

EASTERN #1-26 SANTA FE
SE SW Sec. 26-T20N-R27E APACHE 543

P-W

COUNTY Apache AREA 7 mi SE/Navajo LEASE NO. Santa Fe Fee

WELL NAME Eastern Petroleum Company #1-26 Santa Fe

LOCATION SE SW SEC 26 TWP 20N RANGE 27E FOOTAGE 1050' FSL 1980' FWL

ELEV 5764' GR KB SPUD DATE 7-7-70 STATUS P&A TOTAL 5780' GR from USGS 7 1/2 quad per JNC COMP. DATE 11-9-70 DEPTH 1161'

CONTRACTOR Eastern Petroleum Company

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY	DRILLED BY CABLE TOOL	PRODUCTIVE RESERVOIR	INITIAL PRODUCTION
7"	218"	85 SKS	NA	<input checked="" type="checkbox"/>	<u>Wildcat</u>	<u>Wildcat</u>	<u>Dry</u>
4 1/2"	1135'	200 SKS					
2 7/8"	1135-1147						

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Sonsela	185'	X	X	
Lower Petrified	215'			
Monitor	850'			
Shinarump	940'			
Moenkopi	1010'			
Coconino	1144'			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
Rop's Well Log; IE,	NA	NA	SAMPLE DESCRP. <input checked="" type="checkbox"/>
Cement Bond & GRN			SAMPLE NO. <u>1625</u>
			CORE ANALYSIS <input checked="" type="checkbox"/>
			DSTs

REMARKS _____ APP. TO PLUG
 _____ PLUGGING REP.
 _____ COMP. REPORT

WATER WELL ACCEPTED BY _____

BOND CO. United States Fidelity * Guaranty Company BOND NO. 27716-13-3983-65
 BOND AMT. \$ 25,000 CANCELLED _____ DATE _____ ORGANIZATION REPORT 8-15-69
 FILING RECEIPT 2877 LOC. PLAT WELL BOOK PLAT BOOK
 API NO. 02-001-20133 DATE ISSUED 6-29-70 DEDICATION S/2 SW/4

PERMIT NUMBER 543

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 **EASTERN PETROLEUM COMPANY** Address **P.O. BOX 291, CARMI, ILLINOIS-62821**

Federal, State or Indian Lease Number or name of lessor if fee lease **EASTERN-WESTERN SANTA FE FEE** Well Number **1-26** Field & Reservoir **WILDCAT**

Location **1050 FSL; 1980 FWL** County **APACHE**

Sec. TWP-Range or Block & Survey **SESW 26-20N-27E**

Date spudded **7/07/70** Date total depth reached **8/15/70** Date completed, ready to produce **---** Elevation (DB, RKB, RT or Gr.) **5764 GR** feet Elevation of casing hd. flange **5764** feet

Total depth **1161** P.B.T.D. **---** Single, dual or triple completion? **---** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **DRY HOLE** Rotary tools used (interval) **0-1161** Cable tools used (interval) **-0-**

Was this well directionally drilled? **NO** 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) **GO INTERNATIONAL CEMENT BOND & GAMMA RAY; SCHLUMBERGER INDUCTION-ELECTRICAL** Date filed **11/18/70**

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
SFC	8 3/4	7"		218	85	-0-
OIL STRING	6 1/4	4 1/2"	9.5#	1135	200	460

TUBING RECORD

LINER RECORD

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

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & 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	Gas prod. during test	Water prod. during test	Oil gravity
			bbls.	MCF	bbls.	* API (Corr)

Tubing pressure	Casing pressure	Cal'd rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			bbls.	MCF	bbls.	

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 **SECRETARY** 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.

NOVEMBER 18, 1970
Date

Signature *J. N. Edwards*

Permit No. **543**

NOV 20 1970
OIL & GAS CONSERVATION COMMISSION

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
Form No. 4 File One Copy

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
SHINARUMP	940	1010	Sand, -gray med. to crs. gr.
MOENKOPI	1010	1144	Shales, brown-red
COCONINO	1144	--	Sand - fg - buff

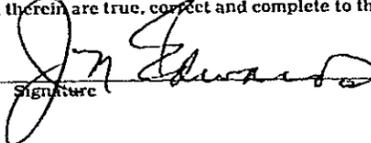
ATTACHED IS COPY OF GEOLOGIST'S REPORT ON WELL.

* 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 drillers 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 & Gas Conservation Commission not later than thirty days after project completion.

PLUGGING RECORD					
Operator EASTERN PETROLEUM COMPANY			Address BOX 291, CARMi, ILLINOIS-62821		
Federal, State, or Indian Lease Number, or lessor's name if fee lease. SANTA FE FEE		Well No. 1-26	Field & Reservoir EAST NAVAJO SPRINGS SHINARUMP		
Location of Well 1050 FSL; 1980 FWL		Sec-Twp-Rge or Block & Survey 26-20N-27E		County APACHE	
Application to drill this well was filed in name of EASTERN PETROLEUM COMPANY	Has this well ever produced oil or gas NO	Character of well at completion (initial production): Oil (bbls/day) _____ Gas (MCF/day) _____		Dry? YES	
Date plugged: 11/09/70	Total depth 1161	Amount well producing when plugged: Oil (bbls/day) _____ Gas (MCF/day) _____		Water (bbls/day) _____	
Name of each formation containing oil or gas. Indicate which formation open to well-bore at time of plugging	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount cement		
COCONINO	SALT WATER	1147 - 1097	CEMENT		
		268 - 218	CEMENT		
		15 - 0	CEMENT		
			HEAVY MUD BETWEEN INTERVALS.		
CASING RECORD					
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
7"	218	-0-	218		
4 1/2"	1135	460	675	RIPPED	
2 7/8	1147	1147	-0-		
Was well filled with mud-laden fluid, according to regulations? YES			Indicate deepest formation containing fresh water. ---		
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address		Direction from this well:		
EASTERN PETROLEUM CO.	BOX 291, CARMi, ILLINOIS		ALL		
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.					
Use reverse side for additional detail.					
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>SECRETARY</u> of the <u>EASTERN PETROLEUM COMPANY</u> (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 NOVEMBER 18, 1970		Signature 			
Permit No. 543		STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy Form No. 10			

APPLICATION TO ABANDON AND PLUG

FIELD EAST NAVAJO SPRINGS SHINARUMP
OPERATOR EASTERN PETROLEUM COMPANY ADDRESS BOX 291, CARMi, ILLINOIS
Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease SANTA FE FEE WELL NO. 1-26
SURVEY SE SW SECTION 26 COUNTY APACHE
LOCATION 1050 FSL; 1980 FWL; SEC 26-20N-27E

TYPE OF WELL DRY TOTAL DEPTH 1161
(Oil, Gas or Dry Hole)
ALLOWABLE (If Assigned)
LAST PRODUCTION TEST OIL -0- (Bbls.) WATER SALTWATER (Bbls.)
GAS -0- (MCF) NOT GAUGED
DATE OF TEST
PRODUCING HORIZON PRODUCING FROM TO

1. COMPLETE CASING RECORD
SFC - 7" - 218'
PROD - 4 1/2" - 1135
2 7/8" - 1135 - 1147

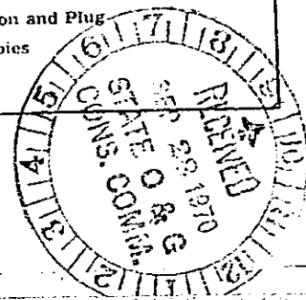
2. FULL DETAILS OF PROPOSED PLAN OF WORK
PROPOSE TO PULL AS MUCH CASING AS POSSIBLE AND PLACE
CEMENT PLUG FROM ~~1135-1147~~¹⁰⁹⁸⁻¹¹⁴⁷; CEMENT PLUG FROM 218-268;
CEMENT PLUG 0-15 - ERECT STEEL 4' MARKER AND WELD
LOCATION MARKER.

If well is to be abandoned, does proposed work conform with requirements of Rule 202? YES If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS 9-28-70
NAME OF PERSON DOING WORK TONY SCHNEIDER ADDRESS NAVAJO, ARIZONA
CORRESPONDENCE SHOULD BE SENT TO J. N. EDWARDS
Name
Title SECRETARY
Address BOX 291, CARMi, ILL.-cc-Box 1358, SCOTTSDALE
Date 9-24-70

Date Approved 9-28-70
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: John Lannister
Permit No. 543

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



March 8, 1971

Memo from W. E. Allen, Director
Enforcement Section

Memo to: Eastern #1-26 Santa Fe
SE/4 SW/4 Sec. 26-T20N-R27E
Apache County
Our File #543

This well reportedly plugged and abandoned ^{has} a dry hole
marker in place; but, miscellaneous casing, tubing, engine, mud
tank, and so forth are still on location.



Eastern #1-26

February 23, 1971

1000 600



GEOLOGICAL WELL REPORT

OPERATOR Eastern Petroleum Company
 Western Helium Corporation FARM Santa Fe- Fee WELL NO. 1-26
 LOCATION 1850 FSL, 1980 FWL SESW COUNTY Apache STATE Arizona
 Sec. 26 T20N, R27E
 ELEV: 5764 Grd, 5767 RB COMM. July 7, 1970 COMP. August 15, 1970 TOTAL DEPTH 1161 feet
 SURFACE PIPE 7" @ 218' CEMENT 85 sx reg. OIL STRING 1147 feet SIZE 2 7/8" CEMENT on Packer
 792' to
 GAMMA RAY LOG 600' to 1160', Bond log 1135' ELECTRICAL LOG Induction 218 feet to 1110 feet
 DRILLING TIME LOG 225' to 1160' in 5' increments CONTRACTOR Eastern Drilling Company

FORMATION DATA

SAMPLE TOPS		G. R. AND/OR ELECTRICAL LOG TOPS	
Sonsela ss mbr. "A" bed	185'		(+) 5579
Lower Petrified Forest Mbr.	215'		(+) 5549
Monitor Butte Mbr.	850'	863'	(+) 4901
Shinarump Congl. ss Mbr.	940'	941'	(+) 4823
Moenkopi Fm.	1010'	1008'	(+) 4756
Coconino Sandstone	1144'	1145'	(+) 4619

SHOWS OF OIL AND/OR GAS

DEPTH	DESCRIPTION	REMARKS (CIRCULATING, ETC.)
	None.....	
	No shows of gas evident while drilling or testing.	
1155-1161	Coconino ss tested on packer	Recovered Salt Water
1147-1161	Coconino ss Tested on packer	Recovered Salt Water

RECEIVED

NOV 25 1970

O & G COM. COMM.

DURANGO, COLORADO
 GEOLOGIST
 ROBERT E. LAUTH

5764
 1144
 4620

543



CORING DATA: No cores were taken. Samples were excellent from under surface pipe to 1135 feet. From there to total depth (1161) no cuttings were recovered for examination.

DRILL-STEM TEST DATA: No drill-stem tests were taken. Four and one-half inch casing was set and cemented at 1135, 9 feet above the Coconino sandstone. The interval 1157 to 1161 was tested through 2 1/2" tubing set on a Darkin production packer. A further test through tubing from 1147 to 1161 was made using a Baker inflatable packer. In both cases recovery was Salt Water. Fluid level in both cases was at 290 feet indicating a bottom-hole pressure of 140 psi.

COMMENTS: The No. 1-26 well was drilled to test the excellent helium gas shows found in the original Crest Oil Company No. 5 Santa Fe well, 600 feet to the northwest. The No. 5 Santa Fe showed 27 feet of Helium-nitrogen gas pay on the Electrical-Induction log. This hole (No.5) was lost due to mechanical and lost circulation difficulties. Two additional wells were drilled in the area; Eastern Petr. Co. No. 25 Santa Fe, 330 feet north which crossed a 50 foot fault and the Crest No. 5-A; 300 feet south which also had had lost circulation difficulties and to all indications never tested the Coconino sandstone. With the exception of the Eastern Petr. Co. No. 25 Santa Fe well which crossed a fault, all structural datums for the rest of the wells are about the same.

It is possible that the No. 1-26 well crossed a minor fault at 1139 feet.
(See drilling log and Recommendations.)

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH



RECOMMENDATION: The area demanded an additional test because of the indicated productive section, faulting, and difficulties encountered by previous drilling.

This test the No. 1-26 adequately tested the Coconino formation and found it carrying salt water.

It is possible although remote that a minor fault or large fracture was cut from 1139 to 1141 feet allowing a direct flow of salt water to enter the well-bore. The Coconino sandstone is a very porous, high permeability, low pressure formation so a small amount of direct moving water would retard and stop any movement or flow of gas.

DRILLING IN DATA: CONDENSED DRILLING LOG:

7-10-70 Lost circulation while cementing surface casing. Put in a total of 85 sx of cement; finally obtained a good bond of pipe and cement.

7-24-70 Lost a little mud at 915 feet.

7-27-70 Lost more mud at 995' in Shinarump sand approx. 200 bbls.

7-29-70 Logged Schlumberger IES - 218' to 1110' Drilled to 1135'

Ran 36 jts, new K-55, 4 1/2" casing 1145.89' set at 1135'; Cemented by Halliburton with 100 sx Class A cement plus 5% salt. Ran 250 gallons of mud flush prior to cementing. Left set 72 hours.

8-4-70 Drilled plug and 1 foot of new hole, much fresh water.

8-5-70 Ran Go Inter. cement Bond log, found channel in cement to 940' or top of the Shinarump sand. Squeezed 100 sx Reg. Class A cement plus 2% CaCl. Pressured up to 700 lbs, let set, pressured again cement was set.

8-8-70 Drilled out 90' cement then drilled to 1139 feet with air; bit dropped 2 feet to 1141', lost all air no returns; pumped in water and drilled blind with water to 1161'. Top of Coconino ss by drilling time is 1144'. No samples came back to surface. Total

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH



water lost was 80 bbls.

8-9-70 Water level is at 700 feet; much cement water, swabbed - lowered fluid level. Ran Gamma Ray log to check for total depth. TD 1161'

8-11-70 Ran 3" sand pump, wouldn't go past 1137 feet.

Ran 3" bailer, wouldn't go past 1137 feet.

Ran 1½" sinker bar, went to 1157 feet, 4' cavings in hole and a dog-leg 1135 to 1137'.

8-12-70 Cleaned out hole and enlarged the dog-leg. Ran 2½" tubing and set a Larkin production packer at 1155 SLM. Swabbed down, then water broke in; water is very salty and bitter. Fluid level is at 290 feet indicating a bottom hole pressure of 140 lbs.

Removed tubing.

8-12-70 Ran Baker inflatable packer to re-check..set at 1147..checked bottom found at 1163 feet. Swabbed salt water, fluid level is at 290 feet.

Pulled tubing and packer: Presently waiting on hydraulic jacks and rig to pull casing and plug in accordance with the rules of the Arizona Oil and Gas Commission.

This test well adequately tested all formations penetrated.

Respectfully submitted,

Robert E. Lauth

Robert E. Lauth

AIPG 1366--AAPG 707

Durango, Colorado

August 26, 1970

DURANGO, COLORADO

GEOLOGIST

ROBERT E. LAUTH

543

RECORD OF SAMPLE D(RIPT

PAGE NO. 1

SEC. 26 TWP. 20N RGE. 27E LOCATION SESW; 10.50 FSL, 1980 FWL
 FARM Santa-Fe-Fee NO. 1-26 ELEVATION 5764 Grd.
 OWNER EASTERN Petr. Co; Western Helium STATE Arizona COUNTY Apache
 SAMPLES FROM 220 TO 550 EXAMINED BY REL. DATE 7-21-70

Bit No. 1
6 1/4"
ES26.

FROM	TO	DRLG. TIME Min per 5 ft.	LITHOLOGIC DESCRIPTION, FORMATION AND REMARKS
220	230	11/11	20 Ss. wht gry firm mg ang bent cont occas crsgr 80 Sh red
30	40	10/11	40 Ss ditto 60 Sh red & lt. grn s lty
40	50	10/15	70 Ss ditto 30 Sh ✓
50	60	13/9	40 Ss loose f-rmg ss-a 60 Sh dk red-maroon.
60	70	16/12	10 Ss ditto 90 Sh varicol.
70	80	8/8	10 Ss ditto 10 Ls gry-red nodules 80 Sh varicol.
80	90	3/7	TR Ss ✓ TR Ls ditto 100 Sh lt. red-grn-gry
90	300	8/8	10 Ss gry fg v dns clay cont. chloritic 90 Sh ditto
300	10	7/12	10 Ls. wht. gry, red. dns 90 Sh lt. red. gry
10	20	12/8	20 Ss gry firm dns hd. 80 Sh red-gry.
20	30	10/11	20 Ss ditto 10 Ls gry 70 Sh red-gry.
30	40	10/6	100 Sh lavender to. brn.
40	50	10/11	10 Ls tan dns 90 Sh ditto.
50	60	8/13	100 Sh lt. grn & lavender
60	70	9/11	10 Ss loose fg rad-subrhd 90 Sh ditto
70	80	8/13	smpl. ditto
80	90	9/11	✓ ✓
90	400	14/6	100 Sh lt. grn & lau.
400	10	11/10	smpl. ditto
10	20	23/13	100 Sh varicol lau & grn - s lty in part.
20	30	12/22	100 Sh ditto
30	40	10/17	100 Sh ✓ also dk red.
40	50	17/17	TR Ls 100 Sh ✓ lau & lt. grn.
50	60	18/11	100 Sh ✓
60	70	10/10	100 Sh ✓ some red & brn
70	80	11/6	100 Sh ✓ dk red-brn
80	90	9/18	smpl ditto
90	500	27/19	✓
500	10	21/12	✓
10	20	12/13	100 Sh lau. & wht
20	30	15/13	100 Sh lau, gry v. bent
30	40	10/11	smpl. ditto
40	50	14/15	100 Sh dk brn & purp.

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Bit No. 2
EMIV
@ 435'

RECORD OF SAMPLE D(RIPT)

PAGE NO. 2

SEC 26 TWP 20N RGE 27E - LOCATION SE SW 1050 FSL; 1980 FWL
 FARM Santa Fe - Fee NO. 1-26 ELEVATION 5764 Gd.
 OWNER EASTERN Petr Co; Western Helium STATE Arizona COUNTY Apache
 SAMPLES FROM 550' TO 880' EXAMINED BY REL DATE 7-22-70

FROM	TO	DR LG TIME Min per 3 ft.	LITHOLOGIC DESCRIPTION, FORMATION AND REMARKS
550	60	17/11	100 Sh lau. v. bent
60	70	14/7	100 Sh ditto some wht-gry
70	80	17/17	100 Sh -
80	90	14/15	100 Sh ✓
90	600	14/18	100 Sh varicol, grn red gry. purp
600	10	28/17	100 Sh ditto
10	20	11/14	TR. SS loose clear fgsa 100 Sh varicol very bent
20	30	19/18	100 Sh ditto
30	40	13/13	100 Sh ditto
40	50	11/14	100 Sh not bent. varicol, mostly purp.
50	60	13/20	100 Sh ditto v bent, mostly purples.
60	70	7/6	100 Sh ditto v bent. varicol
70	80	7/6	100 Sh ditto ✓
80	90	9/9	100 Sh ditto ✓
90	700	10/13	100 Sh ditto ✓
700	10	9/11	100 Sh ditto ✓
10	20	13/14	100 Sh brk red & varicol. mostly grays
20	30	11/11	100 Sh ditto v bent.
30	40	15/13	100 Sh ditto ✓
40	50	12/19	TR. SS dcht 100 Sh ditto ✓
50	60	19/20	TR. SS clear med gr. 100 Sh varicol - not bent.
60	70	17/17	100 Sh varicol
70	80	15/20	100 Sh ditto
80	90	17/18	TR. SS. 100 Sh ditto some brk red
90	800	20/17	✓ 100 Sh ✓
800	10	13/15	TR Ls pebbles. 100 Sh ✓
10	20	18/15	TR SS vfg clear 10 Ls gray red. 90 Sh ditto
20	30	23/16	TR SS 100 Sh lt. grn slty
30	40	22/20	10 SS clear mg rnd loose 90 Sh lt. grn slty
40	50	133/17	TRcht. yellow 30 Ls tan red gel & xln firm 70 Sh ditto
50	60	25/18	90 SS gray grn vfg sr-sa bent cmt. 10 Sh brk red
60	70	19/26	70 SS loose clear frosted pitted rnd mg 30 Sh brk red.
70	80	14/40	40 SS loose clear vrs-med gr sr-sa 60 Sh varicol

DURANGO, COLORADO
 GEOLOGICAL CONSULTANT
 ROBERT E. LAUTH

Dr. No. 3
 EH-1
 @ 805'

RECORD OF SAMPLE DEPT

PAGE NO. 3

SEC. 26 TWP. 20N RGE. 27E LOCATION S.E.S.W. 1050 F.S.L.; 1980 F.W.L.
 FARM Santa-Fe-7cc NO. 1-26 ELEVATION 5764 Geo.
 OWNER Eastern Petr. Co.; Western Helium STATE Arizona COUNTY Apache
 SAMPLES FROM 880 TO EXAMINED BY REL DATE 7-25-70

FROM	TO	DRLG TIME Min per 5 ft.	LITHOLOGIC DESCRIPTION, FORMATION AND REMARKS
880	90	24/20	30 ss f.g. and loose frosted, pitted. 70 gry grn-red-somecht
90	900	15/21	10 ss crs clear to frosted sr-r. 90 sh. dk gry grn & dk red.
900	10	63/50	TR. ss as above. 100 sh. brn red & pastel varicol.
10	20	73/36	TR. ss v.f. crs gr. 100 sh. ditto - LC @ 915 - red sh is silty.
20	30	36/40	40 ss med gr loose rnd clear poor pdk 60 sh grn purp red & gry
30	40	27/26	10 ss ditto gas bubbles on pit 90 sh. ditto
40	50	19/16	90 ss clear v.f. fg to mg clear fairly firm fair pdk 10 sh. ditto
50	60	21/35	90 ss wht med fg and - ong fair pdk 10 sh ditto
60	70	12/26	70 ss wht med crs gr. fair pdk some clay cmnt. 30 sh. ditto
70	80	16/18	70 ss ditto 30 sh varicol
80	90	27/10	90 ss ✓ 10 sh varicol
90	1000	8/5	70 ss wht f. mg sr-r good pdk 30 sh varicol L.C. @ 995'
1000	10	7/23	90 ss f.g. and 10 sh. ditto some ^{red brn} silty sh. red color in mud @ 1000'
10	20	25/32	70 ss ditto 30 sh. choc. brn, blk red & varicol
20	30	19/21	50 ss loose clear wht f. crs gr. poor pdk covgs? 50 sh. ditto
30	40	25/16	30 ss ditto 70 sh. ditto also some red & wht silty sh.
40	50	40/25	10 ss loose as above 90 sh. varicol mostly brn to red silty
50	60	24/21	TR. ss red v.f. silty 100 sh. brn & dk red
60	70	35/20	TR. ss 100 sh. dk red - brn w/ streaks of wht. bent. still losing cut.
70	80	23/27	100 sh. red sdy & brn also varicol
80	90	26/20	100 sh. brn-red, & purp silty sh
90	1100	35/30	100 sh. ditto some red silty & sdy
1100	1110	28/26	30 ss redd wht v.f. firm tight 70 sh. brn-red purp & grn. 5' sample from here to total depth - logged. Schl.
1110	1115	20/	10 ss red & wht v.f. and hard tite poor pdk 90 sh. blk red, choc brn silty
1115	1120	20/	20 ss ditto also buff-root base 80 sh. dk red-brn silty some wht grn purp
1120	1125	20/	10 ss ✓ 90 sh. ditto
1125	1130	20/	TR. ss ✓ 100 sh. ✓ mostly dk red to choc brn
1130	1135	18/	10 ss buff v.f. g. hddns tite 90 sh. blk red & gry
DRILLING WITH AIR			Ran 4 1/2" csg. 36 jts set @ 1135' w/ 1005x reg. cmnt.
1135	1140	8/	Lost returns air @ 1139 - fracture? 1139-41 - switched to
40	45	16/	pump - no returns of fluid; drilled to 1156' blind
45	50	8/	no returns Top TR. by drilling time & chattering
50	56	11/	of bit at 1144'
1156-1161	8 min		still no returns

Bit #1
EH-1
@ 905'

Bit #5
EMV
@ 995'

ROBERT E. LAUTH
GEOLOGICAL CONSULTANT
DURANGO, COLORADO

August 12, 1970

Memo from W. E. Allen

Memo to File #543
SE/4 SW/4 Sec. 26-T20N-R27E
Apache County
Eastern Petroleum Company #1-26 Santa Fe Fee

Visited this location and talked with Tony Snider and a Mr. Cunningham. The rotary rig has been moved off the location and a spudder is rigged up. When I was on location, operations were at a standstill awaiting the arrival of a sand pump.

This well is drilled to a total depth of 1162' in the Coconino formation. 4-1/2" casing was set at 1135'. After drilling plug circulation was lost and unable to get returns. The hole was dry drilled to total depth. Cable tool rig was then moved in to clean out the hole.

After the hole has been cleaned out, a formation packer will be set below the lost circulation zone and the well tested.

206 CENTURY BLDG.

OFFICE 247-0025
RESIDENCE 247-3190

WD

ROBERT E. LAUTH
GEOLOGICAL CONSULTANT
P. O. BOX 776
DURANGO, COLORADO
81301



August 11, 1970

Four Corners Sample Cut Assoc.
641 West Broadway
Farmington, New Mexico 87401

Re: Samples 220' to 1135'
Eastern Petr. Co.-Western Helium Corp.
No. 1-26 Santa Fe - Fee
SESW Sec. 26 T20N R27E
Apache County, Arizona

Gentlemen:

Late Sunday night August 9, 1970, I left one bucket full of samples at your back door with a note that details etc. would follow.

Please make the necessary sample cuts as required by the Arizona Oil and Gas Conservation Commission. Send the invoice to Western Helium Corporation, P.O.Box 1358, Scottsdale, Arizona 85251.

The total depth of the hole is 1161 feet. No samples were recovered due to lost circulation from 1135 to 1161 feet.

Thank you,

REL
Robert E. Lauth

cc. Arizona Oil & Gas Conservation Comm.
1624 West Adams Rm. 202
Phoenix, Arizona 85007

cc. Western Helium Corp.
P.O.Box 1358
Scottsdale, Arizona 85257

543

16

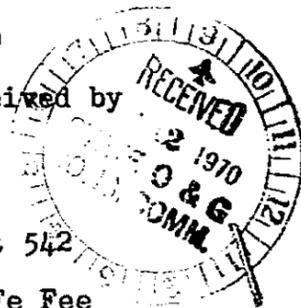
August 10, 1970

The following wells have been received by
the Cut.

El Paso, #1 Red Lake
Sec.22-26N-16W
Mohave Co. Ariz. Permit 542

Eastern Pert, #1-26 Santa Fe Fee
Sec.26-20N-27E
Apache Co. Arizona Permit # 543

J. K. Kateloff
FOUR CORNER SAMPLE CUT ASSOCIATION
P. O. BOX 499
FARMINGTON, NEW MEXICO



July 16, 1970

Memo from W. E. Allen

Memo to Eastern #1-26 Santa Fe Fee
SE SW 26-20N-27E
Apache County
Our File #543

Jim Scurlock and I visited the well Eastern Petroleum Company is drilling. At the time we were there they were drilling 6-1/4" hole at 340'. This well was spudded July 7, 1970. 7" casing has been set at 218' and cemented with 85 sacks. Eastern was also drilling a water well some 500' northwest of this hole.

Tony Snyder is the tool pusher in charge of drilling operations.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

NAME OF COMPANY OR OPERATOR: Eastern Petroleum Company
 Address: Box 291 Carmi Illinois

Drilling Contractor: same
 Address:

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor Santa Fe Fee	Well number 1	Elevation (ground) 5764
Nearest distance from proposed location to property or lease line: 1050 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: -- feet	
Number of acres in lease: 640	Number of wells on lease, including this well, completed in or drilling to this reservoir: Five - 4 dry	
If lease, purchased with one or more wells drilled, from whom purchased:	Name	Address

Well location (give footage from section lines) 1050 NSL, 1980 EWL	Section—township—range or block and survey 26-20N-27E	Dedication (Comply with Rule 103) 80 Acres
Field and reservoir (if wildcat, so state) Wildcat	County Apache	

Distance, in miles, and direction from nearest town or post office Approx. 7 miles S. E. of Navajo		
Proposed depth: 1200'	Rotary or cable tools Rotary	Approx. date work will start 6-25-70
Bond Status Blanket	Organization Report On file Yes Or attached	Filing Fee of \$25.00 Attached

Remarks:
 Oil Well location
 80 acres dedicated to this well - S/2 SW

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Security Secretary of the Eastern Petroleum Co. (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: J. N. Edwards
 Date: June 24, 1970

Permit Number: **543**
 Approval Date: **6-29-70**
 Approved By: John Bannister

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

RECEIVED
 JUN 29 1970
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION

Operator shall outline the dedicated acreage for both oil and gas wells on the plat.

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

CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name J. N. Edward

Position Secretary

Company Eastern Petroleum Co.

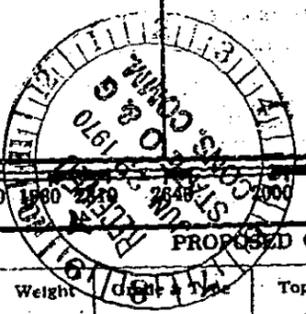
Date 6-24-70

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.

Date Surveyed _____

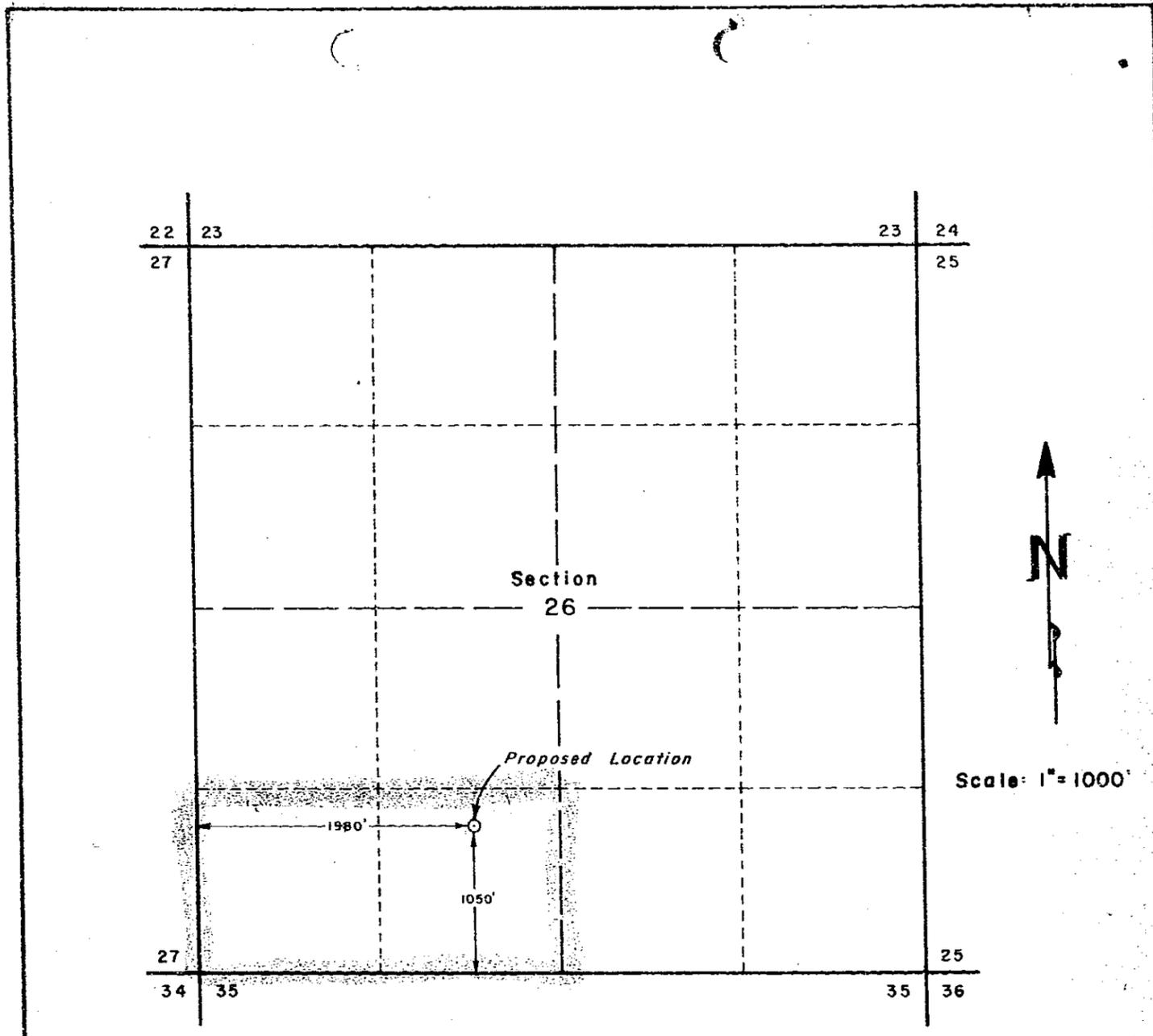
Registered Professional Engineer and/or Land Surveyor _____

Certificate No. _____



PROPOSED CASING PROGRAM

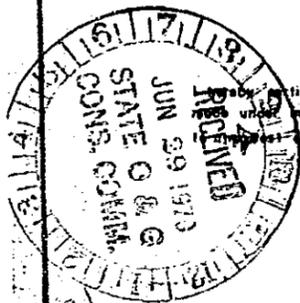
Size of Casing	Weight	Depth & Type	Top	Bottom	Cementing Depths	Sacks Cement
7" SFC			0	90	90	10
4 1/2"			0	1200		30



WELL LOCATION: Eastern Petroleum Co. - Western Helium Corp. No. 1 Santa Fe

Located 1050 feet North of the South line and 1980 feet East of the West line of Section 26,
 Township 20 North, Range 27 East, Gila & Salt River Meridian,
 Apache Co., Arizona
 Existing ground elevation determined at 5764 feet based on adjoining locations.

543



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

Frederick H. Reed
FREDERICK H. REED
 Registered Land Surveyor
 State of Arizona # 5313



WESTERN HELIUM CORPORATION Scottsdale, Arizona	
WELL LOCATION PLAT SEC. 26, T20N, R27E Apache Co., Arizona	
CLARK-NEED & ASSOC. Durango, Colorado	DATE: June 9, 1970 FILE NO: 70038



PERMIT TO DRILL

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

To: EASTERN PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

EASTERN PETROLEUM COMPANY #1-26 SANTA FE FEE
(WELL NAME)

located 1050' FSL - 1980' FWL

Section 26 Township 20N Range 27E, APACHE County, Arizona.

The S/2 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 29th day of JUNE, 19 70.

OIL AND GAS CONSERVATION COMMISSION

By John Banister
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL
YOU MUST BE IN FULL COMPLIANCE WITH RULE
105, SECTION A THRU G (SPACING), WITH RESPECT
TO THE PRODUCT TO BE PRODUCED.

PERMIT N^o 543

RECEIPT NO. 2877
API NO. 02-001-20133

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

SAMPLES ARE REQUIRED

Rocky Mountain Well Log Service Co.

1753 Champa Street

DENVER, COLORADO

266-0588 Area Code 303

80202

BOB ANDREWS, Division Manager



CASPER, WYOMING

Bob Fitzgerald
600 So. David
234-6921

June 30, 1971

MIDLAND, TEXAS

David Clark
105 West Wall
MU 2-0591

Mr. W.E. Allen
Oil & Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

Thank you for your courtesy and cooperation in loaning us the prints on the enclosed wells. Under separate cover I will be sending you the prints on the following wells:

Eastern Petroleum Company # 1-26 Santa Fe Fee
Hallett Development Company # 1 State 10602
Hallett Development # 2 State 10603

543
451
465

You can be expecting these within the next week.

Again, Thank you,

Very truly yours,

Ted Strickland

TLS:tjs
Enc./ 9

RECEIVED

JUL 1 1971

O & G CONS. COMM.



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

June 18, 1971

Mr. Ted Strickland
Rocky Mountain Well Log Service Company
1753 Champa Street
Denver, Colorado 80202

Dear Mr. Strickland:

In response to your request letter dated June 15, 1971 we are sorry to report that we have no logs on the Coffey Drilling Company #10 Keams Canyon, the Coffey Drilling #2 Keams Canyon, and the Scott Brothers #1 Well. We are, however, enclosing under separate cover the logs on the following wells that we do have available.

Eastern Petroleum Company #1-16 Santa Fe Fee
Our File #543

Induction-Electrical Log
Cement Bond Log & Gamma Ray
Rob's Well Log
Log by Robert E. Lauth

Hallett Development Company #1 State 10602
Our File #451

Gamma-Collar Perforation Record
Temperature Log
Electrical Log

Hallett Development Company #2 State 10603
Our File #465

Electrical Log

El Paso Natural Gas #1 Red Lake
Our File #542

Compensated Formation Density Log
3-Dimensional Velocity Log
Caliper Log
Density Log
Borehole Compensated Sonic Log - Gamma Ray

Page 2
June 18, 1971
Mr. Ted Strickland

El Paso Natural Gas #1 Red Lake (Cont.)
Temperature Log
Sidewall Neutron Porosity Log
Induction-Electrical Log
Four-Arm High Resolution Continuous Dipmeter

We will appreciate the return of these logs at your earliest convenience.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA:jd
Enc. Under Separate Cover (2)

Rocky Mountain Well Log Service Co.

1753 Champa Street

DENVER, COLORADO

266-0588 Area Code 303

80202

BOB ANDREWS, Division Manager



CASPER, WYOMING

Bob Fitzgerald
600 SOUTH DAVID
PHONE 234-6921

June 15, 1971

MIDLAND, TEXAS

David Clark
105 WEST WALL
PHONE 682-0591

Mr. W. E. Allen
Arizona Oil & Gas Conservation
4515 N. 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

Enclosed is a list of seven logs, I would like to borrow from you. We will return these prints immediately upon the completion of the reproduction process.

Thank you very much for your cooperation

Very truly yours,

A handwritten signature in cursive script that reads "Ted Strickland".

Ted Strickland

TS:rt

~~543~~
543

RECEIVED

JUN 17 1971

O & G CONS. COMM.

LOGS

None Coffey Drilling Company	# 10 Keams Canyon	13-28N-19E	Navajo
None Coffey Drilling Company	# 2 Keams Canyon	13-28N-19E	Navajo
(543) Eastern Petroleum Company	# 1-26 Santa Fe-Fee	26-20N-27E	Apache
451 Hallett Development Company	# 1 State 10602	(28) 26-19N-26E	Apache ✓
465 Hallett Development Company	# 2 State 10603	26-19N-26E	Apache ✓
None Scott Brothers	# 1 Well	5-14N-22E	Navajo
542 El Paso Natural Gas	# 1 Red Lake	22-26N-16W	Mohave ✓

RECEIVED

JUN 17 1971

O & G CONS. COMM.



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7th AVE.
PHOENIX, AZ. 85013
Phoenix, Arizona 85007

PHONE: 271-5161

November 23, 1970

RECEIVED

NOV 25 1970

O & G CONS. COMM.

~~Mr. J. N. Edwards
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821~~

Re: Eastern #1-26 Santa Fe Fee
SE/4 SW/4 Section 26-T20N-R27E
Apache County
Our File #543

Dear Mr. Edwards:

We have received Well Completion Report, Form 4, on the above well; however, we did not receive a copy of the geologist's report that you indicated was attached. Will you please supply us with a copy of this report.

Very truly yours,

W. E. Allen
Director, Enforcement Section

To →

WEA:jd

cc: Mr. Edwards, Box 1358, Scottsdale, Arizona

11-24-70

Geologist's report + logs attached

November 23, 1970

Mr. J. N. Edwards
Eastern Petroleum Company
P. O. Box 291
Carmi, Illinois 62821

Re: Eastern #1-26 Santa Fe Fee
SE/4 SW/4 Section 26-T20N-R27E
Apache County
Our File #543

Dear Mr. Edwards:

We have received Well Completion Report, Form 4, on the above well; however, we did not receive a copy of the geologist's report that you indicated was attached. Will you please supply us with a copy of this report.

Very truly yours,

W. E. Allen
Director, Enforcement Section

WEA:jd
cc: Mr. Edwards, Box 1358, Scottsdale, Arizona

September 28, 1970

Mr. J. N. Edwards
P. O. Box 1358
Scottsdale, Arizona

Certified Mail

Re: Eastern #1-26 Santa Fe Fee
SE/4 SW/4 Sec. 26-T20N-R27E
Apache County
Our File #543

Eastern #18 Santa Fe
NE/4 SW/4 Sec. 13-T20N-R27E
Apache County
Our File #237

Dear Mr. Edwards:

We are in receipt of your Form 9's, Application to Abandon and Plug, the above referenced wells.

As you know, the procedure as outlined on your request does not conform to our recommendations as we discussed several days ago in this office.

In your well #1-26 Santa Fe Fee SE/4 SW/4 Section 26-T20N-R27E, Apache County, a 50' plug will be required from 1147' to 1097' instead of the 20' plug indicated on your application. The portion of the hole not plugged with cement shall be filled with heavy mud. An approved copy of this application is enclosed with the necessary corrections indicated on the form.

In your well #18 Santa Fe NE/4 SW/4 Section 13-T20N-R27E, Apache County, the bottom of the hole must be filled with heavy mud, a 50' cement plug from 1266' to 1216', heavy mud from 1216' to 1160', cement plug from 1160' to 1080', heavy mud from the top of this plug to 270', cement plug from 270' to 220', heavy mud from 220' to 15', and a cement plug from 15' to surface, and the regulation dry hole marker set. Please furnish a revised Form 9 on this well.

Page 2
Mr. J. N. Edwards
September 28, 1970

Since our records do not indicate that the 4-1/2" casing in well #18 was perforated in order for you to test the Shinarump formation, will you please furnish this office with a corrected Form 4, Well Completion Report. We also will need a Form 26, Sundry Notices and Reports on Wells, on both these subject wells detailing the work to be done in salvaging the 4-1/2" casing. Also, we have not received your Form 4, Well Completion Report, on your #1-26 Santa Fe Fee.

Please notify this office 24 hours prior to commencing plugging operations on the above wells. We plan to have a representative witness the plugging procedure. Thank you for your cooperation.

Yours very truly,

W. E. Allen
Director, Enforcement Section

WEA:jd
Enc.

cc: Mr. Henry Fullop
Mr. J. N. Edwards, Carmi, Illinois

June 29, 1970

Mr. J. N. Edwards
Eastern Petroleum Company
Box 291
Carmi, Illinois

Re: Eastern Petroleum Company #1-26 Santa Fe Fee
SE/4 SW/4 Sec. 26-T20N-R27E
Apache County
Our File #543

Dear Mr. Edwards:

Enclosed please find your application for permit to drill which has been approved, receipt No. 2877, a copy of the plat showing the approved dedication, and our Permit to Drill No 543.

You have been furnished instruction sheets concerning samples and reports required by this office in earlier correspondence.

Sincerely,

John Bannister
Executive Secretary

jd
Enc.

PLEASE DETACH BEFORE DEPOSITING CHECK
FOR PAYMENT OF YOUR INVOICES AS FOLLOWS

DATE	DESCRIPTION	AMOUNT
6-26-70	Application for permit to drill Santa Fe Fee #1 Sec. 26-20N-27E Apache Co. Arizona 543	\$25.00



WESTERN HELIUM CORPORATION