BAOH AMERADA CLI LAKE
K-54

Drilling Authority No. 332
Date Issued 29 November 1968

WELL NAME BACH Amerada Oil Lake K-54
FIELD Area:
LOCATION: Unit K Section 54 Grid 62-10-123-00
Latitude 62-03-40.790 Longitude 123-10-24.185
From Established Reference Marker

U.W.I.N. 62.06133 -- 123.17339
U.W.I. 300K546210123000

Rig Release Date: 3-2-69
Status
Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX	
29-11-68		Application for a Drilling Authority.
20-5-69		Well Completion Data.
		Well History Report.
		Application to Amend a Drilling Authority.
		Application to change a Well Name.
16-4-69		Application to Abandon a Well or Suspend Drilling.
		Application to Alter Condition of a Well.
		Well History Supplement.
13-5-69		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 .....

NANR 52-90 (7-65)

69-319

P 13 (1/69)

GULF OIL CANADA LIMITED
WATER ANALYSIS REPORT

"TIGHT HOLE"

LEASE Gulf Amerada Cli Lake G-15 LOCATION 62° 10' N - 123° 00' W FIELD Wildcat SAMPLE DST #2

SAMPLE DATE March 20, 1969 FORMATION Arnica INTERVAL DEPTH 5,370 FT TO 5,470 FT KBE 694 FT

SAMPLE HEIGHT ABOVE TOOL Top of Tool FT. ____ RECOVERY DATA 980' muddy salt water.

OTHER DATA

ION	MILLIGRAMS/LITRE CONCENTRATION	PER CENT MILLIGRAM EQUIVALENTS
SODIUM – NA	51,323	44.90
POTASSIUM – K		
CALCIUM – CA	4,430	4.45
MAGNESIUM – MG	395	0.65
SULPHATE – SO_4	684	0.29
CHLORIDE – CL	87,540	49.67
BROMIDE – BR		
IODIDE – I		
BICARBONATE – HCO_3	129	0.04
CARBONATE – CO_3		
HYDROXIDE – OH		
TOTAL	144,501	100.00

REMARKS AND CONCLUSIONS Insufficient data for correlation. Appears to be either formation water or diluted formation water.

S. G @ 60°F.	1.101
pH	6.69
H_2S	Nil
RESISTIVITY .056 OHM METERS AT	75 °F.

TOTAL DISSOLVED SOLIDS IN MILLIGRAMS LITRE

AS NACL FROM RES.	155,000
BY EVAPORATION	
AFTER IGNITION	

ANALYSED BY	D.J. Donnelly DJA
LAB. NO.	W-304-69

DATE RECEIVED	July 2	1969
DATE ANALYSED	September 9	1969
DATE DISTRIBUTED	September 9	1969

Drilling Authority No. 332
Date Issued November 29, 1968

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL 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 BAOH Amerada Cli Lake K-54

Permit No. 5369 Lease No. N/A

Gulf Oil Canada Ltd. & Amerada Petroleums Exploratory Licence No. 1205
(Permittee, Licensee, Lessee)

British American Oil Holdings Limited Exploratory Licence No. 1875
(Operator)

Location: Unit K Section 54 Grid 62° 10' 123° 00'

Latitude 62° 03' 40".790 North Longitude 123° 10' 24".185 West

From Established Reference Marker at 63-A-193 = 4083.0

Universal Well Location Reference Lat. 62.06133° N., Long. 123.17339° W.

	DATE	DEPTH
Spudded	Dec.9/1968	0
Suspended	-	-
Resumed Operations	-	-
Finished Drilling	Feb.7/1969	8714
Deepened	-	-
Complete (gas/oil)	-	-
Abandoned	Feb.13/1969	
Rig released	Feb.13/1969	-

Pool(s) -

Interval(s) open to production -

Elevation: Gr. 686' K.B. 702'

Rig No. 12

Drilling Contractor Cascade

Contractor's Business Licence No. A11266

CASING RECORD

	Casing Size (inches)	Grade	Weight	Amount	Set at –	Sacks of Cement and Additives
1.	20"	LinePipe	46.27#	55'	70' KB	150 w/3% $CaCl_2$)
2.	13 3/8"	H-40	48#	610'	625' KB	700 w/2% $CaCl_2$)
3.	9 5/8"	J-55	40# & 36#	5987'	6000' KB	1050 w/0.4% HR_4)
4.						
5.						
6.						

GEOLOGICAL TOPS	ELEVATION	
	Depths	Sub-Sea
Mississippian	1500	- 798
Trout River	2990	- 2288
Jean Marie	3355	- 2653
Fort Simpson	3410	- 2708
Nahanni	5960	- 5258
Headless	6321	- 5619
Landry	6367	- 5665
Manetoe	6430	- 5728
Arnica	6762	- 6060
Sombre	7583	- 6881
Delorme	7796	- 7094
Whittaker	7816	- 7114
Sunblood	8466	- 7764
Cambrian	8560	- 7858

CORE RECORD

From	To	Rec.	From	To	Rec.
8709'	8714'	5'			

LOG RECORD

Run No.	Type of Log	From	To
1	Dual Induction Laterolog	5995	625
1	BHC Sonic Caliper	5997	625
1 Cont	Dipmeter (Computed)	5995	625
1	Induction E-log	8706	6001
2	BHC Sonic Caliper	8705	5995
2	Dipmeter	8704	6001
1	SN Porosity	8706	5998
1	Formation Density	8706	5998
1	Seismic Reference	5997	625
	Service (BHC-Seismic)		
2	" (BHC-Seismic)	8705	5995

IAND 52-90(2) (3-67)

CEMENTING RECORD (Plug, Squeeze, etc.)

Date	From	To	Remarks
11-2-69	7850	7750	75 sacks + 0.5% HR 12 Felt @ 7700'
12-2-69	6800	6400	280 sacks + 0.3% HR 12 Felt @ 6369'
12-2-69	6050	5950	75 sacks. Felt @ 5886'
15-2-69	Cut off casing. Dumped 7-sack cement plug in top, welded on steel plate, and erected 4' steel riser with steel name plate.		

PERFORATING RECORD (Bullet, Jet)

Date	From	To	Remarks
	Nil		

SERVICING RECORD (Acidizing, Fracing, etc.)

Date	From	To	Remarks
	Nil		

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	2-5-69	Arnica	7262	7330				-				-	-	Misrun - Complete misrun--no chart available.
2	2-5-69	Manetoe	6692	6760								3467	3198	Misrun
3	2-5-69	Arnica	7262	7350								3432	3439	Misrun
4	2-6-69	Manetoe	6676	6764								3174	3174	Misrun
5	2-8-69	Manetoe	6420	6484								3044	3048	Misrun
6	2-9-69	Manetoe	6420	6484	30	15	10	2823	2525	32	50	3093	3093	Weak air puff. Pressures - office corrected
7	2-9-69	Manetoe	6692	6756	90	30	60	3050	3053	152	1353	3216	3216	Recovered 180' mud 2480' S.W. Pressures - office corrected.
8	2-11-69	Arnica	7264	7350	60	30	60	3266	3214	65	109	3455	3455	Recovered 330' muddy S.W. Pressures - office corrected.

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks
W-036-69	Water	6676	6764	Manetoe	DST #4
W-060-69	Water			Mud Sample	From Tank
W-037-69	Water	6692	6756	Manetoe	DST #7
W-038-69	Water	7264	7350	Arnica	DST #8

PRESENT STATUS OF WELL

Oil		(Interval)
Gas		(Interval)
Dry	X	D & A
Susp.		

Company Gulf Oil Canada Limited

Signed by Wellman G. Hembey

Title Area Production Manager

Date May 13, 1969

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

File No.
Drilling Authority No. 332

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 BAOH Amerada Cli Lake K - 54
Location: Unit K Section 54 Grid 62° 10', 123° 00'
Latitude 62° 05' 40" .790 North Longitude 123° 10' 24" .185 West
From Established Reference Marker at 63-A-193 - 4083.0
Universal Well Location Reference 62.06133° N. Lat., 123° .17330° W. Long.
Permit No. 5369 Lease No. N/A

Gulf Oil Canada Limited and Amerada Petroleum Corporation
(Permittee, Licensee, Lessee)

Date of commencement of proposed program

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at Nil
Gas at Nil
Water at 6697' - 6756'; 7264' - 7350'
Total Depth 8714' Date of last operations February 11, 1969
Present condition of well Standing

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 20"	46.27#	55'	70' KB	150 (2% $CaCl_2$)	Nil
2. 13-3/8"	48#	610'	625' KB	700 (2% $CaCl_2$)	Nil
3. 9-5/8"	40# & 36#	5987'	6000' KB	1050 (.4% HR4)	Nil
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	7850' - 7750'	Delorme	75	Felt plug at 7700'
2	6800' - 6400'	Arnica - Manetoe	280	Felt plug at 6365'
3	6050' - 5950'	Mahenni	75	Felt plug at 5886'

Verbal approval obtained February 7, 1969 from Mr. Thomas.

The following logs have been run Dual Induction, BHC Sonic-Caliper, SP Log, FD Log, Dipmeter, IBS
Other operations proposed Weld steel name plate on 4' riser and cap with 7 sacks cement.

Operations to be carried out by Cascade Drilling Co. Ltd. Contractor Licence No. A 11266
Address Calgary, Alberta Address
Responsible Agent in field W.C. Barrett, 10235 - 124 Street, Edmonton, Alberta
Dated at Edmonton this 10th Day of February 19 69
Signed by [signature] Company Gulf Oil Canada Limited
Title Area Production Manager Operator's Exploratory Licence No. 1205

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. R.H.J. Thomas
on the 7th February 1969.

Dated 16th April, 19 69

[signature]
for Oil Conservation Engineer

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

IAND 52-90 (5) (3-67)

Drilling Authority No. 332

Project No.

File No.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
[redacted] DIVISION
OIL AND MINERAL

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 [redacted] Amoseas Oil Lake K-54

Location: Unit K Section 54 Grid 62° 10', 123° 00'

Latitude 62° 03' 40".790 North Longitude 123° 10' 24". 183 West

From Established Reference Marker [redacted] 63-A-193 = 4083.0

Universal Well Location Reference 62.06133° N. Lat. 123.17333° W. Long.

Elevation: Ground 683 K.B. 701' est. feet above sea-level.

Well is expected to produce from Bear River, Nonatee and Lower formations at a depth of about 4600' or below feet. Expected total final depth 8300'

Area assigned to well
(for Oil Conservation Engineer's use only)

Permit No. 3369 Lease No. N.A. Acreage 39,960

Permittee, licensee, or lessee The British American Oil Company Limited and Amoseas Petroleums

Exploratory Licence No. 1295

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

Petroleum and natural-gas rights owned by Crown

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

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1. 20"	94#	H-40	New	60'	160
2. 13.3/8"	48#	H-40	New	600'	770
3. 9.5/8"	36# & 40#	J-55	New	4600'	as required
4. 7"	20# & 23#	J-55	as required		
5.					

Expected water, gas, and oil horizons and type of control equipment Primary prospects - Bear R. Reef, Nahanni Nonatee Reef, Arnica dolomite, Silty Dolomite, Siluro-Ordovician Reef. Drilling mud with sufficient overbalance will be maintained. 1 - 12" CK 900 Hydril, 1 - 12" 900 series double gate hydraulic Shaffer with manual control also.

Well will be drilled with Rotary Rig No. 12 by Canada Drilling Co. Ltd.
(Drilling Contractor or company)

Responsible agent of applicant:— Contractor's Business Licence No. A 11266

At well W. C. Herrett At registered office Hjalmar R. Holmberg

Address 10235 - 124 Street, Edmonton, Alberta Address 10235 - 124 Street, Edmonton, Alberta

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

Dated at Edmonton, Alberta, this 27 day of November 19 68

Signed by [redacted] Company British American Oil Holdings Limited

Title Area Production Manager Operator's Licence No. 1875

(For Resource Management Division use only)

APPROVED

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

1. The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.
2. Should 7" casing be required, details of the proposed string are to be submitted in advance of it being set.

Dated 29th November 19 68

B. D. Toms
Oil Conservation Engineer

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

IAND 52-90-1 (3-67)

UNIQUE WELL IDENTIFIER: 300K546210123000

BAOH AMERADA CLI LAKE K-54

WELL HISTORY REPORT

WELL HISTORY REPORT

BAOH Amerada Cli Lake K-54

62° 03' 40.790" N.

123° 10' 24.185" W.

OIL & GAS OPERATIONS UNIT
Oil and Mineral Division
JUL 16 1969
OTTAWA, CANADA
Dept. of Indian Affairs & Northern Development

GULF OIL CANADA LIMITED

Edmonton Production Area
Edmonton, Alberta

April 1969

CONFIDENTIAL

INDEX

I. General Information — Page 1

II. Geological Summary — Page 2

(a) Formation Tops
(b) Core Intervals
(c) Core Description
(d) Sample Description

III. Engineering Summary — Page 3

(a) Drill Stem Tests
(b) Casing Record
(c) Tubing Record
(d) Xmas Tree
(e) Mud Report
(f) Bit Record
(g) Deviation Record
(h) Report of Blowouts
(i) Lost Circulation

IV. Completion Summary — Page 7

(a) Perforation Record
(b) Cementation Record
(c) Acidization Record
(d) Chronological Daily Completion Record
(e) Back Pressure and Production Tests

V. Analyses — Page 9

(a) Core Analysis
(b) Gas Analysis
(c) Oil Analysis
(d) Water Analysis

VI. Logs — Page 9

WELL HISTORY REPORT

Date of Report: March 17, 1969 Operator: British American Oil Holdings Limited
Licence No. 1875
P.O. Box 130, Calgary, Alberta.

I. GENERAL INFORMATION

(a) Well Name: BAOH Amerada Cli Lake K-54

(b) Well Licence: 332 Date Approved: November 29, 1968

(c) Title Holder: The British American Oil Company Limited and Amerada Petroleums

(d) Type and Number of Title: Permit No. 5369

(e) Owners: Gulf Oil Canada Limited 50%
Amerada Petroleums 50%

(f) Drilling Contractor: Cascade Drilling Company Limited
Rig No. 12
Licence No. A 11266

(g) Service Company: None

(h) Location: Grid 62° 10', 123° 00' Unit K, Section 34
Co-ordinates: Latitude 62° 03' 41.790" N., Longitude 123° 10' 24.185" W.
Unique Well Identifier: 300K546210123000
Universal Well Location Reference: Lat. 62.06133° N., Long. 123.17339° W.

(i) Elevations: Ground elevation -- 686
Ground to K.B. -- 15.5
Distance "H" -- 15.5
K.B. Elevation -- 702

(j) Well Status: Plugged and abandoned at the total depth of 8714'

(k) Date Spudded: 11:30 p.m., December 9, 1968

(l) Date Drilling Finished: February 7, 1969

(m) Date Drilling Rig Released: 8:00 p.m., February 13, 1969

(n) Total Depth and Plugged Back Total Depth: TD 8714; PBTD 0

(o) Date Completed or Abandoned: February 13, 1969

(p) Date Service Rig Released: None Used

(q) Well Classification: Wildcat.

(r) Hole Size - 26" 0 - 80' 17½" 80-625'
12¼" 625 - 6000'
8 3/4" 6000 - 8709'
6 1/8" 8709 - 8714'

(s) Casing - 3 jts. 20" 46.27# Conductor Pipe, set @ 70' with 150 sacks + 3% $CaCl_2$
19 jts. 13 3/8" 48# 8RT H-40, set @ 625' with 700 sacks + 2% $CaCl_2$
195 jts. 9 5/8" 36# & 40# 8RT J-55, set at 6000' cemented 6000' to 3500' with 1050 sacks + 0.4% HR4.

II. GEOLOGICAL SUMMARY

(a) Formation Tops:

Formation	Log Tops	Sample Tops
Mississippian	1500	1500
Trout River	2990	
Jean Marie	3355	3360
Fort Simpson	3410	3400
Nahanni	5960	5960
Headless	6321	
Landry	6367	
Manetoe	6430	6420
Arnica	6762	6762
Sombre	7583	
Delorme	7796	7800
Whittaker	7816	
Sunblood	8466	
Cambrian	8560	8574
Total Depth Logger	8707'	
Total Depth Driller	8714'	

(b) Cored Intervals: Core #1 8709' - 8714'

(c) Core Description: Cut 5 feet, recovered 5 feet.
Cambrian Quartzite - tight.

(d) Sample Description: Attached

III. ENGINEERING SUMMARY

(a) Drill Stem Tests:

DST #1 — February 5, 1969 -- Interval: 7262' - 7330' Arnica. Howco. Misrun - 7½" Hookwall packer failed.

DST #2 — February 5, 1969 -- Interval: 6692' - 6760' Manetoe. Howco. Misrun, developed drill pipe leak before tool opened.

DST #3 — February 6, 1969 -- Interval: 7262' - 7350' Arnica. Howco. 7½" Hookwall packer, ½" SS choke, no water cushion. Tool open 17 minutes. Weak initial air blow, dying in 6 minutes. Misrun - Packer failed after 17 minutes.

DST #4 — February 7, 1969 -- Interval: 6676' - 6764' Manetoe. Howco. 7½" straddle packer, ½" SS choke, no water cushion, 45 min. pre-flow, 45 min. initial shut-in, tool open 45 min. 45 min. final shut-in. Weak initial air puff, very weak air blow throughout test. 2 7/8" ID drill recovery: 90' of salt water cut mud. IHSP 3540, FHSP 3570, BHT 220°F.

DST #5 — February 8, 1969 -- Interval: 6420' - 6484' Manetoe. Howco. Misrun - Packer seat failed.

DST #6 — February 9, 1969 -- Interval: 6420' - 6484' Manetoe. Lynes. Inflatable straddle packers, ½" SS choke, no water cushion, 8 min. preflow, 15 min ISI, tool open 30 min., 10 min. FSI. Good initial air puff dying immediately. Re-opened after 15 min. Initial air puff dying immediately. IHSP 3070, FHSP 3070, IFP 25, FFP 50, ISIP 2795, FSIP 2670. No recovery.

Pressures reported are Field Readings

DST #7 — February 10, 1969 -- Interval: 6692' - 6756' Manetoe. Lynes. Inflatable straddle packers, ½" SS choke, no water cushion. 10 min. preflow, 30 min ISI to 90 min., 60 min. FSI. Good initial air puff, fair blow decreasing throughout test. 5" drill pipe recovery: 180' of drilling mud and 2480' of salt water. IHSP 3195, FHSP 3195, IFP 124, FFP 1320, ISIP 3045, FSIP 3045 BHT 218°F.

Pressures reported are Field readings

DST #8 — February 11, 1969 -- Interval: 7264' - 7350' Arnica. Lynes. Straddle packer, ½" SS choke, no water cushion. 10 min. preflow, 30 min. ISI, to 60 min., 60 min. FSI. Good intital air puff, dying immediately. 5" drill pipe recovery: 330' of muddy salt water. IHSP 3432, FHSP 3432, IFP 50, FFP 99, ISIP 3282, FSIP 3232, BHT 212°F.

Pressures reported are Field Readings

(b) Casing Record:

December 12, 1968 -- Cemented 3 joints of 20" OD 46.27# conductor pipe at 70' KB with 150 sacks Oilwell cement, 3% calcium chloride.

December 15, 1968 -- Ran 19 joints of 13 3/8" OD 48# 8RT H-40 ST&C SS Range 2 Class A casing set at 625'. Tally 610'. Distance ground to KB

15.50°. Distance "H" 15.5'. KB 702'. Ran 3 centralizers and 5 scratchers on bottom 150'. Cemented by Howco with 700 sacks Oilwell cement plus 2% calcium. Pumped plug to 589'. Plug down at 11:15 a.m. 12-15-68. Average slurry weight 15.2#/gal. Average displacement rate 3 barrels/minute. Witnessed by Seeley for contractor and Lock for Gulf. Surface casing hole size 17½". Bowl 12". Ser. 900.

January 14, 1969 -- Ran 49 joints 9 5/8" OD 40# 8RT J-55 ST&C SS Range 2 Class A
145 joints 9 5/8" OD 36# 8RT J-55 ST&C SS Range 2 Class A
1 joint 9 5/8" OD 40# 8RT J-55 ST&C SS Range 2 Class A

Set at 6000'. Tally 5987'. Ran 4 centralizers and 9 scratchers on bottom 300'. Cemented by Howco with 1050 sacks Oilwell cement plus 0.4% HR4. Pumped plug to 5965'. Plug down at 10:00 p.m. 1-13-69. Average slurry weight 14.8#/gal., average displacement rate 16 bbls./min. Witnessed by Seeley for contractor and Jasinski for Gulf. Intermediate casing hole size 12¼".

Tubing Record: None

(c) Xmas Tree: None

(d) Mud Report:

Surface Hole - water gel system

Mud Weight -- 8.4 to 9.3#
Viscosity -- 35 to 50

Depth 625 to 7000 feet -- gel-benex low solids system

Mud Weight -- 8.4 to 9.6#
Viscosity -- 40 to 215

Depth 7000 to 8714 feet -- gel-benex low solids system pretreated for anhydrate

Mud Weight -- 8.8 to 9.1#
Viscosity -- 37 to 57
pH -- 8 to 10
Filter Lake -- 2/32 - 4/32

Materials

Gel	191,800 pounds
Lime	-
Bicarbonate of Soda	1,400 pounds
SAPP	-
Caustic	4,200 pounds
Cellex	
Baroid	
Q-Broxin	
Benex	724 pounds
CMC	260 pounds
Soda Ash	700 pounds
Peltex	850 pounds
Weight Material	29,800 pounds

(e) Bit Record:

No.	Size	Type	Depth In	Depth Out	Footage	Hours
1	12¼	S3TJ	0	80	80	8½
2A	26	Reamer	0	80	80	N/R
3A	12¼	S3TJ	80	84	4	1
1A	12¼	S3TJ	84	308	224	14¼
3B	12¼	S3TJ	308	660	352	13¼
4A	17½	Reamer	80	660	580	N/R
1B	12¼	S3TJ	660	708	48	2
2	12¼	OSC3J	708	1358	650	13 3/4
3	12¼	OSC3J	1358	2404	1046	29¼
4	12¼	ST1AGJ	2404	3054	650	16¼
5	12¼	OSC3J	3054	3785	731	36½
6	12¼	OSC3J	3785	4446	661	30
7	12¼	YT3R	4446	5065	619	32½
8	12¼	YT3R	5065	5553	488	28 3/4
9	12¼	X3J	5553	5716	163	24¼
10	12¼	X3J	5716	5901	185	32½
11	12¼	ST1AGJ	5901	5931	30	10¼
12	12¼	W7	5931	6000	69	18½
13	8 3/4	W7R	6000	6161	161	14¼
14	8 3/4	M8	6161	6669	508	34½
15	8 3/4	M8	6669	7340	671	51½
16	8 3/4	M8	7340	7500	160	16
17	8 3/4	W7R	7500	7502	2	1½
18	8 3/4	RG7XJ	7502	7871	369	31¼
19	8 3/4	RG1XJ	7871	8099	228	22
20	8 3/4	RG7XJ	8099	8375	276	21½
21	8 3/4	RGX7J	8375	8487	112	11¼
22	8 3/4	RT7	8487	8596	109	14¼
23	8 3/4	M88	8596	8709	113	14 3/4

(f) Deviation Record:

Depth	Deviation	Depth	Deviation	Depth	Deviation
58	¼	2867	¼	5240	1 3/4
115	1	3126	1 3/4	5334	1 3/4
145	3/4	3308	1 3/4	5491	1 3/4
175	3/4	3402	1 3/4	5600	1½
237	3/4	3434	1 3/4	5704	1¼
267	7/8	3526	1¼	5790	2
308	½	3620	1 3/4	6064	1 3/4
338	7/8	3680	1 3/4	6150	1¼
399	3/4	3776	2	6410	2
660	3/4	3869	1½	6530	2 3/4
801	1	3964	1½	6605	2 3/4
955	5/8	4058	1¼	6667	3½
1029	1	4149	1 1/8	6764	3¼
1139	1½	4274	1 1/8	6860	3¼
1170	1½	4431	1½	6954	3½

(g) Report of Blowouts: None

(h) Lost Circulation Zones: None

IV. COMPLETION SUMMARY

(a) Perforation Record: Nil

(b) Cementation Record:

Date	Plug No.	Position	Geological Formation	Sacks Cement	WOC Hrs.	Depth Plug Felt
2-12-69	1	7850-7750	Arnica	75 +0.5% HR12	7	7700
2-13-69	2	6800-6400	Arnica-Manetoe	280	8	6365
2-13-69	3	6050-5950	Nahanni	75	8	5886

Added 0.3% HR12 retarder to plug No. 2. Cut off casing 2' below ground and dumped 7 sacks cement on top.

(c) Acidization Record: Nil

(d) Chronological Daily Completion Report:

2-2-69 Drilled to depth of 8709 feet. Ran following logs by Schlumberger: Induction Electrical Log from 8707' to 6000', Sonic Caliper 8707 to 6000', Neutron Log 8707' to 6000', Dipmeter 8707' to 6000'. Neutron Log not satisfactory.

2-3-69 Running seismic reference survey.

2-4-69 Reran Dual Induction Lateral Log and bore hole compensated Sonic Caliper Log and Side Wall Neutron Porosity Gamma Caliper Log.

Ran in with magnet and junk sub. No fill on bottom. Pulled out and recovered 4 tungsten inserts in basket.

2-5-69 Ran DST #1 by Howco in Arnica interval 7262'-7330'. 7½" hookwall packer, ½" SS choke, no water cushion. Misrun. Could not get selective zone tool to hold enough weight to open tools (hole washed out). Ran DST #2 by Howco in Manetoe interval 6692'-6760'. 7½" hookwall packer, ½" SS choke, no water cushion. Misrun. Developed leak in drill pipe.

2-6-69 Ran DST #3 by Howco in Arnica interval 7262'-7350' with drill pipe for anchor. Opened tool and held for 17 minutes then packer seat failed.

2-7-69 Ran DST #4 by Howco in Manetoe interval 6676'-6764'. 7½" straddle packer, ½" choke, no water cushion. Dual shut-in pressure tool did not function properly. Tool was in almost closed position. Recovery during initial flow. Tool remained shut in after initial shut-in.

2-8-69 Cut core #1 8709'-8714', cut 5', recovered 5'.

2-9-69 Ran DST #5 by Howco in Manetoe interval 6420'-6484'. Misrun. Bottom rubber on packer split. Waiting on inflatable Lynes packers. Ran DST #6 by Lynes in Manetoe interval 6420'-6484'.

2-10-69 Ran DST #7 by Lynes in Manetoe interval 6692'-6756'.

2-11-69 Waiting on orders. Ran DST #8 by Lynes in Arnica interval 7264'-7350'.

2-12-69 Ran P & A plug #1 7850'-7750' with 75 sacks Oilwell cement. Started mixing cement at 9:30 p.m. Displaced plug with 135 bbls. of mud. Plug down at 10:20 p.m. 2-11-69. Waited 7 hours and felt plug #1 at 7700'.

2-13-69 Ran P & A plug #2 6900'-6800' by Howco with 280 sacks of Oilwell cement with 0.3% HR12. Plug down at 7:45 a.m. Displaced with 112 bbls. of mud. Waited 8 hours and felt plug #2 at 6365'. Ran P & A plug #3 6005'-5950' by Howco with 75 sacks of Oilwell cement plug down at 5:10 p.m. Displaced with 104 bbls. of mud. Waited 8 hours and felt plug #3 at 5886. Layed down drill pipe. Tore out BOP's. Rig released at 8:00 p.m. 2-13-69.

(e) Back Pressure and Production Tests: Nil

V. ANALYSES

(a) Core Analysis: Nil

(b) Gas Analysis: Nil

(c) Oil Analysis: Nil

(d) Water Analysis: W-036-69
W-037-69
W-038-69

Mud Analysis: W-060-69

VI. LOGS

Date	Run No.	Interval	Type
1-10-69	1	625-5995	Dual Induction Laterolog
1-10-69	1	625-5997	Bore Hole Compensated Sonic Caliper Log
1-10-69	1	625-5995	Continuous Dipmeter (Computed)
2-1-69	1	6001-8706	Induction Electrical Log
2-1-69	2	5995-8705	BH Sonic Caliper Log
2-1-69	2	6001-8706	Continuous Dipmeter (Computed)
2-1-69	1	5998-8706	Sidewall Neutron Porosity Log
2-1-69	1	5998-8706	Formation Density Log
1-11-69	1	5991-625	Seismic Reference Survey (BHC-Seismic)
1-2-69	2	8705-5995	BHC-Seismic

BAOK AMERADA CLI LAKE K-54

SAMPLE DESCRIPTION

0010 - Sand, quartzitic and feldspathic, course to pebbles; White to light brown, sub to well-rounded, poorly sorted, unconsolidated, maximum porosity; minor amounts of grey argillaceous silt, medium brown limestone, and black to green metamorphic sand grains; framework 9, 60-70% quartz, 30-40% other components; trace pyrite.

0020 - Lithology— Sand, quartzitic and feldspathic, course to pebbles, white to light brown, sub to well-rounded, poorly sorted, unconsolidated, maximum porosity; minor amounts grey argillaceous silt, medium brown limestone, and black to green metamorphic sand grains; framework 9, 60-70% quartz, 30-40% other components; trace pyrite.

0030 - As above with slightly more argillaceous silt and siltly limestone, iron staining common.

0040 - As above, 50% quartz, 50% silt, limestone, metamorphic grains, significant pyrite.

0050 - Sand, quartzitic and feldspathic, white to orange brown, course to pebble size, unconsolidated, poorly sorted, 50% quartz sand, 20% siltstone (S-1), 20% metamorphic and other components, has significant pyrite.

0060 - Sand as above 50%, with siltstone and some consolidated fine sand (S-1); framework still 9 to complete, pyrite common.

0070 - Sand as above 50%, with siltstone and some consolidated fine sand (S-1); framework still 9 to complete, pyrite common, contains white mica crystals.

0080 - Siltstone, grey to medium brown (S-2) (50%) with sand pebbles as above but angular and significant light grey, semi-consolidated clay and some metamorphic grains; pyrite; porosity maximum.

0090 - Siltstone, grey to medium brown (S-2) (50%) with sand pebbles as above but angular and significant light grey, semi-consolidated clay and some metamorphic grains; pyrite; porosity maximum.

0100 - Siltstone and unconsolidated sand as above (70%/30%).

0110 - Siltstone and unconsolidated sand as above (70%/30%).

0120 - As above (60%/40%), argillaceous.

0130 - Shale, medium to dark grey, sample content about 40%, other components largely brown siltstone and unconsolidated sands as above (2:1), pyrite.
(130' - probable glacial till/Fort Simpson contact)

0140 - Shale, medium to dark grey, sample content about 40%, other components largely brown siltstone and unconsolidated sands as above (2:1), pyrite.

0150 - Shale and siltstone as above, some siltstone semi-consolidated with clay, mica particles; about 10% unconsolidated glacial sands; pyrite.

0160 - Shale and siltstone as above about 60%/40%.

0170 - Siltstone 60% with large amounts light brown clay - (Kaolin?) cemented siltstone, remainder is shale and sands as above.

0180 - Shale, dark grey (70%) and siltstones as above.

0190 - No sample.

0200 - No sample.

0210 - Shale, dark grey, waxy, with minor siltstones.

0220 - Shale, dark grey, waxy, with minor siltstones.

0230 - Shale, dark grey, waxy, with minor siltstones.

0240 - Shale as above contains pyrite crystals and mica flakes.

0250 - No sample.

0260 - No sample.

0270 - No sample.

0280 - No sample.

0290 - Shale, black, more brittle and less waxy than shale above, has tiny black mica fragments, shale is slightly silty, fissile.

0300 - Shale, black, more brittle and less waxy than shale above, has tiny black mica fragments, shale is slightly silty, fissile.

0310 - Shale, black, more brittle and less waxy than shale above, has tiny black mica fragments, shale is slightly silty, fissile.

0320 - 0340 - No samples.

0350 - Shale as above with 10% siltstone.

0360 - Shale, Dark grey--black, mica crystals, slightly waxy, fissile.

0370 - Shale, Dark grey--black, mica crystals, slightly waxy, fissile.

0380 - Shale, black, mica crystals, fissile and waxy, trace silt.

0390 - Shale, black, mica crystals, fissile and waxy, trace silt.

0400 - As above, with pyrite crystals in clay - siltstone, trace glauconitic shale.

0410 - Shale, dark grey to black, fissile; with some green to blue green, waxy shale, blocky-splintry, slightly calcareous and pyritic.

0420 - Shale, dark grey to black, fissile; with some green to blue green, waxy shale, blocky--splintry, slightly calcareous and pyritic.

0430 - As above, glauconitic?

0440 - Shale as above, mostly black.

0450 - Shale, grey-green to black, micaceous, pyritic, trace calcite?, waxy, may be associated with glauconite.

0460 - Shale, dark grey to black, micaceous, slightly silty, pyritic, traces green shale, very waxy.

0470 - Shale, dark grey to black, micaceous, slightly silty, pyritic, traces green shale, very waxy.

0480 - As above but probably no green shale.

0490 - Shale, dark grey, micaceous and pyritic, fairly brittle but fissile.

0500 - Shale as above, possibly some carbonaceous material.

0510 - Shale, dark grey, fissile and waxy, carbonaceous material, micaceous, trace silt.

0520 - Shale, dark grey, fissile and waxy, carbonaceous material, micaceous, trace silt.

0530 - Shale as above, medium to dark grey, slightly waxy, more blocky than fissile in cleavage.

0540 - Shale as above, medium to dark grey, slightly waxy, more blocky than fissile in cleavage.

0550 - Shale as above, medium to dark grey, slightly waxy, more blocky than fissile in cleavage.

0560 - Shale as above, medium to dark grey, slightly waxy, more blocky than fissile in cleavage.

0570 - Shale, dark grey to black, micaceous, blocky to fissile cleavage.

0580 - As above with carbonaceous material and quite silty.

0590 - Shale, dark grey, blocky to fissile, slightly micaceous, slightly carbonaceous.

0600 - Shale dark grey, blocky to fissile, slightly micaceous, slightly carbonaceous.

0610 - Shale as above, blocky cleavage.

0620 - Shale as above, blocky cleavage.

0630 - As above, slightly fissile to blocky, carbonaceous and micaceous, slightly silty?

0640 - Shale, as above but medium grey.

0650 - Shale, as above but medium grey.

0660 - Shale as above but quite silty.

0670 - Shale, medium grey-green, slightly silty, blocky to slightly fissile, micaceous.

0680 - Shale mostly medium grey as above; 5 - 10% fossil (Brachiopod) fragmental limestone, very iron stained.

0690 - Shale, medium grey, slightly silty, slightly micaceous, blocky.

0700 - Shale, medium grey to greenish grey (10 - 20%) silty, calcareous, slightly micaceous and pyritic, blocky to slightly fissile.

0710 - Shale, medium grey, calcareous, blocky, very slightly waxy, pyritic.

0720 - Shale, medium grey-green, slightly calcareous, blocky, slightly waxy, pyritic.

0730 - Shale, medium grey-green, slightly micaceous, blocky and slightly waxy, pyritic.

0740 - Shale, medium grey, blocky, pyritic, Crinoid stems.

0750 - Shale, medium grey to green, slightly calcareous, blocky.

0760 - Shale, medium grey, calcareous, pyritic- associated with calcite (5 - 10%), (in veinlettes?), blocky.

0770 - Shale, medium grey, some calcareous, has raw calcite association (5 - 10%).

0780 - Shale, medium grey, calcareous, associated with calcite, calcified Crinoid stems and other fossil (Pelecypod) fragments.

0790 - Shale, medium grey, calcareous, associated with calcite and pyrite, contains large Crinoid stems.

0800 - Shale, medium grey, calcareous, associated with white calcite, pyrite traces (veinlettes?).

0810 - Shale, medium grey, calcareous, contains white calcite (in veins), calcified crinoids and other fossil fragments.

0820 - Shale, medium grey, slightly calcareous, has white calcite (veins), pyrite, Crinoid stems. (5 - 10%)

0830 - Shale, medium grey, calcareous, has white calcite, pyrite, Crinoid stems.

0840 - Shale, medium grey, calcareous, white calcite, pyrite.

0850 - Shale, medium grey, calcareous pyrite?, Crinoid stems abundant.

0860 - Shale, medium grey, calcareous, minor calcite and pyrite.

0870 - No samples.

0880 - Shale, medium grey, calcareous, associated with calcite (5%, probably in veins) and pyrite, contains Crinoids.

0890 - Shale, medium grey, calcareous, trace calcite, trace micaceous, pyritic, crinoids.

0900 - Shale, medium grey, calcareous, Crinoids and calcified fossil fragments.

0910 - Shale, medium grey, slightly calcareous, traces calcite, pyritic and micaceous.

0920 - Shale, medium grey, slightly calcareous, micaceous.

0930 - Shale, medium grey, slightly calcareous, micaceous, many Crinoid stems, white calcite crystals; contains light brown microcrystalline limestone less than 5%.

0940 - Shale, medium grey, calcareous, pyritic, slightly micaceous?

0950 - Shale, medium grey, pyritic, trace limestone or calcite.

0960 - Shale, medium grey, pyritic, slightly micaceous, trace white calcite (veinlettes?), Crinoid stems rare.

0970 - Shale, medium grey, traces calcite, pyrite, micoceous.

0980 - Shale, medium grey, micaceous, pyrite, Crinoid stems, contains less than 5% limestone, light brown, micro-crystalline.

0990 - Shale, medium grey, micaceous, trace pyrite.

1000 - Shale, medium grey, very slightly calcareous.

1010 - Shale, medium gray, slightly calcareous, pyritic.

1020 - Shale, medium grey, pyritic, slightly waxy, blocky.

1030 - Shale, medium grey, pyrite? slightly waxy.

1040 - Shale, medium grey, micaceous, pyrite.

1050 - Shale, medium grey, calcareous, contains white calcite possibly from a vein or fracture less than 5%.

1060 - Shale, medium grey, slightly calcareous, pyrite.

1070 - Shale, medium grey, slightly calcareous, traces white calcite.

1080 - Shale, medium grey, traces white calcite (in veins?).

1090 - Shale, medium grey, trace white calcite.

1100 - Shale, medium grey, slightly micaceous.

1110 - Shale, medium grey, very slightly calcareous, pyrite associated with white calcite $\approx$ 5%.

1120 - Dolomite, light to dark brown, micro-crystalline, trace fine crystalline dolomite, D-6, calcareous, heavy live tar (bitumen) in vugs? up to 10% some fragments, microlaminated may indicate fossil framework questionable? 30%, Stroms?

1130 - Dolomite, light to dark brown, microcrystalline, trace fine crystalline dolomite, D-7, calcareous, heavy live tar (bitumen) in vugs? up to 15 - 20%, some fragments, microlaminated indicate fossil framework, questionable? 30%, Stroms?

1140 - Dolomite, D-6 light to dark brown oil stained and tar-infilled vugs (porosity less than 10%) microcrystalline with traces of fine crystalline, calcareous, many Crinoid ossicles and stems, pyrite.

1150 - Dolomite - light to medium brown, microcrystalline, possibly biofragmental, calcareous, D-5, oil stained and bituminous, 5 - 10%, very pyritic, rare crinoids.

1160 - Dolomite, light brown - light grey, micro-crystalline, D-8, very calcareous, pyritic, traces bitumen staining, 10% while calcite.

1170 - shale, medium grey, calcareous, contains calcified shell fossil fragments, 5 - 10% and occasional crinoids, traces pyrite, rare white calcite and light brown dolomite.

1180 - Shale, medium grey, very calcareous, contains shell fragments (5 - 10%), pyrite 5%, and about 10% light brown, microcrystalline, very calcareous dolomite and white calcite crystals.

1190 - Shale, medium grey, calcareous, pyritic, has about 10% light grey, microcrystalline, calcareous dolomite and white dolomite crystal rhombs.

1200 - Shale, medium grey, calcareous, 5 - 10% pyrite, 15 - 20% light grey and light brown, microcrystalline, very calcareous dolomite, Crinoids.

1210 - Shale, medium grey, calcareous traces pyrite, 5 - 10% light grey dolomite, occasional shell fragments and Crinoids.

1220 - Shale, medium grey, calcareous, pyrite abundant, very abundant Crinoid Stems and possible Ostracods?, 5 - 10% light grey, microcrystalline, calcareous dolomite, white crystals.

1230 - Shale, medium grey, calcareous, with 20 - 30% light-medium brown calcareous shale, abundant (5-10%) light grey dolomite, crinoids, 5% pyrite.

1240 - Shale, medium grey, calcareous abundant Crinoids, pyrite.

1250 - Shale, medium grey, calcareous, Crinoids, Ostracods?, pyrite.

1260 - Shale, medium grey, calcareous, abundant Crinoids, traces pyrite.

1270 - Shale, medium grey to medium brown, calcareous, rare Crinoids and Ostracods?, traces pyrite, trace light grey dolomite.

1280 - Shale, medium grey, calcareous, pyritic, 10 - 20% light grey, microcrystalline, calcareous dolomite.

1290 - Shale, medium grey, calcareous, pyrite, Crinoids, traces light grey dolomite.

1300 - Shale, medium grey, very slightly calcareous, pyrite, Crinoids and occasional shell fragments.

1310 - Shale, medium gray and medium brown, calcareous, contains Crinoids and pyrite, traces light brown, calcareous dolomite.

1320 - Shale, medium grey, calcareous traces pyrite.

1330 - Shale, medium grey, calcareous 5 - 10% light brown calcareous dolomite, rare Crinoids and Ostracods.

1340 - Shale, medium grey, calcareous, occasional Ostracods.

1350 - Shale, medium to dark grey and medium brown, calcareous, trace light brown calcareous dolomite, pyrite, Crinoids.

1360 - Shale, medium grey brown, micaceous, fissile, non-calcareous.

1370 - Shale, medium grey brown, slightly micaceous, fissile to blocky, rare Ostracods.

1380 - Shale, medium grey-brown, micaceous, pyrite.

1390 - Shale, medium grey-brown, micaceous, pyrite, calcareous.

1400 - Shale, medium grey-brown, micaceous, pyrite.

1410 - Shale, medium grey, calcareous, slightly micaceous, pyrite, Ostracods.

1420 - Shale, medium grey, slightly calcareous, pyrite.

1430 - Shale, medium grey and brown, calcareous, slightly micaceous.

1440 - Shale, medium grey, calcareous, pyritic.

1450 - Shale, medium grey and medium brown, calcareous, slightly micaceous.

1460 - Shale, medium grey, calcareous, micaceous.

1470 - Shale, medium grey, calcareous, micaceous.

1480 - Shale, medium grey, calcareous, pyritic, slightly micaceous, rare Crinoids.

1490 - Shale, medium grey-brown, slightly calcareous, pyritic, with 5 - 10% light brown, microcrystalline, calcareous dolomite.

1500 - Shale, medium grey brown, calcareous, pyritic, with 30% light brown, calcareous, microcrystalline dolomite.

1510 - Dolomite, light brown, microcrystalline, calcareous, may contain some recrystallized fossil fragments? tight., D-9, microcrystalline.

1520 - Dolomite, light brown, calcareous, minor pyrite, inclusions, D-C.

1530 - Dolomite, light brown, D-9, microcrystalline, calcareous, pyritic.

1540 - Dolomite, light brown, microcrystalline, D-C, calcareous, pyritic.

1550 - Dolomite, light brown, D-9, microcrystalline, calcareous, slightly micaceous and pyritic, tight.

1560 - Dolomite, light brown, D-8, microcrystalline, calcareous, slightly pyritic, possibly 5 - 10% dark grey shale?

1570 - Dolomite, light brown, D-7, microcrystalline, calcareous, contains about 30% silt.

1580 - Siltstone, dolomitic, light brown, D-4 or 5, may contain other dolomite as above, pyritic.

1590 - Dolomite light grey-brown, 0-9, microcrystalline, calcareous, silty (40%), micaceous and pyritic, tight.

1600 - Siltstone, light grey, dolomitic, D-3, micaceous, tight.

1610 - Siltstone, light grey, dolomitic, D-3, micaceous and pyritic.

1620 - Siltstone, grey to light grey, D-2, argillaceous (10%) slightly micaceous, tite.

1630 - Siltstone, grey - light grey, D-3, slightly argillaceous and micaceous.

1640 - Siltstone, grey, D-3 or 4, tite.

1650 - Siltstone, and silty dolomite, grey, one fragment with etched out strom.

1660 - Siltstone, grey--light grey, D-3 or 4, slightly argillaceous, one fragment with crinoid stem, $\leq$5% shale.

1670 - Siltstone, as above, dolomite grey-brown, microcrystalline, dense.

1680 - Siltstone, dolomitic (20%) as above, and dolomite, microfragmental, argillaceous, slightly silty in nature, tite.

1690 - Siltstone, as above, grey, dolomitic (30%), ferruginous staining (5% total sample), grey shale.

1700 - Siltstone, grey-medium grey, very argillaceous (30%) and slightly dolomitic (10%), shale, slightly silty and dolomitic D-1.

1710 - Siltstone, medium grey to grey, slightly dolomitic (D-1), very argillaceous,

1720 - Limestone, slightly dolomitized, purplish - rusty in color, 80% fossil fragments, (70% ostracods - fragmented and well cemented together), shale, brown, non-calcareous and with grey shale, traces siltstone as before.

1730 - Shale, brown with grey, sandstone light greenish grey, very fine grained, argillaceous with dolomitic (C-2), mainly grey shale in sample.

1740 - Dolomite, light gray, microcrystalline, argillaceous, shale, as above, ostracods (10%), no brown shale.

1750 - Siltstone, grey, dolomitic (D-2), shale, dark grey, non-calcareous, (60% sample).

1760 - Shale, brown and with grey, minor amounts of dense, grey dolomite and siltstones.

1770 - Shale, medium grey, slightly calcareous, trace dolomite grey, ostracod fragments (< 10%).

1780 - Shale, medium grey to green grey, fissile, tough.

1790 - Shale, as above, with some dolomite, light grey, microcrystalline.

1800 - Shale, grey - dark grey limestone, biocalcorenite 20% ostracods, non-fragmental to slightly fragmented, ferruginous shells.

1810 - Siltstone, light - medium brown, dolomitic, micaceous, pyritic.

1820 - Shale, medium grey-green, fissile, slightly waxy, has about 20% siltstone.

1830 - Siltstone light grey-brown, dolomitic, micaceous, contains 10-20% shale.

1840 - Siltstone, light grey-brown, dolomitic, 10% shale, fossil fragments? framework?

1850 - Siltstone, light grey, dolomitic, 10% shale?, micaceous.

1860 - Siltstone, light grey-brown, dolomitic, micaceous.

1870 - Siltstone, light grey, dolomitic, occasional fossil fragment, micaceous, possibly 10% grey waxy shale.

1880 - Siltstone, light grey-brown, dolomitic, micaceous, 10 - 20%, grey-green fissile, slightly waxy shale.

1890 - Shale, medium grey-green, micaceous, slightly waxy and fissile, may contain 10% siltstone.

1900 - Shale, medium grey, micaceous, contains Ostracods and possible fragments of fossil shells?

1910 - Shale, medium grey, slightly waxy and fissile, 20 - 30 % light grey micaceous siltstone.

1920 - Shale, medium grey-green, slightly waxy and fissile, 10 - 20% light grey micaceous siltstone, pyrite.

1930 - Shale, medium grey, slightly waxy and fissile, 20 - 30% light grey micaceous siltstone, Ostracods.

1940 - Shale, medium grey, slightly waxy and fissile, micaceous, 10% light grey micaceous siltstone.

1950 - Shale, medium grey, micaceous, slightly waxy and fissile, Crinoids?

1960 - Shale, medium grey, micaceous 10 - 20% light grey siltstone, rare Crinoids.

1970 - Shale, medium grey, micaceous, slightly waxy and fissile.

1980 - Shale, medium grey, micaceous, slightly waxy and fissile, trace light grey-brown micaceous siltstone with rare Crinoids.

1990 - Shale, medium grey, micaceous, slightly waxy and fissile.

2000 - Shale, medium grey, micaceous, slightly waxy and fissile.

2010 - Shale, grey, as above, with some light grey sandstone, very fine grained dolomitic, trace glauconite grains.

2020 - Shale, medium - dark grey, 15% somewhat sandy, 15% sample is sandstone, as above, subangular, poor to fairly well sorted, and slightly argillaceous and dolomitic.

2030 - Shale, as above, silty, micaceous and somewhat sandy, sandstone, dolomitic, as above (D-2).

2040 - Shale, medium grey, and dark brown shale, non-calcareous.

2050 - Shale, medium grey, non-calcareous, some sandstone, light greenish grey, very fine grained.

2060 - Shale, medium grey, as above.

2070 - Shale, medium grey, siltstone light grey, dolomitic (D-2 or 3), clean to slightly argillaceous.

2080 - Shale, medium grey, slightly waxy and micaceous, 10% of sample argillaceous siltstone and some sandstone, very fine grained.

2090 - Shale, as above, grey and siltstone, dolomitic, grey - light grey.

2100 - Siltstone, dolomitic (D-3) slightly argillaceous, some very fine sand, subangular, and fairly well sorted, light grey to whiteish grey.

2110 - Siltstone, as above, D-3, clean, tite, some grey shale.

2120 - Siltstone, white - light grey, dolomitic, D-3, very slightly argillaceous.

2130 - Siltstone, white - light grey, dolomitic, D-2, very slightly argillaceous and micaceous, about 10% sandstone in sample.

2140 - Siltstone, white - light grey, dolomitic, D-4, very slightly micaceous and argillaceous, sample 10% sandstone.

2150 - Siltstone, white - light grey, dolomitic D-3, argillaceous, fossil frags?, sample contains 30 - 40% medium grey shale.

2160 - Shale - medium grey, medium grown, slightly micaceous, pyritic? sample contains 20% siltstone.

2170 - Shale, medium grey, carbonaceous, traces siltstone in sample.

2180 - Shale, medium brown, slightly micaceous.

2190 - Shale, medium brown, slightly micaceous.

2200 - Siltstone, medium grey and medium brown, dolomitic, D-3, micaceous, some carbonaceous material.

2210 - Shale, medium grey, slightly dolomitic, D-1, micaceous, samples have 10 - 20% light grey siltstone.

2220 - Shale, medium grey, slightly dolomitic, D-1, micaceous, sample has 20 - 30% light grey siltstone.

2230 - Shale, medium grey, micaceous, blocky.

2240 - Shale, medium grey-brown, slightly micaceous, pyrite.

2250 - Shale, medium grey, slightly micaceous, pyritic.

2260 - Shale, medium grey, slightly micaceous, pyritic.

2270 - Shale, medium grey, slightly micaceous, pyrite?, sample contains 10% light grey siltstone.

2280 - Shale, medium grey, slightly micaceous and pyritic, traces carbonaceous.

2290 - Shale, medium grey, micaceous, silty (10 - 20%), sample contains about 10% light grey siltstone, occasional Crinoids, pyrite.

2300 - Shale, medium grey, micaceous, slightly carbonaceous?

2310 - Shale, medium grey and medium brown, micaceous, sample has 20% medium brown dolomitic siltstone.

2320 - Shale, medium grey and brown, micaceous, slightly waxy, 10% light grey - brown siltstone.

2330 - Shale, medium grey, micaceous, trace siltstone, trace white calcite.

2340 - Shale, medium grey, micaceous, Crinoids, trace light grey siltstone.

2350 - Shale, medium grey, slightly micaceous, slightly silty?

2360 - No sample.

2370 - 2390: 28 foot correction made in drill stem tally.

2400 - Shale, medium grey, micaceous, non-calcareous.

2410 - Shale, medium grey, slightly waxy and fissile.

2420 - Shale, medium grey, slightly waxy and fissile, slightly micaceous, Crinoids, rare pyrite.

2430 - Shale, medium grey, micaceous, Crinoids.

2440 - Shale, medium grey, micaceous, slightly pyritic, rare Ostracods.

2450 - Shale, medium grey, micaceous, pyritic.

2460 - Shale, medium grey, micaceous, sample contains about 10% light grey siltstone, dolomitic.

2470 - Shale, medium grey, micaceous.

2480 - Shale, medium grey, micaceous, sample contains trace grey dolomitic siltstone.

2490 - Shale, medium grey, micaceous, contains trace grey dolomitic siltstone.

2500 - Shale, medium grey, micaceous, trace carbonaceous content, blocky.

2510 - Shale, medium grey, micaceous.

2520 - Shale, medium grey, slightly micaceous.

2530 - Shale, medium grey, blocky.

2540 - Shale, medium grey-green, slightly micaceous, blocky.

2550 - Shale, medium grey, blocky.

2560 - Shale, medium grey, micaceous, sample contains 10 - 20% dolomitic light grey sandstone and siltstone.

2570 - Shale, medium grey and medium brown, micaceous, 10% light grey siltstone.

2580 - Shale, medium grey, sample has 20% light grey micaceous, dolomitic siltstone.

2590 - Shale, medium grey, micaceous, sample has 20% grey siltstone, occasional Ostracods.

2600 - Shale, medium grey, micaceous.

2610 - Shale, medium grey-brown, micaceous, blocky, possibly 10% grey siltstone stringers.

2620 - Shale, medium grey, silty?, micaceous, 10% siltstone?

2630 - Shale, medium grey, micaceous, sample has 10 - 20% siltstone and sandstone.

2640 - Shale, medium grey, micaceous, sample contains 30 - 40% light brown, very fine grained sandstone with Ostracods, pyrite.

2650 - Shale, medium grey and brown, sample has 20 - 30% sandstone as above, minor white calcite.

2660 - Shale, medium grey and brown, micáceous, sample contains 30% sandstone, light brown - grey, dolomitic, very fine grained.

2670 - Shale, medium grey, micaceous, 20% light grey, micaceous siltstone.

2680 - Shale, medium grey, micaceous, 20% light grey, micaceous siltstone, rare Crinoids.

2690 - Shale, medium grey-green, slightly micaceous, blocky.

2700 - Shale, medium grey, slightly waxy, carbonaceous?, slightly silty in part.

2710 - Shale, medium grey, slightly waxy, carbonaceous?, slightly silty , in part, few sandy shale fragments, very fine - fine grained, sandstone light grey to grey, very fine grained, dolomite cement (D-2), subangular, tite.

2720 - Shale, as above, sandstone (10 - 15% of sample), dolomitic D-3, few fragments of white to grey dolomite, calcareous, micro to very fine crystalline.

2730 - Shale; grey, silty and micaceous, minor amounts of grey siltstone, argillaceous and sandstone, light grey, dolomitic.

2740 - Shale, grey to medium grey, micaceous and silty, trace limestone fragments, light greenish grey, slightly argillaceous, fragmental, one crinoid ossicle.

2750 - Shale, as above, siltstone, D-2 and trace very fine sandstone.

2760 - Shale, grey and some brown, slightly waxy, fissile, trace quartzose sandstone, light grey to white, very fine, also 10% siltstone, argillaceous.

2770 - Shale, grey to medium grey, and minor amounts of siltstone, as above.

2780 - Shale, grey to grey brown, non-calcareous, medium soft.

2790 - Shale, medium grey, less than 10% sandstone fragments.

2800 - Shale, as above, 10 - 20% sandstone, grey, very fine to fine grained, subangular, medium sorted, D-10 - 20%.

2810 - Shale, as above, trace light greenish grey to greyish white sandstone.

2820 - Shale, medium grey, fissile, very minor amounts of siltstone and sandstone, one fragment branching coral.

2830 - Shale, as above, $\leq$ 5% sandstone.

2840 - Shale, brown to brownish grey, fissile, non-calcareous, 40% grey shale and sandstone.

2850 - Shale, grey to medium grey, micaceous and slightly silty, trace brown shale, very slightly calcareous, non-micaceous, no silt, soft - medium soft. Very minor amounts of sandstone and siltstone.

2860 - Shale, medium grey and brownish grey shale, as above, trace sandstone, fine grained to very fine grained, tite.

2870 - Shale, grey to medium grey, as above, fissile, 10% sandstone and siltstone, light greenish grey to light brown.

2880 - Shale, as above, sandstone; fine--medium grained, dolomitic (D-2), subangular - angular, poorly sorted, tite, clean.

2890 - Shale, grey, micaceous to medium grey. Less than 10 or 15% sandstone, as above.

2900 - Shale, (90%), as above, sandstone and siltstone (10%), trace pyrite.

2910 - Shale, as above, trace brown; sandstone, fine - medium grained and minor amounts of light greenish grey siltstone, argillaceous.

2920 - Shale, grey, micacious, non-calcareous, 10% sandstone, quartzose, fine - medium grained, D-2 or 3.

(Drilling break 2930 - 2960)

2930 - Shale, 70 - 80%, sandstone 10 - 15%, siltstone, remainder.

2940 - Shale, as above, and minor amounts (10 - 15%) sandstone and siltstone, as above.

2950 - Shale, and sandstone, 90-10 ratio.

2960 - Shale and sandstone 80 - 20 sandstone, fine grained, greenish grey, dolomitic, tite - clean.

2970 - Sandstone, greenish grey, and shale, as above, 30 - 80, note one fragment contains tarry bitumen.

2980 - Shale, medium grey, traces brown and light greenish grey; sandstone, as above, 10 - 15%.

2990 - Shale, 80%, siltstone 20% - 10% light grey to greenish grey.

3000 - Shale, medium grey, fissile, sandstone, and siltstone (20 -25% of sample).

3010 - Shale, medium grey, silty, sample 30 - 40% grey-brown sandstone, very fine grained, dolomite.

3020 - Shale, medium grey, micaceous, silty; sample 30 - 40% sandstone as above; trace calcite; trace bioclastic limestone (Ostrae?).

3030 - Shale, medium grey, silty; sample 30% grey-brown, calc. sandstone, trace medium brown bioclastic limestone as above.

3040 - Shale as above; sample 30% calcareous sandstone.

3050 - Shale as above; sample 40% brown calcareous fine-grained sandstone.

3060 - Shale, medium grey-green, dolomitic slightly waxy and fissile, fossiliferous, Brachs?

3070 - Shale, medium grey-green slightly dolomitic, slightly waxy and fissile, trace pyrite, fossil fragments?

3080 - Shale, as above.

3090 - Shale, medium grey, slightly micaceous, blocky.

3100 - Shale, medium grey, slightly micaceous, traces white calcite (cavings?), fissile.

3110 - Shale, as above; sample about 10% light grey-brown calcareous siltstone.

3120 - Shale, medium grey-green, fissile, sample 5 - 10% siltstone as above.

3130 - Shale, medium grey, silty? micaceous.

3140 - Shale, as above; sample possibly 10% sandstone.

3150 - Shale, medium grey, micaceous, trace light grey dolomite, micro-crystalline, tite and sandstone.

3160 - Shale, as above, trace somewhat calcareous.

3170 - Shale, grey, slightly calcareous and micaceous, tough.

3180 - Shale, as above, no change.

3190 - Shale, calcareous, to non-calcareous, micaceous, fissile, some sandstone, very fine grained and siltstone (< 5%).

3200 - Shale, as above, no sandstone or siltstone.

3210 - Shale, grey to medium grey, slightly calcareous in nature, trace mica flecks, tough, medium soft, and fissile.

3220 - Shale, as above, calcareous to non-calcareous.

3230 - Shale, as described above, no sandstone or siltstone.

3240 - Shale, medium grey, non-calcareous, fissile, splintry.

3250 - Shale, as above, no sandstone or siltstone in sample.

3150 - 90% shale, medium to dark grey, micaceous. 10% siltstone, grey, very argillaceous, tight.

3160 - As above.

3170 - As above.

3180 - As above.

3190 - 100% shale, medium to dark grey.

3200 - 100% Shale, medium to dark grey.

3210 - As above.

3220 - As above.

3230 - As above.

3240 - As above.

3250 - As above.

3260 - As above.

3270 - As above.

3280 - As above.

3290 - As above.

3300 - As above.

3310 - As above.

3320 - As above.

3330 - As above.

3340 - As above.

3350 - As above.

Top ls. 3355 (Drill break)

3360 - 90% shale, medium - dark grey, micaceous 10% limestone, medium grey, argillaceous, lithographic.

3370 - 90% shale, medium - dark grey, micaceous 10% limestone, medium grey, argillaceous, lithographic.

3380 - 40% shale, medium - dark grey; 60% limestone, dark grey, very argillaceous, grading into calcareous shale.

3390 - 40% shale, medium - dark grey; 60% limestone, dark grey, very argillaceous, grading into calcareous shale.

3400 - 50% shale, medium - dark grey; 50% limestone, dark grey, very argillaceous as 3380.

3410 - 50% shale, medium - dark grey; 50% limestone, dark grey, very argillaceous as 3380.

3420 - 80% shale, medium to dark grey, 20% limestone as 3380.

3430 - 90% shale, as above, 10% limestone as 3380; Some siltstone, medium to light grey, argillaceous.

3440 - 100% shale, medium to dark grey, micaceous.

3450 -

3460 -

3470 - 10% siltstone, medium to dark grey, very argillaceous; 90% shale, medium to dark grey.

3480 - As 3470.

3490 - As 3470.

3500 - 10% sandstone, medium grey, very fine, slightly calcareous, hard tight. 80% shale, medium to dark grey, 10% siltstone, medium to dark grey, very argillaceous.

3510 - 70% shale, medium to dark grey, 30% siltstone, medium to dark grey, very argillaceous, i p., very fine sandy, slightly calcareous, tight.

3520 - 10% siltstone, medium to dark grey, very argillaceous, 90% shale, medium to dark grey.

3530 - 10% siltstone, medium to dark grey, very argillaceous, 90% shale, medium to dark grey.

3540 - 10% siltstone, medium to dark grey, very argillaceous, 90% shale, medium to dark grey, some sandstone, grey, as 3500.

3550 - 10% siltstone, medium to dark grey, very argillaceous, 90% shale, medium to dark grey.

3560 - 10% siltstone, medium to dark grey, very argillaceous, 90% shale, medium to dark grey.

3570 - 100% shale, dark to medium grey.

3580 -

3590 -

3600 -

3610 -

3620 -

3630 -

3640 -

3650 -

3660 -

3670 -

3680 -

3690 - 100% shale, dark to medium grey, with yellow colours (sample burnt).

3700 -

3710 -

3720 -

3730 -

3740 -

3750 -

3760 - 100% shale, medium to dark grey, some chips of lt. grey calcareous siltstone.

3770 - 10% siltstone--very fine sandstone, light grey to grey, calcareous, tight, 90% shale, medium to dark grey.

3780 - Some siltstone, medium to dark grey, very argillaceous, 100% shale, dark to medium grey.

3790 - 100% shale, medium to dark grey.

3800 - 100% shale, medium to dark grey, some siltstone, medium to light grey, argillaceous, slightly calcareous.

3810 - 100% shale, medium to dark grey, micaceous.

3820 - 100% shale, medium to dark grey, micaceous.

3830 - 100% shale, medium to dark grey, micaceous, some siltstone as 3800.

3840 - 100% shale, medium to dark grey, micaceous.

3850 - 100% shale, medium to dark grey, micaceous.

3860 - 100% shale, medium to dark grey, micaceous.

3870 - 30% siltstone, medium to dark grey, very argillaceous, 70% shale, medium to dark grey.

3880 - 100% shale as 3810.

3890 - 100% shale, medium to dark grey, micaceous.

3900 - 100% shale, medium to dark grey, micaceous, shale is in part silty.

3910 - 10% siltstone, medium to dark grey, slightly calcareous, very argillaceous, 90% shale, medium to dark grey, silty in part, micaceous.

3920 - 10% siltstone, medium to dark grey, slightly calcareous, very argillaceous, 90% shale, medium to dark grey, silty in part, micaceous.

3930 - 10% siltstone, medium to dark grey, slightly calcareous, very argillaceous, 90% shale, medium to dark grey, silty in part, micaceous.

3940 - 100% shale, medium to dark grey in part silty, micaceous.

3950 - 100% shale, medium to dark grey in part silty, micaceous.

3960 - 100% shale, medium to dark grey, in part silty, micaceous.

3970 - 100% shale, medium to dark grey, in part silty, micaceous.

3980 - 100% shale, medium to dark grey, in part silty, micaceous.

3990 - 100% shale, medium to dark grey, in part silty, micaceous.

4000 - 100% shale, medium to dark grey, in part silty, micaceous.

4010 - 100% shale, medium to dark grey, in part silty, micaceous.

4020 - 100% shale, medium to dark grey, in part silty, micaceous.

4030 - 100% shale, medium to dark grey, in part silty, micaceous.

4040 - 100% shale, medium to dark grey, in part silty, micaceous.

4050 - 100% shale, medium to dark grey, in part silty, micaceous.

4060 - 100% shale, medium to dark grey, in part silty, micaceous.

4070 - 100% shale, medium to dark grey, in part silty, micaceous.

4080 - 100% shale, medium to dark grey, in part silty, micaceous.

4090 - 100% shale, medium to dark grey, in part silty, micaceous.

4100 - 100% shale, medium to dark grey, in part silty, micaceous.

4110 - 100% shale, medium to dark grey, micaceous.

4120 - 100% shale, medium to dark grey, micaceous.

4130 - 100% shale, medium to dark grey, micaceous.

4140 - 100% shale, medium to dark grey, micaceous.

4150 - 100% shale, medium to dark grey, micaceous.

4160 - 100% shale, medium to dark grey, micaceous.

4170 - 100% shale, medium to dark grey, micaceous.

4180 - 100% shale, medium to dark grey, micaceous.

4190 - 100% shale, medium to dark grey, micaceous.

4200 - 100% shale, medium to dark grey, micaceous.

4210 - 100% shale, medium to dark grey, micaceous.

4220 - 100% shale, medium to dark grey, micaceous.

4230 - 100% shale, medium to dark grey, micaceous.

4240 - 100% shale, medium to dark grey, micaceous.

4250 - 100% shale, medium to dark grey, micaceous.

4260 - 100% shale, medium to dark grey, micaceous.

4270 - 100% shale, medium to dark grey, micaceous.

4280 - 100% shale, medium to dark grey, micaceous.

4290 - 100% shale, medium to dark grey, micaceous.

4300 - 100% shale, medium to dark grey, micaceous.

4310 - 100% shale, medium to dark grey, micaceous.

4320 - 100% shale, medium to dark grey, micaceous, some coarse sub-rounded quartz grains.

4330 - 100% shale, medium to dark grey, micaceous, some coarse sub-rounded quartz grains.

4340 - 100% shale, medium to dark grey, micaceous, some coarse sub-rounded quartz grains.

4350 - 100% shale, medium to dark grey, micaceous.

4360 - 100% shale, medium to dark grey, micaceous.

4370 - 100% shale, medium to dark grey, micaceous.

4380 - 100% shale, medium to dark grey, micaceous.

4390 - 100% shale, medium to dark grey, micaceous.

4400 - 100% shale, medium to dark grey, micaceous.

4410 - 100% shale, medium to dark grey, micaceous.

4420 - 100% shale, medium to dark grey, micaceous.

4430 - 100% shale, medium to dark grey, micaceous.

4440 - 100% shale, medium to dark grey, micaceous.

4450 - 100% shale, medium to dark grey, micaceous, in part slightly silty.

4460 - 100% shale, medium to dark grey, micaceous, in part slightly silty.

4470 - 100% shale, medium to dark grey, micaceous, in part slightly silty.

4480 - 100% shale, medium to dark grey, micaceous.

4490 - 100% shale, medium to dark grey, micaceous.

4500 - 100% shale, medium to dark grey, micaceous.

4510 - 100% shale, medium to dark grey, micaceous, in part silty.

4520 - 100% shale, medium to dark grey, micaceous, in part silty, and some siltstone, medium to dark grey, very argillaceous.

4530 - 100% shale, medium to dark grey, micaceous, in part silty, and some siltstone, medium to dark grey, very argillaceous.

4540 - 100% shale, medium to dark grey, micaceous.

4550 - 100% shale, medium to dark grey, micaceous.

4560 - 100% shale, medium to dark grey, micaceous.

4570 - 100% shale, medium to dark grey, micaceous.

4580 - 100% shale, medium to dark grey, micaceous.

4590 - 100% Shale, medium to dark grey, micaceous.

4600 - 100% shale, medium to dark grey, micaceous.

4610 - 100% shale, medium to dark grey, micaceous.

4620 - 100% shale, medium to dark grey, micaceous.

4630 - 100% shale, medium to dark grey, micaceous.

4640 - 100% shale, medium to dark grey, micaceous.

4650 - 100% shale, medium to dark grey, micaceous.

4660 - 100% shale, medium to dark grey, micaceous.

4670 - 100% shale, medium to dark grey, micaceous.

4680 - 100% shale, medium to dark grey, micaceous.

4690 - 100% shale, medium to dark grey, micaceous.

4700 - 100% shale, medium to dark grey, micaceous, as 4540.

4710 - 100% shale, medium to dark grey, micaceous, in part silty.

4720 - 100% shale, medium to dark grey, micaceous, in part silty.

4730 - 100% shale, medium to dark grey, micaceous, in part silty.

4740 - 100% shale, medium to dark grey, micaceous, in part silty.

4750 - 100% shale, medium to dark grey, micaceous, in part silty.

4760 - 100% shale, medium to dark grey, micaceous, in part silty.

4770 - 100% shale, medium to dark grey, micaceous, in part silty.

4780 - 100% shale, medium to dark grey, micaceous, in part silty.

4790 - 100% shale, medium to dark grey, micaceous, in part silty.

4800 - 100% shale, medium to dark grey, micaceous, in part silty.

4810 - 100% shale, medium to dark grey, micaceous, in part silty.

4820 - 100% shale, medium to dark grey, micaceous, in part silty.

4830 - 100% shale, medium to dark grey, micaceous, in part silty.

4840 - 100% shale, medium to dark grey, micaceous, in part silty.

4850 - 100% shale, medium to dark grey, micaceous, in part silty.

4860 - 100% shale, medium to dark grey, micaceous, in part silty.

4870 - 100% shale, medium to dark grey, micaceous, in part silty.

4880 - 100% shale, medium to dark grey, micaceous, in part silty.

4890 - 100% shale, medium to dark grey, micaceous, in part silty.

4900 - 100% shale, medium to dark grey, micaceous, silty in part; some siltstone, grey-brown, slightly calcareous.

4910 - 100% shale, medium to dark grey, micaceous, silty in part.

4920 - 100% shale, medium to dark grey, micaceous, silty in part; some siltstone, grey-brown, slightly calcareous.

4930 - 100% shale, medium to dark grey, micaceous, silty in part; some siltstone, grey-brown, slightly calcareous.

4940 - 100% shale, medium to dark grey, micaceous, silty in part.

4950 - 100% shale, medium to dark grey, micaceous, silty in part.

4960 - 100% shale, medium to dark grey, micaceous, silty in part.

4970 - 100% shale, medium to dark grey, micaceous.

4980 - 100% shale, medium to dark grey, micaceous.

4990 - 100% shale, medium to dark grey, micaceous.

5000 - 100% shale, medium to dark grey, micaceous.

5010 - 100% shale, medium to dark grey, micaceous.

5020 - 100% shale, medium to dark grey, micaceous.

5030 - 100% shale, medium to dark grey, micaceous.

5040 - 100% shale, medium to dark grey, micaceous.

5050 - 100% shale, medium to dark grey, micaceous.

5060 - 100% shale, medium to dark grey, micaceous.

5070 - 100% shale, medium to dark grey, micaceous.

5080 - 100% shale, medium to dark grey, micaceous.

5090 - 100% shale, medium to dark grey, micaceous.

5100 - 100% shale, medium to dark grey, micaceous.

5110 - 100% shale, medium to dark grey, micaceous.

5120 - 100% shale, medium to dark grey, micaceous.

5130 - 100% shale, medium to dark grey, micaceous.

5140 - 100% shale, medium to dark grey, micaceous.

5150 - 100% shale, medium to dark grey, micaceous.

5160 - 100% shale, medium to dark grey, micaceous.

5170 - 100% shale, medium to dark grey, micaceous.

5180 - 100% shale, medium to dark grey, micaceous.

5190 - 100% shale, medium to dark grey, micaceous.

5200 - 100% shale, medium to dark grey, micaceous.

5210 - 100% shale, medium to dark grey, micaceous.

5220 - 100% shale, medium to dark grey, micaceous.

5230 - 100% shale, medium to dark grey, micaceous.

5240 - 100% shale, medium to dark grey, micaceous.

5250 - 100% shale, medium to dark grey, micaceous.

5260 - 100% shale, medium to dark grey, micaceous.

5270 - 100% shale, medium to dark grey, micaceous.

5280 - 100% shale, medium to dark grey, micaceous.

5290 - 100% shale, medium to dark grey, micaceous, in places with calcareous specks.

5300 - 100% shale, medium to dark grey, micaceous, in places with calcareous specks.

5310 - 100% shale, medium to dark grey, micaceous in places with calcareous specks.

5320 - 100% shale, medium to dark grey, micaceous.

5330 - 100% shale, medium to dark grey, micaceous.

5340 - 100% shale, medium to dark grey, micaceous.

5350 - 100% shale, medium to dark grey, micaceous.

5360 - 100% shale, medium to dark grey, micaceous.

5370 - 100% shale, medium to dark grey, micaceous.

5380 - 100% shale, medium to dark grey, micaceous.

5390 - 100% shale, medium to dark grey, micaceous.

5400 - 100% shale, medium to dark grey, micaceous.

5410 - 100% shale, medium to dark grey, micaceous.

5420 - 100% shale, medium to dark grey, micaceous.

5430 - 100% shale, medium to dark grey, micaceous.

5440 - 100% shale, medium to dark grey, micaceous.

5450 - 100% shale, medium to dark grey, micaceous.

5460 - 100% shale, medium to dark grey, micaceous with in places white calcareous specks.

5470 - 100% shale, medium to dark grey, micaceous.

5480 - 100% shale, medium to dark grey, micaceous.

5490 - 100% shale, medium to dark grey, micaceous.

5500 - 100% shale, medium to dark grey, micaceous.

5510 - 100% shale, medium to dark grey, micaceous with in places white calcareous specks.

5520 - 100% shale, medium to dark grey, micaceous.

5530 - 100% shale, medium to dark grey, micaceous.

5540 - 100% shale, medium to dark grey, micaceous with in places white calcareous specks.

5550 - 100% shale, medium to dark grey, micaceous within places white calcareous specks.

5560 - 100% shale, medium to dark grey, micaceous with in places white calcareous specks.

5570 - 100% shale, medium to dark grey, micaceous.

5580 - 100% shale, medium to dark grey, micaceous, in places calcareous specks.

5590 - 100% shale, medium to dark grey, micaceous, in places calcareous specks.

* 5595 - 80% shale, medium to dark grey, micaceous; 20% siltstone, white-light grey, very calcareous.

5600 - 100% shale, medium to dark grey, micaceous. Trace of white, calcareous siltstone as 5595.

5610 - 95% shale, medium to dark grey, micaceous; 5% siltstone, grey, slightly calcareous (dolomitic), very hard and tight.

5620 - 95% shale, medium to dark grey, micaceous, 5% siltstone, grey, slightly calcareous (dolomitic), very hard and tight.

5630 - 95% shale, medium to dark grey, micaceous, 5% siltstone, grey, slightly calcareous (dolomitic), very hard and tight, found one crinoid ossicle.

5640 - 95% shale, medium to dark grey, micaceous, 5% siltstone, grey, slightly calcareous (dolomitic), very hard and tight.

5650 - 90% shale, medium to dark grey, micaceous; 5% siltstone, grey, dolomitic; 5% siltstone, light grey, very calcareous.

5660 - 90% shale, medium to dark grey, micaceous, 5% siltstone, grey, dolomitic, 5% siltstone, light grey, very calcareous.

5670 - 90% shale, medium to dark grey, micaceous, 5% siltstone, grey, dolomitic, 5% siltstone, light grey, very calcareous.

5680 - 90% shale, medium to dark grey, micaceous; 10% siltstone, grey to light grey, calcareous, tight.

5690 - 85% shale, medium to dark grey, micaceous; 15% siltstone, white-light grey, calcareous, tight.

5700 - 90% shale, medium to dark grey, micaceous; 10% siltstone, grey to light grey, calcareous, tight.

5710 - 90% shale, medium to dark grey, micaceous; 10% siltstone, grey to light grey, calcareous, tight.

5716 -

5720 -

5730 - 80% shale, medium to dark grey, micaceous, 20% siltstone grading into very fine sandstone, light grey to white, very calcareous, slightly pyritic, tight.

5740 - 80% shale, medium to dark grey, micaceous, 20% siltstone grading into very fine sandstone, light grey to white, very calcareous, slightly pyritic, tight.

5750 - 80% shale, medium to dark grey, micaceous, 20% siltstone grading into very fine sandstone, light grey to white, very calcareous, slightly pyritic, tight.

5760 - 40% siltstone, grading into very fine sandstone, light grey to white, very calcareous to calcareous, pyritic, hard, tight. 60% shale, medium to dark grey, micaceous. Some limestone, white, chalky.

5770 - 40% siltstone, grading into very fine sandstone, light grey to white, very calcareous to calcareous, pyritic, hard, tight. 60% shale, medium to dark grey, micaceous. Some limestone, white, chalky.

5780 - 40% siltstone, grading into very fine sandstone, light grey to white, very calcareous to calcareous, pyritic, hard, tight. 60% shale, medium to dark grey, micaceous. Some limestone, white, chalky, with some black, bitumineous very silty shale.

5790 - 90% shale, medium to dark grey, micaceous; 10% siltstone grading into very fine sandstone, calcareous, hard, tight, pyritic; some shale, very silty, black, bitumeneous.

5800 - 90% shale, medium to dark grey, micaceous; 10% siltstone or very fine sandstone, light grey to grey, calcareous, pyritic, hard, dense.

5810 - 95% shale, medium to dark grey, micaceous; 5% siltstone or very fine sandstone, light grey to grey, calcareous, pyritic, hard. Some black shale, very silty.

5820 - 95% shale, medium to dark grey, micaceous; 5% siltstone or very fine sandstone, light grey to grey, calcareous, pyritic, hard. Some black shale, very silty.

5830 - 45% shale, dark grey, fissile; 50% shale medium to dark grey micaceous; 5% siltstone, light grey to white, calcareous. Some pyrite clusters in shale.

5840 - 45% shale, dark grey, fissile; 50% shale medium to dark grey micaceous; 5% siltstone, light grey to white, calcareous. Some pyrite clusters in shale.

5850 - 5% dolomite, grey brown, cryptocrystalline, tight; 20% shale, medium to dark grey, micaceous; 70% shale, dark grey, fissile in part, pyritic. 5% siltstone, grey to light grey, calcareous.

* 5860 - 10% shale, very dark grey to black, bitumineous; 30% shale,
top Horn River medium to dark grey, micaceous; 50% shale, dark grey, fissile in part; 5% dolomite grey-brown, cryptocrystalline, 5% siltstone, grey calcareous.

5870 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5880 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5890 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile, 30% shale, medium to dark grey, micaceous; some dolomite, brown grey, cryptocrystalline, tight, some siltstone.

5900 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5910 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5920 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5930 - 20% shale, very dark grey to black, bitumeneous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous.

5931 - 20% shale, very dark grey to black, bituminous. 50% shale, dark grey, pyritic, in part fissile; 30% shale, medium to dark grey, micaceous, some siltstone.

5940 - 45% shale, very dark grey to black; pyritic, in places almost coal, 30% shale, dark grey to medium grey, micaceous; 20% shale, dark grey, fissile. 5% siltstone.

5950 - 45% shale, very dark grey to black, pyritic in places, 5% limestone, brown, with black specks, argillaceous, 50% shale, medium to dark grey, in part fissile, in part micaceous.

5960 - 10% limestone, brown, very fine crystalline, with black argillaceous or bitumen specks, 60% shale, very dark grey to black, pyritic, carbonaceous. 30% shale, medium to dark grey, micaceous in part.

* drill break at 5960 Top Nahanni

5970 - 5% limestone, very light grey brown, chalky; 10% limestone, brown micro-fragments, tight. 10% limestone, brown, with black bitumen specks. 60% shale, very dark grey to black, carbonaceous; 15% shale, medium to dark grey, in part micaceous.

5980 - 40% limestone, light brown to dark brown in places with black bitumen, slightly argillaceous, micro to very fine fragments, in places slightly chalky, no porosity; a few shell remains. 58% shale, very dark grey to black, carbonaceous, 10% shale, medium to dark grey, in part micaceous.

5990 - 40% limestone, light brown to dark brown in places with black bitumen, slightly argillaceous, micro to very fine fragments, in places slightly chalky, no porosity; a few shell remains. 58% shale, very dark grey to black, carbonaceous, 10% shale, medium to dark grey, in part micaceous.

6000 - 40% limestone, light brown to dark brown in places with black bitumen, slightly argillaceous, micro to very fine fragments, in places slightly chalky, no porosity; a few shell remains. 58% shale, very dark grey to black, carbonaceous, 10% shale, medium to dark grey, in part micaceous.

Set intermediate casing at 6000 feet.
Commenced drilling on January 15, 1969.

6010 - Sample is 90% shale, not representative because of drilling out of shoe.

6020 - Limestone, dark brown, very fine to fine crystalline and limestone light to medium brown, fine fragmental. No porosity.

6030 - Limestone, dark brown, very fine to fine crystalline and limestone light to medium brown, fine fragmental. No porosity.

6040 - Limestone, mainly dark brown argillaceous, dolomitic mierite smaller amounts of light to medium brown fine to medium fragmental limestone, no porosity..

6050 - Limestone, mainly dark brown argillaceous, dolomitic mierite, smaller amounts of light to medium brown, fine to medium fragmental limestone, no porosity.

6060 - Limestone, mainly dark brown argillaceous, dolomitic micrite, smaller amounts of light to medium brown, fine to medium fragmental limestone, no porosity.

6070 - Limestone, 70% dark brown to black bituminous, pyritic limestone and light to medium brown fragmental limestone.

6080 - Limestone, 70% dark brown to black bituminous, pyritic limestone and light to medium brown fragmental limestone.

6090 - Limestone, 70% dark brown to black bituminous, pyritic limestone and light to medium brown fragmental limestone.

6100 - 50% black limestone as above, 20% light to medium brown as above. 30% light greyish brown micrite, no porosity.

6110 - Limestone 80% light greyish brown micrite. 20% mixture black micrite and fragmental limestone.

6120 - Limestone as 6110, slightly darker brown.

6130 - Limestone as 6110, slightly darker brown.

6140 - Limestone as 6110, slightly darker brown, few shale chips, probably from higher up in the section.

6150 - Limestone mainly fine crystalline, dolomitic, medium to dark brown, no porosity.

6160 - Limestone, as above, 40% rest mainly dark to light brown micrite some very light brown chalky limestone.

6170 - Lst, medium brown, microcrystalline, dolomitic (D-2), sample has 20% light brown, non-dolomitic micro-crypto limestone.

6180 - Limestone, medium to dark brown, micro-crypto crystalline, traces calcite, traces dark brown cht, dolomite.

6190 - Limestone, medium to dark brown, micro crystalline; some light brown crypto limestone, argillaceous, silty dolomitic (D-2), trace dark brown chert.

6200 - Limestone, 40% medium brown crypto crystals, argillaceous and 50% medium to dark brown micro crystals, calcitic, silty dolomitic, trace dark brown chert.

6210 - Limestone, 40%. Light to medium brown, crypto crystalline; 50% medium to dark brown micro crystalline, calcitic, silty dolomitic, trace dark brown chert.

6220 - Limestone, medium to dark brown, very fine to micro and crypto crystalline, dolomite, traces calcite, traces dark brown chert.

6230 - Limestone, 70% medium brown, very fine crystalline, calcitic, dolomitic, (d-2) and light to medium brown, micro to crypto limestone.

6240 - Limestone, light to dark brown, micro crystalline, dolomitic (d-2), trace white calcite, some dolomitic shale, possible traces of dolomite or limy dolomite. stringer.

6250 - Limestone— light to dark brown, very fine to micro crystalline, dolomitic (d-1), traces white calcite.

6260 - Limestone as above, with dolomite shale or argillite, traces dark brown chert.

6270 - Limestone, 60% light brown, micro to crypto crystalline, silty dolomite and medium to dark brown dolomite limestone, very fine crystalline.

6280 - Limestone, medium to dark brown, micro argillaceous, dolomite (d-2); some light brown, crypto crystalline limestone, trace calcite crystals.

6290 - Limestone, medium to dark brown, micro argillaceous, dolomite (d-2); some light brown, crypto crystalline limestone, trace calcite crystals.

6300 - Limestone, medium to dark brown, micro crystalline; and some limestone, dark grey, very fine crystalline, dolomitic (d-1), some light brown limestone.

6310 - As above, but very poor sample.

6320 - Limestone, dark brown, micro crystalline, silty dolomitic; and limestone, light to medium brown, micro crystalline.

6330 - Limestone, medium brown, micro crystalline, very silty dolomitic, traces white calcite, some light brown crypto limestone.

6340 - Limestone, medium brown, micro crystalline, very silty dolomitic, traces white calcite, some light brown crypto limestone.

6350 - Limestone, medium to dark brown, micro crystalline, argillaceous.

6360 - Limestone, medium to brown, crypto crystalline, silty dolomitic (d-1), micaceous, traces white calcite.

6370 - Limestone, light to medium brown, crypto crystalline, silty dolomite, micaceous, traces calcite, rare Brach fragments.

6380 - Limestone, light to medium brown, crypto crystalline, silty dolomite, micaceous, traces calcite, rare Brach fragments.

6390 - Limestone, light to medium brown, crypto crystalline, silty dolomite, micaceous, traces calcite, rare Brach fragments, contains pyrite.

6400 - Limestone, light to medium brown, micro-crypto crystalline, silty dolomite, occasional traces white calcite.

6410 - Limestone, medium to dark brown, crypto crystalline, pyrite very silty, dolomite non-argillaceous, tight, non-fossiliferous.

6420 - Limestone, light to medium brown, micro to crypto crystalline, pyritic, also some green, pyritic, non-calcareous shale; traces white calcite.

Manetoe Formation 6425

6430 - Limestone, as above, very pyritic; sample about 10% dolomite, white, medium to coarse crystalline, silty calcareous, bituminous or dead oil, trace crystalline porosity.

6440 - Dolomite, white, medium to coarse crystalline, non-calcareous, white calcite, bituminous, poor to fair crystalline porosity, trace pyrite.

6450 - Dolomite, white, medium to coarse crystalline, non-calcareous, white calcite, bituminous, poor to fair crystalline, porosity, trace pyrite.

6460 - Dolomite, white, medium to coarse crystalline, non-calcareous, white calcite, bituminous, poor to fair crystalline porosity, trace pyrite.

6470 - Dolomite as at 6440, sample 20% medium brown, micro-crystalline limestone, very pyritic.

6480 - Dolomite as at 6440 and interbed of light brown, micro-crystalline, silty dolomite limestone.

6490 - 80% dolomite as at 6440, 20% limestone as at 6480.

6500 - 80% dolomite as at 6440, 20% limestone as at 6480.

6510 - Dolomite, white, coarse crystalline, bituminous, intercrystalline porosity, good, white calcite crystals may indicate vugs.

6520 - Dolomite, white, coarse crystalline, bituminous, intercrystalline porosity, good, white calcite crystals may indicate vugs.

6530 - Dolomite, white, coarse crystalline, bituminous, intercrystalline porosity, good, white calcite crystals may indicate vugs.

6540 - Dolomite, white, coarse crystalline, bituminous, intercrystalline porosity, good, white calcite crystals may indicate vugs.

6550 - Dolomite, white, coarse crystalline, bituminous, intercrystalline porosity, good, white calcite crystals may indicate vugs.

6560 - 90% as at 6510; 10% dolomite, light grey, fine to medium crystalline, trace to no porosity (x).

6570 - 90% as at 6510; 10% dolomite, light to medium grey, fine to very fine xl tight.

6580 - 90% as at 6510; 10% dolomite, light grey, fine to medium crystalline, trace to no porosity (x).

6590 - 90% as at 6510; 10% dolomite, light grey, fine to medium crystalline, trace to no porosity (x).

6600 - 80% dolomite, medium brown, fine crystalline, medium x porosity, and 10% dolomite as at 6510.

6610 - Dolomite, medium brown, fine crystalline, medium x-porosity.

6620 - 80% dolomite, medium brown, fine crystalline, medium x porosity, and 10% dolomite as at 6510

6630 - 80% dolomite, white and medium brown, coarse crystalline, bitum., good porosity intercrystalline and vuggy, 10% dolomite, medium brown, fine crystalline, medium porosity.

6640 - Dolomite as at 6510.

6650 - Dolomite as at 6510.

6660 - Same as 6510, contains pyrite.

6670 - Same as 6510 with 10% light brown, micro-crystalline, tight limestone.

6680 - Same as 6510 with 10% light brown, micro-crystalline, tight limestone.

6690 - Same as 6510 with 10% light brown, micro-crystalline, tight limestone.

6795' Arnica?

6700 - 70% dolomite, medium brown, fine crystalline, medium to poor porosity; 30% dolomite, white, coarse crystalline, good porosity, bituminous.

6710 - Same as 6700.

6720 - 70% dolomite, medium brown, fine crystalline, medium to poor porosity; 30% dolomite, white, coarse crystalline, good porosity, bituminous.

6730 - 70% dolomite, medium brown, fine crystalline, medium to poor porosity; 30% dolomite, white, coarse crystalline, good porosity, bituminous.

6740 - 80% dolomite, light to medium brown, fine to medium crystalline, medium porosity, 20% dolomite, white, coarse crystalline, calcite crystals, good intercrystalline to vug porosity, bituminous.

6750 - 80% dolomite, light to medium brown, fine to medium crystalline, medium porosity, 20% dolomite, white, coarse crystalline, calcite crystals, good intercrystalline to vug porosity, bituminous.

6760 - 80% dolomite, light to medium brown, fine to medium crystalline, medium porosity, 20% dolomite, white, coarse crystalline, calcite crystals, good intercrystalline to vug porosity, bituminous.

6770 - Same as 6740, but 90%:10%.

6780 - Dolomite, light brown to medium brown, very fine to medium crystalline, very silty calcareous, medium to poor porosity.

6790 - Dolomite, light to medium brown, medium to coarse crystalline, non-calcareous, good to medium intercrystalline porosity; minor white Manetoe dolomites.

6800 - 90% dolomite as at 6790 and 10% white, coarse crystalline Manetoe dolomite.

6810 - Dolomite, light to medium brown, medium to coarse crystalline, medium intercrystalline porosity, sec. white dolomite crystals.

6820 - Dolomite, light to medium brown, medium to coarse crystalline, medium intercrystalline porosity, sec. white dolomite crystals.

6830 - Dolomite, light grey to brown, fine to coarse crystalline, poor to medium porosity.

6840 - Dolomite, medium brown, very fine to medium crystalline, poor crystal porosity, occasional white secondary dolomite crystals.

6850 - Dolomite, light to medium brown, micro to fine crystalline, tight.

6860 - Dolomite, light to medium brown, micro to medium crystalline, tight, occasional white secondary dolomite crystals.

6870 - Dolomite, light to medium brown, micro to very fine crystalline, tight, occasional white secondary dolomite crystals.

6880 - Dolomite, light brown, crypto crystalline, tight.

6890 - Dolomite; medium brown, fine to very fine crystalline, tight, occasional white secondary dolomite crystals.

6900 - Dolomite, medium to light brown, micro to fine crystalline, tight, occasional white secondary dolomite crystals.

6910 - Dolomite, medium to light brown, micro to fine crystalline, tight, occasional white secondary dolomite crystals.

6920 - Dolomite, medium to light brown, micro to fine crystalline, tight, occasional white secondary dolomite crystals.

6930 - Dolomite, medium to light brown, micro to fine crystalline, tight, occasional white secondary dolomite crystals.

6940 - Same as 6900 with 10% dark brown, fine crystalline tight dolomite, non-calcareous.

6950 - Same as 6900 with 10% dark brown, fine crystalline tight dolomite, non-calcareous.

6960 - Same as 6900 with 10% dark brown, fine crystalline tight dolomite, non-calcareous.

6970 - Same as 6900 with 10% dark brown, fine crystalline tight dolomite, non-calcareous.

6980 - Dolomite, light to medium brown, mostly micro crystalline, tight, occasional white, secondary dolomite crystals; some dark brown, fine crystalline, tight dolomite.

6990 - Dolomite, light to medium brown, mostly micro-crystalline, tight, occasional white, secondary dolomite crystals; some dark brown, fine crystalline, tight dolomite.

7000 - Dolomite, light to medium brown, mostly micro-crystalline, tight, occasional white, secondary dolomite crystals; some dark brown, fine crystalline, tight dolomite.

7010 - Dolomite, light to medium brown, mostly micro-crystalline, tight, occasional white, secondary dolomite crystals; some dark brown, fine crystalline, tight dolomite.

7020 - Dolomite, medium to dark brown, micro-crystalline, some coarse white secondary dolomite crystals (possibly fracture infill.), tight.

7030 - Dolomite, medium to dark brown, micro-crystalline, some coarse white secondary dolomite crystals (possibly fracture infill.), tight.

7040 - Dolomite, light to medium brown, micro-crystalline, some coarse white secondary dolomite crystals, tight.

7050 - Dolomite, light to medium brown, micro-crystalline, some coarse white secondary dolomite crystals, tight.

7060 - Dolomite, light to medium brown, micro-crystalline, some coarse white secondary dolomite crystals, tight.

7070 - Dolomite, light to dark brown, micro-crystalline, silty calc., some coarse to medium white secondary dolomite crystals in veins or vugs.

7080 - Dolomite, medium brown, micro-crystalline, silty calc., some coarse to medium, white secondary dolomite crystals.

7090 - Dolomite, medium brown, micro-crystalline, silty calc., some coarse to medium, white secondary dolomite crystals.

7100 - Dolomite, light to medium brown, micro-crystalline, silty calc., some medium to coarse crystalline, white, secondary dolomite crystals, tight.

7110 - Dolomite, medium brown, micro to fine crystalline, trace x-porosity, some coarse to medium crystalline, white, secondary dolomite crystals.

7120 - Dolomite, medium to dark brown, micro to fine crystalline, trace x - porosity, some coarse to medium crystalline, white, secondary dolomite crystals.

7130 - Dolomite, medium to dark brown, micro to fine crystalline, trace x - porosity, some coarse to medium crystalline, white, secondary dolomite crystals.

7140 - Dolomite, medium brown, micro to fine crystalline, trace vug and intr x porosity, sample also contains white, secondary dolomite, coarse to medium crystals and coarse to medium crystals of white calcite.

7150 - Dolomite, medium brown, micro to fine crystalline, trace vug and intr x porosity, sample also contains white, secondary dolomite, coarse to medium crystals and coarse to medium crystals of white calcite.

7160 - Dolomite, medium brown, micro to fine crystalline, trace vug and intr x porosity, sample also contains white, secondary dolomite, coarse to medium crystals and coarse to medium crystals of white calcite.

7170 - Dolomite, dark brown, micro-crystalline, very high content carbonaceous material, contains some white calcite possibly in veins, tight.

7180 - Dolomite, dark brown, micro-crystalline, very high content carbonaceous material, contains some white calcite possibly in veins, tight.

7190 - Dolomite, dark brown, micro-crystalline, very high content carbonaceous material, contains some white calcite possibly in veins, tight; possibly fossils replaced with calcite and dolomite crystals.

7200 - Dolomite, dark brown, micro-crystalline, very high content carbonaceous material, contains some white calcite possibly in veins, tight.

7210 - Dolomite, dark brown, micro-crystalline, very high content carbonaceous material, contains some white calcite possibly in veins, tight.

7220 - 90% same as 7170 and 10% dolomite, light to medium brown, micro crystalline, all contains calcite and secondary dolomite crystals.

7230 - 90% same as 7170 and 10% dolomite, light to medium brown, micro-crystalline, all contains calcite and secondary dolomite crystals.

7240 - 90% same as 7170 and 10% dolomite, light to medium brown, micro-crystalline, all contains calcite and secondary dolomite crystals.

7250 - Dolomite, medium brown, micro crystalline, contains large amounts of white, coarse crystalline, dolomite crystals, possibly in vugs or veinlettes, some carbonaceous dolomite present.

7260 - Dolomite, light brown, micro to very fine crystalline, some pp. porosity (poor), coarse crystalline, white, sec. dolomite crystals present.

7270 - Dolomite, light to medium brown, micro crystalline, non calcareous, tight, contains coarse crystalline, white secondary dolomite crystals.

7280 - Dolomite, medium to dark brown, micro to very fine crystalline, trace pp. porosity, some secondary white coarse crystalline dolomite,

7290 - Dolomite, medium to dark brown, micro to very fine crystalline, trace pp. porosity, some secondary white coarse crystalline dolomite.

7300 - Dolomite, light to medium brown, micro to very fine crystalline, tight, contains some coarse crystalline, white secondary dolomite.

7310 - Dolomite, medium to dark brown, micro-crystalline, tight, traces white, coarse crystalline, secondary dolomite, fairly high content carbonaceous material in dark dolomite.

7320 - Dolomite, light to medium brown, micro-crystalline, trace pp. porosity, some dark brown carbonaceous dolomite, traces light brown calcareous and chalky dolomite.

7330 - Dolomite, light to medium brown, micro to very fine crystalline, traces pp. and x porosity, some dark brown carbonaceous dolomite, some light brown calcareous, chalky dolomite; significant large white dolomite crystals.

7340 - Dolomite, light to medium brown, micro to very fine crystalline, traces pp. and x porosity, some dark brown carbonaceous dolomite, some light brown calcareous, chalky dolomite; significant large white dolomite crystals.

7350 - 70% dolomite, light brown, micro to very fine crystalline, tight, and 30% dolomite, light brown, micro-crystalline, calcareous, chalky; all contains coarse crystalline, white secondary dolomite crystals.

7360 - Dolomite, light brown, micro crystalline, tight, 20 to 30% chalky and calcareous; contains white, coarse crystalline secondary dolomite crystals.

7370 - As at 7360; chalky dolomite has bitumen stas in places.

7380 - Dolomite, medium brown, micro crystalline, some chalky and calcareous, white secondary dolomite common.

7390 - Dolomite, medium to dark brown, micro crystalline, tight; the brown dolomite contains carbonaceous matter, lighter dolomite chalky, calcareous; common to have white, coarse crystalline secondary dolomite crystals.

7400 - Dolomite, medium to dark brown, micro to very fine crystalline, tight, some carbonaceous and micaceous, some chalky and calcareous; contains white secondary dolomite crystals.

7410 - Same as 7400 but with occasional Bitumen staining.

7420 - Dolomite, medium to dark brown, micro crystalline, veinlettes with coarse white, secondary dolomite crystals.

7430 - Dolomite, medium to dark brown, micro crystalline, veinlettes with coarse white, secondary dolomite crystals.

7440 - Dolomite, mostly dark brown, micro crystalline, carbonaceous, coarse white secondary dolomite crystals present.

7450 - Dolomite as above with fairly high content of secondary vein dolomite.

7460 - Dolomite as above with fairly high content of secondary vein dolomite.

7470 - Dolomite, medium to dark brown, micro to very fine crystalline, trace x porosity, high secondary white dolomite crystals, contents dark dolomite is probably carbonaceous.

7480 - Dolomite, medium to dark brown, micro to very fine crystalline, trace x porosity, high secondary white dolomite crystals, contents dark dolomite is probably carbonaceous.

7490 - Dolomite, medium to dark brown, micro to very fine crystalline, trace x porosity, high secondary white dolomite crystals, contents dark dolomite is probably carbonaceous.

7500 - Dolomite, light to dark brown, micro and very fine crystalline, non-calcareous, some white, coarse crystalline, secondary dolomite crystals probably in veins or fractures; dark dolomite probably silty carbonaceous; may be a trace of pp or x porosity.

7510 - Dolomite, light to medium brown to grey, micro to fine crystalline some good to medium vug and intercrystalline porosity, vugs infilled with coarse crystalline, white secondary dolomite crystals.

7520 - Dolomite, medium to dark brown, micro to fine crystalline, some good to medium porosity (vug and crystal), some coarse to medium crystalline white secondary dolomite crystals.

7530 - Dolomite, light to medium grey to brown and some dark brown, micro crystalline, tight; significant content of white secondary dolomite, probably in veins or fractures.

7540 - Dolomite, medium brown, micro crystalline, vugs filled with white secondary dolomite, leaving some poor pinpoint and x porosity.

7550 - Dolomite, medium brown, micro crystalline, to crypto crystalline, tight, some secondary white dolomite crystals.

7560 - Dolomite, medium brown, micro crystalline, to crypto crystalline, tight, some secondary white dolomite crystals.

7570 - Dolomite, medium brown, micro crystalline, to crypto crystalline, tight, some secondary white dolomite crystals.

7580 - Dolomite, medium grey to brown, micro crystalline, white, coarse crystalline secondary dolomite infils vugs and veins, some bitumen stas present, mainly tight.

7590 - Dolomite, light to medium brown, micro, some crypto crystalline, highly fractured, possibly tr. fr. porosity with bitumen stn; secondary white dolomite present; crypto dolomite silty, calcareous.

7600 - Dolomite, light to medium brown, micro, some crypto crystalline, highly fractured, possibly tr. fr. porosity with bitumen stn; secondary white dolomite present; crypto dolomite silty, calcareous.

7610 - Dolomite, light to medium brown, micro, some crypto crystalline, highly fractured, possibly tr. fr. porosity with bitumen stn; secondary white dolomite present; crypto dolomite silty, calcareous.

7620 - Dolomite, light to medium brown, micro, some crypto crystalline, highly fractured, possibly tr. fr. porosity with bitumen stn; secondary white dolomite present; crypto dolomite silty, calcareous.

Pre Arnica? 7630 - Dolomite, light grey to brown, micro crystalline, some white secondary dolomite, no porosity, non-calcareous, trace pyrite.

7640 - Dolomite, light grey to brown, micro crystalline, some white secondary dolomite, no porosity, non-calcareous, trace pyrite; a few big rounded fossil like dolomitic pebbles.

7650 - Dolomite, light grey to brown, micro crystalline, some white secondary dolomite, no porosity, non-calcareous, trace pyrite.

7660 - Dolomite, light grey, micro crystalline, high content white, secondary dolomite crystals, very silty calcareous.

7670 - Dolomite, light grey, micro crystalline, high content white, secondary dolomite crystals, very silty calcareous.

7680 - Dolomite, light grey, micro crystalline and crypto crystalline (1:1), very silty calcareous, fractures and veinlettes with secondary white dolomite infilling., trace pyrite.

7690 - Dolomite, light grey, micro crystalline and crypto crystalline (1:1), very silty calcareous, fractures and veinlettes with secondary white dolomite infilling., trace pyrite.

7700 - Dolomite, light grey, micro crystalline and crypto crystalline (1:1), very silty calcareous, fractures and veinlettes with secondary white dolomite infilling., trace pyrite.

7710 - Dolomite, light grey, micro crystalline and crypto crystalline (1:1), very silty calcareous, fractures and veinlettes with secondary white dolomite infilling., trace pyrite.

7720 - Dolomite, light grey, micro crystalline, non-calcareous, significant secondary white dolomite; trace pyrite.

7730 - Dolomite, light grey, micro crystalline, non-calcareous, significant secondary white dolomite; trace pyrite.

7740 - Dolomite, light grey, micro crystalline, non-calcareous, significant secondary white dolomite; trace pyrite.

7750 - Dolomite, light grey and medium grey, micro crystalline, some white secondary dolomite, possibly highly fractured, traces bit?

7760 - Dolomite, light grey and medium grey, micro crystalline, some white secondary dolomite, possibly highly fractured, traces bit?

7770 - Dolomite, light grey, micro crystalline, very silty calcareous some secondary white dolomite crystals, trace pyrite.

7780 - Dolomite, light grey, micro crystalline, very silty calcareous, some secondary white dolomite crystals, trace pyrite.

7790 - Dolomite, light to medium grey-brown, micro crystalline, very dense.

7800 - Dolomite, light to medium grey-brown, micro crystalline, very dense; trace pyrite.

7810 - Dolomite, light to medium grey, micro crystalline, dense 40% sandstone, very dolomitic; white very fine in places fine grained well rounded, m. sorted, tight.

7804-06

Dr. break 7813-7818

Delorme? 7813

7820 - Dolomite, light to medium grey, micro crystalline, dense 40% sandstone, very dolomitic; white very fine in places fine grained well rounded, m. sorted, tight.

7830 - Dolomite, light grey to medium brown, very silty calcite, micro crystalline, very few chips of sandy dolomite.

7840 - Dolomite, light grey to medium brown, very silty calcite, micro crystalline, very few chips of sandy dolomite; bitumen traces.

7850 - Dolomite, light grey to medium brown, very silty calcite, micro crystalline, very few chips of sandy dolomite; bitumen traces.

7860 - Dolomite, medium grey brown, micro crystalline, bitumen traces, silty calcite.

7870 - Dolomite, medium grey brown, micro crystalline, bitumen traces, silty calcite.

trip at 7871

7880 - Dolomite, light grey to grey brown, very fine crist, tight. Some dolomite, grey, micro crystalline to crypto crystalline, dense.

7890 - Dolomite, light grey to grey brown, very fine crist, tight. Some dolomite, grey, micro crystalline to crypto crystalline, dense.

*7900 - 10% chert fragments, angular, very light grey to white. 85% dolomite, light grey to grey brown, very fine crystalline, tight with some secondary dolomite crystals, white, coarse, tight, sucrosic 5% dolomite, grey, crypto crystalline, tight.

7910 - 10% chert fragments, angular, very light grey to white. 85% dolomite, light grey to grey brown, very fine crystalline, tight with some secondary dolomite crystals, white, coarse, tight, sucrosic 5% dolomite, grey, crypto crystalline, tight.

7920 - 10% chert fragments, white to light grey, angular. 90% dolomite, light grey to grey brown, micro to very fine crystalline, very dense, tight, some white secondary dolomite crystals.

7930 - 10% chert fragments, white to light grey, angular. 90% dolomite, light grey to grey brown, micro to very fine crystalline, very dense, tight, some white secondary dolomite crystals.

7940 - 90% dolomite, light grey to grey, crypto crystalline, very dense with trace of very fine dissiminated pyrite and pyrite - veinlets - fragments. 5% dolomite as 7920 and chert fragments as 7920.

7950 - 90% dolomite, light grey to grey, crypto crystalline, very dense with trace of very fine dissiminated pyrite and pyrite - veinlets - fragments. 5% dolomite as 7920 and chert fragments as 7920.

*7960 - 60% dolomite, grey brown, micro crystalline - very fine crystalline as 7920. 40% dolomite, light grey to grey, cryptocrystalline, very dense as 7940. Some angular chert fragments, light grey to white.

7970 - 70% dolomite, grey brown, micro to very fine crystalline in part succrosic, tight. 30% dolomite, light grey to grey, crypto crystalline, pyritic, very dense.

7980 - 90% dolomite, light grey to grey brown, crypto crystalline - micro cristalline, very dense and tight. 10% dolomite, very light grey, very fine crystalline, succrosic.

7990 - Dolomite, light to medium grey brown, micro crystalline, tight; traces light grey, very fine crystalline dolomite; pyrite.

8000 - Dolomite, light to medium brown, micro to crypto crystalline, traces white secondary dolomite, some pyrite.

8010 - Dolomite, light to medium grey brown, micro and very fine crystalline, trace bitumen; sample about 20% light grey angular chert containing sponge spics.

8020 - Dolomite, light to medium grey brown, micro crystalline, trace bitumen, trace chert as above.

8030 - Dolomite, light to medium grey brown, micro crystalline, pyrite, 10% light grey angular chert, few quartz crystals.

8040 - Dolomite, medium brown, micro crystalline, tight, 10% light grey and brown angular chert.

8050 - Dolomite, medium grey to brown, micro to very fine crystalline, pyrite, trace grey and brown chert.

8060 - Dolomite, medium grey, micro crystalline, trace bitumen, trace grey chert.

8070 - Dolomite, medium grey, micro crystalline, trace bitumen, trace grey chert, with 10% light grey to brown angular chert fragments.

8080 - Dolomite, light to medium grey-brown, micro to very fine crystalline, trace bitumen, pyrite; trace angular chert, some secondary white dolomite crystals.

8090 - Dolomite, light grey to medium brown, micro to very fine crystalline, trace bitumen, pyrite, secondary dolomite; 10% grey to brown angular chert fragments with sponge spics.

8100 - Dolomite, light to medium grey, micro to very fine crystalline, trace bitumen, trace secondary white dolomite crystals, traces angular chert.

8110 - Dolomite, light to medium grey to brown, micro and very fine crystalline, some bitumen traces.

8120 - Dolomite, medium grey to brown, micro crystalline, pyritic, some white secondary dolomite crystals, very silty calcite.

8130 - Dolomite, medium grey to brown, micro to very fine crystalline, very slly calcite pyrite, some secondary white dolomite crystals, traces angular brown chert.

8140 - Dolomite, medium grey to brown, micro to very fine crystalline, very slly calcite pyrite, some secondary white dolomite crystals, traces angular brown chert.

8150 - Dolomite, medium grey to brown, micro crystalline, very slly calcite pyrite, some secondary white dolomite crystals, traces angular brown chert.

8160 - Dolomite, light to medium grey brown, micro crystalline, tight,
* Arg. 10% dolomite, dark to very dark grey brown, pyrite, micro crystal-
Dolomite line, argillaceous; traces black and dark brown argillaceous
chert fragments.

8170 - Dolomite, light to medium grey brown, micro crystalline, tight, 10% dolomite, dark to very dark grey brown, pyrite, micro crystalline, argillaceous; traces black and dark brown argillaceous chert fragments.

8180 - Dolomite, dark to very dark grey brown, micro crystalline, very pyritic, argillaceous, also traces lighter dolomite and dark argillaceous chert.

8190 - Dolomite, medium brown to very dark grey, mostly argillaceous, micro crystalline, very pyritic, traces white, secondary dolomite crystals.

8200 - Dolomite, medium brown to very dark grey, mostly argillaceous micro crystalline, very pyritic, traces white, secondary dolomite crystals.

8210 - Dolomite, medium brown to very dark grey, mostly argillaceous, micro crystalline, very pyritic, traces white, secondary dolomite crystals.

8220 - Dolomite, dark grey to black, micro crystalline, very argillaceous, traces secondary white dolomite crystals; some light dolomite in sample.

8230 - Dolomite, light to dark grey, micro crystalline, argillaceous some pyrite, trace secondary dolomite.

8240 - Dolomite, grey to very dark grey, micro crystalline, argillaceous pyritic, trace secondary dolomite crystals; traces dark brown angular chert.

8250 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite, trace secondary dolomite, traces dark brown angular chert.

8260 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite, trace secondary dolomite, traces dark brown angular chert.

8270 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite, trace secondary dolomite, traces dark brown angular chert.

8280 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite, trace secondary dolomite, traces dark brown angular chert, traces calcite crystals.

8290 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite traces, tight; some secondary white dolomite crystals, sample 10 - 20% dark brown to black angular chert fragments.

8300 - Dolomite, dark to very dark grey, micro crystalline, argillaceous, pyrite traces, tight; some secondary white dolomite crystals, sample 10 - 20% dark brown to black angular chert fragments; some dolomite, light grey to micro crystalline, non argillaceous.

* 8310 - Dolomite, medium to dark grey, micro crystalline, argillaceous, in part, trace pyrite, occasional chert fragments — dark brown.

8320 - Dolomite, medium to dark grey, micro crystalline, argillaceous, in part, trace pyrite, occasional chert fragments — dark brown.

8330 - Dolomite, mostly light to medium grey, micro crystalline, trace quartz crystals, pyritic, some secondary white dolomite crystals, probably from veins or fractures.

8340 - Dolomite, mostly light to medium grey, micro crystalline, trace quartz crystals, pyritic, some secondary white dolomite crystals, probably from veins or fractures.

8350 - Dolomite, light to medium grey, micro crystalline, slightly argillaceous, pyrite, secondary white dolomite crystals.

8360 - As at 8350, very pyritic.

8370 - As at 8360.

8380 - 20% dolomite, dark grey, slightly argillaceous, micro crystalline tight 80% dolomite light grey to grey, non argillaceous, micro to very fine crystalline, tight. Some white secondary dolomite crystals and clear quartz crystals.

8390 - 50% dolomite dark grey, slightly argillaceous, as 8380. 50% dolomite, light grey to grey, micro to very fine crystalline as 8380. White secondary dolomite crystals. Trace of quartz crystals, coarse.

8400 - 80% dolomite, dark grey, slightly argillaceous, micro to very fine crystalline, 20% dolomite, grey, micro to very fine crystalline, i.p. crypto crystalline, white secondary dolomite crystals, coarse.

8410 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse.

8420 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse.

8430 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse.

8440 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse.

8450 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse.

* 8460 - Dolomite, dark grey, micro to very fine crystalline, slightly argillaceous, tight in places pyritic. Some white secondary dolomite crystals, coarse, with trace of dolomite, dark grey, with quartz grains.

8470 - 30% sandstone, very dolomitic, slightly argillaceous, dark grey, very fine to fine, very tight and hard. 70% dolomite as 8410 some light grey, silty and very fine sandy dolomite, tight.

8480 - 40% dolomite, light grey, very silty and very fine sandy, 60% sandstone, very dolomitic, dark grey, slightly argillaceous, very fine to fine grained, hard.

8487 - As 8480.

8490 - 40% Dolomite, light grey, very silty and very fine sandy, 60% sandstone, very dolomitic, dark grey, slightly argillaceous, very fine to fine grained, hard.

8500 - 60% dolomite, very dark grey, argillaceous, micro crystalline, 20% dolomite, dark grey, sandy, hard, tight, 20% dolomite, light grey, silty and very fine sandy, tight. Secondary, white dolomite crystals, coarse.

8510 - 80% dolomite, very dark grey, argillaceous, micro crystalline, tight, 10% dolomite, very dark grey, fine sandy, grading into dolomite, sandstone, tight, hard. 10% dolomite, light grey, silty, micro crystalline, secondary, white dolomite crystals.

8520 - 20% dolomite, grey to dark grey, micro crystalline, tight, 70% dolomite, very dark grey, argillaceous, micro crystalline, grading into very dolomitic shale, black 10% dolomite, light grey, very silty and very fine sandy grading into sandstone, very dolomitic.

8530 - 20% dolomite, grey to dark grey, micro crystalline, tight, 70% dolomite, very dark grey, argillaceous, micro crystalline, grading into very dolomitic shale, black 10% dolomite, light grey, very silty and very fine sandy grading into sandstone, very dolomitic.

8540 - 70% dolomite, very dark grey to blackish, very argillaceous, micro crystalline tight. 20% dolomite, grey, micro crystalline very silty. 10% dolomite, dark grey, grading into sandstone, dolomite, fine grained, hard, tight.

* 8550 - 50% dolomite, dark grey to very dark grey, very sandy, with floating fine to medium subrounded quartz grains, grading into dolomite sandstone, hard, tight. Some loose coarse clear sub-rounded and rounded quartz grains.
50% dolomite, very dark grey, very argillaceous, micro crystalline, tight.

8560 - As 8550, but abundant fragments of clear quartz grains.

8570 - 10% shale, light grey, pyritic, dolomitic. 50% dolomite, very dark grey, very argillaceous, micro crystalline. 10% dolomite, light grey, micro crystalline, pyritic. 20% sandstone or sandy dolomite, as 8550. Abundant fragments of clear, coarse, quartz grains.

8580 - 90% sandstone, very quartzitic, fine grained and crystalline, clear
x drl. to rusty coloured, hard, tight, pyritic. 10% shale, dolomitic,
break @ light grey, pyritic. Some very dark grey argillaceous dolomite
8574 as above.

8590 - 90% sandstone, very quartzitic, fine grained and crystalline, clear to rusty coloured, hard, tight, pyritic. 10% shale, dolomitic, light grey, pyritic. Some very dark grey argillaceous dolomite as above.

8596 - 90% sandstone, very quartzitic, fine grained and crystalline, clear to rusty coloured, hard, tight, pyritic. 10% shale, dolomitic, light grey, pyritic. Some very dark grey argillaceous dolomite as above.

8600 - 10% dolomite, very dark grey, argillaceous, caving. 90% sandstone, very quartzitic, very fine to fine grained and crystalline, white to rusty coloured pyritic, tight.

8605 - 95% sandstone, quartzitic, very fine to fine, light grey, white and rusty red coloured, tight 5% dolomite caving.

8610 - 50% siltstone, quartzitic, purple red coloured, 10% siltstone, quartzitic, white with rusty red specks, very fine grained in places, tight 40% dolomite, light grey, micro crystalline.

8620 - 50% siltstone, quartzitic, purple red coloured, 10% siltstone, quartzitic, white with rusty red specks, very fine grained in places, tight 40% dolomite, light grey, micro crystalline.

8630 - 50% siltstone, quartzitic, purple red coloured, 10% siltstone, quartzitic, white with rusty red specks, very fine grained in places, tight 40% dolomite, light grey, micro crystalline.

8640 - 10% quartzite, light grey, very fine crystalline, hard. 90% siltstone, quartzitic, purple red coloured, in places very fine grained, hard. Abundant white mud balls with rusty red. specks (beware oh, geologist: "marlstone" of some authors).

8650 - 10% dolomite, light grey, grading into the siltstone 80% siltstone, grey, and purple red coloured as above. 10% quartzite light grey, very hard.

8660 - 10% dolomite, light grey, grading into the siltstone 80% siltstone, grey, and purple red coloured as above. 10% quartzite light grey, very hard.

8670 - 10% shale, light grey, very hard, dolomitic 10% quartzite, micro- to very fine crystalline, light grey. 80% siltstone, quartzitic, grey and purple coloured.

8680 - 40% quartzite, light grey, micro crystalline, very hard, 60% siltstone, quartzitic, grey and purple, hard, tight.

8690 - 70% quartzite, grey to light grey, micro crystalline, very hard. 30% siltstone, quartzitic, purple and grey, tight.

8700 - 70% quartzite, grey to light grey, micro crystalline, very hard. 30% siltstone, quartzitic, purple and grey, tight.

8709 - 10% mudballs, white. 80% siltstone to very fine sandstone, quartzitic, purple, tight. 10% quartzite, grey to light grey, micro crystalline.

69-68

P 13 (10/62)

GULF OIL CANADA LIMITED

WATER ANALYSIS REPORT

LEASE B.A.O.H. Amerada Cli Lake LOCATION K - 54 FIELD N.W.T. Wildcat SAMPLE DST #4

SAMPLE DATE Feb. 6/69 FORMATION Ma'.etoe INTERVAL DEPTH 6676 FT. TO 6764 FT. KBE 701 FT

SAMPLE HEIGHT ABOVE TOOL Right above tool FT. ____ RECOVERY DATA 90' salty water cut drilling mud.

OTHER DATA

ION	MILLIGRAMS/LITRE CONCENTRATION	PER CENT MILLIGRAM EQUIVALENTS
SODIUM – NA	20994	46.47
POTASSIUM – K		
CALCIUM – CA	1220	3.10
MAGNESIUM – MG	102	.43
SULPHATE – SO_4	984	1.04
CHLORIDE – CL	34000	48.82
BROMIDE – BR		
IODIDE – I		
BICARBONATE – HCO_3	170	.14
CARBONATE – CO_3		
HYDROXIDE – OH		
TOTAL	57470	100.00

REMARKS AND CONCLUSIONS Insufficient data for correlation.
Appears to be diluted formation water.

S. G. @ 60°F.	1.043
pH	7.54
H_2S	Nil
RESISTIVITY .113 OHM METERS AT	77 °F.

TOTAL DISSOLVED SOLIDS IN MILLIGRAMS/LITRE

AS NACL FROM RES.	56000
BY EVAPORATION	
AFTER IGNITION	

ANALYSED BY	D. J. Donnelly GD
LAB. NO.	W-036-69

DATE RECEIVED	February 17	19 69
DATE ANALYSED	February 26	19 69
DATE DISTRIBUTED	February 26	19 69

69-18

P 13 (10/62)

GULF OIL CANADA LIMITED

WATER ANALYSIS REPORT

LEASE B.A.O.H. Amerada Cli Lake LOCATION K - 54 FIELD N.W.T. Wildcat SAMPLE DST #7

SAMPLE DATE Feb. 9/69 FORMATION Manetoe INTERVAL DEPTH 6692 FT. TO 6756 FT. KBE 702 FT.

SAMPLE HEIGHT ABOVE TOOL 2300 FT. RECOVERY DATA 2480' Water, 180' mud. Total Recovery - 2660'.

OTHER DATA

ION	MILLIGRAMS/LITRE CONCENTRATION	PER CENT MILLIGRAM EQUIVALENTS
SODIUM – NA	65347	44.26
POTASSIUM – K		
CALCIUM – CA	6520	5.07
MAGNESIUM – MG	525	.67
SULPHATE – SO_4	736	.24
CHLORIDE – CL	113200	49.73
BROMIDE – BR		
IODIDE – I		
BICARBONATE – HCO_3	129	.03
CARBONATE – CO_3		
HYDROXIDE – OH		
TOTAL	186457	100.00

REMARKS AND CONCLUSIONS Formation water. 1200' above tool,
R = .053 @77 = 155000 mg/l NaCl. Right above tool,
R = .064 @77 = 115000 mg/l NaCl.

S. G. @ 60°F.	1.129
pH	6.60
H_2S	Nil
RESISTIVITY .049 OHM METERS AT	77 °F.

TOTAL DISSOLVED SOLIDS IN MILLIGRAMS/LITRE

AS NACL FROM RES.	174,000
BY EVAPORATION	
AFTER IGNITION	

ANALYSED BY	D.J. Donnelly
LAB. NO.	W-037-69

DATE RECEIVED	February 17	19 69
DATE ANALYSED	February 26	19 69
DATE DISTRIBUTED	February 26	19 69

P 13 (10/62)

GULF OIL CANADA LIMITED

WATER ANALYSIS REPORT

LEASE B.A.O.H. Amerada Cli Lake LOCATION K - 54 FIELD N.W.T. Wildcat SAMPLE DST #8

SAMPLE DATE Feb. 11/69 FORMATION Arnica INTERVAL DEPTH 7264 FT. TO 7350 FT. KBE 702 FT.

SAMPLE HEIGHT ABOVE TOOL 130 FT. ____ RECOVERY DATA 330' Water.

OTHER DATA

ION	MILLIGRAMS/LITRE CONCENTRATION	PER CENT MILLIGRAM EQUIVALENTS
SODIUM – NA	35469	45.00
POTASSIUM – K		
CALCIUM – CA	2930	4.27
MAGNESIUM – MG	305	.73
SULPHATE – SO_4	900	.55
CHLORIDE – CL	60000	49.38
BROMIDE – BR		
IODIDE – I		
BICARBONATE – HCO_3	163	.07
CARBONATE – CO_3		
HYDROXIDE – OH		
TOTAL	99767	100.00

REMARKS AND CONCLUSIONS Concentration only 54% of W-037-69 but percent composition similar, 220' above tool, R = .091 @77 = 71,000 mg/l NaCl. Insufficient data for correlation.

S. G. @ 60°F.	1.069
pH	7.63
H_2S	Nil
RESISTIVITY .072 OHM METERS AT	77 °F.

TOTAL DISSOLVED SOLIDS IN MILLIGRAMS/LITRE

AS NACL FROM RES.	96,000
BY EVAPORATION	
AFTER IGNITION	

ANALYSED BY	D.J. Donnelly DJD
LAB. NO.	W-038-69

DATE RECEIVED	February 17	19 69
DATE ANALYSED	February 26	19 69
DATE DISTRIBUTED	February 26	19 69

69-69

P 13 (10/62)

GULF OIL CANADA LIMITED
WATER ANALYSIS REPORT

LEASE B.A.O.H. Amerada Cli Lake LOCATION K - 54 FIELD N.W.T. Wildcat SAMPLE

SAMPLE DATE Feb. 6, 1969 FORMATION INTERVAL DEPTH FT. TO FT. KBE 701 FT.

SAMPLE HEIGHT ABOVE TOOL FT. RECOVERY DATA Sample of mud from circulation system (mud tank).

OTHER DATA

ION	MILLIGRAMS/LITRE CONCENTRATION	PER CENT MILLIGRAM EQUIVALENTS
SODIUM – NA	MUD	MUD
POTASSIUM – K		
CALCIUM – CA		
MAGNESIUM – MG		
SULPHATE – SO_4		
CHLORIDE – CL		
BROMIDE – BR		
IODIDE – I		
BICARBONATE – HCO_3		
CARBONATE – CO_3		
HYDROXIDE – OH		
TOTAL	MUD	MUD

REMARKS AND CONCLUSIONS Salt content about 20% lower than recovery from drill stem test #4. See analysis W-036-69.

S. G. @ 60°F.
pH
H_2S
RESISTIVITY .140 OHM METERS AT 77 °F.

TOTAL DISSOLVED SOLIDS IN MILLIGRAMS/LITRE

AS NACL FROM RES. 44,000
BY EVAPORATION
AFTER IGNITION

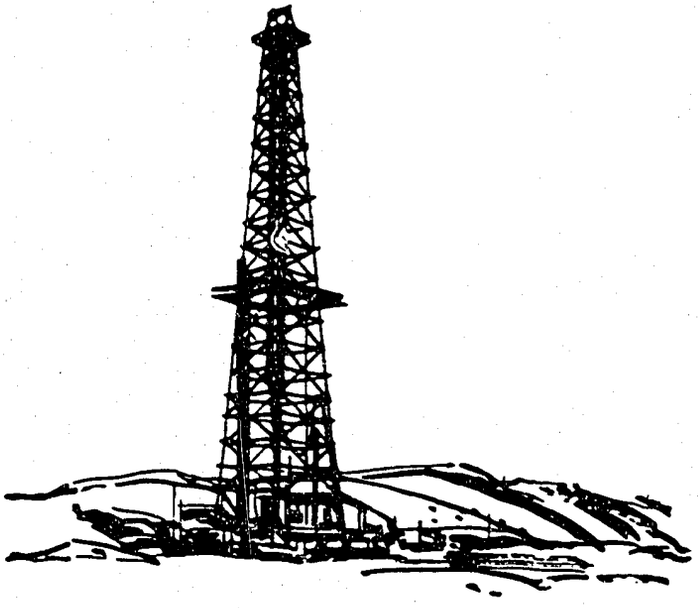
ANALYSED BY D.J. Donnelly DJD
LAB. NO. W-060-69

DATE RECEIVED February 17 19 69
DATE ANALYSED February 26 19 69
DATE DISTRIBUTED February 26 19 69

LYNES

BRIGHT NAME IN THE OIL PATCH

Inflatable Sealing Element Packers



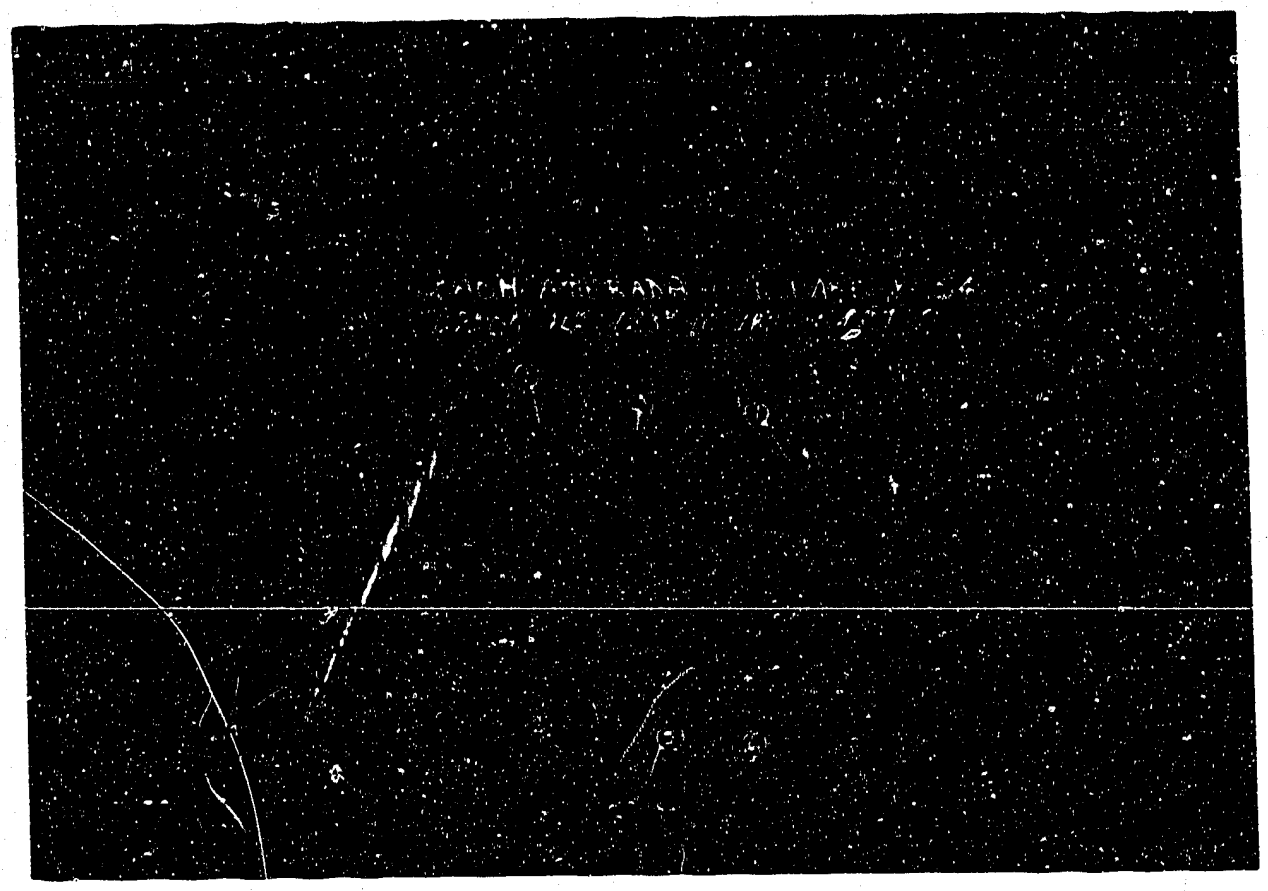
Formation Testing Service Report

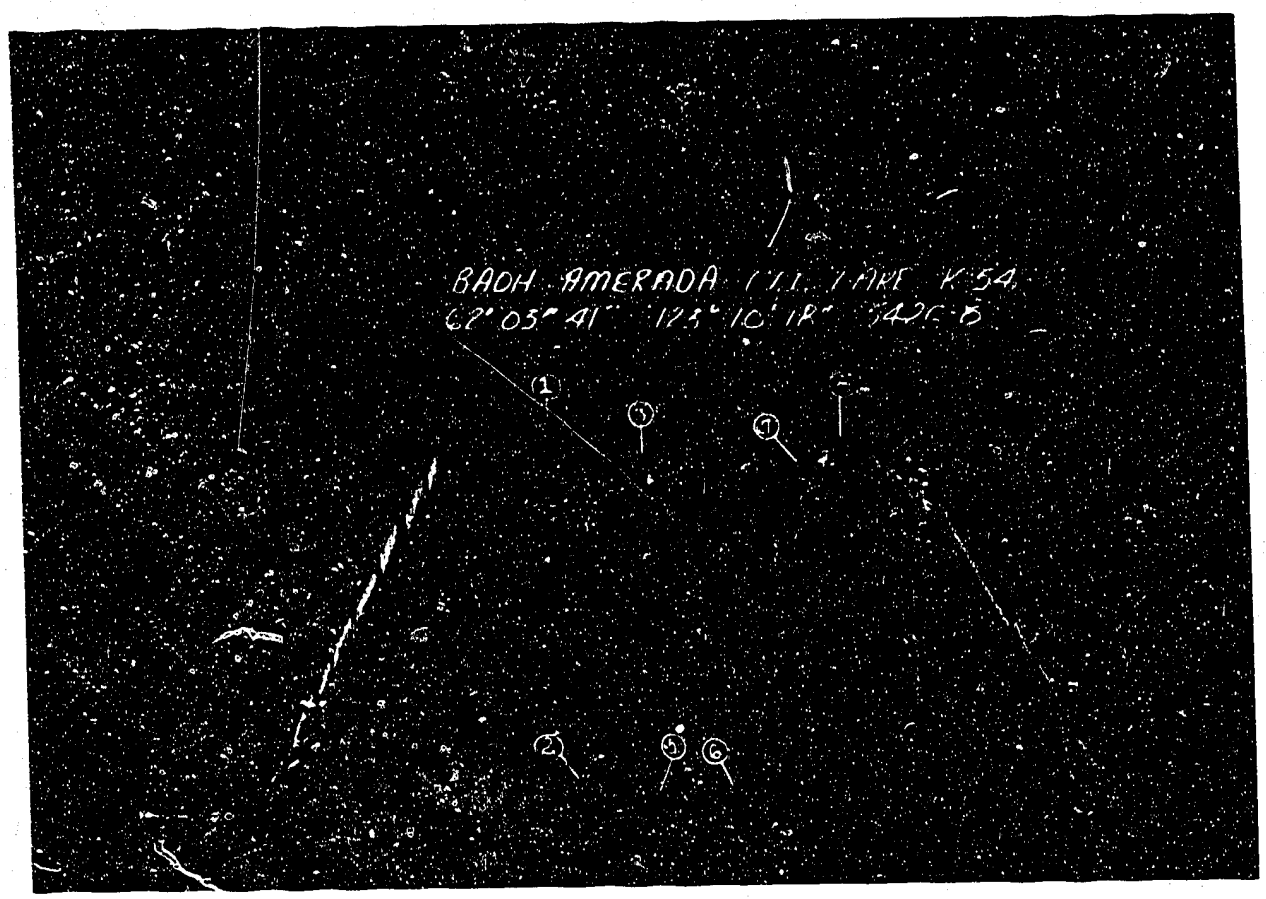
Gulf Oil Canada Ltd. — Company

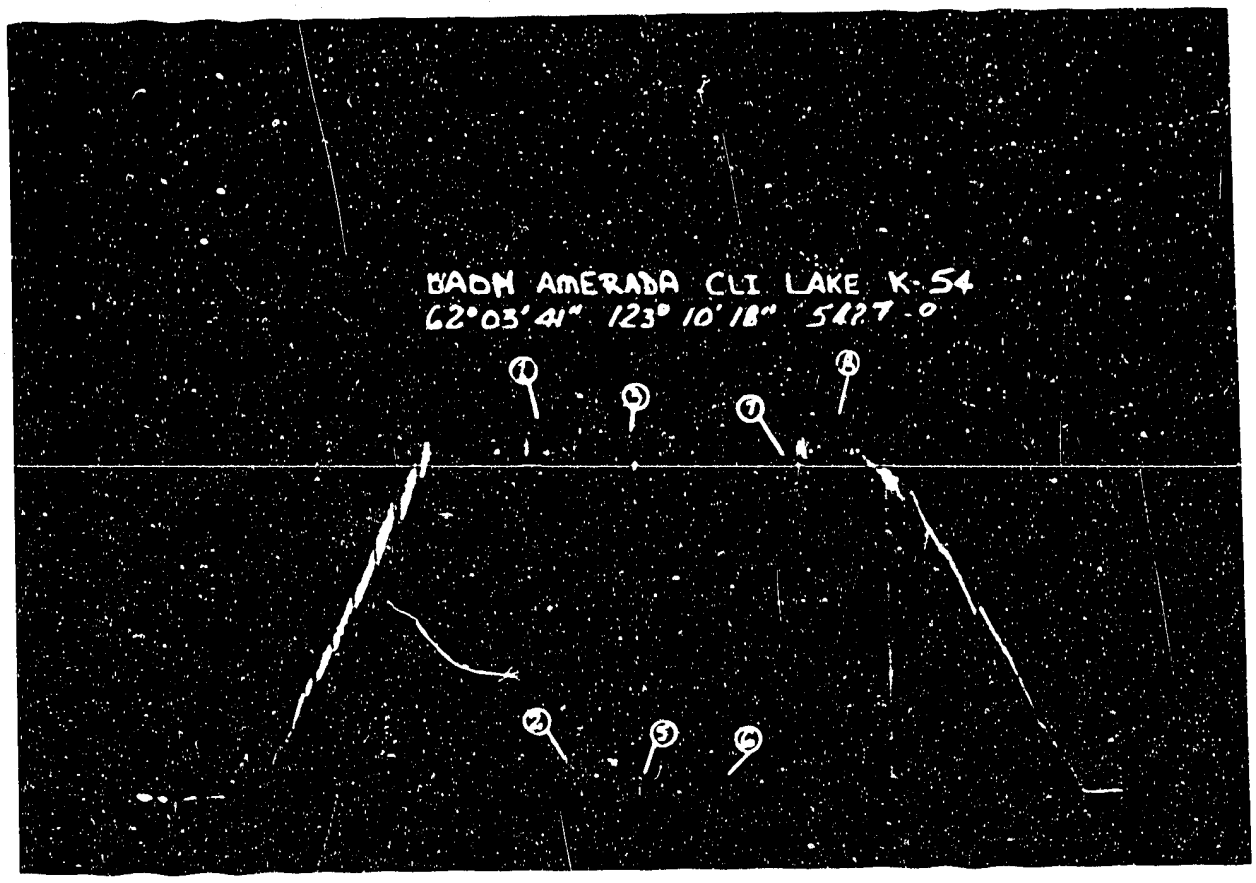
BACH Arcrada CLI Lake 62°03'41" 123°10'24" — Well Name and Description

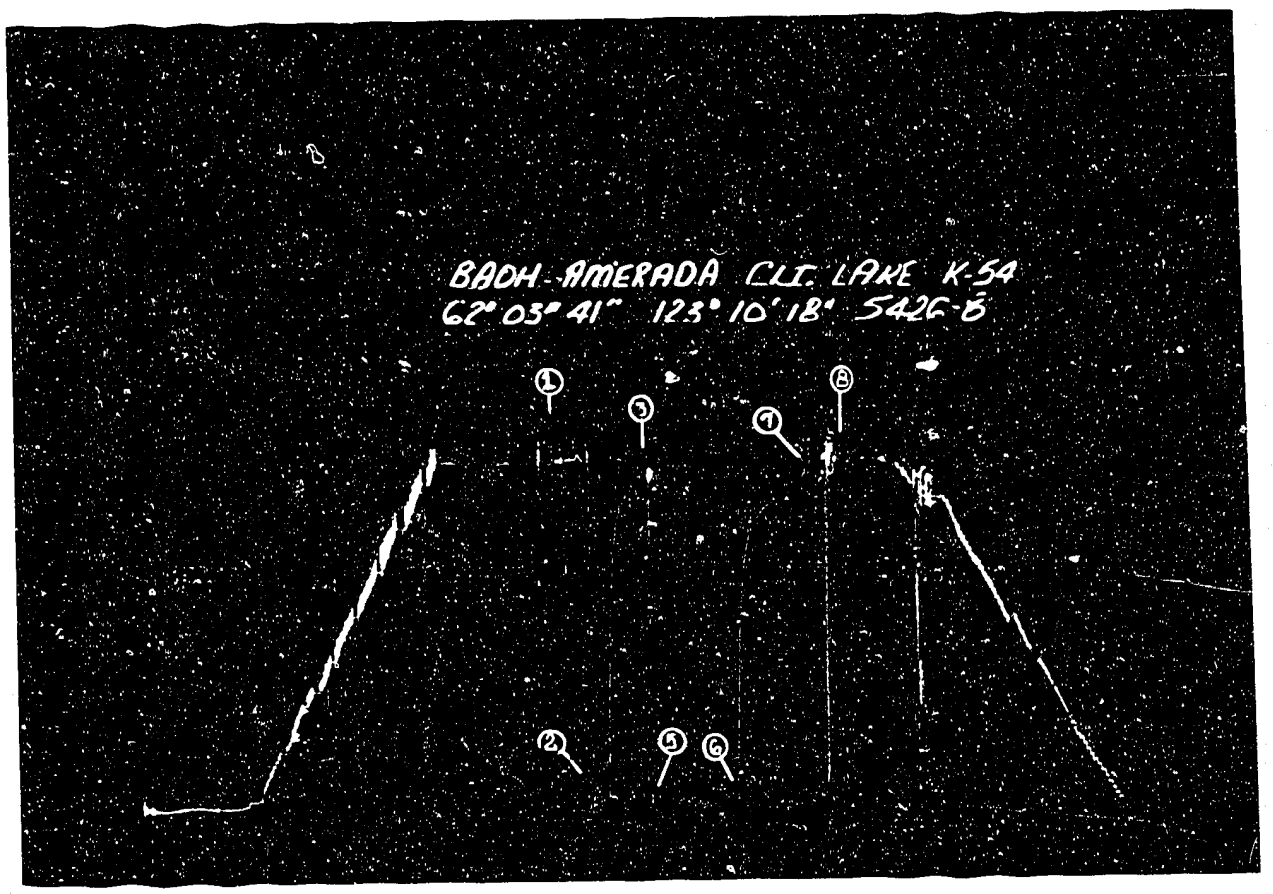
8 — Test No.

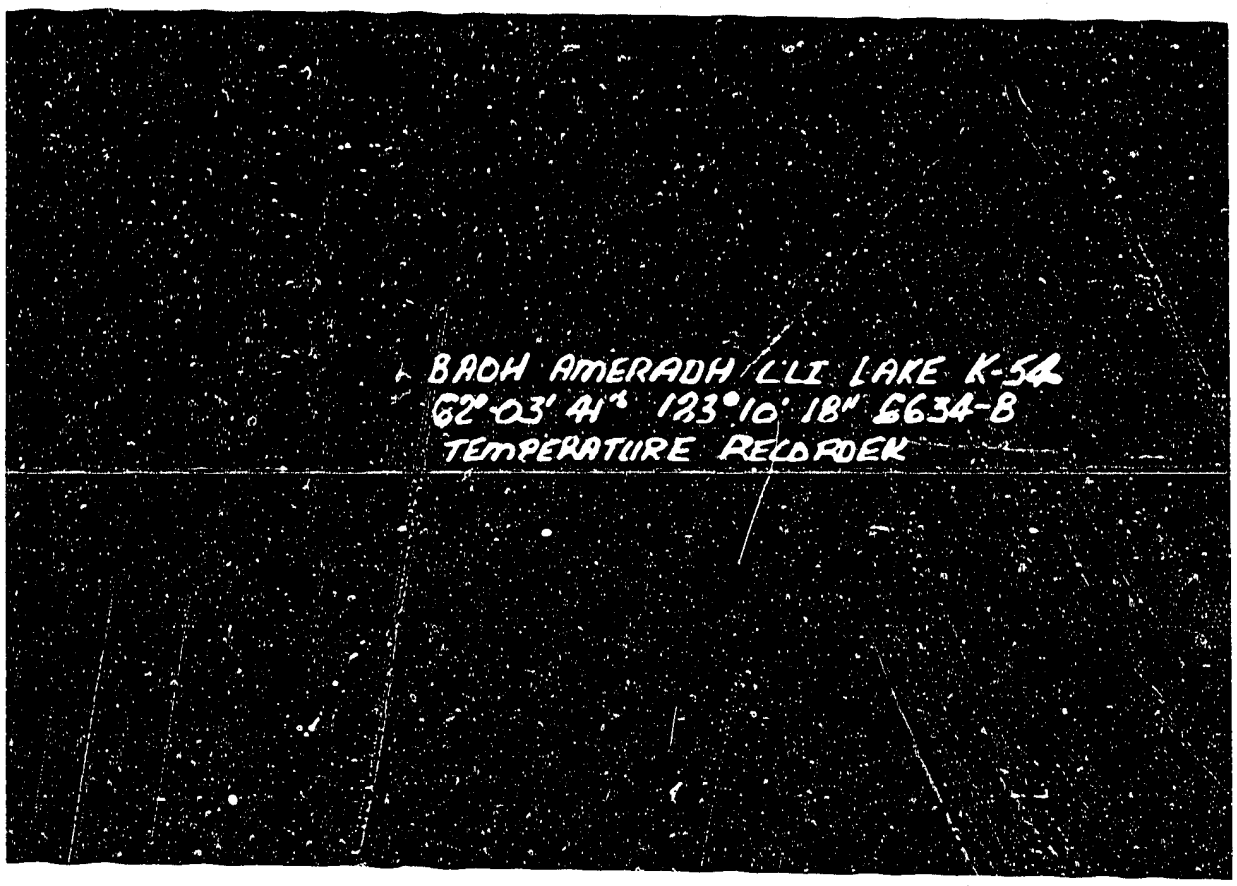
February 11, 1969 — Date of Test

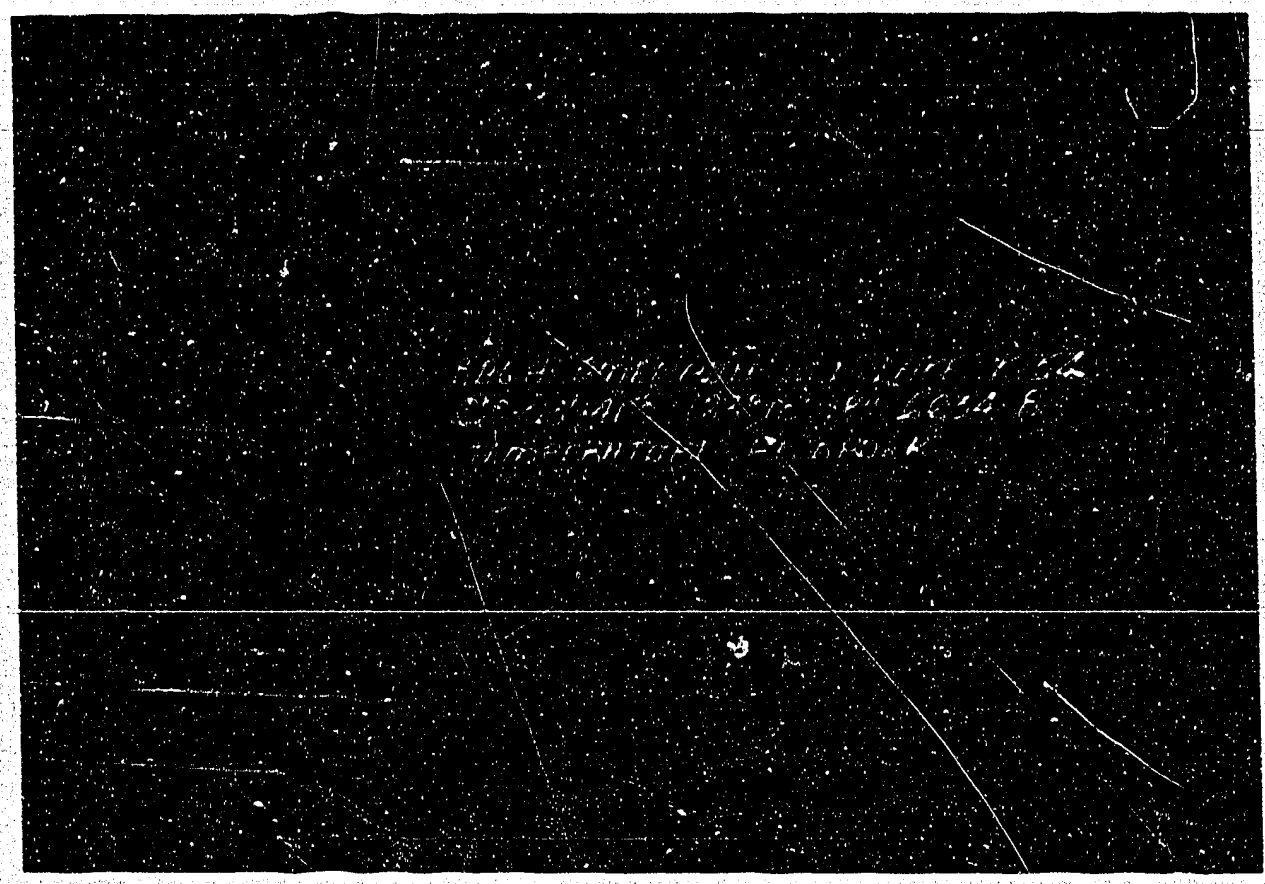



BAOH AMERADA (T.I. 1 MILE K 54
62° 03" 41" 127° 10' 18" 5420-5


BADH AMERADA CLI LAKE K-54
62°03'41" 123° 10' 18" 5427-0


BADH-AMERADA CLI. LAKE K-54
62° 03° 41" 123° 10' 18" 5426-8


BAOH AMERADH/LLI LAKE K-54
62°03' 41" 123°10' 18" 6634-B
TEMPERATURE RECORDER



Gulf Oil Canada Ltd.
BAOH Amerada CLI Lake
62° 05'41" 123°10'24" DST # 8

NOMENCLATURE (Definition of Symbols)

Q	=	average production rate during test, bbls./day
Q_g	=	measured gas production rate during test, MCF/day
k	=	permeability, md
h	=	net pay thickness, ft. (when unknown, test interval is chosen)
μ	=	fluid viscosity, centipoise
Z	=	compressibility factor
T_f	=	reservoir temperature, ° Rankine
m	=	slope of final SIP buildup plot, psig/cycle ($psig^2$/cycle for gas)
b	=	approximate radius of investigation, feet
r_w	=	wellbore radius, feet
t_p	=	total flowing time, minutes
P_o	=	Extrapolated maximum reservoir pressure, psig
P_f	=	final flowing pressure, psig
P.I.	=	productivity index, bbls./day/psi
$P.I._t$	=	theoretical productivity index with damage removed, bbl./day/psi
D.R.	=	damage ratio
E.D.R.	=	estimated damage ratio
AOF	=	absolute open flow potential, MCF/D
AOF_t	=	theoretical absolute open flow if damage were removed
$\bar{Z}$	=	subsea depth
W	=	water gradient based on salinity
H_w	=	potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 7269 ft. Subsea depth -6967 ft. Ticket No. 0497 Hour Recorder No. 5427

t_1 = 10 Mins. Initial Shut-in Pressure				Second Flow Pressure		t_2 = 70 Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_1 + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_2 + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	-	52				0	-	109	
3	4.333	2905				5	15.000	2305	
6	2.667	3028				10	8.000	2720	
9	2.111	3083				15	5.667	2860	
12	1.833	3125				20	4.500	2955	
15	1.667	3165				25	3.800	3020	
18	1.556	3190				30	3.333	2068	
21	1.476	3211				35	3.000	3100	
24	1.417	3228				40	2.750	3128	
27	1.370	3241				45	2.556	3153	
30	1.333	3256				50	2.400	3173	
						55	2.272	3190	
						60	2.167	3203	

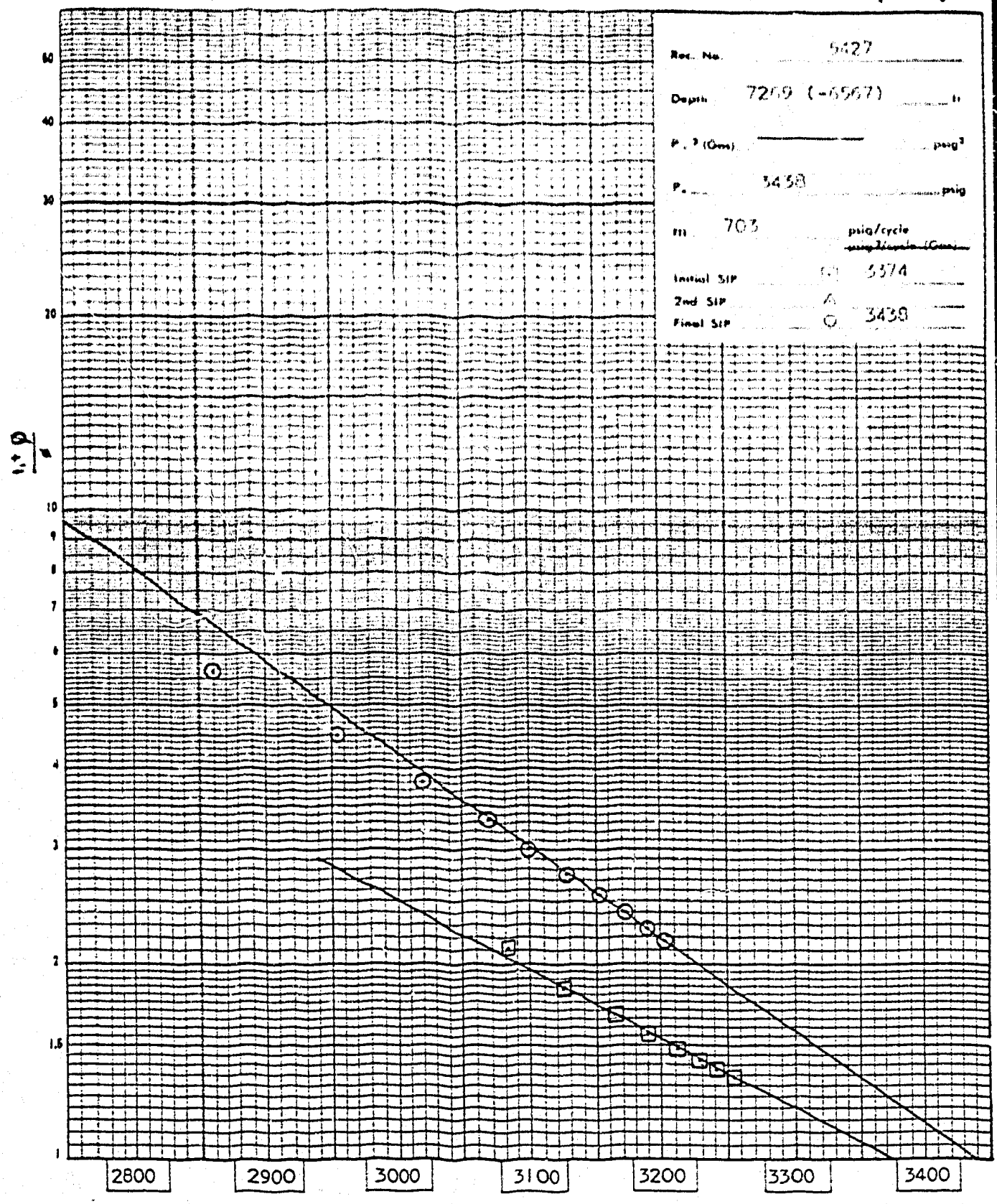
Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

t_1 = Mins. Initial Shut-in Pressure				Second Flow Pressure		t_2 = Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_1 + Ø}{Ø}$	PSIG	$\frac{PSIG^2}{Ø} \div 10^6$	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_2 + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 3 2nd Flow Press. FSIP 5

Remarks:

PRESSURE DATA



PSIG (OIL OR WATER)

PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA — Test No. 8 — Lynes Tool 5

Formation	Arnica	TD 8714	Ft.
Interval Tested	7264 Ft. to 7350		Ft.
Feet of Net Pay Tested	86		Ft.
Type of Test	Inflatable Straddle		
Cushion		Amount	Ft.
Started in Hole at	0030 Hrs.	Tool Open at 0500	Hrs.
Pre-Flow	10 Mins.	Initial Shut-in 30	Mins.
2nd Flow	Mins.	Second Shut-in	Mins.
Final Flow	50 Mins.	Final Shut-in 60	Mins.

Remarks:

Blow: Very weak initial puff, Dead in seconds.

GENERAL INFORMATION

Company	Gulf Oil Canada Ltd.
Address	10235 - 124 Street, Edmonton, Alberta
Well Name	BACH Amerada CLI Lake
Well Number	62°03'41" 123°10'24"
K.B. Elevation	702 Sub-Sea Elevation
Area	Fort Simpson Province N. W. T.
Company Rep	Bob Lock
Tester	Al Short
Contractor	Cascade Rig No 12
Ticket No.	0497 Date February 11, 1969
Service Reports To	5 - above address

GAS BLOW MEASUREMENTS

Measured with:

Time	Surface Choke	Reading Inches	Cubic Feet/Day

RECOVERY

TOTAL FLUID RECOVERED 330 Ft. Consisting of:

330 Ft. of Muddy salt water

Ft. of

Ft. of

Ft. of

Test was/was not Reversed Circulated

Oil Recovery A.P.I. Water Specific Gravity

Salinity

MUD AND HOLE DATA

Mud Type	Gel Chemical
Weight	9.1 Viscosity 33 Water Loss
Filter Cake	2/32" Bottom Hole Temperature 212°
Drill Pipe Size	4 1/2" IF Weight 19.5
Drill Collars	4 1/2" IF I.D. 2 7/8" Feet Run 120
Main Hole or Casing Size	8 3/4"
Rathole or Liner Size	No. of Feet
Bottom Hole Choke Size	1"
Surface Choke Size	
Packer Rubber Size	7 5/8" x 66"

REMARKS: Shut-in pressures suggest relatively low permeability within the interval tested.

PRESSURE READINGS

	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___	Inside ___ Outside ___
Recorder No.	5427	5426	6634	
Capacity	6000	5950	Temp.	
Depth	7269	7269	7269	
NUMBER KEY:				
1 - INITIAL HYDROSTATIC	3456	3455	212°	
2 - PRE-FLOW	52	52		
3 - INITIAL SHUT-IN	3256	3266		
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW	65	65		
6 - FINAL FLOW	109	109		
7 - FINAL SHUT-IN	3203	3214		
8 - FINAL HYDROSTATIC	3456	3455		

Company: Gulf Oil Canada Ltd.

Well Name and Description: BACH Amerada CLI Lake 62°03'41" 123°10'24"

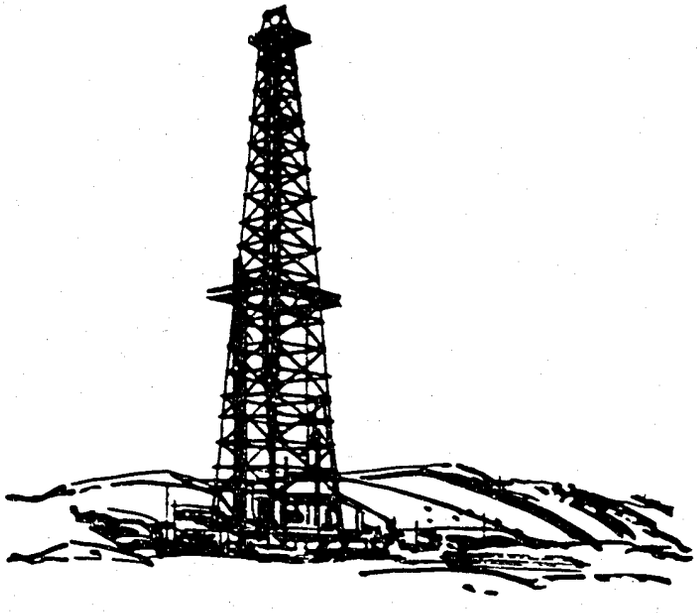
Test No.: 8

Date of Test: February 11, 1969

LYNES

BRIGHT NAME IN THE OIL PATCH

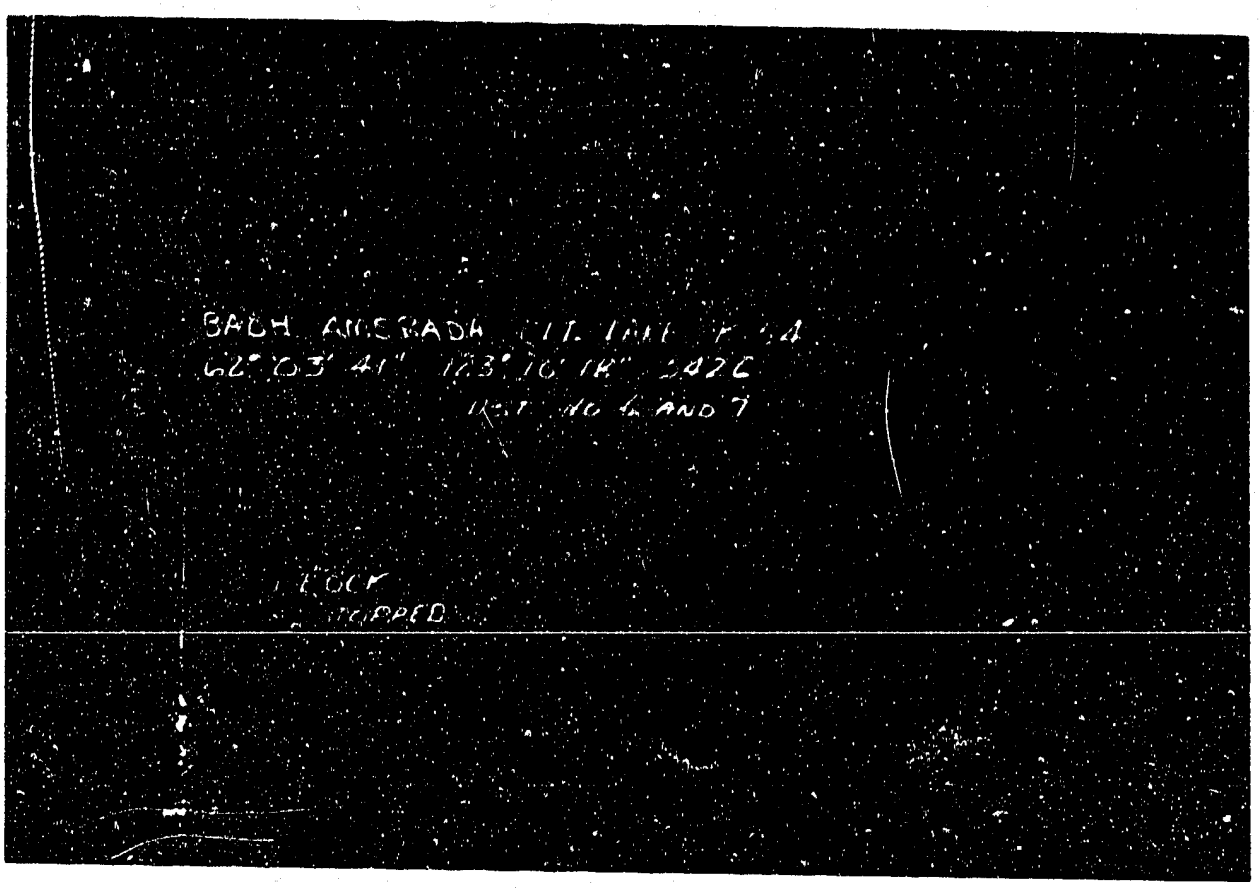
Inflatable Sealing Element Packers

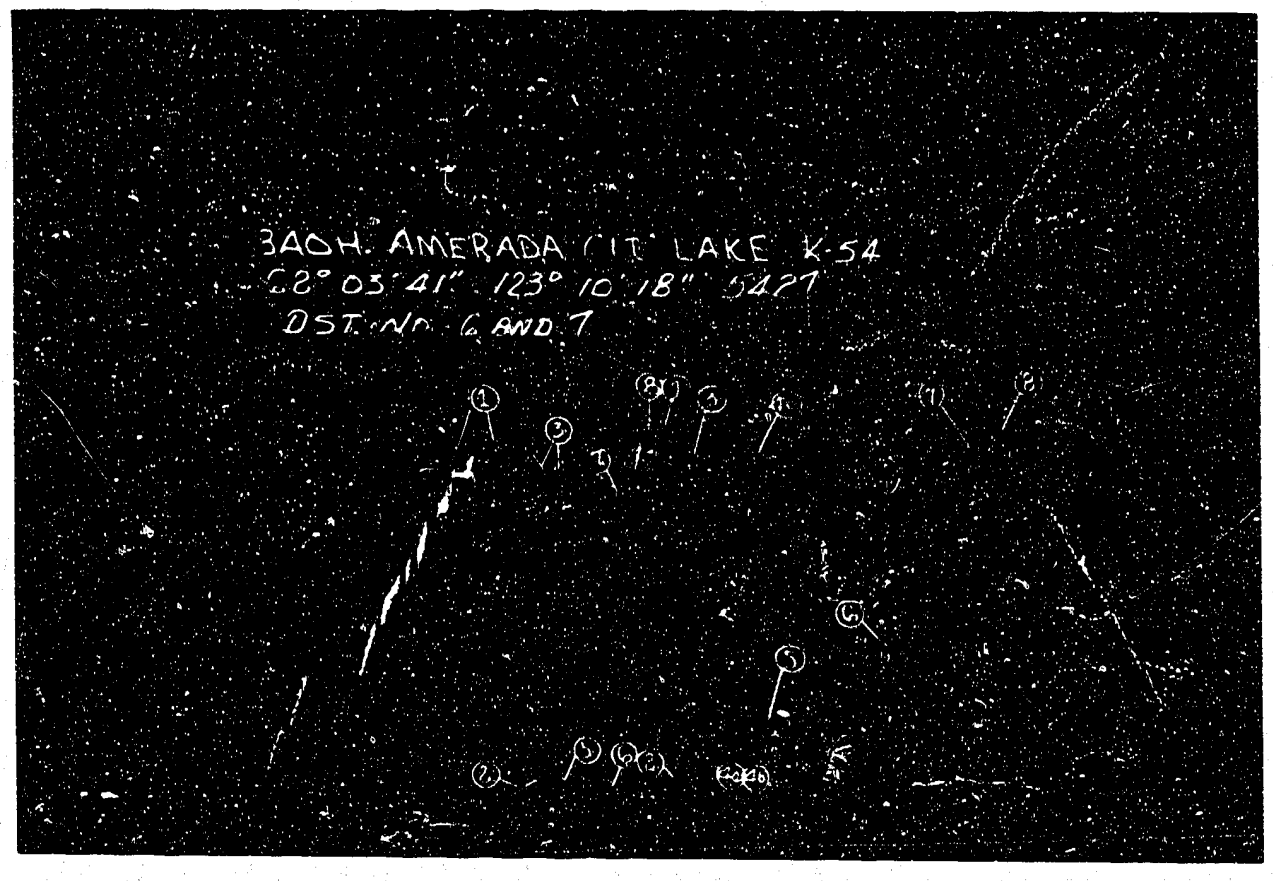


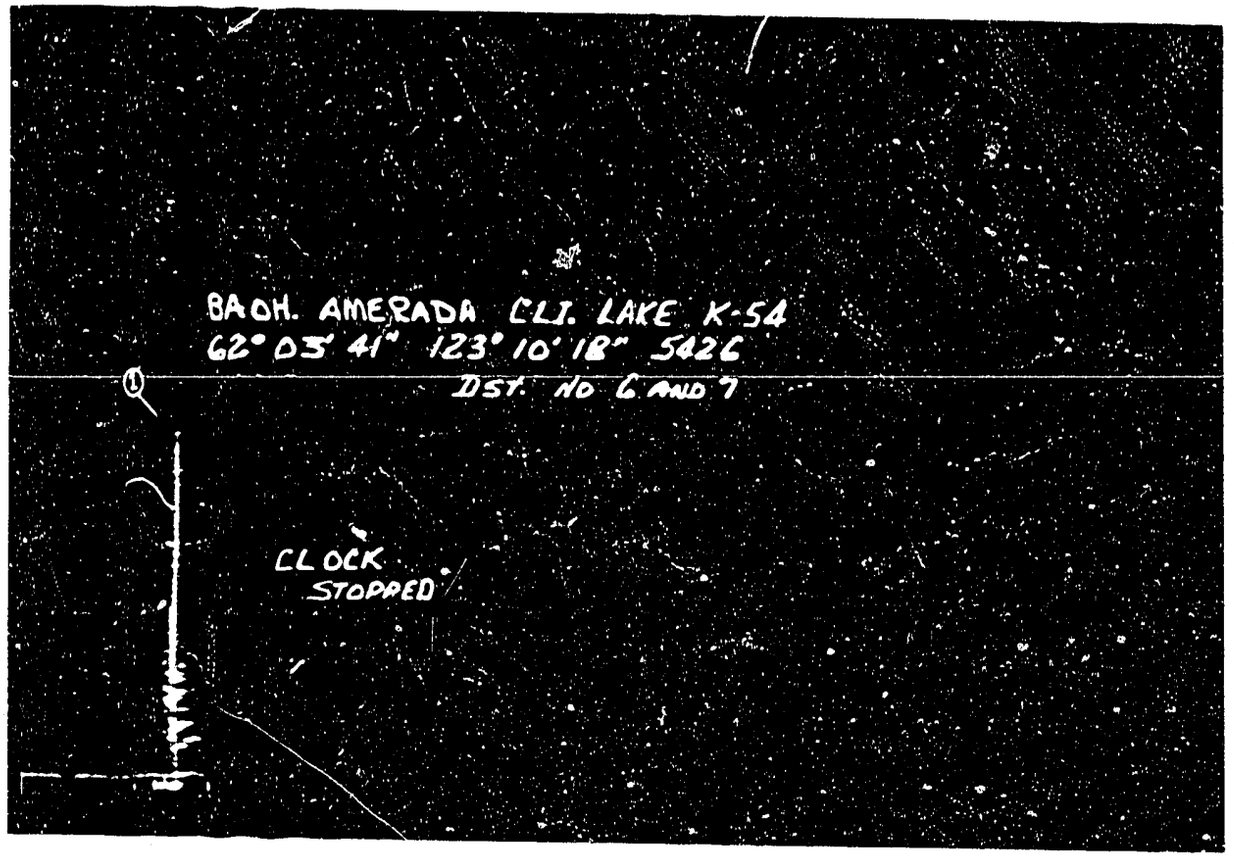
Formation Testing Service Report

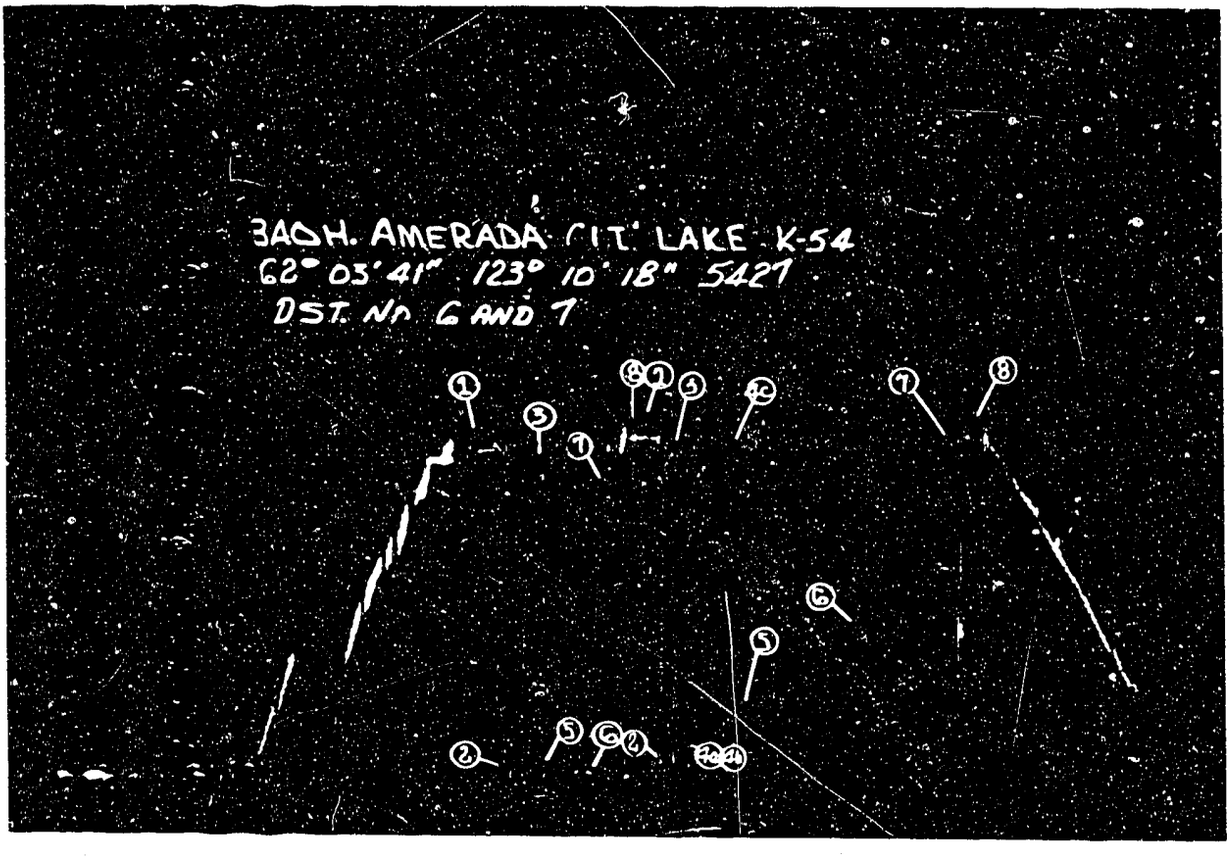
Gulf Oil Canada Ltd. | BACH Amerada CL1 Lake 62°03'41"123°10'24" | 7 | February 9, 1969

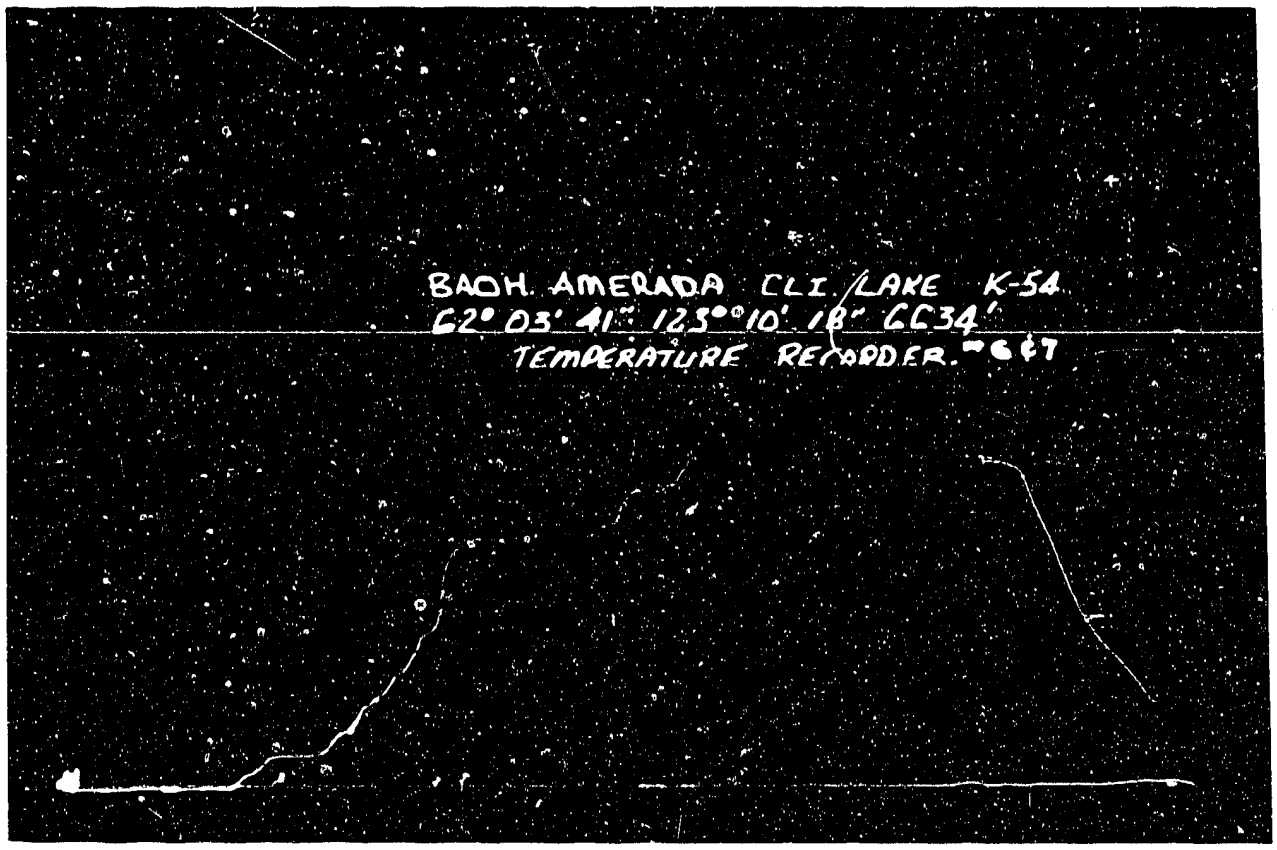
Company | Well Name and Description | Test No. | Date of Test

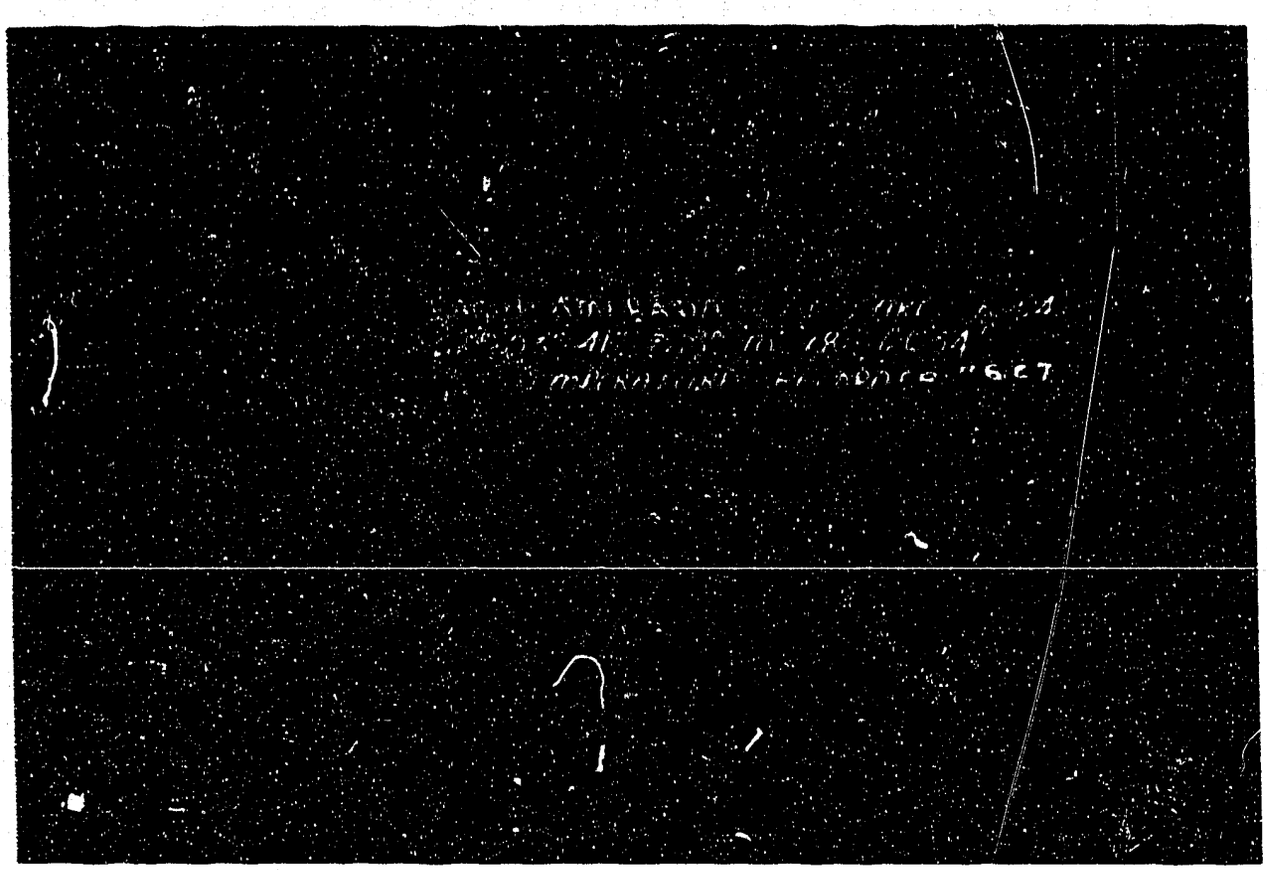

BAOH AMERADA IT LAKE K-54
62° 03' 41" 123° 10' 18" 5427
DST NO 6 AND 7
LOCK
STOPPED


3AOH. AMERADA IT LAKE K-54
62° 03' 41" 123° 10' 18" 5427
DST. NO. 6 AND 7


BAOH. AMERADA CLI. LAKE K-54
62° 03' 41" 123° 10' 18" 5426
DST. NO 6 AND 7
CLOCK STOPPED


BAOH. AMERADA CLI. LAKE K-54
62° 03' 41" 123° 10' 18" 5427
DST. NO 6 AND 7


BAOH AMERADA CLI./LAKE K-54
62° 03' 41" 125° 10' 18" CC34'
TEMPERATURE RECORDER. #647



Gulf Oil Canada Ltd.
BAOH Amerada CLI Lake
62°03'41" 123°10'24" DST # 7

NOMENCLATURE (Definition of Symbols)

Q	= average production rate during test, bbls./day
Q_g	= measured gas production rate during test, MCF/day
k	= permeability, md
h	= net pay thickness, ft. (when unknown, test interval is chosen)
μ	= fluid viscosity, centipoise
Z	= compressibility factor
T_f	= reservoir temperature, ° Rankine
m	= slope of final SIP buildup plot, psig/cycle ($psig^2$/cycle for gas)
b	= approximate radius of investigation, feet
r_w	= wellbore radius, feet
t_p	= total flowing time, minutes
P_e	= Extrapolated maximum reservoir pressure, psig
P_f	= final flowing pressure, psig
P.I.	= productivity index, bbls./day/psi
$P.I._t$	= theoretical productivity index with damage removed, bbl./day/psi
D.R.	= damage ratio
E.D.R.	= estimated damage ratio
AOF	= absolute open flow potential, MCF/D
AOF_t	= theoretical absolute open flow if damage were removed
Z	= subsea depth
W	= water gradient based on salinity
H_w	= potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

'Recorder' Depth 6697 ft. Subsea depth -5995 ft. Ticket No. 0496 Hour Recorder No. 5427

t_o = 2 Mins. Initial Shut-in Pressure				Second Flow Pressure		t_o = 12 Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
INITIAL SHUT-IN						SECOND SHUT-IN			
0	-	152				0	-	321	
1	3.000	2883				3	5.000	2883	
2	2.000	2955				6	3.000	2923	
3	1.667	2993				9	2.333	2955	
4	1.500	3013				12	2.000	2975	
5	1.400	3023				15	1.800	2993	
6	1.333	3033				18	1.667	3005	
7	1.286	3045				21	1.571	3020	
8	1.250	3050				24	1.500	3030	
						27	1.444	3038	
						30	1.400	3040	

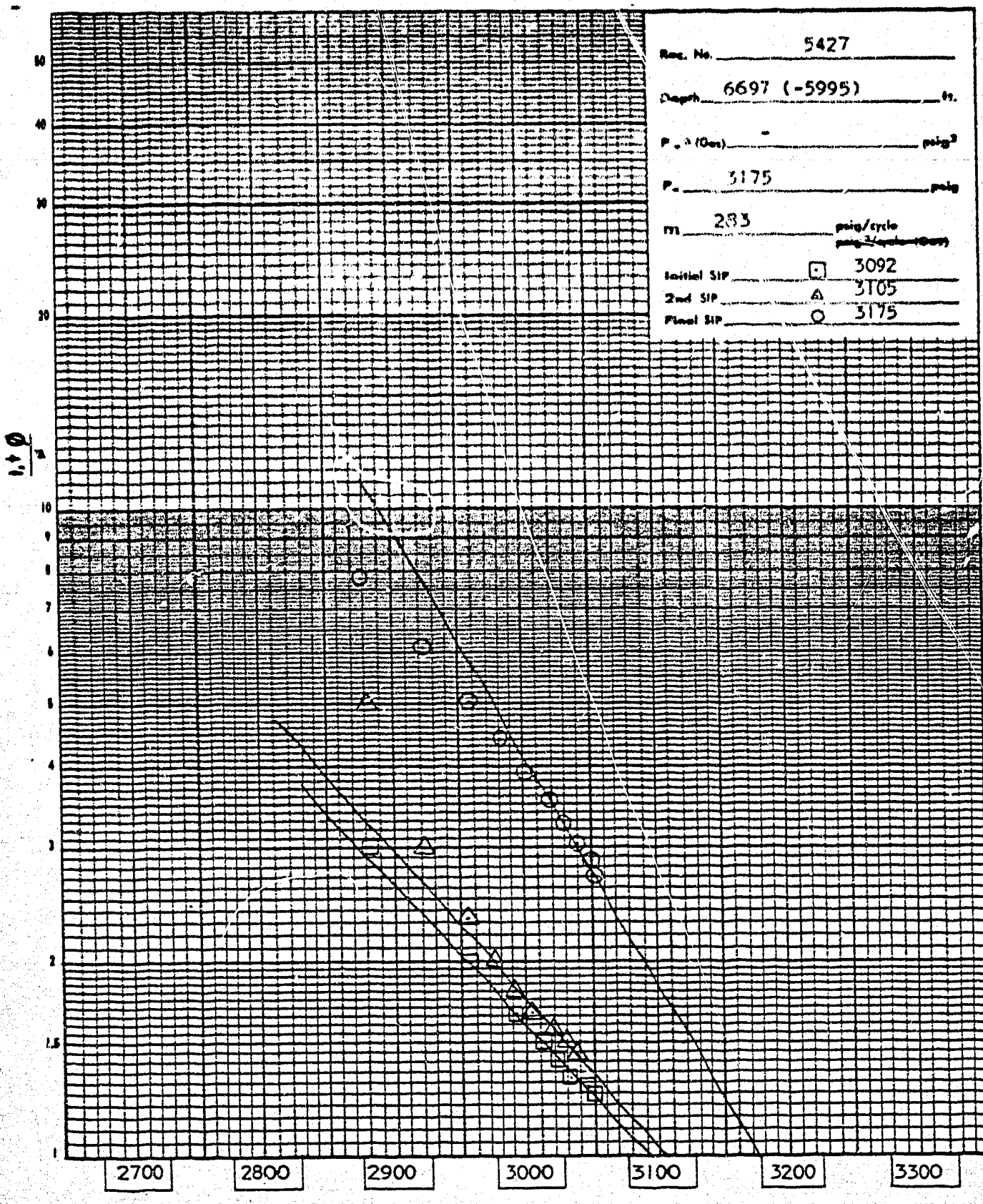
Recorder Depth ..... ft. Subsea depth ..... ft. Ticket No. ..... Hour Recorder No. .....

t_o = Mins. Initial Shut-in Pressure				Second Flow Pressure		t_o = 102 Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
						THIRD SHUT-IN			
						0	-	1353	
						5	21.400	2743	
						10	11.200	2830	
						15	7.800	2878	
						20	6.100	2923	
						25	5.080	2958	
						30	4.400	2983	
						35	3.914	3003	
						40	3.550	3020	
						45	3.267	3030	
						50	3.040	3040	
						55	2.855	3050	
						60	2.700	3053	

Interval of Pressure Readings (Mins.) ISIP 1 2nd Flow Press. 3 FSIP 5

Remarks:

PRESSURE DATA



PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA | Test No. 7 | Lynes Test 2

Formation	Manetoe	T.D.	8714	Ft.	
Interval Tested	6692	Ft. to	6756	Ft.	
Feet of Net Pay Tested	64			Ft.	
Type of Test	Inflatable Straddle				
Cushion		Amount		Ft.	
Reversed to Make at		Hrs.	Tool Open at 1027	Hrs.	
Pre-Flow	2	Mins.	Initial Shut-in 8	Mins.	
2nd Flow	10	Mins.	Second Shut-in 30	Mins.	
Final Flow	90	Mins.	Final Shut-in 60	Mins.	

Remarks:

Blows: Good initial puff, fair air blow decreasing throughout test.

GENERAL INFORMATION

Company: Gulf Oil Canada Ltd.
Address: 10235 - 124 Street, Edmonton, Alberta
Well Name: BACH Amerada CLI Lake
Well Number: 62°03'41" 123°10'24"
K.B. Elevation: 702 Sub-Sea Elevation:
Area: Fort Simpson Province: N.W.T.
Company Rep.: Bob Lock
Tester: Al Short
Contractor: Cascade Rig No. 12
Ticket No.: 0496 Date: February 9, 1969
Service Reports To: 5 - above address

GAS FLOW MEASUREMENTS

Measured with:

Time	Surface Choke	Bleeding Orifice	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chemical
Weight: 9.1 Viscosity: 33 Water Loss:
Filter Cake: 2/32" Bottom Hole Temperature: 218°
Drill Pipe Size: 4 1/2" IF Weight: 19.50
Drill Collars: 4 1/2" IF I.D. 2 7/8" Feet Run: 181
Main Hole or Casing Size: 8 3/4"
Rathole or Liner Size: No. of Feet:
Bottom Hole Choke Size: 1"
Surface Choke Size:
Packer Rubber Size: 7 5/8" x 66"

REMARKS: Shut-in pressures suggest average to high permeability within the interval tested. The 2480 feet of salt water was produced from test 7 (as indicated by the flow pressures).

RECOVERY

TOTAL FLUID RECOVERED 2660 Ft. Consisting of:

180 Ft. of Drilling mud
2480 Ft. of Salt water
Ft. of
Ft. of

Tool was/was not Reversed Circulated: Not
Oil Recovery A.P.I. Water Specific Gravity
Salinity

PRESSURE READINGS

	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___	Inside ___ Outside ___
Recorder No.	5426	5427	6634	
Capacity	5950	6000	Temp.	
Depth	6697	6697	6697	
1 - INITIAL HYDROSTATIC	3216	3216		
2 - PRE-FLOW	Clock	152		
3 - INITIAL SHUT-IN	Stopped	3050	218°	
4a - 2nd INITIAL FLOW		152		
4b - 2nd FINAL FLOW		321		
4c - 2nd SHUT-IN		3040		
5 - 3rd INITIAL FLOW		346		
6 - FINAL FLOW		1353		
7 - FINAL SHUT-IN		3053		
8 - FINAL HYDROSTATIC		3216		

Gulf Oil Canada Ltd. — Company
BACH Amerada CLI Lake 62°03'41"123°10'24" — Well Name and Description
7 — Test No.
February 9, 1969 — Date of Test

LYNES UNITED SERVICES LTD.

TEST DATA — Test No. 6 — Lynes Test 1

Formation: Upper Manetoe — T.D. 8714 Ft.
Interval Tested: 6420 Ft. to 6484 Ft.
Feet of Net Pay Tested: 64 Ft.
Type of Test: Inflatable Straddle
Cushion: Amount Ft.
Started in Hole at: 1630 Hrs. — Tool Open at: 2037 Hrs.
Pre-Flow: 8 Mins. — Initial Shut-in: 15 Mins.
2nd Flow: Mins. — Second Shut-in: Mins.
Final Flow: 30 Mins. — Final Shut-in: 10 Mins.
Remarks:

Blows: Very weak initial puff. Dead in seconds.

GENERAL INFORMATION

Company: Gulf Oil Canada Ltd.
Address: 10235 - 124 Street, Edmonton, Alberta
Well Name: BAOH Amerada CLI Lake
Well Number: 62°03'41" 123°10'24"
K.B. Elevation: 702 — Sub-Sea Elevation:
Area: Fort Simpson — Province: N. W. T.
Company Rep.: Bob Lock
Tester: Al Short
Contractor: Cascade — Rig No. 12
Ticket No.: 0495 — Date: February 9, 1969
Service Reports To: 5 - above address

GAS BLOW MEASUREMENTS

Measured with:

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chemical
Weight: 9.1 — Viscosity: 33 — Water Loss:
Filter Cake: 2/32" — Bottom Hole Temperature: 201°
Drill Pipe Size: 4 1/2" IF — Weight: 19.5
Drill Collars: 4 1/2" IF — I.D. 2 7/8" — Feet Run: 181
Main Hole or Casing Size: 8 3/4"
Bathtube or Liner Size: — No. of Feet:
Bottom Hole Choke Size: 1"
Surface Choke Size:
Packer Rubber Size: 7 5/8" x 65"

REMARKS: Shut-in pressures suggest very low permeability within the interval tested. Flow pressures from this test suggest that approximately 100 feet of mud or mud and formation fluid was recovered.

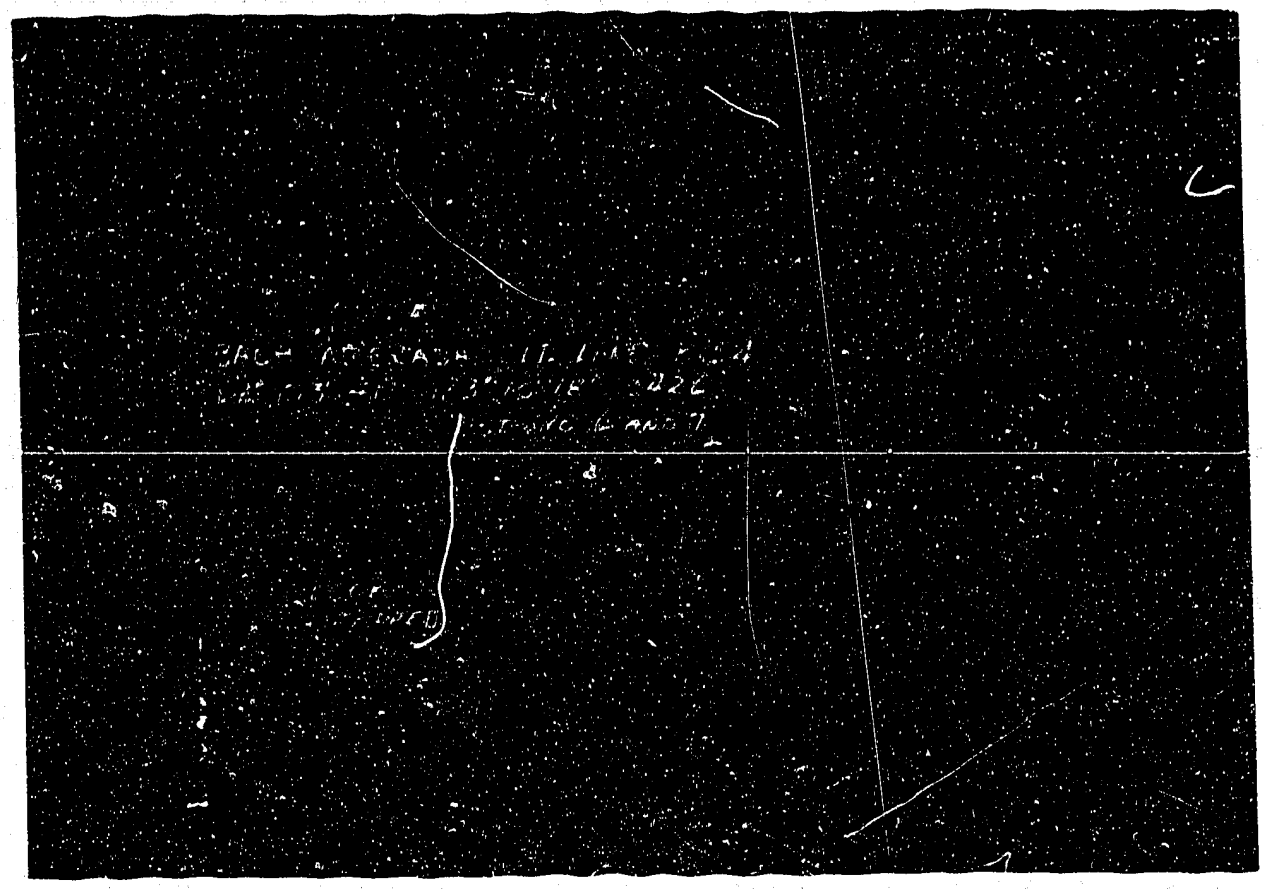
RECOVERY

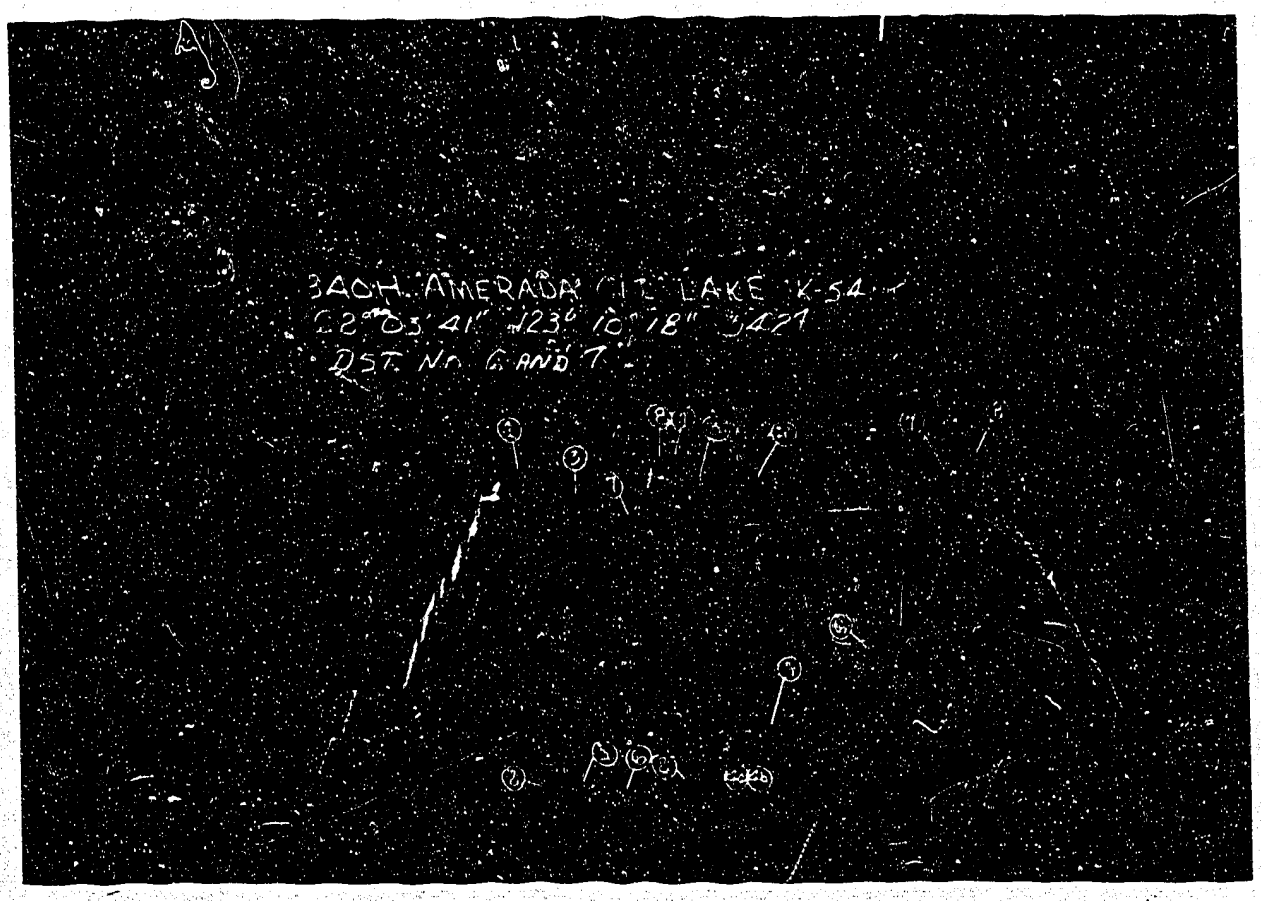
TOTAL FLUID RECOVERED Ft. Consisting of:
Ft. of Approximately 100 feet of mud
Ft. of or mud and formation fluid as
Ft. of determined from flow pressures.
Ft. of
Test was/was not Reverse Circulated: Not
Oil Recovery A.P.I. — Water Specific Gravity
Salinity

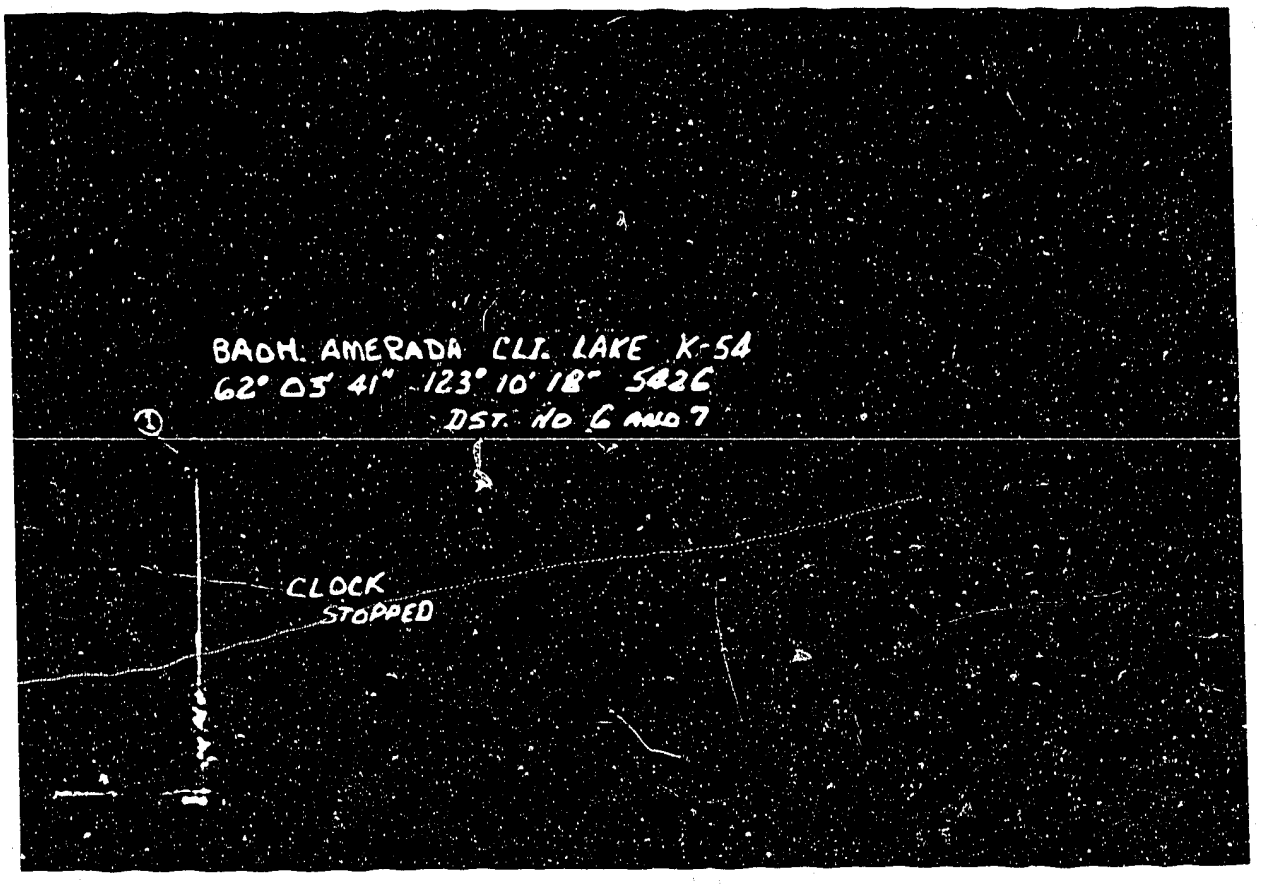
PRESSURE READINGS

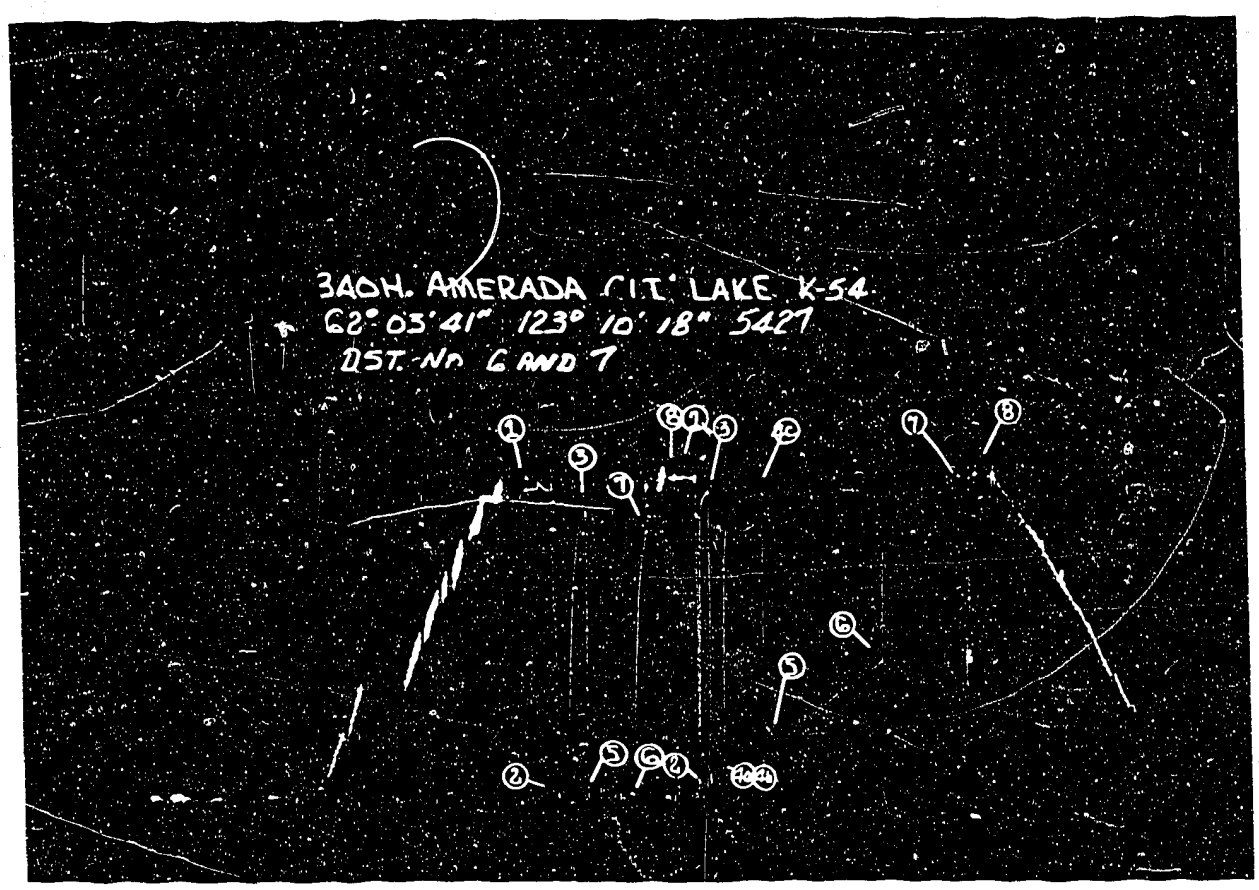
	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___
	Recorder No. 5426	Recorder No. 5427	Recorder No. 6634	Recorder No.
	Capacity 5950	Capacity 6000	Capacity Temp	Capacity
	Depth 6425	Depth 6425	Depth 6425	Depth
NUMBER KEY:				
1 - INITIAL HYDROSTATIC	3093	3093	201°	
2 - PRE-FLOW	Clock	25		
3 - INITIAL SHUT-IN	Stopped	2823		
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW		32		
6 - FINAL FLOW		50		
7 - FINAL SHUT-IN		2525		
8 - FINAL HYDROSTATIC		3093		

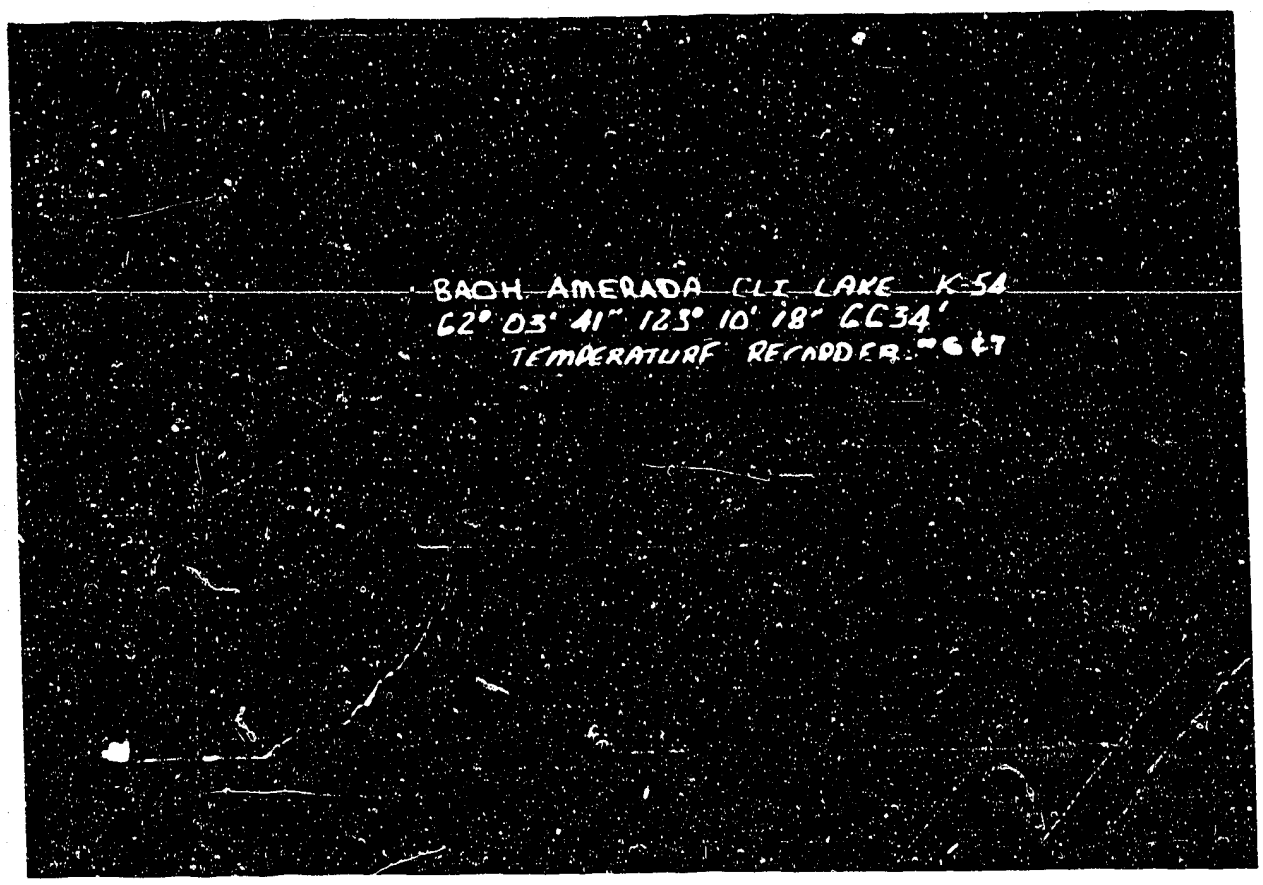
Company: Gulf Oil Canada Ltd.
Well Name and Description: BAOH Amerada CLI Lake 62°03'41" 123°10'24"
Test No.: 6
Date of Test: February 9, 1969

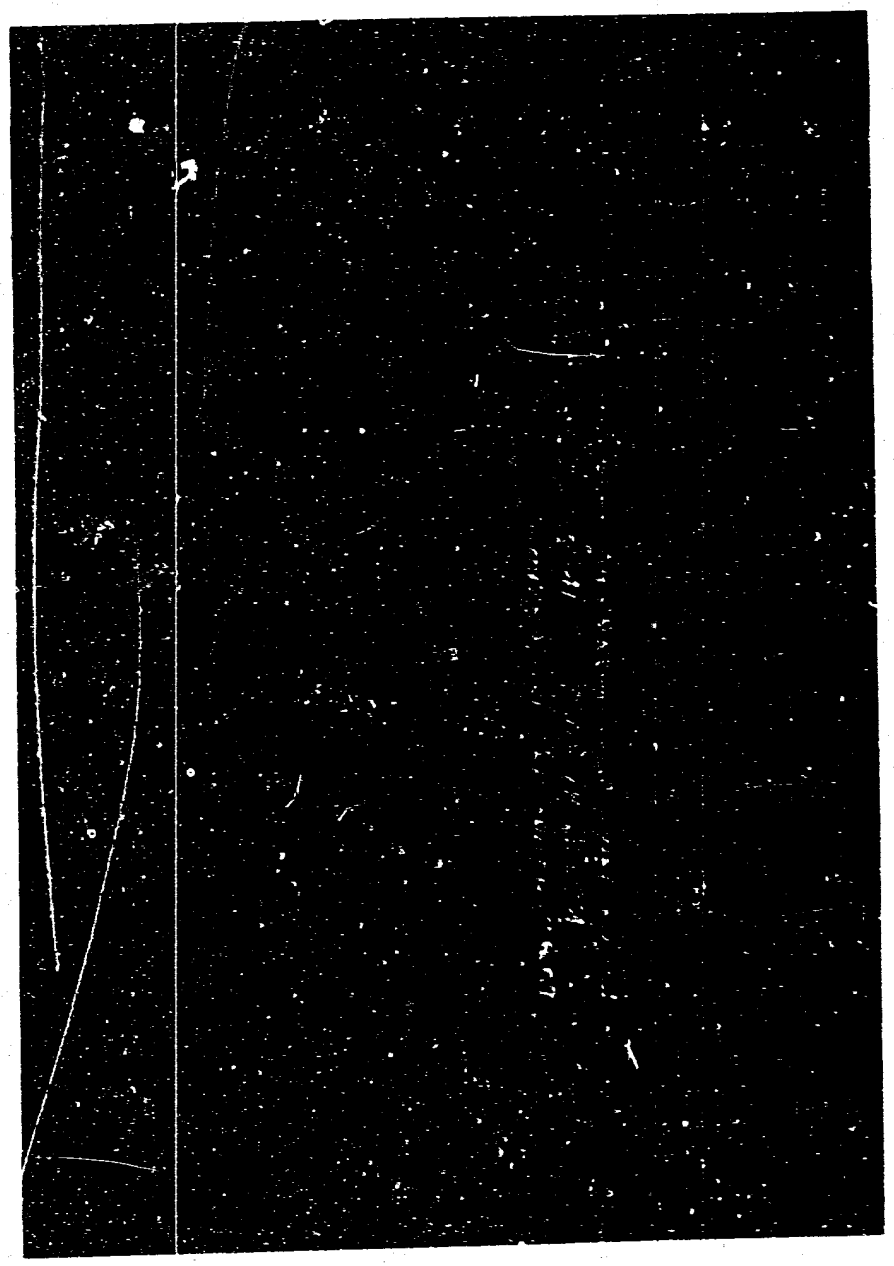



BACH AMERADA CITY LAKE K-54
32°05'41" N23° 10' 18" W421
DST NO 6 AND 7


BAOH. AMERADA CLI. LAKE K-54
62° 05' 41" 123° 10' 18" 5426
DST. NO 6 AND 7
CLOCK
STOPPED


3AOH. AMERADA CLI. LAKE K-54
62° 03' 41" 123° 10' 18" 5427
DST. NO 6 AND 7


BAOH AMERADA CLI LAKE K-54
62° 03' 41" 123° 10' 18" CC34'
TEMPERATURE RECORDER: 6 F



Gulf Oil Canada Ltd.
DAOH Amerada CLI Lake
62°05'41" 125°10'24" DST # 7

NOMENCLATURE (Definition of Symbols)

Q	= average production rate during test, bbls./day
Q_g	= measured gas production rate during test, MCF/day
k	= permeability, md
h	= net pay thickness, ft. (when unknown, test interval is chosen)
μ	= fluid viscosity, centipoise
Z	= compressibility factor
T_f	= reservoir temperature, ° Rankine
m	= slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	= approximate radius of investigation, feet
r_w	= wellbore radius, feet
t_p	= total flowing time, minutes
P_e	= Extrapolated maximum reservoir pressure, psig
P_f	= final flowing pressure, psig
P.I.	= productivity index, bbls./day/psi
$P.I._s$	= theoretical productivity index with damage removed, bbl./day/psi
D.R.	= damage ratio
E.D.R.	= estimated damage ratio
AOF	= absolute open flow potential, MCF/D
AOF_s	= theoretical absolute open flow if damage were removed
Z	= subsea depth
W	= water gradient based on salinity
H_w	= potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 6697 ft. Subsea depth -5995 ft. Ticket No. 0496 Hour Recorder No. 5427

t_o = 2 Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = 12 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
INITIAL SHUT-IN						SECOND SHUT-IN			
0	-	152				0	-	321	
1	7.000	2883				3	5.000	2883	
2	2.000	2955				6	3.000	2923	
3	1.667	2993				9	2.333	2955	
4	1.500	3013				12	2.000	2975	
5	1.400	3023				15	1.800	2993	
6	1.333	3033				18	1.667	3005	
7	1.286	3045				21	1.571	3020	
8	1.250	3050				24	1.500	3030	
						27	1.444	3038	
						30	1.400	3040	

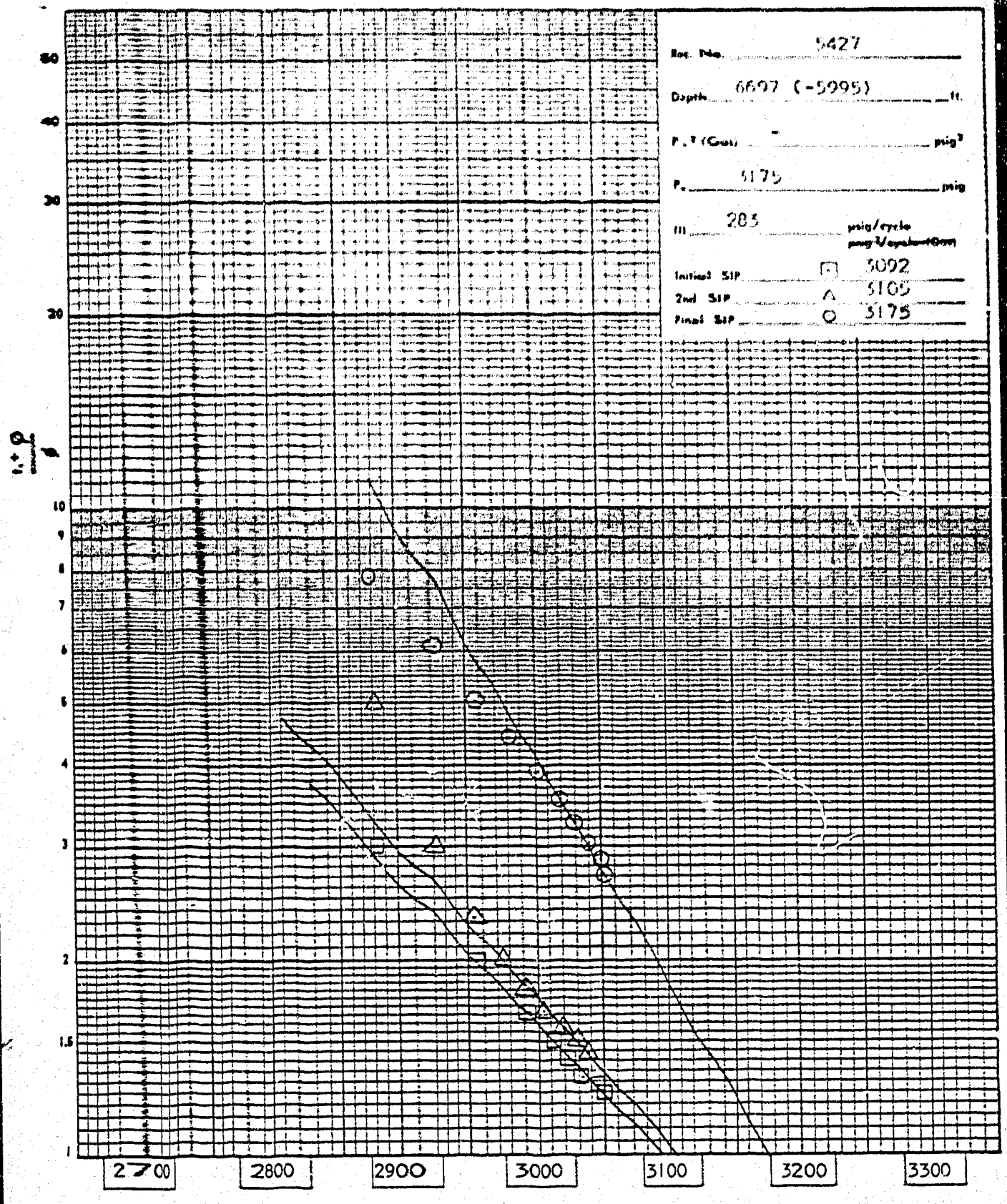
Recorder Depth ..... ft. Subsea depth ..... ft. Ticket No. ..... Hour Recorder No. .....

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = 102 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
						THIRD SHUT-IN			
						0	-	1353	
						5	21.400	2743	
						10	11.200	2830	
						15	7.800	2878	
						20	6.100	2923	
						25	5.080	2958	
						30	4.400	2983	
						35	3.914	3003	
						40	3.550	3020	
						45	3.267	3030	
						50	3.040	3040	
						55	2.855	3050	
						60	2.700	3053	

Interval of Pressure Readings (Mins.) ISIP 1 2nd Flow Press. 3 FSIP 5

Remarks:

PRESSURE DATA



PRESSURE EXTRAPOLATION PLOT

LYMES UNITED SERVICES LTD.

TEST DATA — Test No. 6 — Lymes Test 1

Formation	Upper Manetoo	T.D. 8714	Ft.
Interval Tested	6420	Ft. to 6484	Ft.
Feet of Net Pay Tested	64		Ft.
Type of Tool	Inflatable Straddle		
Cushion		Amount	Ft.
Started in Hole at	1630 Hrs.	Tool Open at 2037	Hrs.
Pre-Flow	8 Mins.	Initial Shut-in 15	Mins.
2nd Flow	Mins.	Second Shut-in	Mins.
Final Flow	30 Mins.	Final Shut-in 10	Mins.
Remarks			

Blow: Very weak initial puff. Dead in seconds.

GAS BLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

RECOVERY

TOTAL FLUID RECOVERED Ft. Consisting of:

Ft. of Approximately 100 feet of mud
Ft. of or mud and formation fluid as
Ft. of determined from flow pressures.
Ft. of

Test was/was not Reverse Circulated Not

Oil Recovery A.P.I. Water Specific Gravity

Salinity

GENERAL INFORMATION

Company	Gulf Oil Canada Ltd.
Address	10235 - 124 Street, Edmonton, Alberta
Well Name	BAOH Amerada CLI Lake
Well Number	62°03'41" 123°10'24"
K.B. Elevation	702 Sub-Sea Elevation
Area	Fort Simpson Province N. W. T.
Company Rep.	Bob Lock
Tester	Al Short
Contractor	Cascade Rig No. 12
Ticket No.	0495 Date February 9, 1969
Service Reports To:	5 - above address

MUD AND HOLE DATA

Mud Type	Gel Chemical
Weight	9.1 Viscosity 33 Water Loss
Filter Cake	2/32" Bottom Hole Temperature 201°
Drill Pipe Size	4 1/2"IF Weight 19.5
Drill Collars	4 1/2"IF I.D. 2 7/8" Feet Run 181
Main Hole or Casing Size	8 3/4"
Rathole or Liner Size	No. of Feet
Bottom Hole Choke Size	1"
Surface Choke Size	
Packer Rubber Size	7 5/8" x 66"

REMARKS Shut-in pressures suggest very low permeability within the interval tested. Flow pressures from this test suggest that approximately 100 feet of mud or mud and formation fluid was recovered.

PRESSURE READINGS

	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___
Recorder No.	5426	5427	6634	
Capacity	5950	6000	Temp	
Depth	6425	6425	6425	
1 - INITIAL HYDROSTATIC	3093	3093	201°	
2 - PRE-FLOW	Clock	25		
3 - INITIAL SHUT-IN	Stopped	2823		
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW		32		
6 - FINAL FLOW		50		
7 - FINAL SHUT-IN		2525		
8 - FINAL HYDROSTATIC		3093		

Company: Gulf Oil Canada Ltd.
Well Name and Description: BAOH Amerada CLI Lake 62°03'41" 123°10'24"
Test No.: 6
Date of Test: February 9, 1969

LYNES UNITED SERVICES LTD.

TEST DATA

Test No. 7 Lynes Test 2
Formation Manetoe T.D. 8714 Ft.
Interval Tested 6692 Ft. to 6756 Ft.
Feet of Mud Per Tested 64 Ft.
Type of Test Initiatable Straddle
Cushion Amount Ft.
Started in Hole at Hrs. Tool Open at 1027 Hrs.
Pre-flow 2 Mins. Initial Shut-in 8 Mins.
2nd Flow 10 Mins. Second Shut-in 30 Mins.
Final Flow 90 Mins. Final Shut-in 60 Mins.
Remarks

Blow: Good initial puff. Fair air blow decreasing throughout test.

GENERAL INFORMATION

Company Gulf Oil Canada Ltd.
Address 10235 - 124 Street
Edmonton, Alberta
Well Name BACH Amerada CLI Lake
Well Number 62°03'41" 123°10'24"
K.B. Elevation 702 Sub-Sea Elevation
Area Fort Simpson Province N.W.T.
Company Rep. Bob Lock
Tester Al Short
Contractor Cascade Rig No. 12
Ticket No. 0496 Date February 9, 1969
Service Reports To: 5 - above address

GAS BLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type Gel Chemical
Weight 9.1 Viscosity 33 Water Loss
Filter Cake 2/32" Bottom Hole Temperature 218°
Drill Pipe Size 4 1/2" IF Weight 19.50
Drill Collars 4 1/2" IF I.D. 2 7/8" Feet Run 181
Main Hole or Casing Size 8 3/4"
Rathole or Liner Size No. of Feet
Bottom Hole Choke Size 1"
Surface Choke Size
Packer Rubber Size 7 5/8" x 66"

REMARKS Shut-in pressures suggest average to high permeability within the interval tested. The 2480 feet of salt water was produced from test 7 (as indicated by the flow pressures).

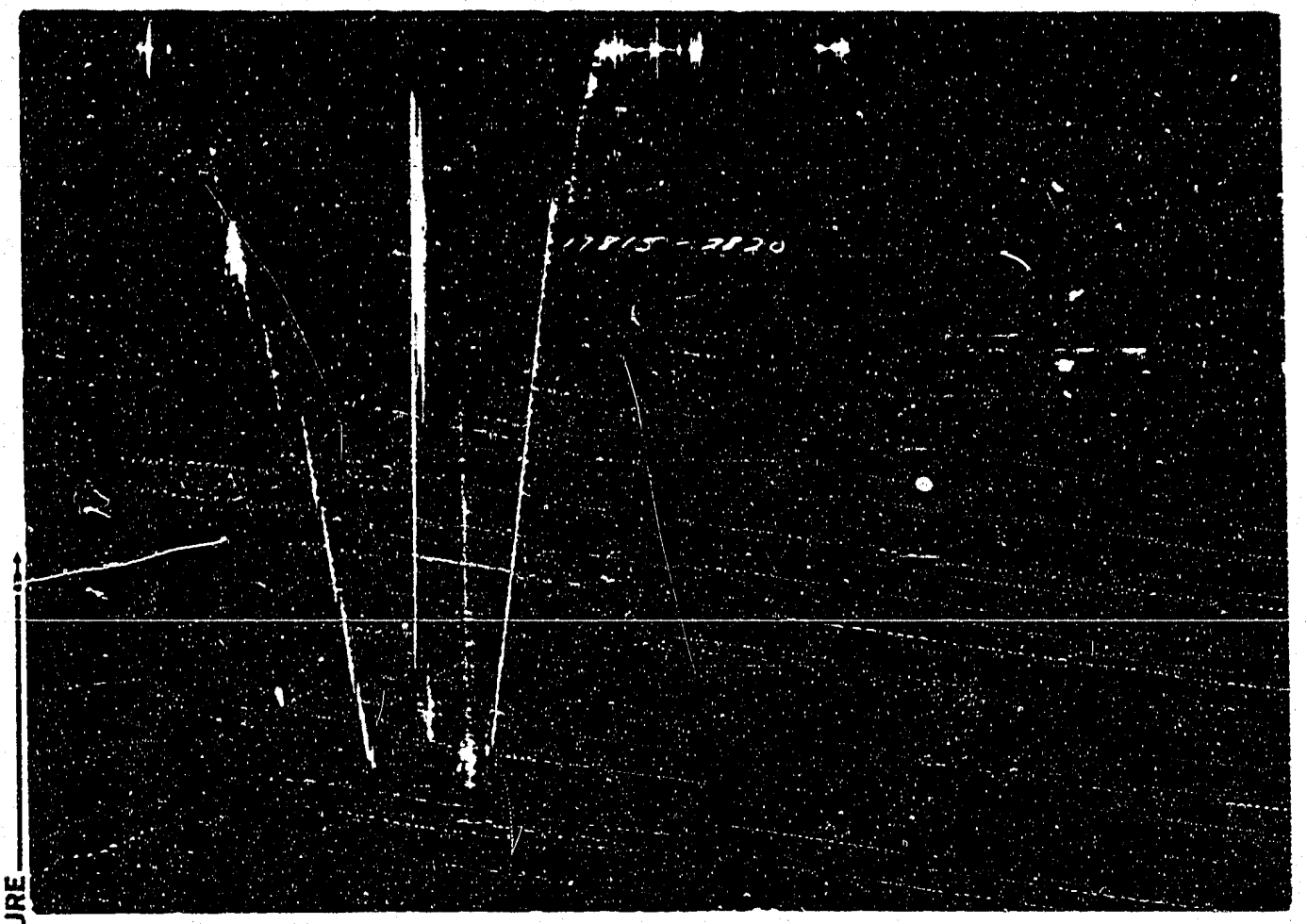
RECOVERY

TOTAL FLUID RECOVERED 2660 Ft. Consisting of:
180 Ft. of Drilling mud
2480 Ft. of Salt water
Ft. of
Ft. of
Test was/was not Reverse Circulated Not
Oil Recovery A.P.I. Water Specific Gravity
Salinity

PRESSURE READINGS

	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___	Inside ___ Outside ___
	Recorder No. 5426	Recorder No. 5427	Recorder No. 6634	Recorder No.
	Capacity 5950	Capacity 6000	Capacity Temp.	Capacity
	Depth 6697	Depth 6697	Depth 6697	Depth
NUMBER KEY:				
1 - INITIAL HYDROSTATIC	3216	3216		
2 - PRE-FLOW	Clock	152		
3 - INITIAL SHUT-IN	Stopped	3050	218°	
4a - 2nd INITIAL FLOW		152		
4b - 2nd FINAL FLOW		321		
4c - 2nd SHUT-IN		3040		
5 - 3rd INITIAL FLOW		346		
6 - FINAL FLOW		1353		
7 - FINAL SHUT-IN		3053		
8 - FINAL HYDROSTATIC		3216		

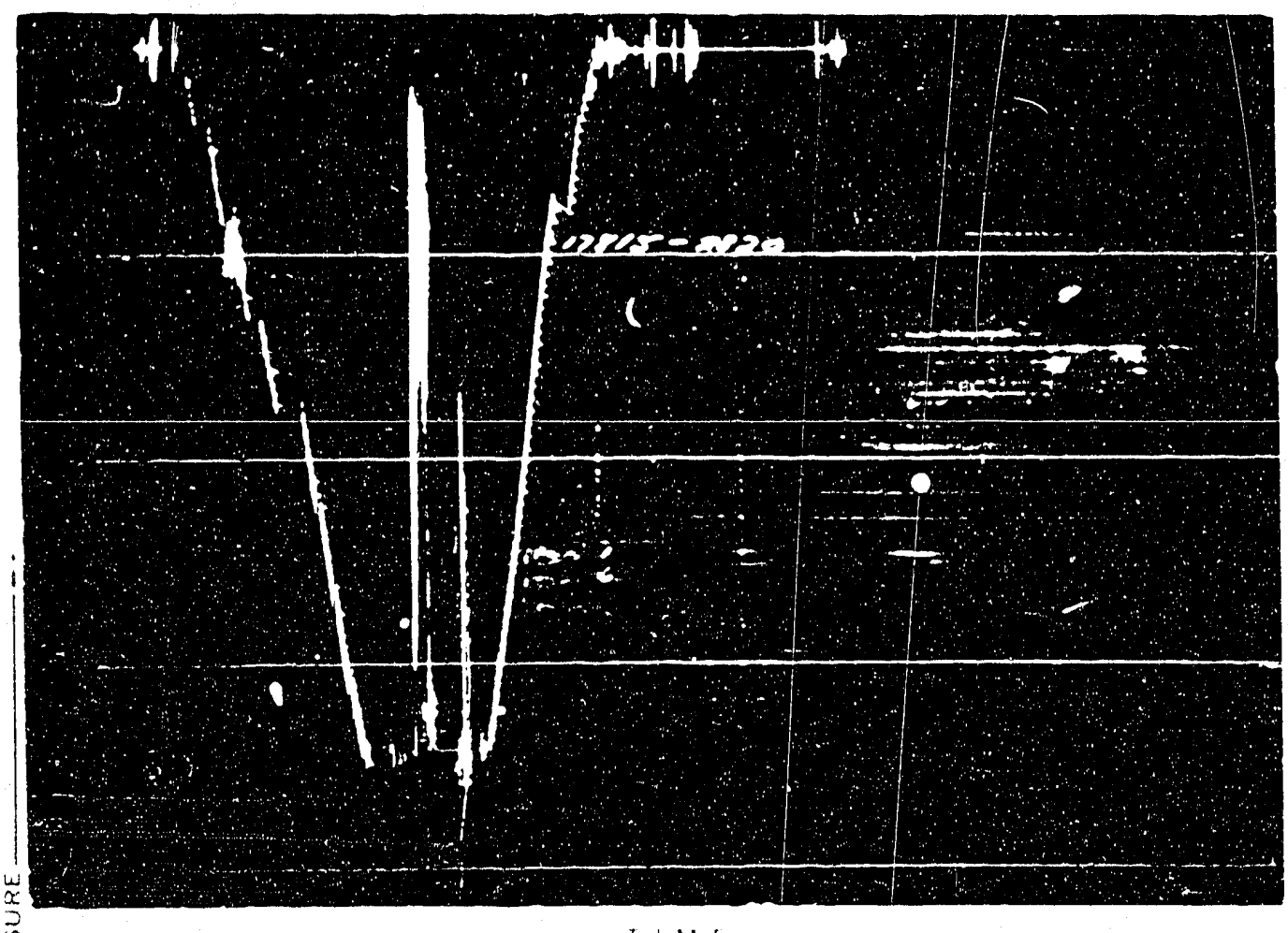
Company: Gulf Oil Canada Ltd.
Well Name and Description: BACH Amerada CLI Lake 62°03'41" 123°10'24"
Test No.: 7
Date of Test: February 9, 1969

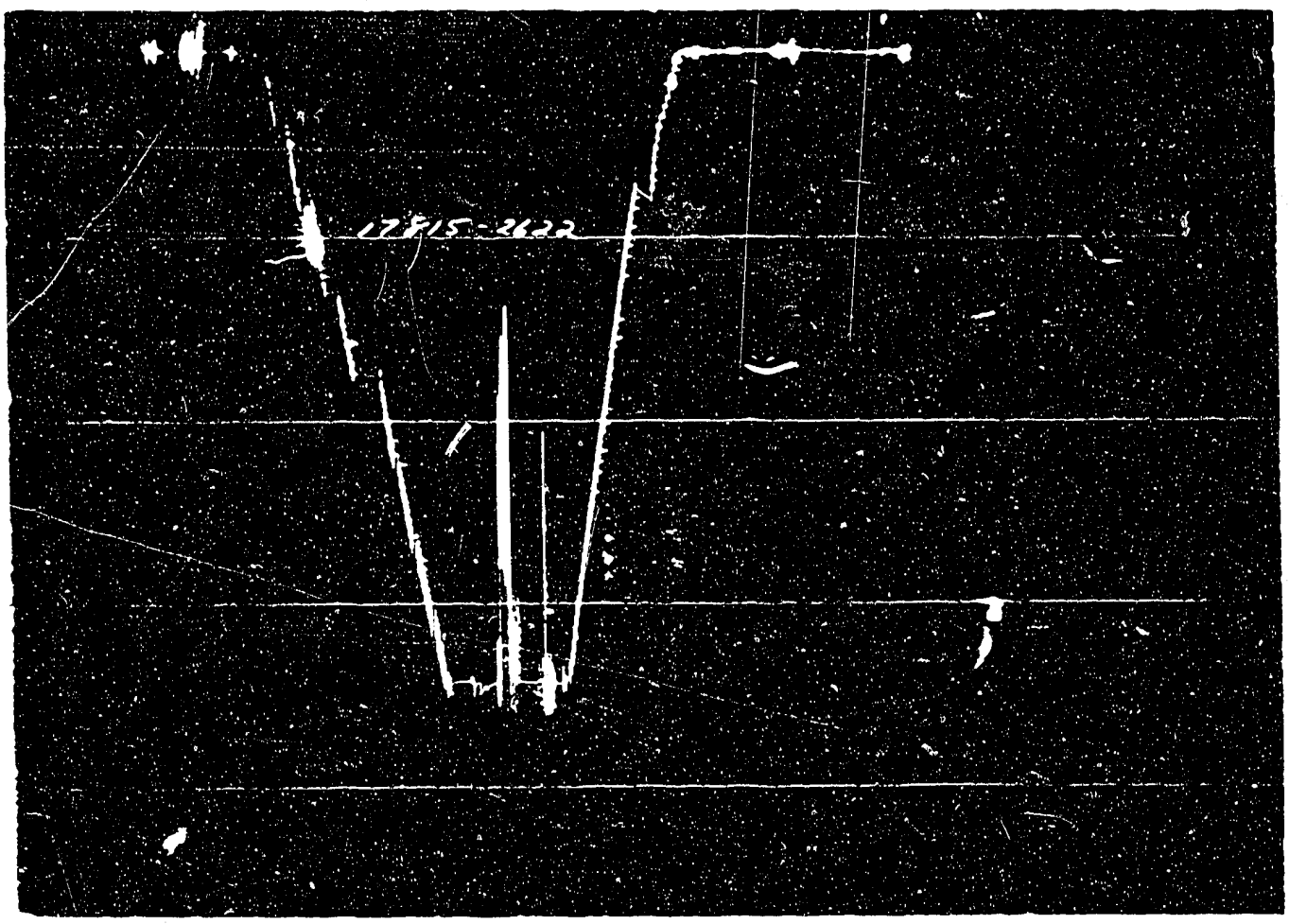


PRESSURE

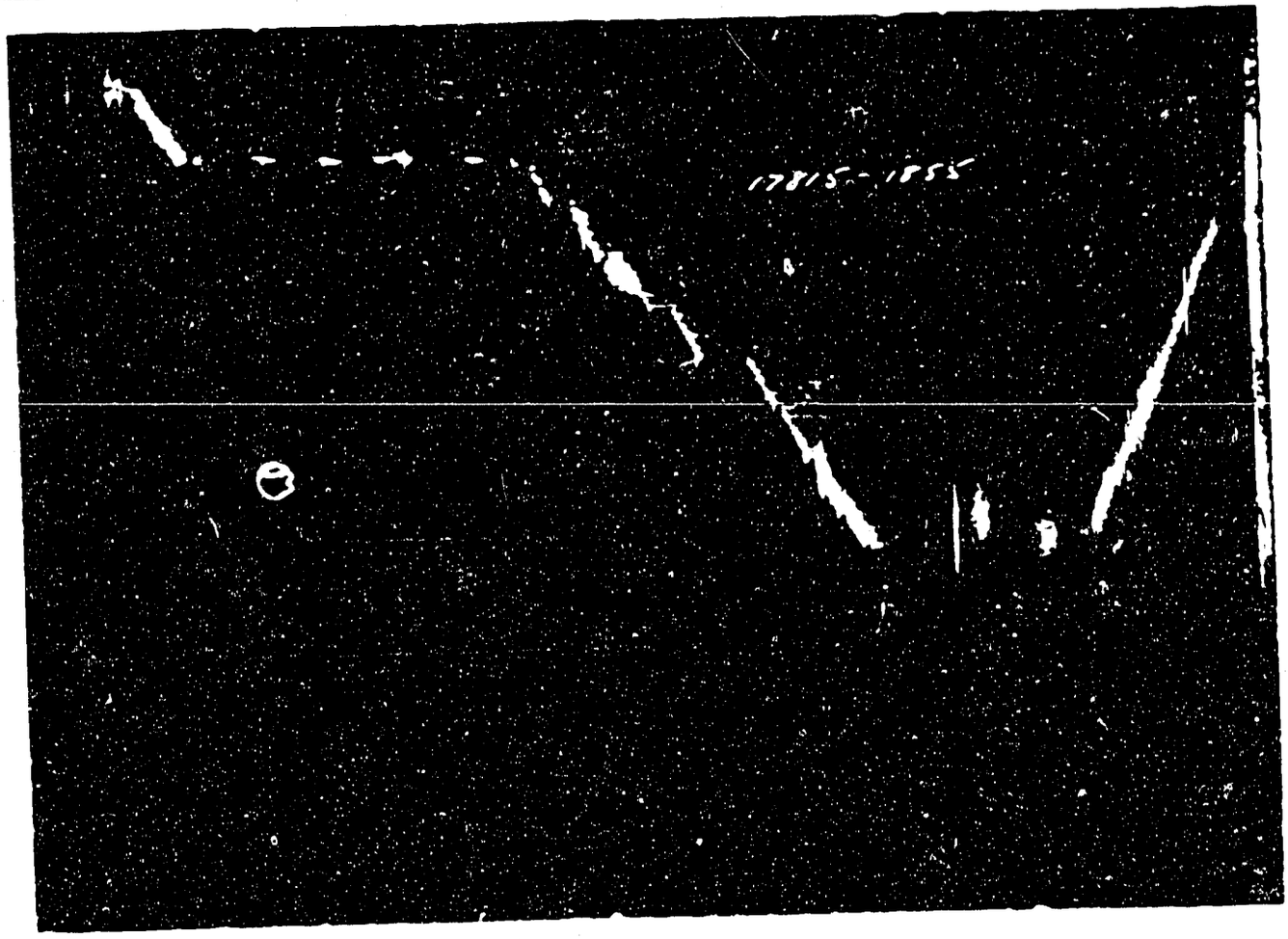
TIME

Each Horizontal Line Equal to 1000 p.s.i.





Each Horizontal Line Equal to 1000 p.s.i.



TEMPERATURE RECORD

Each concentric line equals 10 F

Temperature increases outwardly

Ticket No. 1 / 78 / 5

Temperature Range 1

150 F to 250 F

A to B — Initial CIP

B to C — 2nd Flow

C to D — Final CIP

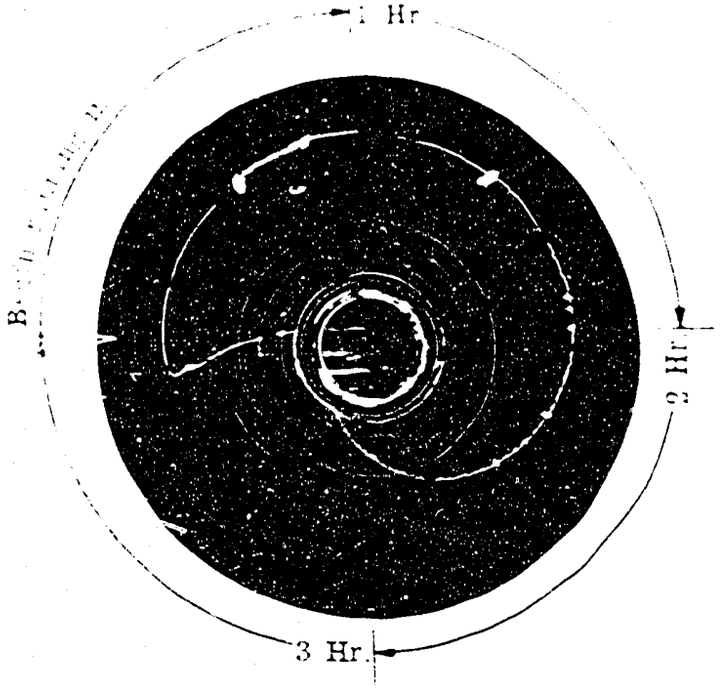
A ..... F

B ..... F

C MAX F

D 230 °F

7248'



HOWCO 521020

Depth Top Gauge	7247 Ft.	Blanked Off No	Date February 5, 1969	Ticket No. T17815	
ST P.R.D. No.	2820	24 Hr. Clock	Kind of Job Straddle	HOWCO District High Level	
Pressure Readings	Field	Office Corrected	Tester R. Leadley	Witness B. Toole	
Initial Hydro Mud Pressure	3429	3432	Contractor Cascade Drilling Co. Ltd.		
Initial Closed in Pressure			K B Elevation 685	Top Packer Depth 7262	Bottom Packer Depth 7350
Initial Flow Pressure			Total Depth 8709	Casing Perforations Top / Bottom	
Final Flow Pressure			Interval Tested 7262-7350	Formation Tested	
Final Closed in Pressure			Casing or Hole Size 8 3/4	Liner or Rathole Size	
Final Hydro Mud Pressure	3442	3439	Size Surface Choke 1"	Size Bottom Choke 1/2"	Size and Type Well Packer 7 3/4 ES
Depth Centre Gauge	7286 Ft.	Blanked Off Yes	Size Drill Pipe 4 1/2" I.F.	ID and Length Drill Collars 2 7/8" x 182.45'	
ST P.R.D. No.	2622	24 Hr. Clock	Anchor I.D. / Size O.D.	Amount-Type of Cushion	
Pressure Readings	Field	Office Corrected	Gauge Depth 230 °F meas. / °F est.	Mud Weight 9.1	Mud Viscosity 37
Initial Hydro Mud Pressure	3450	3442	All Depths Measured From K.B.		No. Folders Reproduced 5
Initial Closed in Pressure			Time Periods (Minutes) 1st Flow / Initial CIP / 2nd Flow / Final CIP		
Initial Flow Pressure			Recovered Feet of		
Final Flow Pressure			Recovered Feet of		
Final Closed in Pressure			Recovered Feet of		
Final Hydro Mud Pressure	3465	3444	Recovered Feet of		
Depth Bottom Gauge	8707 Ft.	Blanked Off Yes	Oil Recovery Degrees API	Water Recovery Specific Gravity	
ST P.R.D. No.	1855	8742 12 Hr. Clock	REMARKS: Tool open at 11.58 P.M. with poor air blow. Mud dropped in annulus.in 17 minutes. No packer seat. Misrun.		
Pressure Readings	Field	Office Corrected			
Initial Hydro Mud Pressure	4125	4136			
Initial Closed in Pressure					
Initial Flow Pressure	Below	Straddle			
Final Flow Pressure					
Final Closed in Pressure					
Final Hydro Mud Pressure	4125	4134			

LEGAL DESCRIPTION 123 10' 24.18 W.L. 62 03' 40.79 N.L.

Lease Name BAOH AMERADA CLI LK Well No. K-54 Test No. 3

FIELD OR AREA CLI LAKE Owner's District CALGARY Lease Owner GULF OIL CANADA LTD.

PROVINCE NORTH WEST TERRITORIES

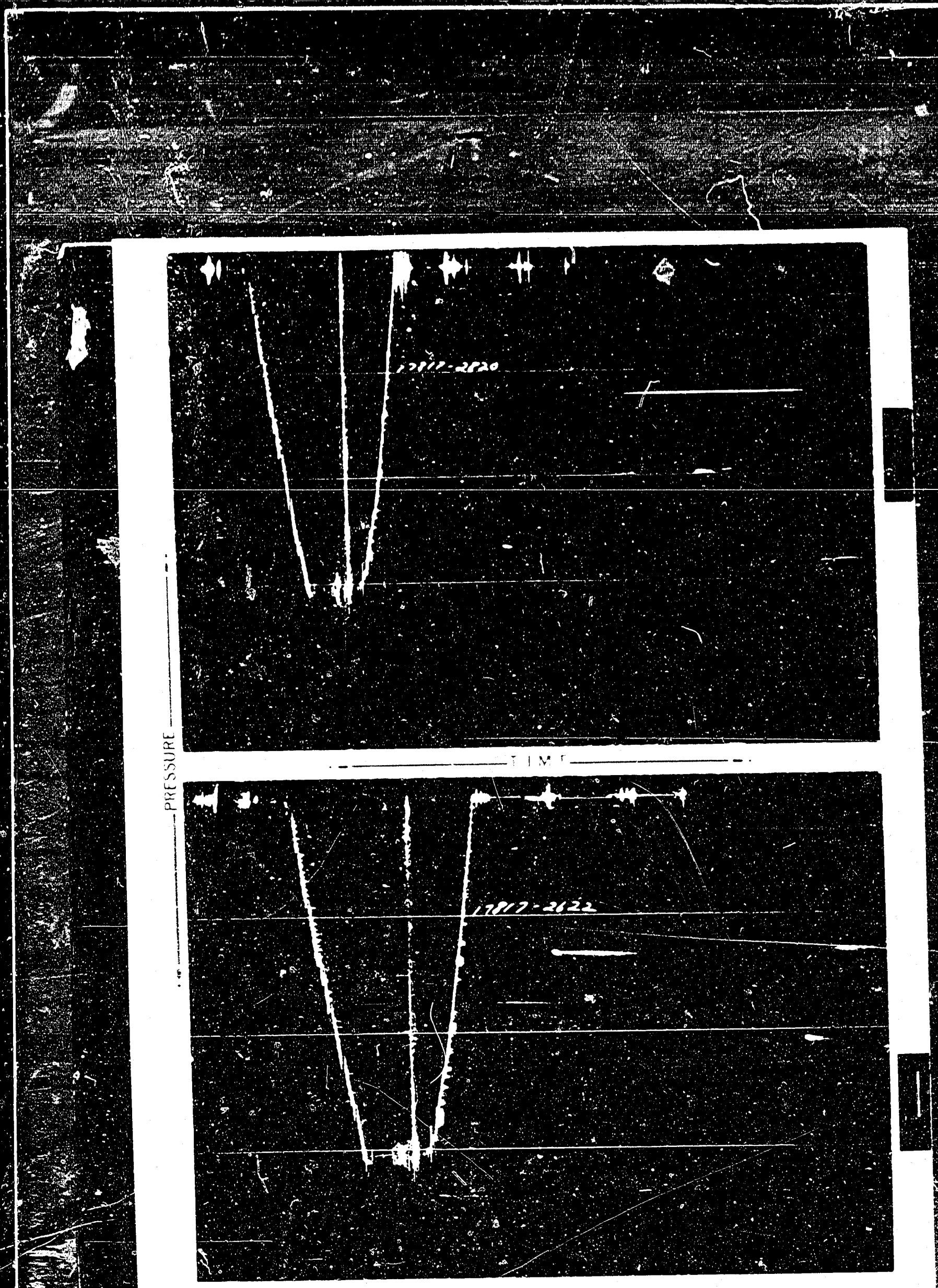
HOWCO 521012

DRILL STEM TEST DATA

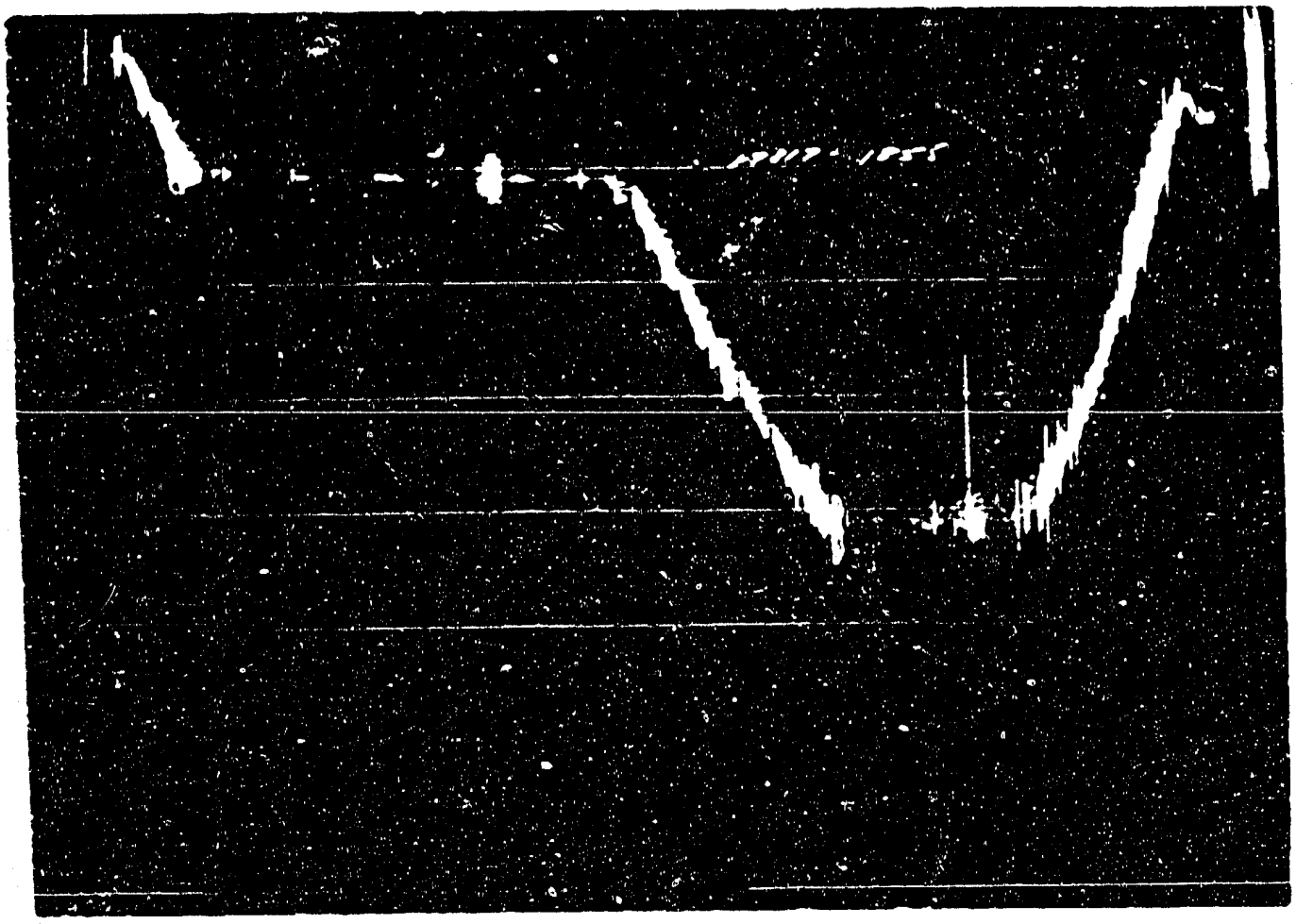
PRESSURE

TIME

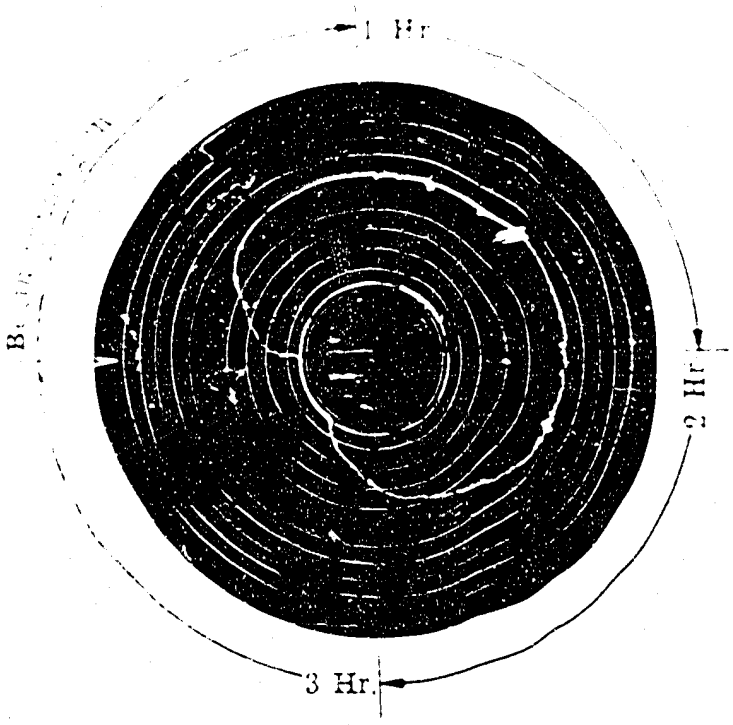
Each Horizontal Line Equal to 1000 p.s.i.



Each Horizontal Line Equal to 1000 p.s.i.



TEMPERATURE RECORD
Each concentric zone represents 10° F Temperature increases outward ⇒ Packet No. 17277 Temperature Range F 150 To 250 A to B — Inside Cup B to C — 2nd Floss C to D — Final Cup A ..... F B ..... F C MAX. F D 211 °F 6406



HOWCO 521020

Depth Top Gauge	6404 Ft.	Blanked Off	No	Date	February 8, 1969
BT P.R.D. No.	2820		6612 24 Hr. Clock	Kind of Job	Straddle
Pressure Readings	Field		Office Corrected	Tester	R. Leadley
Initial Hydro Mud Pressure	3041		3044	Contractor	Cascade Drilling Co. Ltd.
Initial Closed in Pressure				K B Elevation	685
Initial Flow Pressure				Total Depth	8714
Final Flow Pressure				Interval Tested	6420-6484
Final Closed in Pressure				Casing or Hole Size	8 3/4
Final Hydro Mud Pressure	3055		3048	Size Surface Choke	1"
Depth Centre Gauge	6449 Ft.	Blanked Off	Yes	Size Drill Pipe	4 1/2 I.F.
BT P.R.D. No.	2622		5764 24 Hr. Clock	Anchor Size	I.D. _____ O.D. _____
Pressure Readings	Field		Office Corrected	Gauge Depth	211 °F maxm. °F est.
Initial Hydro Mud Pressure	3073		3057	All Depths Measured From	K.B.
Initial Closed in Pressure					Time Periods (Minutes)
Initial Flow Pressure				1st Flow	Initial CIP 2nd Flow Final CIP
Final Flow Pressure				Recovered	Feet of
Final Closed in Pressure				Recovered	Feet of
Final Hydro Mud Pressure	3073		3059	Recovered	Feet of
Depth Bottom Gauge	8712 Ft.	Blanked Off	Yes	Recovered	Feet of
BT P.R.D. No.	1855		8742 12 Hr. Clock	Oil Recovery Degrees API	Water Recovery Specific Gravity
Pressure Readings	Field		Office Corrected	REMARKS:	No packer seat. Misrun.
Initial Hydro Mud Pressure	4125		4125		
Initial Closed in Pressure					
Initial Flow Pressure	Below		Straddle		
Final Flow Pressure					
Final Closed in Pressure					
Final Hydro Mud Pressure	4125		4129		

Ticket No. T17817

HOWCO District: High Level

Witness: B. Lock

Top Packer Depth: 6420

Bottom Packer Depth: 6484

Casing Perforations Top: _____ Bottom: _____

Formation Tested:

Liner or Rathole Size:

Size and Type Wall Packer: 7 3/4 ES

ID and Length Drill Collars: 2 7/8" x 182.45

Amount-Type of Cushion:

Mud Weight: 9.1

Mud Viscosity: 37

No. Folders Reproduced: 5

LEGAL DESCRIPTION: 62 03' 40.79 N.L. 123 10' 24.18 W.L.

Lease Name: RICH AMERADA CLI LK

Well No.: K-54

Test No.: 5

District: CALGARY

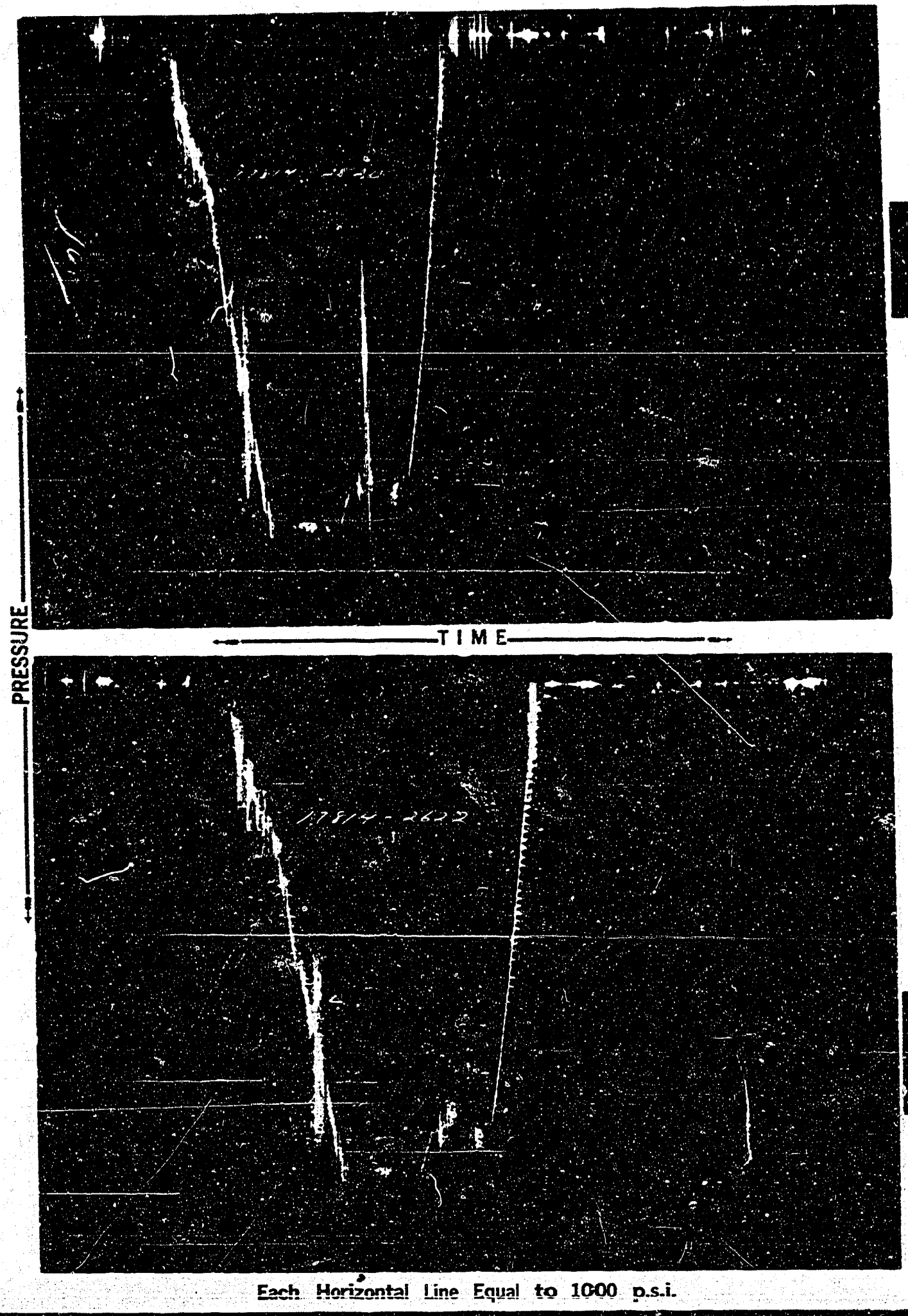
Lease Owner: GULF OIL CANADA LTD.

FIELD OR AREA: CLI LAKE

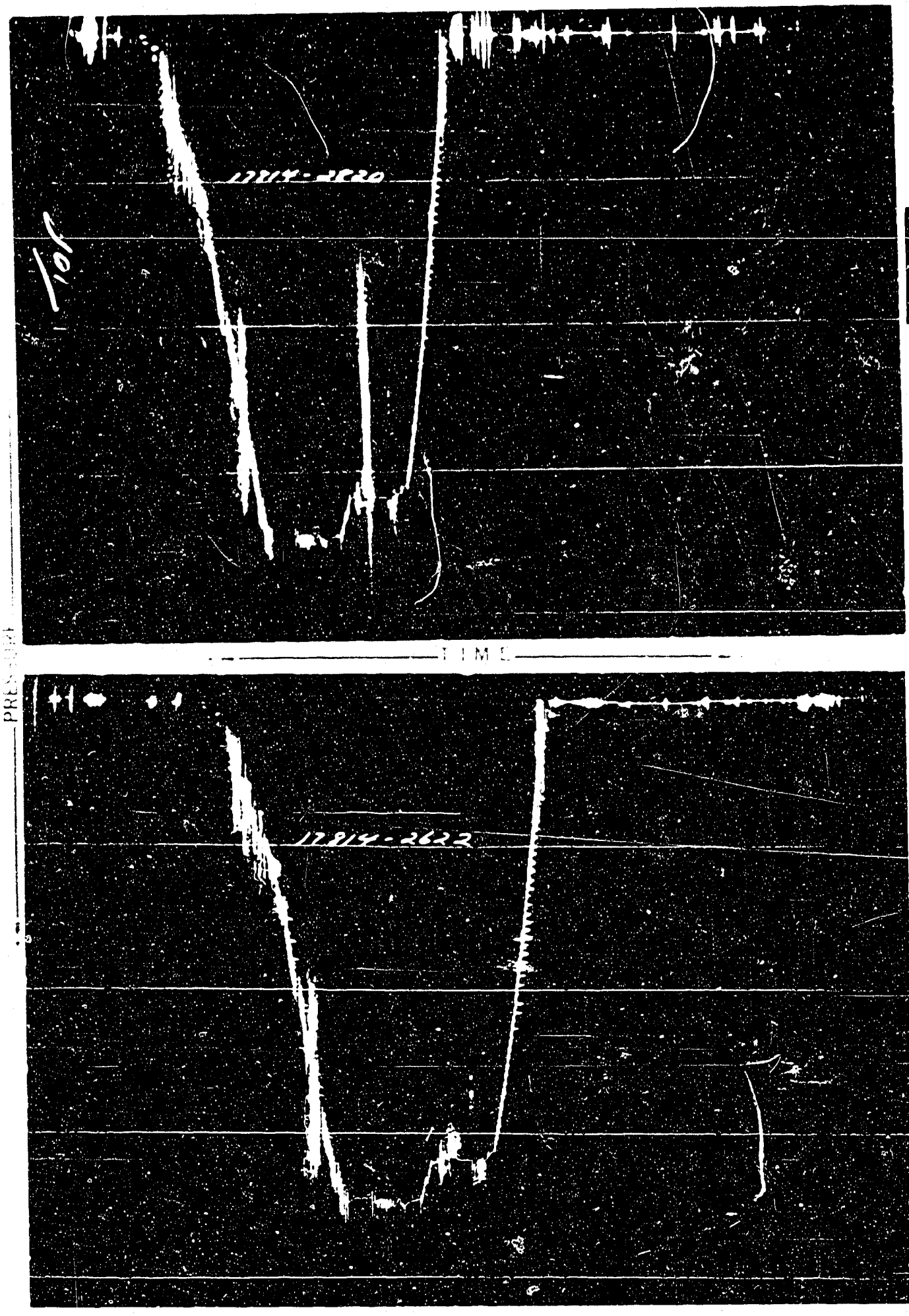
PROVINCE: NORTH WEST TERRITORIES

HOWCO 521012

DRILL STEM TEST DATA



Each Horizontal Line Equal to 1000 p.s.i.



Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE RECORD

Each concentric line equals 10° F

Temperature increases outwards

Ticket No. 17787

Temperature Range 1

150 F to 250 F

A to B Initial Oil

B to C 2nd Flow

C to D Final Oil

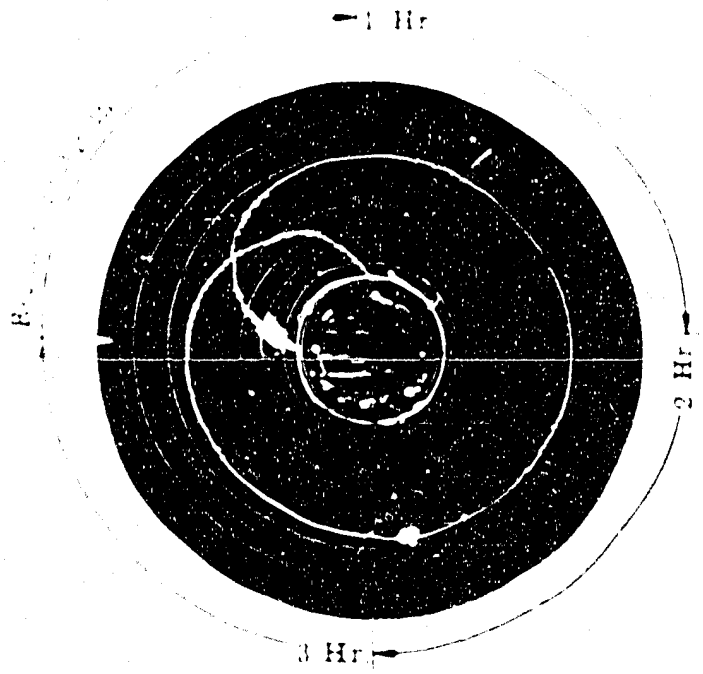
A F

B F

C MAX F

D 220 °F

6682



TEMPERATURE RECORD

Each concentric line equals 10°F.
Temperature increases outwardly

Ticket No T. 12814

Temperature Range °F

150 °F to 250 °F

A to B — Initial CIP

B to C — 2nd Flow

C to D — Final CIP

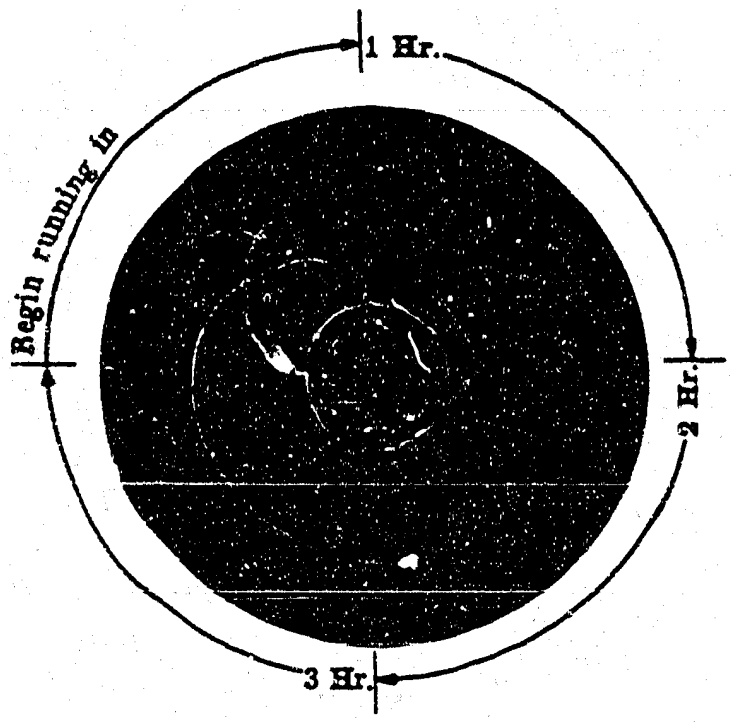
A ..... °F

B ..... °F

C MAX °F

D 220 °F

6682



HOWCO 521020

Depth Top Gauge	6677 Ft.	Blanked Off	No
ST P.R.D. No.	2820	24 Hr. Clock	5764
Pressure Readings	Field	Office Corrected	
Initial Hydro Mud Pressure	3442	3467	
Initial Closed in Pressure			
Initial Flow Pressure			
Final Flow Pressure			
Final Closed in Pressure			
Final Hydro Mud Pressure	3202	3198	

Depth Centre Gauge	6729 Ft.	Blanked Off	Yes
ST P.R.D. No.	2622	24 Hr. Clock	
Pressure Readings	Field	Office Corrected	
Initial Hydro Mud Pressure	3511	3484	
Initial Closed in Pressure			
Initial Flow Pressure			
Final Flow Pressure			
Final Closed in Pressure			
Final Hydro Mud Pressure	3240	3201	

Depth Bottom Gauge	Ft.	Blanked Off	
ST P.R.D. No.		Hr. Clock	
Pressure Readings	Field	Office Corrected	
Initial Hydro Mud Pressure			
Initial Closed in Pressure			
Initial Flow Pressure			
Final Flow Pressure			
Final Closed in Pressure			
Final Hydro Mud Pressure			

Date February 5, 1969 — Ticket No. T17814

Kind of Job Straddle — HOWCO District High Level

Tester R. Leadley — Witness B. Toole

Contractor Cascade Drilling Co. Ltd.

K B Elevation 685 — Top Packer Depth 6692 — Bottom Packer Depth 6760

Total Depth 8709 — Casing Perforations Top ____ Bottom ____

Interval Tested 6692-6760 — Formation Tested

Ohoke Hole Size 8 3/4 — Liner or Rathole Size

Size Surface Choke 1" — Size Bottom Choke 1/2" — Size and Type Wall Packer 7 3/4 ES

Size Drill Pipe 4 1/2 I.F. — ID and Length Drill Collars 2 7/8" x 182.45'

Anchor Size — I.D. ____ O.D. ____ — Amount-Type of Cushion

Gauge Depth — 220 °F meas. Temp. ____ °F XXX — Mud Weight 9.1 — Mud Viscosity 37

All Depths Measured From K.B. — No. Folders Reproduced 5

Time Periods (Minutes)

1st Flow — Initial CIP — 2nd Flow — Final CIP

Recovered ____ Feet of

Recovered ____ Feet of

Recovered ____ Feet of

Recovered ____ Feet of

Oil Recovery Degrees API — Water Recovery Specific Gravity

REMARKS: No packer seat. Misrun.

LEGAL DISCRIPTION 123 10' 24.18 W.L. 62 03' 40.79 N.L.

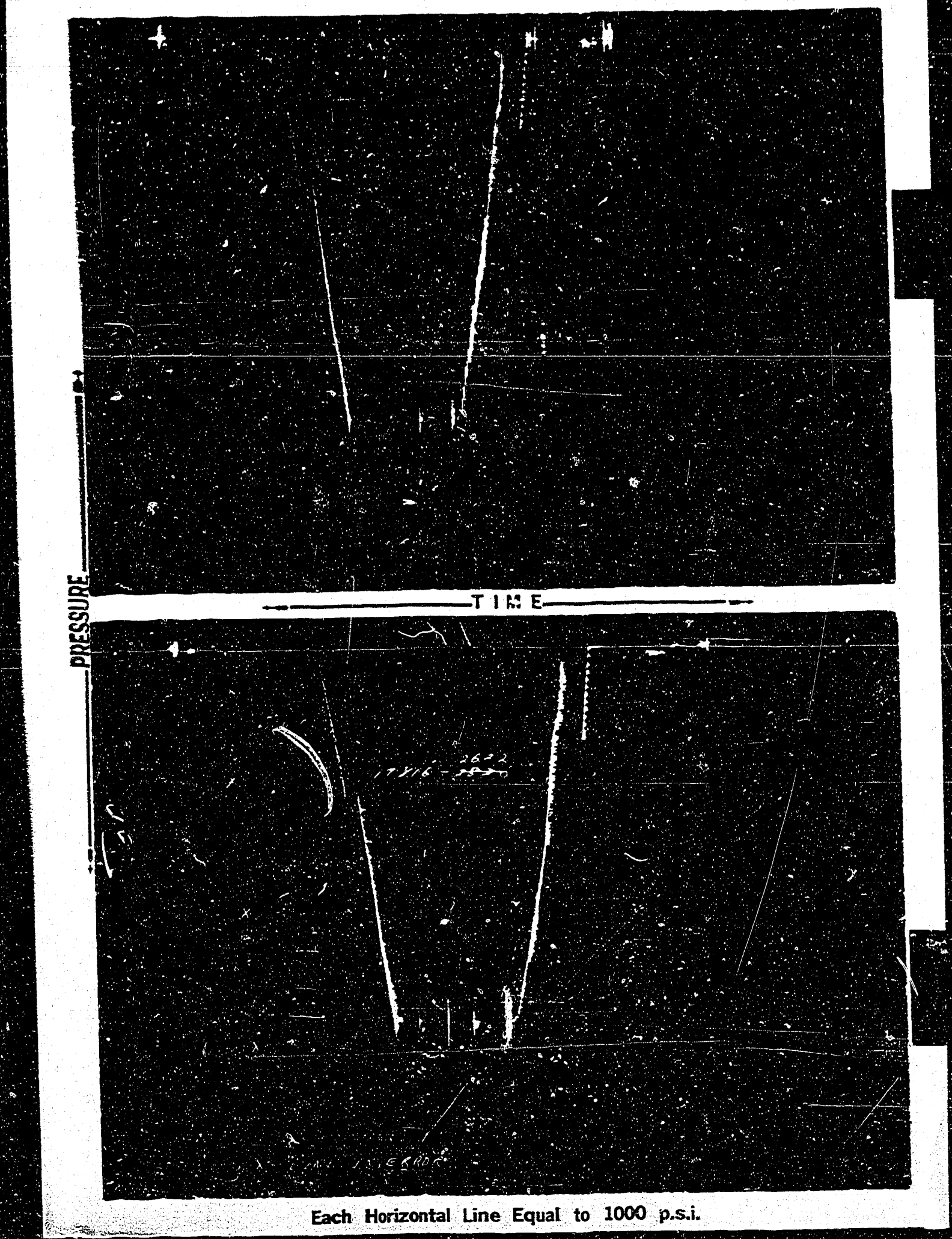
Lease Name BAOH AMERADA CLI LK — Well No. K-54 — Test No. 2

Field or Area CLI LAKE — Owner's District CALGARY

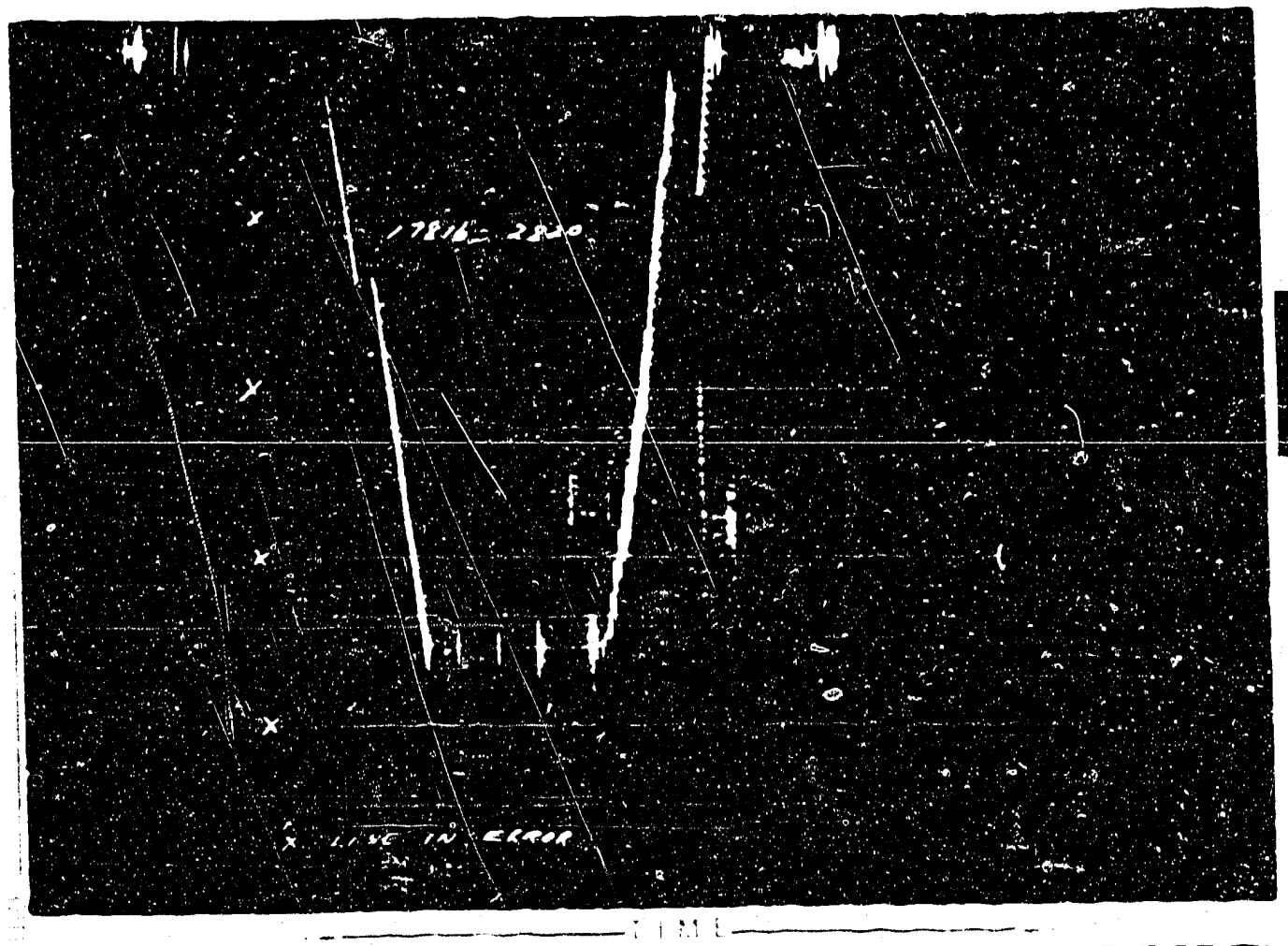
Province NORTH WEST TERRITORIES — Lease Owner GULF OIL CANADA LTD.

HOWCO S21012

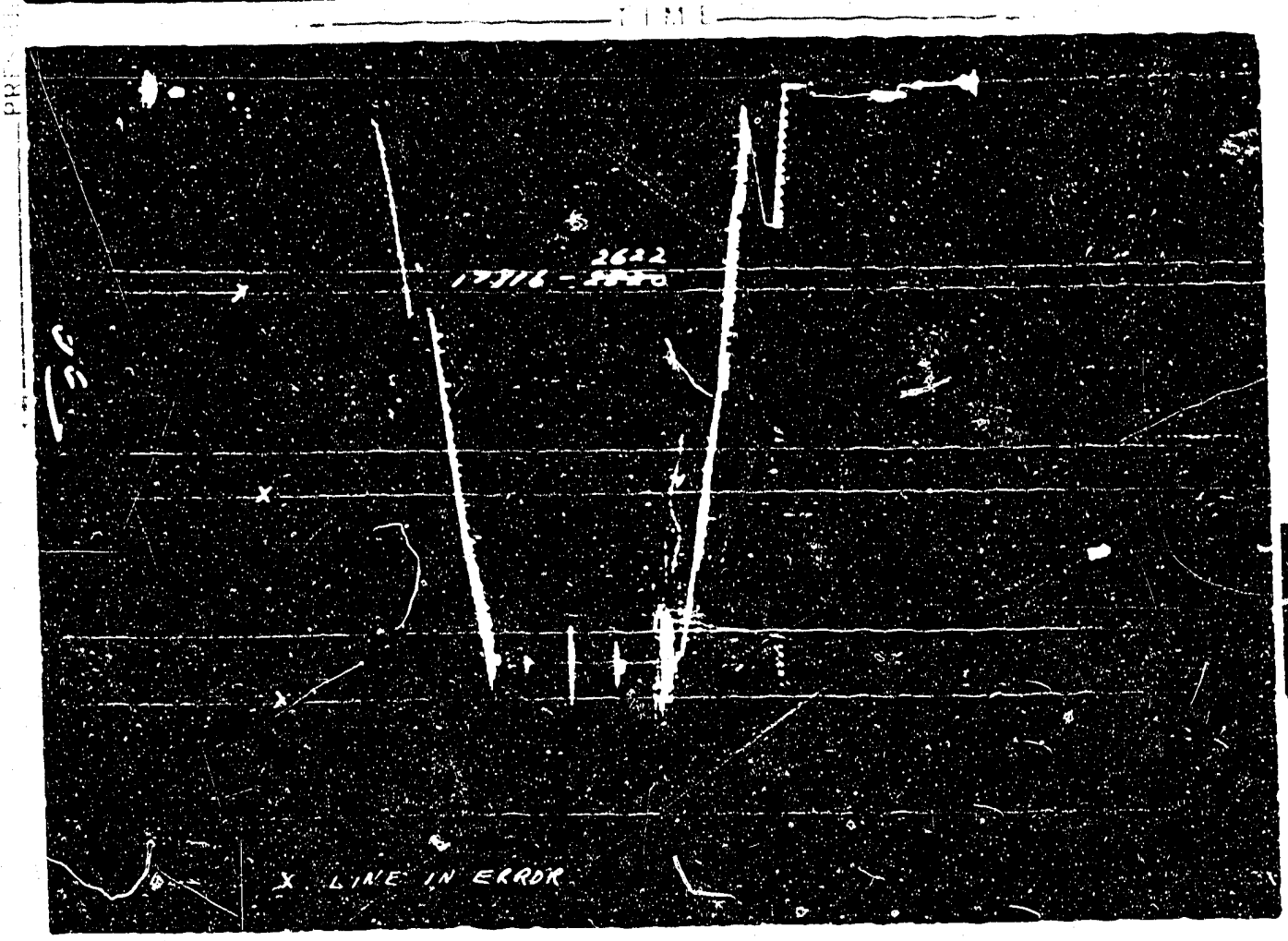
DRILL STEM TEST DATA



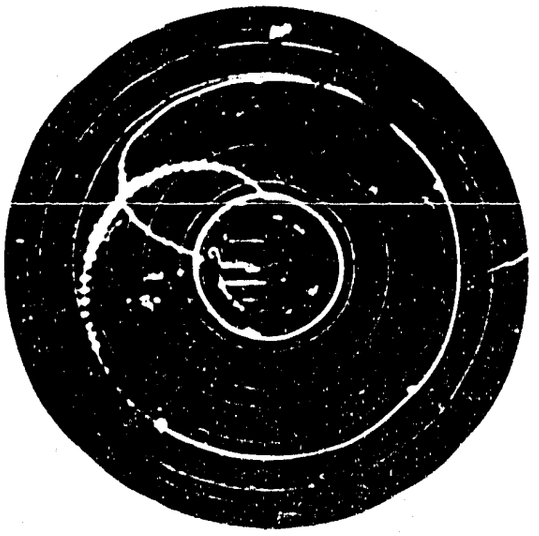
Each Horizontal Line Equal to 1000 p.s.i.



TIME



Each Horizontal Line Equal to 1000 p.s.i.



TEMPERATURE RECORD

Each concentric line equals 10°F.
Temperature increases outwardly

Ticket No T 178610

Temperature Range °F

150 °F to 250 °F

A to B — Initial CIP

B to C — 2nd Flow

C to D — Final CIP

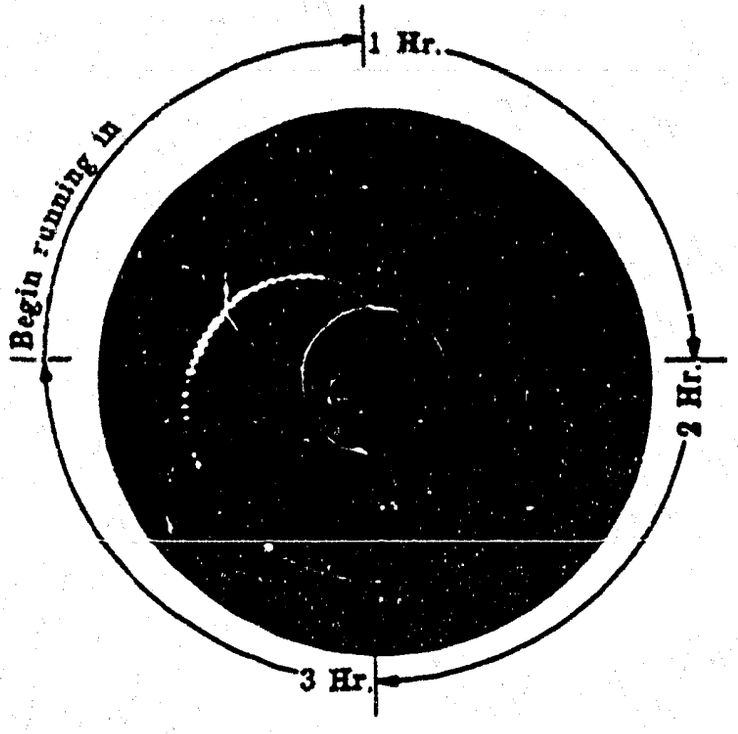
A ..... °F

B ..... °F

C MAX °F

D 220 °F

6663



HOWCO 521020

Depth Top Gauge	6662 Ft.	Blanked Off	No	Date	February 6, 1969
ST P.R.D. No.	2820		5764 24 Hr. Clock	Kind of Job	Straddle
Pressure Readings	Field		Office Corrected	Tester	R. Leadley
Initial Hydro Mud Pressure			3174	Contractor	Cascade Drilling Co. Ltd.
Initial Closed in Pressure				K B Elevation	685
Initial Flow Pressure				Total Depth	8709
Final Flow Pressure				Interval Tested	6676–6764
Final Closed in Pressure				Casing or Hole Size	8 3/4
Final Hydro Mud Pressure			3174	Size Surface Choke	1"
Depth Centre Gauge	6698 Ft.	Blanked Off	Yes	Size Drill Pipe	4 1/2" I.F.
ST P.R.D. No.	2622		6612 24 Hr. Clock	Anchor I.D. Size O.D.	
Pressure Readings	Field		Office Corrected	Gauge Depth	120 °F mean. °F est.
Initial Hydro Mud Pressure			3180	All Depths Measured From	K.B.
Initial Closed in Pressure				1st Flow	Initial CIP
Initial Flow Pressure				Recovered	90 Feet of Salt water cut mud.
Final Flow Pressure				Recovered	Feet of
Final Closed in Pressure				Recovered	Feet of
Final Hydro Mud Pressure			3180	Recovered	Feet of
Depth Bottom Gauge	Ft.	Blanked Off		Oil Recovery Degrees API	Water Recovery Specific Gravity
ST P.R.D. No.			Hr. Clock	REMARKS:	Misrun. Tool failed to operate.
Pressure Readings	Field		Office Corrected		
Initial Hydro Mud Pressure					
Initial Closed in Pressure					
Initial Flow Pressure					
Final Flow Pressure					
Final Closed in Pressure					
Final Hydro Mud Pressure					

Ticket No.	T17816		
HOWCO District	High Level		
Witness	H. Toole		
Bottom Packer Depth	6764		
Top Perforations		Bottom	
Formation Tested	Manetoe		
Liner or Rathole Size			
Size and Type Wall Packer	7 3/4 ES		
ID and Length Drill Collars	2 7/8" x 182.45'		
Amount-Type of Cushion			
Mud Weight	9.1	Mud Viscosity	37
No. Folders Reproduced	5		
Time Periods (Minutes) 2nd Flow		Final CIP	

LEGAL DESCRIPTION 62 03' 40.79 N.L. 123 10' 24.19 W.L.

Lease Name BACH AMERADA CLI LK Well No. K-54 Test No. 4

FIELD OR AREA CLI LAKE Owner's District CALGARY Lease Owner GULF OIL CANADA LTD.

PROVINCE NORTH WEST TERRITORIES

DRILLING CONTRACTOR'S DAILY REPORT

F-94

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 15 19 69 WELL NO. K-54 LEASE AMERADA CLI LAKE

SEC. _____ T. _____ R. _____ PROVINCE N.W.T. CONTRACTOR CASCADE RIG 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8 00	7 00	TEAR OUT
		cut off casing, Welded Jack cement plug on top + welded on steel plate

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DEPTH END SECOND TOUR _____ DEPTH END THIRD TOUR _____

D. HEWKO — DRILLER OR WATCHMAN

J. Murray — DRILLER OR WATCHMAN

LEO JACOB — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED/

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 14 19 69 WELL NO. K-54 LEASE AMERADA HESS LAKE

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR CASCADE RIG 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS ON LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	8 00	TEAR OUT
8 00	7 00	TEAR OUT
		100 sacks of sawdust were used on the lake around the rig floor
		Robert G Lock

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DRILLING CONTRACTOR'S DAILY REPORT

F-88

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 13 19 69 WELL NO K5-4 LEASE B.A.O.H. AMERADA CHI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING RIG #2

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND BLOCK TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV.		15				
12 15	10 00	W.O.C.		45				
10 00	1 30	RUN IN FEALE FOR PLUG. PLUG @ 5886		30				
1 30	6 30	LAY DOWN DRILL PIPE.	5	00				
6 30	7 15	PICK UP KELLY AND BREAK KELLY COCK AND QUE		45				
7 15	8 00	TAKE OF KELLY BUSHINGS.		45				
8 00		LAY DOWN KELLY SWIVEL MOUSE HOLE						
	4 00	DEICE BOPS & TEAR SAME OUT	8	00				
4 00		LAY DOWN BOP'S, CLEAN MUD TANKS						
	12 00	& TEAR OUT FLOOR	8	00				
		Rig released 8:00 P.M 2-13-69 Robert G Lock						
		18 hrs @ 71.20 per hr						
		6 hrs @ 40.00 per hr						
		Robert G Lock						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

D. Kruker
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D. Hawkes
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

J. Murray
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalwin Lusby
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 12 19 69 WELL NO. K-34 LEASE B.A.O.H. ANKADA CEL. LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
		Page 11
		Ran 6 jts & left for P&A plug #1 after TBG found top @ 7000. Ran P&A plug #2 by Hawes w/ 280 sks Dowell cement w/ 0.3% HR-12. Started cementing @ 7:00 A.M. Displaced plug w/ 112 bbls mud. Plug down @ 7:45 AM 2-12-69.
		Ran 6 jts & left for P&A plug #2 after last
		Ran P&A plug #3 by Hawes 6050 - 5950 w/ 72 sks Dowell cement & started cementing @ 4:30 P.M. Plug down @ 5:10 P.M. 2-12-69. Displaced plug w/ 104 bbls mud

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

DRILLER OR WATCHMAN ____ DRILLER OR WATCHMAN ____ DRILLER OR WATCHMAN ____

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dale Lee — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Locke — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

P-98

DATE FEB. 12. 19 69 WELL NO. K64 LEASE B.A. AMERADA CH. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRLG. RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12 00	12 15	RIG. SERV		15				
12 15	12 45	HOIST 13 STANDS		30				
12 45	5 00	CIR C. W/ PIPE IN HOLE.	4	15				
5 00		RUN IN 20 STANDS TO CEMENT						
		PLUG NO ②. 6800-6400						
	6 00	TOP OF PLUG #1 - 7700'	1	00				
6 00	6 30	PULL 12 STAND.		30				
6 30	7 30	RUN PLUG. NO ②	1	00				
7 30	8 00	PULL 9 STANDS.		30				
8 00	8 15	RIG SERV. & BOP'S		15				
8 15	9 00	LAY DOWN 33 JTS		45				
9 00	3 00	W.O.C CIR. W/ PIPE IN HOLE	6	00				
3 00	3 30	RUN IN FEEL PLUG		30				
3 30	4 00	HOIST 4 STANDS & SINGLE		30				
4 00	4 15	RIG SER & B.O.P'S		15				
4 15	5 15	RUN PLUG #3	1	00				
5 15	6 00	HOIST 3 STANDS & LAY DOWN 24 JTS		45				
6 00	12 00	W.O.C.	6	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

A. Kucha
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D. Hawks
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

Jim Murray
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

D. L.
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 11 19 69 WELL NO. K5-4 LEASE B.A.O.H. AMERADA CAL LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING RIG #2

TIME BY DRILLERS		SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN					
			WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
FROM	TO		HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		Page 11						
		Ran P&A plug #1 - 7850-7750 by Howco w/ 75 sks Silica Cement W/ 6.5% H-R 12 added. Started cementing @ 9:30 P.M. Displaced plug W/ 135 bbls mud. Plug down @ 10:10 P.M 2-11-69						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert A. Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 11 19 69 WELL NO. K54 LEASE B.A.O.H AMERADA CLI LAKE

SEC. _____ T. _____ R. _____ PROVINCE N.W.T. CONTRACTOR CASCADE DRAG RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12 00	12 15	RIG SERV.		15				
12 15	1 00	MAKE UP PACKER.		45				
1 00	4 00	RUN IN WITH PACKER.	3	00				
4 00	4 45	PICK UP 6 SINGLE AND MAKE UP		15				
4 45	5 00	TESTING HEAD						
	5 00	PUMP UP PACKER		45				
5 00	8 00	OPEN PACKER AND TESTING.	3	00				
8:00	8:15	RIG SERV & B.O.P.s		15				
8:15	12:30	PUMP TEST.	4	15				
12:30	3:30	LAY DOWN TEST TOOLS	3	00				
3:30	4:00	LAY DOWN DRILL COLLARS		30				
4 00	4 15	RIG SER.		15				
4 15	5 00	LAY DOWN DRILL COLLARS		45				
5 00	7 00	RUN IN 84 STDS OPEN END	2	00				
7 00	7 45	THAW MUD LINES		45				
7 45	8 15	CIRC.		30				
8 15	10 30	RIG UP & RUN PLUG #1	2	15				
10 30	11 00	LAY DOWN 21 SINGLES & HOIST	1	30				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	24	00				
		DAY WORK PER 24 HOUR DAY	—					

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 9

DEPTH END SECOND TOUR _____

DEPTH END THIRD TOUR 8714 T.D.

G. Kuhn
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIM MURRAY
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dakum Leahy
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILL STEM TEST REPORT

Rev. 10/68

WELL [redacted] E Salt Lake Ext [redacted] FIELD [redacted] Ran DST # 5

by [redacted] in [redacted] Interval 7260 to 7350, 7½" Temco packer

1" ss choke No water cushion No minute pre-flow 30 minute initial shut in. Tool open 60

minutes commencing at 1:00 ~~AM~~ PM 2/11/69. 60 minute final shut in. Strong initial air

puff dying immediately

5" drill collar recovery

" drill pipe recovery 33' muddy salt water

Samples taken: 2 - 1 qt

IHSP 3432 FHSP 3432 IFP 50 FFP 99 ISIP 3262 FSIP 3232 BHT 212 °F

Remarks:

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 10. 1969 WELL NO. K54 LEASE B.A. AMERADA CLI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. RIG # 12.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12 00	12 15	RIG SERV.		15				
12 15	12 30	TESTING.		15				
12 30	1 45	SHUT IN PACKER.	1	15				
1 45	5 00	HOIST PACKER OUT OF HOLE. 275T. FLUID	3	15				
5 00	8 00	BRAEK AND LAY DOWN PACKER.	3	00				
8 00	8 45	WAIT ON ORDERS		45				
8 45		BREAK & LAY DOWN PACKER & D.C						
	11 30	LOAD & WASH SAME OUT TO END OF CAT WALK	2	45				
11 30	1 30	RUN IN OPEN END & S.L.M.	2	00				
1 30	4 00	CIR. W/ PIPE & W.O. ORDERS.	2	30				
4 00	6 00	WAIT ON ORDERS	2	00				
6 00	9 00	HOIST TO TEST	3	00				
9 00	12 00	PICK UP + MAKE UP TESTER	3	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

DEPTH END SECOND TOUR 8714 T.D.

DEPTH END THIRD TOUR 8714 T.D.

A Tucker
DRILLER OR WATCHMAN

Don Hawks
DRILLER OR WATCHMAN

JIM MURRAY
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Graham Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT
P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 9/69 19 WELL NO. K5-4 LEASE B.A.O.K AMEKADA CHI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

Page 11

Ran DST #6 by Lynes United w/ 7 3/8" inflateable straddle packers w/ 1/2" SS choke to test interval 6720 - 6784 No water cushion. 8 min pre-flow 15" min initial shut in Tool open 60 minutes commencing @ 8:37 PM 2/19/69 10 minute final shut in. Good initial puff dying immediately Reopened after 15 minutes initial good initial puff dying immediately. Surface indication showed muddy water coming into pipe. Deflated packer & ran down to run D.ST #7

IHSP 3070 FHSP 3070 IFP 25 FFP 50 ISIP 2795 FSIP 2670

Ran DST #7 by Lynes United w/ 7 3/8" inflateable straddle packers w/ 1/2" SS choke to test interval 6692 - 6756. No water cushion. 10 min pre-flow, 30 minute initial shut in. Tool open 90 minutes commencing @ 10:27 PM 2/19/69. 60 minute final shut in. Good initial puff followed by fair blow decreasing gradually throughout test.

5" drill pipe recovery 180' drilling mud, 2480' of salt water.

IHSP 3195, FHSP 3195, IFP 124, FFP 1320, ISIP 3445, FSIP 3445, BHT 218

Caught 3 - 1 gal samples of water

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert A. Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 9 19 62 WELL NO. K54 LEASE BA. AMERADA C.L. LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRIG. RIG 12.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	12 15	RIG SERV.
12 15		RUN IN 4 STANDS D.C. AND
	3 00	RIG UP TO LAY DOWN SAME.
3 00	3 30	RUN IN TO 6000 FT.
3 30	3 45	PICK UP KELLY BLOWOUT KELLY
3 45	8 00	CIRC. WITH PIPE IN HOLE 6000 FT.
8 00	8 15	RIG SERV.
8 15	9 45	CIRC. WITH PIPE IN HOLE.
9 45	10 00	SET BACK KELLY AND BLOW SAME
1 00	1 15	HOIST TO TEST WITH INFLAITABLE PACKER.
11 15	1 15	WAITING ON PACKER.
1 15	2 00	UNLOAD TEST TOOLS FROM TRUCK.
2 00		STEAM OUT & MAKE UP INFRAITABLE
	4 00	PACKER.
4 00	4 15	RIG SERV. & BOPS.
4 15	5 15	FINISH MAKING UP PACKER.
5 15	5 30	SLIP LINE.
5 30	8 30	RUN IN SLOWLY W/ PACKER
8 30	9 45	TESTIN W/ D.S.T #6
9 45	10 15	RUN THREE STANDS.
10 15	12 00	TESTING W/ DST #7

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8714 - T.D.

A Kuska
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR ____

DRILLER OR WATCHMAN

DEPTH END THIRD TOUR ____

D Hooks
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalvin Hooks
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 8 19 69 WELL NO. K-54 LEASE HMERADA CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE PAGE 2 CONTRACTOR CASCADE DRLG. RIG 12.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
10⁰⁰	10³⁰	SLIP & CUT LINE		30				
10³⁰	11⁴⁵	RUN IN 42 STANDS.	1	15				
11⁴⁵	12⁰⁰	CHANGE ELEVATORS.		15				
		Ran D.S.T #5 by Howco W/7 3/4" Straddle packers to test interval 6420 / 6484. Mis-run packers failed to hold.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	7	30				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR ____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 8714 D Hawko DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 6 19 61 WELL NO. KEY LEASE ANTICOSTI "A" PAGE 1

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRLG RIG 1

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS ON LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. B.O.P.		15				
12 15	12 45	MAKE UP NEW FILL UP LINE HOSE		30				
12 45	3 30	HOIST TO RECOVER CORE	2	45				
3 30	4 00	RECOVER SET of CORE		30				
4 00	4 30	LAY DOWN INER BBL AND OUTER BBL		30				
4 30	5 00	SLIP LINE		30				
5 00	6 30	RUN IN TAIL PIPE TO D.S.T.	1	30				
		TAIL PIPE 23 STANDS @ SINGLES	1	30				
6 30	8 00	STEAM OUT AND MAKE UP PACKER						
8 00	[redacted]	[redacted]						
[redacted]		STEAMING OUT DST. TOOL AND MAKING						
		UP SAME & RUN IN SLOWLY W/						
	12 30	DST #4 STRADLE PACKER.	4	30				
12 30	1 00	RIG TO TEST		30				
1 00	2 00	TESTING NO SEAT	1	00				
2 00	4 00	HOIST SLOWLY TO TOP OF PACKER	2	00				
4 00	4 15	RIG SERV. & BOPS		15				
4 15	6 15	LAY DOWN PACKER	2	00				
6 15	7 30	HOIST 23 WET STANDS	1	15				
7 30	8 30	DERIG RIG FLOOR	1	00				
8 30	9 45	WASH & LOAD OUT TEST TOOLS	1	15				
9 45	10 00	RUN D.C.		15				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8714 DEPTH END SECOND TOUR DEPTH END THIRD TOUR

A Kerbes — DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

D Heeps — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 7 19 65 WELL NO. K-54 LEASE B.A.O.H CKL - LAKE

SEC. T. R. PROVINCE N.W.T CONTRACTOR CASCADE

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12 00	1 00	HOIST TAIL PIPE	1	00				
1 00		PICK UP CORE BBLS + STEAM OUT						
	2 00	SAME	1	00				
2 00	5 00	MAKE UP CORE BBL	2	30				
5 00	7 00	RUN IN W/ CORE BBL	2	00				
7 00	7 30	PICK UP KELLY + STEAM OUT SAME		30				
7 30	8 00	TRY TO WAS PASS PACKER RUBBER		30				
8 00	8 30	TRY TO DRILL UP RUBBER ON BOTTOM WITH CORE BBL.		30				
8 30	90 30	DROPED BALL - BALL GOT STUCK IN JARS CANT BRAEK CIR.	1	00				
10 30	300	HOIST. CORE BBL.	4	30				
300	3 30	RECOVER BALL TO BIG FOR JARS		30				
3 30	4 00	WASH DOWN RIG. WET PIPE ALL THE WAY OUT.		30				
400	415	RIG SERV. + BOPS		15				
415	430	FINISH CLEAN UP FLOOR, UNHOOK BROCK CONST SHACK FROM MAIN STEAM LINE		15				
430	515			45				
515	530	SHIP LINE		15				
530	800	RUN IN W/ CORE BBL.	2	30				
800	900	CIR + WORK CORE BBLS PAST PACKER RUBBERS	1	00				
900	1200	CUTTING CORE T	3	00				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	24	00				
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
24A	6 1/8	◇	9740	8709	8714	5	3	38	10	850	1	52	5"	6-7"-2 1/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
10 00	9.1	33				

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

DEPTH END SECOND TOUR 8709

DEPTH END THIRD TOUR 8714

L. Edwards
DRILLER OR WATCHMAN

A Kratzman
DRILLER OR WATCHMAN

D Hawkes
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Lentz
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB 6. 19 62 WELL NO. K54 LEASE AMERADA ELI LAKE

SEC. T. N. PROVINCE CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLER FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	12:15	TAKE PRE FLOW						
12:15	1:00	LOST PACKER SEAT - PREPARE TO HOIST D.S.T.						
1:00	5:15	HOIST D.S.T # 3.						
5:15	6:30	BREAK DOWN PACKER						
6:30	8:00	[illegible]						
	8:00	WAKE UP PACKER PICK UP 6 STANDS.						
8:00	8:15	RIG SER + BOP						
8:15	8:30	SLIP 25' DRLG						
8:30	9:00	RUN IN W/DST.#3 (SLOW)						
9:00	11:00	THAW OUT HYDROMATIC					2	00
11:00	1:15	RUN IN W/ DST (SLOW)						
1:15	2:00	PICK UP ONE SINGLE + HEAD UP TO D.S.T.						
2:00	2:15	TESTING (PRE-FLOW)						
2:15	3:00	INITIAL SHUT IN						
3:00	3:45	TEST TIME						
3:41	4:00	FINAL SHUT IN						
4:00	4:30	SHUT IN TEST						
4:30	7:30	HOISTING DST						
7:30	9:00	REPAIR HIGH CHAIN					1	30
9:00	9:30	FINISH HOIST						
9:30		BREAKING DOWN TEST TOOLS + SERVICE						
	11:45	LAY DOWN TOOLS SINGLE						
11:45	12:00	HOIST PIPE - FLUID IN TEST 90 FT						
		TOTAL TIME CHARGEABLE TO B.A.	20	30			3	30
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8709 DEPTH END SECOND TOUR 8709 DEPTH END THIRD TOUR 8709.

A Kucha DRILLER OR WATCHMAN

Leo L Jacob DRILLER OR WATCHMAN

Leon E. L. [illegible] DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L Cole. BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-65

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 6 1969 WELL NO. K54 LEASE Amuedee Clr Lake

SEC. _____ T. _____ R. _____ PROVINCE N.W.T. CONTRACTOR Cascade #15

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. SO AS TO ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
		Ran DST #4 by Gearge on Cascade 6676 - 6764' with Straddle Bypass. Tool open 45 min Preflow 45 min initial Shut in 45 min Final Flow 4 45 min final Shut in with air Blow Reversed Strong weak throughout Test. Recovery 90' Salt Water Cut Drilling mud. IHYD 3540. F.Hyd. 3570. FSIP. 3570 BHT 220°F.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L Lee

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-65

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 5. 19 67 WELL NO. K54 LEASE BA ANERAD CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12:00	3:00	PICK UP TESTING TOOLS AND
		STEAM OUT SANIE.
3:00	7:00	RUN IN WITH PACKER SLOW
7:00	8:00	SET PACKER. SHE NO HOLD
8:00		PULL 6 STD + TRY TO SET
	9:15	PACKER AGAIN. PIPE TAKING MUD
9:15	12:15	HOISTING TO CHECK LEAK
12:15		~~PACKER RUBBER~~ BREAK DOWN
		PACKER + CHECK FOR LEAK + CHANGE
	3:30	PACKER RUBBER
3:30	3:45	PICK UP ONE SINGLE + STAND PACKER
		IN DERRICK
3:45	4:00	PICK UP ONE STD + MAKE B. NOSE
4:00		RUNNING 14 STANDS 1 SINGLE
		BREAKING DOWN TEST TOOLS
	6:30	STEAM OUT TEST TOOLS
6:30	9:00	MAKE UP PACKER NO 2
9:00	9:45	RUNNING IN W/ PACKER SLOW
9:45	11:30	RIG SERV + BOP
11:30	12:00	RUNNING IN PACKER
11:30	12:00	RIG UP TO TEST

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 9709 DEPTH END SECOND TOUR D.S.T. 8709 DEPTH END THIRD TOUR D.S.T. 8709

DRILLER OR WATCHMAN ____ DRILLER OR WATCHMAN ____ DRILLER OR WATCHMAN ____

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE ____ BRITISH AMERICAN'S REPRESENTATIVE ____ BRITISH AMERICAN FOREMAN OR SUPERINTENDENT Robert L. Lake

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Feb 5 19 69 WELL NO. K-54 LEASE Amauda Cli Lake

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR Cascade Rig #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
		Ran DST #1 - in Arnica. 7260-7330 by Hamco. Tool was Packer Seat.
		Ran DST #2 in Brontae. 6692-6760. by Hamco. Tool was Packer seat.
		Ran DST #3 in Arnica. 7262-7350 by Hamco. Tool open 17 min w/blow Packer seat failed. 1 Hyd P. 3429 F Hyd P. 3442 BHT 220°F.

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

DRILLER OR WATCHMAN | DRILLER OR WATCHMAN | DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE | BRITISH AMERICAN'S REPRESENTATIVE | BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-99

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 4 19 62 WELL NO. K54 LEASE AMERADA CL LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRILL Rig 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	5 30	LOGGING WITH SCHLUMBERGER									
5 30	6 00	PICK UP JUNK SUB & MAGNET AND									
6 00		STEAM OUT SAND HEAT UP DC.									
	6 45	PUMP AND PICK UP BOTTOM HOLE DC.									
6 45	8 00	RUN IN HOLE WITH MAGNET.									
8 00	9 30	RUN IN WITH MAGNET									
9 30	10 30	PICK UP 4 SINGLES & STEAM OUT SAND									
10 30	11 00	BREAK CIR & CLEAN TO BOTTOM NO FILL									
11 00	3 30	CIRC TO CON. MUD & WORK MAGNET									
3 30	4 00	HOISTING.									
4 00	4 30	HOIST TO CORE									
4 30	4 45	RIG SERV & BOP									
4 45		HOIST LAY DOWN MAGNET JUNK SUB									
	7 00	1 SUB									
7 00	10 00	WAIT ON CORE HAND									
10 00		PICKING UP TEST TOOLS									
	12 00	MAKING PACKER UP									

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8709

Albert Krahn.
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 8709

LEO Jacobs
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 8709

Leon W Mack
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L Lee
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 3 1969 WELL NO. K54 LEASE BA. AMIERADA C.I. LAKE

SEC. 7 T. 1 R. E PROVINCE CONTRACTOR CASCADE DRLG. RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12.00	5.00	LOGGING WITH SCHLUMBERGER
5.00	8.00	VELOCITY SURVEY
8.00	2.00	VELOCITY SURVEY
2.00	4.00	W/ ON SCHLUM TOOL
4.00	6.00	WAITON LOGGING TOOLS
6.00	12.00	LOGGING W/ SCH

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
														20-7"-2¼

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8709 DEPTH END SECOND TOUR DEPTH END THIRD TOUR 8709

A Kraker DRILLER OR WATCHMAN

Leo L Lamb DRILLER OR WATCHMAN

Dean M. Wright DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L Poole BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 2 19 69 WELL NO. K54 LEASE BA AMERADA CLI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
1200	800	LOGGING WITH SCHLUMBERGER
800	400	LOGGING
400	1200	LOGGING

Log: Dipmeter from TD to Surface Csg (8709 - 6000)
Log: Seismic Reference Survey
Surface to TD.

Dual Induction Laterlog TD to 6000'
BHC GR Caliper TD to 6000'
FDC Gamma TD to 6000'
SNP Gamma Caliper TD to 6000'

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
			8709	

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
														20-7-2 7/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8709 DEPTH END SECOND TOUR 8709 DEPTH END THIRD TOUR 8709

A Kuhn
DRILLER OR WATCHMAN

L J Lamb
DRILLER OR WATCHMAN

[signature]
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE | BRITISH AMERICAN'S REPRESENTATIVE | BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE FEB. 1 19 69 WELL NO. K54 LEASE BA AMERADA CLI LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER (Down time) HRS.	MIN.
12:00	12:15	RIG SERV. BOPs. SWIVEL							
12:15	2:00	WORK ON AIR LINES TO NO 2 PUMP CLUTCH						1	45
2:00	8:00	DRLG. 8 3/4 HOLE WT 30M. RPM. 45.							
8:00	8:15	RIG SERV + BOP							
8:15	11:00	DRLG							
11:00	12:45	CIRC BTM SAMPLE							
12:45	1:00	SURVEY @ 8705'							
1:00	7:00	HOIST TO LOG							
4:00		FINISH HOIST BIT TO LOG							
		LAY DOWN 2 STABILIZER 1 REAMER							
	5:00	1 SUB 1-10 FT DRILL COLLARS							
5:00	5:30	RIG UP TO LOG							
5:30	12:00	LOGGING							
~~12:00~~	~~5:00~~	~~LOGGING~~							
~~5:00~~		~~LOGGING~~							
		Conduction Log TD to 6600'							
		Sonic Log TD to 6000'							
		Neutron Log TD to 6000'							
		Schlumberger TD 8706'							
		Dresser TD 8709'							
		TOTAL TIME CHARGEABLE TO B.A.	22	15			→		
		DAY WORK PER 24 HOUR DAY							

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
			8709	5 3/4

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
23	8 3/4	H88	196708	8596		104	13 1/2	45 42	30M	1500	2	60	5"	20-7-2 7/8
23	8 3/4	H88	196708	8596	8709	113	16 1/4	42	30	1500	2	62	5"	— " "

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 AM	9.0	33				
4:00	9.0	33				
8:00	9.0	33				
AM	9.1	33				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
1500	WT. M.	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8700

DEPTH END SECOND TOUR 8709

DEPTH END THIRD TOUR 8709 Logging

A Kuhn
DRILLER OR WATCHMAN

Les L. Lamb
DRILLER OR WATCHMAN

Leonard Wray
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L. Lesle
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Jan - 31 19 69 WELL NO. K54 LEASE BA AMERADA CLI LAKE

SEC. T. R. PROVINCE N W T. CONTRACTOR CASCADE DRLG RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	Casing Scraper HRS.	MIN.
12 00	12 15	R.G. SERV. BOPs. SWIVEL							
12 15	1 30	DRLG 8 3/4 HOLE. WT 25. RPM 46							
1 30	3 30	C/RC. BOTTOM HOLE SAMPEL.							
3 30	5 45	TRIP FOR BIT.							1 1/4
5 45	7 00	CHAIN BROCK HIGHE (1/4)							
7 00	8 00	TRIPING.							
8 00	8 30	FINISH HOIST							
8 30	8 45	RIG SERV + U/B. RAMS.							
8 45	9 00	SLIP 24' DRLG.							
9 00	9 30	RUN D.Cs + LAY DOWN JARS + TIGHTEN UP PACKING							
9 30	10 00	FINISH RUNING IN D.Cs							
10 00	11 30	W/ ON ORDER							
11 30	12 30	PULL OUT D.Cs + CHANGE BIT							
12 30		MAKE UP SAME BIT + RUN IN							
	2 30	TO DRILL AHEAD							
2 30	3 15	BREAK CIRC + CLEAN TO BTM							
3 15	4 00	DRLG AHEAD							
400	7 00	DRILL 8 3/4 HOLE							
7 00	7 30	RIG SERV. BOP							
7 30	7 45	WORK ON AIR LINE ON #2 PUMP (1/4)							1/4
7 45	8 30	DRILL W/ 30 RPM 46							1 30
8 30	9 00	WAIT ON ORDER W/ PIPE IN HOLE CIRC							
9 00	12 00								

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	30				
DAY WORK PER 24 HOUR DAY						

BIT RECORD: 900 TO 1206 DRILL 8 3/4 HOLE

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
22	8 3/4	RG7XJ	1532	8487	8596	109	14 1/4	46	25	1450	2	60	5"	20-7-2 7/8
23	8 3/4	H88	196708	8596	RUN	5'	3/4	46	25-30	1500	2	66	5"	〃 〃 〃
23	8 3/4	H.88	196708	8596	RUN	43	6 3/4	46	30	1500	2	66	5"	20-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	9.0	35				
3 00	9.0	35				
5 30	90	34				
10 30	91	34				

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8596 DEPTH END SECOND TOUR 8601 DEPTH END THIRD TOUR 8644

A Kuehn — DRILLER OR WATCHMAN

Leo J Laval — DRILLER OR WATCHMAN

Lemoyne Wigg — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalman Rud — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert A Lake — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 30, 19 69 WELL NO. K-54 LEASE AMERADA (ET) LAKE

SEC. T. R. PROVINCE N.W.T CONTRACTOR CASCADE DRILLING CO.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOPS		15				
12 15	3 30	HOIST & SLIM	3	15				
3 30		GUAGE ALL STAB BTM HOLE REAMER						
	4 30	MAK NO BIT	1	00				
4 30	5 00	RUN D.C.		30				
5 00	5 45	SLIP & CUT LINE		45				
5 45	6 15	RUN IN		30				
6 15	7 00	REPAIR JUMPER HOSES TO STEM HEATERS		45				45
7 00	8 00	RUNNING IN	1	00				
8 00	8 30	FINISH IN HOLE		30				
8 30	9 00	BREAK CIR.		30				
9 00	9 15	RIG SERV BOP		15				
9 15	1 30	DRLG 8 3/4 HOLE. WT 35. RPM. 46	4	15				
1 30	2 00	PUT CHAIN ON PUMP DRIVE						30
2 00	4 00	DRLG 8 3/4 HOLE. WT 35 RPM 46	2	00				
4 00	5 45	DRLG	1	45				
5 45	6 00	RIG SERV + BOP.		15				
6 00	12 00	DRLG	6	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	8487	5¼		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	23	45			1	15
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
22	8¾	RG7XJ	1532	8487										
22	8¾	RG7XJ	1532	8487	RUN	54	5¼	46	35	1450	2	60	5"	20-7-2 3/8
22	8¾	RG7XJ	1532	8487	DRLG	104	13	46	35	1450	2	66	5"	" " "

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
10 00	9.0	33				
4 00	9.0	33				
10 00 PM	89	33				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
1,500 #	GEL	
8500 #	WX-D	24
50 #	BENEX	1/4 R/S
200 #	CAUSTIC	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8487

Don Woods
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 8541

A Kuskin
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 8591

Leo Landreth
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delvin Kelly
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lee
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 29 19 69 WELL NO. K-54 LEASE AMERADA CH LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING CO.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLER'S ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS	MIN.
12 00	12 15	RIG SERV & BOP'S		15				
12 15	12 45	DRILL		30				
12 45	2 15	CIR BTM HOLE SAMPLE	1	30				
2 15	2 30	SURVEY		15				
2 30	4 45	HOIST & CHECK B. RAMS	2	15				
4 45	5 15	RUN D.C & CHANGE JARS & GUAGE BIT		30				
5 15	5 30	SLIP LINE / HOLE REAMER & PINS OK		15				
5 30	7 15	RUN IN & BREAK CIR.	1	45				
7 15	8 00	DRILL		45				
8 00	9 30	DRLG 8 3/4 HOLE WT 35 RPM 46	1	30				
9 00	9 15	RIG SERV. BOPS. SWIVEL		15				
9 15	12 00	DRLG 8 3/4 HOLE.	3	45				
1 00	3 30	PUT G 700 ON HOLE CLUTCH WONT RELEASE.					2	30
3 30	4 00	DRLG 8 3/4 HOLE WT 35 RPM 46		30				
4 00	4 15	RIG SERV + BOP		15				15
4 15	4 30	WORK ON PUMP G-700 DRIVE		45				45
4 30	5 45	DRLG						
5 45	6 00	CHANGE OVER PUMPS						
6 00	10 00	DRLG	4	00				
10 00	11 30	CIRC BTM HOLE SAMPLE	1	30				
11 30	11 45	SURVEY		30				
11 45	12 00	HOIST FOR B.I.						
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	20	30			3	30
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	8370	4 1/2		

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
20	8 3/4	RC7XJ	97336	8099	8375	276	21 1/2	46	35	1600	2	T.B.C 88 1/16	5"	20-7"-2 3/8
21	8 3/4	RC7XJ	1534	8375			3/4							
21	8 3/4	RC7XJ	1534	8375		75	6 1/2	46	35	1300 / 850	2 / 1	60 / 60	5" / 5 1/4	20-7-2 3/8
21	8 3/4	RC-7X-J	1534	8375	8487	112	11 1/2	46	35	850 / 1450	1 / 2	CC / TC	5 3/4 / 5"	" "

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
8 00	9.00	32				
4.00	9.0	32.				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
20 SKS	WT. MT	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 8381 DEPTH END SECOND TOUR 8438 DEPTH END THIRD TOUR 8487

Don Hemke
DRILLER OR WATCHMAN

A Knaha
DRILLER OR WATCHMAN

Lou Hauk
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolan Lesly
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 28 19 69 WELL NO. K-54 LEASE AMERADA HILL LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T CONTRACTOR CASCADE DRILLING CO.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 45	RUN IN & BREAK CIR.		45				
12 45	1 00	RIG SERV & BOPS		15				
1 00	8 00	DRILL	7	00				
8 00	9 00	DRLG 8¾ HOLE WT. 35. RPM 46	1	00				
9 00	9 15	RIG SERV BOPS. SWIVEL		15				
9 15	2 15	DRLG 8¾ HOLE WT 35. RPM 46	5	00				
2 15	2 45	INSTALL PUMP DRIVE G700						30
2 45	4 00	DRLG. 8¾ HOLE WT. 35. RPM 46	1	15				
4 00	6 45	DRLG	2	45				
6 45	7 00	RIG SERV & BOP		15				
7 00	8 00	PULL G-700 AHEAD & PUT ON BELT					1	00
8 00	12 00	DRLG	4	00				

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

P-65

DATE JAN 27 19 69 WELL NO. K-54 LEASE AMERADA HILL LAKE

SEC. T. R. PROVINCE N.W.T CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
1200	1215	RIG SERV & BOPS		15				
1215		CHECK PUMP FOR PRESS LOSS OK						
	1245	DIVIDED. MUD WT. 8.0 8.4 8.8 9.0		30				
1245	800	DRLG	7	15				
800	830	DRLG 8¾ HOLE WT 35M. RPM. 46		30				
830	845	RIG. SERV. BO.B. SWIVEL		15				
845	400	DRLG. 8¾ HOLE WT 35M. RPM 46	7	15				
400	500	DRLG	1	00				
500	515	RIG SERV + BOPS		15				
515	545	DRLG		30				
545	700	CIRC. BTM HOLE SAMPLE	1	15				
700	715	DROP SURVEY @ 8080		15				
715	1200	HOIST FOR & RUNNING IN	4	45				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
19	8¾	RC-1XJ	BK530	7871		118	12¼	42	35	1500	2	60	5"	20-7"-2 2/16"
19	8¾	RC-1XJ	BK530	7871		205	20	46	35	1500	2	60	5"	20 7"2 2/8"
19	8¾	RC-1X-J	BK580	7871	8099	228	22	46	35	1500	2	66	5"	20-7"-2 2/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
600	9.0	33			8.0	
800	9.0	34				
400	90	33			8.0	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
1000 #	Ck. Mat	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7989

DEPTH END SECOND TOUR 8076

DEPTH END THIRD TOUR 8099

Don Henke
DRILLER OR WATCHMAN

A Krahn
DRILLER OR WATCHMAN

Les J. Jacob
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolan Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 26 19 69 WELL NO. K-54 LEASE AMERADA HESS LAKE

SEC. T. R. PROVINCE N.W.T CONTRACTOR CASCADA DRILLING CO

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOP'S		15				
12 15	6 15	DRILL	6	00				
6 15	7 30	CIR. BTM HOLE SAMPLE W/ PIPE	1	15				
7 30	7 45	SURVEY @ 7830		15				
7 45	8 00	HOIST		15				
8 00	8 15	RIG SERV. BOPS		15				
8 15	10 45	HOIST FOR BIT	2	30				
10 45	11 00	BREAK OF BIT		15				
11 00	11 15	RECOVER SURVEY		15				
11 15	11 30	MAKE UP BIT. 19.		15				
11 30	11 45	SLIP LINE 21 FT.		15				
11 45	2 30	RUN IN HOLE WITH BIT	2	45				
2 30	3 00	BREAK CIR.		30				
3 00	3 30	REAME TO BOTTOM.		30				
3 30	4 00	DRLG. 8 3/4 HOLE.		30				
4 00	5 30	DRLG	1	30				
5 30	5 45	RIG SERV + BOPS		15			~~3~~	~~30~~
5 45	8 45	PUMP MAINTENANCE C-350					3	00
8 45	12 15	DRLG	2	30				
11 15	11 30	CHECK PUMP PRESSURE LOSS & DE ICE AIR LINE TO MOTOR CLUTCH		*				15
~~11 30~~	12 00	DRLG	30					
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	20	45			3	15
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
7860			
7871	3 1/2°		

BIT RECORD: BIT # 19 JETS SIZE 1-11 #2-10

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
18	8 3/4	RG7XJ	97356	7502	7871	369	31 1/4	42	35	1600	2	60	5"	20-7-2 7/8
19.	8 3/4	RG.1XJ	BK530	7871			1/2			1600	2	60	5"	30-7" 2 7/8
19.	8 3/4	RG-1XJ	BK530	7871		50	3	46	35	1450	2	66	5"	20-7" 2 7/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
6 00	9.1	36	NO CONTROLL		8.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
200#	CAUSTIC	
200#	PHPA	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7871 DEPTH END SECOND TOUR 7876 DEPTH END THIRD TOUR 7921

Don Newko
DRILLER OR WATCHMAN

A Krakowski
DRILLER OR WATCHMAN

Leo Lavack
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dave Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 25 1969 WELL NO. K57 LEASE B.H.C.H. AMERADA CH LAKE

SEC. _____ T. _____ R. _____ PROVINCE N.W.T CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
10 32	11 02	WORK ON C-350						30
11 00	11 45	DRLG.		45				
11 45	12 00	REPAIR & INSTALL V. CAP ON C-350						15
		PAGE # 2						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.		45				45
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Walter Leahy
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

F-93

DATE JAN 25 19 69 WELL NO. K-54 LEASE AMERADA HI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING CO.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOP's	5	45				
12 15	6 00	DRILL		30				
6 00	6 30	SURVEY @ 7610	1	30				
6 30	8 00	DRILL						
				15				15
8 00	8 15	CHANG. VALVE CAP GASKET IN C 350		45				
8 15	9 00	DRLG. 8 3/4 HOLE. WT. 35M. RPM 46		15				
9 00	9 15	RIG SERV. BOPs. SWIVEL	4	15				
9 15	1 30	DRLG. 8 3/4 HOLE. WT. 35. RPM. 46						15
1 30	1 45	CHANG. VALVE CAP GASKET IN C 350	2	45				
1 45	4 00	DRLG. 8 3/4 HOLE. WT. 35. M. RPM. 46.		30				
4 00	4 30	DRLG		15				
4 30	4 45	RIG SERV + B.O.P	1	45				
4 45	12 00	DRLG						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	7610	3¼		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	20				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
18	8¾	RG 7XJ	97356	7502		142	16¼	42	35	1650	2	60	5"	20-7"-2 7/8
18	8¾	RG7XJ	97356	7502		242	17½	46	35	1800	2	60	5"	20-7-2 7/8
18	8¾	RG-7-J	97356	7502				42	35	1600	2	60	5"	20-7-2 7/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
11 00	9.1	34			8.0	
8 00	9.2	37				
4 00	9.0	33				
8 PM	9.0	34			8.0	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
100 lbs	Caustic	
200 lbs	Pellex	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7644 DEPTH END SECOND TOUR 7744 DEPTH END THIRD TOUR 7814

Don Hewko — DRILLER OR WATCHMAN

A Kucher — DRILLER OR WATCHMAN

Leo F Jacob — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolven Lucky — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 24 19 69 WELL NO. K-37 LEASE BEACH AREA TADY CAT LAKE

SEC. ____ T. ____ R. ____ PROVINCE N W T CONTRACTOR CASCADE DRILLING CO.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIMES SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	REAM TO BTM		15				
12 15	12 30	RIG SERV. BOP'S		15				
12 30	2 00	DRILL & WORK J-SUB	1	30				
2 00	5 15	MIX MUD & CIR W/ PIPE					3	15
5 15	7 30	HOIST	2	15				
7 30	7 45	CLEAN J-SUB		15				
7 45	8 00	PICK UP J-SUB & MAGNET		15				
8 00	8 30	MAKE UP JUNK SUB AND MAGNET. ~~STRIP LINE~~		30				
8 30	9 00	SLIP LINE.		30				
9 00	10 30	RUN IN HOLE WITH MAGNET	1	30				
10 30	12 30	BREAK CIR. AND FISHING.	2	00				
12 30	2 30	HOIST TO RECOVER IRON	2	00				
~~12~~ 30	3 00	RECOVERD SOME IRON		30				
3 00	3 30	LAY DOWN JUNK SUB AND MAGNET. AND BOTTOM HOLE COLLAR.		30				
3 30	4 00	PICK UP 9 FT. COLLAR AND SUB		30				
4 00	4 15	RIG SERV + BOP		15				
4 15	5 00	MAKE UP 3 POINT REAMER + BIT PICK UP 2 STB + RUN D.C.'s		45				
5 00	6 30	RUN IN W/ P.P.'s	1	30				
6 30	8 15	BREAK CIRC + REAM 10' TO BTM	1	45				
8 15	10 30	DRLG	2	15				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	19	15			3	15
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
			4	

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
17	8 3/4	W7R-2	49869	7500	7502	2	1½	46	35-45	375	2	66	5"	21-7"-2 7/8
18	8 3/4	RG7X-J	99356	7502				42	35	1600	2	61	5"	20-7"-

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
5 00	8.9	42			9.0	
10 00 Rig	9.0	35				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
GEL	3600#	
WT. MAT	6000#	
BENEX	14#	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7502 DEPTH END SECOND TOUR 7502 DEPTH END THIRD TOUR 7540

D Newton
DRILLER OR WATCHMAN

A Fuller
DRILLER OR WATCHMAN

Lou Lock
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolan Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 23 19 69 WELL NO. K54 LEASE B.A.O.P. AMIRADA CHINAKE

SEC. NO 2 T. SHEET R. PROVINCE N.W.T CONTRACTOR CASCADE RIG 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, COPING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLER'S ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
4 30	5 00	HOIST	2	15				
2 00	7 30	BREAK JUNK SUB & MAGNET &		30				
		CLEAN OUT IRON						
7 30	8 00	MAKE UP BIT & JUNK SUB &		30				
		RUN IN ONE STAND D.C.						
8:00	9 00	SLIP 30' DRLG LINE & CUT.	1	00				
9 00	11 30	RUN IN W/ BIT & JUNK SUB	2	30				
11 30	12 00	BREAK CIRC & REAM TO BTM		30				

PAGE 11

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	7	15				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Duncan Kelly — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 23 19 69 WELL NO. K-54 LEASE AMERADA

SEC. ___ T. ___ R. ___ PROVINCE N.W.T CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT. INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 30	DRILL		30				
12 30	12 45	CHECK BIT FOR TORQUE		15				
12 45	1 45	CIR. BTM HOLE SAMPLE W/ PIPE	1	00				
1 45	2 00	SURVEY @ 7490 [redacted].		15				
2 00	4 45	HOIST LOST 3 CONES	2	45				
4 45	5 00	RIG SERV. B. RAMS		15				
5 00		BREAK & LAY DOWN JARS TIGHTEN SAME LAY DOWN ALL STAB, & PULL TOOL FROM TELEDRIFT SUB & LAY SAME DOWN. PICK UP T-SUB & MAGNET & CAN & MEASURE F-TOOLS PICK UP						
	7 00	BTM HOLE D.C.	2	00				
7 00	7 30	RUN D.C. IN		30				
7 30		SLIP LINE & INSTALL NEW HIGH CHAIN		30				
8 00	9 30	RUN IN HOLE WITH MAGNOT.	1	30				
9 30	10 30	BREAK CIR FISHING.	1	00				
10 30	12 30	HOIST. WITH MAGNOT AND CONSTHOPE.	2	00				
12 30	1 45	RECOVER 1 CONE AND SOME BEARING @ IRON		15				
1 45	3 45	RUN IN HOLE WITH MAGNOT.	2	00				
3 45	4 00	BREAK CIR		15				
4 00	4 15	RIG SERV		15				
4 15	4 45	WORK MAGNET & JUNK SUB		30				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	16	45				
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	7490	3 1/8		

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
16	8 3/4	M8J	158208	7340	7500	160	16	46	45	1700	2	66	5"	20-7"-2 2/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	8.8	37				

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7500 DEPTH END SECOND TOUR 7500 DEPTH END THIRD TOUR ___

D Hendson
DRILLER OR WATCHMAN

P Kuehn
DRILLER OR WATCHMAN

Leo Lafond
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dabren Locke
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 22 19 69 WELL NO. K54 LEASE AMERADA HESS LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO B. AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	1:45	HOIST OUT CHECK B RAMS	1	45				
1:45		GUAGE ALL SQUARE STABILIZERS						
		LAY DOWN JARS, PICK UP NEW						
		SET CHANGE BITS BREAK DOWN						
		TELEDRIFT SUB. PULL TOOL OUT, ETC.						
	3:15	WORK ON SAME, WILL WORK IN DOG HOUSE	1	30				
3:15	3:45	RUN D.C. CHANGE TOP SINGLE ON D.C		30				
3:45	4:00	SLIP LINE & RIG SERV.		15				
4:00	5:30	RUN IN & BREAK CIR	1	30				
5:30	6:00	REAM 3' TO BTM.		30				
6:00	6:15	RUN TWO TELEDRIFT SURVEYS		15				
6:15	8:00	DRILL	1	45				
8:00	8:15	RIG. SERV. BOPS. SWIVEL.		15				
8:15	11:00	DRLG. 8¾ HOLE WT. 35. RPM. 46. PP 3000	2	45				
11:00	11:30	TIGHTIN LINERS IN C350 PUMP.						30
11:30	4:00	DRLG. 8¾ HOLE. WT. 45000. RPM. 46	4	30				
4:00	6:15	DRLG	2	15				
6:15	6:30	RIG SERV + BOPS		15				
6:30	6:45	TELEDRIFT SURVEY		15				
6:45	10:00	DRLG	3	15				
10:00	11:00	CON'T TRY TO REACH BTM LAY DOWN TOP SINGLE & WORK PIPE TO BTM TORQUE-ING	1	00				
11:00	12:00	DRLG	1	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	7330	3 1/8		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	23	30				30
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
16	8¾	M&J	158208	7340		31	13¼	46	30-35	2000	2	64	5"	20 - 7" - 2 7/8
16	8¾	M&J	158208	7340	RUNNING	109	9	46	35-45	2000	2	64	5"	20-7-2 7/8
16	8¾	M&J	158208	7340	RUN	160	25½	46	45	1700	2	66	5"	20-7 2 7/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME
200#	CAUSTIC	9 HRS
200#	PHPEX	4 HRS

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7371 DEPTH END SECOND TOUR 7449 DEPTH END THIRD TOUR 7499

Don Hawker
DRILLER OR WATCHMAN

G. Krahn
DRILLER OR WATCHMAN

Leo Jacob
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolwen Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-85

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 21 19 69 WELL NO. K-54 LEASE AMERADA HILI LAKE

SEC. T. R. PROVINCE N.W.T CONTRACTOR CASCADE DRILLING CO

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT. INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR. SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOP'S		15				
12 15	4 15	DRILL	4	00				
4 15	6 00	REPAIR & CLOWE NO 1 PUMP SHAFT						
		CHANGE UNION ON MUD LINE SHOCK						
		HOSE BLEW UP					1	45
6 00	6 15	DRILL		15				
6 15	6 30	WORK TIGHT HOLE		15				
6 30	8 00	HEAD WASHED IN C-350					1	30
8 00	8 15	RIG SERV. BOPs.		15				
8 15	11 30	CHANGED HEAD AND LINER IN C350					3	00
11 30	11 45	DRLG. 8 3/4 HOLE WT 35M RPM. 46		15				
11 45	12 30	PLASTIC IN SUCTION HOSE.						45
12 30	12 45	DRLG. 8 3/4 HOLE. WT 35. RPM 46		15				
12 45	1 30	MORE PLASTIC IN SUCTION HOSE AND MORE.						45
1 30	3 30	HEAD WASHED OUT IN C350 AND LINER.					2	00
3 30	4 00	DRLG. 8 3/4 HOLE WT. 35M. RPM. 46.		30				
4 00	4 45	DRLG		45				
4 45	5 00	RIG SERV & BOPs		15				
5 00	5 15	TELEDRIFT SURVEY NO SIGNAL		15				
5 15	9 45	DRLG	4	30				
9 45	10 00	DROP SURVEY & BLOW KELLY		15				
10 00	12 00	HOIST	2	00				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	14	00			10	00
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
15	8 3/4	M8J	162294	6669		577	45 1/4	46	35	1500	1	66	5 1/4	20-7"-2 7/8
15	8 3/4	M8J	162294	6669	RUNNING		46 1/4	46	35	1700	2	66	5"	20-7 2 7/8
15	8 3/4	M8J	162294	6669	HOIST	671	51 1/2	46	35	1700	2	60	5"	20-7 2 7/8
									DOTD	2	1	1/16		

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
4 PM	8.9	43				
			~			

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7246

D Newton

DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 7266

A Kralm

DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 7340

Leo L Lock

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 20 19 69 WELL NO. K-54 LEASE AMERADA PRI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T CONTRACTOR CASCADE DRLG

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOPS		15				
12 15	1 45	DRILL	1	30				
1 45		CHECK FOR MUD PRESS LOSS 100 PSI						
	2 30	CLEAN MUD TANKS		45				
2 30	3 30	DRILL	1	00				
3 30	4 00	SURVEY		30				
4 00	8 00	DRILL	4	00				
8 00	9 15	DRLG. 8 3/4 HOLE. WT. 35 RPM. 46	1	15				
9 15	9 30	RIG. SERV. BOPS. SWIVEL.		15				
9 30	1 00	DRLG. 8 3/4 HOLE. WT 35. RPM 46.	3	30				
1 00		PICK UP OF BOTTOM. TO MIXE W/T.	1	30				
	2 30	GAINING VOLUME IN MUD TANKS.						
2 30	4 00	DRLG. 8 3/4 HOLE. WT. 35M. RPM. 46.	1	30				
4 00	4 15	RIG SERV & BOPS		15				
4 15	12 00	DRLG	7	45				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	6954	3 1/2		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
15	8 3/4	M8J	162294	6669		341	27	46	30-35	1525	1	66	5 1/4	20-7"x2 3/8
15	8 3/4	M8J	162294	6669	RUNING	420	33 1/4	46	35000	1525	1	66	5 1/4	20-7"x2 3/8
15	8 3/4	M8-J	162294	6669	RUN	515	41	46	35	1450	1	66	5 1/4	20-7"x2 3/8

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
2 00 AM	8.7	43				
3PM	9.0	37				
8 PM	8.9	36				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
200 #	PERTEX	2 1/4 HRS
200 #	CAUSTIC	
12000	WT. MAT	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 7010 DEPTH END SECOND TOUR 7089 DEPTH END THIRD TOUR 7184

Donald Hewlett
DRILLER OR WATCHMAN

A Kuehn
DRILLER OR WATCHMAN

Leo L Lavack
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Lesh
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 19, 1969 19 69 WELL NO. K-54 LEASE AMAZON CR. LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV. & BOPS		15				
12 15	2 15	DRILL	2	00				
2 15	2 30	RUN TELEDRIFT SURVEY "NOT WORKING"		15				
2 30	4 30	DRILL	2	00				
4 30		RUN TELE SURVEY & CHANGE SENDING						
	5 00	UNIT TO TOTCO RECORDER TO PISTON TYPE		30				
5 00	7 00	DRILL	2	00				
7 00	7 30	SURVEY W.I.S. LINE		30				
7 30	8 00	DRILL		30				
8 00	10 15	DRLG. 8 7/7 HOLE WT. 35000. RPM. 46	2	15				
10 15	10 30	RIG SERV. BOPS. SWIVEL		15				
10 30	4 00	DRLG. 8 3/4 HOLE WT. 36000. RPM. 46.	5	30				
4 00	4 30	DRLG 8 3/4		30				
4 30	4 45	RIG SERV + BOP.		15				
4 45	5 15	SURVEY @ 6860 3 1/4°		30				
5 15	6 45	WORK ON ROTARY CHAIN TORQUE					1	30
6 45	12 00	DRLG 8 3/4	5	15				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	6764	3 1/4		
	6860	3 1/4		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	30			1	30
DAY WORK PER 24 HOUR DAY						

BIT RECORD: 6.00 6763

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
15	8 3/4	M8-J	162294	6669		113	8	46	25	1525	1	66	5 1/4	20-7"-2 7/8
15	8 3/4	M8J	162294	6669		193	15 3/4	46	25M 35M	1550	1	66	5 1/4	20-7"-2 7/8
15	8 3/4	M8-J	162294	6669						1550	1	66	5 1/4	20-7"-2 7/8

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
4 AM	8.7	45			9.0	
4 PM	8.6	36			9.0	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
500 #	S. ASH	24
200 #	CAUSTIC	HRS

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6782 DEPTH END SECOND TOUR 6862 DEPTH END THIRD TOUR 6927

Don Hawkes
DRILLER OR WATCHMAN

A Kuskin
DRILLER OR WATCHMAN

Leo Lavack
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Lee
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-91

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 18 19 69 WELL NO. K-54 LEASE AMERDA HILL LAKE

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR CASCADE

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12 00	12 15	RIG SERV. & BOP'S		15				
12 15	12 45	DRILL		30				
12 45		WORK ON DESILTER SUCTION LINE		15				
	1 00	VALVE & CLEAN TANK.						
1 00	2 45	DRILL	1	45				
2 45	3 15	SURVEY @ 6530 2 3/4°		30				
3 15	8 00	DRILL	4	45				
8 00	8 15	RIG SERV. BOPS SWIVEL		15				
8 15	8 30	SURVEY @ 6605. 2 3/4°		15				
8 30	1 00	DRLG. 8 3/4 HOLE WT. 25m RPM. 46.	1	30				
1 00	1 30	SURVEY @ 6667 3 1/2°		30				
1 30	2 00	DRLG. 8 3/4 HOLE		30				
2 00	4 00	HOIST TO PUT ON MORE IRON	2	00				
4 00	4 30	FINISH HOIST		30				
4 30	4 45	RIG SERV + BOP		15				
4 45	5 15	LAYDOWN BTM HOLE D.C + B.R. STAB.		30				
5 15	6 15	PICK B.T STAB + TELEDRIFT COLLAR +	1	00				
~~6 15~~	~~7 00~~	OTHER STAB		45				
6 15	7 00	RUN D.C + CHANGE STAB PLACE						
7 00	9 30	RUNNING IN	2	30				
9 30	10 30	BREAK CIRC + CLEAN 20' TO BTM	1	00				
10 30	12 00	DRLG 8 3/4 w/ 25m	1	30				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	24	00				
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	6530	2 3/4	6667	3 1/2

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
14	8 3/4	MBJ	158158	6161		445	23 1/2	46	30	1500	1	66	5 1/4	21-7"
14.	8 3/4	MBJ.	158258	6161	6669	508	34 1/2	46	25M	1500	1	66	5 1/4	21-7"
15.	8 3/4	MBJ.	162254	6669		13	1 1/2	46	25M	1500	1	66	5 1/4	20-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
6 00	8.6	33			9.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
100 #	SODA AH	
50 #	CAUSTIC	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6606 DEPTH END SECOND TOUR 6669 DEPTH END THIRD TOUR 6682

D Hemko
DRILLER OR WATCHMAN

A Kralka
DRILLER OR WATCHMAN

Lon L Lanch
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dakum Kelly
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 17 19 69 WELL NO. K-54 LEASE AMERADA CUT LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T CONTRACTOR CASCADE DRLG.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV & BOPS		15				
12 15	8 00	DRILL	7	45				
8 00	8 15	RIG. SERV. BOPS. SWIVEL.		15				
8 15	4 00	DRLG 8 3/4 HOLE WT 42 000. RPM. 60.	7	45				
4 00	4 30	DRLG 8 3/4		30				
4 30	5 00	CON @ 6416 & SURVEY 2°		30				
5 00	5 15	RIG SERV & V BOP & SWIVEL		15				
5 15	8 30	DRLG 8 3/4 w/44 000 R.P.M. 60	3	30				
8 30		CIRC BTM HOLE SAMPLE @ 6460 w/ P.P.						
	9 45	FOR GEO.	1	15				
9 45	12 00	DRLG 8 3/4	2	15				
12 00	12 15	RIG						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	6410	2°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
14	8 3/4	M8-J	158258	6161				46-60 70-40	28-38 45-43	1500	1	66	5 1/4	21-7"
14	8 3/4	M8J	158258	6161	RUNNING	251	16 1/2		30 44-42	1500	1	66	5 1/4	21-7"
14	8 3/4	M8-J	158258	6161				60		1500	1	66	5 1/4	21-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	8.5	28			8.5	
6 00	8.6	34			8.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
10 000	GEL	
~~330~~ 32	BEN-EX	
50	CAUSTIC	

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 9 A 6283 DEPTH END SECOND TOUR ~~6283~~ 6412 DEPTH END THIRD TOUR 6500

Don Wenko
DRILLER OR WATCHMAN

G. Kuska
DRILLER OR WATCHMAN

Leo L. Lavack
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalwin Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Cook
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

P-95

DATE Jan 16 19 69 WELL NO. 15-34 LEASE AMERADA CHI LAKE

SEC. ____ T. ____ R. ____ PROVINCE ALTA CONTRACTOR CASCADE DRILL 12 RIG

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG SERV & BOP		15				
12 15	12 30	DRILL 8 3/4 HOLE		15				
12 30	1 00	SURVEY @ 6064		30				
1 00	8 00	DRILL	7	00				
8 00	8 15	RIG SERV & BOP'S		15				
8 15	9 45	DRILL	1	30				
9 45	10 30	RUN TWO SURVEYS		45				
10 30	11 30	DRILL	1	00				
11 30	12 30	CIR BTM HOLE SAMPLE @ 6161 W/PIPE	1	00				
12 30	2 45	HOIST	2	15				
2 45		INSTALL ROLLERS IN 3 POINT REAMER						
	3 45	LAY DOWN JARS & TIGHTEN SAME	1	00				
3 45	4 00	SLIP LINE		15				
4 00	4 15	RIG. SERV.		15				
4 15		MAKE UP BIT. 14 RUN IN 60 FT. PUT						
		ON STABLISER. RUN IN 3 STANDS						
	6 30	PUT ON JARS FINISH RUNNING IN HOLE	2	15				
6 30	11 00	REAM TO BOTTOM. 3 POINT REAMER.						
	11 00	HANGING UP	4	30				
11 00	12 00	DRLG 8 3/4 HOLE	1	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	6064	1 3/4		
	6150	1 1/4		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

D.O.T.D → 6 — 4 — 1/16 UNDER

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
13	8 3/4	ZWR-2	39230	6000	6161 Running	150	14 1/2	50	45	300	1	66	5 1/2	21 — 7"
14.	8 3/4	M85SB	158258	6161				46	28M	1450	1	66	5 1/2	21 — 7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
1 30	~~8.4~~	28				
7 00	84	30				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
~~Gel~~		
80 SKS	GEL	
32#	BENEX	
200#	BICARB	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6150

DEPTH END SECOND TOUR 6161

DEPTH END THIRD TOUR 6171

Leonard Cook
DRILLER OR WATCHMAN

Don Hewes
DRILLER OR WATCHMAN

A Kealon
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Lee
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN-16 19 69 WELL NO. K54 LEASE HOMERAN OIL LAKE

SEC. ____ T. ____ R. ____ PROVINCE N W T CONTRACTOR CASCADE DRILL RIG 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS ON LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
11 00	12 15	R.S. SERV
12 15		PICK UP RTM - HOLE D.C
		MAKE UP 8 3/4 BIT
	2 15	PICKUP 6 DRILL COLLARS
2 15		RUNNING IN W/BIT PUTTING ON
	8 00	RUBBER ON DRILL PIPES
8 00	8 15	RIG SERV. & BOP'S
8 15		RUN IN & SLM INSTALL Csg. PROTECTORS
	12 00	ON 5" PIPE & LAY DOWN 6 SINGLES
12 00	12 15	BLOW ALL MUD LINES & KELLY & RIG
12 15	12 30	TO DISPLACE
12 15	12 30	PRESS TEST PIPE RAMS 1800
12 30	12 45	PRESS TEST HYDRILL 1800
12 45	1 00	PRESS TEST KELLY COCK
1 00	1 15	CHECK MOTOR SHUT OFFS
1 15	2 00	DRILL ON FLOAT COLLAR
2 00	3 30	THAW BY PASS BETWEEN NO 2 & 3 TANKS
3 30	4 00	DRILL FLOAT & CEMENT
4 00	4 15	RIG. SERV. BOPs
4 15	7 30	DRLG. ON CEMENT AND SHOE @ 6000'
7 30	12 00	DRLG. 8 3/4 HOLE WT. 45000 RPM 46.

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
13	8 3/4	W7R-2	39230	6000										
13.	8 3/4	W7R2	39230	6000	RUNNING	58	4½	46	45000	300	1	66	5 1/4	21-7"

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6600 DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR 6058

Leonard Mongo
DRILLER OR WATCHMAN

Dave Hewitt
DRILLER OR WATCHMAN

A Kuhn
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Robert Lusby
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

K. A Jasinski
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-05

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Jan 14 19 62 WELL NO. K 54 LE · BMCKAN CK. LAKE

SEC. ____ T. ____ R. ____ PROVINCE N W T CONTRACTOR CASCADE DRILL RIG 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00		W O C FINISH ~~W~~ & CLEAN UP BOP
		TEAR OUT BOP PICK UP BOP TO
		SET CASING SLIPS
	8 00	CLEANING MUD TANKS
8 00	4 00	W.O.C
		SET 9 5/8 SLIPS IN LANDING
		BOWEL CUT & BEVEL CASING
		HEADS BOPS UP
		CLEAN MUD TANKS & FILL
		W/ WATER START CHANGING
		LINERS IN BOTH PUMPS
4 00	12 00	W. O. C.
		HOOK UP FLOW LINE AND
		DRIG. NIPEL. PUT FARS FLOOR
		AND CLEAN UP UNUSED TORQUON
		FLOOR PRESSURE TEST. BLIND
		RAMS 1800 LB OK.

TIME CHARGEABLE TO BRITISH AMERICAN

	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

Leonard Wolfe
DRILLER OR WATCHMAN

Don Fowler
DRILLER OR WATCHMAN

A Kuehn
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delmar Luby
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

K. A. Jasinski
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

P-93

DATE JAN 13 19 69 WELL NO. 54K LEASE B.A. Et Al Amerada Obed Lake

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRLG.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
1200	800	RUN CASING 9 5/8
800	345	FINISH RUNNING 9 5/8 PIPE
345	400	RIG TO CIR 9 5/8 PIPE
400	830	CIR 9 5/8 CSG.
830	900	DISPLACE 20 BBL. WATER.
900	945	RIG UP CEMENTE AND PUMPING CEMENT.
945	1000	CEMENT. PLUG. DOWN
1000	1200	WASH BOPS AND GET READEY TO LIFT. BOPS

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

DEPTH END SECOND TOUR

DEPTH END THIRD TOUR

Leonard Wolf
DRILLER OR WATCHMAN

Don Wood
DRILLER OR WATCHMAN

A Kuchar
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dawson Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

L. A. Jasinski
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Jan 13 1969 WELL NO. 54K LEASE B.A. et al Cimarada Cliffs Sec

SEC. T. R. PROVINCE N.W.T. CONTRACTOR Cascade #12.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
		Ran 195 jts 9 5/8" O.D. Csg set @ 6000'. (6002.5 by pipe tally) as follows:						
		49 jts 9 5/8" O.D. 40# 8RTH J-55 R2 Class A —			1506.72			
		145 jts " " 36# " " " " " —			4467.32			
		1 jt 9 5/8 " 40# " " " " " —			31.20			
		Ground - 686. Total tally - 6005.24						
		Dist Ground to K.B. 15.5' Cut off 18.00						
		K.B elevation - 702. Net Tally 5987.24						
		Ran 7 centralizers & 4 centralizers on bottom 300'.						
		Ran Baffle & bottom plug, float shoe & float collar.						
		Circ mud 3½ hrs after pipe on bottom. @ 6500 gals/min						
		Pumped 20 BBls water ahead of cement. Cemented						
		by Hawco w/ 1050 sx Oilwell cement + .04% HR4.						
		Start mix @ 8:30 Pm. Finish mix @ 9:30 Pm.						
		Plug down @ 10:00 Pm Jan 13/69. Max. pressure						
		1800 P.S.I. Pumped plug to 5965' w/ 460 BBls						
		mud. Average slurry 14.8. Number 1 sample						
		6. Witnessed by D. Seely for Contractor &						
		Yasinski for Gulf Oil/Canada.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORX PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR _____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR _____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT K. A. Yasinski

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-91

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 12 19 69 WELL NO. K54 LEASE HAMERHOP CK LAKE

SEC. T. R. PROVINCE N W T CONTRACTOR CASCADE DRIL RIG - 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME. WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
1200	115	FINISH DUMMY TRIP 15 STANDS						
115	800	CIRC @ 6000 W/ PIPE IN HOLE						
800	300	CIR W/ PIPE @ 6000'						
300	400	HOIST TO RUN 9 5/8						
400	415	RIG SERV.						
415	600	HOIST TO RUN 9 5/8 CSG.						
600	800	LAY DOWN 9" COLLARS						
800	900	RIG UP TO RUN CSG.						
900	1200	RUNING CSG.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24					
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
12	12 1/4	X-17 J	CM126											

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
630	94	175	40	2/32	10 5T	

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6000 DEPTH END SECOND TOUR DEPTH END THIRD TOUR

Leonard Wall
DRILLER OR WATCHMAN

Don Hamilton
DRILLER OR WATCHMAN

Art Krahn
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolores Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

A. Jarvinen
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN. 11 19 62 WELL NO. K54 LEASE AMERHUDSON LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRILL 12 RIG

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 AM	5 45	Logging						
5-45	6 45	TEAR OUT LOG						
6 45	8 00	Running in Hole						
8 00	8 15	RIG SERV. & BOP'S						
8 15	9 15	RUN IN						
9 15	4 00	CIR. @ 6000 W/ PIPE						
4 00	4 15	RIG SERV. BOP						
~~4 15~~	~~11 00~~	~~START TO DUMMY TRIP 15 STANDS~~						
~~11 00~~	~~12 00~~							
4 15	11.00	CIR: @ 6000 W/ PIPE IN HOLE						
11.00	12.00	START. DUMMY TRIP.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
12.	12¼	XT-S	EM126 ~~3584~~											

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
11.0	9.4	165				

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6000

DEPTH END SECOND TOUR

DEPTH END THIRD TOUR

Leonard Wood
DRILLER OR WATCHMAN

D Hewko
DRILLER OR WATCHMAN

Art Krahn
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

D. C. Lodge
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

T. A. Gasinski
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN-10 19 62 WELL NO. A 54 LEASE AMERADA CLI LAKE

SEC. 5 TWP. 54 K. R. PROVINCE N W T CONTRACTOR CASCADE DRILL RIG 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	1 15	Dummy Trip To Clean Hole To Log 4 Fillup on Btm
1 15		Circ To Clean up Hole To Log a Good
	4 30	Cond - mud
4 30	7 30	Hoist Bit To Log
7 30	8 00	Rigging up To Log
8 00	8 30	Rig To Log
8 30	4 00	Logging.
4 00	12 00	Logging w/Schlumberger Dual Induction Laterolog 59991625.
		Borehole Compensated Sonic Log.
		5999' to 625'
		Dip Meter T.D. 5999' to 625'
		with 2 extra passes overbottom 200'
		& extra pass 1250' to 1050' as
		requested Base surface casing to 1120'
		average 13½". 1120' to 1800' average
		13". 1180ft T.D. 12½" to 13"
		T.D. Logger 6000'
		T.D. Driller 5999'
		5999
		6000

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	—				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
3 30	64	214	4	2/32	10	

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 6000 DEPTH END SECOND TOUR _____ DEPTH END THIRD TOUR _____

Leonard Wolf — DRILLER OR WATCHMAN

D. Hewlett — DRILLER OR WATCHMAN

Leo Hanah — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalen Seely — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

K. A. Jamieson — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN-9 19 69 WELL NO. A 54 LEASE AMERADA GLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N-W-T CONTRACTOR CASCADE DRILL RIG 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
1200	345	DRILL 12¼ HOLE
345	400	R.G SERV ✓ BOP
400	800	DRILL 12 HOLE W/ 45 RPM 50
800	815	RIG SERV. & BOPS
815	400	DRILL.
400	500	DRLG 12¼ HOLE
500	600	CIRC BTM HOLE SAMPLE
600	615	RIG SERV & ✓BOP
615		CIRC TO BUILD UP VOLUME &
	1100	COND MUD PRIOR TO LOG
1100		DUMMY TRIP 15 STDS PULLING
	1200	SLOW TIGHT FOR 5 STDS

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
12	12¼	X7	CM126931		RUNNING	40	10½	50	45	1450	1	66	7¾	3-9 13=7
12	12¼	X7	CM126931			69	19½	50	45	1450	1	66	7¾	13 7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
730	9.2	120	8.0	2/32		
200	9.3	130	8.1	2/32	9	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
GEL	87 SKS	
BENEX	34 #	
CAUSTIC	120 #	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5971

DEPTH END SECOND TOUR 5997

DEPTH END THIRD TOUR 6000.

Leonard Wagner
DRILLER OR WATCHMAN

D Newton
DRILLER OR WATCHMAN

Leo L. Laird
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dahm Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Jan. 8 19 69 WELL NO. K 24 LEASE HMERAUD CALFARK

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRILL RIG 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PI HRS.		OTHER HRS.	MIN.
1200	200	DRILL 12¼ HOLE	2	00				
200	215	R.S. SERV + BOP		15				
215	300	WASH OR MOTOR RUBBER LINES						45
300	400	DRILL W/ 35000 RPM 80	1	15				
400	500	CIRC UP SAMPLES @ 5928	1	00				
500	800	DRILL W/ 45000 RPM - 80	2	45				
800	1030	DRILL	2	30				
1030	1045	RIG SERV. & BOP'S		15				
1045	1145	CIR. BTM HOLE SAMPLE W/ PIPE	1	00				
1145	245	HOIST FIRST 3 STDS. LIGHT OFF BIT	3	00				
245	345	RUN DC	1	00				
345	400	SLIP LINE		15				
400	430	RUN IN D.C.		30				
430	443	RIG SERV + BOPS ✓		15				
443	613	RUN IN HOLE W/ P.P.	1	30				
613		HIT BRIDGE 3 STDS off BTM PICK UP KELLY + BLOW OUT SAME, BREAK CIRC + REAM OUT BRIDGE PICK ONE STD + 2 JTS SINGLES DOWN + REAM DOWN SAME + RUN IN						
	900	LAST 2 STDS, LAY DOWN 3 SINGLES + CLEAN TO BTM	2	45				
900	1200	DRLG 12¼ HOLE	3	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5880	2°		

	HRS.	MIN	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	23	15				45
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
11	12¼	STIAGT	283659	5901	5931	30	10½	80	45	1450	1	66	7¾	3-9 13-7
12	12¼	X7	CM126	5931	Run	10	3	50	35-45	1450	1	66	7¾	3-9" 13-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
730	95	110	8 4/	2/32	10	
10 P.M.	94	150	9.0	2/32	8.0	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
	1	
	5	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5927 DEPTH END SECOND TOUR 5931 DEPTH END THIRD TOUR 5941

Leonard Wall
DRILLER OR WATCHMAN

Gil Donald Hoy Lewis
DRILLER OR WATCHMAN

Leo J. Lesak
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolan Lesky
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G. Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN - 7 19 69 WELL NO. 15-4 LEASE AMERADA CLI LAKE

SEC. T. R. PROVINCE N W T CONTRACTOR CANCORD DRLG RIG 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
1200	1 15	DRILL 12¼" HOLE	1	15				
1 15	1 30	RIG SERV & BOP		15				
1 30	8 00	DRILL W/ 45" RPM 130	6	30				
800	11 15	DRILL	2	15				
11 15	11 45	SURVEY		30				
11 45	12 00	RIG SERV. & BOP'S		15				
12 00	1 15	DRILL	1	15				
1 15	2 15	CIR. BTM. HOLE SAMPLE W/ 1 PIPE	1	00				
2 15	4 00	HOIST	1	45				
4 00	5 30	FINISH HOISTING	1	30				
5 30	5 45	RIG SERV & V BOYS & BLIND RAM		15				
5 45	7 00	R.I.H. IN D.C.s & CHANGE JARS	1	15				
7 00	9 00	RUN IN HOLE	2	00				
9 00	9 30	PICK UP KELLY & BLOW SAME		30				
9 30	10 15	BREAK CIRC & CLEAN TO BTM 20'		45				
10 15	12 00	DRLG 12¼ HOLE W/35M ON B.T RAN 76	1	45				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5880	2°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
10	12¼	X-V	BZ 376	5716	Running	156	28	130	45	1450	1	66	7¾	7 - 9, 13 - 7
10	12¼	X-V	BZ 336	5716	HOIST	185	32½	130	40	1450	1	66	7¾	3 - 9, 13 - 7
11	12¼	STIC-J	283699	5901	RUN	14	1¾	76	35	1450	1	66	7¾	3 - 9, 13 - 7

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
630	93	130	4%	2/32	10.5	
1200	95	112	8.2	2/3	9.3	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
GEL	~~400~~	
BENEX	~~38#~~	

SWAB CUPS: OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5872 DEPTH END SECOND TOUR 5901 DEPTH END THIRD TOUR 5915

Bernard W. Wolf
DRILLER OR WATCHMAN

D. Hawkes
DRILLER OR WATCHMAN

Leo F. Faust
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN-6 19 69 WELL NO. 154 LEASE AMERADA ELI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR KASCADE-PROVA 12 RIG

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 AM	1 30	CLEAN OUT FILL 204 FT FILL TO BTM		30				
1 30	4 30	DRILL 24/40000 ON BIT RPM 80	3	00				
4 30	4 45	RIG SERV & BOP		15				
4 45	8 00	DRILL 24/40000 ON BIT RPM 80	3	15				
8 00	8 15	RIG SERV. & BOP'S		15				
8 15	4 00	DRILL	7	45				
4 00	7 15	DRLG 12 1/4 HOLE	3	15				
7 15	7 30	RIG SERV & V BOP - SWIVEL		15				
7 30	8 00	SURVEY @ 5790 2°		30				
8 00		DRLG 12 1/4" HOLE W/45' ON BIT						
	12 00	R.P.M. 115	4	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5790	2°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
10	12 3/4	X-V	BZ33C	5716	RUNNING	42	6 1/4	50	40M	1400	1	66	7 3/4	3-8 13-6
10	12 1/4	XV	BZ-336	5716	RUN	106	2 1/4	60/115	45	1400	1	66	7 3/4	3-8 13-6

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	pH	SAND CONTENT
7 30	9.5	120	8 4	2/32	11.0	
10 00	9.5	110				
2 00	9.5	100	9.	2/32	10.5	
8 PM	9.5	120	7.8	2/32	9.8	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
	GEL	9000
	REN-EX	36

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5758

DEPTH END SECOND TOUR 5789

DEPTH END THIRD TOUR 5822

Leonard Wood
DRILLER OR WATCHMAN

D Hawkes
DRILLER OR WATCHMAN

Levi L Landis
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dale Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN - 5 19 69 WELL NO. K 54 LEASE MACKENZIE CO. LAKE

SEC. T. R. PROVINCE N W T CONTRACTOR CASCADE DRILL 12 Ltd.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SIGN ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
1200	230	DRILL 12¼ HOLE W/ 30 000 RPM 130	2	30				
230	300	SURVEY @ 5704		30				
300	315	RIG SERV + BOP ✓		15				
315	330	DRILL		15				
330	345	REPAIR MUD LINE		~~15~~				15
345	630	DRILL W/ 30000 RPM - 130	2	45				
630	730	C. RE up SAMPLE @ 5716	1	00				
730	800	HOIST TIH PICK up KELLY PUMP OUT 3 SINGLES		30			HOLE	
800	815	RIG SERV. & BOPS		15				
815	845	TRY TO HOIST		30				
845	945	WORK PIPE & CIR		30				
945	945	TRY TO HOIST HOLE SLUFFING		30				
945	1245	CIR W/ PIPE & RAISE VIS	2	00				
1245	145	PUMP OUT 3 SINGLES	1	00				
145	400	HOIST	2	15				
400	415	RIG SERV + BOPS ✓		15				
415	445	FINISH HOIST + ✓ BLIND RAM		30				
445	600	CHANGE B.T + RUN IN D.C.S	1	15				
600	730	SLIP 75' DRLG LINE + CUT	1	30				
730	900	CHANGE 1 BRAKE BAND HYDROMATIC SIDE					1	30
900	1100	RUN IN HOLE TO 5553	1	00				
1100		PICK up KELLY BREAK CIRC & PICK up						
	1200	3 SINGLES & REAM IN SAME	1	00				
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	21	15	REPAIR		2	45
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
5704	1 ¼		

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P.M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
9	12¼	X-3J	PJ691	5553	5716	163	24	130	30M	1400	1	66	7¾	7-6 13-7
10	12¼	X-V	BZ-336	5716										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
1230	9.5	50	4.6	2/32	10.5	
430	9.5	69	6.0	2/32	10.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
2980#	GEL	
150 SACK	150#	
18 lbs	RENEX	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5716 DEPTH END SECOND TOUR 5716 DEPTH END THIRD TOUR 5716

Richard Hatch
DRILLER OR WATCHMAN

D. Hamilton
DRILLER OR WATCHMAN

Leo L. Lynch
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalvin Lodge
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN 4 19 69 WELL NO. K 54 LEASE EMERALD Pt. - LAKE

SEC. 7 T. 17 R. 7 PROVINCE N.W.T. CONTRACTOR CASCADE DRILL - 12 Rig

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 AM		WORK IN HIGH HOLE TRY TO BREAK IN					
	1 AM	CIRC @ 5483	1	00			
1 AM		BREAK CIRC CLEAN OUT FILL FROM					
	2:15	5453 TO 5553	1	15			
2:15	3 AM	DRILL W/ 15000 WOB 80 RPM		45			
3 AM	3:15	RIG SERV & BOP		15			
3:15	7:45	DRILL W/ 15000 RPM 130 12¼ HOLE	4	30			
7:45	8 AM	RUNNING SURVEY TOOL		15			
8 AM	8:15	SURVEY		15			
8:15	8:30	RIG SERV. & BOPS		15			
8:30	4 PM	DRILL	7	30			
4	5:15	DRLG 12¼ HOLE	1	15			
5:15	5:30	RIG SERV + BOPS + SWIVEL		15			
5:30	8:15	DRLG 12¼ HOLE	2	45			
8:15	9:45	CIRC UP SAMPLE FOR GEO.	1	30			
9:45	10:00	W/O ORDER		15			
10:00	12 AM	DRLG 12¼" HOLE	2	00			

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5600	1½°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
9	12¼	X-3-J	PJ691	5553	RUNNING	61	5½	130	20M	1400	1	66	7¾	3-9" 12-7"
9	12¼	X-3J	PJ691	5553		112	12¼	130	20M	1450	1	66	7¾	3-9" 13-7"
9	12¼	X-3J	PJ691	5553	RUNNING	143	18¾	130	20M	1400	1	66	7¾	3-9" 13-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
6 AM	9.5	65	4	2/32	10.5	
10 AM	9.5	64				
2 PM	9.5	64	6.8	2/32	9.8	
SHIFT	9.5	56	8.2	2/32	9.5	—

MUD ADDITIVES:

AMOUNT	TYPE	TIME
64,000#	GEL	
100#	CAUSTIC	
50#	BENEX	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 5614

DEPTH END SECOND TOUR 5665

DEPTH END THIRD TOUR 5696

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN. 3 19 69 WELL NO. KEY LEASE AMERADA CH LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG RIG # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
				30			
12 00	12 30	DRLG. 12¼ HOLE WT. 15000 RPM. 130		12			
12 30	12 45	RIG SERV. BOP SWIVEL. KELLY COCK.		15			
12 45	6 30	DRLG. 12¼ HOLE WT. 15000 RPM. 130					
		SURVEY @ 5459	1	00			
6 30	7 30	CIRC SWIPEL @ 5460		30			
7 30	8 00	W/T. ON ORDERS					
				30			
8 00	8 30	DRILL w/ 15000 RPM 130	1	00			
8 30	9 30	CIRC up SAMPLE @ 5469	1	00			
9 30	10 30	DRILL 12¼ HOLE w/ 15-000 RPM 130		30			
10 30	11 00	SURVEY @ 5491		15			
11 00	11 15	RIG SERV & BOP 1 3/4 °	4	15			
11 15	2 30	DRILL 12¼ HOLE w/ BIT 8#		30			
2 30	4 00	HOISTING BIT 8#		15			
4 00	4 15	RIG SERV. & BOPS	2	30			
4 15	6 45	HOIST CHECK BLIND RAMS & MAKE UP BIT		30			
6 45	7 15	CHANGE JARS		30			
7 15	7 45	RUN IN TO 5423	2	30			
7 45	10 15	TRY TO WORK PIPE UP TO 5491		30			
10 15	10 45	DOWN ONE SINGLE. BREAK SINGLE	1	00			
10 45	11 45	OUT IN DERRICK & LAY SAME DOWN		15			
11 45	12 00	TRY TO BREAK CIRC.					
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	24	00				
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5429			
	5491	1 3/4		

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
8	12¼	YT-3-R	283499	5065	RUNNING	395	23½	130	15M	1300	1	66	7¾	3-9" 13-7"
8	12¼	YT-3R	283499	5065	5553	488	28¾	130	15 m	13000	1	66	7¾	7-9 13-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	9.5	50	7.4	2/32	10.0	
2 00	9.5	53				
4 00	9.5	60				
6 00	9.4½	66				
2 70	9.5	64	7.4	2/32	11.0	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
65 SKS	GEL	
36#	BENEX	
120#	CAUSTIC	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

AT 6 AM. 5457

DEPTH END FIRST TOUR 5460 DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 5553 DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 5553 DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN. 2. 1969 WELL NO. K54 LEASE AMERADA CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. RIG #12.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT. INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12.00	1.00	RUN IN. HOLE WITH BIT #8	1	00				
1.00	2.30	PICK UP KELLY REAM. FROM.						
		5022. TO 5065. 4FT. OF FILL.	1	30				
		PIPE TALLY @ 5085. 1FT. COR. 5084.						
2.30	7.00	DRLG. 12¼ HOLE WT. 15000. RPM. 130	4	30				
7.00	7.30	SURVEY @ 5147 2.0°		30				
7.30	7.45	RIG SERV. BOP SWIVEL. KELLY COCK.		15				
7.45	8.00	DRLG. 12¼ HOLE WT. 15000. RPM. 130		15				
8.00	9.45	DRILL 12¼ HOLE WT 15000 RPM 130	3	45				
9.45	10.00	RIG SERV - BOP		15				
10.00	2.00	DRILL W/ 15000 RPM 130	4	00				
2.00	2.30	SURVEY @ 5240 @ 1¾		30				
2.30	4.00	DRILL 12¼ HOLE W/ 20000 ON BIT	1	30				
4.00	4.15	RIG SERV - BOP		15				
4.15	8.00	DRILL W/ 15000 RPM. 130	3	45				
8.00	10.30	CHANG. MAINE CHAIN ON DRAWARKS CRC.	2	30				
		WITH PIPE IN HOLE						
10.30	11.00	SURVEY @ 5343. 1¾°		30				
11.00	12.00	DRLG. 12¼ HOLE WT. 15000 RPM. 130	1	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	5147	2°	5334	1¾
	5240	1¾		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
8.	12¼	YT3R	383499	5065		91	4¾	130	15000	1300	1	66	7¾	3-9 13-7
8	12¼	YT-3R	383499	5065		208	12	130	15000	1300	1	66	7¾	7-3 4-2
8.	12¼	YT3-R	383499	5065		288	16½	130	15M	1300	1	66	7¾	" "

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
4:00	5.6	50		2/32	9	
7:00	5.6	70			10	
Raw	9.5	64	6.2	2/32	10.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
2500	GEL	
66#	BEN-EX	
CAUSTIC	100#	
100	SODA ASH	

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

at 6.2° 5129

DEPTH END FIRST TOUR 5150 DEPTH END SECOND TOUR 5267 DEPTH END THIRD TOUR 5353

A. Kraker — DRILLER OR WATCHMAN

[illegible] — DRILLER OR WATCHMAN

Don. Hucko — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalwen Sulz — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE JAN. 1 19 69 WELL NO. K54 LEASE AMERADA CRI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. RIG # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 30	DRLG. 12 1/4 HOLE WT. 15000. RPM. 130		30				
12 30	1 00	SURVEY AT 4774. 2°		30				
1 00	1 15	RIG SERV. BOP SWIVEL.		15				
1 15	6 30	DRLG. 12 1/4 HOLE WT. 15000 RPM 130	5	15				
6 30	7 00	SURVEY AT 4868. 1 15/16°		30				
7 00	8 00	DRLG. 12 1/4 HOLE WT. 15000. RPM. 130	1	00				
8 00	12 30	DRILL 12 1/4 HOLE WT 15000 RPM 130	4	30				
12 30	1 00	SURVEY @ 4962 2°		30				
1 00	1 15	R.C. SERV. & BOP		15				
1 15	4 00	DRILL	2	45				
4 00	6 15	DRILL W/ 15000 B.I.T. 12 1/4 HOLE	2	15				
6 15	6 45	SURVEY @ 5053 1 3/4 @		30				
6 45	7 00	R.C. SERV. & BOP		15				
7 00	7 30	DRILL		30				
7 30	10 45	HOIST B.I.T	3	15				
10 45	11 00	CHECK BLIND RAM & BOP		15				
11 00	12 00	RUNNING IN W/ B.I.T & MEASURE IN HOLE	1	00				
		Manufacture SLM 5084						
		Board 5085						
		Made 1 ft correction						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	4774	2°	4962	2 W
	4868	1 15/16°	5053	

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR-DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
7	12 1/4	CON YT3-R	283660	4446			22 1/2	130	15000	1300	1	66	7 3/4	3-9" 13-7"
7	12 1/4	YT3-R	283660	4446		564	29 3/4	130	15000	1300	1	66	7 3/4	7-7 13-7
7	12 1/4	YT3-R	283660	4446	5065	619	72 1/2	130	15000	1300	1	66	7 3/4	9-4 13-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	9.4	70		3/32	10.3	
2 00	9.4	68				
4 00	9.4	66	6.	3/32	10.	
6 00	9.5	58	6.	3/32	10.	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
300 ~~500~~ #	CAUSTIC.	6 AM.
~~3~~ BENEX ~~4~~ 6 #	H20	
~~7500~~	Gel 6700 lbs	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

Cont 6 = 4459

DEPTH END FIRST TOUR 4889. DEPTH END SECOND TOUR DEPTH END THIRD TOUR 5065'

A Krahn — DRILLER OR WATCHMAN

Raymond W Lyle — DRILLER OR WATCHMAN

Leon [illegible] — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Glen Lesky — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 31. 19 68 WELL NO. K54 LEASE BA. AMERADA. CH. LAKE

SEC. T. R. PROVINCE N. W. T. CONTRACTOR CASCADE DRLG. RIG. # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME. WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 24	2 00	TRP. FOR BIT. ⑥ TIGHT. HOLE 3 STANDS OF ROTARY	2	00				
2 00	2 30	SLIP 25 FT. of LINE		30				
2 30		RUN IN HOLE BIT. NO 7 RUN IN TO 4274						
		PUT. KELLY ON REAM. ⑦ STAND RUN						
	6 30	IN ① MORE STAND OK. REAM LAST 30 FT.	4	00				
6 30	7 00	DRLG. 12¼ HOLE WT. 20M. RPM 130		30				
7 00	7 15	LIGHT. PLANT STOPED START MINE UP		15				15
7 15	8 00	DRLG. 12¼ HOLE WT 20M RPM. 130		45				
8.00	8 45	DRLG. 12¼ HOLE WT. 20M RPM. 130		45				
8.45	9 00	RIG. SERV. BOP SWIVEL		15				
9 00	2 00	DRLG. 12¼ HOLE. WT. 20M. RPM. 130	1	00				
2 00	2 30	SURVEY @ 4619 - 2°		30				
2 30	4 00	DRILL w/ 15 RPM 130 12¼ HOLE		30				
4 00	6 45	DRILL	2	45				
6 45	7 15	SURVEY @ 4681 2°		30				
7 15	7 30	RIG SERV BOP @ 4681		15				
7 30	12 00	DRILL w/ 15 ON BIT	4	30				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	4619	2°		
	4661	2°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	23	45	REPAIR			15
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
6	12¼	OSC3J	2238	3785	4446	661	30	130	20M	1650	1	66	7¾	3-9" 13-7"
7	12¼	YT3-R COM	283660	4446			¼	130	20M	1300	1	66	7¾	3-9" 13-7"
7	12¼	YT3-R	283660	4446	Running	192	8½	130	20 TO'S	1300	1	66	7¾	3-4 13-7
7	12	YT3R	283660	4446	Running	319	15¾	130	15	1300	1	66	7¾	7-3 17-3

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
AM 8 00	9.5	56	5.4	2/32	10	
9 30	9.4	64	"	"	"	
10 30	9.4	65	"	"	"	
1 30	9.4	64	5.4	2/32	10	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
600 lbs	GEL	24 hours
36 lbs	BENEX	
	CAUSTIC	
200 lbs	SODA ASH	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 4480

DEPTH END SECOND TOUR 4638

DEPTH END THIRD TOUR

A. Kuahn
DRILLER OR WATCHMAN

Ken W. Hall
DRILLER OR WATCHMAN

Leonard W. Hall
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delvin Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 30 19 68 WELL NO. K54 LEASE BA. AMERADA LI. LAKE K54 #2

SEC. ____ T. ____ R. ____ PROVINCE ALTA CONTRACTOR CASCADE DRIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	1 15	DRIG. 12¼ HOLE. WT. 20.000 RPM. 130	1	15				
1 15	1 30	RIG SERV. B.O.P. SWIVEL. KELLYCOCK.		15				
1 30	4 30	DRLG. 12¼ HOLE WT. 20.000 RPM. 130	3	00				
4 30	5 00	SURVEY @ 4058. 1¼ °		30				
5 00	6 00	DRIG 12¼ HOLE WT. 20.000 RPM. 130	1	00				
6 00	7 15	FUEL FROSE IN FILTERS. ALL TRACTORS STOPED					1	15
7 15	8 00	DRIG. 12¼ HOLE WT. 20.000 RPM. 130		45				
8 00	10 00	DRILL	2	00				
10 00	10 30	SURVEY @ 4144 1¼		30				
10 30	10 45	PUT NEW FILTER IN FUEL FILTER						15
10 45	3 45	DRILL 12¼ HOLE W/ 20M RPM 130	5	00				
3 45	4 00	SURVEY @ 4274 1¼		15				
4 00	4 15	FINISH HOISTING SURVEY @ 4274 1¼		15				
4 15	4 30	RIG SERV + BOP		15				
4 30		DRILL W/ 25M RPM 130						
	10 15	12¼ HOLE	5	45				
10 15	10 45	SURVEY @ 4431 @ 1½		30				
10 45	11 30	DRILL		45				
11 30	12 00	HOISTING BIT # 6		30				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	4058	1¼ °	4431	1½
	4274	1¼		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	30	Repair		1	30
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
6	12¼	OSC 3S	2238	3785	RUNING	312	16½	130	20M	1600	1	66	7¾	3-9 13-7
6	12¼	OSC 3S	2238	3785	RUNING	489	23½	130	25M	1600	1	66	7¾	3-9 13-7
6	12¼	OSC 3S	2238	3785	HOISTING	661	30	130	25M	1600	1	66	7¾	3-9 13-7

MUD RECORD:

TIME	WEIGHT	VIS COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	9.3	60	7.2	2/32	10.5	
	9.3	60				
6.00	9.3	55	7.2	2/32	10.5	
11 30	9.4	60	7.2	2/32	10.5	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
100#	CAUSTIC	
[illegible]	GEL	6500
BEN-EX	[illegible]	24
STARCH	H20	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 4100 DEPTH END SECOND TOUR 4274 DEPTH END THIRD TOUR 4441

A Kuchin
DRILLER OR WATCHMAN

[signature]
DRILLER OR WATCHMAN

[signature]
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

[signature]
CONTRACTOR'S REPRESENTATIVE

[signature]
BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC - 29 19 64 WELL NO. K54 LEASE B.A AMERADA CHI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE Rig 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	130	FINISH OUT of HOLE BREAK SHOCK SUB	1	30				
		AND PUT IT AT 30 FT.						
130		WORK ON BRAKE BAND BROKE AN EYE						
	7 00	ON TIGHTNER PRETTY SERRIOUS BOTH SIDES	~~1~~	~~30~~			6	00
7 00		RUN IN HOLE I HOPE						
	8 00	WELDED BOTH SIDES ON BREAKS	1	00				
8 00	9 00	CIRC IN HOLE	2	00				
9 00	11 30	THAW HARD WATER OF KELLY HOSE	~~2~~	~~30~~			2	30
11 30	4 00	DRILL w/ 15 000 RPM 130	4	30				
4 00	5 00	DRILL 12¼ HOLE	1	00				
5 00	5 45	RIG SERVICE & BOP & SURVEY	~~3869~~					
5 45	11 00	DRILL w/ 20 000 RPM 130	6	00				
11 00	11 30	SURVEY @ 3964 1½ °		30				
11 30	12 00	DRILL w/ 20 000 RPM 130 12¼ HOLE		30				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	3869	1½		
	3964	1½		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A. RCh	15	30	REPAIR		8	30
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
6	12¼	OSC3J	2238	3785				130	15 000	1600	1	66	7¾	
6	12	OSC3J	2238	3785				130	20 000	1600	1	66	7¾	
6	12	OSC3J	2238	3785		190	11¼	130	20 000	1600	1	66	7¾	

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
4 00	9.3	64				
4 PM	9.3	65	7	2/32	10.2	.25%
11 00	9.3	65	7	2/32	10.2	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
5600 lbs	GEL	24 hrs
18 lbs	BEN-EX	24 hrs
200 lbs	CAUSTIC	24 hrs
1" stream of water		

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3785

DEPTH END SECOND TOUR

DEPTH END THIRD TOUR

A. Krahn
DRILLER OR WATCHMAN

Reinhardt Wolf
DRILLER OR WATCHMAN

Reinhardt Wolf
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalven Fenby
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G. Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-05

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 28 1968 WELL NO. K54 LEASE BP AMI. RAIDA CH. LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. RIG # 12.

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG. SERVI. B.O.P. SWIVEL. KELLY COCK.		15				
12 15	12 30	DRLG. 12 1/4 HOLE.		15				
12 30	1.00	TIGHTIN UNUN ON MUD LINE.						30
1 00	5 00	DRLG. 12 1/4 HOLE. WT. 24000 RPM. 130.	4	00				
5 00	5 30	SURVEY @ 3526. 1 1/4°		30				
5 30	8 00	DRLG. 12 1/4 HOLE. WT. 36,000 RPM. 90	2	30				
8.00	8 30	DRLG. 12 1/4 HOLE 36000 RPM. 90.		30				
8 30	8 45	RIG. SERV. B.O.P. SWIVEL.		15				
8 45	10 15	DRLG. 12 1/4 HOLE. WT. 36000 RPM 90	1	30				
10 15	10 45	SURVEY @ 3620 1 3/4		30				
10 45	2 15	DRLG. 12 1/4 HOLE. WT. 30 000 RPM. 130	3	30				
2 15	2 45	SURVEY @ 3680 1 3/4		30				
2 45	400	DRILL	1	15				
400	430	DRILL 12 1/4 HOLE w/ 30M RPM - 130		30				
430	445	RIG SERVICE & BOP		15				
445	800	DRILL	3	15				
800	830	SURVEY @ 3776 2°		30				
830	900	DRILL w/ 30M RPM 130		30				
900	915	CIRC TO CLEAN UP HOLE		15				
915	1200	HOISTING BIT 5 STDS	2	45				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	3434	1 3/4	3680	1 3/4
	3526.	1 1/4	3776	2°

TOTAL TIME CHARGEABLE TO B.A. HRS. 23 MIN. 30 — HRS. Repair MIN. — HRS. MIN. 30

DAY WORK PER 24 HOUR DAY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
5	12 1/4	OSC3J	2223	3054				130	30	1700	1	66	7"	3-9" 13-7"
5	12 1/4	OSC3J	2223	3054	Running	051	32 1/4	130	30	1740	1	66	7 1/4	3-9 13-7
5	12 1/4	OSC3J	2223	3054	3785	731	36 1/2	130	30	1700	1	66	7 1/4	3-9 13-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00	93	46	7.2	2/32	10.0	
6.00	92.	55	"	"	"	
8 00	93	61	8	2/32	10%	
9.00	94	62	8	2/32	10%	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
2000#	GEL.	
C-MC.	50#	50 lbs
24#	BENEX	24 lbs
1"	STREAM H2O	
Caustic	5-0 lbs.	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3578 DEPTH END SECOND TOUR DEPTH END THIRD TOUR

A. Kuah — DRILLER OR WATCHMAN

Leonard Gobey — DRILLER OR WATCHMAN

Leonard Gobey — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dale Kirby — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 27 19 68 WELL NO. K-54 LEASE AMERADA CR. LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS ON LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	1:00	CLEAN TO BTM.	1	00				
1:00	1:15	R.G SERV B.O.P'S		15				
1:15	3:30	DRILL W/ 40,000	2	15				
3.30	4:00	SURVEY @ 3123 - 1 1/4		30				
4:00	6:45	DRILL W/ 20,000	2	45				
6.45	7.15	SURVEY @ 3216 1 3/4°		30				
7:15	8:00	DRILL W/ 10,000 WT.		45				
8:00	8:15	R.G. SERV. BOP SWIVEL.		15				
8:15	8:45	DRLG. 12 1/4 HOLE. FANING 10.000 ON BIT. 1 3/4°		30				
8:45	9:15	AIR FROSE TO MOTOR THROTTLES						30
9:15	10:30	DRLG. 12 1/4 HOLE 10.000 ON BIT. RPM. 130.	1	15				
10:30	11:00	SURVEY @ 3308. 1 3/4 °		30				
11:00	4:00	DRLG. 12 1/4 HOLE. WT. 15.000 RPM. 130. PUMP 1200	5	00				
4:00	8:00	DRILL 12 1/4 HOLE	4	00				
4:00	8:15	WORK ON AIR LINE						15
8:15	8:30	R.G SERV B.O.P		15				
8:30	9:30	DRILL 12 1/4 HOLE W/ 10M RPM 130	1	00				
9:30	10:00	SURVEY @ 3402 - 1 3/4		30				
10:00	11:45	DRILL W/ 24000 ON B.I.T RPM 130	1	45				
11:45	12:00	RUNNING SURVEY		15				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	3123	1 1/4°	3308	1 3/4
	3216	1 3/4°	3402	1 3/4

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	23	15	Downtime		45	
DAY WORK PER 24 HOUR DAY						

BIT RECORD: DESILTER TO SUMP. 11.3. 8 AM. W.I. TO TANK. 9.3. 8 AM. W.I.

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
5	12 1/4	OSC-3J	2223	3054						17.00	1	66	7.1"	3-9 13-7
5	12 1/4	OSC-3J	2223	3054						17.00	2	MIXING MUD		
5	12 1/4	OSC3J	2223	3054		380	19	120	10 TO 24	1700	1	66	7	3-9 13-7

MUD RECORD

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
1200	9.0	64				
4:00	9.0	62				
700	9 4	52				
1100	9 3	50				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
	H2O	
2,700 lb	Gel	24 H
200 lb.	Caustic	24 H
20 lb	BEN-EX	24 H

SWAB CUPS: OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3265 DEPTH END SECOND TOUR 3381 DEPTH END THIRD TOUR

Wayne Madden DRILLER OR WATCHMAN — A Krahn DRILLER OR WATCHMAN — Leonard Clay DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE — BRITISH AMERICAN'S REPRESENTATIVE — Robert G. Lock BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

Don Sub

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec. 26 19 58 WELL NO. K-54 LEASE AMERADA ELI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00		MIX MUD - BUILD VOLUME. CIRC. W/ PIPE IN CSG. CLEAN UP LEASE HOOK UP STEAM HEATER AT MUD HOPPER, LAY 2" STEAM LINE						
	9:00	TO PUMPS. FOR BLOWING MUD LINES						
9:00		RIG UP HEATER BEHIND DRILLER. PUT UP HOUSE AROUND MUD MIXER. CIRC. W/ PIPE IN C.S.G. HOOKED UP HYDRAMATIC BRAKE WATER LINE PUT IN JACK FROM DRAWWORKS TO MOTORS CLOSE HOLES IN SUB						
	3:00	PUT WEEKES ON VALVES ON BOPS.					15	00
3:00		PULL COLLARS OUT OF CSG. TO						
	4:05	CALIPER ALL COLLARS	1	00				
4:00	5:00	HOIST FINISH CHECK DRILL COLLARS & SUB						
5:00	6:45	RUN W/ BIT DRILL COLLARS TO STANDPIPE						
6:45	10:00	BREAK CIRC PICKING UP SINGLES						
10:00	12:00	CLEAN FILL FROM 2424	8	00				

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	9	00			15	00
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
5	12¾	OSC-3J	2223	3053										
5	12¾	OSC3J	2223	3053										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME
GEL	7500	#
BEN EX	22	#
CAUSTIC	150	#

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3053 DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

Wayne Madden
DRILLER OR WATCHMAN

A. Krahn
DRILLER OR WATCHMAN

Raymond Wallace
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

W. U. Schumacher
BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMEPICAN OIL COMPANY LIMITED

DATE DEC. 25 19 68 WELL NO. K-54 LEASE AMERADA ELI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12:00	8:00	WORK ON STD. PIPE. INSTALL NEW GOOSE NECK. CHANGE UNIONS. PUT BACK UP. + CIRC. W/PIPE IN CSG. PUT UP LINE SPOOLER + CHANE CATLINES CLEANING UP.
8:00		WELLEDED 7" NIPEL ON KELLY SOCK. CLEAND FLOOR off. ALL UNUSED TOOLS AND UNNESSARY IRON DEICED RIG FLOOR AND SONIE OF SUB STEAM AND CLEAN BOPS INSTALLED CELLER SET. INSTALL AND HOOKED UP MUD SAVER TO FLOW LINE. HOOKED UP FAN TO STEAM HEATER. ON BOP. PUT. NEW BLADER RUBBER IN AIR CHAMBER ON G7.00 PUMP.
	4:00	CLEANED UP MUD HOUSE.
4:00		CIRC w/ PIPE IN CASING ADDED mud VOLUME & mix MUD REPAIR VALVES ON HOLE FILL LINE LAY STEAM LINE IN DITCH AROUND RIG CLEAN up BOTTOM dog House
	12:00	HOOKING up CIRC LINE TO RAT HOLE TO MUD TANK

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.					24	00
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
5	12¼	OSC-3J	2223	3058										

#1 + #2 Mud tank where cleaned out by Baroid & Daly mud Eng - also they mixed all mud.

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME
GEL	5000	
BEN EX	20#	

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3058 DEPTH END SECOND TOUR 3053 DEPTH END THIRD TOUR 3053

Wayne Madder. DRILLER OR WATCHMAN

G Kusher DRILLER OR WATCHMAN

Removed DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE BRITISH AMERICAN'S REPRESENTATIVE W.E. DeRonquier BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-88

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec. 24 1968 WELL NO. K-54 LEASE AMERADA ELI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	12:45	DRILL TO 2897						
12:45	1:00	SURVEY @ 2867 1/4°						
1:00	1:15	RIG SER + B.O.P.						
1:15	5:30	DRILL 2897 TO 3053						
5:30	8:00	STD. PIPE WASHING OUT ON GOOSENECK.					2	30
8:00	8:15	RIG SERV.						
8:15	8:45	WELLDING ON GOOSENECK ON STD PIPE						30
8:45	10:45	CON. MUD TO HOIST INTO CASING. TO FIX STD PIPE.						
10:45	4:00	HOIST AND PUMP 36 SINGLES OUT. TIGHT ALL THE WAY					1	00
4:00		HOIST AND PUMP OUT 14 SINGLE						
	9:00	FINISH HOIST OUT 1 HOLE TIGHT						
9:00		BREAK DOWN LAY DOWN STABILIZER 3						
	10:00	+ 2 SUB						
10:00		CHECK HYDRIL + PIPE RAS + BRINGL RAM OK						
	11:00	CHANGE BIT						
11:00	11:30	RUN IN DRILL COLLAR W/ BIT						
11:30	12:00	WORK ON STAND PIPE						30
Shut down		Rig for repair - deice and finish						
Rigging		Rig up. W.C. Schomaker						
		TOTAL TIME CHARGEABLE TO B.A.	19	30			4	30
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
2867	1/4°		

BIT RECORD: Way down three 12 1/2 □ stab and one 10' collar

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
4	12 1/4	STIAG-J	382455	2404	3053	652	16 1/4	130	45	1700	1	66	7"	3-9" 3-7"
5	12 1/4	OSC3J	2223	3053	~~3654~~	458	~~16~~	130	45	~~1200~~	~~1~~	~~6~~	~~7~~	~~7-9~~ 7-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12:00	9.4	38				
4:00	9.3	45				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
5 ~~00~~		
GELL	7000	
DEN-EX	28 #	
CAUSTIC	50 #	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 3053' DEPTH END SECOND TOUR 3053 DEPTH END THIRD TOUR ____

Wayne Madden DRILLER OR WATCHMAN | A Knoch DRILLER OR WATCHMAN | Leonard Wreaks DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

for T. Bell CONTRACTOR'S REPRESENTATIVE | W.C. Schomaker BRITISH AMERICAN'S REPRESENTATIVE | BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-15

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec. 23 19 68 WELL NO. K-54 LEASE AMERADA CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRLG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	4:00	WORK ON FLOW METER (TOICO) + DESILTER. (B.A. Oil)					
4:00	5:00	RUN D.C.'S IN HOLE					
5:00	7:00	THAW KELLY HOSE + KELLY				2	00
7:00	7:30	FINISH IN HOLE					
7:30	8:00	THAW MUD LINE					30
8:00	8:15	R.G. SERV. B.O.P.					
8:15		THAW MUD LINE PUT ON 4" UNUN ON					
	11:30	MUD LINE REAM TO BOTTOM 10 FT. FILL.				3	00
11:30	3:00	DRLG. 12¼ HOLE W.T. 38000. RPM. 130 PUMP 1650					
3:00	3:30	VELVE CAP WASHED OUT					30
3:30	4:00	DRLG 12¼ HOLE W.T. 38000. RPM. 130. PUMP 1650					
4:00	4:15	DRILL 12¼ HOLE					
4:15	4:30	R.G. SERVICE					
4:30	7:00	DRILL					
7:00	7:30	SURVEY @ 2680 ½°					
7:30	12:00	DRILL w/ 38M RPM: 130					

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	2680	½°		

	HRS	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	18	00			6	00
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
4	12¼	STIAG-J	382455	2404										
4.	12¼	STIAGJ	382455	2404				130	38000	1650	1	66	7"	3-9" 13-7"
4	12¼	STIAGJ	382455	2404			11⅞/30		38M	1650	1	66	7	7-9 13-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
AM. 10:00	9.4	40				
12:00	9.4	44				
4:45	9.7	47				
10:00	9.4	45	7.4	2/32	10.2	

MUD ADDITIVES:

AMOUNT	TYPE	TIME
7200 lbs.	Gel	
50 lbs.	CMC	
24 lbs.	BENEX	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 2404 DEPTH END SECOND TOUR 2580 DEPTH END THIRD TOUR 2850

Wayne Madden
DRILLER OR WATCHMAN

Art Kusler
DRILLER OR WATCHMAN

Leonard Cody
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

W. C. Schomaker
BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 22 19 68 WELL NO. K-54 LEASE B.A. AMERADA CLI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRLG. #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	12:30	DRILL						
12:30	12:45	R.G SER - B.O.P.						
12.45	1:00	RUN MENTHOL THROUGH PUMP CLUTCH.						15
1:00	2:00	DRILL						
2:00	2:45	INSTALL O RING IN SWIVEL HELLY HOSE UNION						45
2:45	4:45	DRILL TO 2063'						
4:45	5:15	SURVEY @ 2031' 1 1/16°						
5:15	8:00	DRILL - 2063						
8:00	9 15	DRLG 12¼ HOLE WT. 36.000 RPM. 130.						
9 15	9 30	RIG. SERV. BOPs KELLY COCK. SWIVEL.						
9 30	9 45	DRLG. 12¼ HOLE. WT. RPM.						
9 45	10 15	STOP LEAK ON 2" UNION ON STAND PIPE. (SWACO BA.)						
10 15	1 30	DRLG. 12¼ HOLE. WT. 38.000 RPM. 130.						
1 30	2 00	SURVEY @ 2251 30 FT. OF BOTTOM 3/4°						
2 00	4 00	DRLG. 12¼ HOLE 40.000 RPM. 130. 2 MIN FT.						
4 00	4 30	DRILL 12¼ HOLE						
4 30	4 45	R's SERVICE						
4 45	6 45	DRILL						
6 45	7 00	DROP SURVEY						
7 00	7 15	BLOW KELLY						
7 15	11 00	HOISTING MEASURE OUT HOLE TIGHT SPOTS COLLARS						
11 00	11 30	CHECK BLIND RAM PIPE RAM HYDRIL OK						
11 30	12 00	WELD ON MUD FLOW METER ON FLOW LINE						
		TOTAL TIME CHARGEABLE TO B.A.	23	00			1	00
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
2031	1 1/16°	2251	3/4
2404	3/4		

BIT RECORD: Check B.O.P.'s - O.K W.C. Schumacher

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
3	12¼	OSC-3J	2221	1358				130	25	1650	1	66	7"	3-9" 13-7"
3	12¼	OSC-3J	2221	1358				130	40	1600	1	66	7"	3-9" 13-7"
3	12¼	OSC 3J	2221	1358	2404	1046	29¼	130	40	1600	1	66	7"	3-9" 13-7"
4	12¼	STMC	38255	2404										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12:00	8.9	49				
4:00	8.9	45				
6:00	9.4	44				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
Strap drill pipe	and correction to	
Plus 28.26	to 2404'	
Gell	39 5x	
Benex	13#	

SWAB CUPS:

NUMBER	SIZE	TYPE
Caustic	200#	
C.M.C	50#	

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 2130' DEPTH END SECOND TOUR 2305 DEPTH END THIRD TOUR 2404

Wayne Madden DRILLER OR WATCHMAN | Art Kuhn DRILLER OR WATCHMAN | Leonard Wall DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE | W.C. Schumacher BRITISH AMERICAN'S REPRESENTATIVE | BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 21 19 68 WELL NO. K-54 LEASE B.A AMERADA CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12:00		CIRC. MIX MUD. BUILDING VOLUME						
	5:30	(AS WATER CONSULTANTS PERMIT)						
5:30	6:00	RUN IN HOLE, TO BTM						30
6:00	7:00	DRILL W/ 20000						
7:00	7:15	SURVEY @ 1390 1¼°						
7:15	8:00	DRILL W/ 30.000 WT.						
8:00	8:15	RIG SERV. BOPS SWIVEL. KELLY COCK.						
8:15	10:15	DRLG. 12¼ HOLE 30.000 ON BIT RPM 130.						
10:15	10:55	CIRC. SAMPL.						
10:55	1:45	DRLG. 12¼ HOLE.						
1:45	2:00	SURVEY @ 1627. 1¼° 30.000						
2:00	3:15	DRLG. W/ 36.000 ON BIT 50.000 TO RUFF						
3:15	3:45	WORK ON AIR LINE TO NO. 1 PUMP CLUCH						30
3:45	4:00	DRLG. W/ 36.000 ON BIT. 130 RPM.						
4:00	4:30	DRILL 12¼ HOLE						
4:30	4:45	RIG SERV						
4:45	8:30	DRILL W/ 36.000 ON BIT 130 RPM						
8:30	9:00	SURVEY @ 1814 1¼°						
9:00	9:30	WORK ON AIR LINE						30
9:30	9:45	DRILL W/ 24M RPM 130 / 9:45 TO 10:15 ← WORK ON AIR LINE						30
10:15	12:00	DRILL						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	1390	1¼	1627	1¼
	1814	1¼		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	00			2	00
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
3	12¼	OSC 3J	2221	1358						1450	1	66	7"	3-9 13.7.
3.	12¼	OSC 3J.	2221	1358						1450	1	66	7"	3-9 13.7
2	12¼	OSC 3J	2221	1358			RR 3/4	130	36-40	1550	1	66	7	7-9 12-7

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12:00	8.7	55				
4:00	8.6	67				
6:00	88	44				
9:30	89	45				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
~~2~~	~~Gel~~	~~"~~
~~32 LBS~~	~~BENEX~~	~~"~~
90 SX	Gell	
32#	Benex	

SWAB CUPS:

NUMBER	SIZE	TYPE
Cmush.	c	

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE
100	**	

DEPTH END FIRST TOUR 1484' DEPTH END SECOND TOUR 16.75 DEPTH END THIRD TOUR ____

Wayne Madden. P. Kuhn Leonard Wolff

DRILLER OR WATCHMAN DRILLER OR WATCHMAN DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

W. E. Schumaker

CONTRACTOR'S REPRESENTATIVE BRITISH AMERICAN'S REPRESENTATIVE BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec-20 19 68 WELL NO. K-54 LEASE B.A. Amanda Cli Lake

SEC. ____ T. ____ R. ____ PROVINCE North West Terr CONTRACTOR Cascade Drlg Co Rig # 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME. WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT. INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
12:00	12:30	DRILL					
12:30	1:00	SURVEY LOST TOTCO, OVERSHOT WONT PICKUP					
1:00	2:00	DRILL W/ 20,000					
2:00	2:15	CIRC. HOLE CLEAN					
2:15	4:45	TRIP TO RECOVER TOTCO					
4:45	6:15	DRILL W/ 15000 WT					
6:15	6:30	SURVEY @ 1170 1½°					
6:30	7:15	DRILL W/ 20,000	7	15			
7:15	7:30	WORK ON AIRLINES					15
7:30	8:00	DRILL.		30			
8:00	8:15	RIG SERV. B.O.P. KELLY COCK.		15			
8:15	9:00	STAND PIPE SHE LEAKE WELDED HIM UP					45
9:00	11:06	DRLG 12¼ HOLE.	2	00			
11:00	11:20	SERVEY @ 1295 / 20.000 ON BIT		15			15
		AND WORK ON G700 PUMP					
11:35	1:00	DRLG 12¼ HOLE	1	30			
1:00	4:00	HOIST FOR PLUGED BIT. FULL of RUBBER					
4:00	5:00	RUN IN TO 540 from shock hose					
5:00	12:00	Build mud volume condition mud					11 00
		check Kelly hose & Shock Hose					
		Change Shock Hose					
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
		TOTAL TIME CHARGEABLE TO B.A.	11	45			12	15
		DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
1139	1 5/8°	1170	1½°
1250	1 3/4		

and Repair Rig

BIT RECORD: Down time is charge against Rig for tripping bit - W.O.B.

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
2	12¼	OSC3J	2224	708				80	20,	1800	1	66	7"	3-9" 13-7"
2.	12¼	OSC3S	224	708		650	33¾		20	1650	1	66	7"	3-9 13-7.
3	12¼	OSC3S	2221	1358										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12:00	9.0	57				
6:00	9.0	48				
10.	90	50				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
52 sx	Gell	
Benex	10#	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR 1358 DEPTH END THIRD TOUR 1358

DRILLER OR WATCHMAN: ____ / A Kuehn. / Leon Wolf

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE: [signature] BRITISH AMERICAN'S REPRESENTATIVE: W. E. Schroeder BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec 19/68 19 68 WELL NO. K-54 LEASE BA AMER FLOOD CH LAKE

SEC. ____ T. ____ R. ____ PROVINCE NORTH WEST TERRITORY CONTRACTOR CASCADE DRILLING No. 12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	12 15	RIG SERV. & BOP'S
12 15		PICK UP KELLY BLOW SAME TIGHTEN
	12 30	UNION ON KELLY HOSE @ STD PIPE
12 30	12 45	PRESS UP PULSATION DAMPER ON G-700
12 45	1 15	WELD UNION ON NIPPLE ON STD PIPE
1 15		HOIST TIGHT IN CGS. PUMP SINGLES OUT
		REVERSE CIR, CLEAN MUD RING FROM
	2 15	AROUND STAB.
7 15	8 00	RUN DC IN CHECK SER NO & PICK UP
		JARS.
8:00	8:30	RUN IN HOLE TO 584
8:30	3:00	CIRC + MIX MUD. BUILD VOLUME.
3:00	4:00	CLEANING HOLE TO 799' FROM 713.
4 00	4 15	RIG SERV.
4 15	5 00	WORK ON G 700 PUMP
5 00	6 15	REAM TO BOTTOM.
6 15	7 45	DRLG 12¼ HOLE.
7 45	8 00	SURVEY @ 955' 5/8°.
8 00	9 30	DRLG 12¼ HOLE.
9 30	11 00	SURVEY @ 1049' 1° LINE PIPE UNDER
11 00	12:00	BRACK DRLG 12¼ HOLE.

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
						15
						30
						45
TOTAL TIME CHARGEABLE TO B.A.	22	30			1	30
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
955	5/8°	1049	1.0
1049	1°		

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
2	12¼	OSC3J	2224	708										3 - 9" 13 - 7"x2¾
②	12¼	OSC3J	2224	708		427		80	24 000	650	1	66	7"	3 - 9" 13 - 7"x2¾

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
10 00 PM	8.4	30	9.5	2/32	9.	
2 00 PM	8.4	57	9.8	2/32	9	

MUD ADDITIVES:

		TIME
GEL	6700 #	
BENEX	12 #	
CAUSTIC	100 #	
C.M.C.	100 #	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 884

DEPTH END SECOND TOUR 884

DEPTH END THIRD TOUR 1125

D. Howard
DRILLER OR WATCHMAN

Wayne Madden
DRILLER OR WATCHMAN

P. Kuchar
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

W. L. Donaldson
BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-99

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 18. 19 68 WELL NO. K54 LEASE B.A. AMERADA CH. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRILLING RIG #12.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	12 15	RIG. SERV. + BOPS.
12 15	12 45	TRIP OUT TO PUT ON SQUARE D.C. @ STABELIZER.
12 45	3 00	PICK UP AND MAKE UP SQUARE DC. AND STABELIZER AND SUBS.
3 00	4 00	RUN IN HOLE
4 00		REAM STABELIZE AND SQUARE OLLER
	5 30	FROM 604 TO 708
5 30	7 00	~~DRLG 12¼ HOLE~~. DRLG 13¾ HOLE
7 00	7 30	SURVEY @ 801 1.°
7 30	8 00	WORK ON LEAK ON MUD LINE.
8 00	8 15	RIG SERV. & BOPS
8 15	9 15	DRILL & WORK TIGHT CON
9 15	9 45	WELD TWO" HOLE IN SUCTION TANK
9 45	10 15	DRILL W/ 20,000
10 15	10 45	REPAIR STD PIPE UNION
10 45		HOIST UP IN TO CSG.
	3 30	PUMP OUT 7 SINGLES
3 30	4 00	STUCK @ 640
4 00	6.15	WORK STUCK PIPE FREE
6:15		INSTALL NEW STD. PIPE + CHANGE
	12.00	UNIONS

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	801.	1.°		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R.P.M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
2	12¼	OSC3J	2224	708		108	1½	150	30.000	1500	1		7"	3. 9" 13. 7"
											2		7"	

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 M 10"	8.5	32				
10 A M	8.5	32				
8 00	8.5	33				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
2900#	GEL	
100#	CML	
6 LBS.	BENEX	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 801

A Krahn
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 884

D Hewko
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

Wayne Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 17 19 68 WELL NO. K54 LEASE B.A. AMERADA CH. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRLG. RIG # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	12 15	RIG SERV.
12 15	12 30	FINISH IN HOLE PLUG @ 534.
12 30	1 15	KELLY FROSE UP IN SOCK.
1 15	2 30	PRESS. TEST. HYDRIL. 1500 PSI OK.
		PRESS. TEST. PIPE RAMS. 1500 PSI OK.
2 30	8 00	DRIG OUT FLOAT.
8 00	8 15	RIG SERV & BOPS
8 15	8 45	DRILL OUT SHOE @ 625
8 45	9 30	CLEAN TO 660
9 30	11 30	DRILL
11 30	12 30	HOIST
12 30	1 15	RIG TO DRILL MOUSE HOLE
1 15	3 15	~~RUN IN TO 625~~ DRILL MOUSE HOLE
3 15	4 00	RUN IN TO 625
4:00	4:15	RIG SERV BOPS
4:15	4:45	DISPLACE HOLE + CLEAN SUCTION TANK
4:45	12.00	CIRC. + MIX BICARB. TREAT OUT CEMENT GETTING MUD IN SHAPE.

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
RR1	12¼	S3T-J	124703	660					8.000	1000	1	66	7"	3-9" 13-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
11⁰⁰	8.5	28				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
6000#	GEL	4:00 P.M.
1200#	BI-CARB	TO
3#	BENEX	12. P.M.
100#	CAUSTIC	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 62506

DEPTH END SECOND TOUR 708

DEPTH END THIRD TOUR

A Tucker
DRILLER OR WATCHMAN

D Hawks
DRILLER OR WATCHMAN

Wayne Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dave Leahy
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 16. 19 68 WELL NO. K54 LEASE BA. HAMBURG CLI. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRILLING RIG # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12⁰⁰	4⁰⁰	WELLED ON CASING BOALE						
4⁰⁰		PRESHER UP WELLED ON BOALE						
		@ FINISH HYDRIL LINES IN SUB						
	8⁰⁰	HYDRIL SHE NO WORK.						
8⁰⁰	4⁰⁰	NIPPLING UP LAY FLARE LINES						
		CLEAN UP AROUND RIG.						
4:00	10.30	HEADING UP B.O.P⁵						
10.30		PRESS. TEST BLD. RAM.						
	11:00	1500 P.S.I. O.K.						
11:00	12.00	RUN D.C⁵ IN HOLE.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

P Kuch
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D Hewlett
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

Wayne Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalmer Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-88

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 15 19 68 WELL NO. K-34 LEASE B.H.C.H AMERADA CH LAKE

SEC. _____ T. _____ R. _____ PROVINCE N.W.T CONTRACTOR CASCADE RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
		Page 11					
		Ran 19 Jts - 13 3/8" OD 48# 8Rd Sd H40 Rge 2 SS casing set @ 623'. Cemented by Howco W/ 706 sks Oilwell cement w/ 2% CACL2 added. Pumped plug to 589' Started cementing @ 8:43 A.M. Plug down @ 11:15 A.M. 12-13-68 Ran 5 centralizers on bottom jt + 3 centralizers on bottom 150.					

DRILLING CONTRACTOR'S DAILY REPORT

P-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 15 19 68 WELL NO. K54 LEASE B.A. AMERADA CHI. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRILLING RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN					
			WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
12 00	12 15	RIG SERV.						
12 15	12 30	REAM 17½ Hole.						
12 30	12 45	CIRC. W/ PIPE IN HOLE PRIOR TO RUN CASING.						
12 45	1 30	HOIST TO RUN CASING.						
1 30	3 00	RIG TO RUN CASING.						
3 00	7 00	RUN CASING.						
7 00	7 30	HOOK UP TO CIRC. CASING.						
7 30	8 00	CIRC. CASING.						
8 00	8 45	CIR. & WORK CASING						
8 45	11 15	PUMP CEMENT & PLUG						
11 15	4 00	W.O.C						
4:00	11:15	W.O.C.						
11:15	12:00	CUT OFF CSG.						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
4A.	17½	PILOT	CON.	80.	625	556	19¼		18 000	600	1	66	7"	3-9" 16-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12 00		90				

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 625 DEPTH END SECOND TOUR DEPTH END THIRD TOUR

O Kuska
DRILLER OR WATCHMAN

D Stanley
DRILLER OR WATCHMAN

Wayne Madden.
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

D L Lyle
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Cook
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT
P-93

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 14 19 68 WELL NO. K54 LEASE B.A. AMERADA C.L. LAKE

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRILLING RIG # 12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12 00	12 15	RIG. SERV.									
12 15	12 45	WORK ON CELLAR JET. IT. NO WORK									
12 45		REAM OUT 12¼ HOLE TO 17½.									
		MAKE RAT HOLE CONN. D.C. IN WAY									
		TO STAND BACK KELLY SLOW PROGR.									
	3 00	W/T. ON BIT 2.000 # TO ROUGH.									
3 00	3 30	LAY DOWN 2 SINGLES NUM IN ① ST. CO.									
3 30	4 30	REAMING 17½ HOLE									
4 30	5 00	LAY DOWN ② SINGLES NUM IN ① ST. CO.									
5 00	6 45	REAMING 17½ HOLE									
~~6 45~~	~~7 00~~	~~LAY DOWN ② SINGLES NUM IN ① ST. CO.~~									
6 45	8 00	REAMING 17½ HOLE									
8 00	8 15	RIG SERV.									
8 15	9 30	REAM TO 17½									
9 30	10 45	REPAIR CELLER JET & CLEAN SCREENS IN PUMPS									
10 45	4:00	REAM TO 17½									
4:00	4:15	RIG SER.									
4:15	7.45	REAM TO 17½"									
7.45	9:45	TRIP, CHG PIPE TALLY + REAMER									
9:45	12.00	2 REAM TO 17½"									
		~~-X2~~									

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
4A	17½	PILOT REED		80	RUN	537	19	130 100 110	6000 8000 10-000	3.00	1		7"	3-9" 6-7"
											2		7"	

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
8:00	9.3	50				
12:00	9.4	80				
5:00	9.4	50				
10:00	9.4	61				
11.00	9.4	90				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
100 #	CAUSTIC	2:00
2500 #	GEL	10:00

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 309 98 DEPTH END SECOND TOUR DEPTH END THIRD TOUR 617 - 17½"

A Kuhn
DRILLER OR WATCHMAN

D Lowden
DRILLER OR WATCHMAN

Wayne Madden.
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delbert Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

F-55

DATE DEC 13 19 68 WELL NO. K5-4 LEASE B.A. AMERADA CH LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T CONTRACTOR CASCADE RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TO BE PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12:00	12:15	RIG SERV
12:15	12:45	FINISH RUNNING IN HOLE
12:45	2:30	DRLG W/ 7000# ON BIT
2:30	3:00	REPAIR CELLAR JET
3:00	3:15	DRLG W/ 7000# ON BIT
3:15	3:30	SURVEY 339 - 7/8°
3:30	5:45	DRLG W/ 4000# ON BIT
5:45	6:00	SURVEY 399 - 3/4°
6:00	7:00	STUCK AT 399'
7:00	8:00	DRLG 12¼ HOLE
8:00	8:15	DRILL RIG SERV & SURVEY 1/2°
8:15	11:15	DRILL W/ 8,000#
11:15	11:30	SURVEY @ 515 1/2°
11:30	1:45	DRILL W/ 10,000#
1:45	2:00	SURVEY @ S 74 3 1/2°
2:00	4:00	DRILL W/ 8,000#
4:00	4:15	DRILL W/ 8,000#
4:15	4:30	CIRC. FOR SURVEY
4:30	4:45	SURVEY
4:45	5:45	HOIST TO PICK UP HOLE OPENER
5:45	10:30	TEAR OUT 5" CELLAR JET INSTALL 7" JET
		STRAPP 12¼" BIT ON 17½ HOLE OPENER
10:30	12:00	REAM OUT 12¼" TO 17½"

TIME CHARGEABLE TO BRITISH AMERICAN

	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY
574	3/4	450	1/2°

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
3A	12¼	S33FJ	124703	308	660	352	13¼	150	4-8M	700	1	66	7"	3-9" 12-7"

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
12:00	9.3	65				
4:00	9.3	70				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
21.00	GEL	6:00 8:00
100#	CAUSTIC	10:00

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 460

DEPTH END SECOND TOUR 483

DEPTH END THIRD TOUR 660' - 12¼" 97' - 17½"

A Kuehn
DRILLER OR WATCHMAN

D Saunders
DRILLER OR WATCHMAN

Wayne Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolan Lesley
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Dec 12 19 68 WELL NO. K54 LEASE B.A. Amocana CLI LAKE

SEC. ____ T. ____ R. ____ PROVINCE PAGE #2 CONTRACTOR Cascade Drilling

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
10,30	10 1/5	Survey @ 308 ½°
10 1/5	12 00	Trip for New Bit
		Page 11

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	1	30				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
3A	12 ¼	S3JJ	12H703	308										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DRILLER OR WATCHMAN

DEPTH END SECOND TOUR ____ DRILLER OR WATCHMAN

DEPTH END THIRD TOUR ____ DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 12, 1968 WELL NO. K64 LEASE BA. AMERADA GU LAKE

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING RIG #2

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME. WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12 00	2 00	RUN IN TO DRIL. 12¼ HOLE
2 00	3 00	TIGHTIN BELT ON C350
3 00	4 00	PICKE UP 9 COLLAR. RUN SURVEY
4 00	5 00	DRLG. 12¼ HOLE
5 00	6 00	CONDUCTOR BBL. WASHED OUT. W/O
6.00	6 30	HOOK UP JET. THAW OUT LINES
		AND JET OUT. SELER.
6.30	8.00	W/R
8 00	8 15	RIG SERV.
8 15	8 45	CLEAN WOOD FROM UNDER SUCTION VALVES
8 45	9 45	DRILL W/ 14,000
9 45	10 00	SURVEY @ 115 1°
10 00	11 00	DRILL W/ 5,000
11 00	11 15	SURVEY @ 145 3¼°
11 15	12 45	DRILL W/ 8,000
12 45	1 00	SURVEY @ 175 3¼°
1 00	3 00	DRILL W/ 8,000
3 00	3 15	SURVEY @ 237 3¼°
3 15	4 00	DRILL W/ 8,000
4 00	5 00	DRILL
5.00	5:15	RIG SER
5. 15	5.30	SURVEY @ 267 - 9/8°
5.30	10.30	DRILL W/ 4,000#

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY
	57.96	¼	175	3/4
	237	3/4		

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	22	30				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS
8 A RR	12¼	S3TS	93700	0	RR	83			14	500	1		7"	2. 9"
1 A	12¼	S3TS	93700	0		239			5 c 8000	250	2.		7"	
"	"	"	"		"	308		150	4.000	350	1		7"	3- 9" 7- 7"
3 A	12¼	S3TJ	12H703	308										

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT
6.00		45				
		47				
4 00	9.3	54				

MUD ADDITIVES:

AMOUNT	TYPE	TIME
25.00	GEL.	12.00
1300#	GEL	1100
100#	CAUSTIC	1100

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR 83

A Kuhn
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR 269

D Hewko
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR 308

Wayne Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalvin Luly
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 11 19 68 WELL NO. K54 LEASE BA. AMERADA S.I. LAKE

SEC. ____ T. ____ R. ____ PROVINCE ____ CONTRACTOR CASCADE DRILLING RIG #12

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS, TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
		Cemented 20", 46.27# conductor pipe 70 KB by Howco w/ 12 sx Gilsonite cement w/ 2% CaCl2 added. Finished cementing @ 7:15 A.M.
12:00	3:00	WELDING PLATE ON CONDUTOR BBL
3:00	4:00	CIRC. CONDUCTOR BBL. AND WORK PIPE
4:00	6:00	W.T. ON CEMENTOR FROSE UP
6:00	7:15	PUMPING CEMENT - CEMENT DOWN W/ A.T. 7:15
7:15	8:00	HELP CEMENTE TEAR OUT.
8:00	4:00	WOC
4:00	12:00	W.O.C.

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A. Kraber — DRILLER OR WATCHMAN

D. Hoerle — DRILLER OR WATCHMAN

W. Madden — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Robert Seely — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

THE BRITISH AMERICAN OIL COMPANY LIMITED

P-93

DATE DEC 10 19 68 WELL NO. K-37 LEASE BA AMERADA ELI LAKE

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE RIG #12

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN: WITH DRILL PIPE HRS.	MIN.	WITHOUT DRILL PIPE HRS.	MIN.	OTHER HRS.	MIN.
12:00	12:15	RIG SERV.					~~1~~	
12:15	3:30	DRLG. REAMING OUT PILOT HOLE					~~3~~	~~15~~
~~3:30~~	~~5:30~~	TO 26."						
3:30	5:30	WORK ON LOCKED BIT.					2	
5:30	7:00	REAMING PILOT HOLE					~~1~~	~~15~~
7:00	7:30	WORK ON LOCKED BIT						~~30~~
7:30	8:00	REAMING PILOT HOLE						~~30~~
8:00	8:15	RIG SERV						15
8:15	11:00	REAM 12¼ TO 26"						
11:00		RIG TO BREAK 26" BIT BREAK SAME						
	12:30	PICK UP 9" DC						
12:30	1:30	REAM						
1:30	2:00	MIX GEL						
2:00	3:30	REAM 12¼ TO 26" — 80						
3:30		MIX GEL WORK PIPE TO COND. HOLE						
	4:00	PRIOR TO RUNNING CONDUCTOR BBL						
4:00	6:00	MIX GEL + CLEAN OUT 20' FILL						
6:00	7:00	WORK ON #2 PUMP + CELLAR JET						
7:00	8:00	CIRC TO RUN COND. BBL.						
8:00	9:30	LAY DOWN 26" BIT - 9" D.C.						
9:30		RUN COND. BBL. WELD PLATE ON TOP						
	12:00	GET READY TO CEMENT						

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME
3500#	GEL.	

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

A Kusher
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D Hawko
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

W. Madden.
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalmer Ledge
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 9. 19 68 WELL NO. 1 LEASE B.A. SWAN LAKE K-84

SEC. T. R. PROVINCE CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME. WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12.00		PUT UP CAT WALK LIGHTS
		FIX 4" VALVE ON # 7.00 PUMP
	8.00	PUT ANTIFREEZE IN NO 2 MOTOR. (45 GALS)
		CLEAN UP AROUND RIG.
		DRIG. RAT HOLE
8.00	9.00	~~RIG UP~~ DRILL RAT HOLE
9.00	10.30	TONG IN RAT HOLE SOCK
10.30	11.30	RIG TO DRILL 12 1/4 PILOT HOLE
11.30	3.00	DRILL 45' 12 1/4 PILOT HOLE IN GRAVEL PIT W/ LEVEL.
3.00	4.00	TIGHTEN KELLY COCK & QUILL & RIG TO PICK UP 9" D.C.
4:00	8:00	PICK UP 9" D.C. - FINISH PILOT HOLE 82'
8.00	9:00	LAY DOWN 9" D.C. - PICK UP B.C. BIT.
9:00	12.00	REAMING OUT PILOT HOLE TO 26" (VERY ROUGH)

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
TOTAL TIME CHARGEABLE TO B.A.	12	30	11	30		
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R	M	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

A Kuehn
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D Hourie
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

Wayne Maddux
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delvan Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 8 19 68 WELL NO. 1 LEASE B-A OIL CLI LAKE, K37

SEC. T. R. PROVINCE NWT CONTRACTOR CASCADE DRLG.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12.00		PUT SHALE SHAKER SKREENS
	8.00	ON PUT SUB GUNS IN MUD
		TANK. E.C.T.
8.00	4.00	Rig up
4:00	12:00	WORK ON PUMPS, MUD LINE,
		START #2 SUPERIOR, ECT

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
TOTAL TIME CHARGEABLE TO B.A.			24	00		
DAY WORK PER 24 HOUR DAY						

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR _____ DEPTH END SECOND TOUR _____ DEPTH END THIRD TOUR _____

A Kusler — DRILLER OR WATCHMAN

D Hewko — DRILLER OR WATCHMAN

W. Madden — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dakota Swift — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 7. 19 68 WELL NO. 1 LEASE B.A. AMERICAN CLI LAKE K-34

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
12.00		R.G. UP RAT HOLE DRILLER.
	8.00	PUT ON SHOCK HOOSE ON G 700 PUMP
		PUT HEADS ON NEW RODS. FOR
		C350 7" E.C.T.
8.00	17.00	Rig up.
4:00	12.00	RIG UP
[illegible]	[illegible]	[illegible]

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.	24	00				
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kusko — DRILLER OR WATCHMAN

D Neuko — DRILLER OR WATCHMAN

W. Maddess — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalwyn Neely — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 6. 1968 WELL NO. 1 LEASE SHI. LAKE K-54

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00		FINISH PUTTING UP PREFAB
	6.00	
8:00 AM	17:00	FINISH PREFAB + RIG UP FLOOR ECT.
		Rig up w/ full crew

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kusko — DRILLER OR WATCHMAN

D Hewko — DRILLER OR WATCHMAN

W. Maddens — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Robert Lusby — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-66

THE BRITISH AMERICAN OIL COMPANY LIMITED

DAY'E DEC. 5 19 68 WELL NO. 1 LEASE B.A. OIL GL. LAKE K.B.H.

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00		RIGGING UP
	8.00	FITTING UP PREFAB.
10 HRS.		

TIME CHARGEABLE TO BRITISH AMERICAN					
WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
HRS.	MIN.	HRS.	MIN.	HRS.	MIN.

Rig up w/ full crew

R.S.L.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S.P.M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A. Fraser — DRILLER OR WATCHMAN

D. Hawkes — DRILLER OR WATCHMAN

W. Madden — DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dakin Seely — CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock — BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS - CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-65

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 4 19 68 WELL NO. 1 LEASE BA GLI LAKE KSH

SEC. ____ T. ____ R. ____ PROVINCE ____ N W T ____ CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00		~~Building~~ House For DERRICK MAN
	6.00	WORK ON WATER LINES AND PREFAB
10 HRS		

TIME CHARGEABLE TO BRITISH AMERICAN					
WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
HRS.	MIN.	HRS.	MIN.	HRS.	MIN.

Rig up and full crew
RBL

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kraker
DRILLER OR WATCHMAN

D Hawker
DRILLER OR WATCHMAN

W. Maddern
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Delmar Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC 3 19 68 WELL NO. 1 LEASE GRL KARE K.B.H.

SEC. T. R. PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00		FINISH PREFAB ON BOARD
		LAY WALKS PUT IN BRIDEL
		LINE SAVER ROLLER
	6.00	GET BOILER READY TO GO.
10 HRS		
		Rig up w/ full crew
		RRR

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR

A Kuaka
DRILLER OR WATCHMAN

DEPTH END SECOND TOUR

D Hewlett
DRILLER OR WATCHMAN

DEPTH END THIRD TOUR

W. Madden
DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalton Sulja
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Locke
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

F-98

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 2. 19 68 WELL NO. 1 LEASE B.A. GH LAKE KSH

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS ON LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.	TIME CHARGEABLE TO BRITISH AMERICAN					
			WITH DRILL PIPE		WITHOUT DRILL PIPE		OTHER	
			HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
4.00		SPOT AND HOOK UP MUD TANKS STRING BLOCKS. PUT UP STAIRS LINE UP G.700 PUMP PUT PREFAB ON MONCKY BOARD SPOT LIGHT PLANT. WATER TANK. MUD HOUSE FUEL TANK						
	6.00	ADD TO BOILERS						
10. HRS								
		Rig up w/ packet crew RAB						

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kealy
DRILLER OR WATCHMAN

D Fowler
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalmar Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert S Cook
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-43

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE DEC. 1 19 68 WELL NO. 1 LEASE B.A. OIL SH LAKE KSH

SEC. ____ T. ____ R. ____ PROVINCE N.W.T. CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
		FINISH BOLTING DERRICK.
8.00	6.00	AND PIN DERRICK. AND PIN
		A. LEGS SPOT 2# MUD TANKS
		SPOT DOG HOUSE AND TOOL
10 HRS		HOUSE SPOT CAT WALK AND
		PUT BLOCKS ON WALK CLEAN
		OUT 2# MUD TANKS W/CAT.
		Rig up of partial crew
		RTS

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Keeler
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Walter Kelly
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert A Cooke
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-05

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Nov 30 19 68 WELL NO. 1 LEASE BA oil Ch LAKE K54

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THIS LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00	6.00	P+J. DERRICK TOGETHER. MOVED CAMP FROM RIVER TO NEW LOCATION AND RIGED UP CAMP
	10 HRS	
		Move + rig up w/ portal crew RGB

TIME CHARGEABLE TO BRITISH AMERICAN	WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD	DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

R Kuhn
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dolphin Lesley
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Lock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-95

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE NOV 29. 19 68 WELL NO. 1 LEASE B.A. OIL OIL LAKE K 54

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR CASCADE DRILLING.

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00	4.00	PUT MOTORS ON FLOOR AND DRAWORKS ON FLOOR AND SPOT C350 PUMP AND START PUTTING DERRICK TOGETHER SIN POLE STARTS OUT OF MUD TANKS.
		Move & rig up W/ pasted crew RLG

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Krahn
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dalwin Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert G Bock
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS – CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-11

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Nov. 28 1968 WELL NO. 1 LEASE B.A. Sli LAKE K54

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR CASCADE DRILLING

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8.00	4.00	UNLOAD AND R.G. UP SUB
		8 HRS
		Move up pastual crew

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TIME	WEIGHT	VIS-COSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS:

NUMBER	SIZE	TYPE

OIL SAVER RUBBERS:

NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kusku
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dave Seely
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert D Locke
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

DRILLING CONTRACTOR'S DAILY REPORT

P-91

THE BRITISH AMERICAN OIL COMPANY LIMITED

DATE Nov 27 19 68 WELL NO. 1 LEASE BA-Shi LAKE K5-H

SEC. ____ T. ____ R. ____ PROVINCE NWT CONTRACTOR Cascade Drilling

TIME BY DRILLERS FROM	TIME BY DRILLERS TO	SHOW COMPLETE CASING, CORING AND SLOPE TEST RECORDS AND ALL DELAYS OR LOST TIME, WITH REASONS. DRILLERS ACCOUNT FOR FULL 24 HOURS ON THE LEFT, INDICATING CLEARLY EACH CHANGE IN DRILLING OPERATIONS. TOOL PUSHER, OR OTHER REPRESENTATIVE OF CONTRACTOR, SHOW ON THE RIGHT ALL TIME CHARGEABLE TO BRITISH AMERICAN ON A DAY WORK BASIS. INVOICE MUST CHECK WITH TIME SHOWN ON THE RIGHT.
8:00	11 am	Load Lease for moving and log. Moving
		Move w/ partial crew

TIME CHARGEABLE TO BRITISH AMERICAN

WITH DRILL PIPE HRS.	WITH DRILL PIPE MIN.	WITHOUT DRILL PIPE HRS.	WITHOUT DRILL PIPE MIN.	OTHER HRS.	OTHER MIN.
				8:00	
				4:00	
				8 HRS	

DEVIATION RECORD

DEPTH	SURVEY	DEPTH	SURVEY

	HRS.	MIN.	HRS.	MIN.	HRS.	MIN.
TOTAL TIME CHARGEABLE TO B.A.						
DAY WORK PER 24 HOUR DAY						

BIT RECORD:

BIT NUMBER	SIZE	TYPE	SERIAL NUMBER	DEPTH IN	DEPTH OUT	FOOTAGE DRILLED	HRS. RUN	R. P. M.	BIT WEIGHT	PUMP PRESSURE	PUMP NO.	S. P. M.	LINER SIZE	NO. AND SIZE DRILL COLLARS

MUD RECORD:

TYPE	WEIGHT	VISCOSITY	WATER LOSS	FILTER CAKE	PH	SAND CONTENT

MUD ADDITIVES:

AMOUNT	TYPE	TIME

SWAB CUPS: **OIL SAVER RUBBERS:**

NUMBER	SIZE	TYPE	NUMBER	SIZE	TYPE

DEPTH END FIRST TOUR ____ DEPTH END SECOND TOUR ____ DEPTH END THIRD TOUR ____

A Kuchar
DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

DRILLER OR WATCHMAN

TIME CHARGEABLE TO BRITISH AMERICAN IS APPROVED:

Dilbert Seeley
CONTRACTOR'S REPRESENTATIVE

BRITISH AMERICAN'S REPRESENTATIVE

Robert L Cook
BRITISH AMERICAN FOREMAN OR SUPERINTENDENT

KEYSTONE BUSINESS FORMS — CALGARY

WELL PROGRESS REPORT — FIELD

P. 13

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Feb. 14	TD 8714', PBTD Surface Quartzite 8-3/4" hole T.O.R.T.
		Days from spud: 67 Cost to date: $747,393
RIG RELEASED		Yesterday finished laying down drill pipe. Tore out BOP's. Rig released 8 p.m. 2-13-69.
		Time Breakdown: Lay down drill pipe 6 hours, Lay down BOP's 8 hours, T.O.R.T. 10 hours. Temp. 2° - Cloudy. Reported by Lock
		.... Drop ....

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT RESOURCE MANAGEMENT
MAR 4 1969
OIL CONSERVATION
Northwest Territories

WELL PROGRESS REPORT — FIELD

P- 1

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Feb. 11	Depth 8714', Ftg. 0, Quartzite, 6-1/8" hole Running DST #8, 7264'7350' Days from spud: 64 Cost to date: $722,597 Finished running DST #7. Ran in open ended to 8490'. Circulated and waited on orders. Pulled out and ran in for DST #8. Time Breakdown: Testing: 16½ hours, Rig service ¼ hour, W.O.O. 7¼ hours. Cloudy and reported by Lock.
	Feb. 12	Depth 8714', Ftg. 0, Quartzite, 6-1/8" hole Pulling up to run P&A Plug #2 Days from spud: 65 Cost to date: $733,217 Completed DST #8. Laid down drill collars. Ran in open ended to 7850'. Ran P&A plug #1, 7850-7750' with 75 sacks Oilwell cement. Started mixing cement at 9:30 p.m. Displaced plug with 135 bbls. of mud. Plug down at 10:20 p.m. 2-11-69. Waited 7 hours and felt Plug #1 at 7700'. Time Breakdown: Testing 9½ hours, Rig service ¼ hour, W.O.C. 7½ hours, Lay down drill collars 1¼ hours, Run P&A Plug 5½ hours. Temp. -12° - Clear. Reported by Lock.
D.S.T. #8		Dated 2-11-69. Ran DST #8 by Lynes in Arnica, interval 7264'-7350', straddle packer, ½" ss choke, no water cushion, 10 min. pre-flow, 30 min. ISI. TO 60 mins. commencing at 6:00 a.m. 2-11-69. 60 min. FSI. Good initial air puff dying immediately. 5" drill pipe recovery: 330' of muddy salt water. Samples taken: 2 - 1 qt. IHSP 3432 FHSP 3432 IFP 50 FFP 99 ISIP 3282 FSIP 3232 BHT 212°F.
	Feb. 13	TD 8714', PBTD 5886', Ftg. 0, Arnica, 8-3/4" hole Laying down 5" d.p. Days from spud: 66 Cost to date: $741,756 Ran P&A plug #2, 6800'-6400' by Howco with 280 sacks of Oilwell cement with 0.3% HR12. Plug down at 7:45 a.m. with 112 bbls. of mud. Felt for plug after 8 hours. Found top at 6365'. Ran P&A plug #3, 6050'-5950' by Howco with 75 sacks of Oilwell cement. Plug down at 5:10 p.m. with 104 bbls. Found plug at 5886' after 8 hours. Time Breakdown: Rig service ¼ hour, W.O.C. 16-3/4 hours, Lay down drill pip 4½ hours. Temp. -22° - Clear. Reported by Lock

WELL PROGRESS REPORT — FIELD

P. 13

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Feb. 8	(continued) Mud Wt. 9.1, Visc. 33. RPM 38, Bit Wt. 10,000, String Wt. 190,000. Drilling String: 1 - 5-3/4" core barrel - 1 set of Bowen jars, 6 - 7" drill collars. Pump No. 1, 62 SPM 5½ x 14, 850 psi. Bit No. 24, Diamond, 6-1/8", 8709'-8714', Ftg. 5' in 3 hours - good. Time Breakdown: Coring 3 hours, Trip 17¾ hours, Rig service ½ hour, Rig repairs 1½ hours, Slip line 3/4 hour, Lay down core barrel 1 hour. Temp. -18° - snowing. Reported by Lock.
	Feb. 9	Depth 8714', Ftg. 0, Quartzite, 6-1/8" hole Waiting on inflatable Lynes packers. Days from spud: 62 Cost to date: $710,875. Ran DST #5, 6420'-6484' - Misrun Time Breakdown: Trip 2½ hours, Testing 15½ hours, Circulating 2¾ hours, Rig service 1 hour, Lay down 12 - 7" drill collars 2-3/4 hours. Temp. -32° - Clear. Reported by Lock.
D.S.T. #5		Report dated 2-8-69. Ran DST #5 by Howco in Manetoe, interval 6420'-6484', 7-3/4" straddle packers, ½" ss choke, no water cushion. Remarks: Misrun - packer seats failed. Found bottom rubber split.
	Feb. 10	Depth 8714', Ftg. 0, Quartzite, 6-1/8" Hosting DST #7. Days from spud: 63 Cost to date: 717,200 Waited on inflatable packer 7¾ hours. Ran DST #6, 6420'-6484' and DST #7, 6692'-6756' by Lynes. Time Breakdown: Testing 16¾ hours, Rig service ½ hour, Waiting on packer 7¾ hours. Temp. -32° - Clear. Reported by Lock.
D.S.T. #6		Dated 2-9-69. Ran DST #6 by Lynes in Manetoe, interval 6420'-6484', inflatable straddle packers, ½" ss choke, no water cushion, 8 min. pre-flow, 15 min. ISI, TO 30 mins. commencing at 8:37 p.m. 2-9-69. 10 min. shut-in, good initial air puff dying immediately. Reopened after 15 mins. initial air puff dying immediately. IHSP 3070 FHSP 3070 IFP 25 FFP 50 ISIP 2795 FSIP 2670 BHT -. Remarks: Surface indication showed nothing coming into pipe. Deflated packer and randown to run DST #7.
D.S.T. #7		Dated 2-10-69. Ran DST #7 by Lynes in Manetoe, interval 6692'-6756', inflatable straddle packers, ½" ss choke, no water cushion, 10 min. pre-flow, 30 min. ISI. TO 90 mins. commencing at 10:27 p.m. 2-9-59. 60 min. FSI. Good initial air puff, fair blow decreasing gradually throughout test. 5" drill pipe recovery: 180' of drilling mud and 2480' of salt water. Samples taken: 3 - 1 gal. samples (cans) IHSP 3195 FHSP 3195 IFP 124 FFP 1320 ISIP 3045 FSIP 3045 BHT 218°F

WELL PROGRESS REPORT — FIELD

P. II

PORT 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Feb. 6	Depth 8709', Preparing to run DST #4 Days from spud: 59 Cost to date: $694,303 Ran DST #1 - Misrun. Ran DST #2 - Misrun. Ran DST #3, 7262'-7350'. with drill pipe for anchor. Opened tool and held for 17 mins. then packer seat failed. Pulled out and redressed testing tool for D.S.T. #4, 6676'-6764'. Time Breakdown: Testing and tripping 24 hours. Temp. -44° - Clear. Reported by Toole.
D.S.T. #3		Dated 2-6-69. Ran DST #3 by Howco in Arnica, interval 7262'-7350', 7½" packer, ½" ss choke, no water cushion, Tool open 17 mins. commencing at 12 midnight. Weak initial air puff, weak air blow dying in 6 mins. 4½" drill pipe recovery: 17 stands of mud (1530'). Remarks: Packer seat failed after tool open 17 mins.
	Feb. 7	Depth 8709', Ftg. 0, Quartzite, 8-3/4" hole Running in with core barrel. Days from spud: 60 Cost to date: $698,745 Yesterday ran DST #4, 6676'-6764'. Mud Wt. 9.1, 36, infinity, 4/32, 8.5. Drilling String: 5½' x 40' core barrel, 1 set Bowen jars and 6 - 7" x 2-7/8" drill collars. Diamond bit, 6-1/8", In 8709'. Time Breakdown: Trip in 4 hours, Testing 14 hours, Rig repairs 4 hours (hydromatic and drive chain). Pick up core barrel 2 hours. Temp. -42° - Clear. Reported by Toole
D.S.T. #4		Report dated 2-7-69. Ran DST #4 by Howco in Manetoe, interval 6676'-6764', 7½" straddle packer, ½" ss choke, no water cushion, 45 min. pre-flow, 45 min. ISI. TO 45 mins. commencing at 2:15 p.m. 2-6-69. 45 min. FSI. Weak initial air puff, very weak air blow throughout test. 2-7/8" I.D. drill collar recovery: 90' of salt water cush mud. Samples taken: 2 - 1 qt. (above tool). IHSP 3540, FHSP 3570 FSIP 3570 BHT 220°F. Remarks: Dual shut-in pressure tool did not function properly. Tool was in almost completely closed position. Recovery during initial flow. Tool remained shut in after initial shut-in.
	Feb. 8	Depth 8714', Ftg. 6', Quartzite, 6-1/8" hole Running in for DST #5 Days from spud: 61 Cost to date: $707,037 Ran in with core barrel. Circulated hole clean. Dropped ball. Ball stuck in jars. Unable to circulate. Pulled out and retrieved ball. Ran in with core barrel. Cut Core #1, 8709-8714', Cut 5', Recovered 5'. Began running in for DST #5, 6420'-6485'.

..... continued .....

WELL PROGRESS REPORT — FIELD

P. I

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Feb. 3	Depth 8709', Ftg. 0, Quartzite, 8-3/4" hole Running seismic reference survey Days from spud: 56 Cost to date: $663,898 Yesterday completed running Neutron log. Log not satisfactory. Ran dipmeter from T.D. to 6000'. Time Breakdown: Logging 24 hours. Temp. -24° - light overcast. Reported by Toole
	Feb. 4	Depth 8709', Ftg. 0, Quartzite, 8-3/4" hole Preparing to run magnet and junk sub Days from spud: 57 Cost to date: $669,516 Completed seismic reference survey. Reran DIL on BHCS caliper on SNP Gamma Caliper. Time Breakdown: Logging 20 hours, Waiting on logging tools 4 hours. Temp. -36° - Clear. Reported by Toole
	Feb. 5	Depth 8709', Ftg. 0, Quartzite, 8-3/4" hole Running in for DST #1, 7262'-7330' Days from spud: 58 Cost to date: $688,669 Ran in with magnet and junk sub. No fill on bottom. Circulated and worked same for 3 hours. Pulled out and recovered 4 tungsten inserts in basket. Picked up testing tools and began running in for DST #1. Mud Wt. 9.1, 37, infinity, 4/32, 8.5, Yield Point 8. Pump No. 2, 60 SPM, 5 x 18, 900 psi. Time Breakdown: Trip 11 hours, Testing 5 hours, Circulating 4½ hours, Waiting on tools 3½ hours. Temp. -26° - Clear. Reported by Toole.
D.S.T. #1		Report dated 2-5-69. Ran DST #1 by Howco in Arnica, interval 7262'-7330', 7½" hookwall packer, ½" ss choke, no water cushion. Remarks: MISRUN. Could not get selective zone tool to hold enough weight to open tools (hole washed out).
D.S.T. #2		Report dated 2-5-69. Ran DST #2 by Howco in Manetoe, interval 6692'-6760', 7½" hookwall packer, ½" ss choke, no water cushion. Remarks: MISRUN - developed drill pipe leak after setting packers and before tool opened.

WELL PROGRESS REPORT - FIELD

P- 18

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Jan. 31	Depth 8596', Ftg. 109', Quartzite sandstone, 8-3/4" hole Tripping for Bit #23
QUARTZITE SANDSTONE 8574' -7872'		Days from spud: 53 Cost to date: $647,445 Hole condition good Mud Wt. 9.0, Visc. 35. RPM 46, Bit Wt, 25,000, String Wt. 205,000. Drilling String: same. Pump No. 2, 60 SPM, 5 x 18, 1450 psi. Bit No. 22. RT7, 8-3/4" hole, 8487-8596', Ftg. 109' in 14¼ hours, 1-I-8 (1/8"). Time Breakdown: Drilling 15¾ hours, Trip for bit 4½ hours, Circulating 2 hours Rig service 3/4 hour, Rig repairs 1½ hours. Mud Additives: Gel 115 sacks. Wt. Material 85 sacks, Benex 50#, Caustic 200#. Temp. -20° - light snow. Reported by Lock.
	FEBRUARY	
	Feb. 1	Depth 8686', Ftg. 90', Quartzite Sandstone, 8-3/4" hole Drilling Days from spud: 54 Cost to date $656,376 No fill on trip Mud Wt. 9.0, 35, inifinity, 4/32, 8.5. Drilling String: same. Pump No. 2, 60 SPM, 5 x 18, 1450 psi. Bit No. 23, M88, 8-3/4", In 8596', Ftg. 90' in 11-3/4 hours. Time Breakdown: Drilling 11-3/4 hours, Trip for bit 7½ hours, Circulating ½ hour, Rig service I hour, Rig repairs 3¾ hours - air lines and drive chains. Temp. 16° - overcast. Reported by Toole.
	Feb. 2	Depth 8709', Ftg. 23', Quartzite Sandstone, 8-3/4" hole Logging Days from spud: 55 Cost to date $658,214 Drilled to 8709'. Circulated 1-3/4 hours. Tripped out to log. Ran following logs by Schlumberger: IEL TD - 6000', Sonic Caliper - T.D. - 6000', Presently running Neutron Log. Mud Wt. 9.0, Visc. 33, F.C. 4/32, pH 8.5. Surveys 8709' - 5-3/4°. RPM 45, Bit Wt. 30,000, String Wt. 200,000. Drilling String: Same. Pump No. 2, 60 SPM, 5 x 18, 1450 psi. Bit No. 23, M88, 8-3/4", 8596'-8709', Ftg. 113' in 14-3/4 hours. Bit Cond. 5-1-I. Time Breakdown: Drilling 3 hours, Trip for bit 3½ hours, Circulating 1-3/4 hours, Logging 15-3/4 hours. Mud Additives: Wt. Material 1500#. Temp. -20° - light snow. Reported by Toole.

WELL PROGRESS REPORT — FIELD

P. 188

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Jan. 28	Depth 8168', Ftg. 197', Delorme 8-3/4" hole Drilling Days from spud: 50 Cost to date: $630,612 Tripped for Bit #20 Hole condition good Mud Wt. 9.0, 33, W.L. infinity, 4/32, 8.0, Gel strength 8 and 12, Y.P. 8. Surveys: 8080' - 3-7/8 deg. RPM 42, Bit Wt. 35,000, String Wk. 211,000. Drilling String: 1 - 3 point reamer, 1 - 10 7" drill collar, 1 - 8-3/4" square stabilizer, 1 - 7" drill collar, 1 8-3/4" square stabilizer, 9 - 7" drill collars, McCullough jars, 10 - 7" drill collars. Pump No. 1, 60 SPM, 5 x 18, 1500 psi. Bit No. 19, RG1XJ, 8-3/4", 7871'-8099', Ftg. 228' in 22 hours, 2-2-O (1/16"). Bit No. 20, RG7X5, 8-3/4", In 8099', Ftg. 69' in 5 hours. Time Breakdown: Drilling 16¼ hours, Trip for bit 5½ hours, Surveys ¼ hour, Circulating 1¼ hour, Rig service 3/4 hour. Mud Additives: Wt. Material 10 sacks. Temp. - 12 deg - Clear. Reported by Lock.
	Jan. 29	Depth 8375', Ftg. 207', Silurian? 8-3/4" hole Tripping in with Bit #2
SILURIAN 8265' -7563'?		Days from spud: 51 Cost to date: $636,235 Tripped for bit #21. Hole condition good. Mud Wt. 9.0, Visc. 32, W.L. infinity, F.C. 4/32, pH 8.5, Gel strength 3 & 8, Y.P. 7. RPM 46, Bit Wt, 35,000, String Wt. 208,000. Drilling String: Same except 12 drill collars on top of jars. Pump No. 2, 66 SPM, 5 x 18, 1600 psi. Bit No. 20, RG7X, 8-3/4", 8099'-8375', Ftg. 276' in 21½ hours, 8-8-I. Time Breakdown: Drilling 16½ hours, Trip for bit 3¼ hours, Surveys ¼ hour, Circulating 1½ hours. Rig service 3/4 hour. Rig repairs Install pump drive 1½ hours. Mud Additives: Caustic 100#, Peltex 50#. Temp. -24 deg. - Clear. Reported by Lock.
	Jan. 30	Depth 8487', Ftg. 112', Silurian, 8-3/4" hole Tripping in with Bit #22 Days from spud: 52 Cost to date: $642,514 Mud Wt. 9.0, 32, infinity, 4/32, 8.5, Gel strength 3 and 8, Y.P. 7. Surveys: 8476' - 5¼°. RPM 46, Bit Wt. 35,000, String Wt. 205,000. Drilling String: same. Pump No. 2, 56 SPM, 5 x 18, 1450 psi. Bit No. 21, RGX7J, 8-3/4", 8375'-8487', Ftg. 112' in 11¼ hours, 8-1-O (1/16"). Time Breakdown: Drilling 11¼ hours, Trip for bit 6 hours, Surveys ¼ hour, Circulating 1½ hours, Rig service 3/4 hour, Rig repairs 3½ hours, Slip and cut line 3/4 hour. Mud Additives: Wt. Material 20 sacks. Temp. -38° - Clear. Reported by Lock.

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION
FEB 5 1969
CALGARY, ALBERTA
Oil Conservation Engineer
Northwest Territories & Yukon Territory

WELL PROGRESS REPORT — FIELD

P. 138

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Jan. 25	Depth 7622', Ftg. 120', Arnica, 8-3/4" hole, Drilling Days from spud: 47 · Cost to date: $611,706 Pulled bit #17. Cones locked with pieces of iron. Reamed 1/2 cup of small pieces in junk sub. Reran 7" magnet. Picked up several small pieces of iron. Ran bit #18 and drilled ahead. Mud Wt. 9.0, 37, 18, 2/32, 8.0, Gel strength 11 and 13, Yield Point 10. RPM 46, Bit Wt. 35,000, String Wt. 195,000. Drilling String: 3 point reamer, 1 - 10, 7" drill collar, 8-3/4" square stabilizer, 1 - 7" drill collar, 8-3/4" square stabilizer, 7 - 7" drill collars, McCullough jars, 12 - 7" drill collars. Pump No. 2, 60 SPM, 5 x 18, 1650 psi. Bit No. 17, W7R, 8-3/4", 7500'-7502', Ftg. 2' in 1½ hours, 8-8-0 (1/8"). Bit #18, RG7XJ, 8-3/4", 7502' (In), Ftg. 120' in 8-3/4 hours. Time Breakdown: Drilling 8-3/4 hours, Trip for bit 4½ hours, Rig service ½ hour, Rig repairs 3/4 hour, Fishing 9½ hours. Mud Additives: Gel 36 sacks, Wt. Material 60 sacks, Benex 14#. Temp. 40 deg. - Clear. Reported by Lock.
	Jan. 26	Depth 7869', Ftg. 247', Arnica, 8-3/4" hole Drilling Days from spud: 48 Cost to date: $619,155 Yesterday drilled ahead. High salt concentration in mud. Mud Wt. 9.0, 34, infinity,- W.L., F.C. 4/32, pH 8.5, Gel strength 8 and 12, Y.P. 12. RPM 42, Bit Wt. 35,000, String Wt. 195,000. Drilling String same. Pump No. 2, 60 SPM, 5 x 18, 1600 psi. Bit No. 18, RG7XJ, 8-3/4", 7502' (In). Ftg. 367' in 31 hours. Time Breakdown: Drilling 22½ hours, Rig service 3/4 hour, Pump repairs ½ hour. Mud Additives: Caustic 200#, Peltex 200#. Temp. -44 deg - Clear. Reported by Lock.
	Jan. 27	Depth 7971', Ftg. 102', Delorme, 8-3/4" hole Drilling Days from spud: 49 days Cost to date: $625,542 Tripped for bit #19. Hole condition good. Mud Wt. 9.0, 33, infinity (W.L.), 2/32, 8.0, Gel strength 8 and 12, Yield Point 12. Surveys: 7871' - 3-1/8 deg. RPM 42, Bit Wt, 35,000, String Wt. 198,000. Drilling String: same. Pump No. 2, 60 SPM, 5 x 18, 1600 psi. Bit No. 18, RC7XJ, 8-3/4", 7502'-7871', Ftg. 369' in 31½ hour. 8-8-0 (1/16"). Bit No. 19, RG1XJ, 8-3/4", In 7871', Ftg. 100' in 10½ hours. Time Breakdown: Drilling 10½ hours, Trip for bit 7½ hours, Surveys ½ hour, Circulating 1-3/4 hours, Rig service 3/4 hour, Slip line ½ hour, Repair pump 3½ hour. Mud Additives: Caustic 200#, Peltex 200#. Temp. - -18 deg. - Clear. Reported by Lock.
DELORME 7813' -7111'		

WELL PROGRESS REPORT — FIELD

P. 135

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Jan. 22	Depth 7340', Ftg. 96', Arnica 8-3/4" hole Tripping Days from spud: 44 Cost to date: $597,160 Yesterday shaft in #1 pump drive broke. Drilling with 1 pump. Mud Wt. 8.9, 42, 14, 2/32, 8.5, Gel strength 5 & 15. Y.P. 10. Surveys: 7330' - 3-1/8 deg. RPM 46, Bit Wt. 35,000, String Wt. 205,000 Drilling String: same. Pump No. 2, 60 SPM, 5 x 18, 1700 psi. Bit No. 15, M8, 8-3/4", 6669'-7340', Ftg. 671' in 51½ hours, 2-1-0 (1/16"). Time Breakdown: Drilling 6¼ hours, Trip for bit 7¾ hours, Surveys ½ hour, Rig service ½ hour, Rig repairs 8¾ hours (pump), slip line ¼ hour, Ream 3/4 hour. Mud Additives: Wt. Material 12 sacks. Temp. -22 deg. - Cloudy. Reported by Lock.
	Jan. 23	Depth 7500', Ftg. 160', Arnica, 8-3/4" hole Running in with 7" magnet to pick up cones Days from spud: 45 Cost to date: $602,230 Yesterday drilled to 7500'. Tripped out and found all three cones off bit left in hole Mud Wt. 8.8, 57, 18, 2/32, 9, Gel strength 10 and 17, Yield Point 8. Surveys: 7490' - 3-1/8 deg. RPM 46, Bit Wt. 45,000, String Wt. 198,000. Drilling String: 7" magnet, junk sub, 9 - 7" drill collars, McCullough jars, 12 - 7" drill collars. Pump No. 2, 66 SPM, 5 x 18, 1700 psi. Bit No. 16, M8, 8-3/4", 7340'-7500', Ftg. 160' in 16 hours - all cones missing. Time Breakdown: Drilling 16 hours, Surveys 3/4 hour, Circulating 1¼ hour, Rig service 3/4 hour. Rig repairs ½ hour (pump), Work tight spot 1 hour. Mud Additives: Caustic 200#, Peltex 200#. Temp. -20 deg. - Clear. Reported by Lock
	Jan. 24	Depth 7502', Ftg. 2', Arnica, 8-3/4" hole Tripping out with tooth bit after milling on iron Days from spud: 46 Cost to date $606,700 Ran 7" magnet. Recovered one bit cone, one part of cone and approximately cup full of buttons and iron. Made second run with magnet and recovered large piece of cone and a couple of pieces of iron. Ran tooth bit with junk sub, drilled on iron and made 2' of hole. Conditioned and mixed mud for 3¾ hours. Mud Wt. 8.9, visc. 42, ph 9.0. Drilling String: 1 tooth bit, junk sub, 9 - 7" drill collars, McCullough Jars and 12 - 7" drill collars. Pump No. 2, 66 SPM, 5 x 18, 375 psi. Bit No. 17, W7R, 8-3/4", 7500'-7502', 2' in 1½ hours. Time Breakdown: Drilling 1½ hours, Trip magnet 17-3/4 hours, Rig service ½ hour, Mix mud 3¾ hours, Slip and cut line 1½ hours. Temp. -8 deg. - snow. Reported by Lock

WELL PROGRESS REPORT — FIELD

P. 135

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Jan. 19	Depth 6763', Ftg. 179', Manetoe, 8-3/4" hole Drilling Days from spud: 41 Cost to date: $581,813 Tripped out bit #14 to pick up square stabilizers. Hole condition good. Mud Wt. 8.6, 42, 10.2, 2/32, 9.0, Gel Strength 2 & 12, Y.P. 6. RPM 46, Bit Wt. 25,000, String Wt.198,000. Drilling String: 8-3/4" stabilizer, 1 - 10' - 7" drill collar, 1 string square 8-3/4" stabilizer, 1 - 30' - 7" drill collar, 1 string square 8-3/4" stabilizer, 12 - 7" drill collars. Pump No. 1, 66 SPM, 5½"x 14, 1525 psi. Bit No. 14, M8, 8-3/ 4" 6161'-6669', Ftg. 508' in 34½ hours 2-4-0 (slightly). Bit No. 15, Type M8, 8-3/4", In 6669', 94' in 6½ hours. Time Breakdown: Drilling 13½, Trip for bit 6-3/4 hours, Surveys 1½ hours, Rig service 3/4 hour, Pick up stabilizers 1½ hours. Mud Additives: Soda ash 100#, Caustic 50#. Temp. -30 deg. - Clear. Reported by Lock.
MANETOE -6425' (-5723')		
	Jan. 20	Depth 6992', Ftg. 229', Arnica, 8-3/4" hole Drilling Days from spud: 42 Cost to date: $588,412 On bottom 24 hours. Salt water intrusion in mud. Will increase mud weight. Mud Wt. 8.6, 40, 10, 2/32, 9.5. Surveys: 6764' - 3¼ deg, 6860' - 3¼ deg. 6954' - 3½ deg. RPM 46, Bit Wt. 35,000, String Wt. 201,000. Drilling String: 1 - 8-3/4" stabilizer, 1 - 10' - 7" drill collar, 1 - 8-3/4 stabilizer, 1 - 30' - 7" drill collar, 1 - 8-3/4" stabilizer, 8 - 7" drill collars, McCullough jars, 12 - 7" drill collars. Pump No. 1, 66 SPM, 5½ x 14, 1525 psi. Bit No. 15, N8, 8-3/4", In 6669', Ftg. 323' in 26 hours - running. Time Breakdown: Drilling 19½ hours, Surveys 1½ hours, Rig service 3/4 hour, Repair torque gauge 1½ hours, Clean mud tank 3/4 hour. Mud Additives: Soda Ash 500, Casutic 200. Temp. -28 deg. - Clear. Reported by Lock.
ARNICA TOP 6695' -5993'		
	Jan. 21	Depth 7244', Ftg. 252', Arnica, 8-3/4" hole Drilling Days from spud: 43 Cost to date $593,080 Yesterday had salt water intrusion into mud system. Raised mud weight to 8.9 #/gal. Mud Wt. 8.9, 37, 18, 2/32, 8.0. Gel Strength 3 and 16, Y.P. 10. RPM 46, Bit Wt. 35,000, String Wt. 205,000. Drilling String: same. Pump No. 1, 66 SPM, 5½ x 14, 1500 psi. Bit No. 15, M8, 8-3/4", In 6669', Ftg. 575' in 45 hours. Time Breakdown: Drilling 20 hours, Circulating 1½ hours, Rig service 3/4 hour. Rig Repairs 1-3/4 hours - pump and mud lines. Mud Additives: Peltex 200#, Caustic 200#, Wt. Material 120 sacks. Temp. - 30 deg. - Clear. Reported by Lock.

WELL PROGRESS REPORT — FIELD ·

P. 135

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Jan. 16	Depth 6130', Ftg. 130, Nahanni, 8-3/4" hole Drilling Days from spud: 38 Cost to date: $569,778 Finished trip in. Pressured hydril and pipe rams to 1800 psi. Held okay. Drilled out cement. Found shoe at 6000'. Drilled out at 1:15 a.m. 1-15-69. Mud Wt. 8.4, Visc. 35, pH 10.5. Surveys: 6064' - 1-3/4 deg. RPM 46, Bit Wt. 45,000, String Wt. 152,000. Drilling String: 11 - 7" drill collars, 1 - 6-3/4" McCullough jars, 10 - 7" drill collars. Pump No. 1, 66 SPM, 5½ x 14, 300 psi. Bit No. 13, W7R, 8-3/4", In 6000', Ftg. 130' in 9-3/4 hours. Time Breakdown: Drilling 9-3/4 hours, Trip for bit 6 hours, Surveys ½ hour, Rig service 3/4 hour, Pressure test 1 hour, Drill out cement 6 hours. Mud Additives: Gel 80 sacks, Benex 32#. Temp. -36 deg. - Clear. Reported by Jasinski.
	Jan. 17	Depth 6253', Ftg. 123', Nahanni, 8-3/4" hole Drilling Days from spud: 39 Cost to date: $570,000 Tripped out with bit #13. Picked up 3 point reamer, 1 -square stabilizer. Ran Bit #14. Reamed 60' to bottom. Mud Wt. 8.5, 34, 12, 2/32, 9.5. Gel strength 0 & 2, Y.P. 2. Surveys: 6150' - 1¼ deg. RPM 60, Bit Wt. 42,000, String Wt. 198,000. Drill String: 1 - 3 point reamer, 2 - 7" drill collars, 1 - 8-3/4" square stabilizer, McCullough jars and 12 - 7" drill collars. Pump No. 1, 66 SPM, 5½ x 14, 1500 psi. Bit No. 13, W7R, 8-3/4", 6000'-6161', Ftg. 161' in 14¼ hours, 6-4-O (1/16"). Bit No. 14, M8, 8-3/4", In 6161', Ftg. 92' in 6-3/4 hours. Time Breakdown: Drilling 11¼ hours, Trip for bit 5½ hours, Surveys 3/4 hour, Circulating 1 hour, Rig service 3/4 hour, Ream to bottom 4½ hours, Slip line ¼ hour. Mud Additives: Bicarb 200#. Temp. -33 deg. - Clear. Reported by Lock.
	Jan. 18	Depth 6584', Ftg. 331', Manetoe, 8-3/4" Drilling Days from spud: 40 Cost to date: $577,612 Drilling ahead Mud Wt. 8.6, 38, 12, 2/32, 9.5. Surveys: 6410' - 2 deg. 6530' - 2-3/4 deg. RPM 46, Bit Wt. 25,000, String Wt. 200,000. Drilling String: 1 - 3 point reamer, 2- 7". Pump No. 1, 66 SPM, 5½ x 14, 1500 psi. Bit No. 14, M8, 8-3/4", In 6161', Ftg. 423' in 27½ hours - Drilling. Time Breakdown: Drilling 20-3/4 hours, Surveys 1 hour, Circulating 1¼ hours, Rig service 3/4 hour, Work on desilter ¼ hour. Mud Additives: Gel 100 sacks, Benex 37#, Caustic 50#. Temp. -34 deg. - Clear. Reported by Lock.

WELL PROGRESS REPORT — FIELD

P. 13

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT RESOURCE MANAGEMENT DIVISION
JAN 23 1969
CALGARY, ALBERTA

CONFIDENTIAL

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET. [illegible] DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS [illegible] KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Jan. 14	Depth 6000', Ftg. 0, Nahanni, 12½" hole Waiting on cement Days from spud: 36 Cost to date: $543,619 Yesterday finished running 9-5/8" casing. Circulated casing for 3½ hours. Cemented casing. Plug down at 10 p.m. 1-13-69. Removed BOP's and set slips with 160,000#. Time Breakdown: Circulating 3½ hours, W.O.C. 8 hours, Run casing 10 hours, Cementing casing 1½ hours, Rig up to cement 1 hour. Temp. -18 deg. - snow. Reported by Jasinski
9-5/8" INTERMEDIATE CASING		Report dated 1/14/69 Ran 9-5/8" intermediate casing. Casing bowl: Size 12, Series 600, Welded. Ran 195 jts. 9-5/8" O.D. casing set at 6000' (6002.5' by pipe tally) as follows: 49 jts. 9-5/8" OD 40# 8RT Grade J-55 Rge 2 Class A 1506.72' 145 jts. 9-5/8" OD 36# 8RT Grade J-55 Rge 2 Class A 4467.32' 1 jt. 9-5/8" OD 40# 8RT Grade J-55 Rge 2 Class A 31.20' Total Tally 6005.24' Cut Off 18.00' Net Tally 5987.24' Ground Elevation 685', Changed +1, Dist. Ground to K.B. 15.5' Dist. "H" 15.5', K.B. Elevation 702'. Ran 9 scratchers (Topland) and 4 centralizers (Topland) on bottom 300' Ran 1st & 2nd wiper plugs: used Float shoe (Larking) & Larkin Float Collar. Circulated mud 3½ hours after pipe on bottom. Circulation rate 650 gals/min. Reciprocated casing in 20' strokes 210 mins. prior to cementing. Reciprocated casing in 10' strokes 80 mins. while cementing. Pumped 20 bbls. of water ahead of cement. Cemented by Howco with 1050 sacks oilwell cement + 0.4% HR4. Started to mix cement at 8:30 p.m. Finished mixing cement at 9:30 p.m. Plug down at 10"00 p.m. 1-13-69. Maximum pumping pressure 1800 psi. Pumped plug to 5965' with 460 bbls. of mud. Average slurry weight 14.8 #/gal. Average displacement rate 16 bbls/min. No. of samples taken: 6 Witnessed by Seely for Contractor and Jasinski for B.A. Surplus: 13 jts + 1 cut off piece on H.O. #KAJ-12 Remarks: Set slips with 160,000#. Surplus hauled back to stockpile.
	Jan. 15	Depth 6000', Ftg. 0, Nahanni, 8-3/4" hole Running in with 8-3/4" bit Days from spud: 37 Cost to date: $549,630 Cut off casing, installed packing and headed up BOP's. Pressured up blind rams to 1800 psi. Held okay. Picked up 21 - 7" drill collars. Began running in hole with 4½" drill pipe installing rubbers every second joint. Drilling String: 11 - 7" d.c. 1 McCullough jars, 10 - 7" drill collars. Pump No. 1, 5½" x 14. Bit No.13, W7K, 8-3/4". Time Breakdown: Head up BOP's 18 hours, Pick up d.c's 2 hours Running in 4 hours. Temp. -40 deg. Clear. Reported by Jasinski.

WELL PROGRESS REPORT — FIELD

P- 13

CONFIDENTIAL

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
NAHANNI 5960' -5258' 858' low	Jan. 10	Depth 6000', Ftg. 38', Nahanni, 12¼" hole Tripping out to log Days from spud: 32 Cost to date $476,213 Yesterday drilled to 6000', Circulated and conditioned mud and built up mud volume. Made 15 stand dummy trip. Found 4' of fill. Circulated and began tripping out to log. Mud Wt. 9.4, 214, 8.8, 2/32, 10.5. TPM 50, Bit Wt. 45,000, String Wt. 175,000. Pump No. 1, 66 SPM, 7-3/4" x 14, 1450 psi. Bit No. 12, W7, 12¼" hole, 5931'-6000', Ftg. 69' in 18½ hours. Time Breakdown: Drilling 10-3/4" hours, Trip for bit 3-3/4" hours, Circulating 9 hours Rig service ½ hour. Mud Additives: Gel 87 sacks, Benex 34#, Caustic 150#. Temp. -34° - Clear. Reported by Lock.
	Jan. 11	Depth 6000', Ftg. 0' - Nahanni, 12¼" hole Logging Days from spud: 33 Yesterday ran DIL - T.D. to S.C., B.H.C. Sonic - T.D. to S.C., Dipmeter - T.D. to surface casing with 2 extra passes over bottom 200' and 1 from 1050'-625'. Caliper. Schlumberger T.D. 5999' Time Breakdown: Trip 1½ hours, Logging 22½ hours. Temp. -30° - Snowing. Jasinski
	Jan. 12	Depth 6000', Ftg. 0, Nahanni 12¼" hole Circulating & waiting on csg. Days from spud: 34 Cost to date $498,226 Yesterday completed logging. Ran in with 12¼" bit and had 2' of fill. Circulated and waiting on casing being hauled from stockpile. Made 15 stand trip at midnight. Had 8 feet of fill. Mud Wt. 9.4, 175, 9.2, 2/32, 10.5. Bit No. 12 - clean out. Time Breakdown: Trip for bit 4-3/4 hours, Circulating 18½ hours, Logging 3/4 hour. Temp. -25 deg. - snow. Reported by Jasinski.
	Jan. 13	Depth 6000', Ftg. 0, Nahanni, 12¼" hole Running 9-5/8" casing (95 jts. in hole) Days from spud: 35 Cost to date: $502,037 Finished hauling casing from stockpile. Removed protectors and prepared to run casing. Tripped out of hole and layed down drill collars. Rigged up and began running 9-5/8" O.D. casing (running 12" x 8.750" rabbit through all pipe. Ran 1500' of 9-5/8" O.D., 40#). Mud Wt. 9.4, 215, 8.8, 2/32, 10.5. Time Breakdown: Trip 3 hours, Circulating 9 hours, Run casing 9 hours, Lay down drill collars 2 hours, Rig to run casing 1 hour. Temp. -20 deg. - Clear. Reported by Jasinski.

WELL PROGRESS REPORT – FIELD

P- 13

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Eli Lake WELL NO. K-54
	Jan. 7	Depth 5860', Ftg. 113', Sand and silt, 12¼" hole Drilling Days from spud: 29 Cost to date: $459,500 Hole in good shape. No tight hole on connections. Geolcgist now expects carbonates at approximately 6100'. Mud Wt. 9.5, 130, 8.8, 2/32, 10.5. Gel strength 6 & 12, Y.P. 54. Surveys 5790' - 2°. RPM 130, Bit Wt. 45,000, String Wt. 165,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4 x 14, 1450 psi. Bit No. 10, XV, 12¼", In 5716', Ftg. 144' in 36 hours. Time Breakdown: Drilling 22-3/4 hours, Surveys ½ hours, Rig service 3/4 hour. Mud Additives: Gel 90 sacks, Benex 30#. Temp. -24° - Clear. Reported by Lock.
	Jan. 8	Depth 5925', Ftg. 65', Carbonates? 12¼" hole Drilling Days from spud: 30 Cost to date $464,006 Tripped for bit #11. Hole condition good. 20' of fill Mud Wt. 9.5, 110, 8.8, 2/32, 10.0, Gel strength 6 & 11, yield point 56 RPM 80, Bit Wt 45,000, String Wt. 175,000. Pump No. 1, 66 SPM, 7-3/4 x 14, 1450 psi. Bit No. 10, X3, 12¼", 5716'-5901', Ftg. 185' in 32½ hours, 4-3-I. Bit No. 11, ST1AG, 12¼", In 5901', Ftg. 24' in 5-3/4 hours. Time Breakdown: Drilling 12¼ hours, Trip for bit 7-3/4 hours, Surveys ½ hour, Circulating 2 hours, Rig service 3/4 hour, Rig repairs 3/4 hour. Mud Additives: Gel 94 sacks, Benex 28#. Temp. -40° - Clear. Reported by Lock.
	Jan. 9	Depth 5962', Ftg. 37', Horn River Shale, 12¼" hole Drilling Days from spud: 31 Cost to date: $468,591 Tripped for bit #12. First 3 stands tight. 90' of fill Mud Wt. 9.3, 120, 8.2, 2/32, 10.5, Gel strength 4 & 12, Yield Point 48. RPM 50, Bit Wt. 45,000, String Wt. 175,000. Pump No. 1, 66 SPM, 7-3/4 x 14, 1450 psi. Bit No. 11, ST1AG, 12¼", 5901'-5931', Ftg. 30' in 10¼ hours, 5-8-I. Bit No. 12, W7, 12¼", In 5931' Ftg. 31' in 8-3/4 hours. Time Breakdown: Drilling 13¼ hours, Trip for bit 8-3/4 hours, Circulating 1 hour, Rig service 1 hour. Mud Additives: Gel 14 sacks, Benex 5#. Temp. -30 deg. - Clear. Reported by Lock.

WELL PROGRESS REPORT — FIELD

P. 135

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Jan. 4	Depth 5591', Ftg. 134', Shale, 12¼" hole Drilling Days from spud: 26 Cost to date: $440,715 Tripped for bit #8. Hole drag 20,000# on first 2 stands. Ran Bit #9. Stuck in bridge at 5473' for 2-3/4 hours. Put on kelly and had trouble breaking circulation. Worked pipe free and cleaned out 80' to bottom. Drilling slower and rougher. Mud Wt. 9.5, Visc. 65, 8.0, 2/32, 10.5, Gel strength 2 & 7, Yield Point 23. Surveys: 5491' - 1-3/4°. RPM 130, Bit Wt. 15,000, String Wt. 140,000. Pump No. 1, 66 SPM, 7-3/4 x 14, 1300. Bit No. 8, YT3R, 12¼" 5065'-5553', Ftg. 488' in 28-3/4 hours, 3-8-I. Bit No. 9, X3, 12¼", In 5553', Ftg. 38' in 3½ hours. Time Breakdown: Drilling 9¼ hours, Trip for bit 7-3/4 hours, Surveys 1 hour, Circulating 2½ hours, Rig service 3/4 hour, Stuck in hole 2-3/4 hours. Mud Additives: Gel 65 sacks, Benex 36#, Caustic 150#. Temp. -18° - Cloudy. Reported by Lock.
	Jan. 5	Depth 5715', Ftg. 124', Sand and Shale, 12¼" hole Drilling Days from spud: 27 Mud Wt. 9.5, 67, 8.6, 2/32, 10.5, Yield Point 20. Surveys: 5600' - 1½°, 5704' - 1¼°. RPM 40, Bit Wt. 40,000, String Wt. 144,000. Pump No. 1, 66 SPM, 7-3/4 x 14, 1400 psi. Bit No. 9, X3J, 12¼", In 5553', Ftg. 162' in 33-3/4 hours - drilling. Time Breakdown: Drilling 20-3/4 hours, Circulating 1¼ hours, Rig service 3/4 hour, Repair mud line 1¼ hours. Mud Additives: Gel 6400#, Caustic 100#, Benex 50#. Temp. -18° - Cloudy. Reported by Lock.
	Jan. 6	Depth 5747', Ftg. 32', Interbedded sand & silt, 12¼" hole Drilling Days from spud: 28 Cost to date: $451,003 Drilled to 5746'. Attempted to trip. Could not without using pump. Circulated and raised viscosity to 120. Had to pump out 3 singles. Tripped in with Bit #10. Cleaned 204' of fill. Mud Wt. 9.4, Visc. 117, 8.0, 2/32, 10.0, Gel strength 8 & 14, Y.P. 54. RPM 50, Bit Wt. 40,000, String Wt. 160,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4 x 14, 1450 psi. Bit No. 9, X3, 12¼", 5553'-5716', Ftg. 163' in 24¼ hours, 5-3-I. Bit No. 10, X3V, 12¼", In 5716', Ftg. 31' in 4¼ hours. Drilling 4-3/4 hours, Trip for bit 9 hours, Circulating 4 hours, Rig service 2¼ hours, Rig repairs 1½ hours, Clean to bottom 2½ hours. Mud Additives: Gel 29 sacks, Caustic 150#, Benex 18#. Temp. -34° - Clear. Reported by Lock.

WELL PROGRESS REPORT — FIELD

P. I[illegible]

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN | DATE | YEAR 1969 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54

Jan. 2 — Depth 5129', Ftg. 270', Shale, 12¼" hole — Drilling

Days from spud: 24 Cost to date: $429,004
Tripped for bit #7. Hole tight first four stands. Strapped pipe. SLM 5084', Board 5085'. Made 1' correction. Ran in. Hit bridge at 5022'-5065' and 4' of fill on bottom.

Mud Wt. 9.6, 70, 6.0, 2/32, 10.0. Gel strength 3 & 6. Y.P. 16. Surveys: 4868' - 2°, 4962' - 2°, 5053' - 1-3/4°. RPM 130, Bit Wt. 15,000, String Wt. 132,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4" x 14, 1300 psi. Bit No. 7, YT3R, 12¼", 4446'-5065', 619' in 32½ hours, 5-8-I. Bit No. 8, YT3R, 12¼", In 5065', 64' in 4½ hours. Time Breakdown: Drilling 15 hours, Trip for bit 7 hours, Surveys 1½ hours, Rig service ½ hour. Mud Additives: Gel 67 sacks, Caustic 300#, Benex 46 sacks. Temp. -25° - Cloudy. Reported by Lock.

Jan. 3 — Depth 5457', Ftg. 328', Shale, 12¼" hole, — Drilling

Days from spud: 25 Cost to date: $432,754
Yesterday drilled ahead

Mud Wt. 9.5, 55, 7.4, 2/32, 10.5. Gel strength 3 & 7, Yield Point 23. Surveys: 5147' - 2°, 5240' - 1-3/4°, 5334' - 1-3/4°. RPM 130, Bit Wt. 15,000, String Wt. 140,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4 x 14, 1300 psi. Bit No. 8, YT3R, 12¼", In 5065', Ftg. 392' in 22½ hours. Time Breakdown: Drilling 19 hours, Surveys 1½ hours, Rig service 1 hour, Install drive chain 2½ hours. Mud Additives: Gel 95 sacks, Benex 66#, Caustic 100#, Soda Ash 100#. Temp. -15° - snow, Reported by Lock.

WELL PROGRESS REPORT — FIELD

P. 831

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AB, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Dec. 30	Depth 4082', Ftg. 297', Shale, 12¼" hole Drilling Days from spud: 21 Cost to date: $413,005 Finished fixing brake bands. Ran bit #6 - no fill. Mud Wt. 9.3, 60, 7.2, 2/32, 10.5. Gel strength 3 & 8, Yield point 18. Surveys: 3869' - 1½°, 3964' - 1½°, 4058' - 1½°. RPM 130, Bit Wt. 15-20,000, String Wt. 110,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4" x 14", 1600 psi. Bit No. 6, OSC-3J, 12¼", In 3785', Ftg. 297' in 16½ hours. Time Breakdown: Drilling 16½ hours, Trip for bit 2½ hours, Surveys 1½ hours, Rig service ½ hour, Rig repairs 1 hour, Thaw out kelly 2 hours. Mud Additives: Gel 56 sacks, Benex 18#, Caustic 100#. Temp. -22° - Clear. Reported by Lock.
	Dec. 31	Depth 4446', Ftg. 364' Shale 12¼" hole Tripping Days from spud: 22 Cost to date: $420,762 Trip out tight on first 3 stands. Trip in good. Mud Wt. 9.4, 60, 6.5, 2/32, 10.5. Gel Strength 3 & 9, Yield point 15. Surveys: 4149' - 1-1/8°, 4274' - 1-1/8°, 4431' - 1½°. RPM 130, Bit Wt. 20-25,000, String Wt. 120,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4" x 14", 1600 psi. Bit No. 6, OSC-3J, 12¼", 3785'-4446', Ftg. 661' in 30 hours, 3-8-I. Time Breakdown: Drilling 14½ hours, Trip for bit 6 hours, Surveys 1½ hours, Rig service 3/4 hour, Rig repairs 1½ hours. Mud Additives: Gel 55 sacks, Benex 24#, Caustic 100#. Temp. -37° - Clear. Reported by Lock
	Jan. 1/69	Depth 4859', Ftg. 413', Shale, 12¼" Drilling Days from spud: 23 Cost to date: $424,359 Mud Wt. 9.4, 66, 5.8, 2/32, 10.3. Surveys: 4619' - 2°, 4681' - 2°, 4774' - 2°, 4868' - 2°. RPM 130, Bit Wt. 15,000, String Wt. 130,000. Drilling String: same. Pump No. 1, 66 SPM, 7-3/4" x 14", 1300 psi. Bit No. 7, YTGR, 12¼", In 4446', Ftg. 411' in 21 hours. Time Breakdown: Drilling 21 hours, Trip for bit ½ hour, Surveys 1½ hours, Rig service 3/4 hour, Rig repairs ¼ hour. Mud Additives: Gel 65 sacks, Benex 35#, Caustic 200#. Temp. -40° - Clear. Reported by Lock

WELL PROGRESS REPORT — FIELD

P. 139

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE. SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Dec. 27	Depth 3220', Ftg. 166', Shale, 12¼" hole Drilling with light weight to control deviation Days from spud: 18 Repaired and rigged up rig. Calipered all drill collars and subs. Ran in hole with bit and cleaned out fill from 2824' to 3054'. Drilled ahead. Mud Wt. 9, 58, 7.5, 2/32, 10. Surveys: 3126' - 1-3/4°. RPM 130, Bit Wt. 40-10,000#, String Wt. 102,000#. Drilling String: 9" bit sub, Shock sub, 3 - 9" drill collars, 1 - 7" drill collar, jars, 12 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 14", 1700 psi. Bit No. 5, OSC-3J, 12¼", In 3054', Ftg. 166' in 4¼ hours. Time Breakdown: Drilling 4¼ hours, Trip for bit 6 hours, Surveys ½ hour, Rig service ¼ hour, Rig repairs 10 hours, Clean out fill 3 hours. Mud Additives: Gel 35 sacks, Benex 22#, Caustic 150#. Temp. -18° - Clear. Reported by Schomaker
	Dec. 28	Depth 3545', Ftg. 325', Shale, 12¼" hole Drilling Days from spud: 19 Drilled with light weight to control deviation. Mud Wt. 9.2, 55, 7.2, 2/32, 10.0. Yield Point 14. Surveys 3308' - 1-3/4°, 3402' - 1-3/4°, 3434' - 1-3/4°, 3526' - 1¼ °. RPM 90, Bit Wt. 36-10,000, String Wt. 106,000. Drilling String: 9" bit sub, 9" shock sub, 3 - 9" drill collars, 1 - 7" drill collar, McCullough jars, 12 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 14", 1700 psi. Bit No. 5, OSC-3J, 12¼", In 3054', Ftg. 491' in 23-3/4 hours. Time Breakdown: Drilling 19-3/4 hours, Surveys 2¼ hours, Rig service 3/4 hour, Thaw rig 1¼ hour. Gel 27 sacks, Caustic 200#, Benex 24#. Temp. -45° - Clear. Reported by Lock
	Dec. 29	Depth 3785', Ftg. 240', Shale, 12¼" hole Repairing brakes on drawworks Days from spud: 20 Cost to date: $409,217 Drilled to 3785'. Pulled out for new bit. Moved shock sub up 30'. Discovered eyes on both ends of brake bands cracked. Mud Wt. 9.4, 62, 8.0, 2/32, 10.3. Gel Strength 3 & 10, YP 17. Surveys: 3620' - 1-3/4°, 3680' - 1-3/4°, 3776' - 2°. RPM 130, Bit Wt. 30,000, String Wt. 110,000. Drilling String: bit sub, 1 - 9" drill collar, 1 - 9" shock sub, 2 - 9" drill collars, 1 - 7" drill collar, 1 set McCullough jars. Pump No. 1, 66 SPM, 7-3/4" x 14", 1700 psi. Bit No. 5, OSC-3J, 12¼", 3054'-3785', Ftg. 731' in 36½ hours, 3-8-I. Time Breakdown: Drilling 13 hours, Trip for bit 4¼ hours, Surveys 1½ hours, Circulating ¼ hour, Rig service ½ hour, Rig repairs 4½ hours. Mud Additives: Gel 95 sacks, Benex 24#, CMC 50#, Caustic 50#. Temp. -32° - Clear. Reported by Lock.

WELL PROGRESS REPORT – FIELD

CONFIDENTIAL

P. 18

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Dec. 24	Depth 3054', Ftg. 650', Shale, 12¼" hole Welding gooseneck on top of standpipe Days from spud: 15 Finished thawing out kelly hose and mud lines. Replaced 4" union on mud manifold. Cleaned 10' to bottom. Drilled and surveyed ahead to 3054' when gooseneck washed out. Mud Wt. 94., 45, 7.8, 2/32, 10.0. Surveys: 2680' - ½°, 2867' - ¼°. RPM 130, Bit Wt. 38,000, String Wt. 75,000. Drilling String: same. Pump No. 1, 66 SPM, 7" x 14", 1650 psi. Bit No. 4, ST1AGJ, 12¼", In 2404', Ftg. 650' in 16¼ hours. Time Breakdown: Drilling 16¼ hours, Surveys 1 hour, Rig service 1 hour, Rig repairs 5-3/4 hours. Mud Additives: Gel 72 sacks, CMC 50 sacks, Benex 28 paunds. Temp. -16° - Clear. Reported by Schomaker.
	Dec. 25	Depth 3054', Ftg. 0, Shale, 12¼" hole Rig shut down repairing, rigging up and de-icing rig. Days from spud: 16 Cost to date: Welder unable to weld gooseneck on top of standpipe. Circulated 2 hours and mixed gel to raise viscosity for trip out of hole to repair standpipe. Hole very tight. Had to pump out 50 singles to 1500' before 12¼" stabilizers and bit cleaned up. Layed down 3 - 12¼" stabilizer and 1 - 9" x 10' drill collar. Ran bit back to bottom of surface casing. Layed down and repaired standpipe. Shut down to repair, rig up and de-ice rig. Mud Wt. 9.3, 49, 8.0, 2/32, 10.0. Drilling String: 4½ bit sub, Shock sub, 3 - 9" drill collars, 1 - 7" drill collar, McCullough jars and 12 - 7" drill collars. Bit No. 4, ST1AGJ, 12¼", 2404'-3054', Ftg 650' in 16¼ hours, 3-2-I. Time Breakdown: Trip for bit 11-3/4 hours, Rig service 3/4 hour, Rig repairs 9-3/4 hours, Mix mud 2 hours. Mud Additives: Gel 70 sacks, Benex 28#, Caustic 50#. Temp. +10° - snowing. Reported by Schomaker.
	Dec. 26	Depth 3054', Ftg. 0. Shale, 12¼" hole Repairing, rigging up and de-icing rig Days from spud: 17 Rig shut down 24 hours repairing rig. Mud Additives: Gel 50 sacks, Benex 20#. Time Breakdown: Rig repairs 24 hours. Temp. -18° - overcast. Reported by Schomaker

WELL PROGRESS REPORT — FIELD

P. 137

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Dec. 21	Depth 1358', Ftg. 156', Shale, 12¼" hole — Drilling Days from spud: 12 Cost to date: Drilled to 1358' and bit plugged off. Pulled out of hole. Bit plugged off with rubber from shock hose of #2 mud pump. Replaced shock hose. Worked on shale shaker and accumulator. Mixed mud. Tripped in and drilled ahead. Hole condition good. Mud Wt. 8.6, 53, 12, 2/32, 9.5. Surveys: 1250' - 1-3/4°, 1290' - 1¼°. RPM 120, Bit Wt. 20-30,000, String Wt. 68,000. Drilling String: same. Pump No. 1, 66 SPM, 7" x 14", 1600 psi. Bit Type OSC-3J, 12¼", 708'-1358', Ftg. 650' in 13-3/4 hours, 3-2-I. Time Breakdown: Drilling 5 hours, Trip for bit 4½ hours, Surveys ½ hour. Rig service ¼ hour, Rig repairs 8½ hours, Mix mud 5½ hours. Mud Additives: Gel 52 sacks, Benex 10#. Temp. 8° - Cloudy. Reported by Schomaker.
SILTY DOLOMITE 1505' -803'	Dec. 22	Depth 2090', Ftg. 732', Dolomite, 12¼" hole — Drilling Days from spud: 13 Mud Wt. 9, 48, 8.8, 2/32, 11. Surveys: 1624' - 1¼°, 1814' - 1¼°, 2031' - 1-1/8°. RPM 130, Bit Wt. 32,000, String Wt. 74,000. Drilling String: same. Pump No. 1, 66 SPM, 7" x 14", 1600. Bit No. 3, OSC-3J, 12¼" hole, In 1358', Ftg. 732' in 18½ hours. Time Breakdown: Drilling 18½ hours, Surveys 1½ hours, Circulating 3/4 hour, Rig service 3/4 hour, Rig repairs 2½ hours (pump and frozen lines). Mud Additives: Gel 90 sacks, Benex 22#, Caustic 100. Temp. -24° - Clear. Reported by Schomaker.
	Dec. 23	Depth 2404', Ftg. 314', Shale and dolomite, 12¼" hole — Tripping In Days from spud: 14 Drilled to 2376'. Dropped survey. Pulled out and measured drill pipe, and connected same to 2404'. Hooked up Totco flo show. Tripped in. Mud Wt. 9.3, 44, 9.0, 2/32, 10.0. Surveys: 2251' - 3/4°, 2404' - 3/4°. RPM 170, Bit Wt. 25-45,000, String Wt. 74,000. Drilling String: 12¼" square stabilizer, 1 - 9" O.D. drill collar, 12¼" square stabilizer - 2 - 9" drill collars, 1 - 7" drill collar, McCullough Jars and 12 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 15", 1500 psi. Bit No. 3, OSC-3, 12¼", 1358'-2404', Ftg. 1046' in 29¾ hours. Time Breakdown: Drilling 12¾ hours, Trip for bit 4 hours, Surveys 3/4 hour, Rig repairs 2½ hours, Install Totco 4½ hours. Mud Additives: Gel 39 sacks, Benex 13#, Caustic 400#, CMC 60#. Temp. -34° - Clear. Reported by Schomaker

WELL PROGRESS REPORT — FIELD

P- 131

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS. 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Dec. 19	Depth 884', Ftg. 149', Shale, 12¼" hole — Working drill collars up through casing Days from spud: 10 Yesterday drilled to 884'. Standpipe started to leak. Attempted to pull up into casing. Had to pump and work each single out. Pipe still tight in surface casing. Installed new standpipe. Worked pipe up through bottom 90' of casing. Free from there to surface. (radio cut out - end of communication) Drift of 13-3/8" 48# casing - 12.559". Mud Wt. 8.5, Visc. 33. Surveys 801' - 1°. RPM 150, Bit Wt. 35,000. ** Reported by Lock
	Dec. 20	Depth 1202', Ftg. 318', Shale, 12¼" hole — Drilling Days from spud: 11 Ran back in hole to 584'. Circulated and mixed mud to raise volume. Ran and cleaned out 171' of fill on bottom. Drilled ahead to 1139'. Dropped survey band but unable to recover same with wireline. Tripped out to recover survey barrel. Hole condition good. 7' of fill. Mud Wt. 9.0. Visc. 43, 8.0, 2/32, 10.0. Surveys 955' - 5/8°, 1029' - 1°, 1139' - 1½°, 1170' - 1½°. Pump No. 1, 66 SPM, 7" x 14", 1600 psi. Bit No. 2, OSC-3J, 12¼", In 708', Ftg. 504' in 9-3/4 hours. Time Breakdown: Drilling 6-3/4 hours, Trip for bit 5 hours, Surveys 2¼ hours, Circulating 6-3/4 hours, Rig service ¼ hour, Rig repairs 3/4 hour, Clean fill 3/4 hour. Mud Additives: Gel 67 sacks, Benex 12#, Caustic 100#, CMC 100#. Temp. 0° - snowing. Reported by Schomaker.
	**	RPM 150, Bit Wt. 20,000, String Wt. 70,000. Drilling String: 1 - 12-1/8" x 30". square stabilizer, 1 - 10' - 9-5/8" drill collar, 1 - 12-1/8" x 30" square stabilizer, shock sub, 1 - 30" drill collar, 1 - 12-1/8" x 30" square stabilizer, 2 - 9" drill collars, 7 - 7" drill collars, McCullough jars, 9 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 14", 1600 psi. Bit No. 2 OSC-3J, 12¼", In 708', Ftg. 176' in 3 hours - running, Time Breakdown: Drilling 3 hours, Trip for bit 8½ hours, Surveys ½ hour, Rig service ½ hour, Stuck at 640' 2-3/4 hours, Repair pump ½ hour, Weld mud tank ½ hour, Install new standpipe 7-3/4 hours. Mud Additives: Gel 29 sacks, CMC 100#, Benex 6#. Temp. -12° - Clear. Reported by Lock.

WELL PROGRESS REPORT — FIELD

P. [redacted]

CONFIDENTIAL

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54
	Dec. 16	Depth 660', Ftg. 0, Shale, 12¼" hole Nippling up BOP's and W.O.C. Days from spud: 7 Time Breakdown: W.O.C. 18-3/4 hours, Run casing 5¼ hours. Reported by Lock.
	Dec. 17	Depth 660', Ftg. 0, Shale, 12¼" hole Drilling out cement, float & shoe Days from spud: 8 Nippled up BOP's and laid bleed off line. Pressure tested weld on casing bowl to 2000 psi - held okay. Pressure tested blind rams to 1400 psi for 30 mins. - held okay. Tripped in and tested pipe rams and hydril to 1600 psi for 30 mins. - held okay. Found top of cement at 534' Drilled out cement float and shoe at 2:30 a.m. Cement good and hard. Mud Wt. water. Drilling String: 3 - 9" drill collars and 16 - 7" drill collars. Bit No. 1, S3TJ, 12¼", In 660' - running. Time Breakdown: Trip for bit 1¼ hours, Rig service ¼ hour, Head up BOP's 16½ hours, test BOP's 1¼ hour, Thaw out kelly 3/4 hour, Drill out cement float and shoe 3½ hours. Temp. 34° - Clear. Reported by Lock
	Dec. 18	Depth 735', Ftg. 75', Shale, 12¼" hole Drilling Days from spud: 9 Cost to date: Completed drilling out and cleaned out to 660'. Drilled ahead to 708'. Drilled mouse hole. Tripped in to bottom of casing and mixed mud. Pulled out and picked up stabilized string. Ran in and reamed from 625' to 708'. and drilled ahead to 735'. Pressured up below surface while at 660' and formation held 1100 psi for 3 minutes. Mud Wt. 8.5, Visc. 33. RPM 150, Bit Wt. 30,000, String Wt. 70,000. Drilling String: 1 - 12-1/8" squared stabilizer, 1 - 10' x 10" drill collar, 1 - 12-1/8" square stabilizer, 1 - 9" shock sub, 1 - 9" drill collar, 1 - 12-1/8" square stabilizer, 2 - 9" and 16 - 7" drill collars and 4½" drill pipe. Pump No. 1, SPM 66, 7" x 14", 1600 psi. Bit No. 1, S3TJ, 12¼", 660'-708', Ftg. 48' in 2 hours, 2-2-I. Bit No. 2, OSC3J, 12¼", In 708', Ftg. 27' in ½ hour. Time Breakdown: Drilling 2½ hours, Trip for bit 3½ hours, Rig service 3/4 hour, Drill mouse hole 2-3/4 hours, Make up string 2¼ hours, drill out 2½ hours, Clean to 660' - 3/4 hour, Clean tanks and mix mud - 7-3/4 hours, ream 1¼ hours. Mud Additives: Gel 60 sacks, Bicarb 1200#, Benex 3#, Caustic 100#. Temp. 2° - clear. Reported by Lock.

WELL PROGRESS REPORT – FIELD

P. 137

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT RESOURCE MANAGEMENT DIVISION
DEC 13 1968
CALGARY, ALBERTA
Northern Engineering Section

CONFIDENTIAL

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL No. K-54

GUIDE MARGIN	DATE	
	Dec. 13	Depth 429', Ftg. 345 Sandstone & Shale 12¼" hole Running Survey Days from spud: 4 Cost to date: Cut window in conductor pipe at ground level and rigged up jet to jet returns from cellar. Mud Wt. 9.3, Visc. 41. Surveys: 115' - 1°, 145' - 3/4°, 175' - 3/4°, 237' - 3/4°, 267' - 7/8° 308' - ½°, 338' - 7/8°, 399' - 3/4°. Drilling String: 3 - 9" and 11 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 14", 700 psi. Bit No. 1A, rerun, 12¼", 0-308', Ftg. 308' in 22-3/4 hours, Cond. 2-1-I. Bit No. 3A, S3TJ, 12¼", In 308', Ftg. 121' in 4¼ hours. Time Breakdown: Drilling 16½ hours, Trip for bit 1-3/4 hours, Surveys 2 hours, Rig service 3/4 hour, Rig up cellar jet 2½ hours, Clean out pump ½ hour. Mud Additives: Gel 38 sacks, Caustic 100#. Temp. -10° - Clear. Reported by Lock.
	Dec. 14	Depth 660', Ftg. 231', Shale, 12¼" hole Reamming to 12½" at 300' Days from spud: 5 Installed new cellar jet. Drilled ahead slowly to control. Mud Wt. 9.3, Visc. 50. Surveys: 460' ½°, 515' ½°, 574' 3/4°, 660' 3/4°. KPM 150, Bit Wt. 4-8,000, String Wt. 56,000. Drilling String: 3 - 9" and 16 - 7" drill collars. Pump No. 1, 66 SPM, 5" x 14", 800 psi. Bit No. 3A, S3TJ, 12¼", 308'-660', Ftg. 352' in 13¾ hours, Cond. 1-1-I. Bit No. 4A - pilot reamer, 17½", In 80'. Time Breakdown: Drilling 8½ hours, Trip for bit 1 hour, Surveys 1 hour, Rig service ½ hour, Stuck in hole at 399' 1 hour, Install cellar jet 5¾ hours, Ream 6-3/4 hours. Mud Additives: Gel 31 sacks, Caustic 100#. Temp. 2° - snowing. Reported by Lock.
	Dec. 15	Depth 660', Ftg. 0, Shale, 660' - 12¼" hole, 625' - 17½" hole Running 13-3/8" O.D. surface Casing Days from spud: 6 Reamed 12¼" hole to 17½" hole from 300' to 625'. Made dummy trip and rigged to run casing. Mud Wt. 9.4, Visc. 90. RPM 150, Bit Wt. 18,000, String Wt. 58,000. Drilling String: 3 - 9" and 16 - 7" drill collars. Pump No. 1, 66 SPM, 7" x 14", 700 psi. Bit No. 4A, Pilot reamer, 17½", 80-625', Ftg. 545' in 19½ hours, condition good. Time Breakdown: Trip for bit 2-3/4 hours, Circulating ¼ hour, Rig service 3/4 hour, Run casing 4½ hours, Ream 15½ hours, Repair cellar jet 1¼ hours. Mud Additives: Gel 25 sacks, Caustic 100#. Temp. -7° - Clear. Reported by Lock.

WELL PROGRESS REPORT – FIELD

CONFIDENTIAL

POST 7 DAYS REPORTS FOR EACH WELL ON ONE SHEET, AND MAIL TO PRODUCTION DEPARTMENT, CALGARY, PROMPTLY. MAKE REPORTS COMPLETE, SUCH AS DESCRIPTION OF CASING . . . SHOW, AS SOON AS KNOWN, NAME OF CONTRACTOR, TYPE OF RIG, AND KIND OF FUEL . . . IN GUIDE MARGIN SHOW CASING (AS, 7"), "CONTRACTOR," "SHOT," "ACIDIZED," ETC.

GUIDE MARGIN	DATE	YEAR 1968 A.F.E. 18069 LEASE BAOH Amerada Cli Lake WELL NO. K-54
	Dec. 10	Depth 80', Ftg. 80' Surface 12¼" hole Reaming 12¼" hole to 26" hole at 35 feet Days from spud: 1 Cost to date: Spudded at 11:30 p.m. Dec. 9/68. Drilled 12¼" hole to 80' K.B. Mud Wt. Water. Bit No. 1, S3TJ, 12¼", 0'-80', Ftg. 80' in 8½ hours, Cond. 1-1-I. Bit No. 2 OSC3, 26" - reaming. Time Breakdown: Drilling 13¼ hours, Handle drill collars and change bit 5¼ hours. Temp. 10 below - cloudy. Reported by Lock.
SPUDDED	Dec. 11	Depth 80', Ftg. -, Surface 26" hole Running 20" conductor pipe Days from spud: 2 Cost to date: Reamed 12¼" hole to 26" from 35' to 80'. Gravel and boulders at 35' caused some trouble. Ran conductor pipe and had to circulate same to bottom. Presently preparing to cement. Bit No. 2, OSC3, 26", Reamed 80', Cond. 3-2-I. Time Breakdown: Circulating 1 hour, Rig service ¼ hour, Reaming 5¼ hours, Handle drilling tools 3 hours, Mix mud 1 hour, Clean out pump 1 hour, Run conductor pipe 8½ hours. Mud Additives: Gel 35 sacks. Temp. -15° - Clear. Reported by Lock.
	Dec. 12	Depth 84', Ftg. 4', Surface 12¼" hole Working on conductor pipe Days from spud: 3 Cemented 3 jts. of 20" 27# conductor pipe at 70' K.B. Cemented with 150 sacks of oilwell cement, 3% Calcium chloride. Cement did not circulate. Job complete at 7:50 a.m. 12-11-68 after 4 hours found top of cement 2' below ground level. Drilled out cement and conductor pipe washed out after drilling out shoe joint. Mud Wt. 8.4. Time Breakdown: Drilling 1 hour, W.O.C. 20 hours. Head up 2 hours, Work on conductor pipe 1 hour. Mud Additives: Gel 20. Temp. -4° - Clear. Reported by Lock