Subsequent Report of Abandonment

FILE NOTATIONS

Entered in N I D File	✓	Checked by Chief	
Entered On S R Sheet		Copy N I D to Field Office	
Location Map Pinned		Approval Letter	
Card Indexed	✓	Disapproval Letter	
I W R for State or Fee Land			

COMPLETION DATA:

Date Well Completed	1-11-54	Location Inspected	
OW	WW	TA	Bond released State of Fee Land
GW	OS	PA ✓	

LOGS FILED

Driller's Log ✓

Electric Logs (No.) 4

E ✓ I E-I GR GR-N Micro ✓

Lat Mi-L Sonic Others LIMESTONE ✓

RADIATION LOG ✓

[redacted]

[redacted] C [redacted], [redacted] Oil Company Well No. 2 (Utah 05300), Ref. No. 1

OCT 1952 STATUS: Drg 3138' (Co. 11-3-52)
REMARKS: NEW DRILLING WELL. Drilling commenced 10-8-52. 10-3/4" cc at 126' from top to bottom.

11-19 Dg 4210'-pulled one stand rot-bleed, - oil-tr-c line broke fractured piece to DST. Tops Tonq, Chinle 3725', Moenkopi 3485'?

NOV 1952 STATUS: Drg 4210' (Visited 11-19-52)
REMARKS: Coring and preparing to DST. Tight hole.

DEC 1952 STATUS: Drg 4675' PB 4458' (Co. 12-31-52)
REMARKS: Perforating, acidizing, and testing after 7" cc 4536' w/385 sx. Still tight hole.

JAN 1953 STATUS: Drg 4675' PB 4152' (Visited 1-20-53)
REMARKS: Perforating, acidizing, and testing with details not yet released.

FEB 1953 STATUS: Drg 4675' PB 4125' (Co. 2-28-53)
REMARKS: Perforating, oil squeezing, and testing. Tight hole.

MAR 1953 STATUS: DSI 4675' PB 4125' (Visited 3-18 and Co. 3-31-53)
REMARKS: Shut down, engine trouble and waiting on orders.

STATUS: DSI 4675 PB 4125' (Visited 4-29-53)
REMARKS: Pulling tubing to move cable tool workover rig to well No. 1. Will drop from report until operations are resumed. APR -- 1953

NOV -- 1953 STATUS: Abd 4675' Kaibab (Co. 11-30-53)
REMARKS: DRY HOLE OR FAILURE. Tops and tests will be on replacement sheet. Notice to plug and abandon approved 11-30-53.

July 12, 1965

Equity Oil Company
806 American Oil Building
Salt Lake City, Utah

Re: Well No's. Federal #4 and
Mounds #2,
Sec. 4, T. 16 S., R. 12 E.,
Emery County, Utah

Gentlemen:

Upon checking our files we find that we do not have the electric and/or radioactivity logs for the above mentioned wells. These wells were drilled prior to the establishment of the Commission, however, we are making an attempt to complete our records on wells that have been drilled in the state.

It would be appreciated if you could forward said logs to this office as soon as possible.

Thank you for your assistance in this request.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KATHY G. WARNER
RECORDS CLERK

KGW/arl

SUBMIT IN TRIPLICATE

Lease No. [redacted]

Unit [redacted]

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED TO CASPER
CC-1 photo

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OCT 2 - 1952

RECEIVED
SALT LAKE CITY, UTAH
OCT 13 1952
U.S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 1, 52

Mounds Gov't. #2 710 2180 [redacted], 19 4

Approximate Center NE¼NW¼ 4 is located ft. from {N/S} line and ft. from {E/W} line of sec.

(¼ Sec. and Sec. No.) 16 S (Twp.) 12 E (Range) Salt Lake (Meridian)

Mounds (Field) Emery County (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick~~ ground floor above sea level is 5,420 ft.

OCT 6 1952
U. S. GEOLOGICAL SURVEY
CASPER, WYOMING

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

This is the second well to be drilled by this company in this area and in our records will be referred to as the No. 2 Mounds (Gov't.)

This well will be spudded in the Mancos shale below the Ferron sandstone. It is planned to drill the well to a depth of approximately 4700 feet or into the top of the Coconino sandstone. However, the principal zone to be tested will be the lower part of the Moenkopi section, which will be cored and tested on penetration.

Between 100 and 150 feet of 10-3/4" surface pipe will be set with cement circulated to surface. Seven-inch casing will be set as a producing string, if production is obtained. specifications to be approved before run.

Estimated formation tops will be furnished as soon as first marker is penetrated. (Approval is conditional upon compliance with the terms attached hereto)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company EQUITY OIL COMPANY

Address 400 Utah Oil Building

Salt Lake City, Utah

By [signature]

Title Vice President

Form 9-331a
(Feb. 1951)

Budget Bureau 42-R358.4
Approval expires 12-31-55.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED TO CASPER

Land Office Salt Lake City
Lease No. U-03509
Unit Red Wallpond

RECEIVED
JUN 23 1954

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	Subsequent Report on Setting Surface Pipe X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 9, 1952

Well No. 2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

NW ¼ Sec. 4 (¼ Sec. and Sec. No.) 16 S (Twp.) 12 E (Range) SLM (Meridian)

Nounds Area (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ... ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Set 10-3/4" OD surface casing at 126 feet from surface with 100 sacks of cement. Cement was circulated to surface.

Casing string consisted of 1 joint of 40# J-55 at top, 3 joints of 32# J-55 intermediate and 1 joint of 40# J-55 at bottom. A Halliburton shoe and float were used at the top and bottom of the lower joint in the string.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company EQUITY OIL COMPANY

Address Utah Oil Building

Salt Lake City, Utah

By V E Peterson

Title Vice President

Approved 6-23-54
F C Scoville
District Engineer

U. S. GOVERNMENT PRINTING OFFICE 16—5437-a

Form 9-331a
(Feb. 1951)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED TO CASPER

Land Office [redacted]
Lease No. [redacted]
Unit [redacted]

RECEIVED
NOV 14 1952
U. S. OIL & GAS SURVEY
LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 13, 19 52

Well No. Mounds Gov't. #2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4
Approx. Center

NE¼NW¼ 4 — (¼ Sec. and Sec. No.)
16 S. — (Twp.)
12 E — (Range)
Salt Lake — (Meridian)

Mounds (Wildcat) — (Field)
Emery — (County or Subdivision)
Utah — (State or Territory)

The elevation of the derrick floor above sea level is 5431 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Tentative Sample Tops:

Dakota Sandstone	260 (?)
Morrison	330 (?)
Salt Wash Sandstone	1010
Summerville	1170
Curtis Sandstone	1530
Entrada	
Carmel	2035
Navajo	
Chinle	3225

Well started coring in the Marine Moenkopi Section at 4,003 feet and cored 4,003 to 4,030' coming out of hole to run drill stem test from 3,950' to bottom 4,030'.

~~CONFIDENTIAL~~ VP
U. S. GEOLOGICAL SURVEY OFFICE USE ONLY
11-30-53

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Equity Oil Company

Address 400 Utah Oil Building
Salt Lake City, Utah

By [signature]

Title Vice President

NOV 14 1952
U. S. GEOLOGICAL SURVEY

U. S. GOVERNMENT PRINTING OFFICE 16-8437-4

Form 9-331a
(Feb. 1951)

[redacted]

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED TO CASPER

Land Office: Utah
Lease No.: U-05300
Unit: Unnitized

RECEIVED
DEC 15 1952

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
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NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		Report of Drill Stem Tests	X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

December 13, 1952

Mounds-Gov't. Well No. #2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

~~Approx. Center~~ NE¼NW¼ 4 (¼ Sec. and Sec. No.) 16 S. (Twp.) 12 E. (Range) Salt Lake (Meridian)

Mounds (Wildcat) (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ft.

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U.S. GEOLOGICAL SURVEY OFFICE USE ONLY
VP 11-30-53

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drill stem test #1 - 3949-4041 Open 7 hours and 20 minutes
Results: Strong blow immediately with a 6 pound pressure on surface guage in 2 minutes, 6 pound pressure at end of 30 minutes. 4 pound pressure at end of 1 hour. Gas was to surface in 1 hour and 35 minutes - burned with good flame. At end of 3 hours, pressure on guage was 2 pounds. At end of test, pressure was between 1 and 2 pounds.

Shut in bottom hole pressure (30 min.).....665 pounds.
(Curve indicated a continued gain on stmight curve)
Initial hydrostatic pressure.....1890 Approx
Initial flow pressure..... 180 pounds
Final flow pressure..... 360 pounds

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Equity Oil Company

Address 400 Utah Oil Building
Salt Lake City, Utah

By N. E. Peterson
Vice President

Title

Approved DEC 15 1952
(Orig. Sgd. H. C. Seaville)

U.S. GOVERNMENT PRINTING OFFICE 16-8437-4

Final hydrostatic pressure ..... 1890 pounds Approx.

Recovered 900 feet of gas cut mud.

Drill Stem Test No. 2

4037 - 4097. Open 45 minutes.
Results: Light blow to start that died in 25 minutes
Recovered 120 feet of gas and oil cut mud.

Initial hydrostatic pressure..... 1893 pounds
Initial flow pressure ..... 65 pounds
Final flow pressure ..... 115 pounds
Shut in bottom hole pressure (1 hour)..... 625 pounds
(Bottom hole pressure gaining on a straight line curve)
Final hydrostatic pressure..... 1893 pounds

Drill Stem Test No. 3

4096 - 4156 Open 1 hour and 30 minutes
Results: Strong blow throughout test. Pressure at surface built up to 8 pounds in 15 minutes, 10 pounds in 30 minutes, and at end of test in 1 hour and 30 minutes had built to 11 pounds. Gas was to surface in 1 hour. Gas burns poorly and has a stinging odor.

Recovered 280 feet of heavily oil and gas cut mud with a little free light green oil in the bottom of the section.

Initial hydrostatic pressure..... 1933 pounds
Initial flow pressure..... 88 pounds
Final flow pressure..... 132 pounds
Shut in bottom hole pressure (2 hours)..... 1163 pounds
(Pressure still going up)
Final hydrostatic pressure..... 1933 pounds

Drill Stem Test No. 4

4156 - 4210 Open 1 hour and 30 minutes.
Results: Firm blow throughout test with no indicated slacking of at end of test. No gas to surface. Less than 1 pound of pressure indicated at the surface.

Recovered 90 feet of gas cut mud and 180 feet of mud and water. water has a definate salty taste (27,000 parts per million).

Initial hydrostatic pressure ..... 1975 pounds
Initial flow pressure ..... 45 pounds
Final flow pressure ..... 130 pounds
Shut in bottom hole pressure (2 hours)..... 1293 pounds

Drill Stem Test No. 5

4218-4324 - 106 feet. Open 45 minutes.
Results: Very slight blow for about 5 minutes and died. Recovered 10 feet of mud with no show of either oil or gas.

Initial hydrostatic pressure.....	1995 pounds
Initial flow pressure	0 pounds
Final flow pressure	0 pounds
Shut in bottom hole pressure (Not taken).....	
Final Hydrostatic pressure.....	1990 pounds

Drill Stem Test No. 6

4320 - 4380 Open 2 hours
Results: Had a very slight blow for about 5 minutes and died.
Recovered 5 feet of drilling mud.

Initial hydrostatic pressure	2040 pounds
Initial flowing pressure	0 pounds
Final flowing pressure	0 pounds
Shut in bottom hole pressure (2 hours).....	0 pounds
Final hydrostatic pressure.....	2030 pounds

Drill Stem Test No. 7

4342 - 4492 Open 5 hours.
Results: Very slight blow for 5 minutes and died. End of hose was left at bottom of water bucket through test and at end of 5 hour period enough pressure had built up on the hose to blow slightly for about 3 minutes.
Recovered about 30 feet of drilling mud.

Initial hydrostatic pressure	2045 pounds
Initial flow pressure	0 pounds
Final flow pressure	0 pounds
Shut in bottom hole pressure (3 hours)	255 pounds
Final hydrostatic pressure.....	2045 pounds

Drill Stem Test No. 8

4528-4678 150 feet. Open 2 hours.
Results: Good blow at start of test. Slacked off considerably inside of 40 minutes. Died completely in 1 hour and 25 minutes.
Recovered 210 feet of drilling mud. Bottom 90 feet appeared to be gas cut.

Initial hydrostatic pressure	2175 pounds
Initial flow pressure	20 pounds
Final flow pressure	65 pounds
Shut in bottom hole pressure	65 pounds
Final hydrostatic pressure	2130 pounds

Form 9-331 a
(Feb. 1951)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Utah
Lease No. U-05300
Unit Unnitized

RECEIVED
DEC 15 1952

ORIGINAL FORWARDED TO CASPER

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		Report of running electrical log-	x
" " " " Run Casing	x	formation	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

December 13, 1952

Well No. Gov't. Mounds #2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

NE¼NW¼ 4 (¼ Sec. and Sec. No.) 16 S. (Twp.) 12 E (Range) Salt Lake (Meridian)

Mounds (Wildcat) (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ..... ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

7" - 20 lb. casing will be set at 4534 w/375 sx. need 1200' of 55 on bottom

Dakota ss	246	Shinarump zone	3450
Cedar Mountain fm	282	Marine Moenkopi	3955
Buckhorn cg	658	Moenkopi	3490
Morrison fm	687	Sinbad ls	4141
Salt Wash	1014	Kaibab ls	4611
Curtis	1503		
Entrada	1668		
Carmel	2029		
Navajo	2339		
Wingate	2800		
Chinle	3228		

CONFIDENTIAL
FOR INFORMATION OF GEOLOGICAL SURVEY USE ONLY
VP
11-30-53

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Equity Oil Company

Address 400 Utah Oil Building
Salt Lake City, Utah

By V E Peterson

Title Vice President

Approved DEC 15 1952

16-8437-4

Form 9-331a
(Feb. 1951)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED TO CASPER

Land Office [redacted]
Lease No. [redacted]
Unit [redacted]

RECEIVED
DEC 16 1952

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	X	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

December 15, 1952

Well No. Gov't. Mounds #2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

Approxl Center NE¼SW¼ 4 (¼ Sec. and Sec. No.) 16 S (Twp.) 12 E (Range) Salt Lake (Meridian)

Mounds (Wildcat) (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ____ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

7" csg. set at 4536 feet below rotary table w/385 sx. cement.

To acidize and test in three stages through perforations in pipe. First test between intervals 4230-4500; second test will be between 4145 and 4220; third test between 3950 and 4140. Approximately 2,000 gallons of acid will be used in each test unless results indicate that additional acid should be used.

~~Confidential~~ VP 11-30-53

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Equity Oil Company

Address 400 Utah Oil Building

Salt Lake City, Utah

By V E Peterson

Title Vice President

12-15-53 orally
H Smith

U. S. GOVERNMENT PRINTING OFFICE 16—84367-4

Form 9-331 a
(Feb. 1951)

	4	

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

[redacted]

Land [redacted]
Lease [redacted]
Unit

ORIGINAL FORWARDED TO CASPER

RECEIVED
JUN 23 1954

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	Subsequent Report on Pipe Perforations and Testing X
NOTICE OF INTENTION TO ABANDON WELL	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Dec. 30, 52, 19

Well No. 2 is located 710 ft. from X N/S line and 2180 ft. from X E/W line of sec. 4

NW 1/4 Sec. 4 (¼ Sec. and Sec. No.) 16S (Twp.) 12E (Range) SLM (Meridian)

Mounds Area (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

12-17-52: Perforated 7" casing 3/4" bullets - 4 holes/foot (4230-4270) (4330-4382) 328 bullets in all.
Perforated 8" casing 1/2" jet shots - 4 holes/foot (4230-4270) (4330-4334) (4340-4382) (4436-4446) (4442-4458)

12-18-52: Acidized from 4230 to 4458 through perforations given above. Used 1000 gallons mud acid followed by 1500 gallons regular acid. Recovered spent acid water and some acid after swabbing for 24 hours. No oil was recovered from these perforations.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company EQUITY OIL COMPANY

Address Utah Oil Building

Salt Lake City, Utah

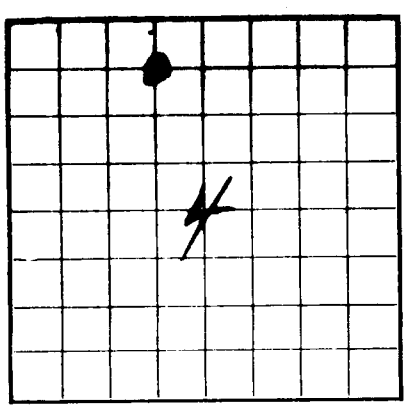
By W. E. Wilson
Vice President
Title

Approved 6-23-54
H. C. Scarlle
District Engineer

U. S. GOVERNMENT PRINTING OFFICE 16—8437-4

Form 9-330

U. S. Land Office [redacted]
Serial Number [redacted]
Lease or Permit to Prospect .....



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ORIGINAL FORWARDED ~~TO CASPER~~

RECEIVED JAN 26 1954 U. S. OIL & GAS BR. GEOLOGICAL SURVEY SALT LAKE CITY, UTAH

LOG OF OIL OR GAS WELL

Company Equity Oil Company Address Utah Oil Building - Salt Lake City, Ut.

Lessor or Tract Weber Oil Company Field Wildcat State Utah

Well No. 2 Sec. 4 T. 16S R. 12E Meridian SLM County Emery

Location 710 ft. {N./S.} of N. Line and 2180 ft. {E./W.} of W. Line of Section 4 Elevation [redacted] KB
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed V. E. Stevens

Date January 22, 1954 Title Vice President

The summary on this page is for the condition of the well at above date.

Commenced drilling October 8, 1952, 19 Finished drilling December 5, 1952, 19

Plug. on 1-11-54

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from ..... to ..... No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

No. 1, from ..... to ..... No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From	Perforated To	Purpose
10 3/4		8 R	Nat'l	126'	Hallibur	Not cut or pulled	See attch'd. sheet		
7"		8 R		3910'					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7"	3910-3940	10 sacks	Bailer		
7"	20 - 3910			10.5/gal.	
4"	0 - 16'	Arc to surface			

FOLD | MARK

PLUGS AND ADAPTERS

Bridging plug set at 3940 with cement on top.

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 4678 T.D. feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

..... 19 ..... Put to producing ..... 19 .....

The production for the first 24 hours was ..... barrels of fluid of which ..... % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours 0 Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

Blaine Hartensen, Driller Burt Greenhow, Driller

Doyle Bird, Driller ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION

See attached sheets for sample and core log.

[redacted]

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
ORIGINAL FORWARDED TO CASPER

[redacted]
Land Office [redacted]
Lease No. [redacted]
Unit [redacted]

RECEIVED
JAN 26 1954
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

January 22, 1954

Well No. 2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

Appx. Center NE¼ 4 (¼ Sec. and Sec. No.) 16 S (Twp.) 12 E (Range) SLM (Meridian)

Wildcat - Mounds Area (Field) Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ____ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Hole was plugged by placing a bridging plug by means of a wire line at a depth of 1,940 feet. Several bailers of cement were dumped on top of this bridging plug and the hole filled with heavy mud. A piece of pipe 4" in diameter and approximately 20' long was cemented into the top of the 7" casing, so that approximately 4' of the pipe is above the ground. The name and location were marked by means of an electrical welder in this pipe.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Equity Oil Company

Address Utah Oil Building

Salt Lake City, Utah

By V. E. Peterson

Title V. P.

Approved 6-23-54

H. C. Seville
District Engineer

U. S. GOVERNMENT PRINTING OFFICE 16—5827-4

[redacted]

[redacted] (Continued)

U.S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

Elev: [redacted] K. B.
[redacted] G.

Location: [redacted], Sec. [redacted] T. [redacted] S., [redacted]
Emery County, Utah

140 - 150	Shale	Dk. gry.-blk. gritty to finely aren., mica., sli. calc. w/common interbed. crm. claystone, calc., sandy w/small blk. chert grs., giving "salt & pepper" appear. Rare large chert and qtz. "floater" grs.
150 - 180	Shale	As above, w/trc. crm. claystone.
180 - 350		No samples caught.
350 - 390	Shale	Dk. purp., dull, waxy, soft, w/min. interbed. Dk. grnish-gry. and min. varicolored fresh-water ls. stringers. Min. silic. and cherty material. Trc. pyrite.
400 - 410	Shale	As above, w/fresh-water ls. becoming silty to finely aren., in part.
410 - 430	Shale	Variegated, w/common strks. varicolored fresh-water ls., cream to whitish finely aren. siltstone or claystone, and min. dirty, dk. grnish. gry calc. sandstone, silty to med. crs. grns., cherty, poorly sorted. Common chert.
430 - 440	Claystone	Crm. to whitish, sli. calc., silty to finely aren., w/ common blk. grs. giving "salt and pepper" appear., hard and dse.
440 - 460	Shale	Maroon and brn., dull, sub-waxy, hard and brittle, w/common stringers olive-grn. and lt. grnish-gry. sandy ls. w/ min. conglom. and cherty seams.
460 - 480	Shale	As above, but generally variegated. Cherty and conglom. sandstone absent.
480 - 490	Shale	Variegated, w/abundant varicolored fresh-water ls. stringers note rare chert pebbles. Trc. dirty dk. gry. silty to med. crs. cherty sandstone, slightly calc.
490 - 500	Shale	As above, w/stringers of varicolored fresh water ls., but more commonly olive to lt. grn.
500 - 520	Shale	Variegated, generally maroon and brn., w/stringers of olive to lt. grn. fresh water ls., sli. aren. import. w/ common varicolored ls. common maroon sh. w/lt. grn. mottling.
520 - 540	Shale	Variegated, as above, w/abundant varicolored fresh-water ls. Common chert pebbles. Trc. dirty dk. gry. silty sandstone, sli. calc.
540 - 560	Shale	As above, w/trc. white metal. calcite blebs.

[illegible]

[illegible] #2 (Cont'd.) Section 4 (NE, NW) T. 16 S., R. 18 E.

Emery County, Utah

Core Descriptions:

RECEIVED
JAN 26 1954
U. S. OIL & GAS SURVEY
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

Core No. 1. Cored 4003 -4041 Recovered 11 feet.

A Top 10 feet: Silty shale and shaly siltstone: thinly interbedded, hard, greenish-gray, slightly calcareous, with no shows of either oil or gas.

B Bottom feet Siltstone; hard, micaceous, calcareous, dark grayish-brown. Dark color is due to the presence of a black flakey hydrocarbon between the grains of siltstone. Bleeding with gas and a light green oil.

Drill Stem Test No. 1 3949-4041 Open 7 hours and 20 minutes
Results: Strong blow immediately with a 6 pound pressure on surface guage in 2 minutes, 6 pound pressure at end of 30 minutes, 4 pound pressure at end of 1 hour. Gas was to surface in 1 hour and 35 minutes--burned with good flame. At end of 3 hours, pressure on guage was 2 pounds. At end of test, pressure was between 1 and 2 pounds.

Shut in bottom hole pressure (30 min.)..... 665 pounds.
(Curve indicated a continued gain on straight curve)
Initial hydrostatic pressure..... 1890 Approx
Initial flow pressure..... 180 pounds
Final flow pressure..... 360 pounds
Final hydrostatic pressure.....1890 pounds approx.

Recovered 900 feet of gas cut mud.

Core No. 2 Cored 4041. Cored 4041-4097 Recovered 56 feet.

A 4041 - 55½ Siltstone: hard, light brown, micaceous, calcareous. Bleeding with oil and gas when taken from the hole. Mica is both of the black and brown variety.

B 4055½ - 66 Silty shale and shaly siltstone: interbedded light greenish gray silty shale and shaly light gray to greenish gray siltstone. Siltstone is very fine and tight, micaceous and slightly calcareous. No show of either oil or gas.

C 4066 - 89 Siltstone: greenish-gray, shaly, micaceous, slightly calcareous. No show of either oil or gas. Some thin beds of light greenish gray silty shale.

D 4093 - 97 Siltstone: like A, bleeding with gas and oil when first pulled from hole.

Drill Stem Test No. 2 4037 - 4097 open 45 minutes.
Results: light blow to start that died in 25 minutes
Recovered 120 of gas and oil cut mud.

Initial hydrostatic pressure..... 1893 pounds
Initial flow pressure..... 65 pounds
Final flow pressure.;..... 115 pounds

Shut in bottom hole pressure (1 hour)..... 685 pounds
(Bottom hole pressure gaining on a stright line curve.)
Final hydrostatic pressure..... 1893 pounds

Core #3 Cored 4097 - 4156 Recovered 50 feet.

A 4097 - 98½ Siltstone; fine grained, calcareous, slightly micaceous. Bleeding with gas and light green oil when first taken from hole.

B 4098½- 99½ Siltstone; hard, very tight, greenish-gray, shaly, calcareous. No show of either oil or gas.

C 4099½- 08½ Siltstone; Like A in general, but containing a few thin streaks like B that have no show of either gas or oil. Total section containing oil and gas 8 feet.

D 4108½- 14½ Siltstone and green shale; siltstone is like that in B. Shale is light green and waxy. Also contains a few thin lenses like that in A that are bleading with a light green oil and gas. Total thickness of section containing oil is one foot and six inches.

E 4114½- 18½ Siltstone; fine grained, calcareous, slightly micaceous. Bleading with gas and a light green oil when first taken from hole. Thin iregular lenses of green shale in the top foot.

F 4118½- 22½ Siltstone; hard, very tight, greenish-gray, shaly, pyritic, calcareous. No shows of either oil or gas.

G 4122½- 39½ Siltstone; Thinly interbedded siltstones like A and B in about equal proportions. All of the sections like A are bleading with oil and gas.

H 4139½- 40½ Siltstone; Fine grained, calcareous, slightly micaceous. Bleading with gas and light green oil when first taken from hole.

I 4140½- 72½ Siltstone; Like H, but much tighter. Contains only a few thin streaks that are bleading with oil. Total thickness of oil section 1'6".

J 4147½- 48½ Dolomite; hard, brown, slightly vuggy, slightly silty. Bleading with oil and gas. Vuggs are largely filled with dolomite crystal and a black hydrocarbon, though some have a light green oil in them.

K 4148½ - 49 Siltstone; Like B, but containing a few thin streaks of siltstone like that in A. These latter streaks are bleading with oil.

L 4149 - 50½ Dolomite; (Oolite) fairly porous, oolitic, brown. Bleading with oil and gas when first pulled from hole.

M 4150½ - 56 Siltstone and Limestone; interbedded hard, very tight, greenish-gray siltstone and silty, fine-grained gray limestone. Limestone responds readily to cold acid and is about 10% soluble. Two thin streaks of more limey section occur in the bottom one foot of the core and these are bleading with oil.

[illegible] Test No. 3: 4095 - 4156 open 1 hour and 30 minutes. Results: Strong blow throughout test. Pressure at surface built up to 8 pounds in 15 minutes, 10 pounds in 30 minutes, and at end of test in 1 hour and 30 minutes had built to 11 pounds. Gas was to surface in 1 hour. Gas burns poorly and has a stinging odor.

Recovered 280 feet of heavily oil and gas cut mud with a little free light green oil in the bottom of the section.

Initial hydrostatic pressure.....	1953 pounds
Initial flow pressure.....	88 pounds
Final flow pressure.....	132 pounds
Shut in bottom hole pressure (2 Hours).....	1163 pounds
(Pressure still going up)	
Final hydrostatic pressure.....	1993 pounds

Core No. 4 Cored 4156 - 4210 Recovered 56 feet

A 4156 - 60 Limestone and siltstone: Limestone is hard, medium gray, very silty, cross bedded and stylolitic. Siltstone is greenish-gray, calcareous and micaceous. Insolubles in limestone are in excess of 30% and consist of fine angular silt grains. No visible porosity. About an inch of siltstone bleeding with oil between 5157 and 5159.

B 4160 - 61 Limestone: gryish-brown, silty, fossiliferous, oolitic. Has a little visible porosity in the form of small vugs and interspaces between the oolites. The walls of these openings are lined with a scaly black hydrocarbon. Section was bleeding with gas and a light-green oil when first pulled from the hole. Insoluble content of the section is less than 10%. Contains several fossils, the most important of which is a small Gastoped.

C 4161 - 65½ Limestone: generally like the section in B, but much tighter and containing a higher percentage of insoluble material. Insoluble is in excess of 20%. In addition to the Gastroped that appears in the section above, a small Pelecyped is quite abundant in this section. Streaks about 2 inches in thickness and bleeding with oil and gas occur at 4162, 4163, 4164½ and 4165½. These sections have a little visible porosity. Total thickness of sections containing oil about 8 inches.

D 4165½ - 66 Limestone: hard, dark-grey, silty, fine grained and thinly banded. No show of either oil or gas.

E 4166- 77 Silty Limestone and calcareous siltstone: interbedded in beds of less than 1/16" to ¼" in thickness. Limestone is fine-grained, silty, gray. Siltstone is calcareous, slightly micaceous, greenish-grey. Thin intervals of the more limey sections at 4169, 4176 and 4177 are bleeding with oil. These sections have very little visible porosity. Remainder of the section has no shows of either oil or gas. Average insoluble for the section as a whole is in excess of 50 per cent.

F 4177 - 78 Siltstone: hard, fine-grained, calcareous. No visible porosity. Bleeding with gas and oil.

[illegible] (Continued)

G 4178 - 79 Limestone: like E, but with no visible porosity. Bleeding with oil when core pulled from hole. Less than 10% insoluble.

H 4179 - 85½ Silty limestone and calcareous siltstone: like E, contains a 2" streak bleeding with oil 4183.

I 4185½ - 86 Limestone: like B, less oolitic and more fossiliferous. Bleeding with light green oil. Less than 10% insoluble.

J 4186 - 86½ Silty limestone and calcareous siltstone: like E, No show of oil or gas.

K 4186½ - 87 Limestone: like I, Bleeding with oil and gas.

L 4187 - 89 Siltstone: hard, gray, calcareous with thin, greenish-gray shaly partings.

M 4189 - 91 Limestone: hard, tight, gray, fossiliferous, slightly oolitic. No visible porosity, but has a distinct odor of gas on fresh fracture. A little spotted light brown staining can be seen on the edges of the fossils and oolites. Fossiles mainly small Brachiopods and a foraminifera.

N 4191-93½ Limestone: very fossiliferous, slightly oolitic, gray to grayish-brown. Has a little visible porosity at 4191½-92 and 4192½-93. Bleeding with either gas or oil throughout. Has some thin bands of silty limestone interbedded in the section. Overall insoluble is lesss than 10%.

O 4193½ - 96 Limestone: very similar to N, but is inclined to be silty and has no visible porosity. Insoluble in this section is in excess of 20 per cent. Has three sections of about an inch in thickness bleeding with oil.

P 4196 - 97½ Limestone: medium porous, very fossiliferous and slightly oolitic. Bleeding with oil and gas throughout. Fossils are like those in M. Permeability appears to be low. Insolubles less than 10 per cent.

Q 4197½ - 98½ Limestone: similar to P, but inclined to be quite silty. Tight and no show of oil except that on a vertical fracture in the section.

R 4198½ - 06 Silty limestone and calcareous siltstone: like E, on thin streak of limestone with slight porosity at [illegible]; that is bleeding with oil.

S 4206 - 10 Limestone: hard, light gray, very oolitic and fossiliferous, dolomitic. Has some fair sized vugs (¼" plus) and fair to poor porosity in more oolitic sections. Walls of vugs are lined with a black hydrocarbon. On first coming from hole, section was bleeding with oil and gas. Core had an "off-color" odor that suggested water as well as oil and gas. A sample of the core was taken for analysis.

Over-all Impression: A detailed analysis of the core suggests that it should respond to acid treatment if enough permeability is present to let the acid get away.

[illegible] Stem Test No. [illegible] open 1 hour and 30 [illegible] also.
Results: Fair blow throughout test with no [illegible] of air out of tank. No gas to surface. Less than 1 pound of pressure indicated at the surface.

Recovered 90 feet of gas cut mud and 180 feet of mud and water. Water has a definite salty taste (27,000 parts per million).

Initial hydrostatic pressure.....	2075 pounds
Initial flow pressure.....	45 pounds
Final flow pressure.....	130 pounds
Shut in bottom hole pressure (2 hours).....	1000 pounds

Core No. 5 Cored 4210 - 4268 Recovered 58 feet.

A 4210 - 12 **Dolomite:** hard, light gray, very oolitic. Has a little visible porosity, the walls of which are lined with a black hydrocarbon, bleeding with a light green oil and on standingtakes on a light yellow stain. Has a strong odor of petroleum, though the odor is "off color" compared to the better sections in the cores above. A sample of this core was taken for analysis.

B 4212 - 34 **Siltstone:** light gray and green, smooth textured, dolomitic, wavy bedded. Contains no visible porosity and has no shows of either oil or gas.

C 4234 - 68 **Siltstone:** generally like the section in B, but contains streaks from a fraction of an inch to a foot in thickness of a hard, fine-grained, tight siltstone bleeding with a light green oil. The best part of the section is between 4238 and 4242. The total oil-bearing section is 11 feet in thickness. A sample of this section was taken for analysis at 4240.

Over-all Impression: a visual analysis of core suggests that this section is too tight to be productive.

Core No. 6 Cored 4268 - 4324 Recovered 56 feet.

A 4268- 72 **Siltstone:** interbedded hard, greenish-gray, shaly, pyritic, micaceous siltstone and brown, slightly micaceous siltstone--the latter beds are from a fraction of an inch to 3 inches in thickness and are bleeding with a light green oil and gas. Total section containing oil 2 feet.

B 4272 - 82½ **Siltstone:** like the first described part of A, but containing only thin streaks of siltstone like the second described part of A. Best streaks are at 4275-75½, 4276-76½, 4277-77½, 4378-79. As in the above described section, these parts of the core that contain oil are less shaly than the adjacent parts of the core.

C 4282½-83½ **Dolomite:** hard, very fine-grained, slightly silty and shaly, greenish-gray. Has a slight odor of gas on a fresh fracture.

D 4283½-84 Dolomitic shale and shaly siltstone; irregularly interbedded, greenish gry. dolomitic shale and slightly shaly siltstone. Siltstone is well stained and is bleeding with a light green oil and gas. A vertical fracture is present in the core between 4283½-84.

E 4284 - 90½ **Siltstone:** Like A. Several thin streaks of siltstone bleeding with oil and gas. Total oil and gas bearing section 1 foot.

F 4290½ - 10 Siltstone; banded greenish-gray and light gray, hard, shaly, pyritic, micaceous, siltstone. No show of oil or gas.

G 4310 - 11 Siltstone; hard, tight, slightly shaly, bleeding with oil and gas. Core broken by a vertical fracture.

H 4313-14½ Siltstone; like G, bleeding with oil and gas.

I 4311 - 13 Siltstone; like F.

J 4314½-24 Siltstone; like F for the most part, but containing siltstone bleeding with oil like G at 4315-15½ and 4317-18. Vertical fractures are present in the core through most of the lower 4 feet.

Drill Stem Test No. 5 4218-4324 - 106 feet. Open 45 minutes.
Results: Very slight blow for about 5 minutes and died.
Recovered 10 feet of mud with no show of either oil or gas.

Initial hydrostatic pressure.....	1995 pounds
Initial flow pressure.....	0 pounds
Final flow pressure.....	0 pounds
Shut in bottom hole pressure.-Not taken.....	
Final Hydrostatic pressure.....	1990 pounds

Core No. 7 Cored 4324 - 4380 Recovered 56 feet.

A 4324 - 25 Siltstone; very hard, fine, tight, micaceous. Bleeding with oil and gas. No visible porosity. Mica is in the form of single brown flakes. Parts of the section react slowly to acid.

B 4325 - 26 Siltstone; Generally like A, but appears to have less permeability and porosity. No bleeding oil or gas, though there is a distinct oder of petroleum on fresh fracutres.

C 4326- 27 Siltstone; like A, bleeding with oil.

D 4327 - 30½ Siltstone; thinly interbedded, greenish-gray shale and very fine grained, shaly siltstone. Individual beds are from less than 1/16" to 1/2" in thickness. No show of either oil or gas.

E 4330½-36½ Siltstone; predominately like D, but containing thin streaks like A at 4330½-31, 4333½-34--total thickness of section containing oil about land 1/4 feet.

F 4336½-62½ Siltstone; predominately like A, but containing about 5% of section like D. All of the section like A is saturated with oil or and gas. Also, this section like A responds readily to acid. One verticle fracture occurs at 4339. There is marked cross-bedding in the section at 4341 and at 4355.

G 4362½-68½ Siltstone; Like D, but contains a few thin streaks bleeding with oil. Total section showing oil about 3 inches. A good verticle fracture is present between 4364 and 4366.

H 4368½-69½ Siltstone; generally like A, though showing a more pronounced banding in the bedding on the order of D. Bleeding with oil throughout.

I 4369-71 Siltstone; like F, no show of either oil or gas.

//

J 4371 - 80 Silts. ..; like A, but containing thin ..nds of material like in B. Appears to be about 80% like A with this section bleeding with oil. A fair vertical fracture is present at 4373.

Drill Stem Test No. 6 4320 - 4380 Open 2 hours.
Results; Had a very slight blow for about 5 minutes and died. Recovered 5 feet of drilling mud.

Initial hydrostatic pressure.....	2040 pounds
Initial flow pressure.....	0 pounds
Final flowing pressure.....	0 pounds
Shut in bottom hole pressure.(2 hours).....	0 pounds
Final hydrostatic pressure.....	2030 pounds

Core No. 8 Cored 4380 - 4436 Recovered 56'

A 4380 - 4388 Shale and Siltstone; thinly interbedded, greenish-gray shale and very fine-grained shaly siltstone. Very pyritic. Banded—individual bands from less than 1/16" to 1/2" in thickness. Section is a little more silty between 4382-83 and streaks in this part of the section are bleeding with oil.

B 4388 - 4395 Siltstone; very hard, tight, calcareous, micaceous. About 90 per cent of this section is bleeding with oil. Those sections that contain the oil are less shaly than the adjacent barren sections. All of the section that contains oil also contains an abundance of a black flakey hydrocarbon scattered through the silt grains. About five feet of the section is bleeding with oil. A vertical fracture occurs between 4394 and 4395.

C 4395 - 4436 Shale and Siltstone; predominately like A, but containing thin streaks of a siltstone like in B. Throughout the section, there are a number of thin streaks and lenses bleeding with oil. The best of these streaks occur between 4402-03, 4411-11½ and at 4413 and 4420. Total section bleeding with oil is about 4½ feet.

Core No. 9 Cored 4436- 4492 Recovered 56 feet.

A 4436 - 43½ Shale and Siltstone; Hard, greenish-gray, silty, pyritic shale and shaly siltstone containing thin beds and lenses of very hard, tight micaceous siltstone. These latter sections contain bleeding oil, but with no visible porosity appear much too tight to produce. Best streaks are between 4436½-37 and 4439-39½. Total section containing oil is 2 feet.

B 4443½-46½ Siltstone; hard, micaceous, tight, calcareous. Bleeding with oil. No visible porosity. Responds slowly to acid. Appears much too tight to be productive. A sample was taken for analysis at 4445½.

C 4446½ - 92 Shale and Siltstone; The remainder of the core is predominately like the hard, greenish-gray shale in A, but is interbedded, with lenses and beds of rock likein B. Most of the latter rock is bleeding with oil. The best sections containing oil are between 4452-52½, 4454½-55, 4460-62½, 4488-90 and 4491-92. Total thickness of section containing oil is 8 feet and 6 inches.

[illegible] Open 5 hours.
Remarks: Very slight blow for 5 minutes and died. Bad of hose was left at bottom of rubber packer through test and at end of 5 hour period enough pressure had built up on the hose to blow slightly for about 5 minutes. Recovered about 30 feet of drilling mud.

Initial hydrostatic pressure.....	2045 pounds
Initial flow pressure.....	0 pounds
Final flow pressure.....	0 pounds
Shut in bottom hole pressure(3 hours).....	855 pounds
Final hydrostatic pressure.....	2045 pounds

Core No. 10 Cored 4492-4548 Recovered 56 feet.

A 4492 - 93½ Siltstone; very micaceous, slightly calcareous, very tight. Mica is predominately a brown mica. Has a fair odor of petroleum on fresh fracture, though there is no bleeding oil as in the cores above.

B 4493½- 00 Siltstone; very hard, slightly micaceous, slightly calcareous and banded. Bleeding with oil from 4493½-94½, 4495-95½, 4496-4500. General appearance of the section is that it is too tight to produce. A sample was taken for analysis at 4497½.

C 4500 - 11½ Silty shale and shaly siltstone; thinly interbedded and banded, greenish-gray to gray, slightly calcareous pyritic silty shale and shaly siltstone. In some parts of the section there is some minute cross-bedding. No shows of either oil or gas.

D 4511½-13½ Siltstone; Like A, containing specks of bleeding oil.

E 4513½ - 22 Silty shaly and shaly siltstone; Generally like C, but containing a few thin streaks of siltstone like B that are bleeding with oil. The best of these occur at 4517 (2") and 4519½ (2").

F 4522 - 23½ Siltstone; Like A in lithologic character, but having no odor of petroleum except for two thin streaks near the bottom of the section (total 2") that are bleeding with oil.

G 4523½- 39½ Silty shale and shaly siltstone; like C.

H 4539½ - 41½ Sandstone; hard, tight, very fine grained, micaceous clacareous. No show of either oil or gas. Has a speckled appearance from the presence of tiny, nearly spherical blebs of calcite.

I 4541½- 47 Silty shale and shaly siltstone; Like C, though containing some silty shale that is nearly dark gray in color.

J 4547 - 48 Silty shale and shaly siltstone; Generally like C, but dark greenish-gray in color.

Core No. 11 Cored 4548 - 4604 Recovered 56 feet.

A 4548 - 60 Siltstone; Hard, shaly, micaceous, slightly pyritic, greenish gray. Has a banaded appearance with individual bands being less than 1/16" to 1/4" in thickness. In some parts of the section the bedding is wavey and somewhat broken. No show of either oil or gas.

D 4560 - 64 **Sandstone:** Generally very fine grained, but containing numerous large frosted sand grains, dolomitic (effects readily to hot hydrochloric acid), tight, grayish-gray.

C 4564 - 71 **Sandstone:** Similar to B, but containing a lot less large sand grains. Has a more uniform texture. Color a light greenish-gray. Patches of bleeding oil at 4566, 4569, and 4570½. Total section showing oil 4 inches.

D 4571 - 73½ **Siltstone:** Gray to greenish-gray. Contains a few large frosted sand grains. Micaceous, has an irregular patchy appearance due to irregular bedding. Has patches of brown oil staining and on fresh fractures a distinct odor of oil. No visible porosity. Total oil staining about 6 inches.

E 4573 - 78½ **Anhydrite:** steel gray, crystalline.

F 4578½ -86 **Siltstone:** hard, light brown, calcareous. Contains a few large frosted grains of sandstone. Small patches of anhydrite. Without close analysis of the insoluble, this section might be called a dolomite.

G 4586 - 89 **Sandstone:** fine to medium coarse grained, tight, quartzitic, nearly white in color. No visible porosity and no show of either oil or gas.

H 4589 - 92½ **Siltstone:** like F.

I 4592½-93 **Sandstone:** like G.

J 4593 - 96 Siltstone; generally like F, though somewhat more coarse grained and containing thin layers and lenses of white chert and rosetts of white anhydrite. A black hydrocarbon occurs scattered through the interstitial areas between the sand grains. Like F, without checking, this section might be called a dolomite.

K 4596 - 04 **Siltstone:** Like J, but having no chert and a smaller amount of anhydite. Has some well developed vertical fractures in the lower 2 feet.

Core No. 12 Cored 4604 - 34 Recovered 29 feet.

A 4604 - 12½ **Dolomitic siltstone:** Hard, tan to light brown, containing lentils of fine-grained sandstone with large floating grains of well-rounded and frosted sandstone. A few small patches of anhydtite. Generally like the section in the lower part of the core above, but somewhat darker in color. A few well developed vertical fractures. No show of either oil or gas.

B 4612½-15 **Dolomitic siltstone and anhydrite:** Siltstone is dark brownish-gray and very dolomitic. Insoluble consists of very sharp angular grains of quartz and anhydrite. Anhydrite is generally white, but some pink collored patches are present. Ratio between siltstone and anhydrite is about 70/30. Anhydrite occurs in large irregular patches in the section, givingit the qppearance of a conglomerate.

Initial hydrostatic pressure.....	1995 pounds
Initial flow pressure	0 pounds
Final flow pressure	0 pounds
Shut in bottom hole pressure (Not taken).....	
Final Hydrostatic pressure.....	1990 pounds

Drill Stem Test No. 6

4320 - 4380 Open 2 hours
Results: Had a very slight blow for about 5 minutes and died.
Recovered 5 feet of drilling mud.

Initial hydrostatic pressure	2040 pounds
Initial flowing pressure	0 pounds
Final flowing pressure	0 pounds
Shut in bottom hole pressure (2 hours).....	0 pounds
Final hydrostatic pressure.....	2030 pounds

Drill Stem Test No. 7

4342 - 4492 Open 5 hours.
Results: Very slight blow for 5 minutes and died. End of hose was left at bottom of water bucket through test and at end of 5 hour period enough pressure had built up on the hose to blow slightly for about 3 minutes.
Recovered about 30 feet of drilling mud.

Initial hydrostatic pressure	2045 pounds
Initial flow pressure	0 pounds
Final flow pressure	0 pounds
Shut in bottom hole pressure (3 hours)	255 pounds
Final hydrostatic pressure.....	2045 pounds

Drill Stem Test No. 8

4528-4678 150 feet. Open 2 hours.
Results: Good blow at start of test. Slacked off considerably inside of 40 minutes. Died completely in 1 hour and 25 minutes.
Recovered 210 feet of drilling mud. Bottom 90 feet appeared to be gas cut.

Initial hydrostatic pressure	2175 pounds
Initial flow pressure	20 pounds
Final flow pressure	65 pounds
Shut in bottom hole pressure	65 pounds
Final hydrostatic pressure	2130 pounds

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office [redacted]
Lease No. [redacted]
Unit [redacted]

ORIGINAL FORWARDED TO CASPER

RECEIVED
DEC 1 - 1953
GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 30, 1953

Well No. 2 is located 710 ft. from {N/S} line and 2180 ft. from {E/W} line of sec. 4

Approx. Center Quarter 4 (¼ Sec. and Sec. No.) 14S (Twp.) 12E (Range) Salt Lake (Meridian)

Wildcat - Mounds Area (Field) Carbon Emery (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 5,434 KB ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Hole now full of mud

As per instructions from Mr. H. C. Seoville, well will be plugged by setting a bridging plug at a depth of ~~4,130~~ 3940' feet and dumping cement by means of a bailer on top of this plug. No casing is to be pulled from hole, but will be left full of heavy mud. A piece of pipe 4" in diameter and ~~6'~~ 10' long will be cemented in the top of the 7" well casing so that 4' will be left above the ground. This pipe will be marked with name, location and elevation of well. Well location will be leveled and cleaned up before abandonment.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company EQUITY OIL COMPANY

Address 400 Utah Oil Building

Salt Lake City, Utah

By [signature]

Title Vice President

Approved 11-30-53 orally
H C Seoville
District Engineer

U. S. GOVERNMENT PRINTING OFFICE 16—84237-4

The seven inch casing has been perforated in the following places:

3975 - 4015
4015 - 4055
4187 - 4207
4230 - 4270
4310 - 4334
? 4340 - 4361
4340 - 4382
4438 - 4464
4452 - 4458

From: F. H. Seagniller

To: F. R. Clark Sample/[illegible] No. 2 Mounds

Re: Natural Gas Analysis

A sample of natural gas was submitted to the laboratory for analysis by Mr. V. E. Peterson of the Equity Oil Company.
The following results were obtained on this sample:

	Volume Per Cent
Carbon Dioxide	40.0
Oxygen	1.4
Methane	18.0
Ethane	1.7
Propane	0.9
Butanes	0.8
Pentanes & heavier hydrocarbons	1.1
Inert (Nitrogen)	16.1
Total	100.0

F. H. Seagniller

FHS:rve

cc: A. J. Bealey
V. E. Peterson

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GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

3920 - 3930	Shale	Chec., finely, mica, w/interbed. rdish.-brn. and lt. grnish siltstone, as above, sli. calc. to dolm., anhydrit., mica tre. lt. grnish-gry. mottling in rdish-brn. siltstone.
3930 - 3940	Shale	As above, w/tre. med. gry. argil ls. strks., finely mica., silty to finely aren.
3940 - 3950	Shale	Chec., mica, w/common interbed. rdish.-brn. and lt. grnish. gry. siltstone and lt. grnish-gry. argil. ls. strks common chec. shale pellets.
3950 - 3965	Shale	As above, w/rdish.-brn. siltstone, anhy. mottling, interbed. w/increase of lt. grnish.-gry. argil. ls., silty, finely mica., dolo., and anhydrit.
		<u>Top Sinbad Limestone Member - 3955'</u>
3955 - 3970	Siltstone	Rdish.-brn., finely aren., dolo., anhydrit., w/ common strks. med. gry. in part ls., dolo., anhydrit., silty, mica w/tre. lt. gry. to whitish, dolo., anhydirit. finely .
3970 - 3980	Shale	Chec., mica., w/interbed. rdish.-brn. siltstone, common dk. gry. impure ls. or dolo. strks w/minor lt. grnish-gry., lt. gry. to whitish siltstone, anhy. dolo., finely aren., mica w/tre. <u>blk. hydrocarb.</u> Tre. lt. gry. waxy "bentonitic-appearing" shale. All hd. and tight w/dolo. cententing.
3980 - 3995	Dolomite	Generally dk. brn., impure, finely mica transit. to dk. gry. and lt. gry. or whitish, anydritic, w/silty to finely aren. zones containing tre. <u>blk. hydrocarbon.</u> Very hard and dense.
3995 - 4000	Siltstone	Dk. rd.-brn. to dk. gry., very shaley, dolo., highly mica. w/trasit lt. gry. to whitish, anhydrit. finely aren. zones, containing <u>blk. hydrocarbon.</u> as above.
4000 - 4003	Shale	Dk. gry., dolo., subwaxy, finely mica., in part, poor fissility, transit. to shaley dolo. w/min. mica silty zones. Med. hd. and brittle.

3650 - 3670	Shale	Choc., mar., and faded purp. highly mica., in part, w/common interbed. orange, fine gr., silty, mica, sandstone and siltstone, common purp. and pale-grn. mottling. Min siliceous to dolo pebbles.
3670 - 3700	Sandstone	Lt. orange to rdish-brn., very fine gr., silty, shaley, anhydrit., and highly mica., in part, w/min choc. to maroon silty shale intercalated. Common wh. anhy.
3700 - 3710	Sandstone	As above, w/increase of choc. to mar. shales.
3710 - 3730	Shale	Choc., finely mica., silty, in part, w/interbed choc. and lt. orange siltstone and sandstone, w/anhy. mottling.
3730 - 3740	Siltstone and Sandstone	As above, w/interbed choc. sh.
3740 - 3770	Siltstone & Sandstone	As above, w/min. strks. pale-grn. and grnish-gry., dolo. mica, sandy, siltstone.
3770 - 3780	Shale	Choc. to mar., w/interbed. silstones and fine gr. ss as above.
3780 - 3790	Shale	As above, w/trc. siltstone.
3790 - 3800	Shale	As above, w/increase of siltstone, as above.
3800 - 3840	Siltstone & Shale	As above
3840 - 3880	Siltstone & Shale	Choc. to lt. orange, calc., mica., finely aren. in part, w/equal amounts interbed. choc. to mar., min. faded purp. and blue-grn. sh. common wh. anhy. mottling in siltstone. Trc. silic material and chert.
3880 - 3890	Sandstone	Lt. orange to cinnamon colored, fine gr., silty, mica., anhydritic, in part, w/commonly interbed. blue-grn., calc., siltstone transit to silty, sandy, ls. Min. choc. to mar. sh., intercalated.
3890 - 3900	Sandstone	Cinnamon, fine to med., generally med. gr., calc., mica, anhydritic, hd. and tight w/no visible porosity. Trc. blue-grn., calc., sandstone.

<u>Spls - Base Moenkopi</u>

3900 - 3910	Sandstone	Lt. rdish-brn., very fine gr., silty, shaley, finely mica., sli. calc. to dolo and anhydrit., med. hd. dse, w/varicol. chert grs., w/min choc. finely mica., shale intercalated.
3910 - 3920	Siltstone	Rdish.-brn., very shaley, finely aren., and mica, w/trc. wh. anhy. mottling; w/common interbed choc. mica sh. and lt. grnish gry. argil ls., dolo., transit to aren. siltstone, all hd. and dse. Trc. orange chert.

3420 - 3430	Shale	As above, calc., w/interbed. siltstone and sh. as above, w/common pale grn. sh. and ls. interfingered, med. hd. and dec.
3430 - 3440	Shale	Rdish.-brn. to maroon, very calc. transit to argil. ls., anhy. silty to finely aren., in part. Med. hd. and brittle.
3440 - 3450	Shale	As above, w/decrease of carbonate material min. dull, olive-grn., impure ls. stringers.

Top Shinarump Conglomerate (?) 3450

3450- 3480	Shale	Rdish.-brn. to maroon, very calc., transit, in part, to argil. ls., w/min. pale grn. ls. mottling and dirty grnish-yellow mudstone partings and mottling, w/min. lt. gry, waxy, sh. partings. Trc. chert modules, shale pellets, and cree gr. whitish sandstone.
3480 - 3490	Conglomerate	Sple. is much the same as above, w/abundant chert and ls. modules, shale pellets and lge qtz "floater" grs. Abundant purple mottling, and common wh. dolo. sandstone and sandy dolo.

Top Moenkopi Formation - 3490

3490 - 3500	Conglomerate and Shale	As above, w/trc. fine gr. muscovite in choc. to mar. shale.
3500 - 2520	Conglomerate & Shale	As above, w/common orange chert.
3520 - 3530	Shale	Maroon and choc. becoming quite mica w/conlem. material, as above.
3530 - 3550	Shale	Maroon and choc., finely mica w. min. pale grn. calc. mottling. Trc. wh. gyp or anhy veinlets.
3550 - 3570	Shale	Maroon to choc., w/abundant blue-grn. and faded purple dolo., mottling and common lt. orange, silty, shaley, highly mica sandstone. Cherty, anhy.
3570 - 3590	Shale	As above, becoming quite silty to finely aren., w/abundant chert and dolo. modules. Anhydritic.
3590 - 3620	Siltstone	Choc., very shaley, highly mica, finely aren. in part, calc., w/min. intercal. choc. to maroon, and pale green shale. Trc. wh. pulv. gyp.
3620 - 3630	Siltstone	As above, w/increase of choc. shale and min chert pebbles.
3630 - 3650	Siltstone	As above, w/min mar. to choc. sh., purp. and blue grn calc. mottling. Common anhy and siliceous material.

3090 - 3120	Shale	Varv., grysh., gtish., and faint purple, common brn. qtzs. "Flaky" gry. to flinty grsh., min pink, and grn. mottling, w/[illegible] sandstone interbed, as above.
3120 - 3130	Shale	As above, w/equal amount of cream sandstone.
3130 - 3220	Sandstone	Cream, fine to crse., poorly sorted, gypy cement w/trc. gry shl. intercalated.
3220 - 3228	Sandstone	Cream, as above, w/trc. rdish-brn. fine to crse. poorly sorted shaley sandstone. Gypy, w/trc. gry shale, as above.

Top Chinle Formation 3228

3228 - 3240	Sandstone	Lt. dk. rdish-brn., silty, shaley, w/min cream sandstone interfingered; w/common interbed. chec. sh. silty to finely aren., in part Common wh. gypy.
3240 - 3250	Sandstone	As above, generally lt. rdish-brn. no cream colored sandstone.
3250 - 3260	Shale	Chec., med. soft, good fissility, w/min interbed. sandstone, as above.
3260 - 3280	Shale	As above, w/min. blue-grn. and lt. gry sh., intercal.; Trc. sandstone, as above. Trc. wh. gyp.
3280 - 3290	Dolomite and Shale	Lt. rdish-brn. or pink transit to sandy dolo., hd., dse, impure, w/equal amount of chec. to maroon, fissile shale, gypy.
3290 - 3300	Shale	Chec. to maroon, soft, fissile, w/min lt. gry and pale green sh. intercalated. Trc. wh. pulverent gypsum.
3300 - 3310	Shale	As above, w/thin strks. pale grn. sandy ls.
3310 - 3330	Siltstone	Rdish.-brn. finely mica and aren., hd, dse, dolo. cement, w/min. interbed gry. and pale grn. sh., pale grn. to whish, sandy, ls., and whish, fine to crse. sandstone. Trc. coc. sh.
3330 - 3340	Sandstone	Rdish.-brn. shaley, silty, finely mica, dolo. cement, w/interbed sh., and ls., as above . Common anhy.
3340 - 3370	Siltstone & Shale	Rdish.-brn., finely mica, and chec. to maroon w/ thin hd strks dolo cement, w/min strks pale-green sandy ls. and gry. sh., as above. Trc. maroon sh. pellets and anhy.
3370 - 3380	Shale	Chec. to maroon, w/interbed siltstone, ls., and shale, as above. Min. anhy.
3380 - 3420	Shale, as above, w/abundant wh. anhy and gyp.	

Top Kayenta Formation - 2725

2720 - 2730	Sandstone	Lt. orange to cream, as above.
2730 - 2740	Sandstone	Whitish, cream, lt. orange, dirty gry., and brown fine to crse and conglom., w/common interbedded varie-colored shales and siltstones. Gyppy, trc. varie-colored ls. and pyrite. A reworked zone.
2740 - 2770	Shale	Variegated, subtomy, silty to finely aren., in part, w/min. interbed. lt. orange, rdish-brn., and cream sandstone. Trc. chert.
2770 - 2780	Sandstone	Lt. orange to whitish, fine to crse., poorly sorted, w/intercal. variag. shales and trc. gry. ls. gyppy.
2780 - 2800	Sandstone	As above, whitish to pale grn., w/interbed shs., as above.
2800 - 2810	Sandstone	Top Wingate Sandstone - 2800 Rdish.-brn. to lt. orange, and min. whish., fine to crse, well-rounded to any., med hd. to friable, w/min intercal. lt. gry., pale grn., lav., and choc., shs. Trc. var., argil., sandy ls. common wh. gyp.
2810 - 2820	Sandstone	Wh., w/interbed var. shs., argil. ls., as above, gyppy.
2820 - 2830	Sandstone	Cream to whish, fine to crse., subangular, glassy, friable commonly gyppy. Trc. pyrite.
2830 - 2840	Sandstone	As above, w/trc. pale, gln-grn., shale partings.
2840 - 2860	Sandstone	As above, w/equal amounts of lt. gry., dk. gry. and pale grn. shs., interbed., rare chert pebbles, trc. dk. gry argill. ls. All calc. and gyppy.
2860 - 2890	Sandstone	As above, w/min interbed. sh.
2890 - 2900	Sandstone and Shale	In equal amounts, as above.
2900 - 2930	Sandstone	Cream, fine to crse., subround to well round grs. pitted, frosted, friable, gyppy cement; w/min thin lt. and dk. gry. argil ls., stringers, and common interbed. sh., as above.
2930 - 2960	Sandstone	As above, w/strks. of gritty to conglom., well rounded. grs. Trc. gry. sh. common wh. gyp.
2960 - 2990	Sandstone	As above, w/min. dk. gry. to blk. pyrite staining.
2990 - 3090	Sandstone	As above, w/common lt. gry. and pale grn. sandy shs. intercal. Trc. gry. argil ls. gyppy.

Top Kayenta Sandstone - 2337'

2330 - 2340	Sandstone	Wh. and varicolored, generally crse. wellrounded grs., poorly sorted, hd., dse, dolo. cement., w/ interbed. varicol., sandy dolo., siltstones, claystones and shale. Trc. pyrite and anhy cherty.
2340 - 2370	Sandstone	As above, but generally crse to conglom.
2370 - 2380	Sandstone	As above, but more commonly whitish and less conglom. Common white pulverent gyp.
2380 - 2390	Sandstone	As above, w/abundant wh. pulverant gyp and anhy.
2390 - 2400	Sandstone	Wh. crs. to conglom. hd., dse., dolo. cement, w/varicolor sh. and siltstone interbed. common gyp and anhy.
2400 - 2430	Sandstone	Wh., fine to med. crse., generally well rounded grs., gyppy, hd. tightly cemented w/trc. gry. limestone stringers.
2430 - 2480	Sandstone	As above, w/trc. conglom., and pale blue-grn. pyritic, subwaxy shale.
2480 - 2490	Sandstone	As above, very glassy, quartzose, w/min chert pebbles, massive. hd. & tight.
2490 - 2500	Sandstone	As above
2500 - 2510	Sandstone	Wh., fine to crse and conglom. subangular to well rounded, poorly sorted grs., gyppy, hd. tight, and quartzose.
2510 - 2520	Sandstone	Dirty dk. gry. very shaley, silty to very crse gr. sale. transit to dk. gry sandy sh., w/interbed wh. sandstone, as above gyppy, cherty, conglom. strks. Trc. varicol. ls. stringers. A reworked zone.
2520 - 2540	Sandstone	Wh., fine to crse and conglom., massive w/strks. sandstone, limestone, as above, gyppy.
2530 - 2660	Sandstone	As above, w/common conglom strks pyritic.
2660 - 2670	Sandstone	As above, w/abundant wh. pulverent gyp.
2670 - 2690	Sandstone	As above, w/common interbedd med.-gry., pale grn. and olive grn. sh. cherty, and trc. shale pellets.
2690 - 2700	Sandstone	As above, w/min. intercal, shales, as above.
2700 - 2710	Sandstone	Whitish and very pale grnish-wh., very fine gr. silty, sli, calc. hd. dse, gyppy.
2710 - 2720	Sandstone	Cream to white, fine to med. poorly sorted, hd., dse, gyppy.

Top Kayenta Formation - 2727

2100 - 2120	Limestone	Dk. grnish-gry., argil, anhydrit., finely sdse, med. hd, & dse, w/min. olive-grn. silty to finely aren. strks. interbed.
2120 - 2130	Limestone	As above, very anhydrit. (approx. 30%) occuring as interfingered zones and mottling; wh., sugary.
2130 - 2140	Limestone	Dk. grnish.-gry., argil, w/common olive-grn. (approx. 30%) silty to sandy strks interbed. Trc. anhy.
2140 - 2170	Limestone	As above, w/common crse to conglom. strks., cherty, common wh., sugary, anhy.
2170 - 2180	Siltstone	Lt. grnish-gry., to olive-grn., very calc., anhydrit., transit to fine gr. sandstone, hd. and dse.
2180 - 2190	Limestone	Dk. grnish-gry. argil, anhydrit, w/interbed siltstone and sandstone, as above.
2190 - 2200	Limestone	As above, w/trc. silty to finely aren. material.
2200 - 2210	Shale & Anhydrite	Med. gry., subwxy, dolo., med. soft, finely aren., in part, w/an equal amount of wh. surgary anhy. interbed. and mottled. Trc. pyrite.
2210 - 2220	Anhydrite	White and lt. gry. dolo. mottled, generally dse., bedded w/min. sugary.
2220 - 2230	Dolomite	Lt. to med. gry., silty to finely aren., in part, anyd., and dimmamon brown, shaley, dolo. sandstone transit to sandy dolo. Hard and dense.
2230 - 2240	Sandstone	Lt. gry., dolo, fine, well-rounded grs., silty, w/ rare varicolored chert grs., anhydrite, with thin strks. wh. sugary anhy, and lt. gry sandy dolo. Trc. orange chert.
2240 - 2260	Limestone	Med. brnish-gry., med hd., brittle, w/min interbed. olive grn., subwxy, and lt. gry., dolo. shale w/ rare chert grs.
2260 - 2270	Limestone	As above, argill, w/abundant dk. gry. shale pellets giving "oolitic" appearance. Trc. chert.
2270 - 2280	Siltstone	Med. and lt. grnish gry., finely aren., calc., w/ common interbed varicolored siltstone and min. shale.
2280 - 2310	Limestone	Med. gry., hd., dse., w/intercal. lt. gry. chalky clay.
2310 -2320	Siltstone	Med. gry. and varicol, finely aren., w/interbed. varicol. siltstone and shale, and common lt. gry. chalky clay.
2320 - 2330	Limestone	Med. gry., hd., dse., dolo., w/min interbed. varicol. limestone, siltstone, shale, and lt. gry. anhydrit. dolo. clay strinkers.

		Common wh. gyp., chert, and lge qtz., "floater" grs.
1850 - 1860	Shale	Choc., mica., silty to aren., w/min. interbed. sandstone, sha., and argill ls., as above.
1860 - 1890	Sandstone	Rdish-brn. to cinnamon, fine to med. good double sorting, gyppy cement, w/interbed choc., and dull grn. sh., varicol. argill ls. Abundant red jasper.
1890 - 1900	Sandstone	As above, w/absence of red jasper, abundant wh. pulv. gyp.
1900 - 1910	Sandstone	As above, abundant gyp. Trc. red jasper.
1910 - 1920	Sandstone	Rdish-brn. to cinnamon, fine to med., good double sorting, very hd., dse., limey; no interbed shs., min. argill ls. Trc. gyp.
1920 - 1930	Sandstone,	As above, trc. red jasper, common gyp.
1930 - 1940	Sandstone	As above, w/common interbed. grnish-wh. calc. sandstone.
1940 - 1960	Sandstone	Rdish-brn., very hd. dse. limey. Trc. wh. gyp.
1960 - 1970	Sandstone	As above, w/common wh. gypsum.
1970 - 1990	Sandstone	As above, becoming quite shaley and transit to sandy choc. shale.
1990 - 2000	Sandstone	As above, w/min. interfingered varicolored argill, sandy ls.
2000 - 2010	Sandstone	Rdish.-brn. to cinnamon, fine to med., good double sorting, calc., shaley, min. mica., min. chert and common large qgz "floater" grs. w/common zones choc. sandy sh., intercalated lt. gry. subwaxy sh. w/rare qgz "floater" grs., min. argill ls. strks, common pulv. gyp.
2010 - 2020	Sandstone	As above, w/min. strks grnish-wh. sandstone
		<u>Carmel Formation 2029'</u>
2029 - 2050	Limestone	Hd. grnish-gry., med. hd., dse., min mica, w/common pulv. gyp. and thin stringers wh. sugary anhy.
2050 - 2060	Sandstone	Generally grnish-wh., fine to med. gr. hd., tight, w/min interbed redish-brn., shaley ss, and dk. grnish gry., argill ls., anhydritic w/common wh. pulv. gyp. Trc. chert.
2060 - 2090	Limestone	Hd. grnish-gry., med soft, dse, anhydritic, min mica, w/common pulv. gyp. and thin stringers sugary anhy. Trc. pyrite.
2090 - 2100	Limestone	As above, generally sandy, cherty, anhydritic, w/ common interbed rdish-brn., shly, and grnish. wh. hd. dse. sandstone. Lge qtz. frags. "floater" grs.

[illegible] - [illegible]	Sandstone	As above, w/equal amount of var. sh., as above.
[illegible] - [illegible]	Shale	Var., generally pale grn. and lt. gry. w/min faint purp. and med. gry. lm. Trc. sandstone and wh. anhyd. and pulverent gyp.
[illegible] - 1668	Sandstone	Lt. grnish.-gry., fine to crse and gritty, poorly sorted, w/abundant chlorite grs. w/min. intercalated var. sha., lm., and wh. pulverent gyp.
		Top Entrada Sandstone - 1668
1668 - 1700	Shale	Var., as above, w/common interbed rdish-brn., fine gr., shaley, anhydritic sandstone, approx. [illegible] lt. and med. gry. argil. lm. stringers.
1700 - 1720	Sandstone	Rdish.-brn. or cinnamon, calc., shaley, fine to med., good double-sorting w/common strks. brn., stained pulv. gyp. or anhy., min interbed choc., mica, silty sh., sandy, in part. trc. dull grn. sh., and thin strks grnish-gry., argill lm. Rare lge. qts. "floater" grs.
1720 - 1730	Sandstone	As above, very calc., transitional to sandy lm., in part, generally med. hd., dec., w/interbed sha. as above, gyppy. Rare qts. "floater" grs.
1730 - 1740	Shale	Choc., mica, silty to aren., in part, w/min interbed sandstone, as above, Trc. grn. sh. and argill. lm, as above, gyppy, sqs "floater" grs.
1740 - 1770	Sandstone	As above, w/interbed. choc. shale and min. dull grn. sh., think strks. varicolored argill. lm. gyppy, rare qts. floater grs.
1770 - 1790	Sandstone	As above, w/abundant lge. qts. "floater" grs.
1790 - 1800	Sandstone	As above, rare qts. "floater" grs., abundant whitish pulv. gyp. or anhy.
1800 - 1820	Sandstone	Rdish. brn., silty, very shaley, calc., good double-sorting, w/abundant lge qts. "floater" grs., w/common interbed., choc., sandy sh., min. grn. and think strks. angill lm. common gyp.
1820 - 1830	Shale	Choc., mica, silty to aren., in part w/interbed rdish-brn. sandstone, as above, w/common strks. gry. grn., silic sandstone, abundant lge qts "floater" grs. and varicolored argill lm. gyppy.
1830 - 1840	Shale	As above, w/grnish-gry., silic., conglom. sandstone strks less common and min. argill lm. gyppy, common lge. qts "floater" grs.
1840 - 1850	Sandstone	Rdish.-brn. & cinnamon, fine to crse and conglom. w/min wh. conglom. sandstone, w/interbed choc. and min. dull grnish-gry. sh., and varicol. argill lm.

1300 - 1310	Shale	General reddish-brn., silty to finely aren., mich. calc., grading into sandy siltstone and shaley sandstone, w/interbed. var. shale and var. ls. Common gypsy cement.
1310 - 1320	Sandstone Siltstone & Shale	Var., calc., gypsy cement w/min. var. ls. interfingered.
1320 - 1340	Shale	Generally med. grnish-gry., w/interbed. lt. gry. silty sandstone, siltstone, and variegated shales, silty to finely aren., in part. Trc. gy. ls. and conglom. chert pebbles. All dolo. or sli. calc.
1340 - 1360	Shale	Choc., hd., brittle, good fissility, w/common interbed shales, siltstones, and min. sandstone, as above. Trc. chert and med. gry. dolo. stringers.
1360 - 1370	Sandstone	Lt. gry. to whish, fine to crse or conglom., hd. tight. calc. cement transit to sandy ls., w/ interbed. var. sh., sltstn, as above, gypsy and cherty.
1370 - 1380	Sandstone	As above, but, generally, very fine gr. to silty.
1380 - 1400	Shale	Choc., and maroon, med. hd., brittle, good fissility, silty to finely aren., in part. Trc. whi. pulverent gyp. or anhy.
1400 - 1410	Shale	Choc., med. hd., fissile, trc. muscorite, w/min. thin strks. of well-founded qtz. floater grs.
1410 - 1420	Shale	As above, w/trc. wh. pulverent gyp. or anhy. veinlets.
1420 - 1430	Shale	As above, w/common silty to aren. strks. and strks lt. gry. and gryish brn. sandy ls.
1430 - 1470	Shale	As above, w/decrease in ls. strks; w/sones of highly concentrated mica flakes.
1470 - 1480	Shale	As above, w/sandy ls. increase to approx 30%.
1480 - 1503	Shale	As above, w/min sandy ls. strks.

<u>Top Curtis Formation</u>

1503 - 1540	Sandstone	Lt. gryish-grn., calc., fine to med. shaley, abundant blk. cert grs. and olive-grn. grs. that have the appearance of glauconite (chlorite?)
1540 - 1600	Sandstone	As above, w/common interbed. var. shale generally lt. gry. and faded purp. and abundant wh. pulv. gyp. Min. strks. med gry. ls. Trc. interbed. chert.

1080 - 1100	Shale - Grnish. gry., maroon and dyed purple intermixed, calc., gritty to fine aren., in part, w/thin stringer lgh. grnish-gry., sandy ls.; common lt. gry. gritty, bent. clay. Trace chert.	
1100 - 1110	Shale	As above, w/trc. crm. to wh. fine to crse and conglom. sandstone. Common lt. gry., gritty, bent. clay.
1110 - 1130	Sandstone	Crm. whitish, and lt. grnish-gry., hd. dse. dense generally fine; calc. cement. transit. to sandy ls., min. maroon and lt. grn., calc. shale intercal. common wh. pulverent gyp., bent. clay trc. chert.
1130 - 1140	Sandstone	Crm. to shtish, fine to conglomeritic, cherty, w/ min. intercalated sli., as above, trc. wh. gyp.
1140 - 1148	Limestone	Med. gry., and gryish-grn., hd., dse, w/min. interbed. shale, as above, trc. chert, gyp., and wh. conglom. sandstone and lt. grn. fine calc. sandstone.

<u>Top Summerville Formation - 1148</u>

1148 - 1160	Sandstone and Limestone	Fine to crs. gr., well rounded, cherty w/transitions to sandy limestone, min. intercal. sh., as above, Common chert pebbles and lt. gry. bent. clay.
1160 - 1170		Sample missing.
1170 - 1190	Limestone	Med. gry. and gry. buff, gritty to aren., hd. dse., w/rare large chert and qtz. floater grs., Minor crm. to whitish dse., anhydritic ls. interfingered. Trc. pyrite
1190 - 1200	Sa	Sample missing.
1200 - 1230	Shale	Var., maroon, brn., chse., med. gry., and gry.-grn., calc., commonly gritty, w/large chert and qtz. "floater" grs., w/interbed. gry.-grn., shaley, calc., sandstone, mica, lge. qtz "floater" grs. Trc. brn. dse ls. stringers and anhydrite or gyp.
1230 - 1240	Sahle	Dull, gry.-grn., calc., silty to finely aren., in part, w/common thin veinlets white anhy. or gyp. Trc. maroon shs.
1240 - 1260	Sandstone	Lt. gry. and white, fine to crs., w/min conglom. strks., calc., hd., dse, cherty w/common interbed. var., calc., sh. and sandy ls. strks common wh. gyp. and anhy.
1260 - 1280	Sandstone & Shale	As above, w/abundant gyppy cement and veinlets wh. anhy. sandstone is wh. to varicolored.
1280 - 1290	Shale	Var., maroon, gry., and grn., calc. w/thin aren. strks. and gry.-grn. argill. ls. Trc. chert and wh. anhy.

[illegible]	Shale	[illegible]
[illegible] - [illegible]	Shale	Med. gry. & grn., silty to finely aren. w/commonly intercal. transitions to gry.-grn., shaley sandstone, fine, well round. grs., all calc., finely mica. Minor intercalated faded to purp. shale and common pulverent gyp.
[illegible] - [illegible]	Shale	As above, w/interbed sandstone, as above, but occur. less commonly and min intercalated lt. grn. dull, subway shale w/rare chert pebbles and finely pyritic. Min. white pulverent gyp. and faded purp. sh.
[illegible] - 970	Shale	As above, w/lgr. sandy sh. zones and minor inter-finger vertical. fresh-water ls.
[illegible] - [illegible]	Shale	Med. gry.-grn., silty, finely mica, commonly aren. w/common intercalated shaley sandstone, fine to med. grs., w/rare chert pebbles, all highly calc. and transitional to sandy, argill., ls. min. faded purp. shale intercalated and white pulverent gyp.
[illegible] - [illegible]	Shale	As above, w/min. aren. strtn. calc., w/common intercalated lt. grn., dull, subway sh., common chert pebbles included. Tre. faded purp. sh. and white pulverent gyp.
[illegible] - [illegible]	Shale	Gry.-brn. and med. grn.-gry. intercalated, hd. dec., dolo. w/ tre. blue-grn. shale pellets and black chert pebbles.
		Salt Mesa Sandstone - [illegible]
[illegible] - [illegible]	Dolomite	Lt. grnish-gry., gritty to aren., in part, w/rare lag. qtz. "floater" grs. and min. blk. chert pebbles, general clay content is high (45%), hd. dec. to silic w/thick stringers lt. gry. bent clay.
[illegible] - [illegible]	Dolomite	As above, w/abundant wh. bentonitic clay intcrbed. Tre. wh. pulverent gyp. and lt. grnish-whi., fine, hd., dolo. cement sandstone. Tre. chert.
[illegible] - [illegible]	Limestone	Gry.-grn. and med. gry. interbed., gritty, in part w/rare chert and qtz., "floater" grs., hd., dec. w/min. lt. gry. bent. clay intercalated.
1050 - 1060	Shale	Med. grnish-gry., dolo., gritty, impart, w/rare chert and qtz. "floater" grs., med. hd., dec. Min. lt. gry. bent. clay w/large chert grs.
1060 - 1070	Sandstone	Crm. to whitish, fine to conglom., cherty, med. hd., w/common wh. pulverent gypsum.
1070 - 1080	Limestone	Med. grnish-gry., argill, gritty to aren., rare chert and qtz. "floater" grs. w/intercalated med. grnish-gry. dolo. shale, gritty, Trace grnish-w[illegible]. fine to crse, gritty, sandstone.

550 - 560	Shale	Variegated, w/abundant varicolored sandy fresh-water ls. Rare chert pebbles.
560 - 580	Sandstone	Lt. grnish-gry. to whitish, fine grn., hard, dense highly calc. w/varicolored chert grn. w/min. transitional phases finely sandy ls. Min. interbed. varigat. shales and varicolored fresh-water ls.
580 - 600	Shale	Maroon and brn., very dull and waxy w/min. interbed. dull gry.-grn. shale and fresh water ls.
600 - 610	Sandstone	Lt. gry. to whitish, fine w/ rare large chert grn., hard, dse, highly calc. min. interbedded varieg. shales and vari-colored limestone.
610 - 620	Shale	Varieg. w/interbed. sandstone stringers and sandy ls. as above. Sandstone is very hard and glossy w/rare conglom. phases. Cherty. Trc. white pulverent gypsum.
620 - 658	Shale	Varieg., dull, waxy, w/abundant varicolored conglom. chert pebbles, gyppy, w/interfing varicolored fresh-water ls.
		<u>Top Buckhorn Conglomerate - 658</u>
658 - 670	Shale	Varieg., conglom., cherty, as above, w/40% interbed. fine to conglom. white sandstone, gy py cementing. Abundant varicolored chert pebbles.
670 - 687	Chert	Conglomeratic, varicolored, w/interfinger, white sandstone, as above.
		<u>Top Morrison Formation @ 687</u>
687 - 700	Shale	Maroon and brn., w/min. interbed. varieg. sh. and fresh water ls., sandy, in part.
700 - 720	Shale	Generally grnish-gry., waxy, dull, w/min interbed maroon sh. and varicolored fresh-water ls.
720 - 750	Shale	As above, w/trc. white sandstone and vari-chert pebbles.
750 - 760	Shale	Varieg., generally maroon and brn., dull, waxy, w/ interbed. varicolored fresh-water ls., sandy, in part. Trc. chert pebbles.
760 - 780	Shale	As above, but generally varieg. w/common dull grn. shales.
780 - 800	Shale	As above, commonly off-shades of grn. w/abundant fresh-water ls., varicolored but commonly grn. Trc. chert pebbles.
800 - 900	Shale	As above, commonly bentonitic, calc. w/common transitions to argill. ls. Trc. sandy ls. strks.

STAR OIL REFINING COMPANY

Analysis of Crude Oil
From Equity Oil Company Mounds #2 Well
Received January 5, 1953

	Equity Oil Crude Mounds #2 Well
Gravity, ° API	35.3
RVP, #/Sq. In.	0.9
Pour Point, °F.	-25
SSU Viscosity @ 100° F	42.2
SSU Viscosity @ 77° F	46.8
Sulfur, Wt. %	.367
Distillation	
IBP, °F	About 160*
5% Recovered	230
10% Recovered	275
20% Recovered	341
30% Recovered	417
40% Recovered	492
50% Recovered	550
60% Recovered	613
70% Recovered	670
80% Recovered	720
87% Recovered	740 (Cracking)
95% Recovered	
Max. BP, °F.	
Recovery	94
Residue	6

* Mercury level hidden by cork.

This five gallon sample contained 2½ to 3 inches of water and emulsion, 4 to 5 inches of paper of emulsion above the emulsion layer and about one half can of clear oil.

RECEIVED
JAN 26 1954
U. S. OIL SHALE BRANCH
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH