

P-W

Eastern Petro Co. 1-6 STATE  
SE/4-NE/4 Sec 6-19N-26E  
Apache, County

28

County Apache

Area Pinta Dome

Lease No. State #2088

Well Name Eastern Petroleum Company <sup>1-6</sup> State State

Location SE NE Sec 6 Twp 19N Range 26E Footage 1980 FNL 660 FEL

~~LS~~ DF Spud Complete Total

Elev 5659 Gr 5664 KB Date 5-22-59 Abandon 9-21-60 Depth 1013

Contractor W. J. ... Approx. Cost \$           

Drilled by Rotary X  
Cable Tool           

Casing Size	Depth	Cement	Production Horizon
<u>8 5/8</u>	<u>198</u>	<u>100sx</u>	<u>          </u>
<u>4 1/8</u>	<u>772</u>	<u>100sx</u>	<u>D &amp; A</u>

REMARKS: (OWWO: Was completed as shut-in helium well perf: 12/675-681;  
8/ 686-690; 4/ 696-698 32/ 703-719; wash w/52 921 MA. TSTM; Frak.  
SWF 675-519. 12,000WX 12,000 sd. dsq. busted SWF 675-719: 12,000WX  
12,000 sd. IR-12-8 @ 673')

Subsequently plugged.

Elec.            Sample Log             
 Logs IE log; Microlog Sample Descript             
 Applic Plugging Completion            Sample Set T-7176 P-613  
 to Plub X Record X Report X Cores           

Water well - accepted by           

Bond Co.            27716-13-3983-65  
 & No. U. S. Fidelity & Guaranty Company 27716-13-3746

Bond Am't \$ 25,000 Canceled 4-22-65 Date            Organization Report X

Filing Receipt 63021 dated 5-14-59 Well Book X Plat Book X

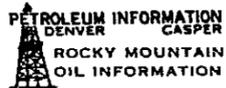
API# 02-001-05327 Loc. Plat X Dedication All 6-19N-26E

Sample 613

PERMIT NO. 78 Date Issued 5-19-59



78  
 ARIZONA  
 APACHE COUNTY  
 PINTA DOME (D)

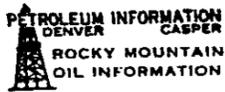


Twp 19n-26e  
 Section 6  
 se ne

OPR: Eastern Pet.	WELL #:	1 State-6
ELEV: 5663 KB.	DSTS. & CORES:	SPUD: 5-21-59    COMPL: 5-30-60
*TOPS: Log-Summary		TD: 1013    PB: 738
Shinarump 780	Crd 710-731, rec 21-5	CSG: 8-5/8" @ 198 w/100
Moenkopi 802	sd, 5 sh; 4 sd, fine to	4 1/2" @ 772 w/100
Coconino 950	good; 1 sh, 1 sd; 1 sh, 4	PERF:
	sd, entire core bubbling	
	gas. Crd 731-756, rec	
	25, 1 sd, fine, bubbling	
	gas, 24 sh. Crd 940-966,	
	rec 25; 6 sh, 19 sd, good	
	poro & perm, bubbling	
	gas. DST 685-756, open	BROD. ZONE:
	1 hr, rec 200 GCM, FP	
	78-110#, SIP (30 min)	INIT. PROD:
	125#, HP 330#.	

D & A.

ARIZONA 78  
APACHE CO.  
PINTA DOME (D)



Twp 19n-26e  
Section 6  
se ne  
1980 s/n 660 w/e

OPR: Eastern Pet

WELL #: 1 State-6 OWWO

ELEV: 5663 KB  
\*TOPS: Log ~~Struck~~  
Shinarump 780  
Coconino 905

DSTS. & CORES:  
  
No cores  
or tests

SPUD: 9-3-60      COMPL: 11-21-60  
TD: 1013          PB: 738  
CSG:

PERF: 675-681, 686-690, 696-  
698, 703-719 w/2 per ft;  
sd wtr fract.

BROD. ZONE:

INIT. PROD: D & A

### 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 <b>Eastern Petroleum Company</b>		Address <b>2520 First Nat'l. Bank Bldg. Denver, Colo.</b>	
Lease Name <b>State of Arizona #2088</b>		Well Number <b>#1-6</b>	Field & Reservoir <b>Pinta</b>
Location <b>1980 feet S of N Line, 660 feet W of E Line</b> <b>Section 6, T19N, R26E</b>			
County <b>Apache</b>	Permit number <b>78</b>	Date Issued <b>May 19, 1959</b>	Previous permit number Date issued
Date spudded <b>May 22, 1959</b>	Date total depth reached <b>May 30, 1959</b>	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) <b>5663 K.B.</b> Elevation of casing hd. flange <b>1' above G.I.</b> feet
Total depth <b>1013*</b>	P.B.T.D. <b>738*</b>	Single, dual or triple completion? <b>Single</b>	If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion <b>Chinle Conglomerate</b>		Rotary tools used (interval) <b>0' - 1013'</b>	Cable tools used (interval)
Was this well directionally drilled? <b>No</b>	Was directional survey made?	Was copy of directional survey filed?	Date filed
Type of electrical or other logs run (check logs filed with the commission) <b>Electrical Induction &amp; Microlog</b>			Date filed <b>December 4, 1959</b>

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	10 3/4	8 5/8		198.4	100	
Production	6 3/4	4 1/2		772	100	

TUBING RECORD

LINER RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval
<b>NOT PERFORATED</b>				

INITIAL PRODUCTION

Date of first production		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)
Tubing pressure	Casing pressure	Cal'ed rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio

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

**Shut In**

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Secretarial Assistant of the Eastern Petroleum 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.

Date January 2, 1960

Signature [Signature]

STATE OF ARIZONA STATE LAND COMMISSIONER  
Well Completion or Recompletion Report and Well Log  
Form No. P-7      File two copies  
Authorized by Order No. 4-6-59  
Effective April 6, 19 59

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STATE OF ARIZONA  
OIL AND GAS CONSERVATION COMMISSION  
PHOENIX, ARIZONA

Form O&G 56

Form Prescribed Under Oil and Gas Conservation Act of 1951  
ABANDONMENT AND PLUGGING RECORD

(Within thirty days after the plugging of any well has been accomplished, the owner or operator thereof shall file this form with the Commission, setting forth in detail the method used in plugging the well.)

**PLUGGING METHODS AND PROCEDURE** -- The methods and procedure for plugging a well shall be as follows: (a) The bottom of the hole shall be filled to, or a bridge shall be placed at, the top of each producing formation open to the well bore, and in either event a cement plug not less than fifty (50) feet in length shall be placed immediately above each producing formation open to the well bore whenever possible.

(b) A cement plug not less than fifty (50) feet in length shall be placed at approximately fifty (50) feet below all fresh-water-bearing strata.

(c) A plug shall be placed at or near the surface of the ground in each hole.

(d) The interval between plugs shall be filled with heavy-mud-laden fluid.

(e) An uncased hole shall be plugged with heavy mud up to the base of the surface string, at which point a plug of not less than fifty (50) feet of cement shall be placed.

Operator Eastern Petroleum Company Field Pinta  
Pool \_\_\_\_\_  
County Apache

Address all correspondence concerning this form to: Eastern Petroleum Company  
Street: 2520 1st Nat'l. Bank Bldg. City Denver 2 State Colorado  
Lease Name Santa Fe Well No. 1-6 Sec. 6 Twp. 19N Rge. 26E  
Date well was plugged November 10, 19 60  
Was the well plugged according to regulations of the Commission? Yes  
Set out method used in plugging well and record of casing pulled: \_\_\_\_\_

All casing was left in the hole. PBD - 738'

This well was plugged with 50 sacks of cement from 106 - 738 PBD.

15' plug set in surface with appropriate dry hole marker.

*OK WJM*

(AFFIDAVIT)

STATE OF ~~ARIZONA~~ COLORADO  
COUNTY OF DENVER

EASTERN PETROLEUM COMPANY

BY James W. Dean  
(Operator)

Before me, the undersigned authority, on this day personally appeared James W. Dean, known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he is authorized to make this report and has knowledge of the facts stated herein and that said report is true and correct.

Subscribed and sworn to before me this the 14th day of December, 19 60

Angus J. Maddell  
Notary Public

My Commission expires: My Commission expires April 23, 1963

STATE OF ARIZONA  
OIL AND GAS CONSERVATION COMMISSION

FORM O&G 55

Form Prescribed Under Oil and Gas Conservation Act 1951  
APPLICATION TO ABANDON, PLUG, DEEPEN, SIDETRACK OR PERFORATE

(After Well Has Once Been Completed)

INSTRUCTIONS: - - File in duplicate with Commissioner. One copy will be returned with approval or denial.

FIELD: Pinta  
OPERATOR: Eastern Petroleum Co. ADDRESS 2520 1st Nat'l. Bank Bldg., Denver, Colorado  
LEASE: State #2088 WELL NO. 1-6 COUNTY Apache  
SURVEY: SECTION 6 DRILLING PERMIT NO.: 78  
LOCATION: 1980' S of N line, 660' W of E line, Section 6, T19N, R26E

TYPE OF WELL: Dry Hole TOTAL DEPTH 1013  
(Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned)  
LAST PRODUCTION TEST: OIL \_\_\_\_\_ (Bbls.) Water No Measurement (Bbls.)  
GAS \_\_\_\_\_ (M. C. F.) DATE OF TEST 9-18-60

PRODUCING HORIZON Chinle PRODUCING FROM: 675 TO 719

1. COMPLETE CASING RECORD: 8 5/8" at 198.4 feet with 4 1/2" casing at 772 with 100 sacks cement.

2. FULL DETAILS OF PROPOSED PLAN OF WORK: All casing will be left in the hole. Displace cement by pump truck from surface to 738 PBD.  
Add. Cement plug 738' to 650' (Perk 625-719), 75ks, cement plug 15'-0', 1sk. Erect permanent marker.  
*OK WJH*

If the well is to be deepened to another zone other than that covered by permit, this form shall be accompanied by a certified lease plat as is prescribed on Form No. O&G 51.

If the well is to be abandoned, does proposed work conform with requirements of Rule 26? Yes. If not, outline procedure proposed above.

DATE COMMENCING OPERATIONS: After November 10, 1960  
NAME OF PARTY DOING WORK: Halliburton ADDRESS Farmington, New Mexico  
CORRESPONDENCE SHOULD BE SENT TO: Eastern Petroleum Company, Denver

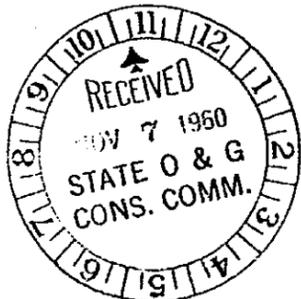
NAME: J. Stoutner

TITLE: Assistant Division Engineer

APPROVED: 16 DAY OF Nov 19 60

DENIED: \_\_\_\_\_ DAY OF \_\_\_\_\_ 19 \_\_\_\_\_

W. J. H. W. J. H.  
OIL AND GAS COMMISSION



BY \_\_\_\_\_

EASTERN PETROLEUM CO. No. 1-6 State

This well was completed water wet in the Coconino.

The Chinle conglomerate from 672 to 736 feet indicates that it can produce Helium gas.

Within the above interval there is about 29 feet of productive pay. Of this, 6 feet for sure is fractured vertically.

The Pay has the following characteristics worked from core and log analysis:

Average Porosity.....	15%
Average Permeability.....	0.10 md.
Average Water Saturation.....	42%

It is believed that a small commercial Helium gas well can be made in this zone after stimulation by sand-water frack.

Eastern Petroleum No. 1-6 State (continued)

Average Water Saturation: 42%

Average Well Head Pressure: 125 psig

Present Status: Shut-in

Cores:

- No. 1 710 feet to 731 feet Cut 21 feet, recovered 21 feet.  
(Barrel jammed)
- 5' Sandstone, white and dark red; white sandstone is fine to coarse grained, angular to round and cemented with a calcareous clay cement, red sandstone is very shaly with medium to coarse grains, in part finely micaceous.
  - 5' Shale, dark red, micaceous, with white spots, very sandy - approximately 50% is sand grains.
  - 4' Sandstone, red micaceous, fine to medium grained, very shaly and white, fine to medium, round to angular grained, slightly with calcareous clay cement.
  - 1' Shale, red, very sandy.
  - 1' Sandstone, red and white, fine to medium, round to subround, micaceous; the white sandstone occurs as streaks and is cemented with calcareous clay cement.
  - 1' Shale, dark red, very sandy.
  - 4' Sandstone, dark red, shaly, very micaceous along bedding planes - has white sandstone streaks in it.

Note: Vertical fractures evident from 713 to 719.  
Also the entire core was bubbling gas when removed from the core barrel.

- No. 2 731 feet to 756 feet Cut 25 feet, recovered 25 feet.
- 1' Sandstone, white to red, fine to medium grained, cemented with calcareous clay cement, micaceous in part.
  - 6' Shale, brown to red, silty, very finely micaceous.
  - 8' Shale, green to light gray.
  - 6' Shale, light gray, very sandy, fine sand grains intercalated throughout.
  - 4' Shale, light green to brown, many slicken sides, bottom foot very soft

Eastern Petroleum No. 1-6 State (continued)

- No. 3 940 feet to 965 feet Cut 25 feet, recovered 25 feet  
6' Shale, dark red, micaceous along bedding planes,  
cut with streaks of buff colored fine  
grained sandstone.  
2' Sandstone, light brown, fine to medium grain,  
angular to round with much rust stain.  
17' Sandstone, buff color, fine to medium grained, sub-  
round, good porosity and permeability,  
entirely water saturated.

Drill Stem Tests:

- No. 1 685 feet to 756 feet (Chinle conglomerate)  
Open 1 hour, no blow, few bubbles when open for initial  
shut-in pressure.  
Recovered 200' gas cut mud.  
Shut-in, initial and final, 30 minutes.  
Initial flowing pressure: 78 psig  
Final flowing pressure: 110 psig  
Initial shut-in pressure: 125 psig  
Final shut-in pressure: 125 psig  
Initial hydrostatic pressure: 345 psig  
Final hydrostatic pressure: 330 psig

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL  DEEPEN  PLUG BACK

NAME OF COMPANY OR OPERATOR

DATE

EASTERN PETROLEUM COMPANY

May 12, 1959

Address

City

State

2520 1st. National Bank Bldg Denver2, Colorado

DESCRIPTION OF WELL AND LEASE

Name of lease

Well number

Elevation (ground)

State # 2088

1-6

5705

Well location

(Give footage from section lines)

Section—township—range or block & survey

1980' S of N line; 660' W of E line; Sec 6; T19N; R26E

Field & reservoir (If wildcat, so state)

County

Pinta Dome Area

Apache

Distance, in miles, and direction from nearest town or post office

10 miles SW from Navaho, Arizona

Nearest distance from proposed location to property or lease line:

660 feet

Distance from proposed location to nearest drilling completed or applied—for well on the same lease:

none

feet

Proposed depth:

2500

Rotary or cable tools

Rotary

Approx. date work will start

May 15, 1959

Number of acres in lease:

1442.83

Number of wells on lease, including this well, completed in or drilling to this reservoir:

If lease, purchased with one or more wells drilled, from whom purchased:

Name

Address

Status of bond

Blanket

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone)

\* Fill in Proposed Casing Program on other side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Partner-Engineer of the Eastern Petroleum (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

Paul Fullop

Permit Number: 78

Approval Date: May 19, 1959

Approved By: Obed M. Lassen

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

See Instruction on Reverse Side of Form

STATE OF ARIZONA STATE LAND COMMISSIONER

Application to Drill, Deepen or Plug Back

Form No. P-1

File two copies

Authorized by Order No.

4-6-59

Effective

April 6, 19 59

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INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

For the purpose of this determination attach hereto a neat, accurate plat, map or sketch of this lease, section, block or lot locating thereon the proposed site for this location. Plat shall be drawn to a scale which will permit the facile observation of all pertinent data. Show distances of the proposed well from the two nearest lease and section lines, and from the nearest wells on the same lease completed in or drilling to the same reservoir. If the location requested is not in conformance with the applicable well-spacing rules, show all off-setting wells to the proposed well, and the names and addresses of all adjoining lease or property owners.

In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling to the same reservoir. The acreage contained within each unit shall also be shown.

Do not confuse survey lines with lease lines. The sketch or plat should show your entire lease if possible. If it is not practical to show the entire lease and the plat shows only a section, block or lot out of your lease, you should clearly show that same is only a part of the lease.

Designate scale to which plat or sketch is drawn. Also designate northerly direction on the sketch or plat.

PROPOSED CASING PROGRAM

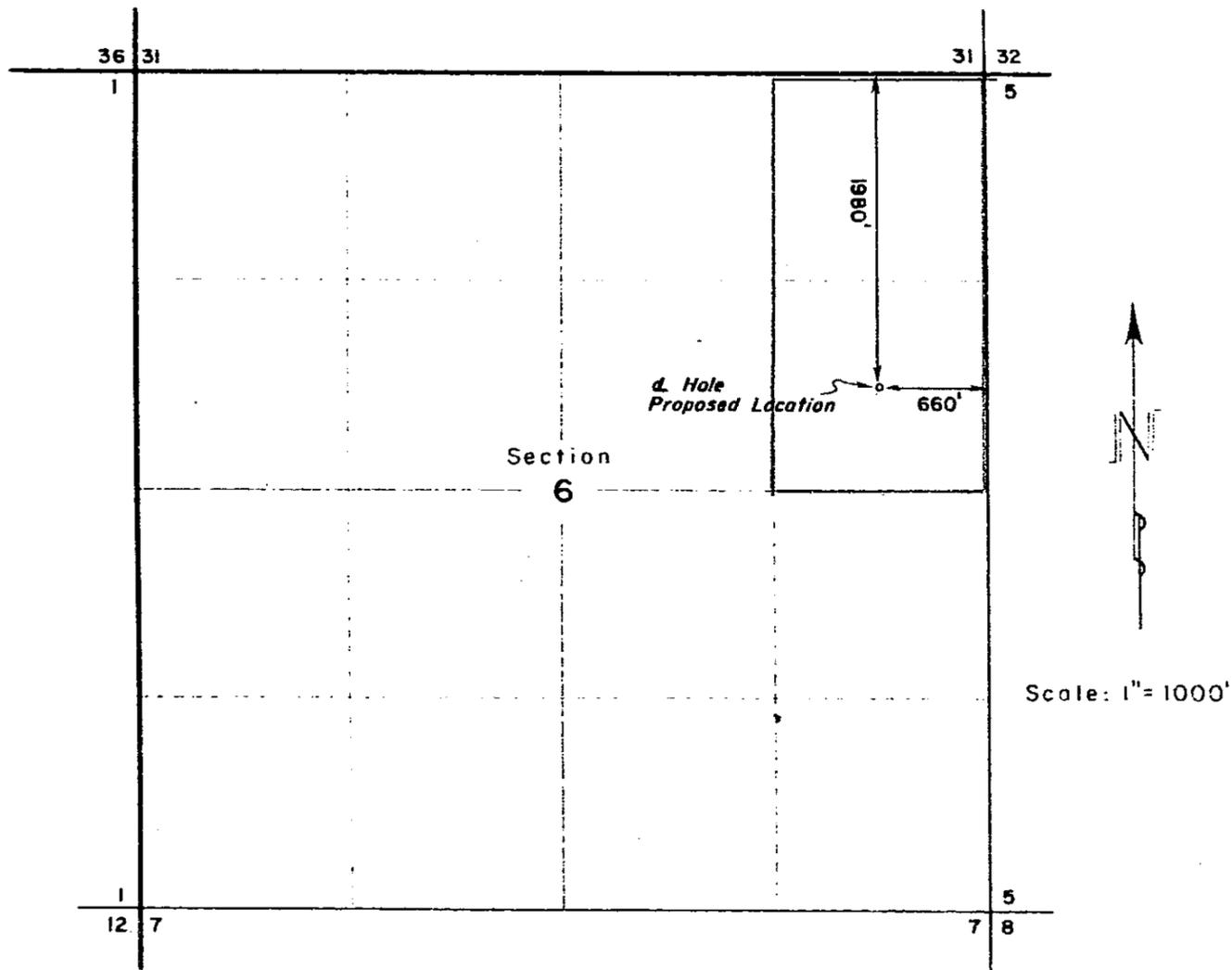
Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8 5/8"	24	H-40	Sur	200	200	200
4 1/2"	11	J-55	Sur	T.D.	T.D.	200

Form No. P-1

MAY 13 3 13 PM 1959

STATE LAND DEPARTMENT

CERTIFICATE OF SURVEY



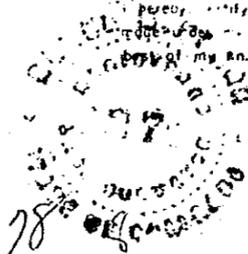
WELL LOCATION:

Located 1980 feet South of the North line and 660 feet West of the East line of Section 6  
 Township 19 North Range 26 East Gila & Salt Meridian  
 Apache Co. Arizona  
 Existing ground elevation determined at 5705± feet based on U.S.G.S. Datum

I hereby certify the above plat represents a survey made under my supervision and is accurate to the best of my knowledge and belief.

*Elmer M. Clark*  
 ELMER M. CLARK  
 Registered Land Surveyor  
 Colo. 2279

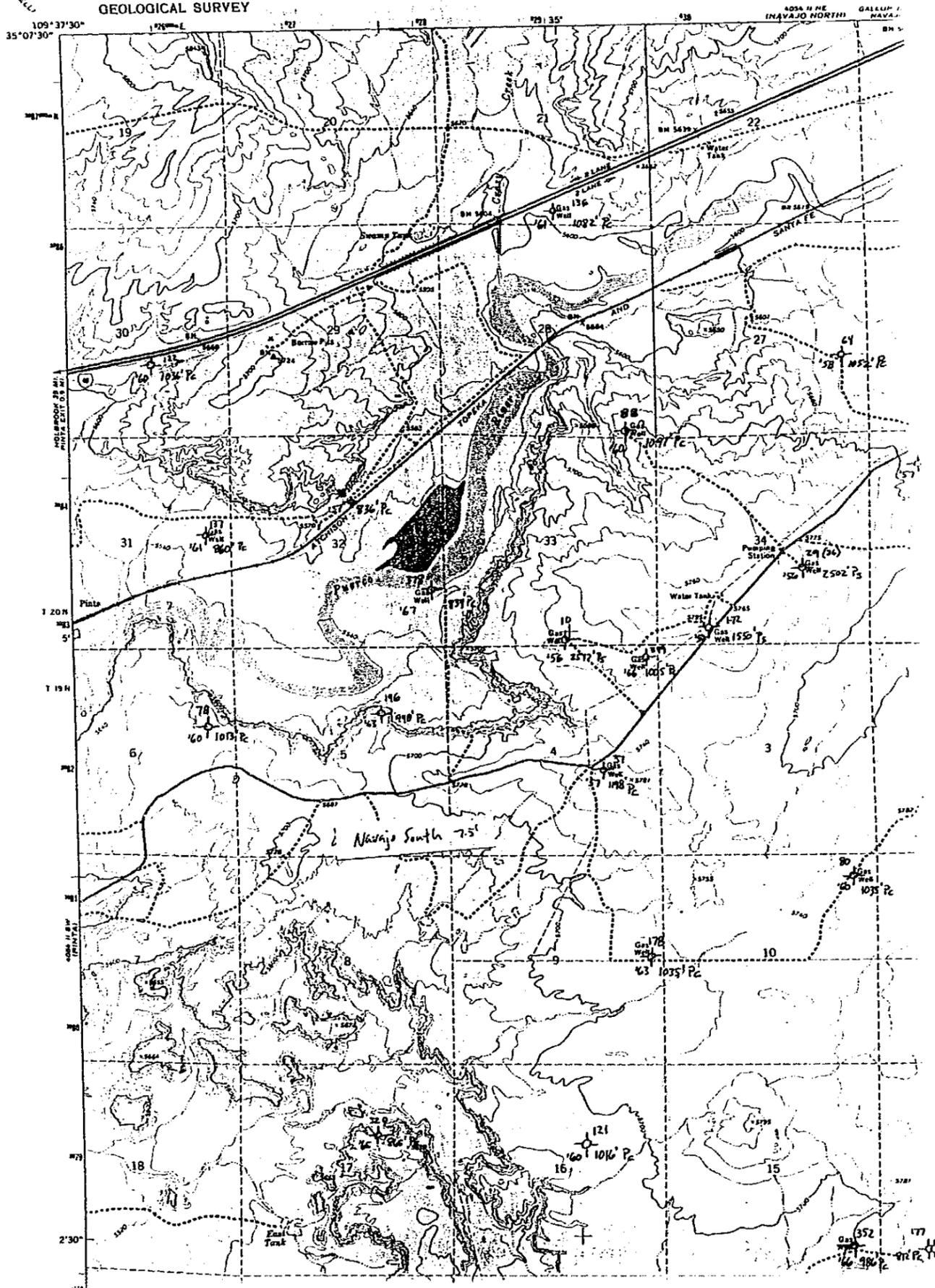
E.M. CLARK & ASSOCIATES  
 Durango, Colorado  
 May 11, 1959



MAY 13 3 13 PM 1959

POSTAL DEPARTMENT

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



P/N 78

GEOLOGICAL COMPLETION REPORT  
EASTERN PETROLEUM COMPANY  
STATE 1-6  
SECTION 6, T19N, R26E  
APACHE COUNTY, ARIZONA

By: Robert E. Lauth  
Geological Consultant  
Durango, Colorado  
June 28, 1959



ROBERT E. LAUTH  
Consulting Geologist

GEOLOGICAL COMPLETION REPORT

Eastern Petroleum Company  
State 1-6  
Section 6, T19N, R26E  
Apache County, Arizona

WELL DATA

Rotary: Surface to total depth  
Air drilled: 0-477 feet; Mud drilled: 477 to TD  
Spud date: May 22, 1959  
Date drilling completed: May 30, 1959  
Initial production: testing  
Surface casing: 8 5/8" @ 198.4 feet with 100 sacks  
Production casing: 4 1/2" @ 772 feet with 100 sacks  
Contractor: Eastern Drilling Company  
Leased sig. of Apache Drilling Company, Denver, Colorado  
Well location: SE - NE; 1980' FNL & 660 FCL, Section 6, Township 19  
North, Range 26 East, Apache County, Arizona  
Elevation: 5657 Ground  
5663 Kelly Bushing  
Total Depth: 1013 feet  
Plug back: 738 feet

FORMATION TOPS

Formation	Depth	Elevation	Thickness
Chinle	Surface	+5663	780'
Chinle congl.	672' } 108	+4991	64'
Shinarump congl.	780' } 22	+4883	22'
Moenkopi	802' } 108	+4861	148'
Coconino	950'	+4713	-

CORRELATION

Formation	Eastern Petr. State 1-6 NE 6-19N-26E	Kear-McJee No. 2 State SE 34-20N-26E	Kear-McJee No. 3 State SE 4-19N-26E
Chinle congl.	+4991	+5052	+5031
Coconino	+4713	+4782	+4766

### DISCUSSION

The purpose of this report is to present geological information and basic data concerning the Eastern Petroleum Company, State 1-6 well located in the SE NE of Section 6, Township 19 North, Range 26 East, Apache County, Arizona.

Under surface pipe the hole was drilled to 1013 feet with a 6 3/4 inch bit. The hole to 477 feet was air drilled where a high flow of water in a sandstone of the Chinle formation forced the operator to convert to a gel base mud. Fresh water sands were noted in this well at the following intervals: 200 - 230, 405 - 425, and 472 - 477. Lost circulation was encountered at 555 feet. It is thought that returns went out in one of the higher sands.

Four and one-half inch casing was set and cemented at 772 feet with 100 sacks of cement. Three cones and one drillstem test was taken on this well. Details of these will be given in the report. Careful examination of the sample cuttings were made at the wellsite at the time of drilling.

A Schlumberger Electrical-Induction log was run from under surface casing to a depth of 987 feet on into the Coconino sandstone. A micro-log to indicate porous zones was run from 200 feet to 987 feet.

Final formation tops have been adjusted and picked from electrical log curves related to sample cutting examination and stratigraphic correlation.

### STRATIGRAPHY

Attached to this report is the sample description made by the writer from 10 foot and 5 foot sample cuttings for the interval 200 to 1013 feet.

The lithology and correlation of the possible producing horizons is discussed in the following paragraphs.

Chinle conglomerate                      672' to 736' (64 feet)

The Chinle conglomerate in this well is composed of sandstone, white to light gray to red in color, fine to coarse, subangular to angular grains. Inclusions of limestone and mudstone pebbles were also evident.

In part, the shale and sandstone was very finely micaceous.

The Chinle conglomerate is lenticular in its occurrence, but this zone is similar and occupies approximately the same stratigraphic position as that zone which gave up gas in the old Kipling No. 1 Macie (Kerr-McJee) No. 1 State well in Section 34, Township 20 North, Range 26 East. The Macie well had a natural gauge of 500 MCF/D and a gas analysis of 7.30% to 7.58% Helium.

The lower part of the Chinle conglomerate was cored in the core intervals 710 to 756 (See Core Record). Vertical fractures were noted from 713 to 719. Also the entire core from 710 to 731 was bubbling gas when removed from the core barrel. An open hole drillstem test was taken from 685 to 756 feet with very good pressures (See DST Records).

With proper treatment it is believed that a small commercial producer of helium can be made in this zone.

Coconino sandstone 950 to 1013' (penetrated 63 feet)

The Coconino sandstone is massive, light gray to buff color and is apparently disconformable with the overlying Moenkopi. In the core it exhibited much cross-bedding. A transition zone exists which is composed of dark red silty shales of the Moenkopi streaked with buff colored sandstones (re-worked?) of the Coconino. This zone is present from 925 to 950 feet.

Good porosity and permeability is evident throughout the entire section of the Coconino that was examined.

The Coconino, the main objective of this well, was completely water wet as shown by core analysis and electrical log determination.

#### RECOMMENDED COMPLETION PROCEDURE

Four and one-half inch (OD), J-55, 9.5 lb., used casing was set and cemented at 772 feet with 100 sacks of cement. The top of the float collar is at 738 feet. Centralizers were placed at 733 and 653 feet respectively. The plug was pumped down to the top of the float collar with clear water.

The following procedure is recommended in completing the Chinle conglomerate zone:

- 1) Perforate with 2 shots per foot the interval 696 to 698, 703 to 709, and 710 to 719 (This is predominately a fractured zone).
- 2) Wash with mud acid sufficient enough to completely cover all perforations approximately 35 gals.
- 3) Sand-water frac with 12,000 gallons water and 9000# of 20-40 mesh sand. A minimum of 2000 to 2400 horsepower should be used to put away the treatment.
- 4) Set a drillable bridge plug at 695 feet.
- 5) Perforate with 2 shots per foot the interval 675 to 681 and 686 to 690 feet.
- 6) Wash with mud acid sufficient enough to completely cover all perforations, approximately 18 to 20 gals.
- 7) Sand-water frac with 10,000 gallons water and 8000# of 20-40 mesh sand. Use minimum horsepower as stated above.
- 8) Shut well in for 6 to 10 hours to allow the sand to settle. Drill out the bridge plug and allow the well to blow back to clean. Surbbing might be necessary if the well cannot clean itself.

#### CONCLUSIONS

This test is considered to have adequately tested all the formations penetrated.

The (thin) conglomerate zone from 672 to 736 is indicated to be capable of small commercial helium gas production.

The writer expresses his appreciation for the opportunity of making this well study and respectfully submits this report.

*Robert E. Lauth*

Robert E. Lauth  
Geological Consultant  
Durango, Colorado  
June 28, 1959

CORE DESCRIPTION

Eastern Petroleum Company  
State No. 1-6  
Sec. 6, T19N, R26E  
Apache County, Arizona  
Elevation 5663' rotary bushing

- Core No. 1 710 - 731 (cut 21 feet, recovered 21 feet (Barrel jammed)  
Coring time (minutes per foot), 4, 3, 6, 6, 8, 10, 8, 6, 8, 7,  
7, 7, 7, 7, 7, 14, 9, 9, 7, 15.  
5' Sandstone, white and dark red; white sandstone is fine to  
coarse grained, angular to round and cemented  
with a calcareous clay cement, red sandstone is  
very shaly with medium to coarse grains, in part  
finely micaceous.  
5' Shale, dark red, micaceous, with white spots, very sandy -  
approximately 50% is sand grains.  
4' Sandstone, red micaceous, fine to medium grained, very  
shaly and white, fine to medium, round to angular  
grained, slightly with calcareous clay cement.  
1' Shale, red, very sandy.  
1' Sandstone, red and white, fine to medium, round to sub-  
round, micaceous; the white sandstone occurs  
as streaks and is cemented with calcareous clay  
cement.  
1' Shale, dark red, very sandy.  
4' Sandstone, dark red, shaly, very micaceous along bedding  
planes - has white sandstone streaks in it.

Note: Vertical fractures evident from 713 to 719. Also the entire core  
was bubbling gas when removed from the core barrel.

- Core No. 2 731 - 756, (cut 25 feet, recovered 25 feet.  
Coring time (minutes per foot) 17, 15, 18, 20, 18, 14, 12, 16,  
16, 15, 14, 14, 16, 15, 13, 11, 9, 12, 16, 17, 15, 13, 17, 20,  
16,

- 1' Sandstone, white to red, fine to medium grained, cemented with calcareous clay cement, micaceous in part.
- 6' Shale, brown to red, silty, very finely micaceous.
- 8' Shale, green to light gray.
- 6' Shale, light gray, very sandy, fine sand grains intercalated throughout.
- 4' Shale light green to brown, many slicken sides, bottom foot very soft.

Cone No. 3 940 - 965 (cut 25 feet, recovered 25 feet)

(Coring time (minutes per foot) 7, 6, 6, 7, 9, 3, 3, 2, 2, 2, 2, 1, 2, 2, 2, 2, 2, 1, 1, 1, 2, 2, 1, 1.

- 6' Shale, dark red, micaceous along bedding planes, cut with streaks of buff colored fine grained sandstone.
- 2' Sandstone, light brown, fine to medium grain, angular to round with much rust stain.
- 17' Sandstone, buff color, fine to medium grained, subround, good porosity and permeability, entirely water saturated.

*DROLLSTEM TEST RECORD*  
*Eastern Petroleum Company*  
*State No. 1-6*  
*Sec. 6, T19N, R26E*  
*Apache County, Arizona*  
*Elevation 5663' rotary bushing*

*DST No. 1 685 - 756 (Chinle conglomerate)*  
*Open 1 hour, no blow, few bubbles when open for initial*  
*shut-in pressure.*  
*Recovered 200' gas cut mud.*  
*Shut-in, initial and final, 30 minutes*  
*Initial flowing pressure: 78psig.*  
*Final flowing pressure: 110psig.*  
*Initial shut-in pressure: 125psig.*  
*Final shut-in pressure: 125psig.*  
*Initial hydrostatic pressure: 345 psig.*  
*Final hydrostatic pressure: 330psig.*

DRILLING TIME RECORD  
 Eastern Petroleum Company  
 State No. 1-6  
 Sec. 6, T19N, R26E  
 Apache County, Arizona  
 Elevation 5663' rotary bushing

From	To	Minutes Per Ten Feet
300	400	8-10-NR-10-NR-8-8-NR-5-12
400	500	9-11-15-6-7-4-15-NR-10-10
500	600	10-8-10-9-NR-NR-5-6-4-4
600	700	6-5-6-4-6-6-7-11-14-25
		Cored 710' to 756'
760	800	18-22-20-20
800	900	31-43-28-58-21-20-45-21-19-NR
900	940	65-42-58-43
		Cored 940' to 965'
965	1013	Total depth - No record.

SAMPLE DESCRIPTION

Eastern Petroleum Company

State No. 1-6

Sec. 6, T19N, R26E

Apache County, Arizona

Elevation 5663' rotary bushing

Samples start at 200 feet in the Chinle formation. The "A" sandstone bed of the Chinle is on the surface.

200 - 210	100 Sandstone clear, reddish, very fine grained, much cement - water sand.
210 - 220	100 sandstone ditto, fine grained, round to subangular, still much cement - water sand.
220 - 230	100 sandstone clear, fine grained, round to angular.
230 - 240	90 sandstone ditto. 10 shale green gray.
240 - 250	60 sandstone ditto. Trace of brown chert. 40 shale green gray, gray and light green.
250 - 260	50 sandstone ditto, clear, very fine grained. 50 shale gray, calcareous.
260 - 270	100 shale light gray, lavender, silty and finely arenaceous, calcareous.
270 - 280	100 shale light gray, silty, finely arenaceous, calcareous.
280 - 290	50 sandstone clear to reddish, very fine grained to fine grained, round to angular. 50 shale gray, lavender, red.
290 - 300	30 sandstone ditto. 70 shale lavender.
300 - 310	20 sandstone ditto, very fine grained, loose. 80 shale lavender, silty.
310 - 320	20 sandstone clear to red, fine to medium grained, occurs as loose grains. 80 shale red, gray, lavender. Trace of white crystalline limestone.
320 - 330	100 shale green and reddish brown - occasional sand grain.
330 - 340	Sample missing.
340 - 350	40 sandstone clear to reddish and 10% brown chert. 60 shale light green, brown.

- 350 - 360 Sample missing.
- 360 - 370 60 sandstone clear to reddish, fine to medium grained, angular, still some chert. 40 shale light green, brown.
- 370 - 380 Trace of sandstone. 100 shale light green, waxy.
- 380 - 390 Trace of sandstone. 100 shale ditto.
- 390 - 400 100 shale light gray to brown, micaceous.
- 400 - 410 50 sandstone clear, red, very fine grained. 50 shale light gray to green, very silty, calcareous.
- 410 - 420 90 sandstone clear, amber, reddish, very fine to coarse grained, angular to round. 10 shale purple, red.
- 420 - 430 100 shale chocolate brown to purple and light green.
- 430 - 440 Sample missing.
- 440 - 450 100 shale ditto - purple with white blebs.
- 450 - 460 100 shale ditto.
- 460 - 470 10 sandstone white to reddish, fine to medium grained, round to angular. 90 shale ditto.
- 470 - 480 No sample. Light water sandy caught small sample, it was white, fine to medium grained, round to angular sandstone.
- 480 - 490 50 sandstone white, fine to medium grained, angular to round. 50 shale varicolored, predominately light pale green and lavender.
- 490 - 500 70 sandstone ditto, clear. 30 shale ditto, predominately light green.
- 500 - 510 60 sandstone ditto, clear; trace of chert. 40 shale ditto, predominately light green and lavender.
- 510 - 520 70 sandstone ditto, clear and reddish. 30 shale mostly pale green.
- 520 - 530 60 sandstone ditto, clear and reddish; trace of brown chert. 40 shale as above.
- 530 - 540 30 sandstone ditto, clear and reddish; trace of brown chert. 70 shale as above, some brown.
- 540 - 550 Sample missing.
- 550 - 560 Sample missing.
- 560 - 570 10 sandstone clear, fine to medium grained, round to angular. 90 shale varicolored, predominately green.

- 570 - 580 10 sandstone ditto. 20 limestone tan to brown and red, crystalline. Trace of chert. 70 shale varicolored.
- 580 - 590 20 sandstone ditto, clear to reddish, very fine grained, loose. 10 limestone as above. 70 shale varicolored.
- 590 - 600 Trace of sandstone as above. Trace of limestone ditto. 100 shale varicolored, predominately pale green.
- 600 - 610 10 sandstone ditto. Trace limestone ditto. 90 shale ditto.
- 610 - 620 Trace of sandstone white clay cement, light green. 100 shale varicolored, in part micaceous.
- 620 - 630 Trace of sandstone ditto. 100 shale ditto.
- 630 - 640 30 sandstone white to red, very fine to fine grained, subround to angular. 10 limestone light tan, finely crystalline. 60 shale ditto.
- 640 - 650 Trace of sandstone. 100 shale varicolored, predominately gray.
- 650 - 660 20 sandstone white, fine grained, cemented with much white clay. Trace of limestone white crystalline. 80 shale varicolored.
- 660 - 670 30 sandstone white, fine to coarse grained, cemented with much white clay. 20 limestone white, brown. 50 shale varicolored.
- 670 - 680 Sample missing.
- 680 - 690 50 sandstone, fine to coarse grained, conglomeratic, white cement. Trace of white to tan, crystalline limestone. 40 shale varicolored.
- (Inc. sample 687' 10 sandstone, fine grained, loose. 70 limestone red, crystalline, also in part white sandy. 20 shale varicolored, brown.
- 690 - 700 60 sandstone white to red, fine to coarse grained, conglomeratic, round to angular. 40 shale light green to brown, micaceous and gray. Trace of tan crystalline limestone.
- (Inc. @ 702' 70 sandstone ditto. 10 limestone tan to gray, crystalline. 20 shale varicolored, predominately brown, micaceous and sandy.

1750  
Top of  
Summery

SO 2  
Top of  
Inselberg

- 760 - 770 100 shale light green, gray, some lavender. Trace of sandstone white, fine grained, probable cave.
- 770 - 780 10 sandstone white, fine grained. Trace of red chert. 90 shale ditto, becoming predominately brown red and gray.
- 780 - 790 60 sandstone clear, white, bubbling, fine to coarse grained, loose. 40 shale red and gray - Much red chert.
- 790 - 800 60 sandstone as above, some pebbles - Much red chert. 10 limestone gray, crystalline. 30 shale light gray, purple.
- 800 - 810 10 sandstone ditto, some pebbles. 90 shale light gray and green.
- 810 - 820 Trace of sandstone, some pebbles. 100 shale ditto.
- 820 - 830 Trace of sandstone, some pebbles. 100 shale ditto.
- 830 - 840 10 sandstone green, red, very fine grained, calcareous, well cemented. 90 shale ditto.
- 840 - 850 20 sandstone ditto. 80 shale ditto.
- 850 - 860 30 sandstone whiteto red, fine to coarse grained, angular to round, cemented and loose. 70 shale ditto.
- 860 - 870 30 sandstone white to green, red, very fine grained, calcareous. 70 shale ditto.
- 870 - 880 20 sandstone ditto. 80 shale ditto.
- 880 - 890 20 sandstone ditto. 80 shale ditto.
- 890 - 900 20 sandstone white to red to green, very fine grained, well cemented. 80 shale light gray and brown red.
- 900 - 905 Trace of sandstone as above. 100 shale purple, red and gray, brown silty.
- 905 - 910 10 sandstone white to green, very fine grained, hard, calcareous, some red micaceous. 90 shale brown and gray.
- 910 - 915 20 sandstone brown to red, very fine grained, well cemented. 80 shale brown and gray.
- 915 - 920 80 sandstone brown, very fine grained, cemented. 20 shale gray.
- 920 - 925 30 sandstone ditto. 70 shale brown red, silty and sandy.

150  
Top of  
Shinarump

802  
Top of  
Keweenaw

- 760 - 770 100 shale light green, gray, some lavender. Trace of sandstone white, fine grained, probable cave.
- 770 - 780 10 sandstone white, fine grained. Trace of red chert. 90 shale ditto, becoming predominately brown red and gray.
- 780 - 790 60 sandstone clear, white, bubbling, fine to coarse grained, loose. 40 shale red and gray - Much red chert.
- 790 - 800 60 sandstone as above, some pebbles - Much red chert. 10 limestone gray, crystalline. 30 shale light gray, purple.
- 800 - 810 10 sandstone ditto, some pebbles. 90 shale light gray and green.
- 810 - 820 Trace of sandstone, some pebbles. 100 shale ditto.
- 820 - 830 Trace of sandstone, some pebbles. 100 shale ditto.
- 830 - 840 10 sandstone green, red, very fine grained, calcareous, well cemented. 90 shale ditto.
- 840 - 850 20 sandstone ditto. 80 shale ditto.
- 850 - 860 30 sandstone whiteto red, fine to coarse grained, angular to round, cemented and loose. 70 shale ditto.
- 860 - 870 30 sandstone white to green, red, very fine grained, calcareous. 70 shale ditto.
- 870 - 880 20 sandstone ditto. 80 shale ditto.
- 880 - 890 20 sandstone ditto. 80 shale ditto.
- 890 - 900 20 sandstone white to red to green, very fine grained, well cemented. 80 shale light gray and brown red.
- 900 - 905 Trace of sandstone as above. 100 shale purple, red and gray, brown silty.
- 905 - 910 10 sandstone white to green, very fine grained, hard, calcareous, some red micaceous. 90 shale brown and gray.
- 910 - 915 20 sandstone brown to red, very fine grained, well cemented. 80 shale brown and gray.
- 915 - 920 80 sandstone brown, very fine grained, cemented. 20 shale gray.
- 920 - 925 30 sandstone ditto. 70 shale brown red, silty and sandy.

925 - 930	50 sandstone fawn colored, very fine grained, also some white, fine to medium grained and red, very fine grained, silty. 50 shale ditto. Trace of red chert.	
930 - 935	80 sandstone ditto - fawn colored, fine grained, good porosity and permeability. 20 shale brick red and gray.	
935 - 940	100 sandstone ditto, fine grained, good porosity and permeability.	
(Inc. sample	100 sandstone fawn colored, fine grained, good porosity and permeability.	
950 Top 200m	965 - 970	100 sandstone as above - poor sample - much cave.
	970 - 980	100 sandstone ditto - poor sample - much cave.
	980 - 990	100 sandstone ditto - poor sample - much cave.
	990 - 1000	100 sandstone ditto - poor sample - much cave.
	1000 - 1010	100 sandstone ditto - poor sample - much cave - sample getting better.
(Inc. @ 1013	100 sandstone ditto, becoming silaceous - much cave - sample getting better.	
Total depth	1013	

Operator Eastern Petroleum Company

Bond Company U. S. Fidelity & Guaranty Co. Amount \$10,000

Bond No. 27716-13-3746-60 Date Approved 8-1-60

Permits covered by this bond:

*see this  
file*

- |              |       |
|--------------|-------|
| <u>269</u> ✓ | 234 ✓ |
| <u>81</u> ✓  | 230 ✓ |
| <u>252</u> ✓ | 229 ✓ |
| <u>251</u> ✓ | 237 ✓ |
| <u>107</u> ✓ | 236 ✓ |
| <u>207</u> ✓ | 218 ✓ |
| <u>157</u> ✓ | 209 ✓ |
| <u>88</u> ✓  | 206 ✓ |
| <u>80</u> ✓  | 194 ✓ |
| <u>78</u> ✓  | 188 ✓ |
| <u>264</u> ✓ | 155 ✓ |
| <u>263</u> ✓ | 150 ✓ |
| <u>273</u> ✓ | 152 ✓ |
| <u>259</u> ✓ | 109 ✓ |
| <u>258</u> ✓ | 108 ✓ |
| <u>255</u> ✓ | 107 ✓ |
| <u>282</u> ✓ |       |
| <u>250</u> ✓ |       |
| <u>276</u> ✓ |       |
| <u>284</u> ✓ |       |
| <u>227</u> ✓ |       |
| <u>268</u> ✓ |       |

**CANCELLED**

DATE 11-22-65

BOND

KNOW ALL MEN BY THESE PRESENTS,

That we: HENRY FULLOP AND PAUL FULLOP d/b/a EASTERN PETROLEUM COMPANY

of the County of: Denver in the State of: Colorado

as Principal, and THE TRAVELERS INDEMNITY COMPANY of Hartford, Connecticut

of Hartford, Connecticut authorized to do business within the State of Arizona,

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, 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 condition of this obligation is 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:

Blanket Bond to cover any lands situated within the State.  
(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the State Land Commissioner, 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 State Land Commissioner all notices and records required by said Commissioner, 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, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of TEN THOUSAND AND NO/100 ----- (\$10,000.00)

Witness our hands and seals, this 27 day of April, 1959.

EASTERN PETROLEUM COMPANY

BY: [Signature]  
Paul Fullop Principal

Witness our hands and seals, this 27 day of April, 1959

COUNTERSIGNED BY: PHOENIX, ARIZ.  
[Signature]  
Arizona Resident Agent

THE TRAVELERS INDEMNITY COMPANY  
BY: [Signature]  
Thomas H. Mitchell, Attorney-in-Fact Surety

(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 May 13, 1959  
Date

[Signature]  
STATE LAND COMMISSIONER  
**CANCELLED**

Agency Branch: First National Bank Bldg.,  
411 N. Central  
Phoenix, Arizona

DATE 11-21-60

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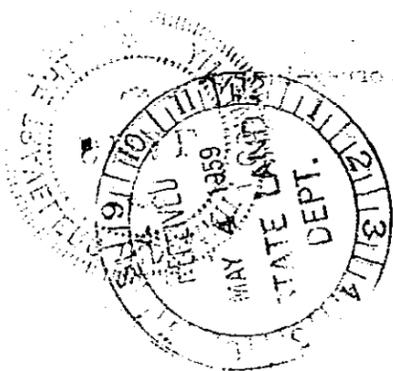
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7440

**The Travelers Indemnity Company**  
Hartford, Connecticut

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:**

That THE TRAVELERS INDEMNITY COMPANY, a corporation of the State of Connecticut, does hereby make, constitute and appoint

\_\_\_\_\_ B. R. Clark, S. C. Dickson, Thomas H. Mitchell, J. R. Price, all of Denver, Colorado, EACH \_\_\_\_\_

its true and lawful Attorney(s)-in-Fact, with full power and authority, for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto, if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows:

\_\_\_\_\_ Any and all bonds, undertakings, recognizances or other written obligations in the nature thereof \_\_\_\_\_

and to bind THE TRAVELERS INDEMNITY COMPANY thereby, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed. This appointment is made under and by authority of the following by-laws of the Company which by-laws are now in full force and effect:

ARTICLE IV, SECTION 10. The President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, any Vice President, any Secretary or any Department Secretary may appoint attorneys-in-fact or agents with power and authority, as defined or limited in their respective powers of attorney, for and on behalf of the Company to execute and deliver, and affix the seal of the Company thereto, bonds, undertakings, recognizances or other written obligations in the nature thereof and any of said officers may remove any such attorney-in-fact or agent and revoke the power and authority given to him.

ARTICLE IV, SECTION 12. Any bond, undertaking, recognizance or written obligation in the nature thereof shall be valid and binding upon the Company when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and duly attested and sealed, if a seal is required, by any Secretary or any Department Secretary or any Assistant Secretary, or when signed by the President, the Chairman of the Finance Committee, the Chairman of the Insurance Executive Committee, or any Vice President and countersigned and sealed, if a seal is required, by a duly authorized attorney-in-fact or agent; and any such bond, undertaking, recognizance or written obligation in the nature thereof shall be valid and binding upon the Company when duly executed and sealed, if a seal is required, by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority granted by his or their power or powers of attorney.

IN WITNESS WHEREOF, THE TRAVELERS INDEMNITY COMPANY has caused these presents to be signed by its proper officer and its corporate seal to be hereunto affixed this 16th day of June 19 58 .

(SEAL)

**THE TRAVELERS INDEMNITY COMPANY**

By \_\_\_\_\_ George M. Douglass  
Secretary

State of Connecticut, County of Hartford--ss:

On this 16th day of June in the year 1958 before me personally came George M. Douglass to me known, who, being by me duly sworn, did depose and say: that he resides in the State of Connecticut; that he is Secretary of THE TRAVELERS INDEMNITY COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of his office under the by-laws of said corporation, and that he signed his name thereto by like authority.

(SEAL)

\_\_\_\_\_ Florence De Paiva  
Notary Public

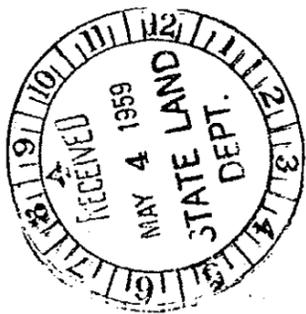
My commission expires April 1, 1962

State of Connecticut, County of Hartford--ss:

I, R. W. Kammann \_\_\_\_\_ Assistant Secretary of The Travelers Indemnity Company, a corporation of the State of Connecticut, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, at the City of Hartford, this 27 day of April 19 59.

\_\_\_\_\_ R. W. Kammann  
Assistant Secretary



7448

December 16, 1960

Mr. James Dean  
Eastern Petroleum Company  
2520 First National Bank Bldg.  
Denver 2, Colorado

Dear Mr. Dean:

Enclosed is your approved copy of Abandonment and Plugging  
Record for Santa Fe well #1-6, Sec. 6, T. 19N, R. 26E, in  
Apache County, Arizona.

Yours very truly,

D. A. Jerome  
Executive Secretary

By  
Elaine Welsey

EW  
Enclosure



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

2520 FIRST NAT'L BANK BLDG.  
DENVER 2, COLORADO  
MA 3-5259

December 14, 1960

Mr. D. A. Jerome, Executive Secretary  
Oil and Gas Conservation Commission  
Suite 312 3500 North Central Avenue  
Phoenix, Arizona

Dear Mr. Jerome:

Enclosed please find two copies of Form O&G 56,  
Abandonment and Plugging Record, on our No. 1-6 well  
located in Section 6, T19N, R26E, Apache County,  
Arizona.

As this is the final form to be filed on this  
well in regards to drilling, we trust that all is  
satisfactory.

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

*Judi Stinemates (Mrs.)*

Judi Stinemates  
Secretary to James W. Dean

JS  
Enclosures



UNITED STATES FIDELITY AND GUARANTY COMPANY  
INDIANAPOLIS OFFICE

456 N. MERIDIAN ST., INDIANAPOLIS 9, IND.

FOSTER & MESSICK  
MANAGERS

August 8, 1960

TELEPHONE:  
MELROSE 5-9431

State of Arizona  
Oil and Gas Conservation Commission  
3500 North Central Avenue  
Phoenix, Arizona



Gentlemen:

Eastern Petroleum Company  
Carmi, Illinois

As requested by our Phoenix branch office we have re-executed the blanket oil well bond, which we feel will meet with your approval. We would appreciate your accepting same for us.

Thank you for your help.

With kind regards.

Yours very truly,

FOSTER & MESSICK, MGRS.

*Victoria Todd*  
Victoria Todd  
Surety Department

t/v  
encl.

November 21, 1960

The Travelers  
Branch Office  
The Pierce Building  
112 North Fourth Street at Pine St.  
St. Louis 2, Missouri

Attention: L.R. Gruenewald, F. & S. Asst.

Re: Eastern Petroleum Company, Inc. - Bond #779819  
Oil Drilling Blanket Bond - \$10,000.00

Gentlemen:

This letter is your authority to release the bond on the  
above named company.

Yours very truly,

D. A. Jerome  
Executive Secretary

DAJ/ew

CC: Eastern Petroleum Company  
Box 291, Carmi, Illinois

Chas. L. Miller Insurance Agency  
Mt. Carmel, Illinois

# The Travelers

AGENCY DEPARTMENT  
CASUALTY, FIDELITY AND SURETY  
KARI L. NORDYKE, Manager

*The Travelers Insurance Company*  
*The Travelers Indemnity Company*

BRANCH OFFICE  
The Pierce Building  
112 North Fourth Street at Pine Street  
ST. LOUIS 2, MISSOURI  
Telephone: CHESTNUT 1-8100

Nov. 18, 1960

Arizona Oil & Gas Conservation Commission  
Suite 312  
3500 N. Central Avenue  
Phoenix, Arizona

Gentlemen:

Re: Eastern Petroleum Company, Inc., 2520 First  
Nat'l Bank Bldg., Denver, Colo. (& Box 291,  
Carmi, Ill.) Oil Drilling Blanket Bond No.  
779819 to State of Arizona - \$10,000.00

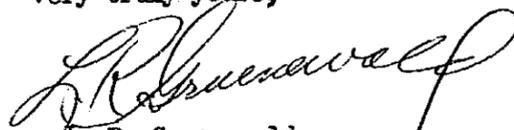
We have been serving as surety on the above bond since April 27, 1959 and have been advised that our principal has filed bond with your Department of another surety company. On August 31, 1960, the Supervisor of Mineral, Oil and Gas Production Division of the State Land Department advised us that they wrote you in this connection.

We have never been furnished with cancelation evidence from you so that we are wondering whether or not a new bond has been filed.

Inasmuch as there does not appear to be a cancelation clause in the bond form, will you please advise us if there is some manner in which we may be relieved of our liability on this type of obligation, if new bond has not been filed with you.

Thanks for your cooperation and reply.

Very truly yours,

  
L. R. Gruenewald  
F & S Asst.

IG  
CC: Eastern Petroleum Company  
Box 291, Carmi, Ill.

Chas. L. Miller Ins. Agency  
Mt. Carmel, Ill.  
HOME OFFICE: 700 MAIN STREET, HARTFORD 15, CONNECTICUT

November 17, 1960

Mr. James Dean  
Eastern Petroleum Company  
2520 First National Savings Bldg.  
Denver 2, Colorado

Dear Mr. Dean:

We have had no correspondence with Mr. Paulsell with regard to using your State #1-6 well for a water well.

We are therefore returning an approved copy of your application to plug and abandon the State #1-6 well, Apache County, Arizona.

We have taken the liberty to modify your proposed plan of work. It is not necessary to fill the casing with cement from surface to total depth.

Yours very truly,

D. A. Jerome  
Executive Secretary

W. F. Maule  
Petroleum Engineer

WFM/ew  
Enclosure

78



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

2520 FIRST NAT'L BANK BLDG.  
DENVER 2, COLORADO  
MA 3-5259

November 4, 1960

Mr. D. A. Jerome, Executive Secretary  
Oil and Gas Conservation Commission  
Suite 312 - 3500 North Central Avenue  
Phoenix, Arizona

Dear Mr. Jerome:

Enclosed please find three application to abandon and plug forms concerned with our State #1-6 well, located in Section 6, T19N, R26E, Apache County, Arizona.

We would appreciate your approving these forms and returning one copy to this office for our files. Thank you for your cooperation.

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

Judi Stoutner  
Secretary to James W. Dean

Enclosures (3)



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

2520 FIRST NAT'L BANK BLDG.  
DENVER 2, COLORADO  
MA 3-5259

*Don Perome*

November 3, 1960

Mr. Pat Paulsell  
Navajo, Arizona

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Dear Mr. Paulsell:

Our completion efforts at our State #1-6 well located in Section 6, T19N, Range 26E, have proven futile. The well is not productive from the Chinle, and we are requesting permission of the State to plug and abandon same. It is my understanding that you have a state grazing rights lease on the surface and I thought that you might want this well for a water supply well to your stock.

We have 4 1/2" casing set to a total depth of 772' and same is plugged back with cement to a depth of 738'. The well was perforated from 675 - 719' and yielded neither appreciable amounts of gas or water. There are various surface water sands down to a depth of 245'. If you desire to convert this to a water supply well, we will sell the casing in the hole, as is for 50 cents a foot to a depth of 500'. By purchase of the well we in turn will expect you to assume full responsibility of same and the ultimate responsibility of plugging same to meet the requirements of the State of Arizona.

Howard Kirby, our production superintendent, is presently at Navajo and if you have interest in purchasing this well in its present state for conversion, please contact Howard within the next week but not later than Thursday, November 10, and he will in turn relay the message to me by telephone. Also, in taking possession of the well, you should give Howard an executed copy of the enclosed agreement.

I am sure that if you desire the well, Howard will be more than happy to assist you in getting the well plugged back properly and in having same perforated whenever he might have a Schlumberger perforating truck at Navajo to perform services for us in the future. I trust that this finds you and your wife in the best of health and the cattle business prospering for you.

Respectfully yours,

EASTERN PETROLEUM COMPANY

James W. Dean

JWD:JS  
Enclosure

78

RELEASE AND PURCHASE AGREEMENT

I hereby agree to purchase five hundred (500) feet of casing now located in a well known as the Eastern Petroleum Company State No. 1-6, located in Section 6, Township 19 North, Range 26 East. Apache County, Arizona. I agree to purchase five hundred (500) feet of four and one-half (4 1/2) inch casing at fifty (50) cents per foot. I further agree to relieve Eastern Petroleum Company of all obligations to the State of Arizona for proper plugging and abandonment as per their regulations.

This agreement is not effective or binding upon the two parties unless executed on or before November 10, 1960, and returned to the possession of Eastern Petroleum Company and/or its representatives.

ACCEPTED BY:

\_\_\_\_\_  
Pat Paulsell

STATE OF )  
          ) ss.  
COUNTY OF )

The foregoing release and purchase agreement was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1960, by \_\_\_\_\_

WITNESS my hand and notarial seal.

My Commission Expires:

\_\_\_\_\_  
Notary Public

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EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

187 NATIONAL BANK BLDG.  
DENVER 2, COLORADO

December 16, 1959

Mr. Don Jerome, Executive Secretary  
Oil & Gas Conservation Commission  
3500 North Central Avenue  
Phoenix, Arizona

Dear Mr. Jerome:

This letter is to authorize release of electrical  
logs forwarded to you at an earlier date concerned  
with the wells listed below.

1. #1-6 State  
Section 6, T19N, R26E
2. #1-2 State  
Section 2, T19N, R26E
3. #1-10 State  
Section 10, T19N, R26E

All wells listed above are located in Apache County,  
Arizona.

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

*James W. Dean*  
James W. Dean

JWD:JS

File



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

1ST NATIONAL BANK BLDG.  
DENVER 2, COLORADO

December 4, 1959

Mr. Don Jerome, Executive Secretary  
Oil & Gas Conservation Commission  
3500 North Central Avenue  
Phoenix, Arizona

Dear Mr. Jerome:

Enclosed please find one released copy each of  
the Induction-Electrical log run on Eastern Petroleum  
Company's Well Nos. 1-2, 1-6, and 1-10. All of these  
wells are located in Apache County, Arizona.

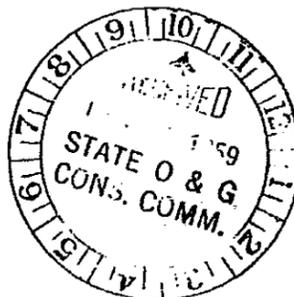
Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

*James W. Dean /jp*

James W. Dean

Enclosures  
JWD:JS





EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

187 NATIONAL BANK BLDG.  
DENVER 2, COLORADO

July 24, 1959

Mr. Frederick C. Ryan, Supervisor  
Oil and Gas Conservation  
State Land Department  
Phoenix, Arizona

Re: Cancellation of Power of  
Attorney to James E. Geary

Dear Mr. Ryan:

This is to notify you and your department that the limited power of attorney extended to Mr. James E. Geary of Townsend Oil Corporation by our letter of June twenty-sixth is hereby canceled and that he is no longer empowered to execute or perform any duties in behalf of this company.

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

*James W. Dean*  
James W. Dean  
Geologist

JWD:JS





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EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

1ST NATIONAL BANK BLDG.  
DENVER 2, COLORADO

May 27, 1959

Mr. Frederick C. Ryan, Supervisor  
Oil and Gas Conservation  
422 Arizona State Office Building  
Phoenix, Arizona

Dear Mr. Ryan:

I have received a copy of a memorandum from you to Mr. O. M. Lassen concerning a letter from me in regards to the Rules and Regulations Governing Oil and Gas Operations in Arizona.

I am afraid that my objections have been misunderstood. Although it is true that under the scope of the present rules as set out we are confronted with a specific problem, however, it is one that can be worked out and will resolve itself.

It is not my desire to create friction or to be a problem to you or the Land Department, but I did wish to present a side of the situation from an independent operator's viewpoint. I realize that your office is very conscientious and sincere in their efforts to set up a sound and practical set of regulations; however, I do feel that they impose restrictions and create situations which tend to discourage "Wildcatters" and independents at a time when it is very desirable for a new oil state to encourage such operations. Many states not only pave the way and eliminate such problems, but go so far as to offer a handsome reward for the first oil found.

I personally believe that neither you nor anyone else knows enough at the present about the reservoir characteristics of the potential oil and gas fields of Arizona to say what spacing and what drainage patterns will result. These are specific problems which in other states have resolved themselves with time and development and economic conditions. These are problems which are usually settled by mutual agreement of all parties concerned. These are also problems which are settled after there is substance found to govern and regulate. Your problem at the present is not a problem of regulating, but rather a problem of encouraging the development and discovery of something to regulate.

I have no particular ax to grind nor do I wish to be misunderstood. I am as sincere and conscientious in my belief and argument as I am sure your office is.

I am directing the above criticism to your office because it is something I object to and sincerely believe. I only hope you receive this criticism in the constructive manner in which it is offered. I have no desire to rewrite the rules and regulations of the State of Arizona; in fact, I have no intentions of again voicing my objections.

The existing rules are plainly set forth, and we will certainly give all the cooperation within our power to comply. I am sure that somewhere in the process we will fail on a technicality with some of the required forms. However, in our field operations, I can assure you they will be conducted in a good and workmanlike manner.

Again, please accept my criticism in the good faith in which it is offered, and I hope this experience does not create any prejudice towards this company's future operations; rather, I hope the outcome will give us both a little more understanding of each others problems and as a result perhaps make our relationship a little closer.

I wish at this time to express my regrets and apology if I have created any embarrassment or unpleasantness to your office, as this is certainly not my intention. My only desire was to voice my objections, and I believe I have done so. Therefore, I consider the matter closed and again wish to extend my apology if there is cause for such.

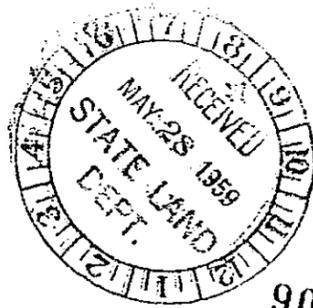
Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

*Paul Fullop/JS*

Paul Fullop  
Partner

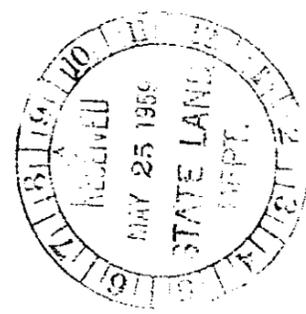
PF:JS



9039

*File to Eastern General*

8856



May 22, 1959

Mr. Bob Lauth, Consulting Geologist  
Century Building  
Durango, Colorado

Re: Samples for State Filing  
Pinta Dome Area, Arizona

Dear Bob:

We have been advised by letter from Mr. Phillip W. Johnson, State Geologist for Arizona that they wish an adequate sample cut at each of the previously specified depths to allow them to make three cuts of each.

I suggest that upon completion of drilling that you contact Mr. Johnson of the State Land Department in Phoenix to make proper arrangements for delivery of the samples to him.

Respectfully yours,

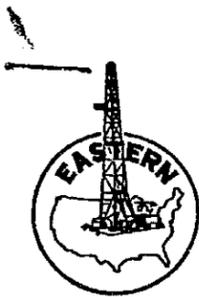
EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

James W. Dean  
Geologist

Carbon Copy: Mr. Charles Blanton  
Navajo, Arizona

Mr. Phillip W. Johnson ✓  
State Land Department  
Phoenix, Arizona

JWD:JS



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

May 22, 1959

Mr. Phillip W. Johnson, State Geologist  
State Land Department  
Phoenix, Arizona

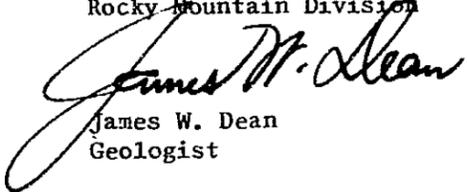
Dear Mr. Johnson:

Your letter concerning your need for multiple cuts from samples caught and kept at wells being drilled by this company in Apache County, Arizona, has been referred to a field personnel who will be personally supervising this portion of the drilling operations.

It would be appreciated if you would specify to us by letter the proper procedure for furnishing the State with samples at the completion of drilling operations. It is our assumption that the general procedure for the State of Arizona is probably patterned closely to that of other states in which we operate, where we normally mail a complete set of samples, c.o.d., to the appropriate State agency.

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

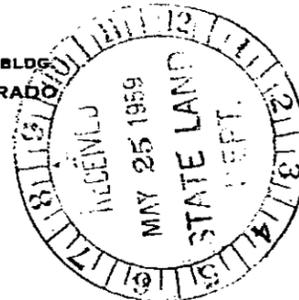
  
James W. Dean  
Geologist

Carbon Copy: Mr. Bob Lauth, Consulting Geologist  
Century Building  
Durango, Colorado

JWD:JS

8855

187 NATIONAL BANK BLDG  
DENVER 2, COLORADO



May 20, 1959

Eastern Petroleum Company  
2520 First National Bank Building  
Denver 2, Colorado

Attention: Paul Fullop

Dear Mr. Fullop:

Transmitted herewith are your approved drilling permits numbered 78, 79, 80 and 81, covering locations in sections 6, 16, 10 and 2 respectively in Township 19 North, Range 26 East, Apache County, Arizona.

Please note that a copy of your letter of May 18th, 1959 to P. W. Johnson regarding casing programs for the wells has been attached to each permit to supplement and augment the information concerning such program on each form.

In keeping with established administrative procedures this office will refer to the wells as follows:

Section 6	State #88-1
Section 16	State #89-1
Section 10	State #89-2
Section 2	State #89-3

Thank you for your cooperation. If we may be of further assistance, please call on us.

Very truly yours,

STATE LAND COMMISSIONER

By: Frederick C. Ryan,  
Supervisor,  
Oil and Gas Conservation

FCR:mb  
Encls.

78



EASTERN PETROLEUM CO.  
EASTERN DRILLING, INC.

1ST NATIONAL BANK BLDG.  
DENVER 2, COLORADO

May 18, 1959

Mr. Phil Johnson, State Geologist  
P. O. Box 4126  
University of Arizona, Geological Building  
Tucson, Arizona

Re: Pinta Dome Area, Drilling Permits

Dear Phil:

In reference to our phone conversation of May 15 concerning the water sands in the drilling program which we have set up for the above captioned area, this letter will set out my understanding of your desires and our obligations.

Since we anticipate drilling with air, we will be limited to the amount of water that we can encounter and still continue air drilling operations. Therefore, if we are successful with our air drilling, it will mean that we have not encountered any great water problems. If, however, we are not successful with air, we will then mud up and continue drilling operations with mud as a drilling medium. It will be our obligation to carry our mud in such condition as to keep the waters confined within the sands.

In the event of a dry hole or production, we will of course consult with you on the plugging of the hole or on the running or setting of the production string. At this time you will advise us as to the plugging or covering of the water sands with cement if such conditions are encountered.

Trusting that this letter fulfills the requirements and understanding of this situation, I am

Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

  
Paul Fullop  
Division Engineer - Partner

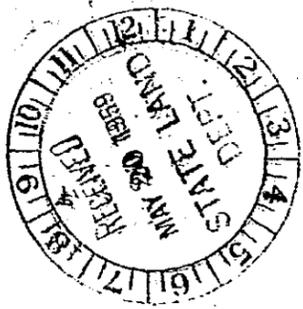
Carbon Copy: Mr. Frederick C. Ryan, Supervisor  
Oil and Gas Conservation  
Capital Annex Office Building  
Phoenix, Arizona

PF:JS

RECEIVED  
MAY 19 1959

WATER RESOURCES DIVISION  
U. S. GEOLOGICAL SURVEY  
GROUND WATER BRANCH

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8570



May 18, 1959

Mr. Phil Johnson, State Geologist  
P. O. Box 4126  
University of Arizona, Geological Building  
Tucson, Arizona

Re: Pinta Dome Area, Drilling Permits

Dear Phil:

In reference to our phone conversation of May 15 concerning the water sands in the drilling program which we have set up for the above captioned area, this letter will set out my understanding of your desires and our obligations.

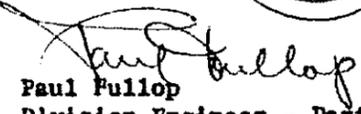
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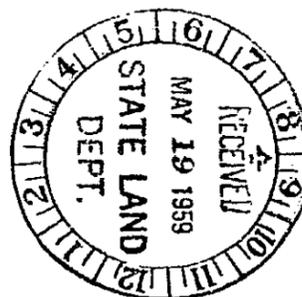
Respectfully yours,

EASTERN PETROLEUM COMPANY  
Rocky Mountain Division

  
Paul Fullop  
Division Engineer - Partner

Carbon Copy: Mr. Frederick C. Ryan, Supervisor  
Oil and Gas Conservation  
Capital Annex Office Building  
Phoenix, Arizona

PF:JS



8435

