

7274  
700  
6574

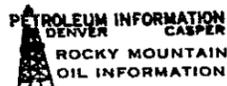
P-W

Mae Belcher Trustee #1 State  
SE/4-NW/4 Sec 20-9N-31E  
Apache, County

66



ARIZONA  
APACHE COUNTY  
WILDCAT (W)



Twp 9n-31e  
Section 20  
sw ne

OPR: Mae Belcher

WELL #: 1 State

ELEV: 7274 DF.

DSTS. & CORES:

SPUD: 1-12-59

COMPL: 6-15-59  
(approx)

\*TOPS: Log-33648

TD: 2921

PB:

CSG: 10 3/4" @ 698

Andreas 775  
Glorieta 1075  
Ft Apache 1990  
Granite wash 2880

PERF:

PROD. ZONE:

INIT. PROD: D & A.

9  
2/17/59

2/17/59

Mr. Belcher delivered samples for  
Mae Belcher well to this office.  
Following information given:

1502' bottom hole

802 good water flow

probably Coconino

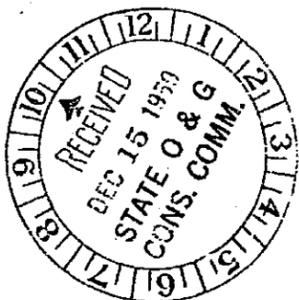
Fluorescence show at 1305'

6. File

**PLUGGING RECORD**

Operator <b>Lae Balcher, Trustee</b>		Address <b>6042-B Amerill Way, Dallas, Texas</b>	
Name of Lease <b>#1 State of Arizona</b>		Well No. <b>#1</b>	Field & Reservoir <b>Alco</b>
Location of Well <b>Sec 20 - 9 N - 31 E</b>		Sec-Twp-Rge or Block & Survey <b>20 9 31E</b>	County <b>Apache</b>
Application to drill this well was filed in name of <b>Mae Balcher, Trustee</b>	Has this well ever produced oil or gas <b>Co 2 Gas only</b>	Character of well at completion (initial production): Oil (bbls/day) _____ Gas (MCF/day) _____ Dry? <b>Dry</b>	
Date plugged: <b>6/5/59</b>	Total depth <b>2921</b>	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.
<b>CO 2 Gas</b>	<b>From 698 to 753</b>	<b>(Mud from 2921 to 2829' the 50' Cement plug from 2829' to 2779' Mud from 2779 to 2635' the 50' Cement plug from 2635 to 2585' Mud from 2585 to 2400 the 50' Cement plug from</b>	
<b>CASING RECORD 400 to 2350' (Please refer to back of report)</b>			
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)
<b>16"</b>	<b>320'</b>	<b>None</b>	<b>320'</b>
<b>XXXX</b>			
<b>13-3/8"</b>	<b>902'</b>	<b>902'</b>	
<b>10-3/4"</b>	<b>2635'</b>	<b>2635'</b>	
<b>7"</b>	<b>2829'</b>	<b>2829'</b>	
Was well filled with mud-laden fluid, according to regulations? <b>Yes</b>		Indicate deepest formation containing fresh water. <b>2400'</b>	
<b>NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE</b>			
Name	Address	Direction from this well:	
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 File this form in duplicate with the State Land Commissioner.			
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>Field Supervisor</u> of the <u>Alco</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. <i>by M. Balcher</i>			
Date <b>Dec 10th 1959</b>		Signature <i>M. Balcher</i>	
66 <i>M. J. Wharton signed Jan 5, 1960</i>		STATE OF ARIZONA STATE LAND COMMISSIONER Form No. P-15      Plugging Record      File two copies Authorized by Order No. <b>4459</b> Effective <b>April 6,</b> 19 <b>59</b>	

Mud from 2350 to 952' the 50' cement plug from 952 to 902' ~~XXXXXXXXXX~~  
~~XXXXXXXXXX~~ Mud from 902' to 743 the 50' cement plug from 743 to 693'  
Mud from 693' to 350' the 50' Cement plug from 350' to 300' the Mud  
from 300' to surface. Steel plate welded over top of 16" Csg.,



APPLICATION TO ABANDON AND PLUG

FIELD Ward  
 OPERATOR Mae Belcher, Trustee ADDRESS 6042-B Averill Way, Dallas, Texas  
 LEASE State Arizona WELL NO 1 COUNTY Apache  
 SURVEY G & SR 3M SECTION 20-9N-31E DRILLING PERMIT NO \_\_\_\_\_  
 LOCATION 12 mi East of Springerville, Ariz  
 TYPE OF WELL Dry Hole TOTAL DEPTH 2921'  
 (Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned)  
 LAST PRODUCTION TEST OIL \_\_\_\_\_ (Bbls.) Water \_\_\_\_\_ (Bbls.)  
 GAS \_\_\_\_\_ (MCF) DATE OF TEST \_\_\_\_\_

PRODUCING HORIZON \_\_\_\_\_ PRODUCING FROM \_\_\_\_\_ TO \_\_\_\_\_

1. COMPLETE CASING RECORD 320' of 16" O D Casing Left in hole.  
Cemented w/ 100 Sacks Cement

2. FULL DETAILS OF PROPOSED PLAN OF WORK \_\_\_\_\_

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 5/5/59  
 NAME OF PERSON DOING WORK Belew & Belew Drilling ADDRESS Box 536, Casa Grande  
 CORRESPONDENCE SHOULD BE SENT TO Arizona

Mae Belcher, Trustee, 6042-B Averill Way  
Dallas, Texas

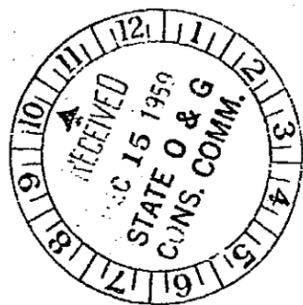
NAME Mae Belcher, Trustee

TITLE Operator

Date approved \_\_\_\_\_ STATE LAND COMMISSIONER

STATE OF ARIZONA, STATE LAND COMMISSIONER  
 Application to Abandon and Plug  
 Form No. 15A File 2 copies.  
 Authorized by Order No. 4-6-59  
 Effective April 6, 1959

66



FORM 1987 A-E

20 T. 9N R. 31E

COMPANY **Mac Belcher Trustee** LEASE **State** WELL **1**  
 FIELD **SE NW 1980 S/N 1980 E/W** COUNTY **Apache, Arizona** ELEVATION **7274 DF**  
**7273 GR 185**

SPUD **12-20-58** TOTAL DEPTH **2921'** ELEC. LOG  HISTORY   
 COMPLETED  MICRO. LOG  CORE REC.   
 RECOMPLETED  SURVEY  PALEO   
 ABANDONED **6-17-59** MUD LOG  CORE ANAL.   
 SUSPENDED  PIP METER  SIDE WALL   
 RESUMED  RAD. A. LOG  MISC.

**CASING RECORD**

LENGTH	SIZE	FEET	DEPTH	PERFORATIONS - REMARKS
16	110		320	
10	set		2640	

**COMPLETION RECORD**

ORIGINAL DEPTH	COMPLETED	PROD. ZONE & INTERVAL	ELEV.	E. LOG	HISTORY	SURVEY
2921'	6-17-59	Plugged & Abandoned				
REDRILL - PLUG - DEEPEN	RECOMPLETED					

Sample tops: FORMATION TOPS - MARKERS - HORIZONS			
Coconino	1030	Log tops:	
Pennsylvanian	2480?	Permian	775 Granite Wash 2880
		Coconino	1075
		Et. Apache	1980

**HISTORY**

DATE	DEPTH	DESCRIPTION
1958		Location
12/18		
12/23		
12/31	80	Drilling
1959		
1/8	120	Drilling - sand
1/15	698	Reaming to set 13-3/8"; water flow at 275', lost circulation at 640'
1/22	710	Reaming; 710' had helium blow through water
1/29	747	Drilling - good blow, ungauged, helium or nitrogen? noninflammable
2/5	892	Limestone - running 13-3/8", no gauge on gas
		Gas analysis: ethane 0.1%
		methane trace
		nitrogen 18.5%
		Oxygen 2.2%
		argon 0.3%
		hydrogen trace
		CO2 778.7%
		helium 0.2%

Mae Belcher Trustee		LEASE State	WELL 1
DATE	DEPTH	HISTORY	
2/12	1300	Drilling	
2/19	1600	"	
2/26	1790	"	
3/5	2072	" - limestone	
3/12	2910	"	
1/19	2310	corr) - reaming 1980', prep run 10-3/4" casg, 1500' wtr fillup	
3/25	2310	Reaming at 2200', set pipe	
4/2	2410	Drilling - carrying 10" at 2404'	
4/9	2630	Shut down, waiting on casing, 500' wtr in hole	
4/16	2640	Railing wtr, carrying 10"	
4/23	2735	Waiting on casing, running 7" to shut off wtr in hole	
4/30	2815	Drilling - carrying 7" at 2801'	
5/7	2921	Waiting on orders.	
6/18	2921	Plugged & abandoned 6-17-59	
		6-17-59	Plugged & Abandoned ID 2921'

FORM 1007 A-E

EC. 20 T. 9N R. 31E

COMPANY **Ray Belcher Trustee** LEASE **State** WELL **1**  
 FIELD **SE NW 1980 S/N 1980 E/W** COUNTY **Apache, Arizona** ELEVATION **7274 DF**  
**7273 GR 1**

SPUD **12-20-58** TOTAL DEPTH **2921'** ELEC. LOG HISTORY  
 COMPLETED R.O. PLUG - DEEPEN MICRO. LOG CORE REC.  
 RECOMPLETED SURVEY PALED  
 ABANDONED **6-17-59** MUD LOG CORE ANAL  
 SUSPENDED DIP METER SIDE WALL  
 RETURNED RAD. A. LOG MISC.

**CASING RECORD**

LENGTH	SIZE	FEET	DEPTH	PERFORATIONS - REMARKS
16	110	320		
10	set	2640		

**COMPLETION RECORD**

ORIGINAL DEPTH	COMPLETED	PROD. ZONE & INTERVAL	ELEV.	S. LOG	HISTORY	SURVEY
2921'	6-17-59	Plugged & Abandoned				
REDRILL - PLUG - DEEPEN	RECOMPLETED					

**SAMPLE TOPS: FORMATION TOPS - MARKERS - HORIZONS**

Cocconino	1030	Log Top:	
Pennsylvanian	2480?	Permian	775 Granite Wash 2880
		Cocconino	1075
		Ft. Apache	1980

**HISTORY**

DATE	DEPTH	DESCRIPTION
1958		Location
12/18		
12/23		
12/31	80	Drilling
1959		
1/8	120	Drilling - sand
1/15	698	Reaming to set 13-3/8"; water flow at 275', lost circulation at 640'
1/22	710	Reaming: 710' had helium blow through water
1/29	747	Drilling - good blow, ungauged, helium or nitrogen? noninflammable
2/5	892	Limestone - running 13-3/8", no gauge on gas
		Gas analysis: ethane 0.1%
		methane trace
		nitrogen 18.5%
		Oxygen 2.2%
		argon 0.3%
		hydrogen trace
		CO2 78.7%
		helium 0.2%



57

DATA ON BELCHER ANALYSIS

Mae Belcher, 4320 Beverly Drive, Dallas, Texas.

State No. 1, Section 20, Township 9 North, Range 31 East, Apache County, Arizona.

<u>Component</u>	<u>Percent</u>		
	<u>MS 4039</u>	<u>MS 4041</u>	<u>MS 4043</u>
Methane	T	0.1	T
Ethane	0.1	0.1	0.1
Propane	0.0	0.0	0.0
N-Butane	0.0	0.0	0.0
I-Butane	0.0	0.0	0.0
N-Pentane	0.0	0.0	0.0
I-Pentane	0.0	0.0	0.0
Cyclopentane	0.0	0.0	0.0
Hexanes Plus	0.0	0.0	0.0
Nitrogen	12.1	12.0	18.5
Oxygen	0.1	0.1	2.2
Argon	0.3	0.3	0.3
Hydrogen	T	T	T
Hydrogen Sulfide	0.0	0.0	0.0
Carbon Dioxide	87.2	87.3	78.7
Helium	0.170	0.170	0.170
BTU Value	2	3	2

66



(19) 20-9N-31E  
SE NW  
Mae Belcher,  
trustee  
#1 - State

#1169  
7-59

WILDCAT, Springerville Area; 10 mi NE/Springerville; C/C. W. Belw, Casa Grande, Arizona; spud 12-9-58; fresh H<sub>2</sub>O; 100 BWPH at 270'; set 16" csg at 320' w/110 sx; S/G at 710'; set 902' of 13 3/8"; SO at 1295'-1302'; set 1576' of 10 3/4"; SO at 1635'-1675'; SO at 1950'-1960'; set 2635' of 10 3/4" csg; S/G 2800'; TD 2921'; dry; P&A 5-11-59. Hold for data. *Final*

BELCHER WELL SHOW ANALYSIS REVEALED

2-59

The show of shallow gas, in the Mae Belcher, Trustee #1 in Apache County, has been analyzed to contain 78% carbon dioxide with traces of helium. The well, which is now drilling twelve miles east of Springerville, reported this show in a sand formation at 698'-743'. The volume was estimated at 2,500,000 cubic feet per day.

BELCHER WELL HAS NEW SHOW

Operators of the Mae Belcher, Trustee, Number 1, have reported new showings of combustible gas at a depth of 2810 feet. The Belcher well has previously reported shows at 698 feet to 743 feet and 1135 feet to 1675 feet, the former show gauged two million five hundred thousand CFGD, but was non-combustible and contained 78 percent carbon dioxide by analysis.

5-1-59

BELCHER WELL TO BE PLUGGED

Mae Belcher, trustee, Number One State, Section 20, Township 9 North, Range 31 East, has filed "Statement of Plug and Abandonment" with the State Land Department. The wildcat, which was spudded December 9, 1958, reported both shows of oil and gas at various depths and reached a total depth of two thousand nine hundred twenty-one feet. The test well reported to have bottom-holed in Pre-Cambrian formations. The most interesting showing in this test was reported at seven hundred ten feet, where a non-combustible gas flow was gauged at two and a half million CFPD; analysis showed this gas to be seventy-eight percent carbon dioxide by content.

5-15-59

sample begins 165-235

conglomerate; orange - lg. qtz & c  
qtzite frags -

lower part lg. congl. frags missing -  
pink orange sandstone

235-765

siltstone; micaceous; sandstone,  
gray to gray blue

765-808

Chert; gray novaculite? & other -  
ss. mostly

808-1075

Limestone, gray, x'thine, very  
petrol. in acid

1075-1127

SS, gray, matrix, chippy - some  
could call Co Co - but probably  
basal PK-PA

7180

Mae Belcher

Grit, or congl. above -

1011 1057 = brown, finely x'line ls. like  
Faught Ridge - St. Johns

1065 - white sand, pyrite, slightly off white (grey),  
siliceous, slightly calcareous - grt. overlays  
present. Blue or magenta stain observed  
before. seems to be considerable matrix

1285 = change color to rd brown -  
However, the light portion gets pretty  
fine before changing color.

220 feet - max. conc.

note proximity of carbonate to sands -

1297 - Lgt. colored, finely x'line dolomite  
with sandstone fragments

1342 - A dark fine x'line dolo. in samples  
in good quantity - color like up. kar'bat -  
darker than 1297.

1369 - 1429 (bottom sample) Anhydrite  
conspicuous.

1377' - 1st sulfate

2000 - Carbonate - impure - gray  
- for Ft. Apache? to 2100 -

1912-1933 - Dolomite - brown, vuggy

1787-1927 - Carbonate, sulfate - brown, gray zone  
non red - evaporitic

17

Note mixtures of carbonate  
+ sulfate

Top PK difficult

- 1127 - PC top? could be PK ss.
- 1285 - siltstone, red brown
- 1340-1355 - Dol., dk., minor sulfate frags  
prob. intergrown with dol.
- 1355-1364 - Sulfate; carb. frag? -  
conings? " "
- 1420 - sulfate & lat. colored dol. intergrown
- 1429-33 - sulfate
- 1433-1438 - siltstone, red brown
- 1438-60 - sulfate; & dolomite
- 1460-80 - sulfate and dk. carb.
- 1480-84 - mudstone; gyp. balls in
- 1499-1521 - siltstone; sandy; brown
- 1521-1559 - mudstone; dk. brown, shaly, gyp. frags
- 1559-1610 - Carb. gray, shaly
- 1610-1630 - Sand - silty, orange
- 1630-1645 - Carb., ~~lat.~~ gray, intergrown with  
sulfate
- 1645-60 - Sulfate, high
- 1660-72 - N.S.
- 1672-1702 - SS, red, & lat. colored, lat. frags  
gyp + carb
- 1702-10 - sulfate and carb
- 1710-20 - sulfate, carb. & SS.
- 1720-25 - SS.
- 1725-47 - Carb., gray, brown
- 1747-1761 - siltstone, red
- 1760-1829 - Carb. gray, limy
- 1829-1912 - SS, limy, silty, brown, (S/S),  
minor gyp

1912-27	Dol, dk., + brown w/ intergran sulfate
1927-1943	SS, very fine, silty, gray wht.
1943-53	siltstone, " "
1953-1968	Siltstone; lgt brown
1968-80	Sulfate and siltstone
1980-94	" "
1994-2000	Sulfate, gray blue
2000-2012	carb + sulfate
2012-2022	Carb, dk. brown.
2022-2031	carb, + sulfate
2031-2088	carb, brown.
2088-2104	carb + SS, or siltstone, lgt.
2104-2109	SS, or siltstone, lgt.
2109-2145	siltstone; dk brown-red
2145-2153	Dol, gray
2153-2330	siltstone, red brown
2330-2341	Carb, gray
2341-2675	Siltstone; red brown, some calc. looking, almost impure carb.
2675-2852	Mudstone; dark, fine
2852-2921	Detritals - coarse gr., grains, quartzite, high biotite near bottom, schist frags -

question whether hole bottoms in actual basement -

pt. Apache

Form Prescribed Under Oil and Gas Conservation Act of 1951

NOTICE OF INTENTION TO DRILL NEW WELL PH 1116 2-2839

This notice and surety bond must be filed and permit must be granted before drilling begins

State Land Commissioner Tucson, Ariz. December 10, 1958

In compliance with Statewide Rule 3, notice is hereby given that it is our intention to commence the work of drilling well No. 1 Sec. 20, Twp. 9N, Rge. 31E B. & M., Wildcat Test Field, Apache County.

Legal description of lease \_\_\_\_\_ (attach map or plat to scale)

Location of Well: <sup>SE 1/4</sup> In center of SE 1/4, NW 1/4, Sec. 20, T9N, R31E - 660 feet from \_\_\_\_\_ (Give exact footage from section corners or other

South line, 660 from East line, of East 80 \_\_\_\_\_ of NW 1/4 legal subdivisions or streets)

Proposed drilling depth 4500 feet. Acres in drilling unit 40

Has surety bond been filed? Yes. Is location a regular or exception to spacing rule? Wildcat.

Elevation of ground above sea level 7186.2 feet. <sup>at SE corner SE 1/4 NW 1/4 - See Plat by Surveyor.</sup>

All depth measurements taken from top of Floor (cable-tool-rig) (Derrick, floor, Rotary Table or

\_\_\_\_\_ which is \_\_\_\_\_ feet above the ground. (Kelly Bushing)

PROPOSED CASING PROGRAM

Size of Casing Inches A.P.I.	Weight	Grade & Type	Top	Bottom	Cementing Depths
16 inch					Through surface fresh watersand top to bottom
13 3/8 inch	48#	202			Through Coconino water sand
10 3/4 inch	32#	1600			Top foot Apache
5 1/2 inch	15 1/2	7400			Through formation we expect and/or anticipate to complete a pro-
Intended Zone or Zones of completion:			Perforated Interval/ ductive oil & gas well.		
Name					
A - Devonian test					

AFFIDAVIT:

I hereby certify under the penalty of perjury, that the information contained and statements herein made are to the best of my knowledge and belief, true, correct and complete.

Mae Brecher  
(Applicant)

By Mae Brecher, Trustee

Application approved this 12th day of December 19 58

Permit No. 66  
3-62 1/10/58

Obed M. Larson  
State Land Commissioner

OK per PWS Telephone 12-9-58  
/ PMY 307

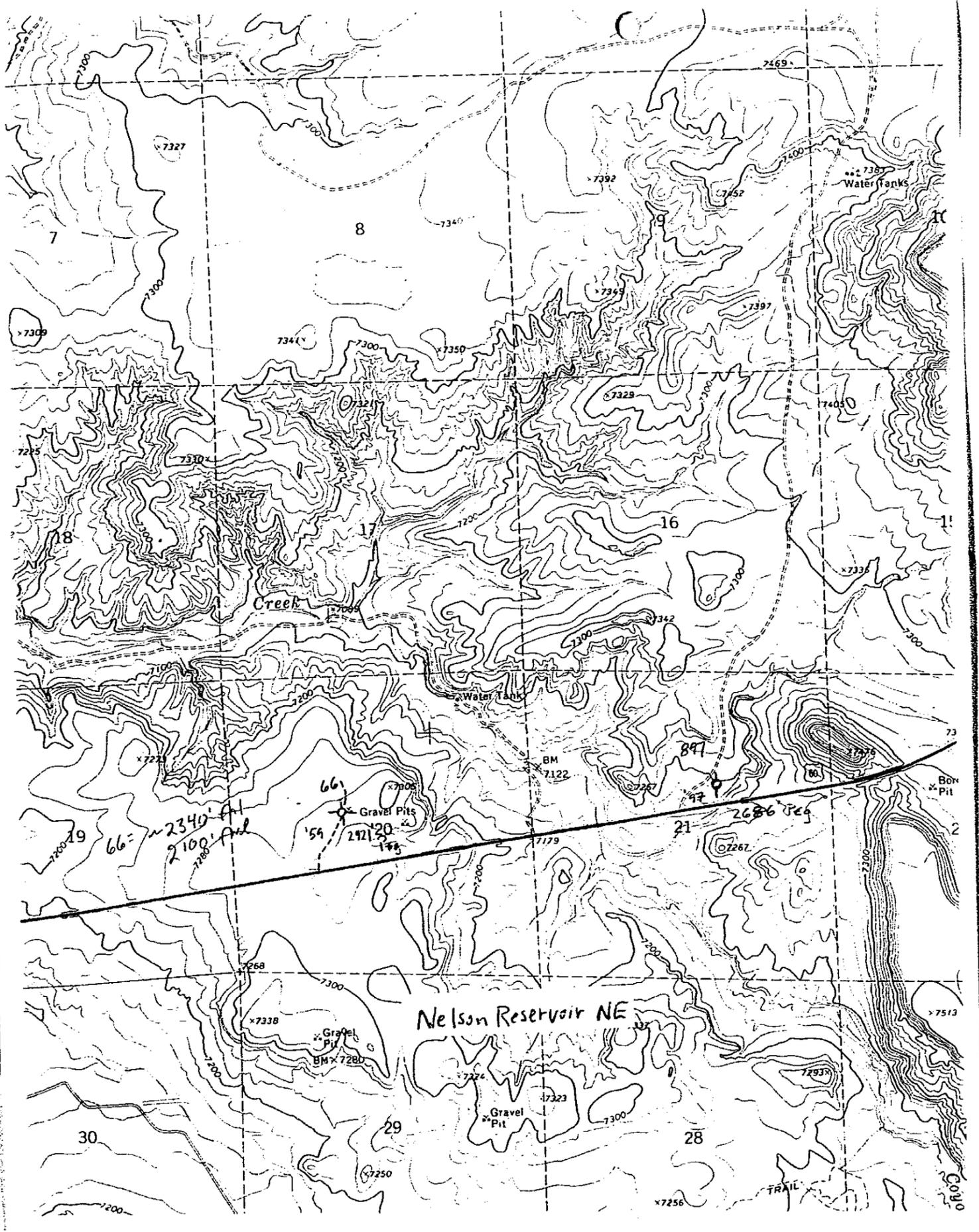
STAPLED

DEC 11 2 11 PM 1950

5 2 0

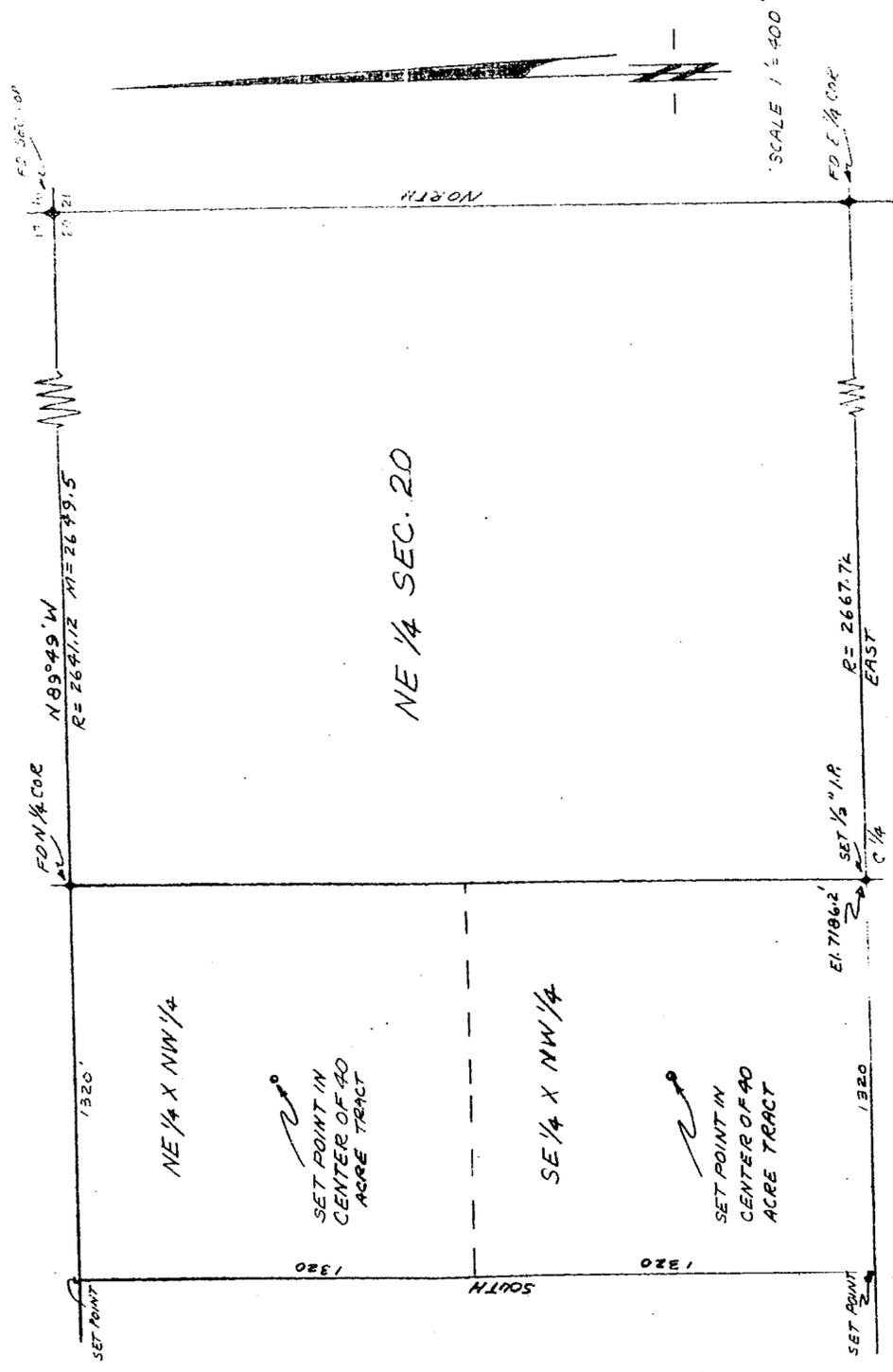


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SURVEY OF THE E 1/2 OF THE NW 1/4 OF SECTION  
 20, TOWNSHIP 9 NORTH, RANGE 31  
 EAST, G & S R B M  
 FOR MAE BELCHER, TRUSTEE

DEC. 7, 1958



*Mae Belcher*  
 STATE LAND SURVEYOR NO. 2232

BOND  
 KNOW ALL MEN BY THESE PRESENTS,

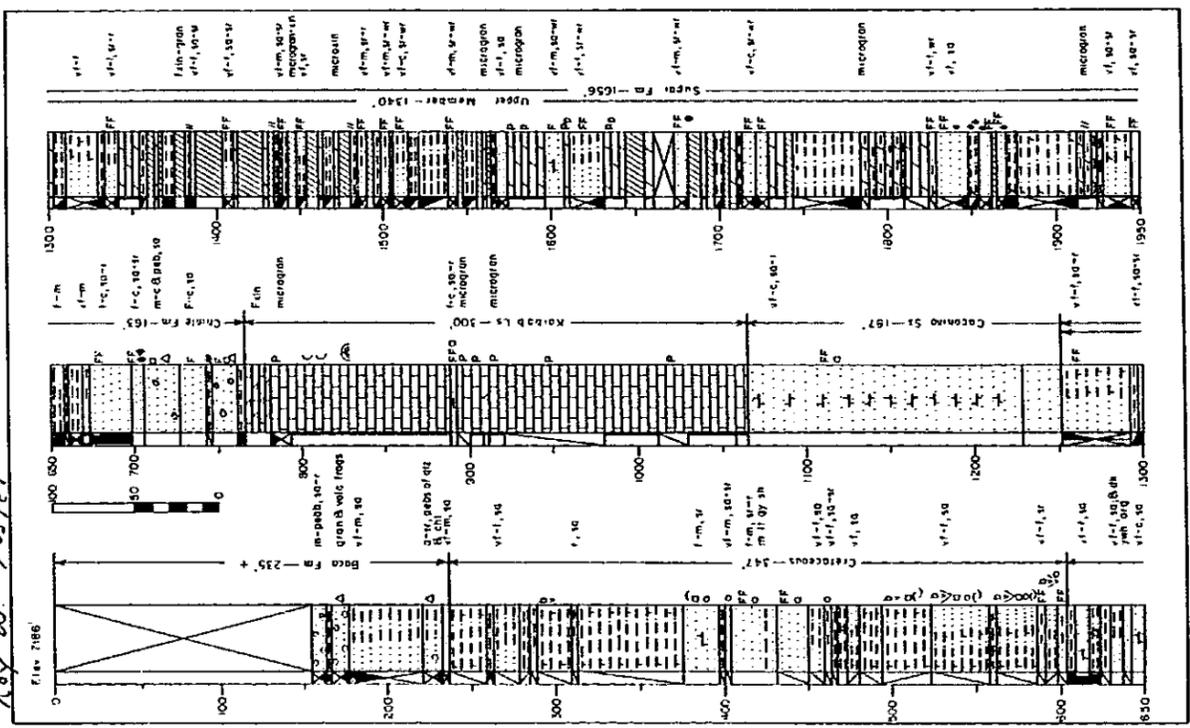


Figure 3  
 M. A. BELCHER TRUST NO. 1 STATE  
 1980N, 1980W, sec. 29, T. 9 N., R. 31 E.  
 Apache County, Arizona

666

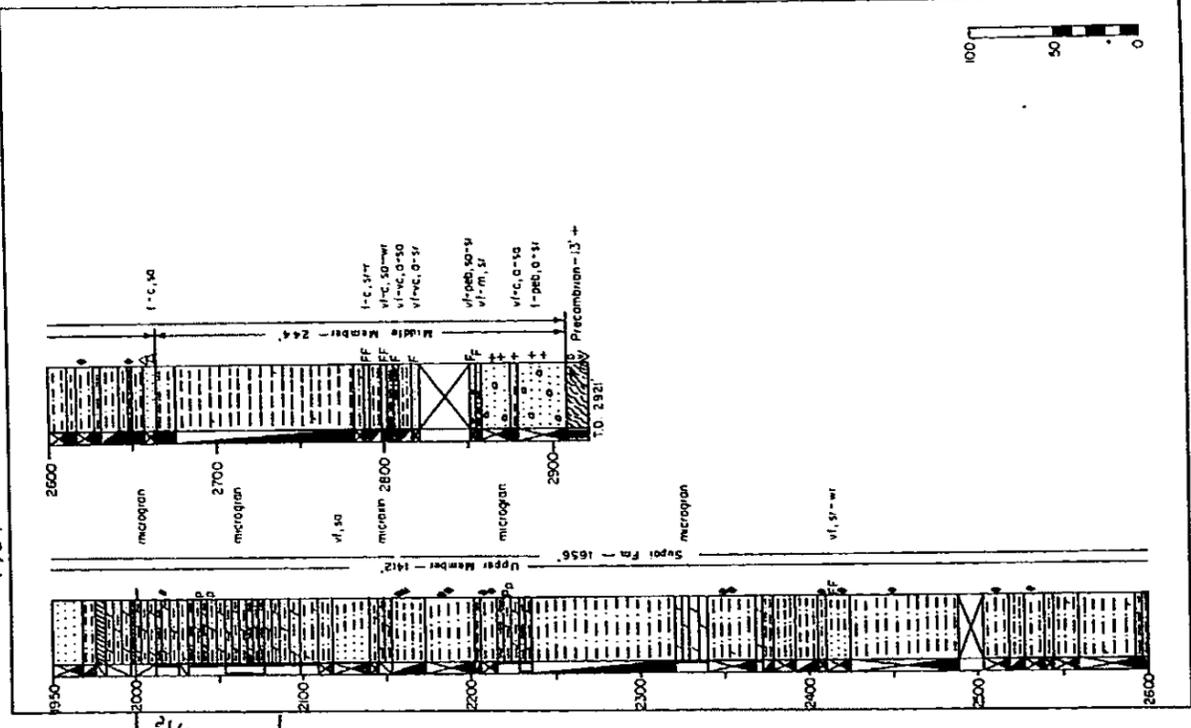


Figure 3  
 M. A. BELCHER TRUST NO. 1 STATE (CONT.)



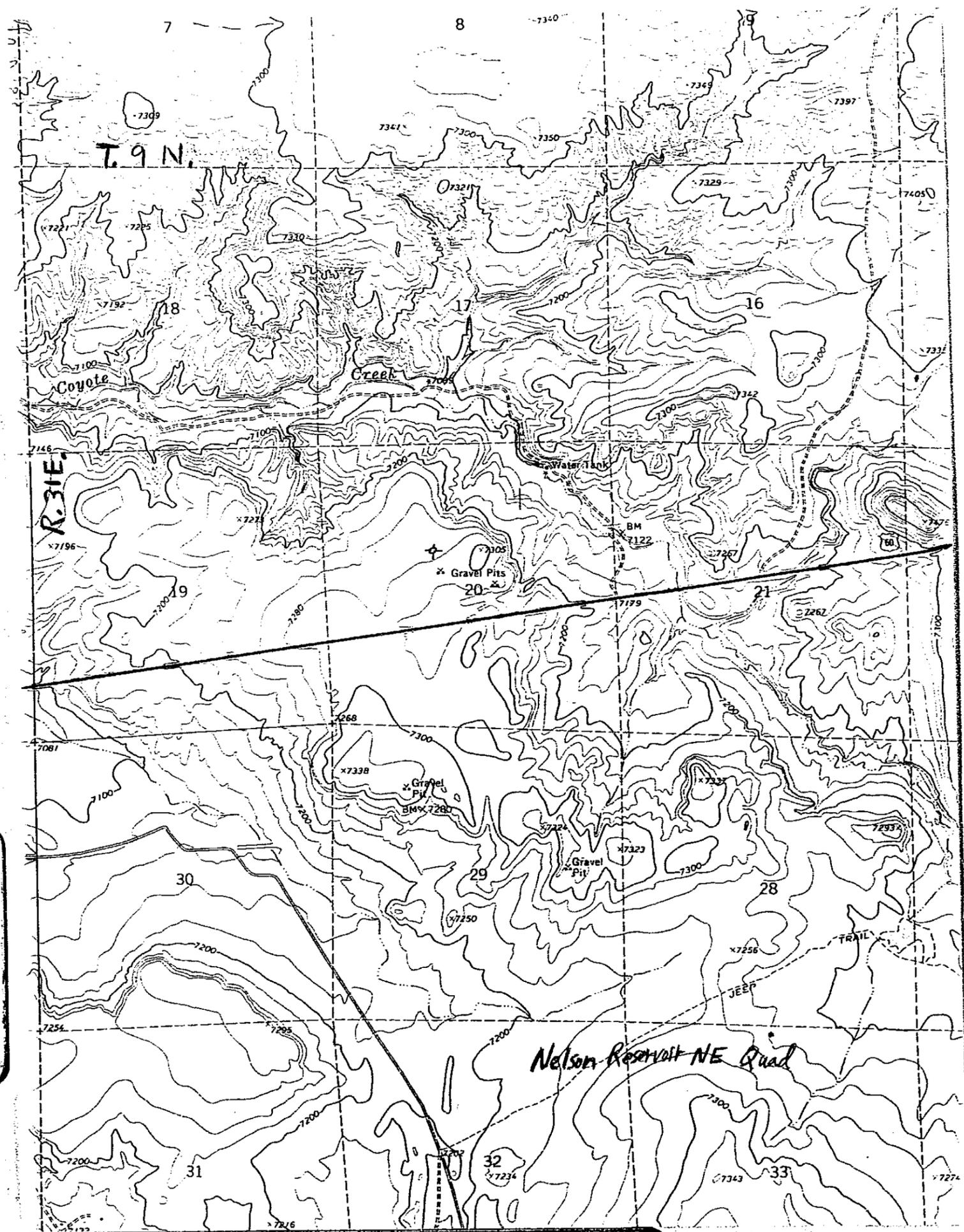
COMPANY		LEASE	STATE	WELL
Mae Belcher Trustee				1
DATE	DEPTH	HISTORY		
2/12	1300	Drilling		
2/19	1600	"		
2/26	1790	"		
3/5	2072	" - limestone		
3/12	2910	"		
3/19	2310	corr) - reaming 1980', prep run 10-3/4" casg, 1500' wtr fillup		
3/25	2310	Reaming at 2200', set pipe		
4/2	2410	Drilling - carrying 10" at 2404'		
4/9	2630	Shut down, waiting on casing, 500' wtr in hole		
4/16	2640	Bailing wtr, carrying 10"		
4/23	2735	Waiting on casing; running 7" to shut off wtr in hole		
4/30	2815	Drilling - carrying 7" at 2801'		
5/7	2921	Waiting on orders		
6/18	2921	Plugged & abandoned 6-17-59		
		6-17-59	Plugged & Abandoned	ID 2921'

DATA ON BELCHER ANALYSIS

Mae Belcher, 4320 Beverly Drive, Dallas, Texas.

State No. 1, Section 20, Township 9 North, Range 31 East, Apache County, Arizona.

<u>Component</u>	<u>Percent</u>		
	<u>MS 4039</u>	<u>MS 4041</u>	<u>MS 4043</u>
Methane	T	0.1	T
Ethane	0.1	0.1	0.1
Propane	0.0	0.0	0.0
N-Butane	0.0	0.0	0.0
I-Butane	0.0	0.0	0.0
N-Pentane	0.0	0.0	0.0
I-Pentane	0.0	0.0	0.0
Cyclopentane	0.0	0.0	0.0
Hexanes Plus	0.0	0.0	0.0
Nitrogen	12.1	12.0	18.5
Oxygen	0.1	0.1	2.2
Argon	0.3	0.3	0.3
Hydrogen	T	T	T
Hydrogen Sulfide	0.0	0.0	0.0
Carbon Dioxide	87.2	87.3	78.7
Helium	0.170	0.170	0.170
BTU Value	2	3	2



Summary of wells in the Springerville-Alpine area, Arizona / Page 2

Eastern Petroleum #1A Coyote Creek, SW NE 27-10N-30E (207) Elevation: 6949'

Triassic Moenkopi	0' (+6949')	126'	sandstone & shale
Permian Kaibab	126' (+6823')	350'	buff, gray to blue cherty & fossiliferous ls
Permian Coconino	476' (+6473')	276'	ss, fair porosity & permeability, slightly saline & water wet
Permian Upper Supai	752' (+6197')	668'	ss, siltstone, with ls, dolomite & anhydrite beds.
Permian Fort Apache mbr	1420' (+5529')	363'	tan gran dolomite with dull yellow green fluor & show of oil, tight
Permian Middle Supai	1783' (+5166')	527'	drk reddh brown sltst, ss, & shales, minor dolomite & anhydrite
Weathered granite	2310' (+4639')	11'	conglomerate of quartz & feldspar pebbles w/ streaks of red clay
Granite	2321' (+4628')	30'	drk gry & gm, some feldspar & chlorite, probably altered gabbro
TD	2351' (+4598')		

Tenneco #1 Merrill, SW SW 26-10N-30E (371) Elevation: 6979'

Triassic Moenkopi	0' (+6979')	184'	sandstone & shale
Permian Kaibab	184' (+6795')	334'	ls & dol, fresh water 195-395, slight blow CO2, lost circ at 330'
Permian Coconino	518' (+6461')	234'	sandstone, fresh water
Perm. Supai Corduroy mbr	752' (+6227')	694'	sandstone, siltstone, limestone, & anhydrite
Supai Fort Apache mbr	1446' (+5533')	131'	dolomite, slightly saline water
TD	1577' (+5402')		

Cities Service #204 State Strat, SW SE 2-10N-25E (200-1) Elevation: 6689'

Soil	0' (+6689')	19'	red-brown, silty, lava gravel
Basalt	19' (+6670')	238'	vesicular, interbedded cinder zones, porous, red soil matrix
Tertiary Eagar ?	257' (+6432')	30'	drill break at 257'. Drilled without returns from 93' to TD
TD	287' (+6402')		bit plugged, fluid level in hole at 217' (+6472')

Cities Service #204A State Strat, SW NW 2-10N-25E (200-2) Elevation: 6744'

Basalt & cinders	0' (+6744')	250'	basalt, cinders, and conglomerate
Tertiary Eagar ?	250' (+6494')	22'	conglomerate, pea gravel size, volcanic rock fragments
Cretaceous	272' (+6472')	26'	sand and shale
Cretaceous Dakota	298' (+6446')	96'	sand and shale
Triassic Moenkopi ?	394' (+6350')	182'	variegated shale and sand
Permian San Andreas	576' (+6168')	49'	dolomite, dense, hard, sucrosic in part
Permian Glorieta ?	625' (+6119')	12'	drilled without returns from 625' to TD, drilled very rapidly
TD	637' (+6107')		

Mae Belcher #1 State, SW NE 20-9N-31E (66) Elevation 7274'

Basalt & cinders	0' (+7274')	235'	
Cretaceous Mancos	235' (+7039')	137'	shale and sandstone, water flow at 275'
Cret. Tres Hermanos	372' (+6902')	312'	sandstone and shale, lost circulation at 640'
Cretaceous Dakota	684' (+6590')	91'	ss, some conglomerate, good blow CO2 gas from 698' to 753'
Permian San Andreas	775' (+6499')	295'	limestone, some dolomite, good flow of water at 802'
Permian Glorieta	1070' (+6204')	273'	sandstone, red mica shale bed near base
Permian Supai	1343' (+5931')	659'	sandstone, shale, dolomite, anhydrite
Permian Fort Apache	2002' (+5272')	850'	sandstone and dolomite, claystone with depth
Conglomerate	2852' (+4422')	69'	age unknown, meta pebb & gen aspect suggests near Precambrian
TD	2921' (+4353)		

Cities Service #203 State Strat, SE SE 26-9N-27E (1-1) Elevation: 7681'

Basalt & cinders	0' (+7681')	325'	Medium-dark gray, dense, vesicular in part
Tertiary	325' (+7356')	519'	sh, sd, some cgl. Drilled without returns from 190' to 447'
Cretaceous	844' (+6837')	349'	sand and shale. Drilled without returns 878' to 890'
TD	1193' (+6488')		partial circulation from 1050', losing mud from 300' to TD

Cities Service #13 State Strat, NW NW 34-9N-27E (198-2) Elevation: 7671'

Basalt & Cinders	0' (+7671')	236'	hard, vesicular in part. No returns with air from 30' to 248'
Tertiary Eagar	236' (+7435')	700'	mostly shale, interbedded sands & conglomerate with depth
Cretaceous	936' (+6735')	172'	shale and sand
Cret. Greenhorn	1108' (+6563')	112'	trace gray-brown crystallin dense limestone
Cretaceous Dakota ?	1220' (+6465')	10'	sd, conglomerate, limestone, trace carbonaceous flecks throughout
TD	1230' (+6441')		

GEOCHEMICAL ANALYSIS OF  
CUTTINGS FROM  
ARIZONA WELLS

**STANDARD OIL**  
PRODUCTION

GEOCHEMICAL ANALYSIS OF  
CUTTINGS FROM  
ARIZONA WELLS

*fall 66*

EXPLORATION BRIEF (PGW/EB381)

Author: I.E. Penfield

Standard Oil  
Production Company  
Continental & Offshore Division  
9401 Southwest Freeway  
Suite 1200  
Houston, Texas 77074  
713-981-1150

April 29, 1987

**STANDARD OIL**  
PRODUCTION

Mr. Daniel J. Brennan  
Executive Director  
Arizona Oil and Gas Commission  
3110 N. 19th Avenue, Suite 190  
Phoenix, Arizona 85015

Dear Mr. Brennan:

Enclosed is a copy of the report from our geochemical laboratory on the well samples we obtained from your sample library last November.

I apologize for the delay, some of the analysis equipment was being relocated and was not operational.

As indicated in the report, the results were disappointing. However, I want to thank you again for permission to take samples of these wells for analysis.

Sincerely,



Steven Swanson  
Project Geologist

cc: A. E. Krancer  
E. M. Luttrell  
B. P. Cohn

1254L/mcw

Standard Oil Production Company is a  
unit of the original Standard Oil Company  
founded in Cleveland, Ohio, in 1870.

STANDARD OIL PRODUCTION COMPANY

To: S. Swanson  
SOPC Continental & Offshore Div.  
Houston

April 21, 1987  
PGG/042187/IP/2-6  
AFE: 70-5019

From: Petroleum Geochemistry Group  
Dallas

Classification: RESTRICTED

Subject: Geochemical Analysis of Cuttings from Arizona Wells--  
Exploration Brief (PGG/EB381).

Eleven cuttings samples representing Permian, Pennsylvanian, and Devonian sediments in six Arizona wells were analyzed for source potential and thermal maturity. Well locations and sample depths are given in the Appendix. Analyses are listed in Table 1.

None of the cuttings exhibited any source potential; all were virtually barren of organic carbon, having TOC's of <0.05%. Rock-Eval pyrolysis showed only trace quantities of thermally distillable (S1) or pyrolyzable (S2) hydrocarbons. The two samples with highest S1 and S2 values (still only 0.2 to 0.3 kg/ton) were selected for thermal maturity determination by whole rock vitrinite reflectance methods, but the absence of organics prevented an accurate assessment: The Permian Supai Fm. in the Mae Belcher #1 State well (1920-2020') appeared to be a barren limestone with a trace of bitumen staining; the Pennsylvanian sample in the Tenneco 1X Ft. Apache Tr. 56 (2500-2770') had a trace of siltstone with one piece of vitrinite of about 0.88% Ro, but was mainly rebeds containing occasional reworked material. Given the negligible quantity of hydrocarbon material in the samples, no attempt was made to extract it for chromatographic characterization.

Enclosures: Table 1  
Appendix

cc: M. Rahman  
R. Drozd  
File (0) (2-6)

*Irene Penfield*  
Irene Penfield

TABLE 1

Results of Total Organic Carbon Analysis and Rock-Eval Pyrolysis

Sample ID	TOC (Wt.%)	S1 (kg./ton)	S2 (kg./ton)	Ro (%)
WE8501	0.05	0.32	0.26	NDP
WE8502	0.00	0.06	0.07	
WE8503	0.00	0.05	0.05	
WE8504	0.00	0.05	0.08	
WE8505	0.01	0.09	0.10	
WE8506	0.00	0.05	0.05	
WE8507	0.00	0.05	0.05	
WE8508	0.05	0.25	0.24	NDP(0.88??)
WE8509	0.01	0.10	0.05	
WE8510	0.00	0.10	0.08	
WE8511	0.02	0.27	0.10	

NDP= No determination possible

Appendix

P/N	Operator	No.	Well name	Loc'n	Depth range	Age
66	8501 Mae Belcher	1	State	20-9N-31E	1920'-2020'	Perm.
86	8502 Pan Am	1	Aztec L&C "B"	9-16N-18E	3720'-3835'	Dev.
76	8503 Pan Am	1	NM&AZ Land "B"	25-12N-23E	3200'-3500'	U. Penn.
662	8504 Webb	30-1	NM&AZ Snowflake	30-14N-21E	3100'-3240'	Penn.
	8505	"	"	"	3320'-3360'	Penn.
660	8506 Webb	29-1	Rocking Chair	29-14N-20E	2900'-3110'	Penn.
	8507	"	"	"	3290'-3370'	Dev.
368	8508 Tenneco	1X	Ft. Apache Tr. 56	31-10N-21E	2500'-2770'	Penn.
	8509	"	"	"	2880'-2900'	Penn.
	8510	"	"	"	3110'-3230'	Penn.
	8511	"	"	"	3640'-3830'	Dev.

BOND

KNOW ALL MEN BY THESE PRESENTS,

That we: Mae Belcher, Trustee

of the County of: Dallas in the State of: Texas

as Principal, and Maryland Casualty Co.

of Maryland 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:

Mae Belcher, Trustee # 1 State (1950 SNL; 1980 EWL)  
(May be used as blanket bond or for single well)  
Center of SE 1/4 of NW 1/4 Sec. 20, Twp 9N-R. 31E, Apache County, Arizona

**CANCELLED**

DATE 1-6-60

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 \$2500.00

Witness our hands and seals, this Eleventh day of December

Mae Belcher, Trustee  
Mae Belcher  
Principal

Witness our hands and seals, this Eleventh day of December

Maryland Casualty Co.  
T. E. Erwin-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 December 12, 1958 Date Obed M. Lassen  
STATE LAND COMMISSIONER

STATE MAIL

DEC 11 2 11 PM 1938

*Tom Erwin  
Asa Grande through B+B.*

ARIZONA GEOLOGICAL SURVEY 411 CONGRESS, SUITE 100, TUCSON, AZ 01

**FAX**

State of Arizona  
Arizona Geological Survey  
416 W. Congress, Suite 100  
Tucson, Arizona 85701  
(520) 770-3500



Larry D. Feltus  
Director and State Geologist

Date: 8-22-96  
Number of pages including cover sheet: 7

To: George Scott  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax phone: 505-622-6671  
CC: \_\_\_\_\_

From: Steve Rauzi  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Phone: (520) 770-3500  
Fax phone: (520) 770-3505

REMARKS:  Urgent  For your review  Reply ASAP  Please comment

- 2 page Scout report on Belcher well
- Gas analysis of Belcher well
- Nelson Reservoir NE Quad showing ground elev 7270' @ Belcher well
- My well list for DFR 94-1 showing 1 picked PE @ cgl zone
- Page 1 Arizona Geology Spring '94 with picture of vugs in Ft Apache ls.

— let me know if you'd like to be on Arizona Geology mailing list.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 965  
Farmington, New Mexico

IN REPLY REFER TO:

April 4, 1960

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

Attn: W. F. Hedio

Dear Sirs:

M. B. Larson, Jr. well No. 1 Navajo, located in the NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 18, T. 10 N., R. 28 E., Apache County, Arizona, has been plugged and abandoned but the abandonment has not been approved. It was inspected in December of last year and the location had not been cleaned up. Larson has been notified that the location must be cleaned up, however, we have not made another inspection to date.

The well we were talking about east of Springerville is the Mac Belcher No. 1 State, located 1980 feet from the north and west lines of sec. 20, T. 9 N., R. 31 E., Apache County, Arizona. This well was drilled to a total depth of 2921 feet in Granite Wash during the period Dec. 20, 1958 to May 3, 1959. Sample tops are as follows:

Surface - Shinarump	
Base Cretaceous -	375 feet
San Andres -	775 feet
Glorietta -	1079 feet
Fort Apache -	1990 feet
Granite Wash -	2800 feet

I hope this information will be useful to you and if there is anything else we can help you with please let us know.

I enjoyed our visit and hope to see you again soon.

Very truly yours,

*P. T. Masteth*  
P. T. Masteth  
District Engineer

January 9, 1961

Mr. Tom Adams  
3725 Westcliff Road, N.  
Fort Worth, Texas

Dear Mr. Adams:

With regard to your query of January 4th, 1961, concerning the Mae Belcher #1 State, C-SEW, Sec. 20, T. 9N, R. 31E, in Apache County, Arizona, you are herewith advised that this well was plugged in December of 1959; and there were no electric logs run on this well.

A log, if run, would have been filed with this Commission, and since none was run, we cannot help you in that regard.

We wish to advise you that Mr. Cordell, a consulting geologist in Albuquerque, New Mexico, has run the samples on this well, and he very likely could give you the information you are seeking.

For your information, we are enclosing a copy of the plugging report which has been filed in this office.

Yours very truly,

D. A. Jerome  
Executive Secretary

DAJ/ew  
Enclosure



OFFICE OF  
State Land Department  
STATE OF ARIZONA  
Phoenix, Arizona

OBED M. LASSEN  
STATE LAND COMMISSIONER

January 6, 1961

Arizona Oil and Gas Conservation Commission  
Suite 312, 3500 North Central Avenue  
Phoenix, Arizona

ATTENTION: D. A. Jerome,  
Executive Secretary

Gentlemen:

Transmitted herewith, is an inquiry concerning the  
Mae Belcher #1 Well and my answer, for your in-  
formation and guidance.

Yours very truly,

A handwritten signature in cursive script, appearing to read "F. C. Ryan".

F. C. RYAN,  
Supervisor, Mineral, Oil & Gas  
Production Division

FCR:yda  
Encs.

January 6, 1961

Mr. Tom Adams  
3725 Westcliff Rd. N.  
Fort Worth, Texas

Dear Mr. Adams:

Reference is made to your inquiry of January 4, 1961 concerning the logs and records of the Mae Belcher #1 Well, Section 20, Township 9 North, Range 31 East, Apache County, Arizona.

Data concerning this well, if filed, will be in the offices of the Arizona Oil and Gas Conservation Commission, Suite 312, 3500 North Central Avenue, Phoenix, Arizona, to which your letter is being forwarded.

I am sure that you will receive a satisfactory answer to your inquiry from them in the near future.

Yours very truly,

F. C. RYAN,  
Supervisor, Mineral, Oil & Gas  
Production Division

FCR:yda  
Enc.

cc: Arizona Oil and Gas Conservation Commission ✓

C  
O  
P  
Y

12/5/59

Jan 4, 1961

State Land Dept.  
State of Arizona  
Phoenix, Arizona

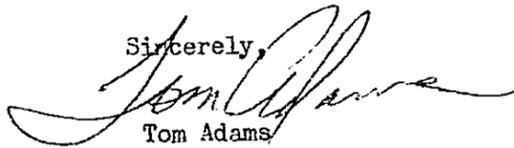
Dear Sirs;

I am writing in connection with a certain wild cat oil well drilled in the St Johns Springerville section of Apache County early in 1959.

This well was known as the Mae Belcher #1 in which I was assigned a 1/32d working interest, and was drilled by the Good Earth Oil Co. (A.M. Belcher) of Dallas, Texas. I am still paying rental on four 80 acre blocks in this vicinity and would like to know if (1) A drilling log on this well was filed with the State Land Dept. (2) If this log, if filed, is available to the public.

I am in correspondence with a company that has expressed an interest in drilling on the blocks I am now leasing and he has requested the log on this well, so I will appreciate it if you will let me know if this information is available.

Sincerely,



Tom Adams  
3725 Westcliff Rd. N.  
Fort Worth, Texas

RECEIVED  
STATE LAND DEPT.  
PHOENIX, ARIZONA  
JAN 10 1961



234

July 11, 1960

Mr. Chase Traweek  
Bar-Flying V Ranch  
Springerville, Arizona

Dear Mr. Traweek:

This will acknowledge receipt of your letter of July 8, 1960, and pursuant to a careful study of our files, we would suggest the following:

The well you have reference to is the Mae Belcher, Trustee #1, State, C-SEW, Section 20, T. 9N, R. 31E, Apache County, Arizona.

Our records indicate that this well was properly plugged and abandoned on December 10, 1959, and therefore our Commission no longer has any jurisdiction over the subject matter of your letter. However, we checked with the State Land Department and find that the lease is still in force and effect on the above-captioned property. I would suggest that you talk to your attorney as to what remedies you would have to remove their rig and "junk" or lay claim to it, if such is in order for storage charges.

As to the rights to this hole for water purposes, the State Land Department has a procedure whereby if this hole is capable of making fresh water they can authorize you to take over the hole for purposes of producing the water.

If there is any further information or help that we can give you, feel free to call on us if we can be of assistance.

Yours very truly,

D. A. Jerome  
Executive Secretary

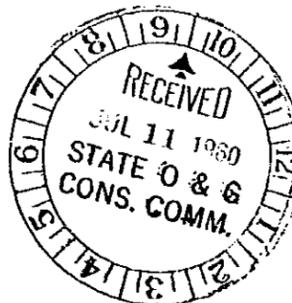
DAJ/ew

PUREBRED HEREFORDS

CHASE TRAWEEK  
BAR-FLYING V RANCH  
SPRINGVILLE, ARIZONA

REGISTERED QUARTERHORSES

July 8, 1960



Mr. D. A. Jerome  
Oil & Gas Conservation Commission  
3500 N. Central Avenue  
Phoenix, Arizona

Dear Mr. Jerome:

Mr. Donald LeMaster of the State Land Department suggested that I write you for some information.

Almost two years ago an oil drilling outfit headed by a man by the name of Belcher moved on to my State Lease to drill for oil. I am unable to locate it exactly, but it would be in Section 19 or 20, T9, R31E.

They did not get oil, and a year or so ago they abandoned the well. Their rig is still there, however, and a lot of their 'junk'. This is all an eye-sore to me, and I would like to have them remove it.

What I would like to know is the status of their lease and whether or not they can be forced to clean up what they have left here and remove their drilling rig. Also, how do I go about securing the rights to this hole for water purposes?

I will appreciate any information you are able to give me.

Sincerely,

*Chase Traweck*  
Chase Traweck

ct i

April 20, 1960

Maryland Casualty Company  
111 W. Osborn Rd.  
Phoenix, Arizona

ATTN: MR. LANDERS

RE: Mae Belcher State #1, Apache Cty.  
SEC. 20 - 9 N - 31 E

Dear Mr. Landers:

You are advised that the Bond on the above well, in the amount of \$2500.00, dated December 11, 1958, was released on January 6, 1960 by the State of Arizona Oil and Gas Conservation Commission.

Yours very truly,

W. F. Maulb,  
Petroleum Engineer

WFM:mar

January 6, 1960

Mrs. Mae Belcher  
6042-B Averill Way  
Dallas, Texas

RE: Mae Belcher State #1, Apache County  
Sec. 20, T. 9 N., R. 31 E.

Dear Mrs. Belcher:

You are herewith advised that the Arizona Oil & Gas Conservation Commission approves your Plugging Record and releases your Bond, in the amount of \$2,500.00, with Maryland Casualty Company.

We wish to call your attention to the fact that you have used the date, June 5, 1969, as your plugging date, whereas it should be June 5, 1959.

Yours very truly,

William F. Maule,  
Petroleum Engineer

WFM:mmar

Enclosures: Plugging Record Form  
Application to Abandon & Plug Form

6042 B Averill Way  
Dallas, Texas  
December 11, 1959

Mr. Frederick C. Ryan  
Supervisor, Oil & Gas Conservation  
State Land Department  
Arizona State Office Bldg.  
Phoenix, Arizona

Dear Sir:

Reference Mae Belcher # State, Apache County, Arizona, regarding  
plugging and abandonment and my letter of June 5, 1959.

I am enclosing forms just received from Belew & Belew, Drilling  
Contractors, which I have had executed and hope you will find  
in order.

Thanking you,

Yours very truly,

*A. M. Belcher*

A. M. BELCHER

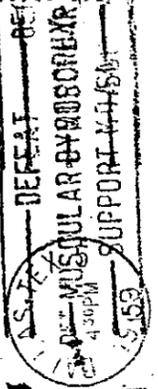


A. M. Belcher  
6042-B Averill Way  
Dallas, Texas

66

File = IA

*Handwritten scribble*



Mr. Frederick C. Ryan  
Supervisor, Oil & Gas Conservation  
~~State Hand Department~~  
Arizona State Office Bldg.  
Phoenix, Arizona

*Write 312 3500 N Central*

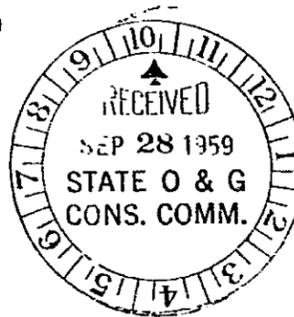


**General Petroleum Corporation**

A Socony Mobil Company

612 SOUTH FLOWER STREET, LOS ANGELES 54, CALIF.

P.O. Box 3371  
Durango, Colorado  
September 25, 1959



The Arizona State Conservation  
Committee  
Suite 312  
3500 North Central  
Phoenix, Arizona

Attention: Mr. Jerome

Dear Mr. Jerome:

Mr. Robert Chapman has obtained a set of samples from a consulting geologist in Albuquerque for the Mae Belcher well in T9N, R31E, Apache County, Arizona. We will be able to examine these samples in our own office.

Thank you for your cooperation in the matter and I hope that you have not gone to a great deal of trouble to locate the office where we could have looked at a complete set.

Mr. Cordell, the consulting geologist on the well, confirmed your report that no logs were run on the well.

Sincerely yours,

*John P. Lockridge*  
John P. Lockridge  
District Geologist

JPL/de

June 8, 1959

Mr. A. M. Belcher  
6042-B Averill Way  
Dallas, Texas

Dear Mr. Belcher:

Thank you for your letter of June 5th regarding the sample and plugging arrangements for the Mae Belcher Trust #1, State in Apache County, Arizona.

Upon receipt of the proper records from Belew and Belew, we will promptly notify the surety company to release the bond. A copy of such notification will be forwarded to you at the above address.

Thank you for your cooperation.

Very truly yours,

STATE LAND COMMISSIONER

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

FCR:mb

9663

6042-B Averill Way  
Dallas, Texas  
June 5, 1959

State Land Department  
422 Arizona State Office Bldg.  
Phoenix, Arizona

Gentlemen:

I wish to advise that Mae Belcher has caused the Mae Belcher, Trust #1 State test well, located in Section 20, Twp. 9N, R. 31E, Apache County, Arizona to be drilled to a total depth of 2921' and has delivered to Mr. Ryan part of the samples and Mr. P. W. Johnson picked up the rest of the samples at the well May 6th or 7th, at which time he discussed with Mr. Sensibaugh of Belew & Belew, the procedure of plugging and abandoning the hole.

I gave Mr. C. W. Belew, of Belew & Belew, the forms given to me by Mr. Ryan, and instructed him (Belew) to plug and abandon hole as per contract, for Belew & Belew, Drilling Contractors, is obligated to Plug and abandon hole in accordance with all rules, regulations and laws of the State of Arizona and/or other Governmental authorities, all at their sole cost and expense, except that Mae Belcher is to pay for the cement used.

Upon your receipt of the forms from Belew & Belew, relative to the plugging and abandonment of this hole, I would appreciate a release of the bond at the earliest date possible.

Thanking you,

Yours very truly,

*A. M. Belcher*  
A. M. Belcher



5/12/59

Per PWJ phone call to FCR:

Belcher well.

Mr. Greathouse told them they were foolish to stop drilling. (Thought they were in granite) Decided to go on down the hole.

Phil was of the same opinion.

May 4, 1959

Mr. Belcher in office today. Call placed to P. W. Johnson at Four Corners Sample cut at Farmington, New Mexico, by F. C. Ryan.

Mr. Belcher stated that:

Gas was encountered at 698-753  
Were going to cement below and up into.  
Welded cap. Water sands below.

Set 10 3/4" at 2635

7" at 2839

Two water shut-offs.

TD: 2921'

No EL run.

Granite wash - pre-cambrian.

Phil is to pick up more samples and see a Mr. Sensibaugh who lives at Eagar, Arizona. Phone: Federal 3-4983.

Mr. Belcher took forms 15 and 15-A with him.

Belew & Belew contractors.

# Arizona's Helium Find Big

By GIG KNEELAND

The world's most extensive helium gas province may have been discovered in Arizona.

Mrs. Mae Belcher, one of two U.S. women who are widely-known independent oil operators, confirms discovery of helium at 710 feet in a wildcat drilling operation 12 miles east of Springerville.

Known as the Mae Belcher-Trustee State No. 1, the well is now being cased for further tests.

The discovery is 67 miles southeast of Navajo, where Kerr-McGee Oil Industries, Inc., of Oklahoma, have seven capped helium wells reportedly capable of supplying millions of cubic feet of helium and nitrogen gas daily.

It is about the same distance southeast of the Nine-Mile Anticline structure which is roughly 24 miles east of Holbrook, where Kerr-McGee has two more discovery wells.

Kerr-McGee's seven wells near Navajo are in the Pinta structure.

Together, the 10 wells outline a vast helium province in northeastern Arizona where the gas is found at 710 feet to 1,300 feet.

Mrs. Belcher and associates are reported to control about 45,000 acres in the Springerville area.

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The discovery well in the Pinta structure near Navajo, south of the Puerco River, and now one of seven held by Kerr-McGee in that area, tested more than 8 per cent helium and about 90 per cent nitrogen.

Helium is said to result from the radioactive decay of uranium, which also forms other gases. It is nonflammable and now is being used extensively in reducing some of the rare-earth metals into forms usable in the missile and rocket age.

IN SOME cases, it is said, metals vital as alloys in burners for

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# Arizona's Helium Find Big

By GIG KNEELAND

The world's most extensive helium gas province may have been discovered in Arizona.

Mrs. Mae Belcher, one of two U.S. women who are widely-known independent oil operators, confirms discovery of helium at 710 feet in a wildcat drilling operation 12 miles east of Springerville.

Known as the Mae Belcher-Trustee State No. 1, the well is now being cased for further tests.

The discovery is 67 miles southeast of Navajo, where Kerr-McGee Oil Industries, Inc., of Oklahoma, have seven capped helium wells reportedly capable of supplying millions of cubic feet of helium and nitrogen gas daily.

It is about the same distance southeast of the Nine-Mile Anticline structure which is roughly 24 miles east of Holbrook, where Kerr-McGee has two more discovery wells.

Kerr-McGee's seven wells near Navajo are in the Pinta structure.

Together, the 10 wells outline a vast helium province in northeastern Arizona where the gas is found at 710 feet to 1,300 feet.

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Helium is said to result from the radioactive decay of uranium, which also forms other gases. It is nonflammable and now is being used extensively in reducing some of the rare-earth metals into forms usable in the missile and rocket age.

IN SOME cases, it is said, metals vital as alloys in burners for jet and rocket-type motors can be recovered only when reduced in chambers blanketed with nonflammable helium, which shuts out all other gases.

It is a government-controlled gas, with export licenses only to U.S. allies and in limited quantities and under specific conditions and terms.

The nitrogen content, such as that in the Pinta structure wells, is a potential source of nitrogen fertilizer.



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## Maps

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66  
Friday, February 6, 1959

Arizona Republic

## Mae Has Made—And Lost—Millions In Oil Gambles

By CHARLOTTE BUCHEN

Mae Belcher is a gambler in oil.

She's made millions in oil from Texas to California. She's lost millions, and made them again.

"I make money, and I spend money," she said yesterday, and her jewels jangled to prove it.

She's a fighter in the business and can swing her weight with the best of the wheeler-dealers. She can send out verbal blows that will bring a blush to the toughest roughneck in the field.

"But, I'm a woman," she said. When her old fields are gushing, she buys the biggest mansions she can find. She's owned a dozen, furnished them with French imports, and sold them just as fast to play a hunch in the fields.

She owns at least a half-dozen mink coats, and her temporary quarters in Hotel Westward Ho boasts some 25 hats that only a designer can describe.

"Clothes are my weakness," she said.

SHE CALLS Texas her home country, and her bank account keeps zooming upward with her holdings there now. She likes the name "Good Earth Oil and Gas Co." that tags one of her going wells. And she's thrilled that one field was named "Belcher Field."

"Lovely," she says of her extensive Arizona holdings east of Springerville. But when it comes to playing the game of drilling and buying leases, Mrs. Belcher can drop the "lovely" and talk the language that her male counterparts can understand.

"I just like to fight with 'em," she says about men.

Looking back, she'll tell you that she's had a life that is worth telling about.

"I married so young that I was a child bride," she said. And she married a mining man, much older than herself. He kept his promises, and the "little gypsy that I was, he took me to the biggest stores in the biggest cities and bought me beautiful things."

SHE HAD two daughters then her husband died and she had nothing left but a sense of "responsibility". That feeling has been the compelling force in her life since birth, she said. "I also discovered that the more you do, the more you have to do."

An old friend in Salt Lake City supplied her first opportunity at a career and she



She's Made Millions In Oil  
Mae Belcher Pinpoints Holdings On Map

snapped it up with story-book determination.

"Old man Peck," she said, "of Peck mining concentration machinery fame, wanted to buy a valuable mining claim, and my Utah friend wanted to sell it. 'But they were too bull-headed to deal.'"

She was sent out to sell Peck on the idea, with the promise of a big commission for herself.

A pretty 100-pound blonde, dressed like she was going to a "cocktail party," she confronted the stern Peck. He told her he wasn't making any deals until he returned from a boat trip to Honolulu. And before she knew it, Mae had hold him. "That's funny, I'm on that boat, too."

SHE CALLED her Salt Lake City advocate, and he got for her the only reservation left, the "star cabin."

"Before we reached Honolulu, I had his \$35,900 deposit on the mine."

Thus launched, Mae Belcher moved into oil, raised her children, and 35 years ago was married to the man who now "takes care of the details."

Now the grandmother of five girls and a boy, she's motivated in her dealings by "wanting to fight to do for them."

Lavish spending, a car drive, you'll find

"A floor is something to get off of," she quipped.

She then made her appointment with the hair-dresser. "My hair is 'smoke' this time," she commented.

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and Girls Advisors. She also was  
 a member of the National Educa-  
 tion Association, the Arizona Ed-  
 ucation Association, and Kappa  
 Delta Pi, honorary educational  
 sorority.

She was a member of the Order  
 of the Eastern Star, Chapter D of  
 the PEO, and was a long-time  
 member of Trinity Episcopal  
 Cathedral.

She is survived by a daughter,  
 Mrs. Jean M. Hendricks, wife of  
 Lt. Col. Thomas L. Hendricks, of  
 Washington, D.C., and five grand-  
 children.

Funeral services will be an-  
 nounced by A. L. Moore and Sons  
 Mortuary.

**Charley M. Ballard**

Services for Charley M. Ballard,  
 55, who died Friday in a Phoenix  
 hospital, will be at 2 p.m. Tues-  
 day in the Chapel of Memories,  
 A.L. Moore and Sons Mortuary,  
 333 W. Adams.

Mr. Edward Ford will officiate.  
 Burial will be in East Resthaven  
 Park.

Mr. Ballard was born in De-  
 Kalb, Tex., and came to Phoenix  
 in 1933 from Elk City, Okla. He  
 was a machinist and a member of  
 Local 49 of the Machinists Union.  
 He lived at 1028 E. Roosevelt.

He is survived by his father,  
 W. A. Ballard, of Elk City; a

She is survived by a  
 est. of Waco; a dau-  
 Byron (Myrtle) Dave  
 grandson, Albert Da-  
 both of Tempe; and  
 daughters, Mrs. Ra-  
 (Dorothy) Booth, of P  
 Mrs. Eric (Joyce) Sw  
 Philippine Islands; an  
 grandchildren.

**Beatrice L.**

Mrs. Beatrice L. We-  
 yesterday in St. Josep  
 She had lived in Phoe

Funeral services v  
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Mrs. Weber was b  
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She is survived b  
 ters, Miss Henriett  
 Mrs. Cherry Crab  
 Phoenix; a son,  
 mother, Mrs. Esthe  
 a sister, Mrs. Lea  
 New York; and  
 Harry Lorber, of S  
 and Jack Lorber d

**Lester W.**

Funeral services  
 Balch, 77, who died  
 his home, 917 E. Mo  
 at 3:30 p.m. tomorr



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES

Helium Activity

February 9, 1959

Box 911  
Amarillo, Texas

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

Dear Phil:

I have just received a report of analysis of samples of gas taken from the Belcher, State No. 1 gas well in Eastern Arizona. I did not have this analysis when I replied to your letter of January 30.

From the name of the well I am assuming that it was drilled on State land, since you have a proprietary interest in information concerning gas discovered in that well. Normally, we report the analysis of gas samples only to the well owners. I am assuming in this case that the State of Arizona is a co-owner of this well in the respect that it has a royalty interest. The analyses are reported on the attached page. As you will see this gas is a high carbon-dioxide and nitrogen-content gas with a very low helium content.

You have asked me about information concerning negotiations for the helium gas that Kerr-McGee has developed near Navajo, Arizona. We have heard numerous rumors, as no doubt you have, concerning the development of this source of helium-bearing gas for the extraction of helium. As far as we know nothing has come of it, to date.

I hope this information is what you needed.

Sincerely yours,

*B. Shelton*  
Shelton, Chief  
of Gas Fields Operations

Dear Fritz,

2/16/59

Have must took this away  
for her sock for confidential "goodies".  
This was about what Mr Belcher told me  
over the phone. Anything new in  
the Holbrook - Sanders - Chambers  
area? bb Phil.

bb



UNITED STATES  
DEPARTMENT OF THE INTERIOR

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I hope this information is what you needed.

Sincerely yours,

Geo. B. Shelton, Chief  
Division of Gas Fields Operations

Enclosure

February 9, 1959

Mr. George B. Shelton, Chief  
Division of Gas Fields Operations  
Bureau of Mines  
Box 911  
Amarillo, Texas

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Dear George:

In reply to the questions you posed in your recent letter, there has been no change in my status since the last time I saw you. I am still acting in behalf of the Arizona State Land Commissioner, who, as you know, heads the Oil and Gas supervision in Arizona. It was in this capacity that I wrote you concerning the Belcher and Kerr McGee wells. I would certainly appreciate having whatever information you can give me. This information will be kept confidential in the Oil and Gas Division of the Arizona State Land Department until such time as it is released by the companies. I hope this answers your questions satisfactorily. If there is any way I can help you further, let me know.

From the rumors I hear, there is likely to be a number of wells drilled to explore the helium possibilities in the vicinity of Navajo. If you are interested, I'll keep you posted as things develop.

Regards,

Phillip W. Johnson  
Geologist

PWJ/rfb





Dear Sir:  
 I have the honor to acknowledge the receipt of your letter of the 11th inst. in relation to the matter mentioned therein. I am sorry that I cannot give you a more definite answer at this time, but I will be glad to advise you as soon as the matter has been fully considered.

In reply to the questions you have asked, I am sorry that I cannot give you a more definite answer at this time, but I will be glad to advise you as soon as the matter has been fully considered.

I am, Sir, very respectfully,  
 Yours very truly,  
 [Signature]

Enclosure

Received  
 [Signature]

COPY



2/22/59





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
Helium Activity

February 3, 1959

Box 911  
Amarillo, Texas

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

Dear Phil:

This will acknowledge receipt of and thank you for your letter of January 30, 1959.

Your letter arrived just as I was about to leave town for a few days. If you will please excuse the delay, I will attempt to find the answer to your inquiries upon my return.

I do have some information on the Belcher gas sample and the Kerr-McGee gas at Pinta, Arizona. I am not sure just how much information you are seeking and in what detail.

Also, the information you have requested is acquired by us on a confidential basis and I am wondering not only as to how much of it I could reveal, but also, to what use it would be put.

Can you advise me of your interest in this matter? Are you acting in official capacity now for the State of Arizona as an Arizona State Geologist or is this simply a personal matter. When we were together in Arizona at the Macie well you still had some connection with the United States Geological Survey. Are you still in their employ? I believe that at that time you were on some sort of a loan arrangement to the State of Arizona for their ground water survey.

I am sure that the Bureau of Mines will be quite anxious to cooperate with the Land Office of the State of Arizona but it presents somewhat of a problem to know how much information on these two questions we can reveal.

I should be back in my office next week and will attempt to answer your inquiries then.

Awaiting your reply, I remain

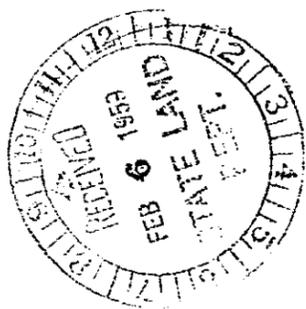
Yours truly,

RECEIVED

FEB 9 1959

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

*Geo. B. Shelton*  
Geo. B. Shelton, Chief  
Division of Gas Fields Operations



1001



January 30, 1959

Mr. George B. Shelton, Chief  
Gas Fields Operations Branch  
Helium Division, Region VI  
P. O. Box 211  
Amarillo, Texas

Dear George:

I have just learned from Mr. A. M. Belcher that a sample of gas taken from an exploratory test well he is drilling in Section 20, Township 9 North, Range 31 East, Apache County, Arizona has been shipped to you for analysis.

I was told this sample was sent from your plant in Shiprock, New Mexico, but I do not know the name of the man sending it.

My reason for writing is to ask if you would be kind enough to send me a copy of your analysis when completed.

I am also wondering if you might know if there has been any word concerning negotiations for the helium gas Kerr-McGee has developed around Navajo, Arizona. You recall our experience in testing that first producing well? Kerr-Mac have taken over this well and drilled about five others, all capable of some helium production, and rumor has it that they are trying to pipe it to the Shiprock plant for processing.

If you have any information on this, I would appreciate hearing from you. Thanks.

Very truly yours,

Phillip W. Johnson,  
Geologist

66  
PWJ:mb

December 12, 1958

Mr. A. M. Belcher  
6042 - B Averill Way  
Dallas, Texas

Re: Mae Belcher, Trustee #1 State

Dear Mr. Belcher:

We are transmitting herewith your copy of the receipt in the amount of \$25.00 covering the permit fee in conjunction with the above named well. We are also inclosing a copy of "Notice of Intention to Drill New Well" which has now been approved by the State Land Commissioner and constitutes your Permit No. 66 for the subject well.

If you have any questions, or if we can be of service to you in the future, please do not hesitate to call on us.

Very truly yours,

STATE LAND COMMISSIONER

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

FCH:mb  
Encls.

Per telephone conversation 12:35 P.M., December 11, 1958,  
Phillip Johnson recited the fact of a possible thick surface  
section of Shinarump and an occurrence down hole of water in the  
Coconino, Moenkopi, and Kaibab. To safely handle these water  
bearing stratas, casing should be cemented through them to  
properly confine them.

Telephone conversation between F. C. Ryan and Mr. Belcher at  
1:50 P.M. on December 11, 1958 relative to surface casing program.  
Mr. Belcher realizes there is scant information concerning the various  
stratas of water at this location. He will confine to their respective  
stratas all water encountered.

