

PAN AMERICAN SHELL
KAKISA F-35

Drilling Authority No. 135
Date Issued

WELL NAME The American - Shell Makisa F-35

FIELD
LOCATION: Unit F Area:
Latitude 60-56-25 Section 35 Grid 61-00; 117-15
From Established Reference Marker Longitude 117-21-49

Rig Release Date:
Status
Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
	Application for a Drilling Authority. Well Completion Data. Well History Report. Application to Amend a Drilling Authority. Application to change a Well Name. Application to Abandon a Well or Suspend Drilling. Application to Alter Condition of a Well. Well History Supplement. Well Completion Data. Work-over Report No. Application to Commingle Production before Measurement. 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. Well Visit. Daily Drilling Reports. Logs. Large scale Small scale

CEMENTING RECORD (Plug, Squeeze, etc.)			PERFORATING RECORD (Bullet, Jet)			SERVICING RECORD (Acidizing, Fracing, etc.)					
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
March 30/64	Surf.	T.D.	Hole cemented solid from T.D. to surface casing. 440 sacs of cement.				Not applicable.				Not applicable.

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.R.H.P.	F.P.B.H.P.	I.H.P.	P.H.P.	REMARKS
1	Mar. 14, 1964	Slave Point	1709' (-953)	1729' (-973)	60	--	60	148	816	331	466	960	960	Gas to surface in 4 minutes. One million cubic feet estimated; recovered 90' gas cut, salty mud.
2	Mar. 16, 1964	Slave Point	1770 (-1014)	1803 (-1047)	30	5' 19"	60	819	830	783	788	1075	1075	Good air blow, mud to surface 12 minutes. Salt water to surface 25 minutes (35 Dbls./hour. Recovered 1770' salt water.

Lab. No.	Sample	From	To	Source	Remarks	PRESENT STATUS OF WELL			
						Oil	Gas	Dry	Susp
-6331	Gas out salty mud.	1709' (-953)	1729' (-973)	Slave Point	Detailed lab report in Well History Report.				
-6333-2	Water	1709' (-953)	1729' (-973)	Slave Point	" " "				
-6333-5	Water	1770' (-1014)	1803' (-1047)	Slave Point	" " "				
NP-4-2223	Core	1714' (-958)	1729' (-973)	Slave Point	Core analysis - detailed report with Well History Report.				

Company Pan American Petroleum Corporation

Signed by

Total

Date

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



DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application to Abandon a Well or Suspend Drilling

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

Name and number of well **Pan American-Shell Ekisa F-35**

Location: Unit **F** Section **35** Grid **61°00'117°15'**
Latitude **60°34'25"** Longitude **117°21'49"**
From Established Reference Marker

Permit No. **3144** Lease No. **Pan American Petroleum Corporation
Shell Oil Co. of Canada Ltd.**
(Permitter, Licensee, Lessee)

Date of commencement of proposed programme **March 30, 1964**

OIL, GAS, AND WATER ENCOUNTERED

Oil at **Approx. 720' (+ 36)** slight show only - not logged (highly questionable).
Gas at **Approx. 720' (+ 36)** very thin layer - not logged. 1709-1729 (-953 to -973) D.S.T.
Water at **125' (fresh water)**. Salt water 1770-1803 (-1014 to -1047') D.S.T.
Total Depth **2395' (-1639')** Date of last operations **March 30, 1964**
Present condition of well

Plugged and abandoned.

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At	Sack of Cement	Method	Amount Pulled
1. 17"	20 lb.	221.66' (+ 544.44') (From K.B.)		85	Circulate	Nil
2.						
3.						
4.						
5.						

PROPOSED ABANDONMENT PROGRAMME

Plug		Geological Formation	Number of Sack, of Cement	Remarks
No.	Position			
			440	Cemented from surface to T.D.

The following logs have been run. **I.E.S., Gamma Ray - Sonic Caliper**
Other operations proposed. **Nil**

Operations to be carried out by **Big Indian Drilling** Contractor Licence No. **23702**
Address **Calgary, Alberta** Address **Calgary, Alberta**
Responsible Agent in field **E. R. Coburn**
Dated at **Calgary, Alberta** this **31st** Day of **March** 19 **64**
Signed by **[Signature]** Company **Pan American Petroleum Corporation**
Title **Exploration Group Supervisor** Exploratory Licence No. **650**

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

(For RESOURCES DIVISION use only)

APPROVAL

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

Confirming oral approval given 28th March 1964

Dated **1st April**, 19 **64**

[Signature]

Forms to be submitted in triplicate to Oil Conservation Engineer, Calgary, Alberta



DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application to Amend a Drilling Authority

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

In compliance with the "Canada Oil and Gas Land Regulations", application is made hereby to amend
Drilling Authority No. 135, concerning Pan American - Shell Kakisa F-35

(Name and Number of Well)

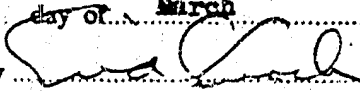
The following amendments are required:

The original hole was abandoned. The rig was skidded 5 feet north and the second hole was spudded in this location.

Reasons for the amendments:

Sub and bit twisted off prior to setting surface casing. Fishing job was not economical.

Dated at Calgary, Alberta, this 12th day of March, 1964

Signed by 

Title Exploration Group Supervisor

Company Pan American Petroleum Corporation

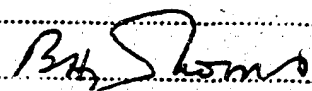
(For Resources Division use only)

APPROVED

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

Confirming oral approval

Date 13th March, 1964



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



DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application for a Drilling Authority

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

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

Name and number of well **Pan American - Shell Lakelse P-35**

Location: Unit **P** Section **35** Grid **61° 00' 117° 15'**
Latitude **60° 54' 25"** Longitude **117° 21' 49"**

From Established Reference Marker

Elevation: Ground **748** K.B. **755** feet above sea-level.
Well is expected to produce from **Slave Point** formation at a depth
of about **1760** feet.

Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. **1244** Lease No. **—** Acreage **62,244 acres**
Permittee, licensee, or lessee **Pan American Petroleum Corporation - Shell Oil Co. of Canada Ltd.**
Exploratory Licence No. **650**
Surface owned by Crown or **Crown**

(If alienated submit name and address of owner and occupant.)

Petroleum and natural-gas rights owned by **Pan American Petroleum Corporation - Shell Oil Co. of Canada Ltd.**
We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (Inches)	Weight (Lb. Ft.)	Grade	Brand	New or Used	Estimated Depth	Sacks of Cement
1. 7"	20	J-55	Domestic	Used	200'	50'
2.						
3.						
4.						
5.						

Expected water, gas, and oil horizons and type of control equipment **Gas and oil - Slave Point.**
B.O.P. arrangement. **Double gate valve on bottom - one close on pipe or kelly, the other close on nothing. Top Ragan which will close on pipe or kelly.**

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

Responsible agent of applicant:—

At well **K. R. Coburn**

Contractor's Licence No. **23702**

At registered office **J. F. Trotter**

Address **Bentall Building, Calgary**

Address **Bentall Building, Calgary**

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

Dated at **Calgary, Alberta** this **21st** day of **February** 19 **64**

Signed by **[Signature]** Company **Pan American Petroleum Corporation**

Title **Exploration Group Supervisor** Licence No. **650**

(For Resources Division use only)

APPROVED

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

The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.

Dated **21st February** 19**64**

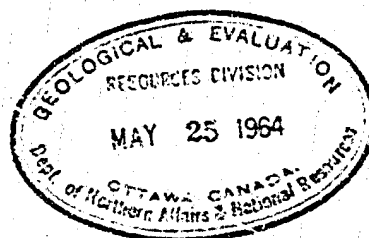
Forms to be submitted to Oil Conservation Engineer, Calgary, Alberta.

WELL HISTORY REPORT

PAN AMERICAN - SHELL KAKISA F-35

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The following is the Well History Report for the Pan American - Shell Kakisa F-35 well. This well was drilled jointly between Pan American Petroleum Corporation and Shell Oil Company of Canada Limited.

Section I - Summary of Well Data

- (a) Name of Well
Pan American - Shell Kakisa F-35.
- (b) Permitter, Licensee or Lessee
Pan American Petroleum Corporation - Shell Oil Co. of Canada Ltd.
- (c) Operator
Pan American Petroleum Corporation, Bentall Building, Calgary, Alberta.
- (d) Location
Unit F, Section 35, Grid 61°00', 117°15'
Latitude 60°54'29"
Longitude 117°21'49"
- (e) Co-ordinates
This test was not a development well.
- (f) Permit Number
3144
- (g) Drilling Contractor
Big Indian Drilling Company Limited, Calgary, Alberta. Rig No. 17, a Heavy Duty 2000 Gardner Denver.
- (h) Drilling Authority
No. 135, February 21, 1964.
- (i) Classification
New field well.
- (j) Elevations
K.B. + 756
Ground + 748
- (k) Spudded
February 29, 1964.
- (l) Completion Date
March 30, 1964.

(m) Total Depth and Plugged Back Total Depth

Drilling Depth: 2395 (-1639 Sea level)

Logging Depth: 2392 (-1636 Sea level) ²⁴⁰⁵

The hole was cemented from surface to T.D., 448 sacs of cement used.

(n) Well Status

Tight.

(o) Rig Released

March 30, 1964

(p) Hole Size ³⁷⁵

9" 0-213.66 (from ground level)

6 1/2" ~~213.66~~ - 2395 feet.
₂₂₅

(q) Casing ²²²

7" surface casing was cemented from 0-213.66 feet (from ground level).

Casing specifications - 7", weight 20 lbs., grade J-55,

brand - Domestic.

(The casing was set using 85 sacs of cement.)

Section II - Geological Summary

(a) Formation Tops

<u>I.E.S. Log Tops</u>	<u>Depth</u>	<u>Subsea</u>
Hay River Shale	485	+ 271
Spence River Shale	1625	- 869
Slave Point	1710	- 954
Pine Point	2088	- 1332
Chinchaga	2370	- 1614
T.D.	2392	- 1636

Sample Tops

Hay River Shale	480	+ 276
Spence River Shale	1620	- 864
Slave Point	1706	- 950
Pine Point	Questionable	Questionable
Chinchaga	2360	- 1604
T.D.	2395	- 1639

(b) Cored Intervals

Depth 1714 - 1729 (-958-973 subsea)

Formation - Slave Point

Recovery - 15 feet.

Core analysis is enclosed under separate cover.

(c) Core Descriptions

1714-1716	C/A, tan, v.f./f.g., sh. dol. and arg. C/S matrix; reef with stroms and amphis., v.f. C/A to C/S matrix.
1716-1719	C/A aa., good i.g. por., highly oil stn. and fluorescent.
1719-1720	C/S to v.f. C/A, fair orig. por. infilled with spar and gilsonite (5%).
1720-1721	C/L, crm./tan, f. pel. in part, dense, orig. org. por. infilled with gilsonite.
1721-1725	C/L, aa., grading to f. C/A in part crm. with spar calcite and gilsonite.
1725-1728	C/L, aa., pel. in part.
1728-1729	C/A, v.f.g., dk. gy., gilsonite throughout.

Gilsonite 5% or greater from 1719-1729. Stylolite throughout core.

Coring Times -

<u>Depths</u>	<u>Time - Minutes Per Foot</u>
1714	
	22
1715	
	18

1716	20
1717	15
1718	15
1719	20
1720	17
1721	20
1722	19
1723	18
1724	19
1725	18
1726	18
1727	18
1728	18
1729	

(d) Sample Description

0-100	Glacial clays and gravel.
100	C/S lt. gy., silty, hard, dense, brachs common.
110	aa., with pale green limy siltst.
120	aa.
130	aa. decr. silt content, sli. arg.
140 to	
160	aa.
170	aa. Hole made water @ 5000 gal/hr.
180	aa.
190	C/S to C/L, lt. gy., sli. silty in part, arg.
200	aa.
210	aa.
220	aa. (Casing set @ 222)
230	aa.
240	aa., with v. shaly and silty streaks, trace sh., gy-grn., limy.
250	C/S, lt. gy., silty in part, C/L, aa. arg.
260	aa., gy-grn., shaly, mic. in part.
270	aa.
280	C/S, lt. gy., sh. silty, sli. arg., grading to v.f. C/A.
290	C/S, lt. gy-grn., arg./shaly, silty.
300	aa., grading to sh., gy./grn., limy, silty, mic.

310 C/S, lt. gy., arg., silty, dense.
 320 aa. incr. shale.
 330 aa.
 340 aa. Marl, lt. gy., v. soft.
 350 aa.
 360 aa., in part grading to v. limy sh. and v. shaly ls.
 370 aa., in part grading to v. limy sh. and v. shaly ls.
 380 C/S, lt. gy., v. arg./shaly, soft/firm.
 390 C/L to C/S, lt. gy., arg./shaly.
 400 aa.
 410 C/L, lt. gy., firm, arg.
 420 C/L to C/S, tan, arg.
 430 aa.
 440 aa. with trace pale gy-grn. limy sh.
 450 C/L, tan, hard, dense, sli. arg.
 460 aa., trace sh. partings.
 470 aa. (Base Unit 3 - 480')
 480 aa., with lt. gy/gy-grn. silty ls.
 490 Sh., lt. gy-grn, silty, limy, sli. mic., v. soft.
 500 aa., with interbedded siltst., gy-grn., limy, shaly.
 510 aa. Sh.
 520 Sh., lt. gy-grn., limy, v. sli. silty, sli. mic., soft.
 530 aa. less lime, v. soft, breaks down in H₂O.
 540 aa., with C/A, f. gy., spar cem., dense.
 550 aa.
 560 Sh., aa., with abund. silty streaks.
 570 aa., with minor C/S, tan silty, dense.
 580 aa.
 590 aa., less lime and silt.
 600 aa.
 610 Sh., lt. gy-grn., calc., trace tan C/S.
 620 aa.
 630 aa.
 640 aa.
 650 to
 680 Sn., lt. gy-grn., limy, firm, platy.
 690 aa., trace C/L, lt. gy., firm, shaly.
 700 aa.
 710 aa.
 720 aa. incr. lime content.
 730 aa., trace silt.
 740 aa. silty in part.
 750 aa.
 760 aa.
 770 aa., with minor C/L bands, no vis. por., trace heavy oil.
 780 aa. with C/L to C/S, lt. gy/tan.
 790 aa.
 800 Decr. lime and silt content.

810 to
 840 Sh., lt. gy., limy, soft/firm.
 850 aa., trace pale grn. sh.
 860 Sh., aa., becoming sli. harder.
 870 to
 910 aa., with trace C/L, tan, shaly, dense.
 920 aa., incr. C/L. (L.S. marker @ 920')
 930 C/L, tan, hard, sli. arg., dense.
 940 C/L to C/S, sli. arg., no vis. por., no vis. frac or
 vein material.
 950 aa.
 960 aa. Grading to C/L, lt. gy., arg./shaly.
 970 Sh., lt. gy., limy, soft, trace C/L.
 980 to
 990 Gas blew mud out of hole when tripping @ 990'. Drilling
 mud gas and oil cut.)
 1000 Sh. lt. gy., limy, C/L to C/S, lt. gy., arg.
 1010 Sh., aa., grn. in part, C/L to C/S, aa. arg./shaly.
 1020 aa.
 1030 Sh., aa., C/L to C/S, aa., tan to lt. gy.
 1040 aa.
 1050 Sh. and C/L aa.
 1060 aa.
 1070 aa.
 1080 Sh., gy. and gy-grn., limy, C/L to C/S, tan, arg. shaly.
 1090 aa., incr. lime.
 1100 aa.
 1110 Mostly sh. aa., minor C/L and C/S.
 1120 to
 1190 aa.
 1200 aa., sli. silty in part.
 1210 Sh., lt. gy-grn., calc./limy, trace tan C/L.
 1220 aa., C/L to C/S, tan/lt. gy., silty in part.
 1230 aa.
 1240 Sh. aa., C/L to C/S, lt. gy/tan, arg./shaly.
 1250 aa. decr. lime.
 1260 aa.
 1270 aa.
 1280 aa.
 1290 aa.
 1300 aa. incr. sh. content, trace silt.
 1310 aa., trace siltst., lt. gy/grn., limy, arg.
 1320 Sh., aa., minor C/L to C/S.
 1330 aa., with minor pale gy-grn. limy siltst.
 1340 aa., incr. lime.
 1350 aa., incr. sh. aa., with sh. mud, gy., non-calc.

1360 aa.
 1370 aa., with C/S, tan/lt. gy., silty, arg.
 1380 aa.
 1390 to
 1430 aa., decr. lime.
 1440 aa., with gy-brn., sh., in part, sli. calc., splintery.
 1450 aa.
 1460 aa., with trace siltst., lt. gy., calc., hard, dense.
 1470 Siltst., aa., sh., gy-grn./gy-brn., sli. calc.
 1480 Sh. aa., C/S, lt. gy., v. silty, dense.
 1490 to
 1510 aa., with siltst., lt. gy., calc., arg., hard, dense.
 1520 aa., incr. silt, decr. lime.
 1530 aa.
 1540 aa.
 1550 aa.
 1560 aa., with trace tan C/L.
 1570 aa., sh., gy. and gy-grn., with brn. flecks, decr. silt.
 1580 aa., incr. sh.
 1590 aa. incr. silt.
 1600 aa.
 1610 aa.
 1620 Sh., lt. gy-grn. with brn. specs.
 1630 Sh., dark brn., bit., calc., pyr.
 1640 aa., with lt. gy-grn. sh., incr. lime, trace C/L.
 1650 aa., incr. brn. sh.
 1660 aa.
 1670 aa., abund. pyr.
 1680 aa. with bands of lt. gy. C/L, pyr., v. shaly.
 1690 aa.
 1700 aa. Slave Point 1708' (-952)
 1710 aa., with C/A, v. f.g., tan, oil stain, C/S matrix in part, reefal, i.g. and v.
 1720 C/A, aa., with fair/good i.g. and v. por., abund. stroms and amphis. in bands.
 1730 C/L, tan, pel. in part, minor C/A, cem. with spar and gilsonite.
 1740 C/A, f.g., dk. gy. due to gils. cem., tite.
 1750 aa., with C/L, tan, pel. in part, hd., dense.
 1760 C/L, aa.
 1770 aa.
 1780 aa., with col., lt. gy./tan, md./cse. x, fair i.x. por.
 1790 Dol., aaa, in part, micro gran. (Drill 85-90' in 5 minutes)
 1800 aa.
 1810 Dol., lt. gy./wht., md./cse. x., trace por. and stain.
 1820 aa., incr. por. and stain.
 1830 aa.
 1840 aa., with fracture and i.x. por.
 1850 aa.
 1860 aa. (losing circulation)

1870 to
1920 Dol., tan, micro.-cse. xln., good euhedral xtals in part, some massive micro xln., samples very fine, poss. int. xln. por., abd. cse. white euhedral dol. xtals, secondary infilling of fractures ? and vugs ? probable gd. por. in vugs and fractures but no vis. por., host rock likely tan dol. of varying xtal size, abd. wht. cse. xln. dol.

1920 to
1940 aa. trace int. xln. por., abd. wht. cse. xln. dol.
1950 aa. tan, v.f. - cse. xln., clean dol. aa. with trace wht. cse. xln. dol.
1960 Ls., tan, lime mud, chalky, trace foss. por., strom., trace dol. aa.
1970 aa. tan - lt. brn. lime mud aa., trace foss., trace wht. cse. xln. dol.
1980 Ls. aa. sli. recrystallized.
1990 aa., becoming dk. brn. and bituminous, trace coral.
2000 Ls. tan - m. brn., lime mud with v.f.-f. pelletoid in part, sli. bit. in part.
2010 aa. Lime mud - lime silt aa., sli. dol., in part.
2020 aa.
2030 aa.
2040 aa.
2050 aa. trace strom. and coral.
2060 aa.
2070 aa.
2080 aa., sli. dol.
2090 Ls., lt. - m. brn., lime mud, bituminous.
2100 aa.
2110 aa.
2120 aa.
2130 aa. trace brach.
2140 aa.
2150 aa.
2160 Ls., m-dk. brn. lime mud, very bituminous.
2170 aa. m. brn., less bit. material.
2180 aa. lt.-m. brn. bituminous lime mud, sli. dol. in part.
2190 Sh., dk. brn., calc., hard, lumpy, very bituminous, petroliferous odour.
2200 aa.
2210 Sh., dk. brn., calc., hard, lump, very bituminous, petroliferous odour.
2220 aa.
2230 Ls., lt.-m. brn., mottled, bituminous, soft, with bit. sh. stringers.
2240 Ls. and bit. sh. aa.

2250 Ls., tan - m. brn. lime mud, bituminous in part.
 2260 aa., trace wht. calcite in fractures or vugs.
 2270 aa. mottled lt. - dk. brn., very bituminous in part,
 few skeletal frags., crinoids.
 2280 aa., increase in tan clean lime mud.
 2290 aa. crinoid frags. abd., cse. crinoidal sand in part
 with abd. lime mud matrix.
 2300 Trace crinoidal sand aa.
 2310 aa. tan - m. brn. lime mud, trace crinoid.
 2320 aa., few small vugs infilled with white - clear calcite.
 2330 aa., increase in m.-brn. sli. bit. lime mud.
 2340 aa. tan - m. brn. lime mud, bit. in part.
 2350 aa.
 2360 aa.
 2370 Dol., m. brn., v.f. xln. sli. bit., very calcareous, almost
 a dolomitic ls.
 2380 Dol., m. brn., silt sized xtals, sli. bit.
 2390 Dol. aa. with abd. tan massive cryptoxln Anhydrite.
 2395 Dol. and Anhydrite aa.
 T.D.

Section III - Engineering Summary

(a) Report of Drill Stem Tests

Two drill stem tests were run, from 1709-1729 (-953 to -973 subsea) and 1770-1803 (-1014 to -1047 subsea).

1. Drill Stem Test No. 1 (1709-1729)

a. Gas to surface in 4 minutes - 1 million cubic feet estimated.

b. I.H.P. 960 979
I.F.P. 382 431
F.F. 480 464
F.S.I. 826 798
F.H.P. 960

c. Recovered 90 feet of gas cut salty mud.
Charts and fluid analysis are enclosed under separate cover.

d. Water Analysis

Top sample. Resistivity - 0.230
Bottom sample. Resistivity - 0.206

Bottom Sample Analysis (ppm)

Na & K	13,269
Ca	909
Mg	757
SO ₄	109
Cl	22,720
HCO ₃	2,550
Gravity	1.029
P.H.	7.7

2. Drill Stem Test No. 2 (1770-1803)

a. Good air blow.

b. Mud to surface in 12 minutes.

c. Salt water to surface in 25 minutes - estimated flow
35 bbls./M.
Recovered 1770' of salt water.

d. I.H.P. 1075 1091
I.S.I. 830 519
I.F. 768 733

F.F. 788 779
F.S.I. 890 573
F.H.P. 1079

c. Water Analysis

Top Sample. Resistivity - 0.144
Bottom Sample. Resistivity - 0.142

Bottom Sample Analysis (ppm)

Na & K	19,779	(40%)
Ca	2,451	
Mg	1,033	
SO ₄	67	
Cl	36,960	(48%)
HCO ₃	1,460	
Gravity	1.047	
P.H.	6.5	

Charts and fluid analysis are enclosed under separate cover.

(b) Casing Record

222'
7" surface casing was set from 0-213.66 feet (85 sacs of cement were used). No casing was set below the surface casing.

(c) Bit Record

<u>Bit No.</u>	<u>Size</u>	<u>Hrs. Drilling</u>	<u>Depth Out</u>
1	9" OSC 3	21.50	220'
2	9" OSC 3	23.75	164'
3	9" OSC 3	3.50	225'
4	6 1/4" D.T.	4.00	301'
5	6 1/4" OSC 3	23.50	991'
6	6 1/4" OSC 3	26.25	1380'
7	6 1/4" OSC 3	13.25	1710'
8	6 1/4" Diamond	14.50	1729'
9	6 1/4" OSC 3	7.50	1803'
10	6 1/4" OSC - IG	12.75	1929'
11	6 1/4" OSC - IG	23.25	2020'
12	6 1/4" OSC - IG	22.25	2100'
13	6 1/4" OSC	15.5	2155'
14	6 1/4" OSC	21.00	2245'
15	6 1/4" OSC	15.50	2330'
16	6 1/4" OSC	10.75	2395'

Hole skidded after original bit (#1) drilled 0-222 feet. Second hole started with bit #2.

(d) Mad Report

<u>Type</u>	<u>Amount Used</u>
Magco Gel	29,900 lbs.
Caustic Soda	3,350 lbs.
Barite	79,900 lbs.
Sapp	200 lbs.
Spersene	1,650 lbs.
Mylo Gel	1,200 lbs.
Tennathin	1,500 lbs.
Fibre Seal	1,540 lbs.
Sawdust	9,700 lbs.
Gel Flake	300 lbs.
Celo Seal	200 lbs.

(e) Deviation Record

No deviation surveys were made.

(f) Abandonment Plugs

The hole was cemented from surface to T.D. No plugs were set.
(~~440~~ ⁴⁴⁰ sacs of cement were used.)

(g) Lost Circulation Zones

Circulation was lost in the Slave Point Dolomite formation
1777'-1966' (-1021 to -1210 subsea).

(h) Report of Blowouts

The bit was changed at 990' (-234 subsea). A gas zone was encountered somewhere between this depth and 700' (+ 56 subsea), and a blowout occurred. The porous zone is of small extent as the exact depth could not be determined by use of samples or logs.

Section IV - Logs

An I.E.S. and a Gamma Ray Sonic Caliper log were run from base of surface casing to T.D. (One copy of each log is enclosed with this report.)

Section V - Analysis

(a) Core Analysis

A core was cut from 1714' to 1729' (-958 to -973 subsea), 15 feet of core was recovered. For core description see Section II, subsection (c).

A core analysis was made by Core Laboratories; one copy is enclosed with this report.

(b) Water Analysis

A water analysis was made on the fluids recovered with the two Drill Stem Tests.

For the detailed analysis see Section III, subsection (a).

(c) Gas Analysis

Small quantities of gas were encountered between 990' and 700' (-234 to + 56 subsea). No analysis was made on this gas. (See Section III, subsection (h)).

(d) Oil Analysis

Small quantities of oil were encountered with the gas between 990' and 700' (-234 to + 56 subsea). The quantity was very small and no analysis was made.

Section VI - Completion Summary

- (a) Tubing Record
No tubing or packers were used.
- (b) Perforation Record
No intervals were perforated.
- (c) Cementation Record
No plugs were set. The hole was cemented from surface to T.D.
upon abandonment. (~~440~~⁴⁴⁵ sacs of cement were used.)
- (d) Acidization and Fracturing Record
Not applicable.
- (e) Back Pressure and Production Tests
Not applicable.

Signed by: _____

M. A. Knock
Exploration Group Supervisor

Date: _____

April 15, 1964

