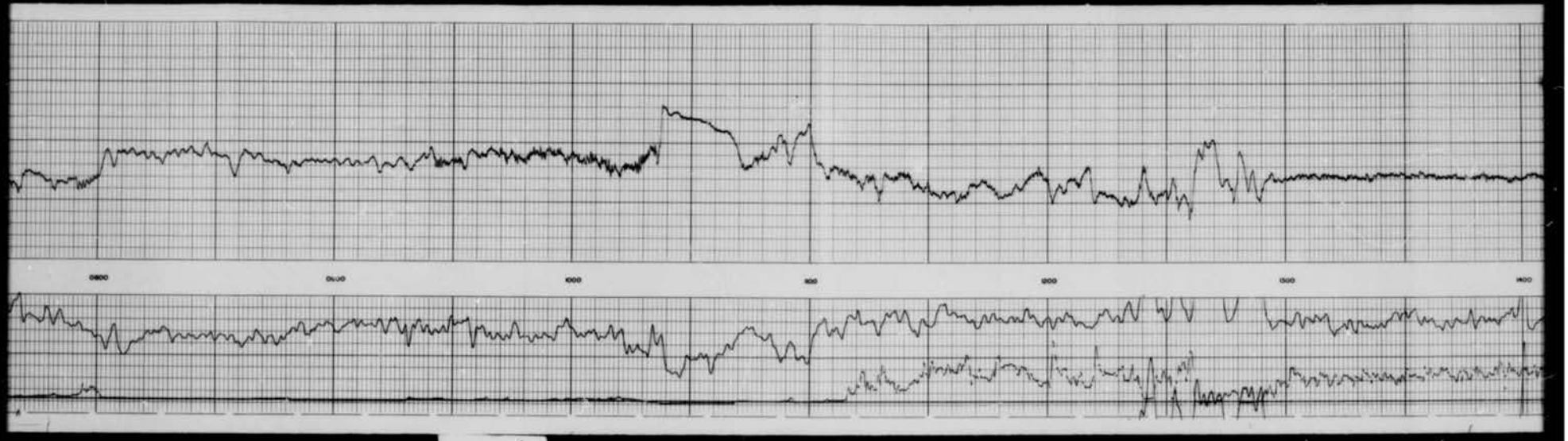
1 of


DEPTHS
DEPTHS
DEPTHS
DETAIL LOG
5" = 100'
CALIPER
GAMMA RAY
API UNITS
SONIC
INTERVAL TRANSIT TIME
microseconds per foot
Calibration after Reading

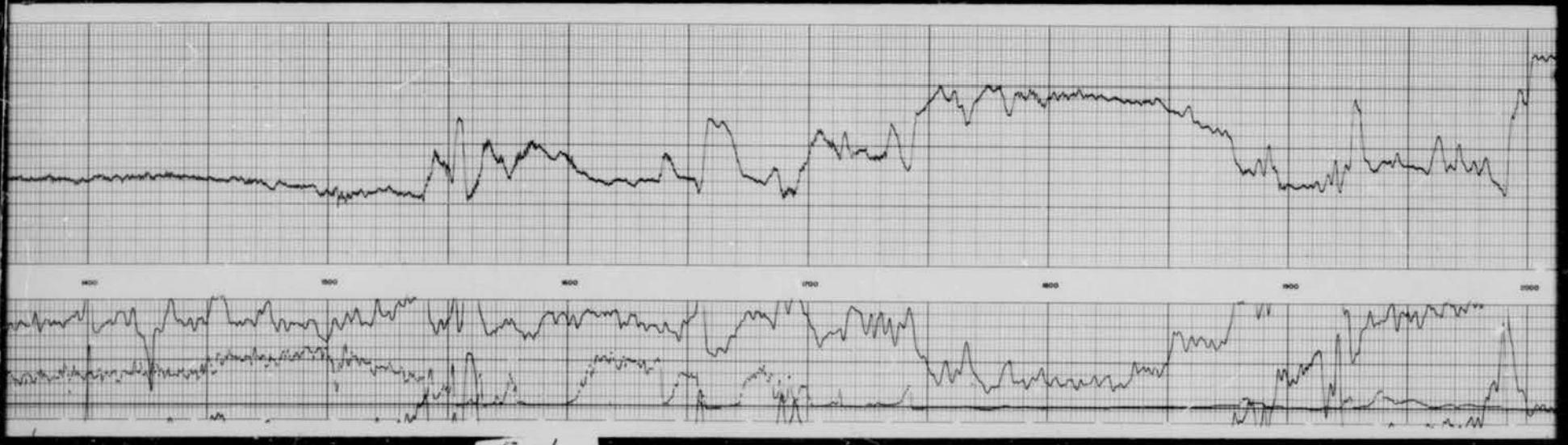
2 of


0300
0400
0500
0600
0700
0800
CALIPER
Hole diameter in inches

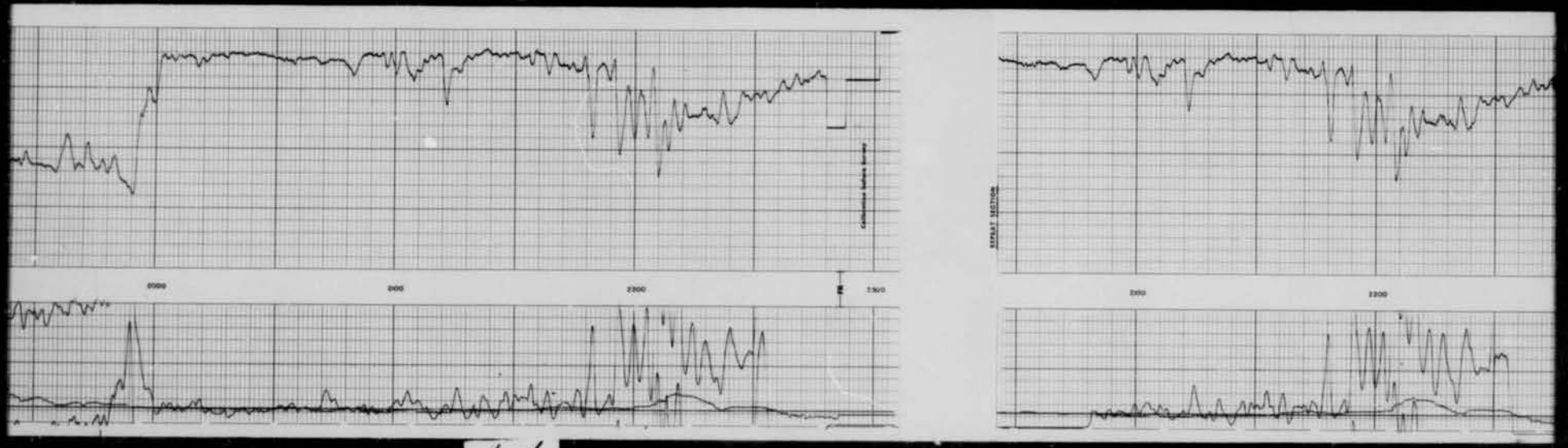
30



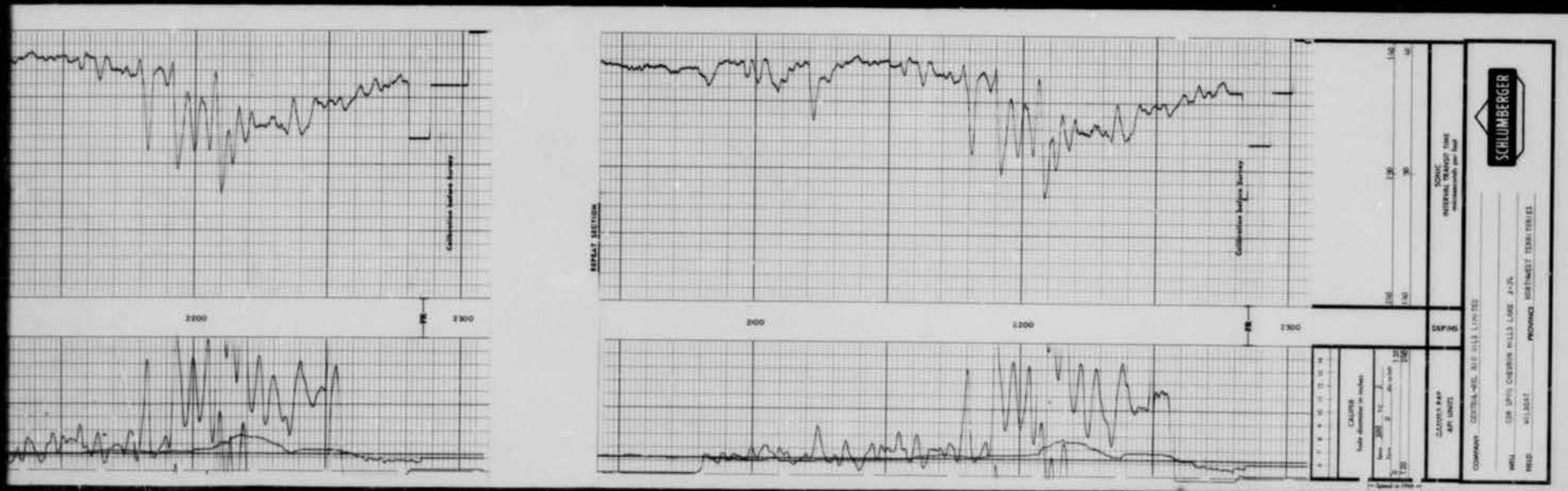
4 of



5 of



6 of


SCHLUMBERGER
COMPANY CENTRAL-MOL. OIL DILLE LAKE
WELL CDR UPPER CHERRIN HILLS LAKE A-76
FIELD WILDCAT
PROVINCE NORTHWEST TERRITORIES
DEPTHS
SONIC INTERVAL TRANSIT TIME microseconds per foot
GAMMA RAY API UNITS
CALIPER hole diameter in inches
REPEAT SECTION
Calibration before Survey
Calibration before Survey
2200
2300
2100
2200
2300

707

SCHLUMBERGER

INDUCTION ELECTRICAL LOG

SCHLUMBERGER OF CANADA Calgary Alberta

COMPANY CENTRAL-DEL RIO OILS LIMITED

WELL CDR CPOG CHERRON HILLS LAKE

FIELD WILDCAT

PROVINCE NORTHWEST TERRITORIES

LOCATION J SEC 74

Date	1 APR 67
Run No.	ONE
First Reading	1126
Last Reading	354
Depth Measured	2012
Depth Reached	2012
Bottom Driller	2197
Log TOP	354
Log Driller	352
Mud Density	10
Visc.	53
Mud pH	-
Water Loss	-
Rm	MAS +
Rmf	0.53 + 71
Rmc	0.53 + 60
Bit Size	7 7/8"
Spacing A-M	16'
M-N	34'-8"
Ind. Type	6FF40
Operator Rig Time	1 HR
Truck No.	2007 EDM
Recorded By	[illegible]
Witnessed By	BURGER

CONDUCTIVITY millimhos/m = 1000/ohm m/m

INDUCTION (20)

RESISTIVITY ohm m

16" NORMAL

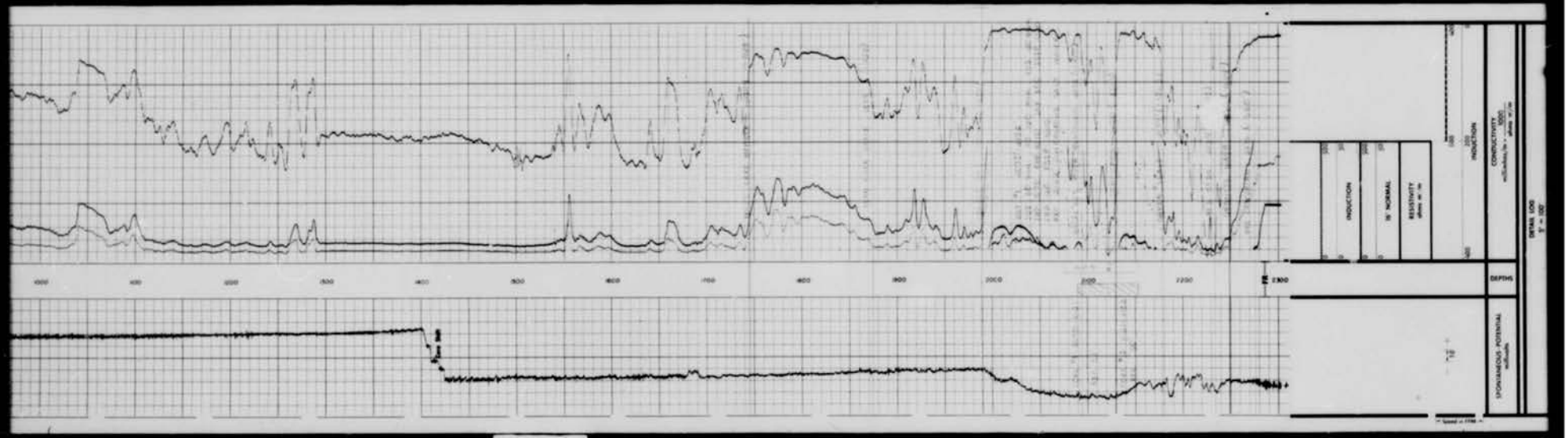
INDUCTION

DEPTHS

SPONTANEOUS-POTENTIAL millivolts

Speed in FPM

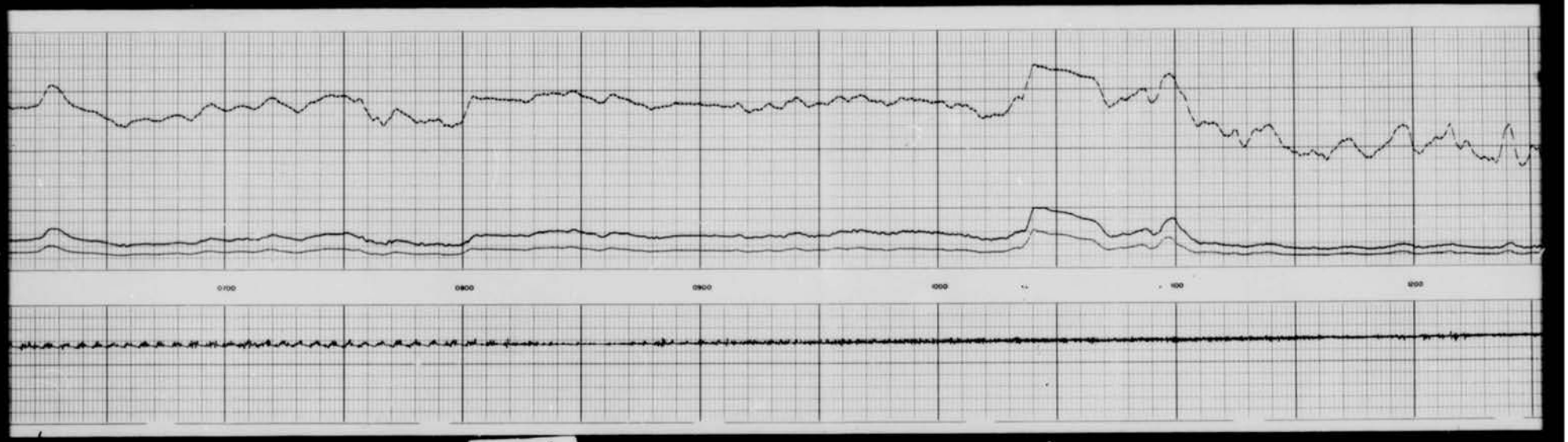
1 of


INDUCTION
16" NORMAL
RESISTIVITY
CONDUCTIVITY
INDUCTION
DEPTHS
SPONTANEOUS POTENTIAL
DETAIL LOG

2 of

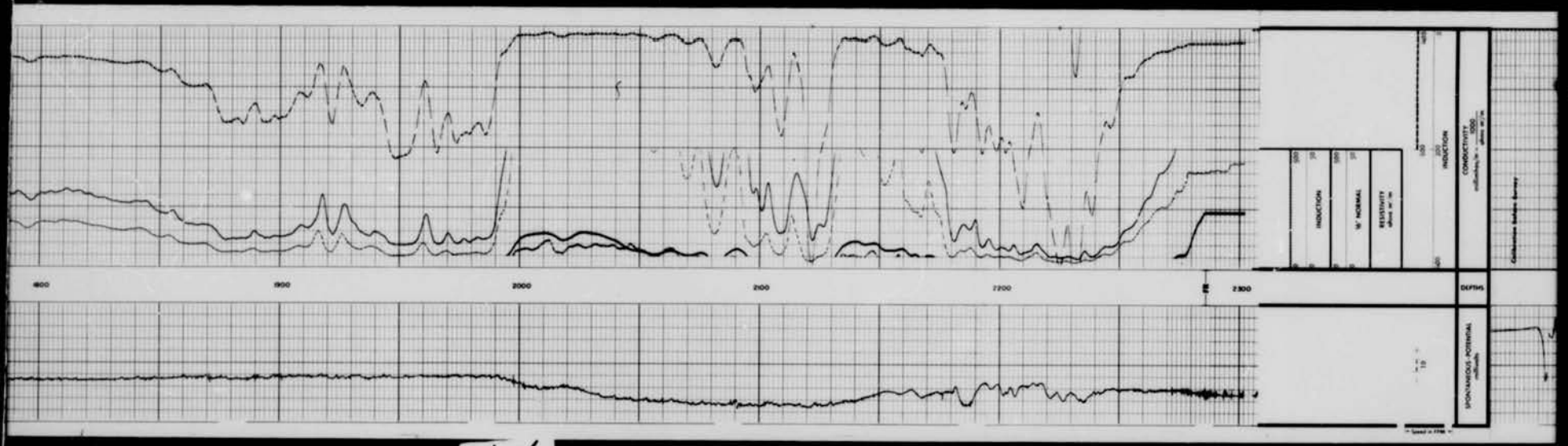
INDUCTION
CONDUCTIVITY
DETAIL LOG
5" = 100'
CONDUCTIVITY
INDUCTION
RESISTIVITY
16" NORMAL
INDUCTION
DEPTHS
DEPTHS
SPONTANEOUS POTENTIAL
SPONTANEOUS POTENTIAL
Calibration after Survey
0200
0300
0400
0500
0600
Casing

3 of

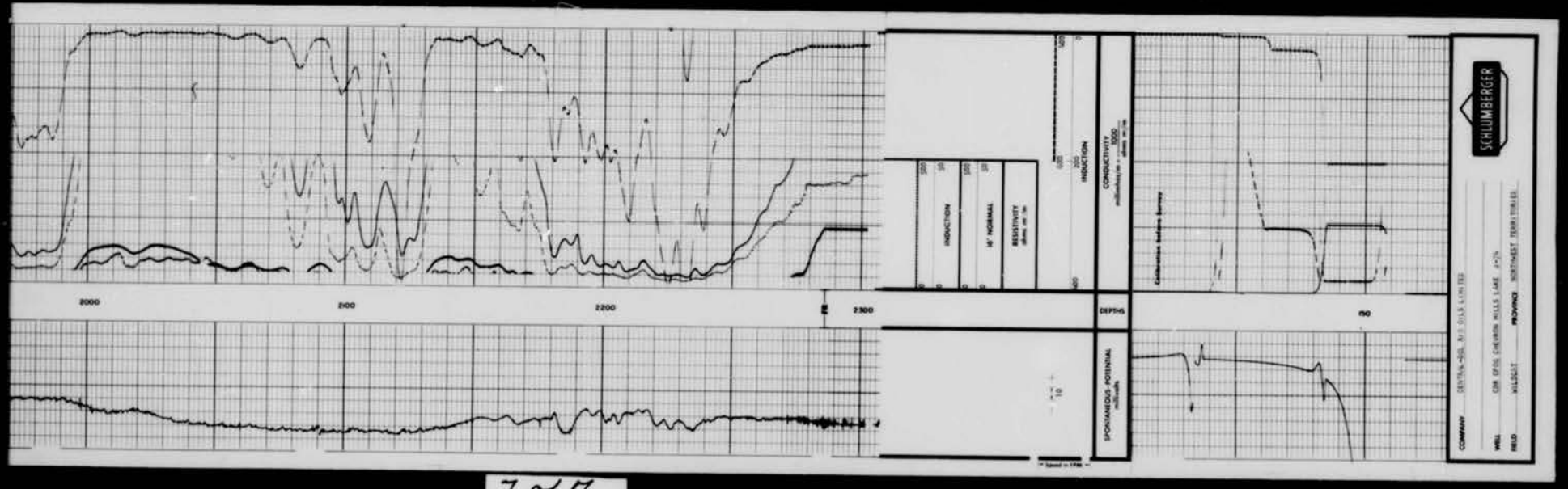


4 of

5 of


1800
1900
2000
2100
2200
2300
INDUCTION
16" NORMAL
RESISTIVITY
CONDUCTIVITY
INDUCTION
DEPTHS
SPONTANEOUS POTENTIAL

6 of


SCHLUMBERGER
COMPANY
WELL
FIELD
PROVINCE
NORTHWEST TERRITORIES
Calibration Before Survey
CONDUCTIVITY
INDUCTION
16" NORMAL
RESISTIVITY
DEPTHS
SPONTANEOUS POTENTIAL
2000
2100
2200
2300
150

707

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 17 LOCATION Mike Lake J. 24 DATE April 3/67

TOUR 1 — TO

LT.	LP.	HOLE NO.	FROM	TO	T.D.P. FINAL	BIT CHARGE	BIT TO DEPTH	AMOUNT	BIT CHARGE	HOURS ON BIT	HOLE DRILL TIME (DEV. & WATER)
AT.	AT.										

BIT RECORD	% LIFT	COND.	NO.	SIZE	TYPE	DEL. NO.	NOZZLES	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORQUE	% LIFT	COND.

MUD	12 MDN.	2 A.M.	4 A.M.	6 A.M.
WT.				
VISC.				
GEL.				

PUMP: MAKE, SPM, DEPTH, MAKE, SPM, DEPTH, BIT, SIZE, LINER

SURVEY

	HOURS	FUEL GAS	FUEL ON CHARGE AT	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING AND CHANGE BIT, CHKS.	PUMPING	REPAIRS & MAINTENANCE	MOVE UP OR PER DIEM	LOST TIME (NOTE TIME)	TOTAL HOURS
DRILLER						8
DRILLER						8
HELPER						8
TOTAL						

INJURIES AND REMARKS

CONTRACTOR'S LOG		PUMP TEST	
FROM	TO	DATE OR DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	[illegible]			
	DRILLER [illegible]			

TOUR 2 — TO

LT.	LP.	HOLE NO.	FROM	TO	T.D.P. FINAL	BIT CHARGE	BIT TO DEPTH	AMOUNT	BIT CHARGE	HOURS ON BIT	HOLE DRILL TIME (DEV. & WATER)
AT.	AT.										

BIT RECORD	% LIFT	COND.	NO.	SIZE	TYPE	DEL. NO.	NOZZLES	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORQUE	% LIFT	COND.

MUD	8 A.M.	10 A.M.	12 M.	2 P.M.
WT.				
VISC.				
GEL.				

PUMP: MAKE, SPM, DEPTH, MAKE, SPM, DEPTH, BIT, SIZE, LINER

SURVEY

	HOURS	FUEL GAS	FUEL ON CHARGE AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING AND CHANGE BIT, CHKS.	PUMPING	REPAIRS & MAINTENANCE	MOVE UP OR PER DIEM	LOST TIME (NOTE TIME)	TOTAL HOURS
DRILLER						12
DRILLER						12
HELPER						12
HELPER						12
TOTAL						

INJURIES AND REMARKS

CONTRACTOR'S LOG		PUMP TEST	
FROM	TO	DATE OR DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	[illegible]			
	DRILLER [illegible]			

TOUR 3 — TO

LT.	LP.	HOLE NO.	FROM	TO	T.D.P. FINAL	BIT CHARGE	BIT TO DEPTH	AMOUNT	BIT CHARGE	HOURS ON BIT	HOLE DRILL TIME (DEV. & WATER)
AT.	AT.										

BIT RECORD	% LIFT	COND.	NO.	SIZE	TYPE	DEL. NO.	NOZZLES	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORQUE	% LIFT	COND.

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL.				

PUMP: MAKE, SPM, DEPTH, MAKE, SPM, DEPTH, BIT, SIZE, LINER

SURVEY

	HOURS	FUEL GAS	FUEL ON CHARGE AT	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING AND CHANGE BIT, CHKS.	PUMPING	REPAIRS & MAINTENANCE	MOVE UP OR PER DIEM	LOST TIME (NOTE TIME)	TOTAL HOURS
DRILLER						8
DRILLER						8
HELPER						8
HELPER						8
TOTAL						

INJURIES AND REMARKS

CONTRACTOR'S LOG		PUMP TEST	
FROM	TO	DATE OR DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	[illegible]			
	DRILLER [illegible]			

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER [illegible]

TOTAL COMPANY TIME _____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

RIG. NO. 19 LOCATION [illegible] DATE APRIL 2/67

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

LOCATION DATE APRIL 3/67

TOUR 1

LT.	LF.	HOLE NO.	FROM	TO	T.D. OF FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	HOURS ON HOLE	HOLE DRILLED WITH BIT
AT.	AS.										

BIT RECORD	W. OPT	COND.	MAD.	SIZE	MAKE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% OPT.	COND.

MUD	12 MID.	2 A.M.	4 A.M.	6 A.M.
WT.				
VISC.				
GEL.				
P.H.				
ADDITIONAL WATER				GALS.
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CUM. TO DEPTH

	MOTOR HOURS	FUEL GALS.	HOLE CHANGED AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	MIDN.	4 A.M.
TEMPERATURE:	-28	-30
WIND VELOCITY:	N.E.	N.E.
MAINS/SNOW/FOG	Clear	Clear

SERVICE

CREW TIME SUMMARY	INCLUDING TOUR STARTED BEFORE MIDN.	PAYROLL	REPAIRS & MAINTENANCE	USE OF THE TOOL PUSHER	CONTRACT TRAVEL TIME	TOTAL HOURS
DRILLER Dennis Cromm						8
HELPER Art. Moses						8
HELPER Don Gillett						8
HELPER Don Barmer						8
TOTAL						

INJURIES AND REMARKS

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	Wait on Orders (Run in) 6:00 AM.	12:00	8:00	8
	DRILLER			
	COMPANY TIME ____ CONTR. TIME ____			

TOUR 2

LT.	LF.	HOLE NO.	FROM	TO	T.D. OF FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	HOURS ON HOLE	HOLE DRILLED WITH BIT
AT.	AS.										

BIT RECORD	W. OPT	COND.	MAD.	SIZE	MAKE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% OPT.	COND.

MUD	8 A.M.	10 A.M.	12 M'N.	2 P.M.
WT.				
VISC.				
GEL.				
P.H.				
ADDITIONAL WATER				GALS.
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CUM. TO DEPTH
100	30	70	100	30	70			

	MOTOR HOURS	FUEL GALS.	HOLE CHANGED AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	8 A.M.	NOON
TEMPERATURE:	-15	-8
WIND VELOCITY:	[illegible]	[illegible]
MAINS/SNOW/FOG	Clear	[illegible]

SERVICE

CREW TIME SUMMARY	INCLUDING TOUR STARTED BEFORE MIDN.	PAYROLL	REPAIRS & MAINTENANCE	USE OF THE TOOL PUSHER	CONTRACT TRAVEL TIME	TOTAL HOURS
DRILLER Bob Burrell						8
HELPER L.A. PRATT						8
HELPER Charles ROSKIN						8
HELPER DAVID GARGAN						8
TOTAL						

INJURIES AND REMARKS

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	Wait on Orders Circulate & Condition Hole	8:00	4:00	
	DRILLER [illegible]			
	COMPANY TIME ____ CONTR. TIME ____			

TOUR 3

LT.	LF.	HOLE NO.	FROM	TO	T.D. OF FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	HOURS ON HOLE	HOLE DRILLED WITH BIT
AT.	AS.	3	TD		1287						

BIT RECORD	W. OPT	COND.	MAD.	SIZE	MAKE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% OPT.	COND.

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.	35			
GEL.				
P.H.				
ADDITIONAL WATER				GALS.
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CUM. TO DEPTH
100	30	70						

	MOTOR HOURS	FUEL GALS.	HOLE CHANGED AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER:	4 P.M.	8 A.M.
TEMPERATURE:	0	14
WIND VELOCITY:		
MAINS/SNOW/FOG		

SERVICE

CREW TIME SUMMARY	INCLUDING TOUR STARTED BEFORE MIDN.	PAYROLL	REPAIRS & MAINTENANCE	USE OF THE TOOL PUSHER	CONTRACT TRAVEL TIME	TOTAL HOURS
DRILLER Wm Forsyth						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER Dennis Roach						8
TOTAL						

INJURIES AND REMARKS

[illegible]

CLASS	REMARKS	TIME START	TIME STOP	INTERVAL
	Circ. waiting on orders	4:00	8:30	4
	Trip out to circulate	8:30	5:30	1
	[illegible]	5:30	6:00	½
	Wait [illegible]	6:00	[illegible]	6
				9
	DRILLER [illegible]			
	COMPANY TIME ____ CONTR. TIME ____			

TOTAL COMPANY TIME ____ HRS. TOOLPUSHER OR DRILLER (Y) ____

TOTAL COMPANY TIME ____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

RIG. NO. 17 LOCATION MILLSTONE PARK, S.J. 74, C.O.R.L., N.J. DATE 4/10/67

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

LOCATION DATE 4/12/67

TOUR 1 — MIDN.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FINAL	CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	CASING PULLED AT	CASING PULLED BY
AF.	AS.		2277					1			
				2278							

BIT RECORD	% OFF	COND.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	MIL	FORM	% OFF	COND.
			8	6¾	451	[illegible]	14	93	1		1			

MUD	12 MIDN.	2 A.M.	4 A.M.	6 A.M.
WT.				
VIS.				
GEL.				
W.L.				
ADDITIVES WATER				GAL.

PUMP	MAKE	MFG.	DEPTH	MAKE	MFG.	DEPTH	AT	SKL.	LINER SIZE
	[illegible]	55	2277						

	MOTOR HOURS	FUEL GALS.	FUEL OIL COMPANY AT
DRILL			
W. TRUCK			
MOR. PUMP			

GENERAL

WEATHER	MIDN.	4 A.M.
TEMPERATURE	40	[illegible]
WIND VELOCITY	[illegible]	[illegible]
RAIN, SNOW, FOG	—	—

CREW TIME SUMMARY	DRILLING TIME (OTHER THAN DRIL.)	PUMPING	REPAIRS & MAINTENANCE	TRIP UP OR TRIP DOWN	LOST TIME (NOT DRIL. TIME)	TOTAL HOURS
DRILLER Jon Forsyth						8
HELPER Ed Mc Mahon						8
HELPER Richard Cochran						8
HELPER Dennis Roach						8
TOTAL						

INJURIES AND REMARKS

TOUR 2 — 8 A.M.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FINAL	CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	CASING PULLED AT	CASING PULLED BY
AF.	AS.		2277	2287	2287			9			

BIT RECORD	% OFF	COND.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	MIL	FORM	% OFF	COND.
			8	6¾	451	[illegible]	14	12	10		84			

MUD	8 A.M.	10 A.M.	12 M.	2 P.M.
WT.	[illegible]	[illegible]	102	95
VIS.				
GEL.				
W.L.				
ADDITIVES WATER				GAL.

PUMP	MAKE	MFG.	DEPTH	MAKE	MFG.	DEPTH	AT	SKL.	LINER SIZE
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2287	96"		[redacted]

	MOTOR HOURS	FUEL GALS.	FUEL OIL COMPANY AT
DRILL			
W. TRUCK			
MOR. PUMP			

GENERAL

WEATHER	8 A.M.	NOON
TEMPERATURE	[illegible]	[illegible]
WIND VELOCITY	[illegible]	15
RAIN, SNOW, FOG	[illegible]	[illegible]

CREW TIME SUMMARY	DRILLING TIME (OTHER THAN DRIL.)	PUMPING	REPAIRS & MAINTENANCE	TRIP UP OR TRIP DOWN	LOST TIME (NOT DRIL. TIME)	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [redacted]						8
TOTAL						

INJURIES AND REMARKS

TOUR 3 — 4 P.M.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FINAL	CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	CASING PULLED AT	CASING PULLED BY
AF.	AS.										

BIT RECORD	% OFF	COND.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	MIL	FORM	% OFF	COND.

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VIS.				
GEL.				
W.L.				
ADDITIVES WATER				GAL.

PUMP	MAKE	MFG.	DEPTH	MAKE	MFG.	DEPTH	AT	SKL.	LINER SIZE

	MOTOR HOURS	FUEL GALS.	FUEL OIL COMPANY AT
DRILL			
W. TRUCK			
MOR. PUMP			

GENERAL

WEATHER	4 P.M.	8 A.M.
TEMPERATURE		[illegible]
WIND VELOCITY		[illegible]
RAIN, SNOW, FOG		[illegible]

CREW TIME SUMMARY	DRILLING TIME (OTHER THAN DRIL.)	PUMPING	REPAIRS & MAINTENANCE	TRIP UP OR TRIP DOWN	LOST TIME (NOT DRIL. TIME)	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS

DIAGONAL MAC. LOG		PUMP SIZE	
FROM FT.	TO FT.	DATE TO DATE	DESCRIPTION / DEPTH TO WATER (IN FT.)

BIG INDIAN DRILLING CO. LTD. PROJECT NO. 160

BIG. NO. 1 LOCATION [illegible] DATE 3/31/67

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

LOCATION DATE

TOUR 1

LT:	LF:	HOLE NO.	FROM	TO	T.D.P. FINAL	BITS CARRIED	SET TO DEPTH	AMOUNT	SUB COMPANY	[illegible]
AF:	AT:		2227	2271				34		

BIT RECORD	% OFF	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% OFF	COND.
			6	6 1/2	[illegible]	[illegible]	14	160	24	20	[illegible]			

MUD	12 MN.	2 A.M.	4 A.M.	6 A.M.
WT.				
VISC.		41	60	62
GEL				
W.L. 6.4	P.H. 7.2	P.H. 8.0		
ADDITIONS WATER GALS.				
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.	CORR. DIR.
225	58	2237	21	62	2270			

	MOTOR HOURS	FUEL GALS.	HRS. ON COMPANY JOB	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND STANDBY HRS.	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON TOUR HOURS	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Wm. Forsyth						8
HELPER E.A. Brumwald						8
HELPER Harold C. Carr						8
HELPER Dennis Hatch						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Rig service check	12:00		
	Repair [illegible]		12:45	3/4
	Running out	12:45	2:00	1 1/4
	Ream slot to bottom	2:00	2:30	1/2
	Drill 6 1/2 hole	2:30	[illegible]	[illegible]

DRILLER Wm. Forsyth

COMPANY TIME COUNTY TIME

TOUR 2

LT:	LF:	HOLE NO.	FROM	TO	T.D.P. FINAL	BITS CARRIED	SET TO DEPTH	AMOUNT	SUB COMPANY	[illegible]
AF:	AT:		2271							

BIT RECORD	% OFF	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% OFF	COND.
			6	6 1/2	[illegible]	[illegible]	16							

MUD	8 A.M.	10 A.M.	12 MN.	2 P.M.
WT.				
VISC.	60			
GEL				
W.L.				
ADDITIONS WATER GALS.				
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.	CORR. DIR.
100	0	2271						

	MOTOR HOURS	FUEL GALS.	HRS. ON COMPANY JOB	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND STANDBY HRS.	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON TOUR HOURS	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]	[illegible]	1
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]

DRILLER [illegible]

COMPANY TIME COUNTY TIME

TOUR 3

LT:	LF:	HOLE NO.	FROM	TO	T.D.P. FINAL	BITS CARRIED	SET TO DEPTH	AMOUNT	SUB COMPANY	[illegible]
AF:	AT:									

BIT RECORD	% OFF	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% OFF	COND.

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL				
W.L.				
ADDITIONS WATER GALS.				
1.				
2.				
3.				

PUMP			PUMP				SURVEY		
PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.	CORR. DIR.

	MOTOR HOURS	FUEL GALS.	HRS. ON COMPANY JOB	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND STANDBY HRS.	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON TOUR HOURS	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]	[illegible]	1
	[illegible]	5:00	6:30	1 1/2
	[illegible]	6:30	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	Hook on Rig	7:30	8:30	1
	[illegible]	11:15	12:00	[illegible]
	[illegible]			

DRILLER [illegible]

COMPANY TIME COUNTY TIME

TOTAL CONTRACT TIME ____ HRS. FOREMAN OR DRILLER [illegible]

TOTAL COMPANY TIME ____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 17 LOCATION [illegible] DATE [illegible]

TOUR 1 (MIDN. TO 8 A.M.)

LT.	UT.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	CASING SHOE DEPTH	COST DRILL TIME WAIT ON WATER
AF:	AT:		2152	38				6			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LEFT	COND.
			5	6¾	VT2	[illegible]	22	12	6	62	24			

MUD	12 MN.	2 A.M.	4 A.M.	8 A.M.
WT.	[illegible]			
VISC.			38	50
GEL.				
[illegible]				
[illegible]				
[illegible]				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	[illegible]
[illegible]	0	[illegible]						

	HOURS	FUEL GALS.	NEXT OIL CHANGE AT	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER REG. OPER.	PUMPTEST	REPAIRS & MAINTENANCE	PICK UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

FROM FT. / TIME	TO FT. / TIME	DEPTH TO WATER IN FT.	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	12 30	12 36	½
	[illegible]	12 30	[redacted]	
	[illegible]		2	1½
	[illegible]	2 00		
	CHECK [illegible]		2 [illegible]	[illegible]
	[illegible]	2 45	4 15	1½
	[illegible]	4 15		
	[illegible]		6 00	1¾
	[illegible]	6 00		
	[illegible]		8 00	2
				8

DRILLER [illegible]

COMPANY TIME _____ CONTR'S TIME _____

TOUR 2 (8 A.M. TO 4 P.M.)

LT.	UT.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	CASING SHOE DEPTH	COST DRILL TIME WAIT ON WATER
AF:	AT:		[illegible]					24			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LEFT	COND.
			[illegible]		[illegible]	[illegible]	[illegible]		44					

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.				
VISC.	50	43	[illegible]	7
GEL.				
[illegible]				
[illegible]				
[illegible]				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	[illegible]

	HOURS	FUEL GALS.	NEXT OIL CHANGE AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE	[illegible]	[illegible]
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER REG. OPER.	PUMPTEST	REPAIRS & MAINTENANCE	PICK UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]	1 30	2½
	[illegible]			
	[illegible]	10 30	11 30	1
	[illegible]	11 30	2	2½
	[illegible]	[illegible]	[illegible]	1½
	[illegible]			

DRILLER [illegible]

COMPANY TIME _____ CONTR'S TIME _____

TOUR 3 (4 P.M. TO MIDN.)

LT.	UT.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	CASING SHOE DEPTH	COST DRILL TIME WAIT ON WATER
AF:	AT:		[illegible]					41			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LEFT	COND.
			6	[illegible]	[illegible]	[illegible]	[illegible]	92	85	62	24			
			6	6¾	VT2	[illegible]								

MUD	4 P.M.	6 P.M.	8 P.M.	TOP M.
WT.	[illegible]			
VISC.	50	48	46	45
GEL.	[illegible]			
[illegible]				
[illegible]				
[illegible]				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	[illegible]
[illegible]								

	HOURS	FUEL GALS.	NEXT OIL CHANGE AT	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOB. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER REG. OPER.	PUMPTEST	REPAIRS & MAINTENANCE	PICK UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]	[illegible]	2½
	[redacted]	[illegible]	[illegible]	
	[illegible]	[illegible]	8 45	1½
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	2

DRILLER [illegible]

COMPANY TIME _____ CONTR'S TIME _____

TOTAL CONTRACT TIME _____ HRS. TOTAL NUMBER OF DRILLS [illegible]

TOTAL COMPANY TIME _____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

RIG. NO. 17 LOCATION DENNIS LAKE I-74 C.O.R. N.W.T. DATE 3/29/67

TOUR 1 (MIDN. TO 8 A.M.)

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CASING	SET TO DEPTH	AMOUNT	SAC. COMPANY	REPORT ON REVERSE SIDE	COST DRILLING WATER
AF.	AT.		2121	2148				27			

BIT RECORD	% LEFT	CONDI.	NO.	SIZE	MAK.	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% LEFT	CONDI.
			4	6 7/8	●	7011RC	11	140	58		1-2			

MUD	12 MIDN.	2 A.M.	4 A.M.	6 A.M.
WT.	9.4	9.4	9.4	9.4
VISC.	54	53	51	65
GEL.				

W.L. 7.6 P.H. 7.8 P.H.

ADDITIVES, WATER ..... GALS.

PUMP			PUMP			SURVEY		
PRESS.	SPM.	DEPTH	PRESS.	SPM.	DEPTH	AT	DEG.	CHANGE IN SPM
250	40	2128	400	37	2144			

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
PRIME			
W. TRUCK			
MOB. PUMP			

WEATHER	MIDN.	4 A.M.
TEMPERATURE	20	-26
WIND VELOCITY	—	—
RAIN/SNOW/FOG	—	—

GENERAL:

CREW TIME SUMMARY	DRILLING AND OPERATING CREW	TRAVELLING	REPAIRS & MAINTENANCE	NO. OF CR. TRAV. DURING	CREW TIME TRAVEL TIME	TOTAL HOURS
DRILLER Wm FORSYTH						8
HELPER E.G. BOUMGARD						8
HELPER E.G. PARTY						8
HELPER DENNIS KORCH						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	CIRC CORE BBL TO	12:00		
	BOTTOM		12:05	7½
	REMARKS	12:05	1:00	7½
	CUT CORE 2	1:00	2:00	7

DRILLER Wm Forsyth

COMPANY TIME ..... COMP'S TIME .....

TOUR 2 (8 A.M. TO 4 P.M.)

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CASING	SET TO DEPTH	AMOUNT	SAC. COMPANY	REPORT ON REVERSE SIDE	COST DRILLING WATER
AF.	AT.		2148								

BIT RECORD	% LEFT	CONDI.	NO.	SIZE	MAK.	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% LEFT	CONDI.
			7	6 7/8	●	7011RC	11	140	59		7	K2		

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.	9.4			
VISC.	65			
GEL.				

W.L. P.H. P.H.

ADDITIONAL WATER ..... GALS.

PUMP			PUMP			SURVEY		
PRESS.	SPM.	DEPTH	PRESS.	SPM.	DEPTH	AT	DEG.	CHANGE IN SPM
300	75	2207			2209			

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
PRIME			
W. TRUCK			
MOB. PUMP			

WEATHER	8 A.M.	NOON
TEMPERATURE	0	
WIND VELOCITY		
RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND OPERATING CREW	TRAVELLING	REPAIRS & MAINTENANCE	NO. OF CR. TRAV. DURING	CREW TIME TRAVEL TIME	TOTAL HOURS
DRILLER Roger Cameron						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Cut Core 3	8:00	9:00	7
	Trip Out	9:00	10:00	
	Change Core and Wash	10:00	11:00	
	Lay down Core Bbl	11:00	11:30	
	Make up Bit	11:30	12:00	
	Trip in with Bit	12:00	1:00	
	Wash and Ream last 30'	1:00	2:00	
	Drill	2:00	3:00	
	Blow Hole & Circ.	3:00		
	Pump Pill & Circ.			
	Pump Pill and water			
	Place Bits			

DRILLER Roger Cameron

COMPANY TIME ..... COMP'S TIME .....

TOUR 3 (4 P.M. TO MIDN.)

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CASING	SET TO DEPTH	AMOUNT	SAC. COMPANY	REPORT ON REVERSE SIDE	COST DRILLING WATER
AF.	AT.		2209								

BIT RECORD	% LEFT	CONDI.	NO.	SIZE	MAK.	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM.	% LEFT	CONDI.

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL.				

W.L. P.H. P.H.

ADDITIONAL WATER ..... GALS.

PUMP			PUMP			SURVEY		
PRESS.	SPM.	DEPTH	PRESS.	SPM.	DEPTH	AT	DEG.	CHANGE IN SPM

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
PRIME			
W. TRUCK			
MOB. PUMP			

WEATHER	4 P.M.	8 A.M.
TEMPERATURE		
WIND VELOCITY		
RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND OPERATING CREW	TRAVELLING	REPAIRS & MAINTENANCE	NO. OF CR. TRAV. DURING	CREW TIME TRAVEL TIME	TOTAL HOURS
DRILLER Roger Cameron						8
HELPER [illegible]						8
HELPER [illegible]						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Cutting Core [illegible]	4	10	6
	Pulling out	10:00	12:00	2

DRILLER [illegible]

COMPANY TIME ..... COMP'S TIME .....

TOTAL CONTRACT TIME ..... HRS. TOUR HAS BE DRILLER [illegible]

TOTAL COMPANY TIME ..... HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

BIG. NO. 17 LOCATION Mines & Rd. I-74 KOA Mont. DATE 3/22/67

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION _____ DATE _____

TOUR 1

CT.	SF.	HOLE NO.	FROM	TO	T.D.B.F. FINAL	NEXT CASING	SET TO DEPTH	AMOUNT	SAC. CEMENT	CHECKED BY	CHECKED BY
AF.	AT.	[redacted]	2085	2098				25			

BIT RECORD	W. OFF	CONDI.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	PUMP	W. OFF	CONDI.
			8	6¾	2206	40244	12	92	79		14			

MUD	12 MN.	2 A.M.	4 A.M.	8 A.M.
WT.	9.2	9.2		
VISC.	48	48		
GEL				
%				
%				
%

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 17 LOCATION [illegible] DATE 3/27/67

TOUR 1

LT.	UT.	HOLE NO.	FROM	TO	T.D.F.F.H.	AMOUNT	MC CHARGE
AT.	AT.	3	1983	2011		18	

BIT RECORD													
		2	6 3/4	OT	35516	12	190	759		1.5			
		3	6 3/4	OTDS	V6249	12	198						

MUD	12 MN.	2 A.M.	4 A.M.	6 A.M.
WT.	73			
VISC.	47			
GEL				

PUMP				PUMP				SURVEY	
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.		
125	65	2011							

DRILL	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	MIDN.	4 A.M.
				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING HOURS (OTHER THAN DRILLING)	REPAIRS	REPAIRS & MAINTENANCE	NO. OF ON TOUR HOURS	LOST TIME (NOT DRILLING)	TOTAL HOURS
DRILLER Wm FORSYTH						8
HELPER E.O. BRUNDRIDGE						8
LABOR ARNOLD COCHRANE						8
E.O. PRATT						8
TOTAL						

INJURIES AND REMARKS

Left 2 days [illegible] 28 Mar 1967

TOUR 2

LT.	UT.	HOLE NO.	FROM	TO	T.D.F.F.H.	AMOUNT	MC CHARGE
AT.	AT.		[illegible]	2028		17	

BIT RECORD													
		3	6 3/4	OTDS	V6249	12-14	110	17		1.5			

MUD	8 A.M.	10 A.M.	12 MN.	2 P.M.
WT.	69	72	72	
VISC.	49	48	47	
GEL				

PUMP				PUMP				SURVEY	
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.		
125	65	2011				2020			

DRILL	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	8 A.M.	NOON
				TEMPERATURE	25	
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING HOURS (OTHER THAN DRILLING)	REPAIRS	REPAIRS & MAINTENANCE	NO. OF ON TOUR HOURS	LOST TIME (NOT DRILLING)	TOTAL HOURS
DRILLER Roger Cowan	2.0	1.0	2	8		9
HELPER Hal Sayers						8
LABOR James [illegible]						8
[illegible]						8
TOTAL						

INJURIES AND REMARKS

TOUR 3

LT.	UT.	HOLE NO.	FROM	TO	T.D.F.F.H.	AMOUNT	MC CHARGE
AT.	AT.		2028	2045		[illegible]	

BIT RECORD													
		3	6 3/4	OTDS	V6249	12-14	92	16					

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.	71			
VISC.	7			
GEL	7			

PUMP				PUMP				SURVEY	
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.		
110	[illegible]	2028							

DRILL	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	4 P.M.	8 A.M.
	9			TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				RAIN/SNOW/FOG		

GENERAL

CREW TIME SUMMARY

	DRILLING HOURS (OTHER THAN DRILLING)	REPAIRS	REPAIRS & MAINTENANCE	NO. OF ON TOUR HOURS	LOST TIME (NOT DRILLING)	TOTAL HOURS
DRILLER [illegible]		cover and [illegible] 2" [illegible]				9
HELPER Charlie Harkins						8
LABOR Lionel Roger						8
TOTAL						

INJURIES AND REMARKS

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION [illegible] DATE 3/27/67

FROM FT.	TO FT.	DATE OR DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

PUMP TEST

Basic Drilling [illegible]

Tools [illegible]

Mobile [illegible]

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill 6 3/4 Hole	10:00	1:00	1
	Rig [illegible] check [illegible]	1:00	1:20	1/2
	Drill 6 3/4 Hole	1:20	2:20	1
	Hoist Tools, Run in	2:20		
	Tally		6:00	4 1/2
	Clean to Bottom	6:00	7:00	1
	~~[illegible]~~	7:00		
	Work on flow line		8:00	3/4

DRILLER Wm Forsyth

COMPANY TIME _____ CONTR. TIME _____

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]	[illegible]	9
	[illegible]	[illegible]	10:00	1
	[illegible]	10:00	11:00	1
	[illegible]			
	[illegible]		[illegible]	

DRILLER [illegible]

COMPANY TIME _____ CONTR. TIME _____

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]	[illegible]		
	[illegible]	[illegible]	9:00	3
	[illegible]	[illegible]	12:00	2 1/2

DRILLER [illegible]

COMPANY TIME _____ CONTR. TIME _____

TOTAL CONTRACT TIME _____ HRS. TOUR PUSHER OR DRILLER [illegible]

TOTAL COMPANY TIME _____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 17 LOCATION 10 W.: N.W. 1/4 Sec. 24 NWT. DATE 1946/6/7

TOUR 1 — MIDN. TO 8 A.M.

E.T.	U.F.	HOLE NO.	FROM	TO	T.D. IF FINAL	BIT CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON BOTTOM	CORE BREAK TIME ON WATER
A.F.	A.T.		1257	1542				285			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORN	% LEFT	COND.
			2	6 3/4	OT	28500	12	190	285	120	4 1/2			

MUD	10 MIN.	24 A.M.	4 A.M.	6 A.M.
WT.		9.2		
VISC.				
GEL.				

PUMP				PUMP				SURVEY	
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.		
400	65	1257	275	65	1542				

	DRILL HOURS	FUEL GAS.	NEXT OIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	MIDN.	4 A.M.
TEMPERATURE	-24	-25
WIND VELOCITY	5	5
RAIN, SNOW, FOG	—	—

ADDITIVES, WATER ..... GAS

1. Lapp 25 M
2.
3.

GENERAL

CREW TIME SUMMARY	DRILLING AND CORING HRS. DRILL	PUMPING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Wm Forsyth						8
HELPER E.R. Blumlmond						8
HELPER Richard Schmalne						8
HELPER Charles Hutling						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Rig service & check over	12 00	12 30	3/4
	Reaming out to 1257	12 30	1 30	1
	Drilling 6 3/4 Hole	1 30	3 45	1 3/4
		3 45	8 30	4 3/4
	Changing & survey pick up	8 30	8 45	1/4

DRILLER Wm Forsyth

COMPANY TIME _____ CONTR. TIME _____

TOUR 2 — 8 A.M. TO 4 P.M.

E.T.	U.F.	HOLE NO.	FROM	TO	T.D. IF FINAL	BIT CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON BOTTOM	CORE BREAK TIME ON WATER
A.F.	A.T.		1542	1752				210			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORN	% LEFT	COND.
			2	6 3/4	OT	28500	12	190	495		12 1/2			

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.				
VISC.				
GEL.				

PUMP				PUMP				SURVEY	
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.		
300	70	1542			1752		3/4		

	DRILL HOURS	FUEL GAS.	NEXT OIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	8 A.M.	NOON
TEMPERATURE	-29	
WIND VELOCITY	5	
RAIN, SNOW, FOG	—	

ADDITIVES, WATER ..... GAS

1. Lapp 25 M
2. Lapp 25 M
3. Thread
4.

GENERAL

CREW TIME SUMMARY	DRILLING AND CORING HRS. DRILL	PUMPING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Wm Brown						8
HELPER Al Mott						8
HELPER Harry Fox						8
HELPER Don Willett						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Service Rig & check over	8 00	8 15	1/4
	Drilling 6 3/4 Hole	8 15	12 00	3 3/4
	Reaming out to 1542	12 00	12 45	3/4
	Drilling 6 3/4 Hole	12 45	3 00	2 1/4
	Change Jet & Thread	3 00	3 30	1/2
	Drilling 6 3/4 Hole	3 30	4 00	1/2

DRILLER Wm Brown

COMPANY TIME _____ CONTR. TIME _____

TOUR 3 — 4 P.M. TO MIDN.

E.T.	U.F.	HOLE NO.	FROM	TO	T.D. IF FINAL	BIT CASING	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON BOTTOM	CORE BREAK TIME ON WATER
A.F.	A.T.		1752	1993				241			

BIT RECORD	% LEFT	COND.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	HOURS	NO.	TORN	% LEFT	COND.
			2	6 3/4	OT	28500	12	190	236		17 1/2			

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.	9.1	9.2	9.2	
VISC.	34	41	42	
GEL.				

PUMP				PUMP				SURVEY	
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.		
300	60								

	DRILL HOURS	FUEL GAS.	NEXT OIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	4 P.M.	8 A.M.
TEMPERATURE	0	
WIND VELOCITY		
RAIN, SNOW, FOG		

ADDITIVES, WATER ..... GAS

1. Cal 25 M
2. 25 M Bentonite
3. 4 Pl
4.

GENERAL

CREW TIME SUMMARY	DRILLING AND CORING HRS. DRILL	PUMPING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Wm Brown			Install Light Plant			8
HELPER Al Mott						8
HELPER Charles Hodson						8
HELPER Floyd Logan						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill	4 00	4 45	3/4
	Trip Pipe	4 45	5 00	1/4
		5 00	12 00	7

DRILLER Wm Brown

COMPANY TIME _____ CONTR. TIME _____

TOTAL CONTRACT TIME ____ HRS. FOREMAN OF DRILLER _____

TOTAL COMPANY TIME ____ HRS. APPROVED BY _____

TRANSIENT LOG / PUMP TEST

FROM FT.	TO FT.	MUD WT. LB/CU. FT.	DESCRIPTION	DEPTH TO WATER IN FT.
			Reamed out Hole	
			Ran 1542 feet of 7" O.D. casing	

HDC 18
11 Blm 18
40-33 AIOH
12 feet of pulling

BIG INDIAN DRILLING CO. LTD. PROJECT NO. 180

RIG. NO. 17 LOCATION Mills Lake Sig. DATE March 25, 19

TOUR 1 (MIDN. TO 8 A.M.)

LT:	UF:	HOLE NO.	FROM	TO	T.D.IF FINAL	FEET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON RIGHT	COST ONLY THIS WEEK ON WATER
AF:	AT:		920	959				339			

BIT RECORD	% LFT	CONDT	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LFT	COND.
			1	6¼	DT	36589	12	190	95		11½			

MUD	12 MIDN.	2 A.M.	4 A.M.	6 A.M.
WT.	71	89	87	80
VISC.				
GEL.				
W. L.				
P.H.				
ADDITIVES USED: 1. 25# D.O.H.				

PUMP				PUMP				SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	TOTAL DISPL.
120	60	900	120	60	900	99	0	90

	HOURS	FUEL GALS.	FIRST DAY CHARGED AT		MIDN.	4 A.M.
DRILL	8			WEATHER		
W. TRUCK				TEMPERATURE		-5°
MOB. PUMP				WIND VELOCITY		
				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER BIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (NOT ON WATER)	TOTAL HOURS
DRILLER Ken Freeman						8
HELPER Ed Pratt						8
HELPER Carlyle Hoskins						8
HELPER Ed. Logan						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill	12	12	½
	Rig down drill	12		
	Trip out		1	½
	Trip in	1	3	2
	Trip out 75 ft.	3		
	Pick up pipe	3	4	1
	Clean mud tank	4	4½	½
	Drill	4	6	2
	Repairs	6	6½	
	Drill	6	8	1½

DRILLER Ken Freeman

COMPANY TIME _____ CONTR. TIME _____

TOUR 2 (8 A.M. TO 4 P.M.)

LT:	UF:	HOLE NO.	FROM	TO	T.D.IF FINAL	FEET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON RIGHT	COST ONLY THIS WEEK ON WATER
AF:	AT:		855	1150				295			

BIT RECORD	% LFT	CONDT	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LFT	COND.
			1	6¼	DT	36589	12	190	292		20½			

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.				
VISC.				
GEL.				
W. L.				
P.H.				
ADDITIVES USED: 1. Sulphate				

PUMP				PUMP				SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	TOTAL DISPL.
225	60	955						

	HOURS	FUEL GALS.	FIRST DAY CHARGED AT		8 A.M.	NOON
DRILL				WEATHER		
W. TRUCK				TEMPERATURE	-5	
MOB. PUMP				WIND VELOCITY		
				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER BIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (NOT ON WATER)	TOTAL HOURS
DRILLER Wm. Forsyth						8
HELPER Ed. Shumanda						8
HELPER Harold Cochrane						8
HELPER Ed. Pratt						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Change Dies in Tools	4	4½	½
	Drill off Tools	4½	6½	2
	Trip out Lost Tool	6½	9½	3
	Wait for [illegible]	9½		
	Trip out [illegible]		9½	½
	Trip in [illegible]	9½	11½	
	Coffee	11½		
	Clean up tools and		11½	
	Lost Thought Tool	11½		
	Ed Shumanda off		12	

DRILLER Wm. Forsyth

COMPANY TIME _____ CONTR. TIME _____

TOUR 3 (4 P.M. TO MIDN.)

LT:	UF:	HOLE NO.	FROM	TO	T.D.IF FINAL	FEET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON RIGHT	COST ONLY THIS WEEK ON WATER
AF:	AT:		1150	1157				107			

BIT RECORD	% LFT	CONDT	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	NO.	FORM	% LFT	COND.
			1	6¼	DT	36589	12	110	189		22½			
			2	6¼	DT	39428								

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL.	Not Used			
W. L.				
P.H.				
ADDITIVES USED: 1. 25# D.O.H.				

PUMP				PUMP				SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	TOTAL DISPL.
225	60	1100	225	60	1150			

	HOURS	FUEL GALS.	FIRST DAY CHARGED AT		4 P.M.	8 P.M.
DRILL				WEATHER		
W. TRUCK				TEMPERATURE	-5	
MOB. PUMP				WIND VELOCITY		
				RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER BIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (NOT ON WATER)	TOTAL HOURS
DRILLER Lyman Lemon						8
HELPER D. Mayo						8
HELPER Harry Pratt						8
HELPER [illegible]						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Complete Dies in Tools	4	4½	½
	Drill off Tools	4½	6½	2
	Trip out Lost Tool	6½	9½	3
	Wait for [illegible]	9½		
	Trip out [illegible]		9½	½
	Trip in [illegible]	9½	11½	
	Coffee	11½		
	Clean up tools and		11½	
	Lost Thought Tool	11½		
	Lyman Lemon off		12	

DRILLER Lyman Lemon

COMPANY TIME _____ CONTR. TIME _____

TOTAL COMPANY TIME _____ HRS. TODAY'S DATE OF DRILLER _____

TOTAL CONTR. TIME _____ HRS. APPROVED BY _____

DIAMOND DRILL		PUMP TEST	
HOLE NO.	DATE	DESCRIPTION	DEPTH TO WATER ON PT.

4 Qt. 1F
1 Pkg. 1F
2 1/2 D.O.H.
1 Pkg. Sulphate

HR 1F
1 Pkg. 1F
2 1/2 D.O.H.
Kelly Down

BIG INDIAN DRILLING CO. LTD. PROJECT NO. 190

RIG. NO. 17 LOCATION Cyprus DATE

BIG INDIAN DRILLING CO. LTD. PROJECT NO. 190

LOCATION DATE

TOUR 1 — MIDN. TO 8 A.M.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	WT. TO DEPTH	AMOUNT	SAC CEMENT	HOURS WAIT ON CEMENT	COST DRILL TIME WAIT ON WATER
AF.	AT.										

BIT RECORD	N. OPT	CONDI	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OPT	CONDI.

MUD	12 MN.	2 A.M.	4 A.M.	6 A.M.
WT.				
VISC.				
GEL.				

ADDITIVES WATER

PUMP: PRESS | SPM | DEPTH | PRESS | SPM | DEPTH

SURVEY: DEG. | A.M. | P.M.

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
DRILL			
W. TRUCK	2		
MOR. PUMP			

WEATHER: MIDN. | 4 A.M.
TEMPERATURE
WIND VELOCITY
RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER NO. DAYS	REPAIRED	REPAIRS & MAINTENANCE	MOVE UP OR TEAR DOWN	LOST TIME NEGL. TIME	TOTAL HOURS
DRILLER						
HELPER						
HELPER						
HELPER						
TOTAL						

INJURIES AND REMARKS

TOUR 2 — 8 A.M. TO 4 P.M.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	WT. TO DEPTH	AMOUNT	SAC CEMENT	HOURS WAIT ON CEMENT	COST DRILL TIME WAIT ON WATER
AF.	AT.		268	300				32			

BIT RECORD	N. OPT	CONDI	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OPT	CONDI.
			1	6¾	OT	[illegible]	8	160	32		1¾			

MUD	8 A.M.	10 A.M.	12 MN.	2 P.M.
WT.				
VISC.				
GEL.	WP	FCAT		

ADDITIVES WATER [redacted]

PUMP: PRESS | SPM | DEPTH | PRESS | SPM | DEPTH

50 | 65 | 300

SURVEY: DEG. | A.M. | P.M.

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
DRILL			
W. TRUCK			
MOR. PUMP			

WEATHER: 8 A.M. | NOON
TEMPERATURE
WIND VELOCITY
RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER NO. DAYS	REPAIRED	REPAIRS & MAINTENANCE	MOVE UP OR TEAR DOWN	LOST TIME NEGL. TIME	TOTAL HOURS
DRILLER Wm Kay						
HELPER E.O. Blackwood						
HELPER Andrew O. Cochrane						
HELPER Cheryl Hughes						
TOTAL						

INJURIES AND REMARKS

TOUR 3 — 4 P.M. TO MIDN.

LT.	UP.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	WT. TO DEPTH	AMOUNT	SAC CEMENT	HOURS WAIT ON CEMENT	COST DRILL TIME WAIT ON WATER
AF.	AT.		200	470				170			

BIT RECORD	N. OPT	CONDI	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OPT	CONDI.
			1	6¾	OT	[redacted]	[redacted]	[redacted]	[redacted]		14			

MUD	4 P.M.	6 P.M.	8 P.M.	DW M.
WT.	8.8	8.9	8.8	
VISC.				
GEL.				

ADDITIVES WATER

PUMP: PRESS | SPM | DEPTH | PRESS | SPM | DEPTH

50 | [redacted] | 75 | 65 | [redacted]

SURVEY: DEG. | A.M. | P.M.

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGE AT
DRILL			
W. TRUCK			
MOR. PUMP			

WEATHER: P.M. | A.M.
TEMPERATURE 40
WIND VELOCITY 25
RAIN, SNOW, FOG, ETC.

GENERAL

CREW TIME SUMMARY	DRILLING AND OTHER NO. DAYS	REPAIRED	REPAIRS & MAINTENANCE	MOVE UP OR TEAR DOWN	LOST TIME NEGL. TIME	TOTAL HOURS
DRILLER Wm Kay						
HELPER E.O. Mead						
HELPER Gary Elliot						
TOTAL						14

INJURIES AND REMARKS

TRANSFORMATIONS / PUMP TEST

FROM FT.	TO FT.	DATE IN DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Wed on Body	[illegible]	[illegible]	[illegible]
	They need hose	[illegible]		
	put on [illegible]			
	[illegible]			
	Today Blind Hole			
	Had to pump up			
	down and have			
	pump		[illegible]	

DRILLER Wm Kay

COMPANY TIME COND'N TIME

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Checking [illegible]	[illegible]		
	[illegible]			
	[illegible] Reassembled		9.30	1¾
	pressure of	9.30		
	[illegible]			
	[illegible]			
	[illegible]			
	[illegible]		11.00	1¾
	[illegible]	11.00	11.30	½
	[illegible]	11.30		
	[illegible]		12.30	1
	[illegible]	12.30	1.00	½
	Out	1.00		
	Out of Hole	1.30	3.00	1½
	[illegible]	3.00	3.15	¼
	Out of Hole	3.15	4.00	¾
	Out of Hole			

DRILLER [illegible]

COMPANY TIME COND'N TIME

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drilling [illegible] hole	4.00	5.00	1
	[illegible]	5.00		
	[illegible]		[illegible]	1½
	[illegible]	[illegible]		
	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	
	[illegible]			
	[illegible]			
	[illegible]			
	[illegible]	

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 1.1 LOCATION [illegible] DATE [illegible]

TOUR 1 — MIDN. TO 8 A.M.

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	WEIGHT OF HOLE	LAST DRILL TIME WHAT DRILLED
AF:	AT:										

BIT RECORD	N. OFF	CONDI.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OFF	CONDI.

MUD	12 MIDN.	2 A.M.	4 A.M.	6 A.M.
WT.				
VISC.				
GEL.				
W.L. ____ F.C. ____ P.H. ____				
ADDITIVES, WATER ____ GAL.				
1.				
2.				
3.				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CAN TEMPER.

	MOTOR HOURS	FUEL GALS.	NEXT DIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	MIDN.	4 A.M.
TEMPERATURE:		
WIND VELOCITY:		
RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Hon. Brennan						8
HELPER Ed Pratt						8
HELPER Charlie Hutton						8
Donald Brennan						8
TOTAL						

INJURIES AND REMARKS:

TOUR 2 — 8 A.M. TO 4 P.M.

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	WEIGHT OF HOLE	LAST DRILL TIME WHAT DRILLED
AF:	AT:		268								

BIT RECORD	N. OFF	CONDI.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OFF	CONDI.

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.				
VISC.				
GEL.				
W.L. ____ F.C. ____ P.H. ____				
ADDITIVES, WATER ____ GAL.				
1.				
2.				
3.				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CAN TEMPER.

	MOTOR HOURS	FUEL GALS.	NEXT DIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	8 A.M.	NOON
TEMPERATURE:		
WIND VELOCITY:		
RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER John Forsyth						8
HELPER E.D. Raymond						8
HELPER Arthur Carmichael						8
TOTAL						

INJURIES AND REMARKS:

TOUR 3 — 4 P.M. TO MIDN.

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FIN.	SIZE CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	WEIGHT OF HOLE	LAST DRILL TIME WHAT DRILLED
AF:	AT:										

BIT RECORD	N. OFF	CONDI.	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	HRS.	FORM	N. OFF	CONDI.

MUD	4 P.M.	6 P.M.	8 P.M.	TOP M.
WT.				
VISC.				
GEL.				
W.L. ____ F.C. ____ P.H. ____				
ADDITIVES, WATER ____ GAL.				
1.				
2.				
3.				

PUMP			PUMP			SURVEY		
PRESS.	RPM	DEPTH	PRESS.	RPM	DEPTH	AT	DEG.	CAN TEMPER.

	MOTOR HOURS	FUEL GALS.	NEXT DIL CHANGE AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER	4 P.M.	8 A.M.
TEMPERATURE:		
WIND VELOCITY:		
RAIN/SNOW/FOG		

GENERAL:

CREW TIME SUMMARY	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME TRAVEL TIME	TOTAL HOURS
DRILLER						
HELPER						
HELPER						
TOTAL						

INJURIES AND REMARKS:

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION [illegible] DATE 3/22/67

MAINTENANCE LOG			PUMP TEST	
PUMP NO.	DATE	TO FT.	DATE TO DEPTH	DESCRIPTION / DEPTH SET, WATER ON FT.

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Wait on Boiler	12	8	8
	Light plant			
	Hang Rig radio			
	Wait & Talk			
	DRILLER Hon. Brennan			
	COMPANY TIME ____ CONTR. TIME ____			

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	WAITING ON LIGHT PLANT AND BOILER	12:00		
	HOLLOWED TO HEAT WATER, GEN. MAINT.			6 hr
	WELDING 2 SET FT. [illegible]			
	BOILER	6:00		2 hr
	DRILLER John Forsyth			
	COMPANY TIME ____ CONTR. TIME ____			

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]			
	[illegible]			
	[illegible]			
	DRILLER			
	COMPANY TIME ____ CONTR. TIME ____			

TOTAL COMPANY TIME ____ HRS. FOREMAN OR DRILLER [illegible]

TOTAL COMPANY TIME ____ HRS. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 2 LOCATION Dublin Lake 3-74

TOUR 1 — MIDN. TO 8 A.M.

LT:	UT:	HOLE NO.	FROM	TO	T.D. IF FINAL	SET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON HOLE	COST ONLY TIME WAIT ON WATER
AF:	AT:										

BIT RECORD	% OFF	CONDI.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	TOTAL	FORM	% OFF	CONDI.

MUD	3 Mdn.	5 A.M.	6 A.M.	8 A.M.
WT.				
VISC.				
GEL				

PUMP / PUMP / SURVEY: PRESS. | RPM | DEPTH | PRESS. | RPM | DEPTH | AT | DEG. | CONTRACTOR

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGED AT	WEATHER	MIDN.	4 A.M.
DRILL	9			TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN/SNOW/FOG		

ADDITIVES: WATER ..... GALS.

GENERAL:

CREW TIME SUMMARY	DRILLING HOURS (STAND NO. TIME)	PUMPOUT	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (REASON, TIME)	TOTAL HOURS
DRILLER Ken Forsyth						8
HELPER Gordon Mong						8
HELPER Gordon Hodson						8
HELPER Andy Lange						8
TOTAL						

INJURIES AND REMARKS:

TOUR 2 — 8 A.M. TO 4 P.M.

LT:	UT:	HOLE NO.	FROM	TO	T.D. IF FINAL	SET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON HOLE	COST ONLY TIME WAIT ON WATER
AF:	AT:		268								

BIT RECORD	% OFF	CONDI.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	TOTAL	FORM	% OFF	CONDI.

MUD	8 A.M.	10 A.M.	12 Mdn.	2 P.M.
WT.				
VISC.				
GEL				

PUMP / PUMP / SURVEY: PRESS. | RPM | DEPTH | PRESS. | RPM | DEPTH | AT | DEG. | CONTRACTOR

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGED AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN/SNOW/FOG		

ADDITIVES: WATER ..... GALS.

GENERAL:

CREW TIME SUMMARY	DRILLING HOURS (STAND NO. TIME)	PUMPOUT	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (REASON, TIME)	TOTAL HOURS
DRILLER Wm Forsyth						8
HELPER R. Gordon Mong						8
HELPER Archie Cochrane						8
TOTAL						

INJURIES AND REMARKS:

TOUR 3 — 4 P.M. TO MIDN.

LT:	UT:	HOLE NO.	FROM	TO	T.D. IF FINAL	SET CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	HOURS ON HOLE	COST ONLY TIME WAIT ON WATER
AF:	AT:										

BIT RECORD	% OFF	CONDI.	NO.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	TOTAL	FORM	% OFF	CONDI.

MUD	4 P.M.	6 P.M.	8 P.M.	MIDN.
WT.				
VISC.				
GEL				

PUMP / PUMP / SURVEY: PRESS. | RPM | DEPTH | PRESS. | RPM | DEPTH | AT | DEG. | CONTRACTOR

	MOTOR HOURS	FUEL GALS.	HEAT ON CHANGED AT	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN/SNOW/FOG		

ADDITIVES: WATER ..... GALS.

GENERAL:

CREW TIME SUMMARY	DRILLING HOURS (STAND NO. TIME)	PUMPOUT	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (REASON, TIME)	TOTAL HOURS
DRILLER						
HELPER						
HELPER						
TOTAL						

INJURIES AND REMARKS:

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION _____ DATE _____

PERFORATING LOG	PUMP TEST			
HOLE NO.	TO FT.	DATE OR DEPTH	DESCRIPTION	DEPTH TO WATER IN FT.

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]			
	[illegible]			
	[illegible]			
	[illegible]			
	[illegible]			8
	DRILLER [illegible]			
	COMPANY TIME _____ CONTR. TIME _____			

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	THAW OUT HOLE WITH HOT WATER CHECK WELL HEAD & PIPERAMS, SPOOL WORKING STRING INSTALLED IN WELL TIME. BETWEEN TIME WORK INTO PREPARATION FOR NEW BUILDING, WORK WITH LIGHT PLANT, WELDER, TOOLS AND GUNS	8:00		
	LIGHT PLANT BELL LOCATION 2:00 P.M.		4:00	
			8	
	DRILLER Wm Forsyth			
	COMPANY TIME _____ CONTR. TIME _____			

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	WAIT			
	ON			
	LIGHT PLANT REPAIR			
	DRILLER			
	COMPANY TIME _____ CONTR. TIME _____			

TOTAL CONTRACT TIME ..... HRS. TOOLPUSHER OR DRILLER: _____

TOTAL COMPANY TIME ..... HRS. APPROVED BY Del Montague

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 17 LOCATION [illegible] DATE 3/21/67

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION _____ DATE _____

TOUR 1

LT. / UT. / HOLE NO. / FROM / TO / T.D. IF FIN. / SIZE CASING / SET TO DEPTH / AMOUNT / SAC. CEMENT / HOURS ON WORK / COST DRILL TIME

AF. / AT.

BIT RECORD	% LEFT	CONDITION	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	MFG.	FORM	% LEFT	CONDITION

MUD	12 MIDN.	4 A.M.	8 A.M.
WT.			
VISC.			
GEL			
W/ F.C. P.H.			
ADDITIVES WATER GAIN			
1.			
2.			
3.			

PUMP			PUMP			SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	CORR TO MIDN

	MOTOR HOURS	FUEL GAUGE	FRONT DIFF. CHANGED AT	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN, SNOW, FOG, ETC.		

SEMI-WELL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	NO. OF ON DUTY CREWS	COST TIME PAID TIME	TOTAL HOURS
DRILLER						8
HELPER						8
HELPER						8
HELPER						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Wait On C [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]	12:00	8:00	8

DRILLER [illegible]

COMPANY TIME _____ CONTR'S TIME _____

TOUR 2

LT. / UT. / HOLE NO. / FROM 268 / TO / T.D. IF FIN. / SIZE CASING / SET TO DEPTH / AMOUNT / SAC. CEMENT / HOURS ON WORK / COST DRILL TIME

AF. / AT.

BIT RECORD	% LEFT	CONDITION	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	MFG.	FORM	% LEFT	CONDITION

MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
WT.				
VISC.				
GEL				
W/ F.C. P.H.				
ADDITIVES WATER GAIN				
1.				
2.				
3.				

PUMP			PUMP			SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	CORR TO MIDN

	MOTOR HOURS	FUEL GAUGE	FRONT DIFF. CHANGED AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN, SNOW, FOG, ETC.		

SEMI-WELL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	NO. OF ON DUTY CREWS	COST TIME PAID TIME	TOTAL HOURS
DRILLER	Worbetty T.H.					8
HELPER	E. Gardner					8
HELPER	A. Andrews					8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Trying to break 7 3/4 collar, [illegible] off bank, changed bank. Nipple up. Remove [illegible] on pump, weld [illegible], weld on mud tank gate lock	8:00		8

DRILLER [illegible]

COMPANY TIME _____ CONTR'S TIME _____

TOUR 3

LT. / UT. / HOLE NO. / FROM / TO / T.D. IF FIN. / SIZE CASING / SET TO DEPTH / AMOUNT / SAC. CEMENT / HOURS ON WORK / COST DRILL TIME

AF. / AT.

BIT RECORD	% LEFT	CONDITION	MFG.	SIZE	TYPE	SER. NO.	WEIGHT	RPM	FT. DRILLED	REMARKS	MFG.	FORM	% LEFT	CONDITION

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL				
W/ F.C. P.H.				
ADDITIVES WATER GAIN				
1.				
2.				
3.				

PUMP			PUMP			SURVEY		
PRESS	SPM	DEPTH	PRESS	SPM	DEPTH	AT	DEG.	CORR TO MIDN

	MOTOR HOURS	FUEL GAUGE	FRONT DIFF. CHANGED AT	WEATHER	4 P.M.	8 P.M.
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				RAIN, SNOW, FOG, ETC.		

SEMI-WELL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	NO. OF ON DUTY CREWS	COST TIME PAID TIME	TOTAL HOURS
DRILLER						
HELPER						
HELPER						
HELPER						
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Wait on [illegible]			

DRILLER

COMPANY TIME _____ CONTR'S TIME _____

TOTAL CONTRACT TIME _____ HRS. TOOLPUSHER OR DRILLER

TOTAL COMPANY TIME _____ HRS. APPROVED BY Joel Westbyes

BIG INDIAN DRILLING CO. LTD. PROJECT NO. 789

RIG. NO. 18 LOCATION Lac la Biche Area 589 DATE Moved to

BIG INDIAN DRILLING CO. LTD. PROJECT NO. DATE LOCATION DATE

TOUR 1

LT.	LF.	HOLE NO.	FROM	TO	T.D.P.FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	CONDITIONS
AF.	AT.		174	246				158		

	W. OFF	COND.	WGT.	SPD.	TYPE	SER. NO.	WEIGHT	SPM	ST. DRILLED	REMARKS	AVG.	FORM	W. OFF	COND.
BIT RECORD			18	90	BT	RA	RLL	225	246		8½			

MUD	12 MID.	2 A.M.	6 A.M.	8 A.M.
WT.	17	1	1.1	1.1
VISC.	48	50	55	68
GEL				

PUMP / PUMP / SURVEY

PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.
						101½	1 deg

	MOTOR HOURS	FUEL GAS	PRESENT CONDITION AT
DRILL	8		
W. TRUCK			
MOB. PUMP			

WEATHER: MIDN. 4 A.M.
TEMPERATURE:
WIND VELOCITY:
RAIN/SNOW/FOG:

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (RIGS, ETC.)	TOTAL HOURS
DRILLER						11
HELPER						
HELPER	Doing survey from 174 to 246					11
HELPER	Gerry Hudson					11
HELPER	Jerrod Bergen					11
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill	12:00	12:00	
	Survey and [illegible]	1:00	1:30	½
	Drill	1:30	3:00	1½
	Wait for pump	3:00	3:15	
	Drill	3:15	4:45	
	Trip pipe	4:45	5:15	
		5:15	6:00	1¼

DRILLER [illegible]

COMPANY TIME ____ CO. PR. TIME ____

TOUR 2

LT.	LF.	HOLE NO.	FROM	TO	T.D.P.FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	CONDITIONS
AF.	AT.		246	268				22		

	W. OFF	COND.	WGT.	SPD.	TYPE	SER. NO.	WEIGHT	SPM	ST. DRILLED	REMARKS	AVG.	FORM	W. OFF	COND.
BIT RECORD			18	90	BT	RA	R	160	268		15½			

MUD	8 A.M.	10 A.M.	12 M'N.	2 P.M.
WT.	1.1		1.1	
VISC.	68		67	
GEL				

PUMP / PUMP / SURVEY

PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.
			100	60	265	265	¼

	MOTOR HOURS	FUEL GAS	PRESENT CONDITION AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER: 8 A.M. NOON
TEMPERATURE:
WIND VELOCITY:
RAIN/SNOW/FOG:

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (RIGS, ETC.)	TOTAL HOURS
DRILLER	W. Forsyth					8
HELPER						8
HELPER	E.D. Bourmond					8
HELPER	Ronald Cochrane					8
HELPER	E.D. Pratt					8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill	8:00	8:30	16
	Repairs	8:30		
	[illegible]			
	[illegible]		10:00	2½
	Hole [illegible]	10:00	10:45	¾
	Drill	10:45	12:15	1½
	Cole [illegible]	12:15	2:00	1¾
	Repair [illegible]	2:00		
	Repair [illegible]			
	Repair [illegible]			
	Wait for [illegible]			
	Cement		4:00	2
				8
	[illegible]			

DRILLER W. Forsyth

COMPANY TIME ____ CO. PR. TIME ____

TOUR 3

LT.	LF.	HOLE NO.	FROM	TO	T.D.P.FIN.	BOX CASING	SET TO DEPTH	AMOUNT	SAC CEMENT	CONDITIONS
AF.	AT.									

	W. OFF	COND.	WGT.	SPD.	TYPE	SER. NO.	WEIGHT	SPM	ST. DRILLED	REMARKS	AVG.	FORM	W. OFF	COND.
BIT RECORD														

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL				

PUMP / PUMP / SURVEY

PRESS.	SPM	DEPTH	PRESS.	SPM	DEPTH	AT	DEG.

	MOTOR HOURS	FUEL GAS	PRESENT CONDITION AT
DRILL			
W. TRUCK			
MOB. PUMP			

WEATHER: 4 P.M. 8 A.M.
TEMPERATURE:
WIND VELOCITY:
RAIN/SNOW/FOG:

GENERAL:

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	PUMPMEN	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME (RIGS, ETC.)	TOTAL HOURS
DRILLER	W. Forsyth					
HELPER						
HELPER	Gerry Hudson					
HELPER	E.D. Pratt					
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	[illegible]			
	[illegible]			
	[illegible]			
	[illegible]		9:00	
	[illegible]	9:00	9:30	
	[illegible]	9:30		
	[illegible]			
	[illegible]		10:00	
	[illegible]	10:00		
	[illegible]		11:00	
	[illegible]	11:00		
	[illegible]		12:00	

DRILLER [illegible]

COMPANY TIME ____ CO. PR. TIME ____

TOTAL CONTRACT TIME ____ HRS. TOUR DATA OK FOR ____

TOTAL COMPANY TIME ____ HRS. APPROVED BY ____

BIG INDIAN DRILLING CO. LTD. PROJECT NO.

RIG. NO. 17 LOCATION CDR Mills Lake J.74 DATE March 19

LT.	LF.	HOLE NO.	FROM	TO	T.D. OF FINAL	AMOUNT
AF.	AT.		80	127	127	29

TOUR 1 — MIDN. TO 8 A.M.

NO.	CONDITION	MAKE	SIZE	TYPE	SER. NO.	MODEL	MFR.	FT. DRILLED	REMARKS	MAKE	TYPE	CLASS
BIT RECORD		IH	9 7/8									

MUD	12 MN.	2 A.M.	4 A.M.	8 A.M.
WT.				
VISC.				
GEL.				

PUMP				PUMP				SURVEY	
MAKE	MFR.	DEPTH	MAKE	MFR.	DEPTH	AT	DEG.		
						127	3/4		

	MOTOR HOURS	FUEL GAS.	NEXT OIL CHANGE AT	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				BAROMETRIC FOG		

ADDITIONAL WATER ..... GALS.

GENERAL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	RUNNING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME REASON	TOTAL HOURS
DRILLER Hy Pearson						12
HELPER G Fraser						12
HELPER Charles Hopkins				7		7
HELPER David Logan						7
TOTAL						

INJURIES AND REMARKS

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Completed rig up	8:12		
	Drilling	8	12:00	4 hr
	Drilling from pump	5:00	5:45	1 hr
			9:00	3 hr
	Trip in drill rod & pull out NO. 1	4:15		
	Travel off from Drill rod		4:45	
	Clean up & Wait On Orders	4:45	8:00	
				8

DRILLER Hy Pearson

COMPANY TIME ..... CONTR. TIME .....

TOUR 2 — 8 A.M. TO 4 P.M.

NO.	CONDITION	MAKE	SIZE	TYPE	SER. NO.	MODEL	MFR.	FT. DRILLED	REMARKS	MAKE	TYPE	CLASS
BIT RECORD												

MUD	8 A.M.	10 A.M.	12 MN.	2 P.M.
WT.				
VISC.				
GEL.				

PUMP				PUMP				SURVEY	
MAKE	MFR.	DEPTH	MAKE	MFR.	DEPTH	AT	DEG.		

	MOTOR HOURS	FUEL GAS.	NEXT OIL CHANGE AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				BAROMETRIC FOG		

ADDITIONAL WATER ..... GALS.

GENERAL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	RUNNING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME REASON	TOTAL HOURS
DRILLER Wm Forsyth						8
HELPER E Armstrong						8
HELPER Alfred Cochrane						8
HELPER Denis Matthews						8
TOTAL						

INJURIES AND REMARKS

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Rig service, drilling cement plug (1) drill, stand 10 off	8:00		
	Repair pump		2:00	6 hr
	Waiting on parts	2:00	3:00	1
	Change pump & drill pump	3:00	4:00	1 hr
				8

DRILLER Wm Forsyth

COMPANY TIME ..... CONTR. TIME .....

TOUR 3 — 4 P.M. TO MIDN.

NO.	CONDITION	MAKE	SIZE	TYPE	SER. NO.	MODEL	MFR.	FT. DRILLED	REMARKS	MAKE	TYPE	CLASS
BIT RECORD		IH	9 7/8	OT	RR	A11	198	54		75		

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.	9.1	9.2	9.3	
VISC.	40	44	46	47
GEL.				

PUMP				PUMP				SURVEY	
MAKE	MFR.	DEPTH	MAKE	MFR.	DEPTH	AT	DEG.		
	17			67					

	MOTOR HOURS	FUEL GAS.	NEXT OIL CHANGE AT	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE		
W. TRUCK				WIND VELOCITY		
MOR. PUMP				BAROMETRIC FOG		

ADDITIONAL WATER ..... GALS.

GENERAL

CREW TIME SUMMARY

	DRILLING AND OTHER RIG CREW	RUNNING	REPAIRS & MAINTENANCE	RIG UP OR TEAR DOWN	LOST TIME REASON	TOTAL HOURS
DRILLER Art Mooke	Helper Chas Thompson				Ins. Hole Out	16
HELPER Larry Hill						16
HELPER Don Gillett						16
TOTAL						

INJURIES AND REMARKS

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Spud & Drill Hole	4:00		
	Drill &		4:45	1 hr
	Waiting on pump	4:45	5:00	1/4
	Drill with pump	5:00	10:00	5
	Drill with bailing	10:00	10:00	6
	Ins.			14
				8

DRILLER

COMPANY TIME ..... CONTR. TIME .....

TOTAL COMPANY TIME ..... HRS. TOURMALIN OR DRILLER .....

TOTAL CONTRACT TIME ..... HRS. APPROVED BY .....

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

RIG. NO. 12 LOCATION [illegible] DATE [illegible]

TOUR 1

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CHANGE	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON PLUG	COST DRILL TIME SHIFT ON WATER
AF:	AT:										

BIT RECORD	% OFF	CONDITION	NO.	SIZE	TYPE	SER. NO.	VACUUM	RPM	FT. DRILLED	REMARKS	MR.	FORM	% OFF	COND.

MUD	12 MID.	2 A.M.	4 A.M.	8 A.M.
WT.				
VISC.				
GEL.				
P.H.				

PUMP				PUMP				SURVEY		
PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	CAN NUMBER

	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	MIDN.	4 A.M.
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				BAROMETRIC FOG		
GENERAL						

ADDITIVES: WATER ..... GALS.

CREW TIME SUMMARY	DRILLING AND OTHER RIG TIME	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON THE DOWN	COST TIME TRAVEL TIME	TOTAL HOURS
DRILLER						
HELPER						
HELPER						
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	No shift.			
	DRILLER			
	COMPANY TIME ____ CONTR. TIME ____			

TOUR 2

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CHANGE	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON PLUG	COST DRILL TIME SHIFT ON WATER
AF:	AT:		0	55				55			

BIT RECORD	% OFF	CONDITION	NO.	SIZE	TYPE	SER. NO.	VACUUM	RPM	FT. DRILLED	REMARKS	MR.	FORM	% OFF	COND.
			12	12½	DT	RA	20	225	55					

MUD	8 A.M.	10 A.M.	12 NOON	4 P.M.
WT.				
VISC.				
GEL.				
P.H.				

PUMP				PUMP				SURVEY		
PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	CAN NUMBER

	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	8 A.M.	NOON
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				BAROMETRIC FOG		
GENERAL						

ADDITIVES: WATER ..... GALS.

CREW TIME SUMMARY	DRILLING AND OTHER RIG TIME	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON THE DOWN	COST TIME TRAVEL TIME	TOTAL HOURS
DRILLER Alex Brown						8
HELPER Ed. Brown						8
HELPER Charlie Brown						8
HELPER Ronald Lagrange						8
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill [illegible]	8:00	9:00	1 hr
	[illegible]	8:00		
	[illegible]		10:00	1
	[illegible]	10:00		
	[illegible]		12:00	2 hr
	[illegible]	10:00	2	1 hr
	[illegible]	2:00		
	[illegible]		2:00	1
	DRILLER [illegible]			
	COMPANY TIME ____ CONTR. TIME ____			

TOUR 3

LT.	LF.	HOLE NO.	FROM	TO	T.D. IF FINAL	DEV. CHANGE	SET TO DEPTH	AMOUNT	SAC COMPANY	HOURS ON PLUG	COST DRILL TIME SHIFT ON WATER
AF:	AT:		55	100				45			

BIT RECORD	% OFF	CONDITION	NO.	SIZE	TYPE	SER. NO.	VACUUM	RPM	FT. DRILLED	REMARKS	MR.	FORM	% OFF	COND.
			12	12½			6	120	100					

MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
WT.				
VISC.				
GEL.				
P.H.				

PUMP				PUMP				SURVEY		
PRESS	RPM	DEPTH	PRESS	RPM	DEPTH	AT	DEG.	CAN NUMBER
120	65	70						

	MOTOR HOURS	FUEL GAUGE	NEXT OIL CHANGE AT	WEATHER	4 P.M.	8 A.M.
DRILL				TEMPERATURE:		
W. TRUCK				WIND VELOCITY:		
MOB. PUMP				BAROMETRIC FOG		
GENERAL						

ADDITIVES: WATER ..... GALS.

CREW TIME SUMMARY	DRILLING AND OTHER RIG TIME	PUMPING	REPAIRS & MAINTENANCE	RIG UP ON THE DOWN	COST TIME TRAVEL TIME	TOTAL HOURS
DRILLER [illegible]						8
HELPER [illegible]						16
HELPER [illegible]						8
HELPER [illegible]						
TOTAL						

INJURIES AND REMARKS:

CLASS	REMARKS	TIME START	TIME STOP	TIME INTERVAL
	Drill 9 7/8 hole	7:00	7:30	½
	Rig service	7:30	7:45	¼
	Make mud / change mud	7:45	9:15	1½
	Drill 9 7/8 hole	9:15	9:45	½
	Work on pump	9:45	9:00	¼
	Drill 9 7/8 hole	9:00	10:00	2
	Work on pump [illegible]	10:00		
	[redacted] [illegible]		11:00	1
	Drill 9 7/8 hole	11:00	11:30	½
	Make mud, change [illegible]	11:30	12:00	½
				8
	DRILLER [illegible]			
	COMPANY TIME ____ CONTR. TIME ____			

TOTAL CONTRACT TIME ____ HR. TOOLPUSHER OR DRILLER [illegible]

TOTAL COMPANY TIME ____ HR. APPROVED BY [illegible]

BIG INDIAN DRILLING CO. LTD. PROJECT NO. _____

LOCATION [illegible] DATE _____

DEVIATION LOG			PUMP TEST	
DEGREE	DEG.	DATE TO DEPTH	DESCRIPTION	DEPTH TO WATER ON PT.

2 pc-10
up [illegible]