

Pyramid Oil & Prod.
NE/SW Sec. 18, T40N, R9W
Mohave County

677

RE

COUNTY Mohave AREA Short Creek LEASE NO. Fed. A-8188

WELL NAME 2 Federal Pyramid Oil Company

LOCATION NE/SW/4 SEC 18 TWP 40N RANGE 9W FOOTAGE 3925 FEL & 1520 FSL

ELEV 4950' GR 4958 KB SPUD DATE 6-2-77 STATUS PQA TOTAL DEPTH 4509
 COMP. DATE 10-17-77

CONTRACTOR Rudy Johnson, St. George, Utah

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
<u>8 7/8</u>	<u>452</u>	<u>150SKS</u>		<input checked="" type="checkbox"/>
				DRILLED BY CABLE TOOL <input type="checkbox"/>
				PRODUCTIVE RESERVOIR <input type="checkbox"/>
				INITIAL PRODUCTION <u>DEA</u>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS	
		L.L.	E.L.		
PERMIAN					
Kaibab limestone	165'			<i>See Geological Report.</i>	
Toroweap formation	571'				
Coconino sandstone	990'				
Hermit shale	1051'				
Queantoweap formation	1829'				
Pakoon formation	2195'				
PENNSYLVANIAN					
Upper Callville ls	2452'			<i>Leuth in report on Pyramia # 1 Corrects Pakoon + Callville tops on Pyramid # 2 Amstret - Unable to identify any Cambrian strata (oral comm. 3/17/78)</i>	
Supai tongue	2686'				
Lower Callville ls	2823'				
MISSISSIPPIAN					
Redwall limestone	3232'	<u>A</u>	<u>NA</u>		
DEVONIAN					
Martin formation	3690'				
CAMBRIAN					
Cambrian (unnamed Dol.)	4127'				
Muav limestone	4380'				

WATER WELL ACCEPTED BY _____

BOND CO. The Aetna Casualty & Surety Co. BOND NO. 59 S 8036 BCA
 BOND AMT. \$ 5,000 CANCELLED 2/20/80 DATE _____
 FILING RECEIPT 861 LOC. PLAT X WELL BOOK X ORGANIZATION REPORT 3-28-77 PLAT BOOK X
 API NO. 02-015-200204 DATE ISSUED 3-28-77 DEDICATION N/2 SW/4

PERMIT NUMBER 677

COUNTY

LEASE NO. Fed. A-8188

WELL

Company

LC

9W FOOTAGE 3925 FEL & 1520 FSL

E

STATUS PFA TOTAL DEPTH 4509
COMP. DATE 10-17-77

DEPTH

DRILLED BY ROTARY

DRILLED BY CABLE TOOL

PRODUCTIVE RESERVOIR

INITIAL PRODUCTION D&A

FORCE

E.L.

REMARKS

See Geological Report.

Length in report on Pyramid #1
Corrects Pakorn + Cellville tops on
Pyramid #2
Am Strat - Unable to identify any
Cambrian strata (oral comm. 3/11/78)

ELECTRIC LOGS

PERFORATED INTERVALS

PROD. INTERVALS

SAMPLE LOG

Dual Induction-
Waterlog

NA

NA

SAMPLE DESCRP.

SAMPLE NO. 1787

CORE ANALYSIS NONE

DSTS NONE

Jonic & Gamma Ray
Am-strat

REMARKS

APP. TO PLUG

PLUGGING REP.

COMP. REPORT

WATER WELL ACCEPTED BY

BOND CO. The Aetna Casualty & Surety Co.

BOND NO. 59 S 8036 BCA

BOND AMT. \$ 5,000

CANCELLED 2/20/80

DATE ORGANIZATION REPORT 3-28-77

FILING RECEIPT 861

LOC. PLAT X

WELL BOOK X

PLAT BOOK X

API NO. 02-015-200104

DATE ISSUED 3-28-77

DEDICATION N/2 SW/4

PERMIT NUMBER 677

(over)

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well Work-Over Deepen Plug Back Same Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator **PYRAMID OIL COMPANY** Address **P.O. BOX 3225 SANTA FE SPRINGS, CALIF. 90670**

Federal, State or Indian Lease Number or name of lessor if fee lease **A8188** Well Number **2** Field & Reservoir **WILDCAT**

Location **= 1920 fsl 3925 fcl 1279.90' N & 1520.00' N. FROM SW 1/4 COR** County **MOHAVE**

Sec. TWP-Range or Block & Survey **18-40N-9W GSRM**

Date spudded **6-2-77** Date total depth reached **4509'** Date completed, ready to produce **4950'** Elevation of casing hd. Range **4958'**

Total depth **4509'** P.E.T.D. **DRY** Single, dual or triple completion? **DRY** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **DRY** Rotary tools used (interval) **0-4509'** Cable tools used (interval)

Was this well directionally drilled? **NO** Was directional survey made? **NO** Was copy of directional survey filed? **NO** Date filed

Type of electrical or other logs run (check logs filed with the completion) **DUAL-INDUCTION - LATERALOG SONIC LOG & GAMMA RAY** Date filed

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
SURFACE	12 1/4"	8 3/8"	24	452	150	0

TUBING RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)
8"	4509'						

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval	Am't. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production **DRY HOLE** Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:)

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **VICE-PRESIDENT** of the _____ (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date **NOV. 30, 1977** Signature **Charles J. Martin**

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
<i>SEE ATTACHMENT</i>			

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach driller's log or other acceptable log of well.
This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil and Gas Conservation Commission not later than thirty days after project completion.

APPLICATION TO ABANDON AND PLUG

FIELD WILDCAT
 OPERATOR PYRAMID OIL COMPANY ADDRESS P.O. BOX 3225 SANTA FE SPRINGS, CAL. 90670
 Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease A 8188 WELL NO. 2
 LOCATION 1279.90' W AND 1520.00' N. FROM S 1/4 COR. SEC. 18, T40N. R9W. GSRM
= 1520fsl 3925fel
 TYPE OF WELL DRY HOLE (Oil, Gas or Dry Hole) TOTAL DEPTH 4509'
 ALLOWABLE (If Assigned) _____
 LAST PRODUCTION TEST OIL _____ (Bbls.) WATER _____ (Bbls.)
 GAS _____ (MCF) DATE OF TEST _____
 PRODUCING HORIZON _____ PRODUCING FROM _____ TO _____

1. COMPLETE CASING RECORD.

8 5/8" @ 452' with 150 SX REG. CEMENT

2. FULL DETAILS OF PROPOSED PLAN OF WORK

PUMP IN CEMENT PLUGS:

# 1	100'	30 SX	4050 - 4150'
# 2	130'	39 SX	2700 - 2830'
# 3	80'	24 SX.	2380 - 2460'
# 4	100'	30 SX	400' - 500' BASE SURFACE PIPE
# 5	PLUG & MARKER AT SURFACE		

DATE COMMENCING OPERATIONS 10/14/77
 NAME OF PERSON DOING WORK J. T. HATHAWAY ADDRESS BOX 3225 SANTA FE SPRINGS, CALIF
 Signature [Signature]
 Title VICE-PRESIDENT
 Address P.O. BOX 3225 SANTA FE SPRINGS, CALIF. 90670
 Date 11/30/77

Date Approved 10-14-77
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 By: [Signature]

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Application to Abandon and Plug
 File Two Copies
 Form No. 9

Permit No. 677

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other **DRY HOLE**

2. NAME OF OPERATOR
PYRAMID OIL COMPANY

3. ADDRESS OF OPERATOR
P.O. BOX 3225 SANTA FE SPRINGS, CALIF. 90670

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE:
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE **A-8188**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO. **#-2**

10. FIELD OR WILDCAT NAME
WILD CAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SEC. 18, T40N., R9W., CSRM

12. COUNTY OR PARISH **MOHAVE** 13. STATE **ARIZONA**

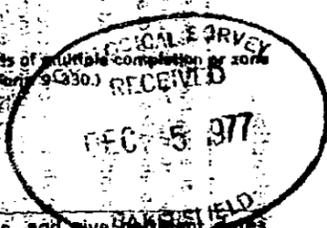
14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4758 RAT. SURVING

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input checked="" type="checkbox"/>
(other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)



17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent notes, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WE PUMPED IN CEMENT PLUGS AS FOLLOWS:

#1	100'	30SX	4050-4150'
#2	130'	39SX	2700-2830'
#3	80'	24SX	2380-2460'
#4	100'	30SX	400-500' BASE SURFACE PIPE
#5	PLUG & MARKER AT SURFACE		

LEVELLED SURFACE

Inspected and found satisfactory by John Wade
Dec. 9 1977

Subsurface Safety Valve: Manu. and Type _____ John Wade Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Charles J. Wagner TITLE VICE-PRESIDENT DATE 12-2-77

(This space for Federal or State office use)

APPROVED BY J.P. Wagner TITLE District Engineer DATE January 3, 1977
CONDITIONS OF APPROVAL IF ANY: J. P. Wagner

cc: Arizona Oil & Gas Con. Commission

JAN 10 1978
O & G CONS. COMM.

677

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR
PYRAMID OIL COMPANY

3. ADDRESS OF OPERATOR **90670**
P.O. BOX 3225 SANTA FE SPRINGS, CALIF.

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
1279.90' N AND 1520.00' N FROM
AT SURFACE: SW CORNER SECT. 18, T. 40N., R. 9W., GSRM
AT TOP PROD. INTERVAL: SAME
AT TOTAL DEPTH: SAME

5. LEASE **A8188**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
FEDERAL NO. 2

10. FIELD OR WILDCAT NAME
WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SEC. 18, T. 40N., R. 9W., GSRM

12. COUNTY OR PARISH **MONAVE** 13. STATE **ARIZONA**

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) RIG CHANGE <input type="checkbox"/>	<input type="checkbox"/>

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

RUDY JOHNSON DRILLING RIG MOVED OFF 7/5/77
MOVED TOIYABE RIG IN SEPT. 1, 1977. RIG LIST
ATTACHED.

RECEIVED
SEP 29 1977
O & G CONS. COMM.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct
SIGNED Charles J. Winkler TITLE VICE-PRESIDENT DATE 9-21-77

(This space for Federal or State office use)
APPROVED BY J. P. Wagner TITLE District Engineer DATE September 26, 1977
CONDITIONS OF APPROVAL, IF ANY: J. P. Wagner

SEE ATTACHED CONDITIONS AND REQUIREMENTS

cc: Arizona Oil & Gas Commission
*See Instructions on Reverse Side

677

COMPLETION REPORT
PYRAMID OIL COMPANY
NO. A-2 FEDERAL
SW/4 SECTION 18-T40N, R9W
MOHAVE COUNTY, ARIZONA

Robert E. Lauth
Geologist APGS 1366
P. O. Box 776
Durango, Colorado 81301
303-247-0025

ROBERT E. LAUTH
GEOLOGIST
POST OFFICE BOX 776
960 EAST SECOND AVENUE
DURANGO, COLORADO 81301
Telephone (303) 247-0025

W E L L S U M M A R Y

OPERATOR: Pyramid Oil Company
LEASE & WELL NO.: No. A-2 Federal
SW/4 Section 18-40N-9W Mohave County, Arizona
(1280' FWL, 1320' FSL)
ELEVATION: 4950' Ground; 4958' Rotary Bushing (all
measurements are from Rotary Bushing)
SPUD DATE: June 2, 1977
CEASED DRILLING: October 12, 1977
COMPLETION: Plugged and Abandoned, October 14, 1977
TOTAL DEPTH: 4509' Driller; 4509' Schlumberger
CONTRACTOR: Rudy Johnson, St. George, Utah
0' to 1491'
Toiyabe Oil Company (Barney Harless),
Tonapah, Nevada
1491' to 4509'
HOLE SIZE: 12 1/4" to 452'; 7 7/8" from 452' to 4509'
SURFACE CASING: 8 5/8" at 452' with 150 sx regular cement
MUD PROGRAM: Air & Air-Mist to 3435 feet
Fresh water gel mud 3435' to 4509'
LOGS: Schlumberger: Dual-Induction-Laterolog: 452'-4503'
Detail: 452'-4503'
Borehole Compensated
Sonic Log & Gamma Ray with caliper : 462'-4507'
Detail: 462'-4507'

Compensated Neutron-Formation Density:

Detail: 461'-4508'

CORES: None taken
DRILL-STEM TESTS: None taken. Air drilled to 3435 feet
SAMPLE QUALITY: Poor to Fair 10' Samples 90' to 1490'
 30' Samples 1490' to 2700'
 10' Samples 2700' to 4509'
SAMPLE DISPOSITION: One set to: Arizona State Oil & Gas Conservation
 Commission
 8686 N. Central #106
 Phoenix, Arizona 85020
 One set to: Arizona Bureau of Mines
 University of Arizona
 Tucson, Arizona 85711
SAMPLE LOG: R. E Lauth. 90' to 1491 feet
 Western Well Logging Service: 1491' to 4509 feet

BIT RECORD:

No.	Size	Make	Type	From	To	Footage	Hours
1.	7 7/8"	Security	S84F	1491'	2120'	629'	30 hrs
2.	7 7/8"	Security	M84F	2120'	2540'	420'	31½ hrs
3.	7 7/8"	Security	S86F(RR)	2540'	3135'	595'	32 hrs
4.	7 7/8"	Security	S86F	3135'	3435'	300'	25 hrs
5.	7 7/8"	Hughes	J-33	3435'	3712'	277'	63 hrs
6.	7 7/8"	Hughes	J-44	3712'	4509'	797'	129½ hrs

The total time from spud date to completion was 134 days. Nineteen (19) days were spent with the surface rig (Rudy Johnson) to 1491 feet. Sixty-one days (61) were spent waiting on a bigger rig to drill the lower part of the hole. In total 54 days were used by both rigs in drilling the hole to 4509 feet.

From 1491' to 4509' a total of six (6) bits, with one re-run, were used. Average footage per bit was 503 feet. Cumulative rotating hours in the interval 1491' to 4509' were 311 hours for the average feet penetrated of 9.7 feet per hour.

PLUGGING RECORD:

Verbal approval was obtained from U.S. Geological Survey in Bakersfield, California on October 14, 1977 to plug & abandon this well.

Plugs were placed as follows using the pump and plug method. The surface pipe plug 400' to 500' was witnessed by U.S.G.S. as requested.

<u>Plug No.</u>	<u>Thickness</u>	<u>Sacks (est.)</u>	<u>Depth</u>	<u>Formation</u>
1.	100'	30 sx	4050 - 4150	Devonian & Cambrian
2.	130'	39 sx	2700 - 2830	Supai & Callville
3.	80'	24 sx	2380 - 2460	Upper Callville
4.	100'	30 sx	400 - 500	Base Surface pipe

DRILLING TIME: No Geolograph or Time recorder was used on either rig. Drilling time using a stop watch was kept from 2710' to 4509'

GAS LOGGER: 2540' to 4509'

SAMPLE RESISTIVITY: 100' to 4509' various increments, mostly 10 foot.

FORMATION DATA: No. A-2 Federal
 ELEVATION: 4958' RB

<u>Formation</u>	<u>Depth</u>	<u>Elevation</u>	<u>Thickness</u>	<u>Structural Relationship*</u>
PERMIAN				
Kaibab limestone	165'	(+)4793	406'	253' high
Toroweap formation	571'	(+)4387	419'	419' high
Coconino sandstone	990'	(+)3968	61'	398' high
Hermit shale	1051'	(+)3907	778'	406' high
Queantoweap formation	1829'	(+)3129	366'	299' high
Pakoon formation	2195'	(+)2763	102'	346' high
PENNSYLVANIAN				
Upper Callville ls	2297'	(+)2661	389'	351' high
Supai tongue	2686'	(+)2272	137'	217' high
Lower Callville ls	2823'	(+)2135	409'	563' high
MISSISSIPPIAN				
Redwall limestone	3232'	(+)1726	458'	337' high
DEVONIAN				
Martin formation	3690'	(+)1268	437'	—
CAMBRIAN				
Cambrian (unnamed Dol.)	4127'	(+)831	253'	—
Muav limestone	4380'	(+)578	—	—
TOTAL DEPTH	4509'			

*Reference Well: Falcon-Seaboard Drlg. Co. No. 1 Antelope
 Elev. 4710' KB (est)
 eight and one-half (8½) miles east south-east
 SE SW Sec. 28 T40N R8W
 Mohave County, Arizona

CONDENSED WELL DRILLING HISTORY:

- 6-2-77 Spud midnight - Rudy Johnson, St. George, Utah, contractor
7 7/8" hole, drilled to 580 feet.
- 6-15-77 Reaming hole 7 7/8" to 12 1/4".
- 6-23-77 Set 8 5/8" casing @ 448' Ground, cemented with 150 sx regular
cement.
- 6-30-77 Drilling 600' in red shale & gypsum. Air-Mist drilled.
- 7-5-77 Present depth 1491'; shut down, moved out Rudy Johnson's
rig because no blowout equipment, waiting on a larger rig,
- 9-10-77 Moved in Toi-yabe Oil Company's rig out of Tonapah, Nevada;
Barney Harless, owner.
- 9-13-77 At 2100' converted to Air-Mist, Drilling 2238' noon. No
show of hydrocarbons to date.
- 9-15-77 Present depth 2520', Drill pipe out of hole, cones off of bit.
Waiting on Globe Basket & Magnet.
- 9-16-77 Start in hole, staged in because of water in hole, estimated
1000' - Cleaned out junk, Back in hole with new bit.
- 9-19-77 Changing bits @ 3322' waiting on change over sub. Hole caving
badly, mostly red beds.
- 9-21-77 Back on bottom, staged in, estimated 1800' water in hole,
Reamed 3254' to 3322', Drilled to 3435', out of hole for
new bit.
- 9-23-77 In hole with bit No. 5, cavings in hole to 3385', stuck bit
& pipe off bottom.
- 9-24-77 Free point @ 3344', Shot off at top of 1st drill collar.
Top of fish @ 3327', Waiting on mud pump & pits.

- 9-29-77 Fishing for collars; Ran blocks into crown, dropped to floor,
No injuries, Repairing rig & drilling line.
- 10-2-77 Went in hole with collars open-ended & screwed into fish;
Recovered same; serviced rig, going in hole with bit,
preparing to drill ahead with mud.
- 10-4-77 Drilling 3514 feet.
- 10-6-77 Trip for Bit No. 6 at 3712 feet.
- 10-9-77 . Drilling 4086 feet.
- 10-11-77 Pump trouble 4371 feet, down 4 hours.
- 10-12-77 Present depth 4508' out of hole, preparing to log hole.
- 10-13-77 Logged using Schlumberger.
- 10-14-77 Plugged hole with four plugs - USGS, Bakersfield, Calif.
witnessed the plug from 400 - 500 feet.

DISCUSSION & SUMMARY:

The Pyramid Oil Company's No. A-2 Federal well was drilled to test primarily the Permian-Pakoon formation, the Pennsylvanian Callville formation and the Mississippian & Devonian sections in an area of very few previous drillings. It was a farmout from Whitestone Corporation of Denver, Colorado with L. O. Ward of Enid, Oklahoma acquiring an interest in the Block. The A-2 Federal well is located on the large Hurricane Structure on the east side of the Hurricane Fault.

After drilling the Pyramid No. A-2 Federal well, the following facts and observations can be made:

- 1.) The Pakoon formation (2195' to 2297') was a sandstone, tan to brown very fine grained and silty. No hydrocarbon shows and very ineffective porosity was evident in the samples and on the mechanical logs.
- 2.) The Callville formation (2297' to 3232') is composed of calcareous sandstone with dolomite and anhydrite streaks and inclusion in the upper portion. The Supai red bed tongue separates the upper and lower Callville. The Lower Callville was mostly a dense limestone with minor streaks of dolomite and sandstone. This formation had no hydrocarbon shows. In fact it contained fresh water noted at 2360' to 2380' and 2610' and a possible increase in the Supai tongue from 2686' to 2823'.
- 3.) The Mississippian Redwall occurred from 3232' to 3690'. It is a dense to crystalline white limestone with fossils and chert inclusions. It becomes dolomitic towards the base. Fracture

vugular and intercrystalline porosity are present. Only very minor oil & dead oil stain was observed in the sample cuttings & on the mud logging equipment.

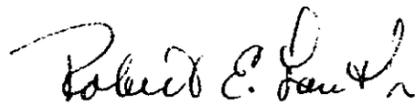
Minor gas show 3385 - 3390 & Dead oil stain 3540 - 3550 (Tar-like residue).

- 4.) The Devonian, Martin formation (3690 - 4127) is essentially a tan gnarly dolomite with minor interbedded green and pastel colored shales. No hydrocarbon shows were noted in the sample cuttings or on the mud logging equipment. An interesting zone occurred at the base from 4034' to 4127'. Log calculation give a porosity of 8%. Good intercrystalline porosity was observed in the sample cuttings. No shows were evident except the dolomite had a bright yellow mineral fluorescence. Log calculations give a R_w of 1.0 ohms at 85°F. Water Saturation then is over 95%.
- 5.) The Cambrian, unnamed Dolomite (4127' - 4380') had a very minor dead oil stain with no cut from 4155' to 4165'. The mud logging equipment recorded 25 units of hydrocarbon gas. The formation was a tan to gray dolomite with intercrystalline to sucrosic porosity. Much bright yellow mineral fluorescence with no cut in CCl_4 was also present.

6.) Another interesting feature which showed up was that this was a cold hole. Bottom hole temperature at 4500 feet was only 85°F. This could indicate possible fresh water movement near the Hurricane Fault which has cooled these formations.

CONCLUSIONS:

This test well adequately tested all formations penetrated. All potential productive horizons were either tight, showed inadequate reservoirs or were water-bearing.



Robert E. Lauth
Certified Professional Geologist
APGS No. 1366; AAPG No. 707

Dated: November 25, 1977
Durango, Colorado

WELL SITE CHECK

By WBO
Date 9-14-77
Contractor Company Rig Person(s) Contacted Barney Hawless
Spud Date _____
Type Rig Cardwell Rotary Cable Present Operations Drilling
Samples _____
Pipe 3 5/8 @ 449 Drilling with Mud Air
Water Zones _____ Size Hole 7 1/2
Lost Circ. Zones _____ Size Drill Pipe 3 1/2
Formation Tops _____ Type Bit _____
Cores, Logs, DST _____ No. Bit _____ Drilling Rate _____
Formation _____
Crews 3 - 4 MAN Lithology _____

REMARKS, PHOTO, MAP

Approx 9 gals water per minute

WELL NAME Pyramid No 2

Permit No. 677
Confidential Yes No

WELL SITE CHECK

By WGA

Date 6-8-77

Contractor JOHNSON Drilling Co

Person(s) Contacted Hathway &

Spud Date 5-31-77

Gale Morrison

Type Rig Rotary
Cable

Present Operations Reaming hole

Samples 10'

to 12 1/4"

Pipe _____

Drilling with Mud
Air

Water Zones Small amt below
300'

Size Hole 7 7/8

Lost Circ. Zones _____

Size Drill Pipe 3 1/2

Formation Tops _____

Type Bit _____

Cores, Logs, DST _____

No. Bit _____ Drilling Rate _____

Formation _____

Crews 3-4 man

Lithology _____

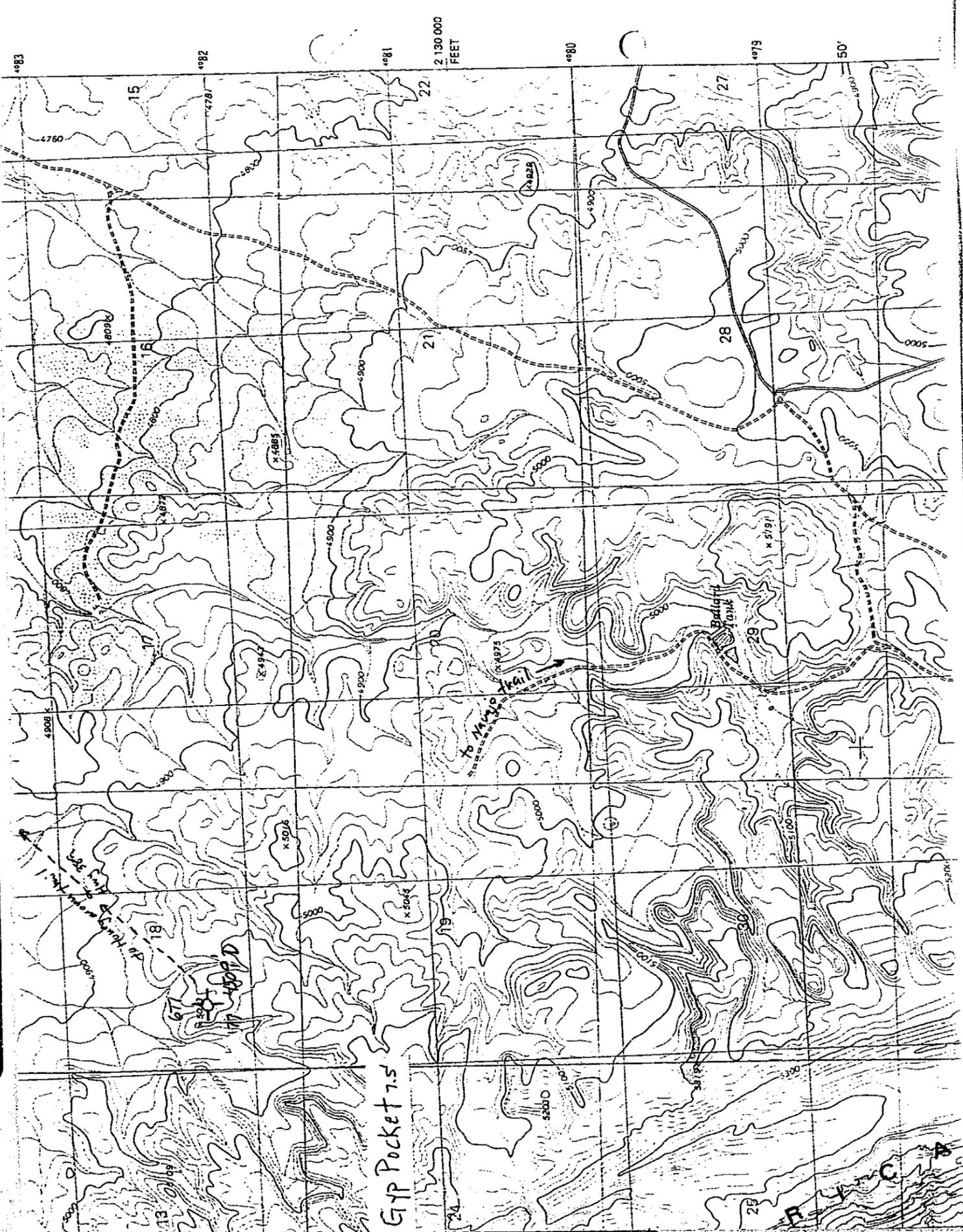
REMARKS, PHOTO, MAP

map on separate sheet

WELL NAME Pyramid Oil
Federal No 2

Permit No. 677
Confidential Yes No

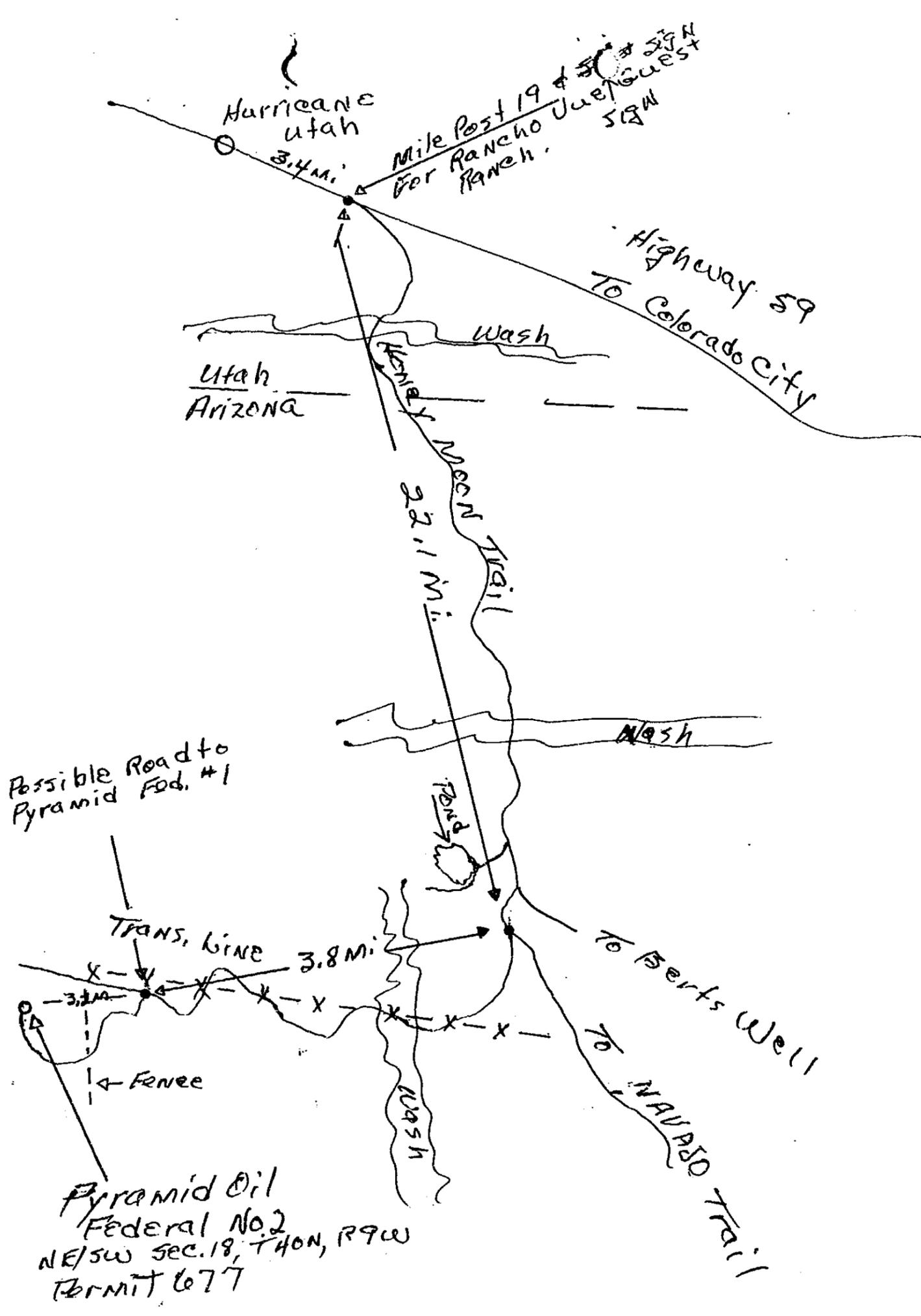




2 130 000
FEET

Gyp Pocket 7.5

FLY-C-A



The road from Highway 59 to the transmission line is well traveled and graded, any road leaving the main road is a mere trail. There are several signs along the main road indicating Ariz. state line, various wells and springs.

309 Federal Building
500 Truman Avenue
Bakersfield, California 93301

APR 25 1977
O & G CONS. COMM.

April 20, 1977

Pyramid Oil Company
P. O. Box 5225
Santa Fe Springs, California 90670

Gentlemen:

Enclosed is an approved copy of your Application For Permit To Drill, "Federal No. 2", Lease A-8188 in section 18, T. 40 N., R. 9 W., GSRM, Mohave County, Arizona. We have attached our list of usual conditions of approval but for this location we must add the following special stipulations:

1. If any antiquities should be discovered during the course of activity you will cease operations on that particular phase of the project and notify this office and the District Manager, NLM at St. George, Utah, immediately.
2. Send a weekly drilling report to USGS office at the above address.
3. Access roads will be laid out by a NLM official prior to entry - one week notice required.
4. Any road construction or improvements must be cleared with the NLM officials.
5. Drillsite will be a minimum needed for operation.
6. All vehicles will be restricted to the established travel routes.
7. Borelogging according to NLM specifications will be required.

Sincerely yours,

(Orig. Sgd.) D. E. RUSSELL

D. F. Russell
District Engineer

Enclosures

cc: Oil & Gas Supervisor, Pacific Area
Regional Manager's office, Mamie Park thru/LA
NLM State Office, Phoenix, Arizona
NLM District Office, St. George, Utah
Arizona State Oil & Gas Con. Commission ✓

Form 9-3314
(May 1960)

1-31-77
SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
OIL WELL GAS WELL OTHER
SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
PYRAMID OIL COMPANY

3. ADDRESS OF OPERATOR
P. O. BOX 3225 Santa Fe Springs, CA 90670

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface 1279.90' W. and 1520.00' N. from S $\frac{1}{2}$ Corner
At proposed prod. zone Section 18, T 40N., R.9W., G.S.R.M.
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
30

16. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit lloc. if any)
1320'

18. NO. OF ACRES IN LEASE
2258

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
4500'

17. NO. OF ACRES ASSIGNED TO THIS WELL
160

20. ROTARY OR CABLE TOOLS
Cable Tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

22. APPROX. DATE WORK WILL START*
8-1-77

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 $\frac{1}{2}$ "	8 5/8"	24#	450'	
7 7/8"	7"	20#	4500'	

WE PROPOSE TO DRILL WITH CABLE TOOLS TO A DEPTH OF 4500' \pm OR TO PRODUCTION IF SECURED AT A LESSOR DEPTH.

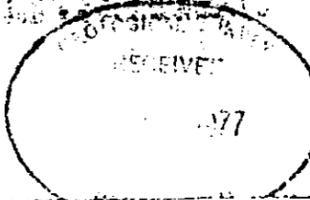
APR 18 1977

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED J. J. [Signature] TITLE President DATE 1/28/77
(This space for Federal or State office use)

PERMITS NO. [Signature] APPROVAL DATE April 20, 1977
APPROVED BY D. F. Russell TITLE District Engineer
CONDITIONS OF APPROVAL, IF ANY: D. F. Russell

cc: Regional Manager's, Menlo Park thru L.A.
BLM State Office, Phoenix, Arizona
BLM District Office, St. George, Utah
Arizona State Oil & Gas Con. Commission



Your proposed work is approved subject to the following requirements:

1. Compliance with Federal Oil and Gas Operating Regulations.
2. The date actual drilling is started shall be reported promptly to the District Engineer.
3. Any change in the approved program must receive prior approval of the District Engineer.
4. Install adequate blowout prevention equipment and maintain in good condition at all times. Rams should be tested occasionally by opening and closing and against pressure.
5. All pertinent data, including electrical logs, directional surveys, core descriptions and analyses, stratigraphic and faunal determinations, formation tests, and similar information shall be submitted in duplicate. Electrical logs and similar surveys and the results of formation tests should be submitted as soon as the records are available. Other data not previously submitted shall be included in or submitted with the log and history.
6. Notify the District Engineer in advance of formation or water shut-off tests.
7. Before the production string is cemented or the hole abandoned, the District Engineer shall be notified and allowed sufficient time to examine cores, electric logs or other records.
8. All rigs or wells shall be permanently marked in a conspicuous place with the name of the operator, the lease serial number and the number and location of the well. This marker to be maintained at all times.
9. Drilling equipment shall not be removed from any suspended drilling well without first securing the written consent of the District Engineer.
10. Two copies of the Lessee's Monthly Report of Operations (Form 9-329) must be forwarded not later than the sixth of the following month to:

Area Oil and Gas Supervisor
U. S. Geological Survey
Pacific Area
7744 Federal Building
300 North Los Angeles Street
Los Angeles, California 90012

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

PYRAMID OIL COMPANY

NAME OF COMPANY OR OPERATOR

P. O. Box 3225

Santa Fe Springs

California 90670

Address

City

State

Rudy Johnson

Drilling Contractor

St. George, Utah

Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor A-8188	Well number Federal No. 2	Elevation (ground) 4950'
Nearest distance from proposed location to property or lease line: 1320 feet	Distance from proposed location to nearest drilling, completed or applied--for well on the same lease: 0 feet	
Number of acres in lease: 2258	Number of wells on lease, including this well, completed in or drilling to this reservoir: 0	
If lease, purchased with one or more wells drilled, from whom purchased:		
Name	Address	
Well location (give footage from section lines) 32925' from E. and 1520' from S.	Section--township--range or block and survey Sec. 18, 40N., 9W., GSRM	Dedication (Comply with Rule 105) N/2 of SW/4
Field and reservoir (if wildcat, so state) Wildcat	County Mohave	
Distance, in miles, and direction from nearest town or post office 30		
Proposed depth: 4500'	Rotary or cable tools Rotary	Approx. date work will start 4-20-77
Bond Status 59S8036BCA	Organization Report	Filing Fee of \$25.00
Amount \$5,000	On file Or attached <input checked="" type="checkbox"/>	Attached <input checked="" type="checkbox"/>

Remarks:

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Vice President of the PYRAMID OIL COMPANY (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature

March 23, 1977
Date

Permit Number: 677

Approval Date: 3-28-77

Approved By: [Signature]

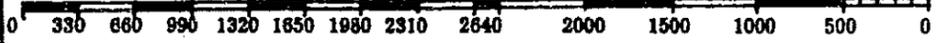
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

Form No. 3

1. Operator shall outline the dedicated acreage for both oil and gas wells on the plat. ATTACHED
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
3. All distances shown on the plat must be from the outer boundaries of the Section.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO If answer is "yes," Type of Consolidation _____
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	Land Description																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; height: 100px;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> </table>																	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td><i>Charles V. Martin</i></td> </tr> <tr> <td>Position</td> <td>Vice President</td> </tr> <tr> <td>Company</td> <td>PYRAMID OIL COMPANY</td> </tr> <tr> <td>Date</td> <td>March 23, 1977</td> </tr> </table> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date Surveyed</td> <td></td> </tr> <tr> <td>Registered Professional Engineer and/or Land Surveyor</td> <td></td> </tr> </table> <p>Certificate No.</p>	Name	<i>Charles V. Martin</i>	Position	Vice President	Company	PYRAMID OIL COMPANY	Date	March 23, 1977	Date Surveyed		Registered Professional Engineer and/or Land Surveyor	
Name	<i>Charles V. Martin</i>																												
Position	Vice President																												
Company	PYRAMID OIL COMPANY																												
Date	March 23, 1977																												
Date Surveyed																													
Registered Professional Engineer and/or Land Surveyor																													



PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8 5/8"	24#	K55	0	450'		
7"	20#	J55	0	4500'		



PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PYRAMID OIL COMPANY
(OPERATOR)

to drill a well to be known as

Federal No. 2
(WELL NAME)

located ³/2925 FEL and 1520 FSL (N/2 SW/4)

Section 18 Township 40N Range 9W, Mohave County, Arizona.

The N/2 of SW/4 of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 28th day of March, 1977

OIL AND GAS CONSERVATION COMMISSION

By W. B. [Signature]
EXECUTIVE SECRETARY

PERMIT N^o 677

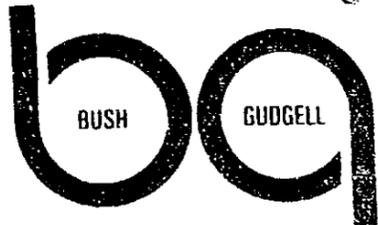
RECEIPT NO. 861

API Well No. 02-015-2002-04

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED



BUSH & GUGGELL, INC.
ENGINEERING AND LAND SURVEYING
165 NORTH 100 EAST • ST. GEORGE, UTAH 84770
TELEPHONE (801) 673 2337

January 11, 1977.

I, Gale E. Day, do hereby certify that I am a registered Land Surveyor and that I hold License No. 7386, as prescribed by the laws of the State of Arizona.

I further certify that I have established on the ground the following proposed Well site locations and have prepared the following descriptions.

~~Location # 1. (Located in Southwest $\frac{1}{4}$ of Northeast $\frac{1}{4}$ of Section 11, Township 41 North, Range 9 West, Gila and Salt River Meridian, Arizona.)~~

~~Proposed Oil Well site is located N $0^{\circ} 01'$ W 668.00 feet along the Section line and due West 4982.00 feet from the East $\frac{1}{4}$ Corner of Section 11, Township 41 North, Range 9 West, Gila and Salt River Meridian, Arizona.~~

FEDERAL NO. 1
Location # 2. (Located in Southeast $\frac{1}{4}$ of Section 28, Township 41 North, Range 9 West, Gila and Salt River Meridian, Arizona.)

Proposed Oil Well site is located N $0^{\circ} 02'$ W ^{1423.40} ~~1320.00~~ feet along the Section line and S $89^{\circ} 57'$ W 1320.00 feet from the Southeast Corner of Section 28, Township 41 North, Range 9 West, Gila and Salt River Meridian, Arizona.

FEDERAL NO. 2
Location # 3. (Located in Southwest $\frac{1}{4}$ of Section 18, Township 40 North, Range 9 West, Gila and Salt River Meridian, Arizona.)

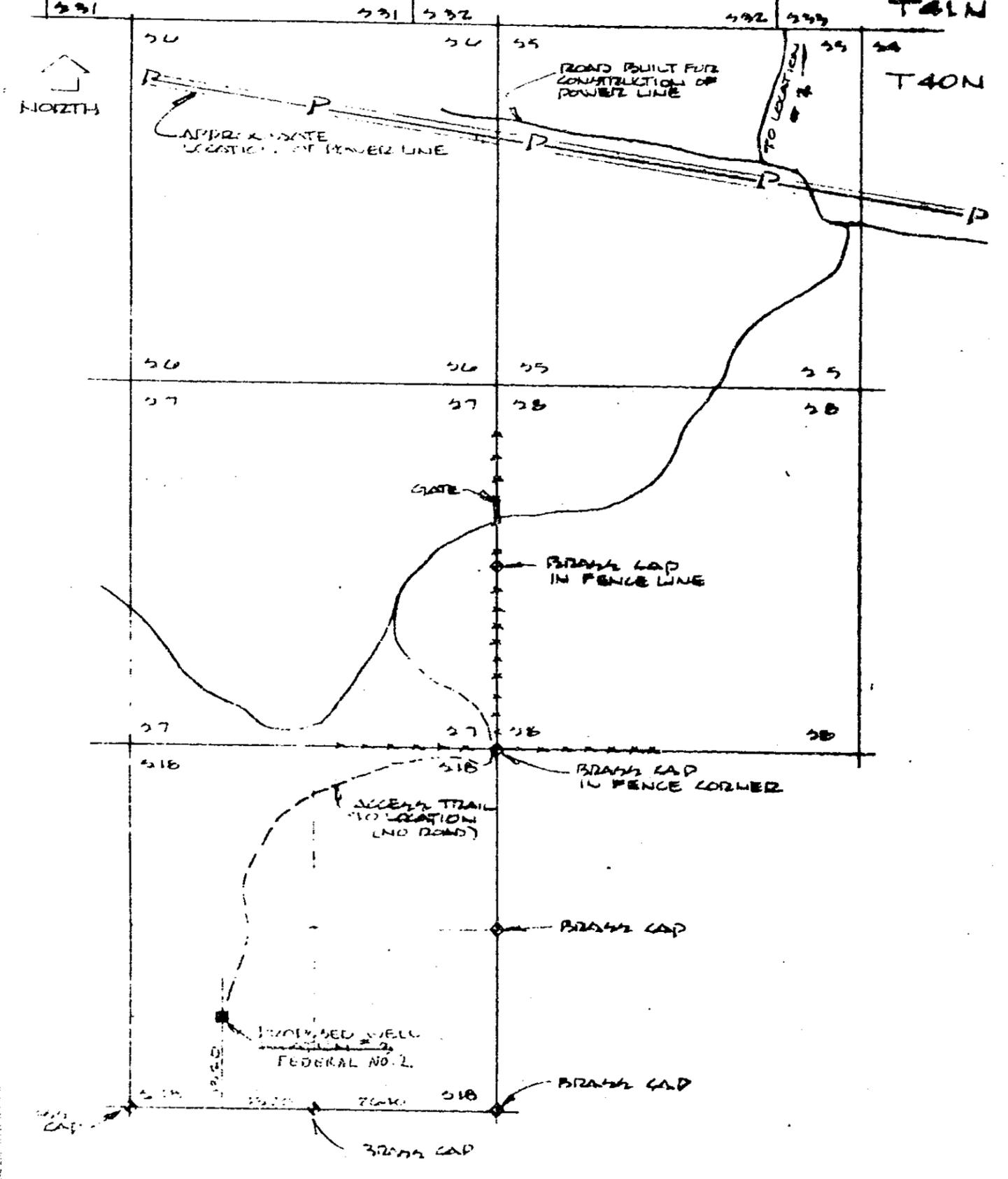
Proposed Oil Well site is located N $89^{\circ} 56'$ W ^{1520.00} ~~1279.90~~ feet along the Section line and due North ~~1279.90~~ feet from the South $\frac{1}{4}$ Corner of Section 18, Township 40 North, Range 9 West, Gila and Salt River Meridian, Arizona.)

NOTE

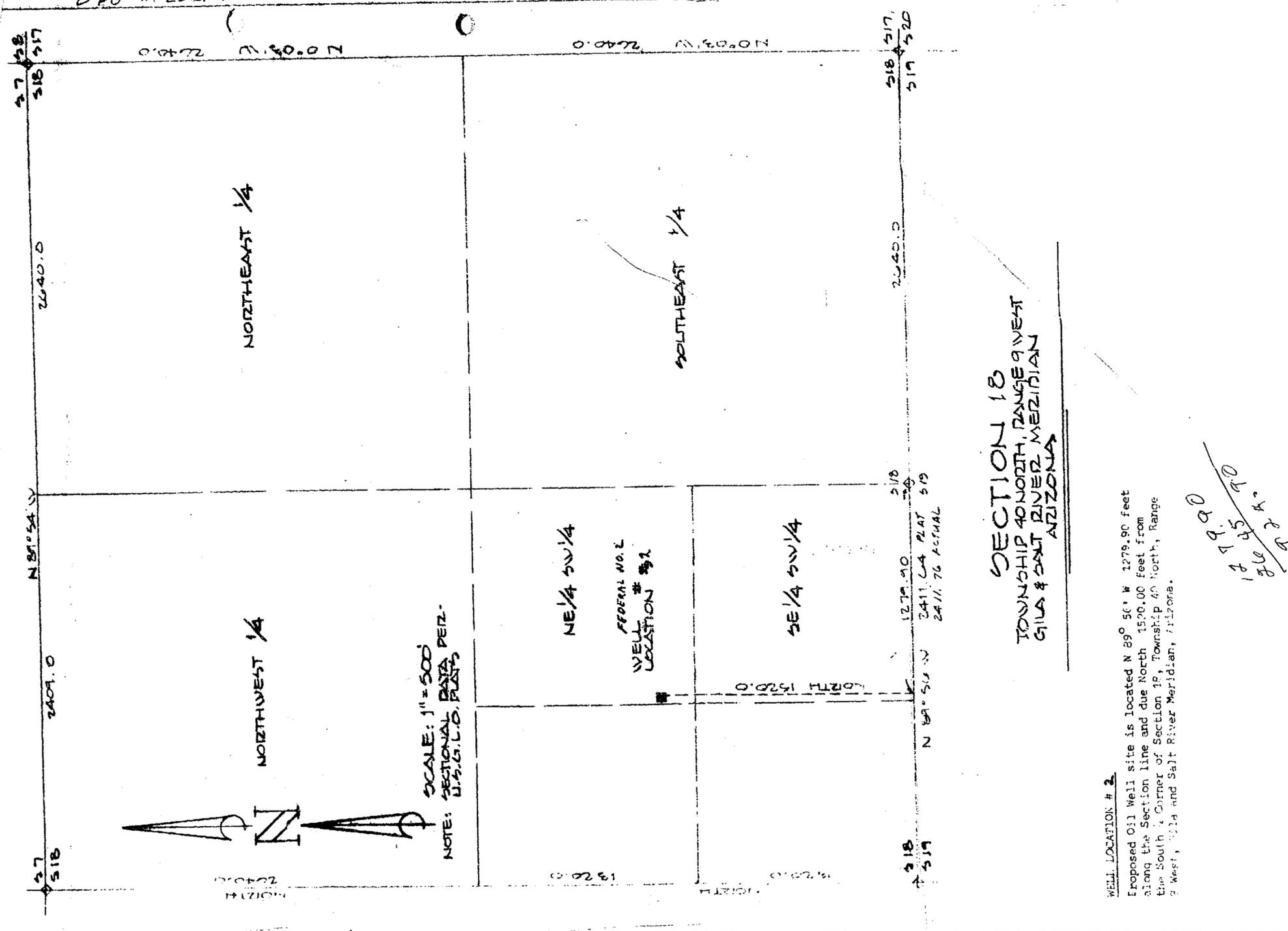
Locations moved in Field as shown.



DATE _____
 DRAWN BY _____
 DATE _____
 UNIT WELL LOCATION
 SECTION 240N, RANGE 42S, T40N
 PYRAMID OIL COMPANY



B46 #2521-A



PREPARED BY
BUSH & GILGHELL INC.
 105 NORTH 100 EAST
 ST. GEORGE, UTAH 84770
 801-673-2227

WELL LOCATION # 2
 Proposed Oil Well site is located N 89° 50' W 1279.90 feet along the Section line and due North 1520.00 feet from the South 1/4 Corner of Section 18, Township 40 North, Range 9 West, Gila and Salt River Meridian, Arizona.

17 19.00
 18 45.90
 19 24.00
 20 24.00

PRIMEVAL
 T. 40N Sec. 18, T. 10N
 Mohave County

255-

February 20, 1980

Bond Department
The AETna Casualty & Surety Co.
3225 N. Central
Phoenix, Arizona 85012

Re: Federal No. 2 well
Lease A-8188
Bond No. 59S8036BCA

Gentlemen:

Pyramid Oil Company has requested the above captioned bond be released. Since Pyramid Oil Company has complied with all state rules and regulations, this is your authorization to cancel this bond.

Very truly yours,

Don Whittaker
Director
Enforcement Section

DW:os

CC: Pyramid Oil Co.



PYRAMID OIL COMPANY
INCORPORATED 1909

RECEIVED

FEB 19 1980

O & G CONS. COMM.

10707 NORWALK BOULEVARD, SANTA FE SPRINGS, CA 90670
TELEPHONE: (213) 944-6789 - MAIL ADDRESS: P. O. BOX 3225

February 15, 1980

Arizona Oil & Gas Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

Re: Federal No. 2 Well
Lease A-8188
Bond No. 5958036BCA

Attention: Mr. Whittaker

Dear Mr. Whittaker:

The Federal No. 2 well has been abandoned and the location cleaned up and approved by the B.L.M. We would appreciate your releasing the bond on this well and advising Aetna of this action.

Very truly yours,

PYRAMID OIL COMPANY

Charles V. Martin,
Vice President

CVM

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

Bond Serial No. 59 S 8036 BCA
PREMIUM: \$125.00 FOR 3 YEARS ADVANCE

That we: PYARMID OIL COMPANY
of the County of LOS ANGELES in the State of CALIFORNIA
as principal, and THE ETNA CASUALTY AND SURETY COMPANY
of ORANGE, CALIFORNIA
AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of FIVE THOUSAND AND NO/100 -- -- (\$5,000.00) lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

WELL NO. FEDERAL NO.2. - SEC. 18, T. 40N., R9W., G.S.R.M.

(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. §27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the Laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly:

- 1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 22nd day of FEBRUARY, 1977

PYRAMID OIL COMPANY

Signature of Charles V. Martin, VICE-PRESIDENT

WITNESS our hands and seals this 22nd day of FEBRUARY, 1977

Countersigned:

Signature of John M. Arnott, Arizona Resident Agent, 3225 No. Central Ave., Phoenix, Arizona

THE ETNA CASUALTY AND SURETY COMPANY

BY: Signature of Alan Bab, Surety, Resident Arizona Agent

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date: 3-28-77
STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
By: Signature

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
Bond
File Two Copies
Form No. 2

Permit No. 677



THE AETNA CASUALTY AND SURETY COMPANY
Hartford, Connecticut 06115

POWER OF ATTORNEY AND CERTIFICATE OF AUTHORITY OF ATTORNEY(S)-IN-FACT

KNOW ALL MEN BY THESE PRESENTS, THAT THE AETNA CASUALTY AND SURETY COMPANY, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, hath made, constituted and appointed, and does by these presents make, constitute and appoint Frank Witherell, Jr., Alan L. Baer, Robert D. Trezise or Walter J. Davis - -

of Orange County, California, its true and lawful Attorneys-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge, at any place within the United States, or, if the following line be filled in, within the area there designated, the following instrument(s).

by his sole signature and act, any and all bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any and all consents incident thereto

and to bind THE AETNA CASUALTY AND SURETY COMPANY, thereby as fully and to the same extent as if the same were signed by the duly authorized officers of THE AETNA CASUALTY AND SURETY COMPANY, and all the acts of said Attorneys-in-Fact, pursuant to the authority herein given, are hereby ratified and confirmed.

This appointment is made under and by authority of the following Standing Resolutions of said Company which Resolutions are now in full force and effect:

VOTED: That each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

VOTED: That any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the Chairman, the Vice Chairman, the President, an Executive Vice President, a Senior Vice President, a Vice President, an Assistant Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary, or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following Standing Resolution voted by the Board of Directors of THE AETNA CASUALTY AND SURETY COMPANY which Resolution is now in full force and effect:

VOTED: That the signature of each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, THE AETNA CASUALTY AND SURETY COMPANY has caused this instrument to be signed by its Secretary and its corporate seal to be hereto affixed this 27th day of January, 1976



THE AETNA CASUALTY AND SURETY COMPANY

By C. Q. Swarts
Secretary

State of Connecticut }
County of Hartford } ss. Hartford

On this 27th day of January, 1976, before me personally came C. Q. SWARTS, Secretary of THE AETNA CASUALTY AND SURETY COMPANY the corporation described in and which executed the above instrument; that he knows the seal of said corporation, that the seal affixed to the said instrument is such corporate seal; and that he executed the said instrument on behalf of the corporation by authority of his office under the Standing Resolutions thereof



Mary J. Kingston
My commission expires March 31, 1980. Notary Public

CERTIFICATE

I, the undersigned, Assistant Secretary of THE AETNA CASUALTY AND SURETY COMPANY, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that the Standing Resolutions of the Board of Directors, as set forth in the Certificate of Authority, are now in force

Signed and Sealed at the Home Office of the Company in the City of Hartford, State of Connecticut. Dated this 22nd day of FEBRUARY, 1977



By Walter J. Davis
Assistant Secretary

PRINTED IN U.S.A.

December 2, 1977

Mr. Charles Martin
Vice President
Pyramid Oil Company
P.O. Box 3225
Santa Fe Springs, California 90670

Re: Pyramid Oil Company Federal #2
NE/SW/4 Sec. 18, T40N, R9W, Mohave County
State Permit 677

Dear Mr. Martin:

Attached is your approved application to abandon and plug the referenced well.

When you send the samples on this well, we would also appreciate receiving a copy of your mud log.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb

Enc.

November 18, 1977

Mr. Charles Martin
Vice President
Pyramid Oil Company
P.O. Box 3225
Santa Fe Springs, California 90670

Re: Pyramid Oil Federal No. 2
NE/SW/4 Sec. 18, T40N, R9W
Mohave County, Arizona

Dear Mr. Martin:

Please furnish this Commission with the following information on the above referred well:

Form No. 4 - Completion Report
Form No. 9 - Application to Abandon and Plug
Form No. 10 - Plugging Report
All logs, tests, etc., run on this well

Also, two sets of samples, one for this Commission and one for the Arizona Department of Geology and Mineral Technology at the University of Arizona, Tucson.

The above-referred information is due in this office twenty days following the completion of the well. Please refer to Rules 119 and 202 of the Rules and regulations of this Commission.

One other thing that you need to do on this well is indicate the state permit number on the dry hole marker that has been erected at this well location.

We will appreciate receiving the above requested information as soon as possible. A supply of necessary forms is enclosed.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb
Enc.

March 28, 1977

Mr. Charles V. Martin
Pyramid Oil Company
P.O. Box 3225
Santa Fe Springs, California 90670

Dear Mr. Martin:

Enclosed please find approved copies of Application to Drill for wells No. 1 and No. 2, Drilling Permits 676 and 677, and receipts for your checks of \$25.00 each.

Ten foot samples are required from grass roots to total depth.

Please advise me of your spud dates.

Very truly yours,

William E. Allen
Director
Enforcement Section

WEA/vb
Enc.

115

PYRAMID OIL COMPANY
SANTA FE SPRINGS, CALIF.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

ACCOUNT NO.	DESCRIPTION	AMOUNT
0600-02F2	Application Fee	\$25.00