

RIDGEWAY 10-1 STATE  
SW NE 10-11N-29E (891)



STATE: ARIZONA  
COUNTY: APACHE  
API 02-001-20303  
FIELD: UNNAMED

11N-29E 10  
SW NE  
1660 FNL 1660 FEL  
STATUS: AB-LOC

OPR: RIDGEWAY ARIZONA OIL 10-1 RIDGEWAY STATE

ELEV: 6654 GR  
(R) (VERTICAL)  
PROJ DEPTH/FM: 2485 FORT APACHE PERMIT #891

LOC DESCRIPTION: 1/3 MI S FORT APACHE CO2 DISC SE 3-11N-29E UNNAMED 9 1/2 MI SE ST JOHNS.  
AZ; LAT: 3436753 LONG: 10925981;  
OPER ADD: 1080 700 4TH AVE SW, CALGARY ALB T2P 3J4, PHONE (800) 347-0294;

COPYRIGHT 1997 PETROLEUM INFORMATION/DWIGHTS LLC

DATE 09/15/97 CARD #00001-F COR



# PERMIT TO DRILL

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

To: RIDGEWAY ARIZONA OIL CORPORATION  
(OPERATOR)

to drill a well to be known as

RIDGEWAY STATE #10-1  
(WELL NAME)

located 1660' FNL & 1660' FEL

Section 10 Township 11N Range 29E, APACHE County, Arizona.

The +/- 640 ACRES 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 17 day of OCTOBER, 19 95.

**OIL AND GAS CONSERVATION COMMISSION**

By Steven L. Davis

EXECUTIVE DIRECTOR

OIL & GAS PROGRAM ADMINISTRATOR

PERMIT 00891

RECEIPT NO. 3084

A.P.I. NO. 02-001-20303

FORM NO. 27

State of Arizona  
Oil & Gas Conservation Commission  
Permit to Drill

**APPLICATION FOR PERMIT TO DRILL OR RE-ENTER**

APPLICATION TO DRILL  RE-ENTER OLD WELL

**RIDGEWAY ARIZONA OIL CORPORATION**

NAME OF COMPANY OR OPERATOR

1080, 700 4TH AVENUE S.W. CALGARY ALBERTA T2P 3J4  
Address City State

Aztec Well Service

Drilling Contractor

P.O. Box 100 Aztec, NM 87410

Address

**DESCRIPTION OF WELL AND LEASE**

Federal, State or Indian Lease Number, or if fee lease, name of lessor State Lease #13-53801	Well number 10-1	Elevation (ground) 6654
Nearest distance from proposed location to property or lease line: 1660 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: 3320 feet	
Number of acres in lease: 2845.96	Number of wells on lease, including this well, completed in or drilling to this reservoir: Four	
If lease, purchased with one or more wells drilled, from whom purchased:	Name	Address

Well location (give footage from section lines) 1660 F/NL & 1660 F/EL	Section—township—range or block and survey SEC. 10 T11N R29E G&S.R.M.	Dedication (Comply with Rule 105) 640 acres
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Field and reservoir (if wildcat, so state) Wildcat Ft. Apache	County Apache
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Distance in miles, and direction from nearest town or post office  
9 miles SE of St. Johns, AZ

Proposed depth: 2485'	Rotary or cable tools Rotary	Approx. date work will start Nov. 1, 1995
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Bond Status on file Amount \$25,000	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Attached <input checked="" type="checkbox"/>
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Remarks: Well Name: Ridgeway State #10-1  
 Ridgeway Arizona proposes to drill this well according to the attached drilling plan

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Agent of the Ridgeway Arizona Oil Corporation (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.

API # 02-001-20303

*Alan P. Emmendorf*  
Signature

Oct. 6, 1995  
Date

Permit Number: **891**  
 Approval Date: **OCT 17 1995**  
 Approved By: *Steven L. Rain*

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

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

Form No. 3

- Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
- 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.
- ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
- Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES \_\_\_\_\_ NO X
- If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES X NO \_\_\_\_\_. If answer is "yes," Type of Consolidation Operating Agreement
- If the answer to question four is "no," list all the owners and their respective interests below:

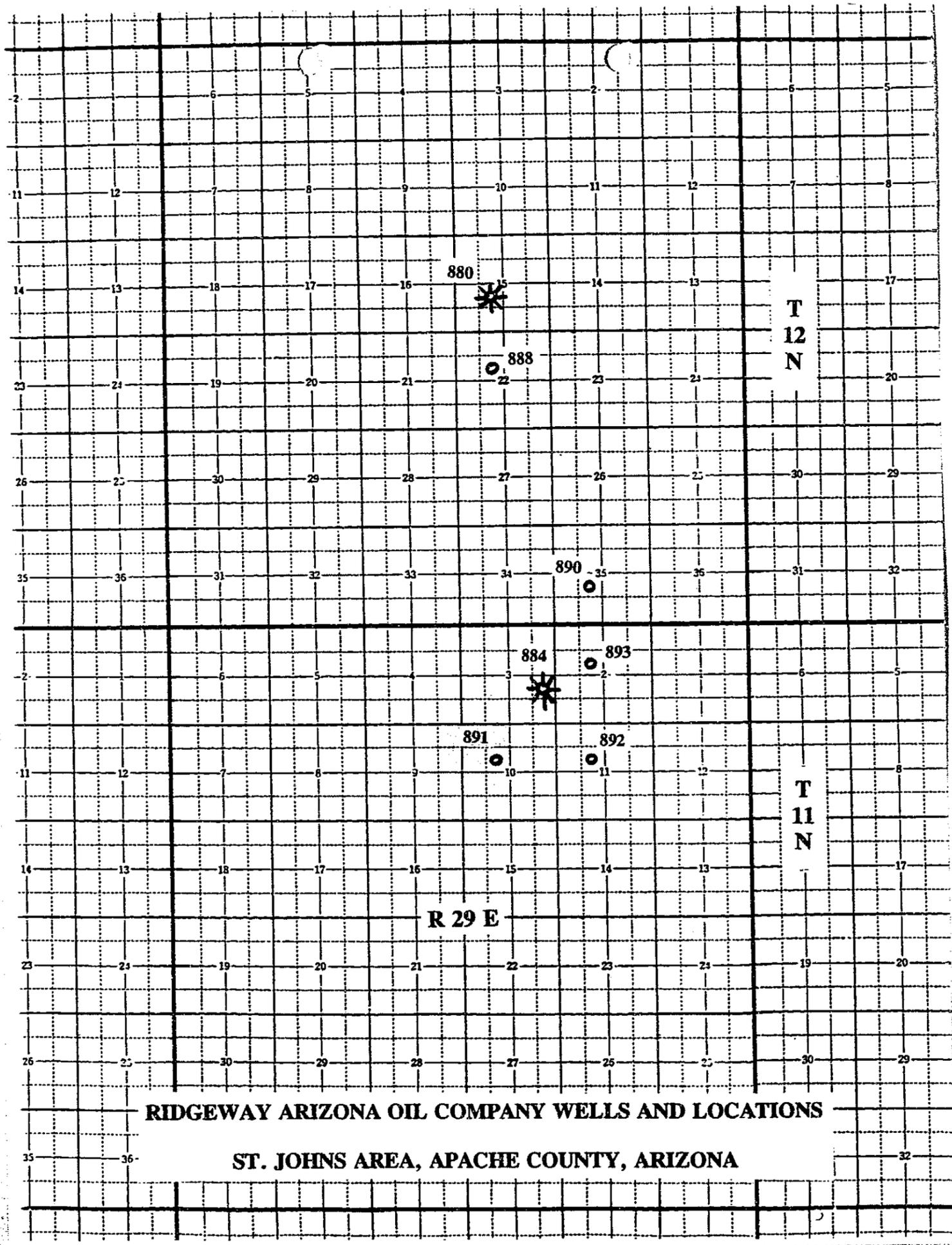
Owner	RIDGEWAY ARIZONA OIL CORPORATION 80%	Land Description	Sec 10, T11N-R29E
	Frank L. Shogrin 20%		Apache County, Arizona

	<p align="center"><b>CERTIFICATION</b></p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p><i>Alan P. Emmendorfer</i> Name Alan P. Emmendorfer Position Agent Company Ridgeway Arizona Oil Corp. Date October 6, 1995</p> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p align="center"> </p>
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**PROPOSED CASING PROGRAM**

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement	Type
7"	20#	K-55	0	805'	805'	96	G Metasilicates
4 1/2"	10.5#	K-55	0	2485'	2485'	288	G w/ Additives



**RIDGEWAY ARIZONA OIL COMPANY WELLS AND LOCATIONS**

**ST. JOHNS AREA, APACHE COUNTY, ARIZONA**

RIDGEWAY ARIZONA OIL CORPORATION  
DRILLING PROGNOSIS

DATE: October 5, 1995

WELL NAME: Ridgeway State #10-1  
LOCATION: 1660' FNL & 1660' FEL  
Sec 10, T11N-R29E  
Apache County, Arizona

FIELD: WILDCAT

ELEVATION: 6654' (Ground)  
TOTAL DEPTH: 2485'

SURFACE: State  
MINERALS: State #13-53801

1. GEOLOGY:

A. FORMATION TOPS:

Chinle	Surface	Ft. Apache	1500'
San Andres	300'	Base Ft. Apache	1875'
Glorietta	615'	Granite Wash	2245'
Supai	785'	Granite	2465'
		TOTAL DEPTH	2485'

B. LOGGING PROGRAM: Dual Laterlog, Spectral Density and Dual Spaced Neutron from TD to surface casing, Gamma Ray from TD to surface.

C. NATURAL GAUGES: Gauge any noticeable increases in gas or water flows. Record all gauges in Tour book and on morning reports.

D. DST: No Dst's are planned but may be run if conditions warrant.

2. DRILLING:

A. MUD PROGRAM: Spud mud from surface to 750'. KCL mud system from 750' to TD.

B. BOP TESTING: While drill pipe is in use, the pipe rams will be tested once each day. The blind rams will be tested once each trip. The drum brakes will be inspected and tested each tour. All tests and inspections will be recorded in the tour book as to time and results.

3. MATERIALS:

A. CASING PROGRAM:

CASING TYPE	HOLE SIZE	DEPTH	CASING SIZE	WT & GRADE
Surface	8 3/4"	805'	7"	20# K55
Production	6 1/4"	2485'	4 1/2"	10.5# K55

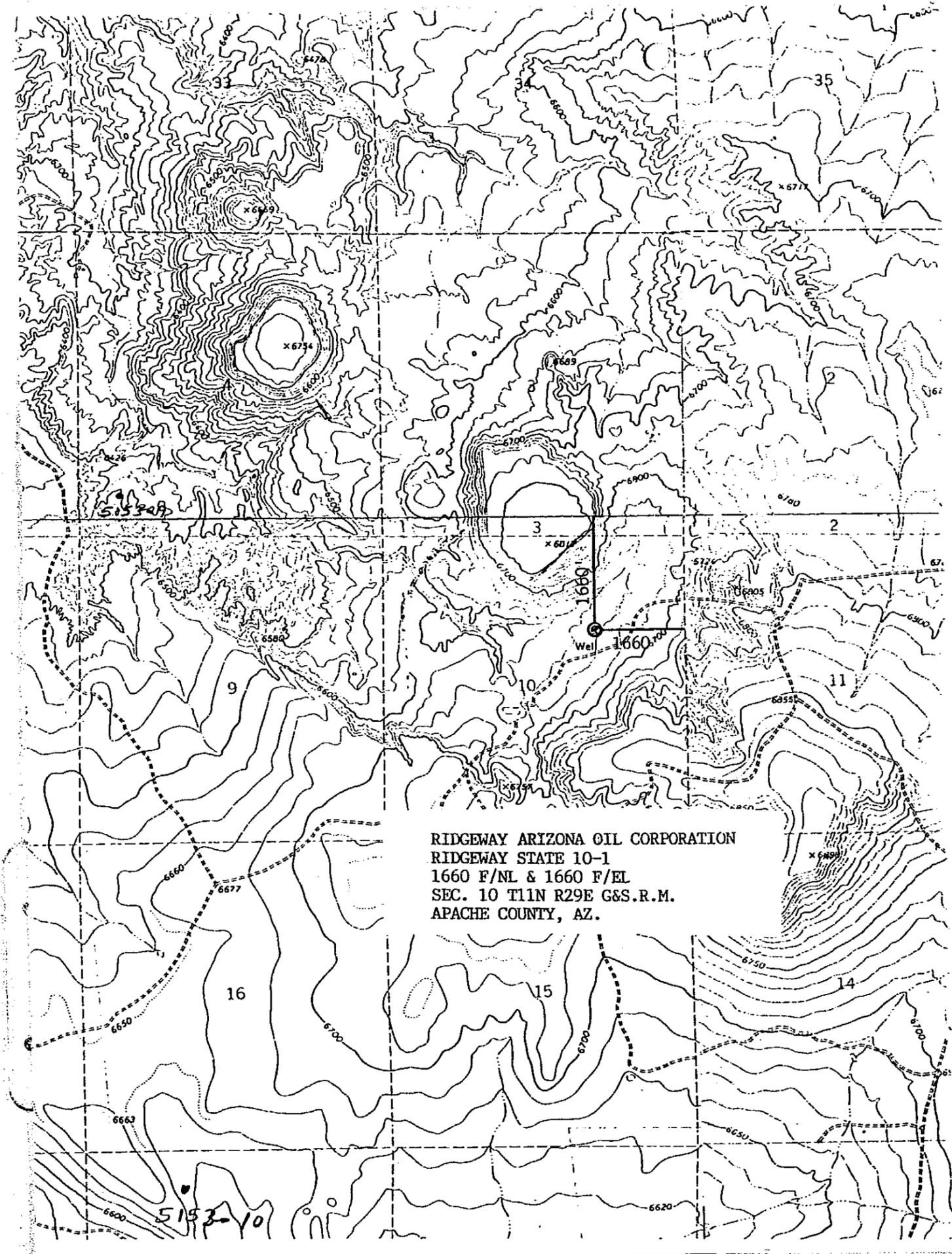
Drilling Prognosis  
Ridgeway Arizona Oil Corporation  
Page 2

**B. FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float one (1) joint above the shoe and four (4) slim hole centralizers. Reciprocate pipe while cementing.
2. **PRODUCTION CASING:** 4 1/2" Whirler type cement nose guide shoe with a float collar one (1) joint above shoe. Place seven (7) slim hole centralizers.

**C. Cementing:**

1. **SURFACE:** 96 sx (130 cuft) of Class "G" w/2% metasilicate and 1/4# cello-flake/sx (Yield = 2.04 cuft/sx, weight = 12.1#/gal). Use 50% excess to circulate to surface. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
2. **PRODUCTION:** 288 sx (355 cuft) of Class "G" with 4% gel, 6 1/4# fine gilsonite/sx and 0.8% fluid loss (Yield = 1.73 cuft/sx, weight = 13.5#/gal). Use 50% excess to circulate to surface. Run a temperature survey after 8 hours to determine TOC behind the 4 1/2" casing if cement is not circulated.

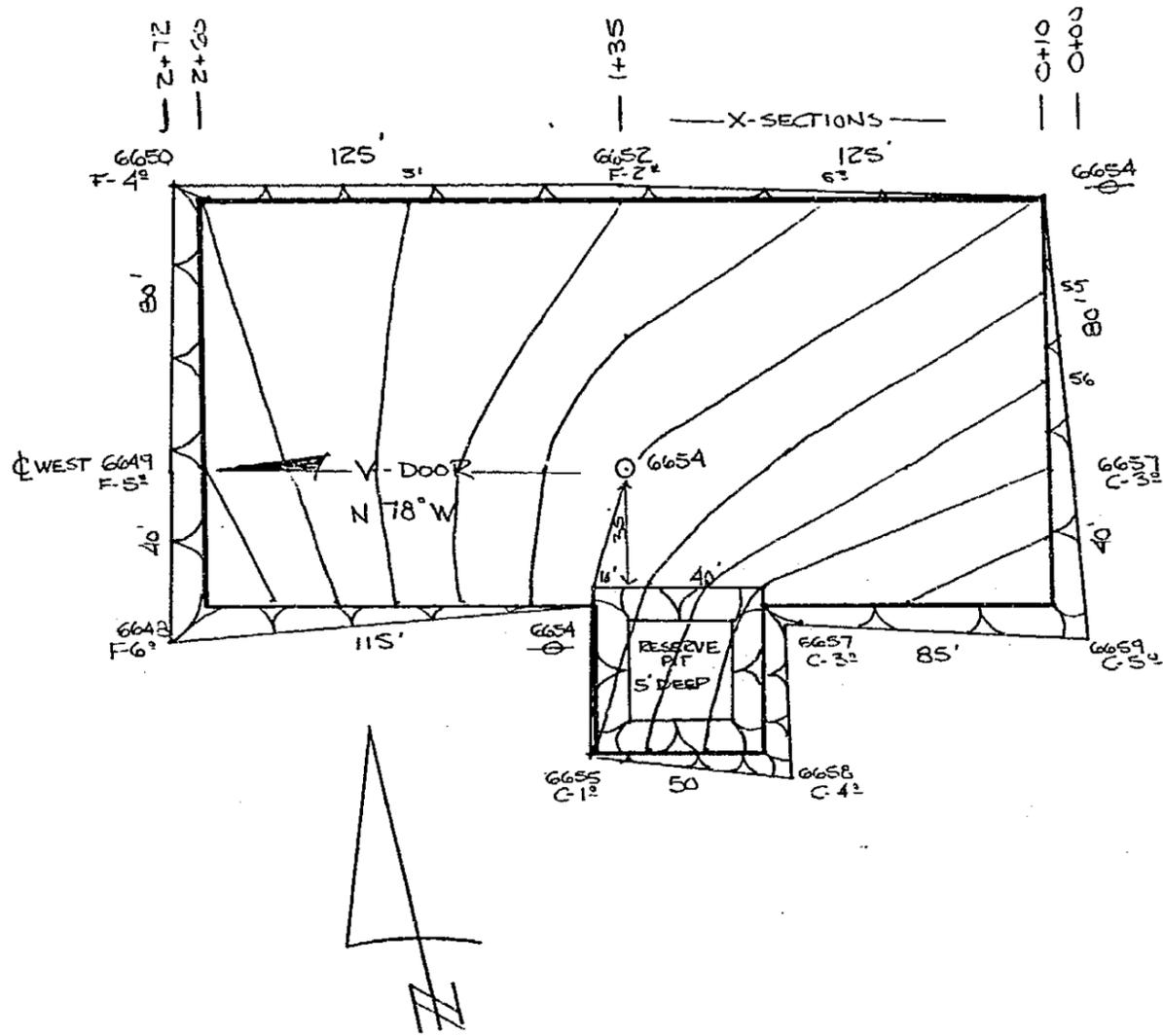


RIDGEWAY ARIZONA OIL CORPORATION

SCALE: 1' = 50'

RIDGEWAY STATE 10-1  
1660 F/NL & 1660 F/EL  
SEC. 10 T11N R29E G & S.R.M.  
APACHE COUNTY, AZ.

CONTOUR INT. = 1'



PAD LAYOUT AND TOPOGRAPHY

RIDGEWAY ARIZONA OIL CORPORATION

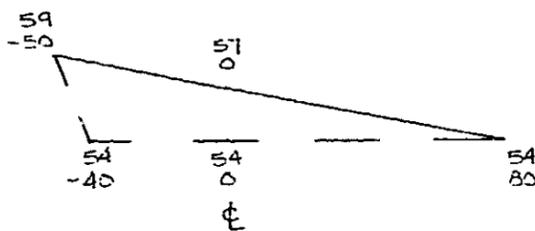
SCALE: HORZ. 1" = 50'  
 VERT. 1" = 10'

RIDGEWAY STATE 10-1  
 1660 F/NL & 1660 F/EL  
 SEC. 10 T11N R29E G & S.R.M.  
 APACHE COUNTY, AZ.

0+00

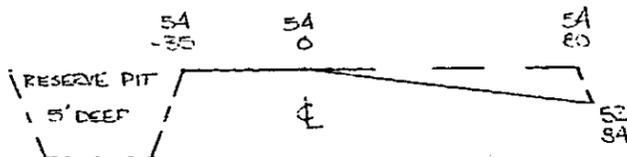
ZERO CUT/FILL

0+10

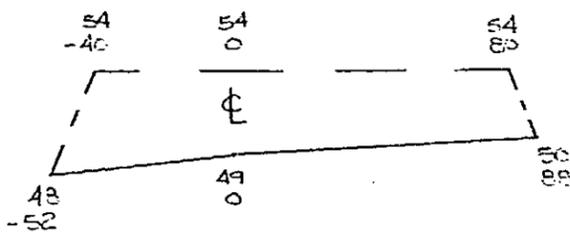


X-SECTIONS AND VOLUMES

1+35



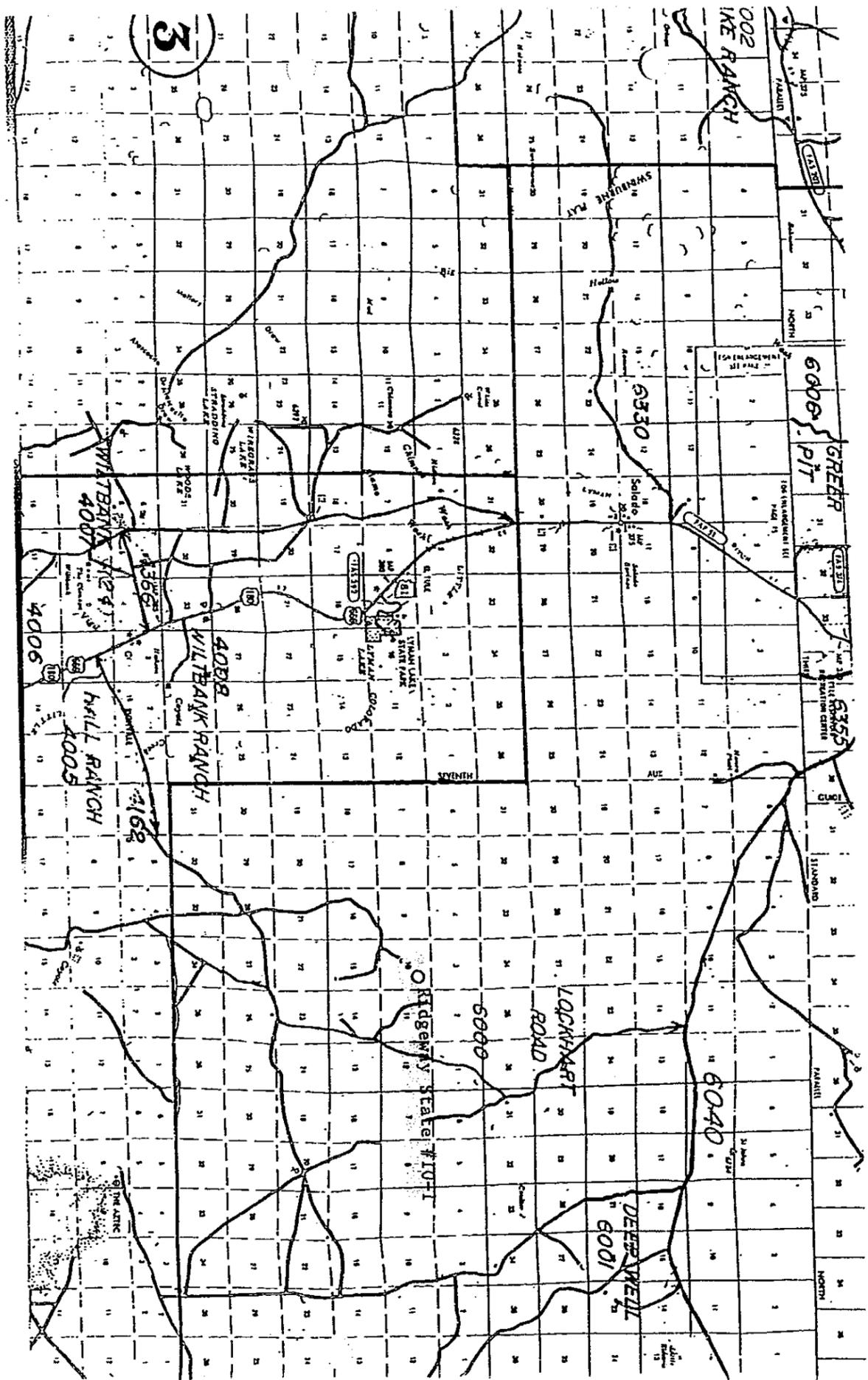
2+60



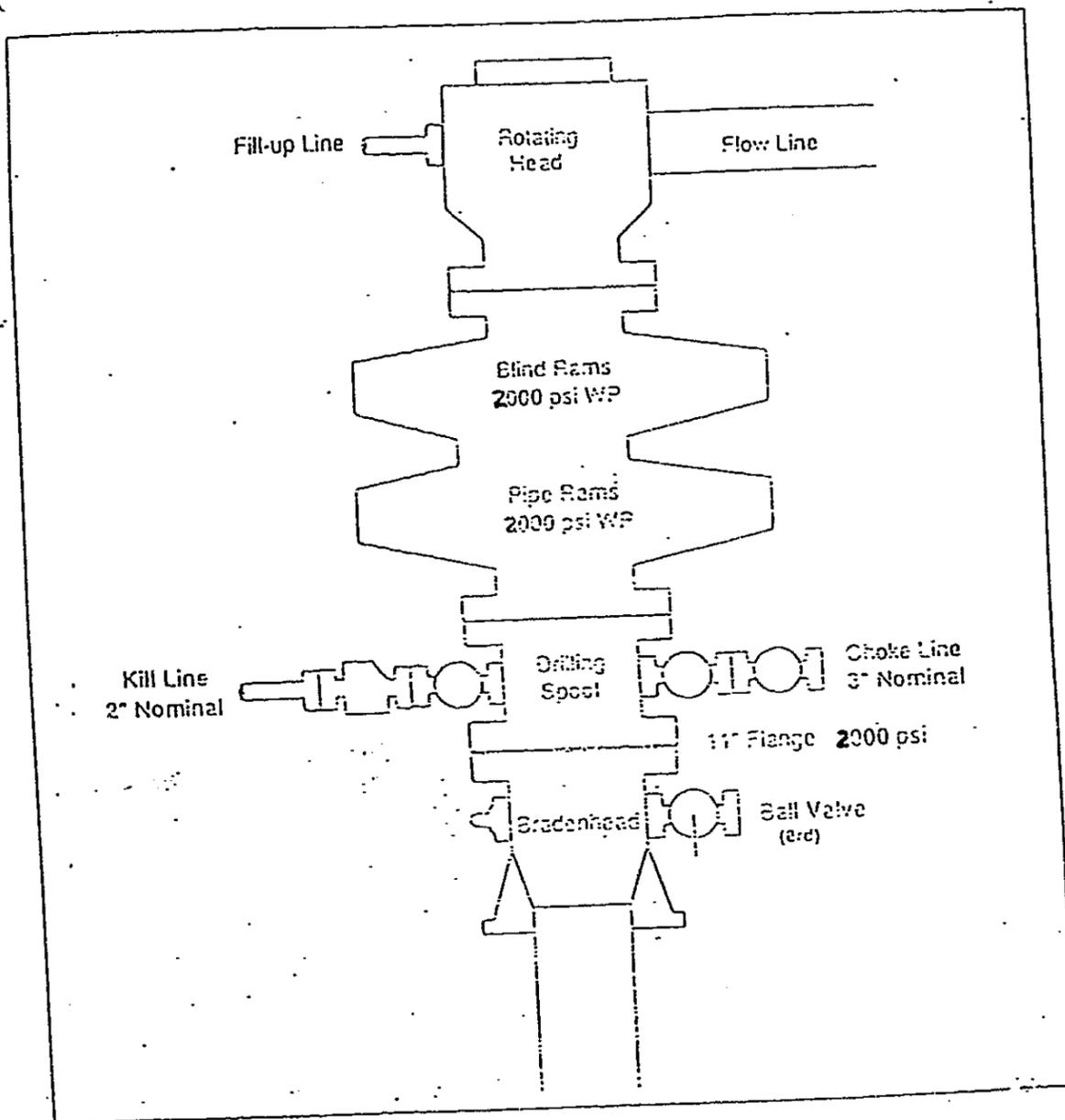
2+72

ZERO CUT/FILL

CUT.....736 CU. YDS.  
 FILL.....1969 CU. YDS.  
 PIT EXCAVATION.....300 CU. YDS.



BOP STACK ARRANGEMENT



All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 600 psi. The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

**RECEIPT** Date 10-16 1995 No. 3084  
 Received From Ridgeway Arizona Oil Corp  
 Address 1080-700 4th Ave SW Calgary, Alberta Canada  
Twenty five & no/100 Dollars \$25.00  
 For Drilling Permit # 891

ACCOUNT		HOW PAID	
AMT. OF ACCOUNT		CASH	
AMT. PAID		CHECK	<u>25.00</u>
BALANCE DUE		MONEY ORDER	

Check # 1157  
 By J. Moore

8K006 Rediform

1157

**RIDGEWAY ARIZONA OIL CORP.**  
 403-268-6362  
 1080-700 - 4TH AVENUE S.W.  
 CALGARY, ALBERTA  
 CANADA T2P 3J4

91-2/1221  
 October 5th 19 95

PAY TO THE ORDER OF Arizona Geological Surveys \$ 25.00  
 -----Twenty-five-----00 DOLLARS

**BANK ONE.**  
 Bank One, Arizona, NA  
 St. Johns Office (043)  
 St. Johns, Arizona

FOR Well Licence Sec 10-11N-29E

⑈001157⑈ ⑆122100076⑆      0946⑈2084⑈

Permit # 891

### ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual  
**RIDGEWAY ARIZONA OIL CORPORATION**

Mailing Address and Phone Number  
**1080,700 - 4th Ave. SW Calgary, Alberta, Canada T2P-3J4**

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or individual  
**Corporation**

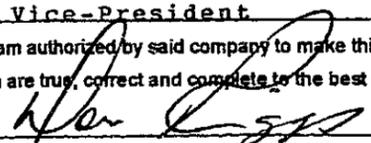
Purpose of Organization (State type of business in which engaged)  
**Oil & Gas Exploration and Production**

If a reorganization, give name and address of previous organization  
**Newco**

If a foreign corporation, give (1) State where incorporated <b>Arizona State Corp.</b>	(2) Name and mailing address of state agent <b>Don Riggs                  PO Box 1110                  St. Johns, AZ 85936</b>	(3) Date of permit to do business in state <b>May 16, 1994</b>
Principal Officers or Partners (if partnership) NAME	TITLE	MAILING ADDRESS
<b>Walter B. Ruck</b>	<b>President</b>	<b>2604 Signal Ridge View SW Calgary Alberta T3H 3G1</b>
<b>Don R. Riggs</b>	<b>Vice President</b>	<b>PO Box 1110 St. Johns, AZ 85936</b>
<b>E. Maxine Robertson</b>	<b>Secretary</b>	<b>872 Queensland Dr. SE Calgary, Alberta T2J 6E6</b>

DIRECTORS NAME	MAILING ADDRESS
<b>Walter B. Ruck</b>	<b>As above</b>
<b>Don R. Riggs</b>	<b>As above</b>
<b>E. Maxine Robertson</b>	<b>As above</b>

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Vice-President of the Ridgeway Arizona Oil Corp. (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

**2-19-97**  
 \_\_\_\_\_  
 Date



Mail completed form to:  
 Oil and Gas Program Administrator  
 Arizona Geological Survey  
 416 W. Congress., #100  
 Tucson, AZ 85701

STATE OF ARIZONA

**OIL & GAS CONSERVATION COMMISSION**

Organization Report  
 File One Copy

Form No. 1

Operator Ridgeway Arizona Oil Corporation

Bond Company: Bank One Arizona Amount: \$25,000\*

Bond No.: CD#4002111 (\$10,000) 07/07/94  
CD#4002112 (\$15,000) Date approved: 11/28/94

\* Two separate CD's to make up one blanket bond. These 2 CD's are not to be released until all wells covered by the blanket bond have been plugged and abandoned.

Permits covered by this bond:

883  
884  
885  
888  
890  
891  
892  
893  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

July 28, 1997

Mr. Don Riggs  
Vice President  
Ridgeway Arizona Oil Corp  
P.O. Box 1110  
St. Johns, Arizona 85936

891

Dear Mr. Riggs:

In response to your phone call about expired permits 890, 891, 892, and 893, please be advised that extensions may be considered after we receive your request certifying in writing that the wells will be drilled in accordance with the drilling prognosis and all conditions and notification requirements of the original permits.

Our records show that Ridgeway Arizona Oil Corporation remains out of compliance with Commission rules in several areas. Ridgeway is not in compliance with its obligation to: (1) plug the 22-1 State (885) and Plateau Cattle 1A (883) wells; (2) post identifying signs at each well; (3) file samples on the 22-1X (888) and 11-21 (895) wells; (4) file logs, tests, core chips, and analyses; (5) report the stimulation of any well within 15 days of the stimulation; and (6) submit sundry reports detailing operations from spud date to current status for each of the 11 wells drilled by Ridgeway in 1997.

Sincerely,

Steven L. Rauzi  
Oil & Gas Program Administrator

c Oil and Gas Commissioners; Larry D. Fellows  
Office of Attorney General

6-9-97 Don Riggs called to ask about  
renewal of expired permits. Advise  
request extension in writing + they  
are good for 180 days. Probably best  
to wait awhile until sure plan  
to drill. He will discuss with Walter  
in next couple of days when Walter  
gets to town. 10-1 probably  
the one to drill. (891)



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

June 2, 1997

Mr. Don Riggs  
Vice President  
Ridgeway Arizona Oil Corp  
P.O. Box 1110  
St. Johns, Arizona 85936

Re: Expiration of Drilling Permits:

Ridgeway 35-1 State, Permit 890  
Ridgeway 10-1 State, Permit 891 ✓  
Ridgeway 11-1 State, Permit 892  
Ridgeway 02-1 State, Permit 893

Dear Mr. Riggs:

Our records show that the referenced permits expired in April 1997. These permits are now null and void unless an extension in writing is granted by the Oil and Gas Conservation Commission.

Sincerely,

Steven L. Rauzi  
Oil & Gas Program Administrator

## Ridgeway expands drilling to 12 wells <sup>891</sup>



Photo by Art Harrington

Ridgeway Petroleum president Walter B. Ruck, (rt.) has announced the company will drill 12, instead of 10, delineation wells. Don Riggs, manager of Ridgeway Arizona, is also pictured.

ST. JOHNS — Walter B. Ruck, president of Ridgeway Petroleum, announced Thursday in St. Johns that the Calgary-based company's 10-well delineation drilling program has been expanded to 12 wells. The company's president and chairman of the board was in Arizona to meet with staff and to personally check on the progress being made in defining the company's highly-successful CO<sub>2</sub> discovery in southern Apache County.

"Every CO<sub>2</sub> field has been discovered by accident," he said. "We initially came here searching for oil." The tip-off for Ridgeway had been the published results of the geothermal drilling done several years ago at Alpine, which had been funded by the United States Department of Energy. While Ruck still believes oil may be found in the area, the company's initial drilling discovered a vast reservoir of carbon dioxide gas instead. Ruck explained that it seems to be found where there has been contact between volcanic deposits and wet

limestone. "The fields are typically very large when you find them," he said. "But you may drill hundreds of wells searching for the gas and never find it." So far the gas has been found in every well Ridgeway has drilled here.

California petroleum and food industries all need CO<sub>2</sub> badly, Ruck explained, since no natural reservoirs of it have ever been discovered there. The demand is such that there appears to be substantial interest in constructing a pipeline which would likely carry the liquefied and pressurized gas from southern Apache County to Bakersfield, Cal. Ruck estimates it would cost between \$200-250 million to build such a pipeline.

The Arizona Oil and Gas Commission has decided to hold its annual meeting on June 13 in St. Johns at Ridgeway's offices. According to Ruck, the meeting is kind of snowballing. At least four pipeline companies have notified him they plan to come,

along with representatives of a number of major oil companies. Ruck expects some important decisions about the future of Ridgeway's project may be made at that time.

Ruck cautioned, "We're not a panacea for the area." He noted that the local unemployment rate will not be reduced much by the CO<sub>2</sub> development, since most of the work is so specialized it requires bringing in highly-trained and experienced personnel. On the other hand, he admitted, he believes the development will ultimately be good for the area. It is already infusing money into the local economy. The company now has a large drilling rig and a service rig, or completion unit, in addition to all of the other well services which have come in to assist in the exploration. "It is also an environmentally clean industry, when compared to other oil and gas exploration," he said.

What about the helium content? According to Ruck, it has been significant, testing between .65 and .70 percent. By comparison, he said, most of the helium being commercially extracted tests at less than .30 percent. Consequently, the construction of a helium extraction plant is still a possibility, he said, "But it would be expensive — probably \$35-40 million." Interestingly enough, the United States produces 95 percent of the world's helium.

The president said the company will be going to faster air drilling for the remainder of the planned wells. He said the down side is that it is impossible to core or to get the quality of samples which can be obtained by mud drilling. "We did enough coring and drill-stem testing on the first wells, though, that we can stand the air drilling on the remaining wells," he said.

The wells drilled thus far have ranged from 1,800 to 3,150 feet. "As we go further north," Ruck said, "the wells may go down to 4,500." The required depth can vary as much as 450 feet, due to surface elevation differences. All of the wells are now being taken down to the granite.

# Stock soars on drilling discoveries

Art Harrington  
The Observer

file 891

**APACHE COUNTY** — Southern Apache County is making international news with the discovery of its vast CO<sub>2</sub> resources. Consequently the stock of developer Ridgeway Petroleum Corporation continues to climb.

Drilling by Aztec Well Service, contracted by Ridgeway, began on February 12 to prove up the carbon dioxide gas reserves which had been estimated at four-to-five trillion cubic feet. The huge rigs have lost no time in completing seven wells and are now working on the eighth.

According to information *The Observer* has been able to discover, the company has hit CO<sub>2</sub> in each of the wells drilled. This would seemingly indicate widespread deposits, since drilling thus far has been reported in areas from north of St. Johns to just northeast of Springerville.

The discovery has not escaped the attention of the stock market. Ridgeway Petroleum stock (symbol RGW) has moved this year from a low of \$.92 per share to a high of \$7.35 (Canadian). On Friday it closed at \$5.55, having traded as high as \$5.75 that day.

On Monday trading of the stock on the Vancouver exchange was temporarily halted. It was resumed after the company announced a blowout on the #6 well had been contained. With that being an indicator of an even greater reservoir, the stock closed on Monday at \$6.00.

Ridgeway was incorporated February 22, 1980 as Brent West Minerals. It continued doing business under that name until February 26, 1990, when it became Ridgeway Petroleum Corp. Its

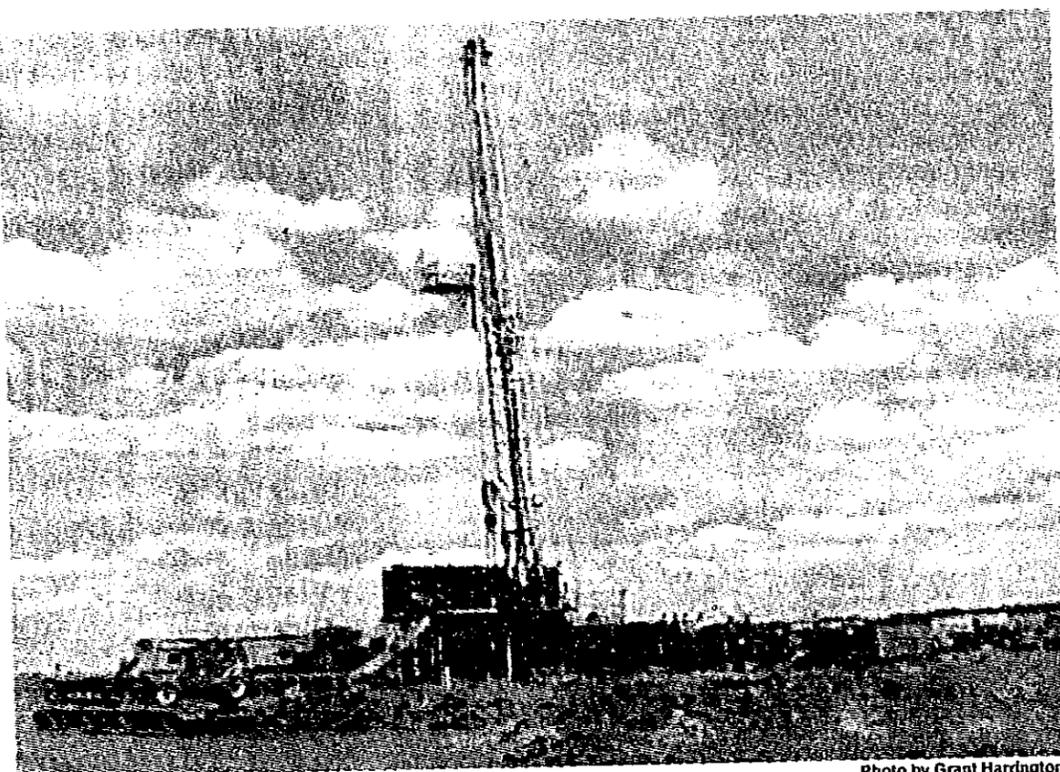


Photo by Grant Harrington

Drilling in southern Apache County has revealed immense deposits of CO<sub>2</sub>. Ridgeway Petroleum, the developer, has realized spectacular increases in its stock since the news of the discoveries has reached investors. The rig pictured above costs over \$1 million dollars. It has a crew of eight which man it with 12-hour shifts, so the rig can keep drilling 24-hours a day.

home office is in Calgary, Alberta, Canada. The primary business of the company is the extraction of oil and gas, with a secondary interest in diamonds. As of May 2, 11,061,829 of its authorized 25,000,000 shares had been issued. The volume traded on that day was 12,700.

Ridgeway President Walter Ruck also announced on May 2 that a 4,800,000 special warrant brokered private placement through Yorkton Securities had closed. Gross proceeds of \$16,800,000 were received, of which approximately \$10 million was being held in escrow, pending the advancement of the company's previously announced transaction involving Arizona Resources In-

dustries.

Is there a market for such CO<sub>2</sub> resources? Without a doubt. The largest consumer of CO<sub>2</sub> is the petroleum industry, which uses the gas to help force otherwise unretrievable oil deposits into collectable pools. The Permian Basin in west Texas and eastern New Mexico, for example, uses in excess of 1.4 billion cubic feet per day in its oil recovery operations. The hundreds of other uses for CO<sub>2</sub> include a diversity ranging from food processing, carbonation of beverages and water purification, to flash freezing.

How would the product be moved? According to information *The Observer* has been able to glean, resources of two trillion cubic feet would justify the construc-

tion of a pipeline to oilfields in California or Texas. The company has apparently proven with its wells drilled thus far that more than adequate reserves exist to begin planning for a pipeline.

Our information also indicates that a number of major players in the industry are actively involved in bidding on the gas. Names such as Chevron and Cal Resources continue to surface.

Also previously reported has been the discovery of helium, along with the CO<sub>2</sub>. While the quantity of helium has yet to be determined, *The Observer* understands Ridgeway is also evaluating the possibility of building a helium extraction plant in southern Apache County.



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

October 18, 1996

Mr. Walter B. Ruck, President  
Ridgeway Arizona Oil Corporation  
1080, 700-4th Avenue S.W.  
Calgary, Alberta T2P 3J4

Re: Reinstatement State Drilling Permits  
Ridgeway 35-1 State, Permit 890  
Ridgeway 10-1 State, Permit 891 ✓  
Ridgeway 11-1 State, Permit 892  
Ridgeway 02-1 State, Permit 893

Dear Mr. Ruck:

Receipt No. 3091 for the \$100 reinstatement fee for the referenced permits is enclosed. Remember to notify this office at least 48 hours before commencing drilling operations at any of the referenced wells.

Sincerely,

Steven L. Rauzi  
Oil & Gas Program Administrator

Enclosure

*through April 1997*

**RIDGEWAY ARIZONA OIL CORP.**

1080, 700 - 4th Avenue S.W., Calgary, Alberta T2P 3J4  
Phone (403) 266-6362 Fax (403) 262-5294

October 9, 1996

Arizona Geological Survey  
416 W. Congress, Suite 100  
TUCSON, Arizona 85701

**ATTN: Mr. Steven L. Rauzi,**  
**Oil & Gas Administrator**

Dear Sir:

**RE: State Drilling Permits - Ridgeway 35-1 State, Permit 890**  
**Ridgeway 10-1 State, Permit 891** ✓  
**Ridgeway 11-1 State, Permit 892**  
**Ridgeway 02-1 State, Permit 893**

Please find enclosed 4 cheques in the amount of \$25.00 each for a new application fee for each of the above named permits to be reinstated. We also certify that the wells will be drilled in accordance with the drilling prognoses submitted with the original applications.

We will be complying with the State Rules re 22-1 State and Plateau Cattle 1A (Permit 883) in the very near future.

Yours sincerely,

**RIDGEWAY ARIZONA OIL CORP.**



Walter B. Ruck,  
Chairman

encl.

/m

**RECEIPT** Date 10-18 1996 No. 3091

Received From Ridgeway Arizona Oil Corp.

Address 1080-700 4th Ave S.W. Calgary Alberta

One hundred and no Dollars \$100.00

For Reinstate Permit #s 890, 891, 892, & 893  
Check #s 1215, 1216, 1217, & 1218

ACCOUNT		HOW PAID	
AMT. OF ACCOUNT		CASH	
AMT. PAID		CHECK	100 00
BALANCE DUE		MONEY ORDER	

By Stewart Rainey

BK206 Reprints



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

September 26, 1996

Mr. Walter B. Ruck, President  
Ridgeway Arizona Oil Corporation  
1080, 700-4th Avenue S.W.  
Calgary, Alberta T2P 3J4

*file 891*

Re: Expiration of State Drilling Permits  
Ridgeway 35-1 State, Permit 890  
Ridgeway 10-1 State, Permit 891  
Ridgeway 11-1 State, Permit 892  
Ridgeway 02-1 State, Permit 893

Dear Mr. Ruck:

The referenced drilling permits, issued October 17, 1995, will expire on October 17, 1996. State drilling permits are valid for 180 days from the date of issue and may be extended for an additional 180 days. Since these permits have now been extended for one year from the date of issue, it will be necessary for you to reinstate the permits if you plan to commence drilling after October 17, 1996.

You may reinstate the drilling permits by (1) submitting a new \$25.00 application fee for each permit to be reinstated, and (2) certify in writing that the wells will be drilled in accordance with the drilling prognoses submitted with the original applications. All conditions and notification requirements of the Permits remain in force.

Our records show that two of your wells are not in compliance with State Rules. What are your plans for plugging the 22-1 State (Permit 885) and cementing the annulus of the Plateau Cattle 1A (Permit 883). I understand this could be accomplished by dispatching a cement truck from St. Johns.

Sincerely,

Steven L. Rauzi  
Oil & Gas Program Administrator



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

February 15, 1996

Mr. Alan P. Emmendorfer, Agent  
Ridgeway Arizona Oil Corporation  
5107 Budding Lane  
Farmington, New Mexico 87402

*file 891*

Dear Mr. Emmendorfer:

This letter will serve as approval of your written request for a six-month extension to State Permits 888, 890, 891, 892, and 893. The new expiration dates will be August 25, 1996, for Permit 888 and October 17, 1996, for Permits 890, 891, 892, and 893.

Outstanding concerns on Ridgeway Arizona Oil Corporation's operations near St. Johns include

1. Plugging State 22-1 (Permit 885) from 218 feet to surface with cement;
2. Cementing open annulus on Plateau Cattle 1A (Permit 883);
3. Filing of washed and dried samples for State 3-1 (Permit 884);
3. Filing of Mud, SDL/DSN, and LSA logs on State 3-1 (Permit 884); and
4. Filing of Test Report and Gas Analysis on State 3-1 (Permit 884).

Washed and dried samples, and copies of all test reports, gas analyses, and all logs run are required pursuant to A.A.C. R12-7-121, a copy of which is enclosed for your information and file.

Please advise if I may be of further assistance.

Sincerely,

*Steven L. Rauzi*

Steven L. Rauzi  
Oil & Gas Program Administrator

Enclosure

c Walter B. Ruck

Alan P. Emmendorfer  
5107 Budding Ln  
Farmington, NM 87402  
(505) 327-1376

Feb. 13, 1996

Mr. Steven L. Rauzi  
Oil and Gas Program Administrator  
Arizona Geological Survey  
416 W. Congress, Suite 100  
Tucson, AZ 85701

*file 891*

Dear Mr. Rauzi:

Ridgeway Arizona Oil Corporation requests an extension of the permit to drill for the following wells located in Apache County, Arizona.

Well Name	Permit Number
Ridgeway State #10-1	891
Ridgeway State #11-1	892
Ridgeway State #35-1	890
Ridgeway State #2-1	893
Ridgeway State #22-1X	888

Thank you for your prompt attention to this matter. Should you have any questions concerning the extension please do not hesitate to contact me.

Sincerely,

*Alan P. Emmendorfer*

Alan P. Emmendorfer  
Agent  
Ridgeway Arizona Oil Corporation



01/21/96

11:27

403 5294

RIDGEWAY PETRO

@001/001



# RIDGEWAY PETROLEUM CORP.

1080, 700 - 4th AVENUE S.W., CALGARY, ALBERTA T2P 3J4  
TELEPHONE: (403) 266-6362 FAX: (403) 262-5294

*STEVE  
RUCK  
F.Y.I.  
WR*

## NEWS RELEASE

Symbol: RGW  
Listed: VSE  
January 23, 1996

### "ARIZONA PROJECT"

\*\*\*\*\*  
"Land position increased to cover potential 6.4 trillion cubic feet of CO<sub>2</sub>/Helium gas reserve"

Ridgeway Petroleum Corp. (RGW) has been advised by Arizona Resources Industries, Inc. (ARI) (the owner and operator of the project) that as a result of new geological information, interpretation and consultation with the Arizona Geological Survey, leases have been obtained on an additional 144,000 acres bringing the total under lease to 186,000 acres.

The current leasing program is to acquire up to a total of 250,000 acres and should be completed within 15 days.

RGW controls in excess of 50% of ARI by share ownership and Guaranteed Convertible Notes.

ON BEHALF OF THE BOARD

Walter B. Ruck, Chairman

THE VANCOUVER STOCK EXCHANGE HAS NEITHER APPROVED NOR DISAPPROVED THE INFORMATION CONTAINED HEREIN.



FIFE SYMINGTON  
GOVERNOR

Arizona  
State Land Department

1616 WEST ADAMS  
PHOENIX, ARIZONA 85007



M.J. HASSELL  
STATE LAND COMMISSIONER

January 2, 1996

Ms. Carol Griffith  
State Historic Preservation Office  
1300 West Washington  
Phoenix, Arizona 85007

*file 891*

RE: Ridgeway Petroleum (ASLD 13-53801, 13-53955)

Dear Ms. Griffith:

In February 1994, the Arizona State Land Department (ASLD) issued an oil and gas lease (13-53801) on 2845 acres of State Trust land in Sections 2, 3, 4, 10, 11, and 12 in T11N R29E, and two months later, ASLD issued another oil and gas lease (13-53955) for Section 35, T12N R29E. Both leases are held by Ridgeway Arizona Oil Corporation of Alberta Canada (Ridgeway).

Before drilling four exploratory gas wells within the lease area, ASLD asked Ridgeway to provide an archaeological survey of the four proposed well locations (M&B NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec. 2, NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 10, NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec. 11, T11N R29E, and in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  Sec. 35, T12N R29E) and proposed access roads through Sections 2, 10, and 11 in T11N R29E, and through Section 35 in T12N R29E. The results of the archaeological survey are described in *Cultural Resource Inventory - Ridgeway State 2-1, 10-1, 11-1, and 35-1 Well Locations and Access Roads, Ridgeway Arizona Oil Corporation, Apache County, Arizona* that was prepared by Complete Archaeological Service Associates (CASA) in October 1995.

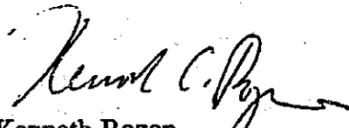
The report (copy enclosed) indicates that only two isolated artifacts were found during the survey, which covered 30.1 acres including the drill locations and proposed access roads. Therefore, no additional archaeological work was needed before Ridgeway drilled the wells as permitted by the Arizona Oil and Gas Conservation Commission (AOGCC).

Two typographic errors in the report pertaining to the project area location in Section 35 have been identified by Ms. Beth Grindell of the Arizona State Museum (ASM), and I have corrected these on the enclosed copy (see pages 2 and 4). By copy of this letter to the author, Mr. Laurens C. Hammack, I would like to take this opportunity to ask that future reports of surveys of State Trust land specifically identify ASLD as the affected land-managing agency, since many different state agencies administer "State lands".

Ms. Carol Griffith  
January 2, 1996  
Page 2

Please call me at 542-2684 if you have any questions regarding this matter.

Sincerely,

  
Kenneth Rozen  
Cultural Resources Manager

KR/ch

encl.

C: Alan Emmendorfer, Ridgeway  
Beth Grindell, ASM  
Laurens Hammack, CASA  
Barry Moody, ASLD Minerals  
Steve Rauzi, AOGCC

CULTURAL RESOURCE INVENTORY

Ridge Way State 2, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100  
Well Locations and Access Roads  
Ridge Way, Arizona Oil Corporation  
Pinal County, Arizona

Prepared by

Laurens C. Hammack  
Complete Archaeological Service Associates  
2400 Highway 666  
Greeley, Colorado 80632

(CASA 95-60)



Prepared for

Ridge Way, Arizona Oil Corporation  
1080, 700 4th Avenue SW  
Calgary, Alberta T2P 3J4

Submitted to

Arizona State Land Department  
1660 West Adams  
Phoenix, Arizona 85007

Permits

Arizona State Permit No. 95-111

October 30, 1995

Ridgeway # 10-1 State  
p/w 896

**ABSTRACT**

A cultural resource inventory was undertaken on four proposed CO<sub>2</sub> well locations and associated access roads on State of Arizona lands southeast of St. Johns, Arizona. The inventory was done by Laurens C. Hammack, Complete Archaeological Service Associates (CASA) at the request of Alan Emmendorfer, agent for the operator, Ridgeway Arizona Oil Corporation. The field work was done on October 17, 1995 under the auspices of State of Arizona Permit No. 95-111 issued to CASA.

A 300-ft by 300-ft area (2.06 acres) was inventoried for each well pad with maximum dimensions of 250-ft by 180-ft (1.03 acres). Approximately 9500 feet of access road was also inventoried with a 100-ft wide corridor (21.85 acres) surveyed for a maximum 30-ft wide construction easement (6.55 acres). A total of 30.09 acres was inventoried for this project. No sites were recorded within the survey areas and cultural resource clearance is recommended for Ridgeway State 2-1, 10-1, 11-1 and 35-1 well locations and access roads at the locations described in this report.

## INTRODUCTION

A Class III cultural resource inventory was undertaken on four proposed CO<sub>2</sub> well locations and associated access roads on State lands approximately 12 miles southeast of St. Johns, Arizona (Figure 1). The inventory was undertaken for Ridgeway Arizona Oil Corporation of Alberta, Canada at the request of Alan Emmendorfer, agent for the operator. The inventory was done by Laurens C. Hammack, Complete Archaeological Service Associates (CASA) on October 17, 1995. The field work was done under the authority of Arizona State Permit No. 95-111 issued to CASA and was undertaken to comply with various cultural resource preservation legislation.

## PROJECT LOCATION AND DESCRIPTION

The proposed well locations are situated in rolling grasslands with areas of pinyon/juniper woodlands in Sections 2, 10, and 11 in T11N, R29E and Section 32, T12N, R29E, Gila-Salt River PM, Apache County, Arizona (Figure 2). All locations and access roads area on leased State lands (State Lease No's 13-53-801 and 13-53-955) and are utilized for cattle grazing. At elevations ranging from 6650 to 6850 feet vegetation includes snakeweed, rabbitbrush, narrow-leaf yucca in addition to the pinyon, juniper, and grasses. Most of the locations contain outcrops of Richville gravels, a localized geological deposit. A complete description of each location including details on cadastral location, staked footages, setting, cultural resources, and recommendations is presented in the following section. The map references for this project are the Lyman Lake, Voight Ranch, Mesa Parada NW, and St. Johns South, Arizona 7.5 minute USGS quadrangles dated 1971/1984.

## SURVEY METHODOLOGY AND PREVIOUS RESEARCH

Prior to beginning the field investigations, a record search was undertaken at the Arizona State Museum in Tucson. This record search indicated that no sites had been found or surveys previously undertaken within any of the sections in the project area. Background data on the prehistory of the area can be found in several large scale projects undertaken within the general vicinity of St. Johns. Between 1974 and 1978, the Museum of Northern Arizona conducted surveys and excavations on the proposed Coronado Generating Station and associated rail lines and transmission lines (Bradford ND; Stebbins 1980; Gasser 1982; Swarthout and Dulaney 1982). At the same time, the Arizona State Museum was conducting excavations on the Tucson Electric Power Company's Generating Station between St. Johns and Springerville (Westfall 1981). Included in this project was excavation along the proposed coal railroad connecting the Coronado Generating Station and the TEF Generating Station. This railroad passes several miles to the east of the present project. Of the five sites recorded southeast of St. Johns, four are historic trash scatters all post dating 1950 and were of no significance. The one prehistoric site is a lithic scatter with a probable hearth. The site was not considered significant and was not excavated. This report also provides good background information on the natural environment of the project area with excellent descriptions of the geology, soils, and vegetation.

The four well locations had been completely staked by Poteet Engineering, Farmington New Mexico prior to conducting the inventory. Each drill hole had been staked with a 5 foot metal fence post with a lathe attached giving well name and staked footages. The well pad and pit corners were also staked with labeled lathe attached. The center stake was marked with a variety of flagging colors with corner stakes marked with pink flagging. A 300-ft by 300-ft (2.06 acre) area was surveyed for each well pad measuring a maximum 250 by 180 feet (1.03 acres) (Figure 3). Alan Emmendorfer, agent for the operator accompanied the archaeologist

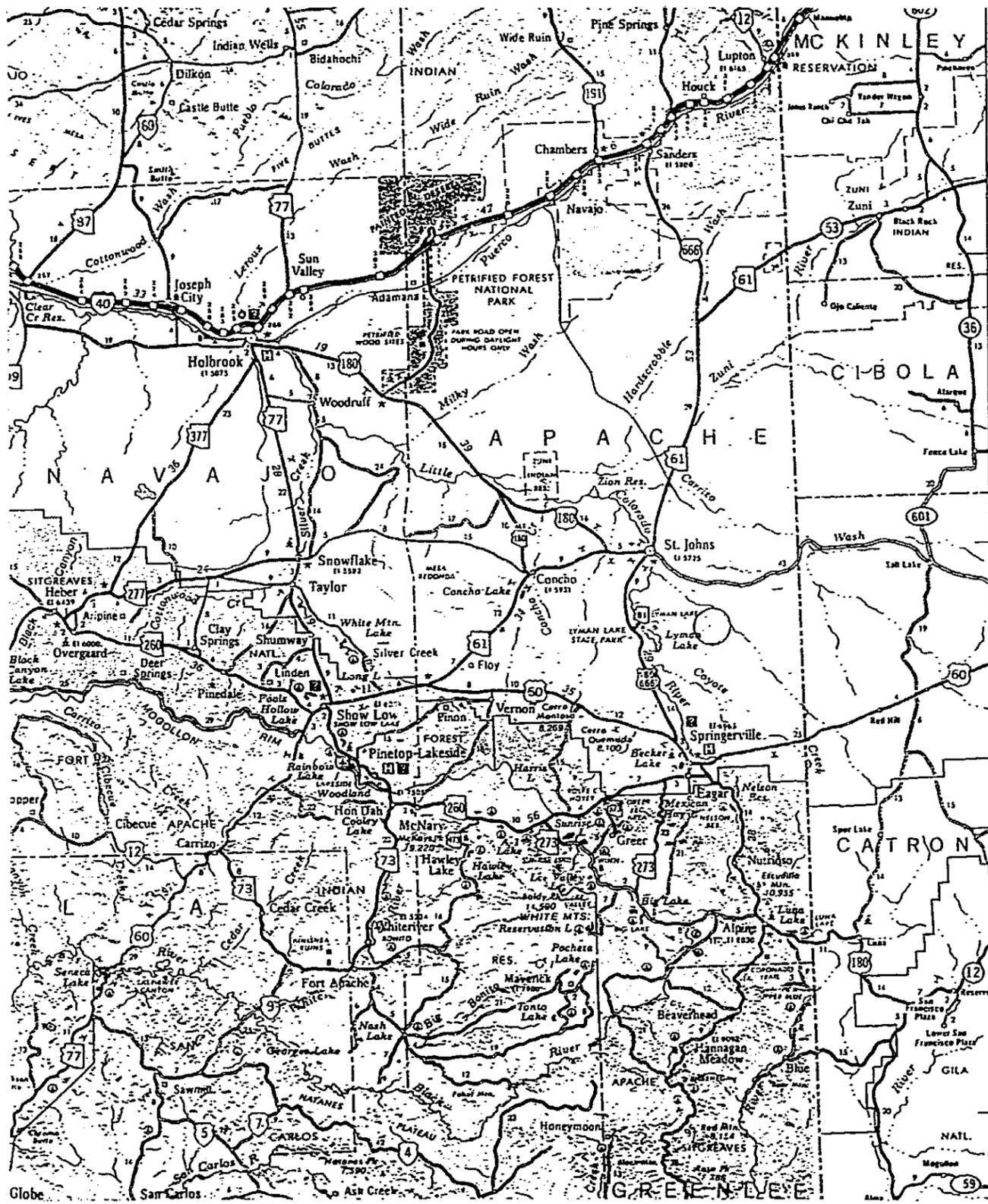


Figure 1. Project location map, eastern Arizona.

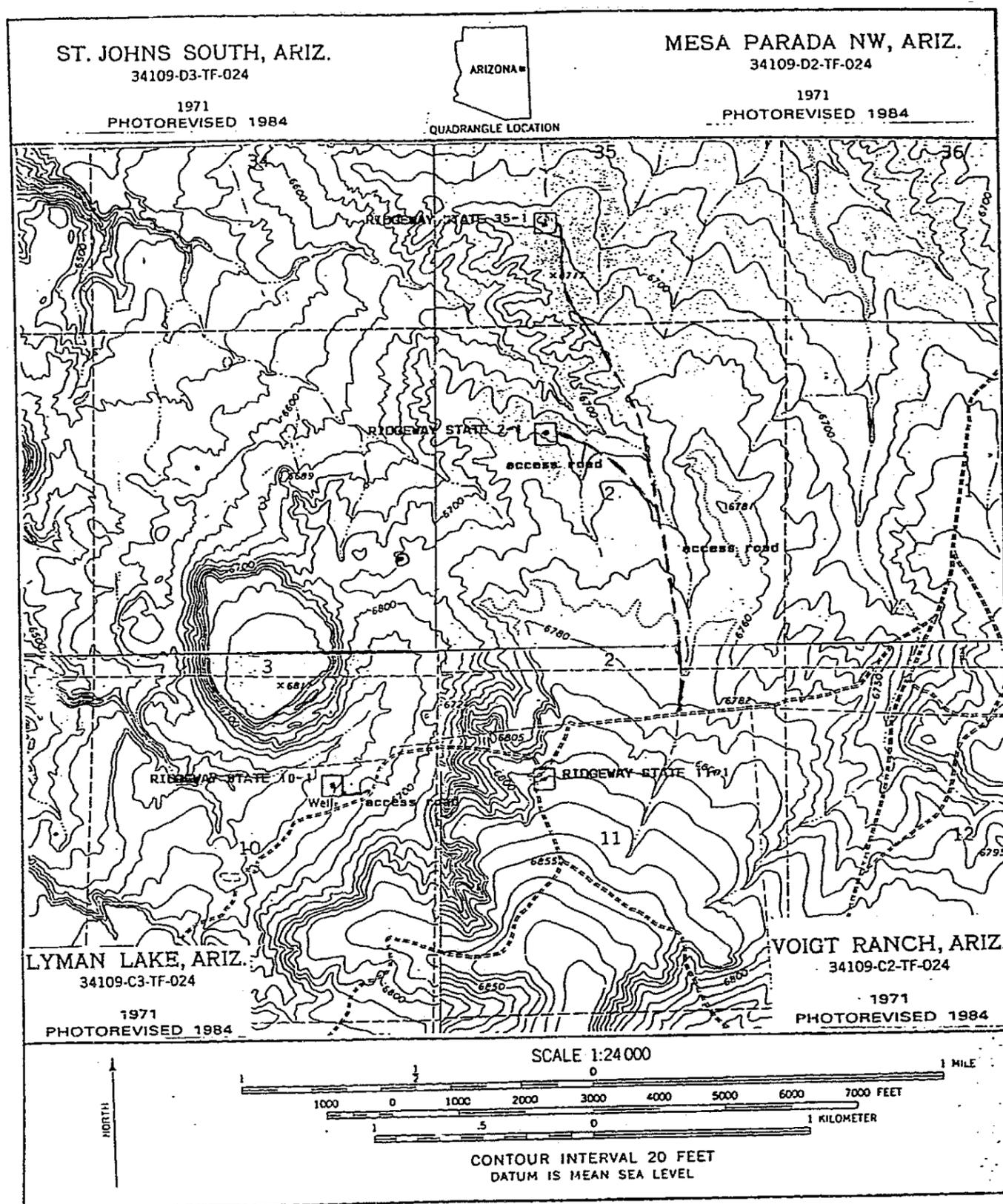


Figure 2. Location map for Ridgeway State 2-1, 10-1, 11-1, and 12-1 well pads and access roads.

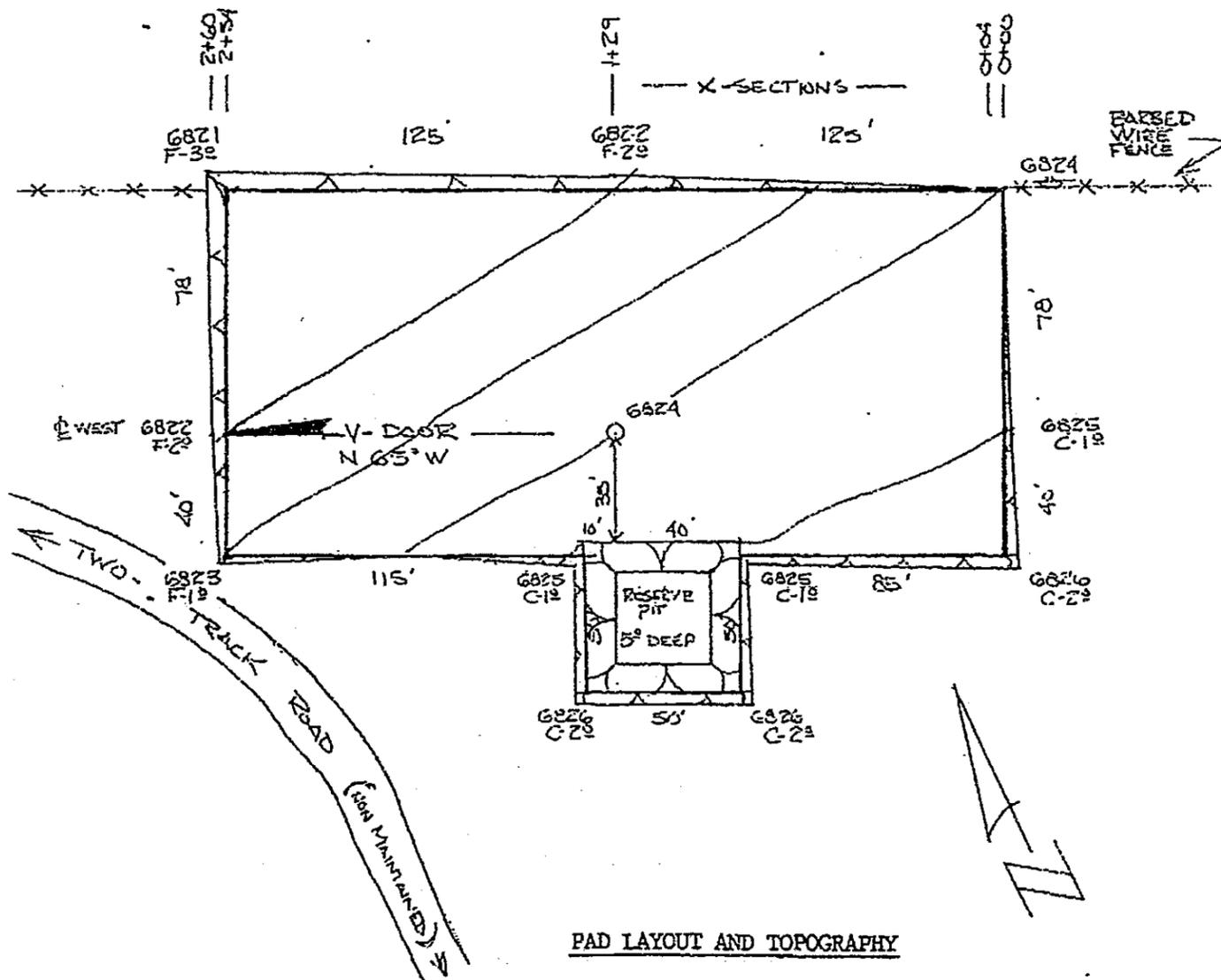
35-1

RIDGEWAY ARIZONA OIL CORPORATION

SCALE: HORZ. 1" = 50'  
 VERT. 1" = 10'

RIDGEWAY STATE 11-1  
 1775 F/NL & 1660 F/WL  
 SEC. 11 T11N R29E G & S. R.M.  
 APACHE COUNTY, AZ.

CONTOUR INT. = 1'



PAD LAYOUT AND TOPOGRAPHY

Figure 3. Typical plat for Ridgeway Arizona Oil Corporation CO<sub>2</sub> wells.

during the inventory. The survey was done by one person walking a series of parallel transects spaced no greater than 15 meters apart. Access roads were inventoried by walking a tight zig zag transect across the flagged centerline. A 100-ft wide corridor was inventoried for a maximum 30-ft wide construction easement.

#### INVENTORY RESULTS AND RECOMMENDATIONS

The cultural resource inventory of 30.09 acres for four proposed CO<sub>2</sub> well locations and associated access roads resulted in the location of no sites. Two chalcedony flakes were noted in the surveyed bufferzone of one well. These flakes have no research potential. Cultural resource clearance is recommended for Ridgeway State 2-1; Ridgeway State 10-1; Ridgeway State 11-1, and Ridgeway State 35-1 and associated access roads at the locations described in this report.

#### REFERENCES

Bradford, James E.

- ND The Coronado Generating Station Plant Site and Access Road. The Coronado Project Archaeological Investigations. Coronado Series 1. MNA Research Paper 17, Flagstaff.

Gasser, Robert E.

- 1982 The Specialists Volume: Biocultural Analyses. The Coronado Project Archaeological Investigations. Coronado Series 4. MNA Research Paper 23, Flagstaff.

Stebbins, Sara

- 1980 The Concho Well Field Water Transmission Pipeline. The Coronado Project Archaeological Investigations. Coronado Series 2. MNA Research Paper 19, Flagstaff.

Swarthout, Jeanne and Alan Dulaney

- 1982 A Description of Ceramic Collections from the Railroad and Transmission Line Corridors. The Coronado Project Archaeological Investigations. Coronado Series 5. MNA Research Paper 26, Flagstaff.

Westfall, Deborah A.

- 1981 Prehistory of the St. Johns Area, East-Central Arizona: The TEP Project. Cultural Resource Management Division, Arizona State Museum, The University of Arizona Archaeological Series No. 153, Tucson.

WELL DESCRIPTIONS

Well Name: Ridgeway State 2-1

Location: Well pad: NW SE NW Section 2,  
Access road: [end] NW NW SE Section 2, T29N, R11E, G&SR PM, Apache  
County, Arizona(Figure 2)

Operator: Ridgeway Arizona Oil Corporation

Map Reference: Mesa Paradanw NW, Ariz. 7.5 minute 1971/1984

Staked Footages: 1660' FNL, 1660' FWL

Ownership: State of Arizona

Elevation: 6710 feet

Area Surveyed: Well pad: 300-ft by 300-ft (2.06 acres) surveyed for a well pad with  
dimensions of 250-ft by 180 feet (1.03 acres) (Figure 3).  
Access rd.: Approximately 2000 ft in-length, 100-ft wide corridor (4.6  
acres) surveyed for maximum 30-ft wide (1.38 acres).

Description: Well pad is situated on north sloping terrain above small drainage in  
heavy pinyon/juniper woodland (Figure 4). Several erosional channels  
cut through pad area. Gravels occur in a sandy gray brown loam. Besides  
the pinyon/juniper several narrow-leaf yucca and grasses occur. Access  
road out of northeast corner of pad over rolling grassland terrain  
(chained pinyon-juniper) with snakeweed, sand sage, and rabbitbrush  
occurring throughout. Road ties-in with new road from Ridgeway State  
35-1.

Cultural Resources: None

Recommendations: Cultural resource clearance is recommended for Ridgeway State 2-1 and  
access road at the location described above.

T11N R29E

Well Name: Ridgeway State 10-1

Location: Well pad: NE SW NE Section 10,  
Access road: [END] NW SE NE Section 10, T11N, R29E, G&SR PM,  
Apache County, Arizona (Figure 2).

Operator: Ridgeway Arizona Oil Corporation

Map Reference: Lyman Lake, Ariz. 7.5 minute, 1971/1984

Staked Footages: 1660' FNL, 1660' FEL

Ownership: State of Arizona

Elevation: 6654 feet

Area Surveyed: Well pad: 300-ft by 300-ft (2.06 acres) surveyed for a well pad with  
dimensions of 250-ft by 180 feet (1.03 acres) (Figure 3).  
Access rd.: Approximately 500-ft in-length, 100-ft wide corridor (1.15  
acres) surveyed for maximum 30-ft wide (0.345 acres)  
easement

Description: Well pad is staked on level to gently west/northwest sloping on cinder  
covered soil with heavy concentrations of dark-colored gravels.  
Location directly above (east/southeast) of small drainage. Prominent  
mesa across wash to west (Figure 5). Vegetation of grasses, snakeweed,  
and scattered small juniper. Access road off existing ranch road to  
existing water tank to south.

Cultural Resources: None

Recommendations: Cultural resource clearance is recommended for Ridgeway State 10-1 and  
access road at the location described above.



Figure 4. Staked location for Ridgeway State 2-1 looking northwest. Arrow indicates drill hole.



Figure 5. Overall view of staked location for Ridgeway State 10-1 looking west.

Well Name: Ridgeway State 11-1

Location: Well pad: NW SE NW Section 10, T11N, R29E, G&SR PM, Apache County, Arizona (Figure 2).

Operator: Ridgeway Arizona Oil Corporation

Map Reference: Voight Ranch, Ariz. 7.5 minute, 1971/1984

Staked Footages: 1775 FNL, 1660' FWL

Ownership: State of Arizona

Elevation: 6824 feet

Area Surveyed: Well pad: 300-ft by 300-ft (2.06 acres) surveyed for a well pad with dimensions of 250-ft by 180 feet (1.03 acres)(Figure 3).  
Access rd.: Existing, not surveyed.

Description: Well pad is staked in rolling grasslands just east of rim of small canyon. Almost exclusively grasses with some snakeweed growing on loamy soil covered with nodules of travertine. Pinyon/juniper grow along edge of canyon but not within well pad (Figure 6). Location bordered to north by fenceline with road to south and west.

Cultural Resources: None

Recommendations: Cultural resource clearance is recommended for Ridgeway State 11-1 and existing access road at the location described above.

Well Name: Ridgeway State 35-1

Location: Well pad: SW NE SW Section 35, T12N, R29E  
Access road: [end] NE NW NE Section 11, T11N, R29E, G&SR PM,  
Apache County, Arizona (Figure 2).

Operator: Ridgeway Arizona Oil Corporation

Map Reference: Mesa Paradanw NW, Ariz. 7. 5 minute 1971/1984

Staked Footages: 1660' FSL, 1660' FWL

Ownership: State of Arizona

Elevation: 6689 feet

Area Surveyed: Well pad: 300-ft by 300-ft (2.06 acres) surveyed for a well pad with  
dimensions of 250-ft by 180 feet (1.03 acres) (Figure 3).  
Access rd.: Approximately 7000-ft in-length, 100-ft wide corridor  
(16.1 acres) surveyed for maximum 30-ft wide (4.83 acres)  
easement

Description: Well pad staked on level to gently northwest-sloping terrain in open  
pinyon/ juniper woodland (Figure 7). Mostly grasses with some  
snakeweed. Several small ephemeral drainages on south side of pad.  
Scattered gravels throughout. Access road out of east side of pad and  
follows level ridge line to south over scattered pinyon/juniper covered  
terrain into open grasslands to tie-in with existing ranch road in Section  
11.

Cultural Resources: None

Recommendations: Cultural resource clearance is recommended for Ridgeway State and  
access road at the location described above.



Figure 6. Staked location for Ridgeway State 11-1 looking west.



Figure 7. Staked location for Ridgeway State 35-1, looking west.

Rock  
Section

## Aneth Field Horizontal Well Producing from Four Laterals

**T**EXACO EXPLORATION & Production Inc has completed a horizontal redrill in southeastern Utah's Aneth field 16 miles east of Bluff producing from four open-hole laterals in Desert Creek.

The F-114 Aneth Unit, ne nw 14-40s-24e, southeastern San Juan County, was completed on pump producing 340 bbls of 42° oil with 192,000 cu-ft of gas and 892 bbls of water per day. Two laterals were drilled northwestward to bottom-hole locations in nw nw of the section. The upper Desert Creek leg is producing from 5604-6597 ft, at a true vertical depth of 5698 ft. Production from the lower lateral is from 5649 to 6660 ft. True vertical depth of the latter borehole is 5767 ft.

The other two horizontal legs were drilled in southeasterly directions to bottom-hole locations in sw ne 14-40s-24e. The upper Desert Creek lateral is producing from 5594-7342 ft (true vertical depth: 5686 ft); the lower lateral is producing from 5790-7009 ft (true vertical depth: 5747 ft).

Superior Oil Co originally completed the well (as the A-8 Navajo) in 1957 producing from Desert Creek at 5678-5811 ft. In 1969, Texaco re-completed the well as an Ismay producer at 5596-5606 ft. Texaco in

1983 worked the well over again, perforating two lower Desert Creek intervals at 5773-90 and 5793-5800 ft.

Log tops, measured from a Kelly bushing elevation of 4872 ft, include Ismay at 5526 ft and Desert Creek at 5675 ft.

## Ridgeway Schedules Delineation Work Near Arizona CO<sub>2</sub> Discovery

**R**IDGEWAY ARIZONA Oil Co has scheduled four stepouts from a carbon dioxide discovery completed by the company earlier this year about 10 miles southeast of St. Johns in eastern Arizona.

The eastern Apache County ventures are designed to evaluate the Fort Apache limestone member of the Permo-Pennsylvanian Supai (Yeso/Abo equivalent) and are projected to depths ranging from 2465 to 2680 ft. They are:

- 2-1 Ridgeway-State, se nw 2-11n-29e;
- 10-1 Ridgeway-State, sw ne 10-11n-29e;
- 11-1 Ridgeway-State, se nw 11-11n-29e;
- 35-1 Ridgeway-State, ne sw 35-12n-29e.

*file  
891*

The new locations all are within a mile of an undesignated discovery completed by Ridgeway last month on the crest of the St. Johns Anticline at the 3-1 State 13-53-801, ne se 3-11n-29e. That well flowed 663,000 cu ft of gas per day on a 32/64-inch choke through 88 perforated ft in Fort Apache between 1536 and 1676 ft (PI9-15-95). Ridgeway said preliminary analysis of the gas—performed by the U.S. Bureau of Mines in Amarillo, Texas—indicates it is composed of 89 percent CO<sub>2</sub>, 10 percent nitrogen, 0.7 percent helium and 0.1 percent each of methane and argon.

The 3-1 State 13-53-801 discovery is four miles south of Ridgeway's initial discovery in the area, which was completed last year at the 1 Ridgeway/Canstar-Plateau Cattle Co, se nw 15-12n-29e. The latter well produced CO<sub>2</sub>, helium and nitrogen from Supai at 1410-79 and 1680-1720 ft.

Carbon dioxide from the wells is to be utilized for growing hydroponic greenhouse vegetables in industrial parks now under development by Ridgeway Industries Inc. Both Ridgeway Industries and Ridgeway Arizona Oil are subsidiaries of Calgary-based Ridgeway Petroleum Corp.

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Rocky Mountain Region Report (USPS 113-170). Price: \$1728 per year. "Northern Edition" Price: \$1464 per year. "Wyoming Edition" Price \$1464 per year. "Four Corners-Intermountain Edition" Price \$1068 per year. "Southeastern Edition" Price \$1068 per year. "Newsletter Edition" Price \$984 per year. Published daily except Saturday, Sunday and national holidays by Petroleum Information Corp, 1675 Broadway, Suite 700, Denver CO 80202. Second Class Postage paid at Denver CO 80202. POSTMASTER: Send address changes to: Rocky Mountain Region Report, P.O. Box 1702, Houston TX 77251-1702.



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

June 16, 1995

Mr. Clarence Bigelow  
County Manager  
Apache County  
P.O. Box 428  
St. Johns, AZ 85936

Re: Ridgeway #35-1 State, Sec. 35-12N-29E, Apache County, Permit #890  
Ridgeway #10-1 State, Sec. 10-11N-29E, Apache County, Permit #891  
Ridgeway #11-1 State, Sec. 11-11N-29E, Apache County, Permit #892  
Ridgeway #02-1 State, Sec. 02-11N-29E, Apache County, Permit #893

Dear Mr. Bigelow:

Copies of the approved applications to drill the referenced wells in Apache County are enclosed for your information.

These are being provided to you in accordance with a policy of the Arizona Oil and Gas Conservation Commission to keep County Governments informed about exploration and development drilling efforts in Arizona. These holes will confirm the extent of carbon dioxide reserves in this area.

The Commission issues permits to drill pursuant to A.R.S. § 27-516 after determining that the well is in compliance with all applicable rules and law and that public health and safety, correlative rights, and subsurface resources will not be compromised.

Do not hesitate to contact me if I may be of further assistance.

Sincerely,

Steven L. Rauzi  
Oil and Gas Program Administrator

Enclosures

c Commissioners Nations, Worthington, Clay, Lanshe, Veal



Fife Symington  
Governor

State of Arizona  
**Arizona Geological Survey**

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



Larry D. Fellows  
Director and State Geologist

October 17, 1995

Mr. Walter B. Ruck, President  
Ridgeway Arizona Oil Corporation  
1080, 700 4th Avenue S.W.  
Calgary, Alberta T2P 3J4

Re: Ridgeway #35-1 State, Sec. 35-12N-29E, Apache County, Permit #890  
Ridgeway #10-1 State, Sec. 10-11N-29E, Apache County, Permit #891  
Ridgeway #11-1 State, Sec. 11-11N-29E, Apache County, Permit #892  
Ridgeway #02-1 State, Sec. 02-11N-29E, Apache County, Permit #893

Dear Mr. Ruck:

Approved duplicate original Applications for Permit to Drill the referenced wells; Permits to Drill 890, 891, 892, 893; and filing fee receipts #3085, 3084, 3083, and 3082 are enclosed. Samples, logs, and completion report are required pursuant to A.A.C. R12-7-121. *A copy of the Permit to Drill should be posted in a conspicuous place at the well site*

These Permits are issued on the condition that you conduct operations substantially as outlined in the drilling programs submitted with the applications to drill and that you *notify me at least 48 hours* before you:

- 1) Commence drilling operations;
- 2) Run and cement surface casing; and
- 3) Nipple up and test the BOPE prior to drilling out of the surface casing.

The Oil and Gas Conservation Commission of the State of Arizona looks forward to successful completions of these wells.

Sincerely,

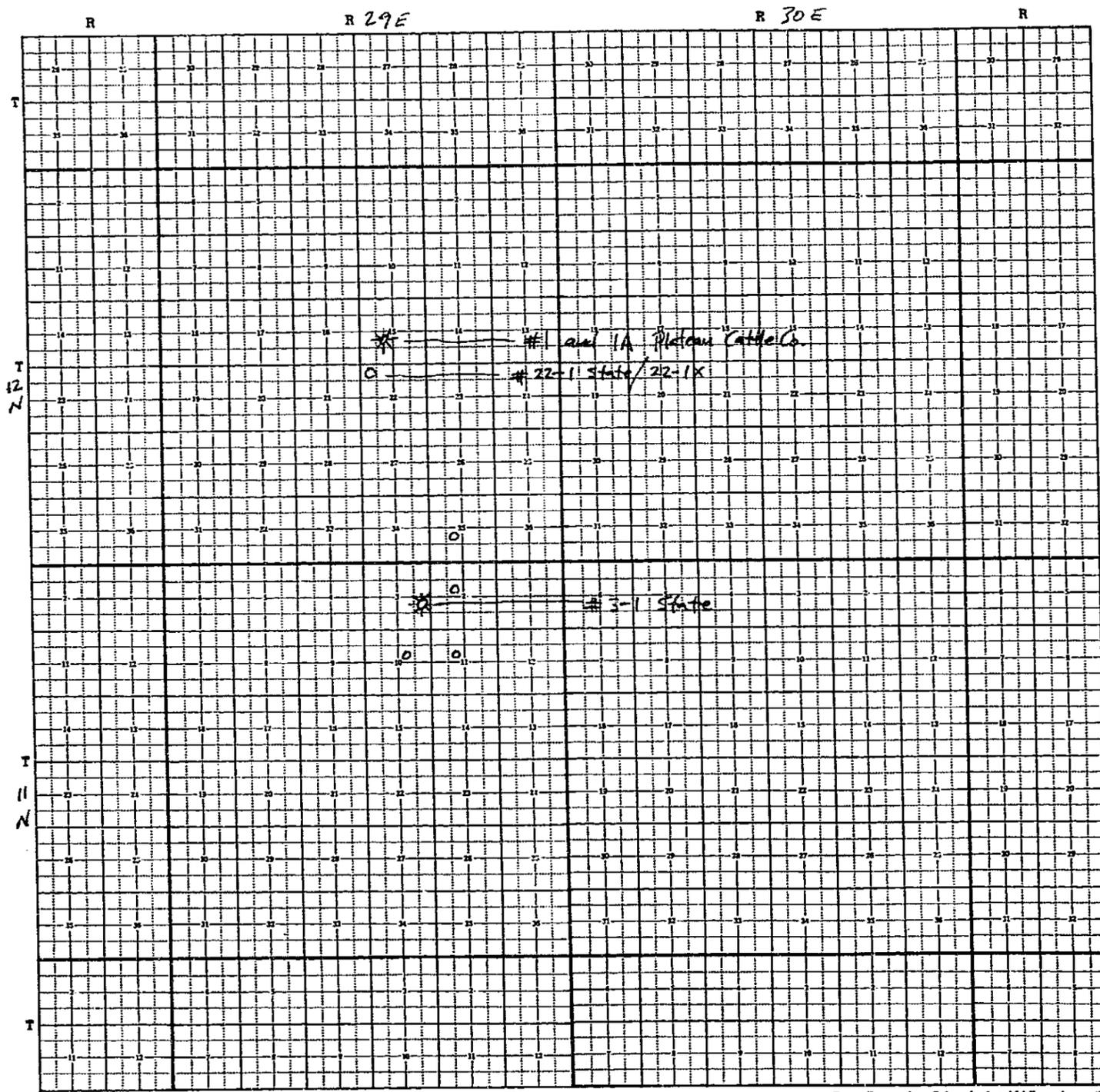
Steven L. Rauzi  
Oil & Gas Program Administrator

Enclosures

c Alan Emmendorfer, Farmington, New Mexico

No. 4B. TOWNSHIP PLAT. — Bradford-Robinson Co., Mfrs. Robinson's Legal Blanks, 1924-46 Stout Street, Denver, Colorado

County Apache State Arizona



Four Township Island plat (1/2" to the mile)