

**STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
OIL CONSERVATION DIVISION**

**APPLICATION OF FAE II OPERATING,  
LLC FOR REINSTATEMENT OF INJECTION  
AUTHORITY AND AUTHORIZATION TO CONVERT  
DISPOSAL WELL TO AN INJECTOR FOR  
WATERFLOOD OPERATIONS,  
LEA COUNTY, NEW MEXICO**

**Case No.** \_\_\_\_\_

**APPLICATION**

Pursuant to 19.15.26.8 NMAC and Oil Conservation Division (“Division”) Order No. R-4819, FAE II Operating, LLC (“FAE”) (OGRID No. 329326) applies for an order: (1) reinstating injection authority for certain injection wells within its Blackbeard South Waterflood Project (“Project”) within the Seven Rivers and Queen formations comprised of portions of Sections 3, 4, 9-11, 13-15, 17, and 20-24, Township 23 South, Range 36 East, Lea County, New Mexico; and (2) authorizing FAE to convert a produced-water disposal well to an injector for waterflood operations. In support of its Application, FAE states the following.

1. On July 9, 1974, the Division entered Order No. R-4819 in Case No. 5258 establishing the Project. On June 17, 1975, the Division entered Order No. R-4819-A expanding the Project area. On January 2, 1984, the Division entered Administrative Order WFX-522 expanding the Project area to include injection into the State "A" A/C 1 No. 117 and 120 wells and the State "A" A/C 3 No. 10 and 11 wells. Administrative Order WFX-522 was amended on July 17, 1984 to expand the Project area to include injection into the State "A" A/C 1 No. 116 well.

2. The approved Project area is comprised of the following described State lands located in Township 23 South, Range 36 East, Lea County, New Mexico:

Section 3: S2  
Section 4: W2, NE4

Section 13: W2, NE4  
Section 14: N2

Section 21: W2, SE4  
Section 22: W2

Section 9: all  
 Section 10: all  
 Section 11: W2, NE4

Section 15: N2  
 Section 17: SE4  
 Section 20: E2

Section 23: N2  
 Section 24: W2, SE4

3. The following wells (“Wells”) authorized under the Orders are located within the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix; 7 RVRS-Q-Grayburg pools of the Seven Rivers and Queen formations:

<b>Well Name (API: 30-025-)</b>	<b>Location within T23S-R6E</b>	<b>Injection interval</b>
State "A" A/C 1 No. 116 (28396)	Unit D, 1260 FNL & 1310 FWL, Sec. 10	3644'- 3845'
State "A" A/C 1 No. 117 (28512)	Unit K, 1395 FSL & 1345 FWL, Sec. 3	3640'- 3820'
State "A" A/C 1 No. 120 (28515)	Unit C, 25 FNL & 1345 FWL, Sec. 10	3650'- 3800'
State "A" A/C 3 No. 10 (28509)	Unit G, 1345 FNL & 1480 FEL, Sec. 10	3575'- 3705'
State "A" A/C 3 No. 11 (28510)	Unit G, 1345 FNL & 2615 FEL, Sec. 10	3575'- 3705'

4. The “unitized interval” was defined by Order R-4819 as the Jalmat; Tan-Yates-7 RVRS (Oil) and Langlie Mattix Pools, which are at depths of 2,798' to 4,075' on the State A A/C 3 #3 (3002509301) log.

5. FAE acquired the Project in June 2021 and has been designated operator of the Wells.

6. Prior to FAE’s acquisition of the Project, production within the Project was maintained, but injection authority for the Wells expired at various times.

7. FAE proposes to convert its State "A" A/C 1 No. 116 well from a salt-water disposal well to an injector for waterflood operations and to reinstate injection into the State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells for waterflood operations. FAE plans to inject water through a closed system of perforations at depths of 3,500' to 4,000' within the Seven Rivers and Queen formations.

8. The proposed average injection pressure is expected to be 700 psi. The expected maximum injection pressure will be calculated relative to the depth of the highest perforation,

using a factor of 0.2 psi/ft. The proposed Wells will have perforation depths of approximately 3,640' and 3599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2160 psi at 3599').

9. The proposed average injection rate is expected to be 600 barrels of water per day. The maximum daily injection rate will be 1,000 barrels of water per day or as permitted by the Division.

10. The source of the water to be injected will be produced water from other Seven Rivers-Queen wells within the vicinity of the Project and water transfer lines.

11. Injection will be into the Seven Rivers – Queen formation.

12. FAE's proposed injection operations can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.

13. Granting FAE's application will protect correlative rights and prevent waste.

14. A copy of FAE's C-108 Application for Authorization to Inject is attached as

#### **Exhibit A.**

WHEREFORE, FAE requests this Application be set for hearing before a duly appointed examiner of the Oil Conservation Division on September 9, 2021, and that after notice and hearing as required by law, the Division enter an Order approving FAE's State "A" A/C 1 No. 116 well for injection operations in its Blackbeard South Waterflood Project and reinstating injection authority for its State "A" A/C 1 No. 117 and 120 wells and State "A" A/C 3 No. 10 and 11 wells at the intervals, pressures, volumes and rates indicated.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy  
Michael Rodriguez  
P.O. Box 2068  
Santa Fe, NM 87504-2068  
Phone: (505) 982-4554  
Facsimile: (505) 982-8623  
[dhardy@hinklelawfirm.com](mailto:dhardy@hinklelawfirm.com)  
[mrodriguez@hinklelawfirm.com](mailto:mrodriguez@hinklelawfirm.com)  
*Counsel for FAE II Operating*

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE:  Secondary Recovery       Pressure Maintenance       Disposal       Storage  
 Application qualifies for administrative approval?       Yes       No

II. OPERATOR: FAE II Operating, LLC

ADDRESS: 11757 Katy Freeway, Suite 1000, Houston, TX 77079

CONTACT PARTY: Jessica LaMarro

PHONE: (832) 706-0049

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
 Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project?  Yes       No

If yes, give the Division order number authorizing the project: \_\_\_\_\_

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

\*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately Overlying the injection interval.

IX. Describe the proposed stimulation program, if any.

\*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

\*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Jessica LaMarro TITLE: Geologist

SIGNATURE: \_\_\_\_\_ DATE: 07/26/2021

E-MAIL ADDRESS: Jessica@faenergyus.com

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

Side 2

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

---

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

## INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLCAPI: 30-025-28396WELL NAME & NUMBER: STATE A A/C 1 #116WELL LOCATION: 1260 FNL & 1310 FWL D

10

23S

36E

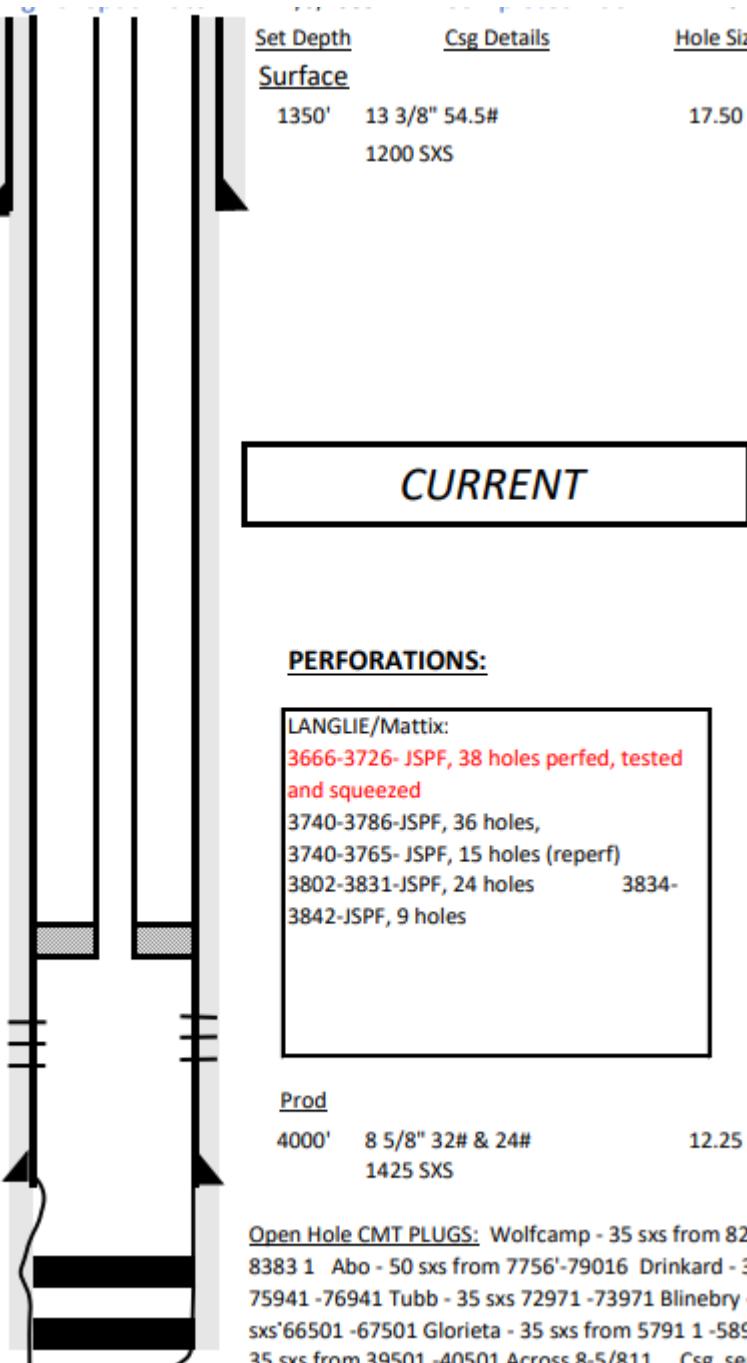
FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

CURRENT WELBORE SCHEMATICWELL CONSTRUCTION DATA

Surface Casing	
Hole Size:	<u>17-1/2"</u>
Casing Size:	<u>13-3/8"</u>
Depth Set:	<u>1350'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1200 sx</u>
Method Determined:	<u>circulated</u>

Production Casing	
Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>4000'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1425 sx</u>
Method Determined:	<u>circulated</u>

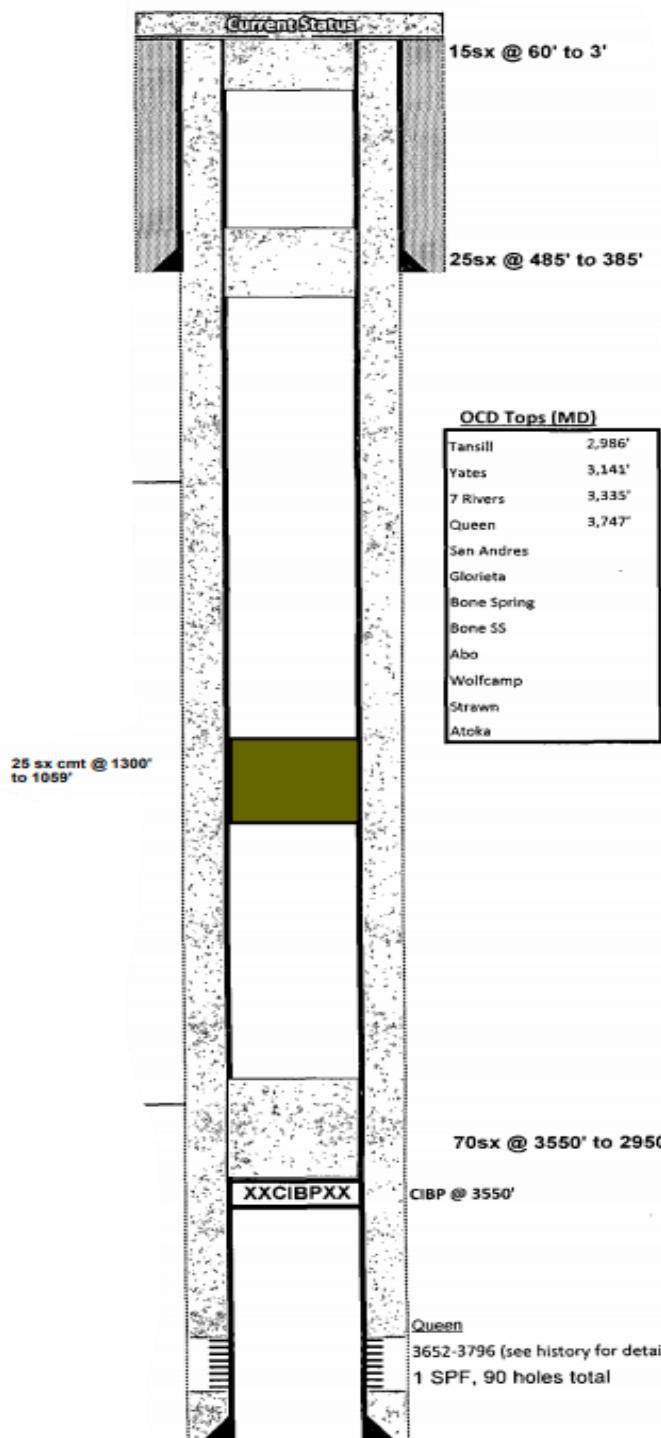
Proposed Injection Interval	
Abo/Queen Inj. Zone	<u>~3,644' to ~3,845'</u>
Zone will be Perforated	
Tubing	
Tubing Size:	<u>3-1/2"</u>
Lining Material:	<u>Plastic</u>
Type of Packer:	<u>Arrow 1X</u>
Packer Depth Set:	<u>~3660'</u>

Additional Data

1. New well drilled for water injection
  2. Injection Formation: Abo/Queen
  3. Field: Langlie Mattix
  4. Well has NOT been perforated before.
  5. Overlying Oil Zone: Yates & Seven Rivers Formation
    - Depth of Overlying Zone: +2968'
- Underlying Oil Zone: Grayburg
  - Depth of Underlying Zone: ±4000'

## III. Well Data

## INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLCAPI: 30-025-28512WELL NAME & NUMBER: STATE A A/C 1 #117WELL LOCATION: 1930 FNL & 660 FWL K3 23S 36E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGECURRENT WELBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>435'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>275 sx</u>
Method Determined:	<u>circulated</u>

Production Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3830'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1300 sx</u>
Method Determined:	<u>circulated</u>

Proposed Injection Interval

Queen Inj. Zone
<u>~3,640' to ~3,820'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Cement</u>
Type of Packer:	<u>OTIS Perma-latch</u>
Packer Depth Set:	<u>~3559'</u>

Additional Data

1. New well drilled for water injection
  2. Injection Formation: Queen
  3. Field: Langlie Mattix
  4. Well has NOT been perforated before.
  5. Overlying Oil Zone: Yates & Seven Rivers Formation
    - Depth of Overlying Zone: +3141'
- Underlying Oil Zone: Grayburg
- Depth of Underlying Zone: ±4000'

## III. Well Data

## INJECTION WELL DATA SHEET

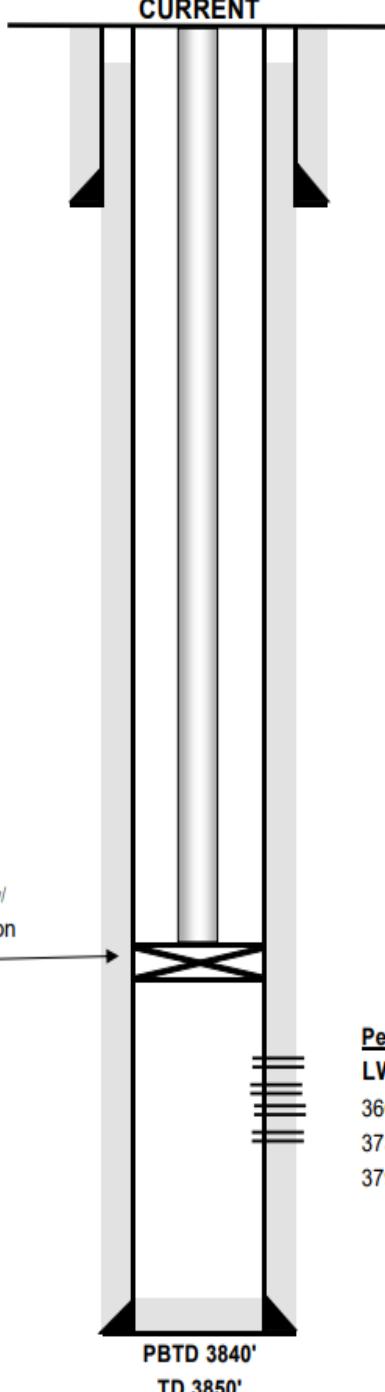
OPERATOR: FAE II OPERATING LLCAPI: 30-025-28515WELL NAME & NUMBER: STATE A A/C 1 #120WELL LOCATION: 25 FNL & 1345 FWL C10 23S 36E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGECURRENT WELBORE SCHEMATICCURRENTSurface CsgSize: 8-5/8"Wt.&Thrd: 24#, STC

Grade:

Set @: 442'Sxs cmt: 275

Circ:

TOC: Surface

Hole Size: 12-1/4"Production CsgSize: 5-1/2"Wt.&Thrd: 14#, LTC

Grade:

Set @: 3850'Sxs Cmt: 1300

Circ:

TOC: Surface

Hole Size: 7-7/8"WELL CONSTRUCTION DATASurface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>442'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>275 sx</u>
Method Determined:	<u>circulated</u>

Production Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3850'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1300 sx</u>
Method Determined:	<u>circulated</u>

Proposed Injection Interval

Queen Inj. Zone
<u>~3,650' to ~3,800'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Cement</u>
Type of Packer:	<u>OTIS Perma-latch</u>
Packer Depth Set:	<u>~3554'</u>

PerfsLWR 7 Rivers & Queen Perf

3666-3724

3738-3791

3792-3798

Additional Data

1. New well drilled for water injection
  2. Injection Formation: Queen
  3. Field: Langlie Mattix
  4. Well has NOT been perforated before.
  5. Overlying Oil Zone: Seven Rivers Formation
    - Depth of Overlying Zone: +3322'
- Underlying Oil Zone: Grayburg
- Depth of Underlying Zone: +4000'

## INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLCAPI: 30-025-28509WELL NAME & NUMBER: STATE A A/C 3 #10WELL LOCATION: 1345 FNL & 1480 FEL G

FOOTAGE LOCATION

UNIT LETTER

10

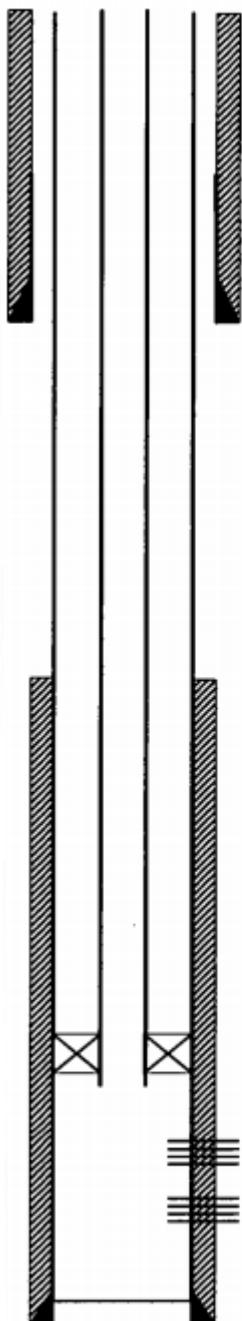
23S

36E

SECTION

TOWNSHIP

RANGE

CURRENT WELBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>457'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>275 sx</u>
Method Determined:	<u>circulated</u>

Production Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>2750'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>650 sx</u>
Method Determined:	<u>circulated</u>

Proposed Injection Interval

SR-Queen Inj. Zone  
~3,575' to ~3,705'  
 Zone will be Perforated

Tubing

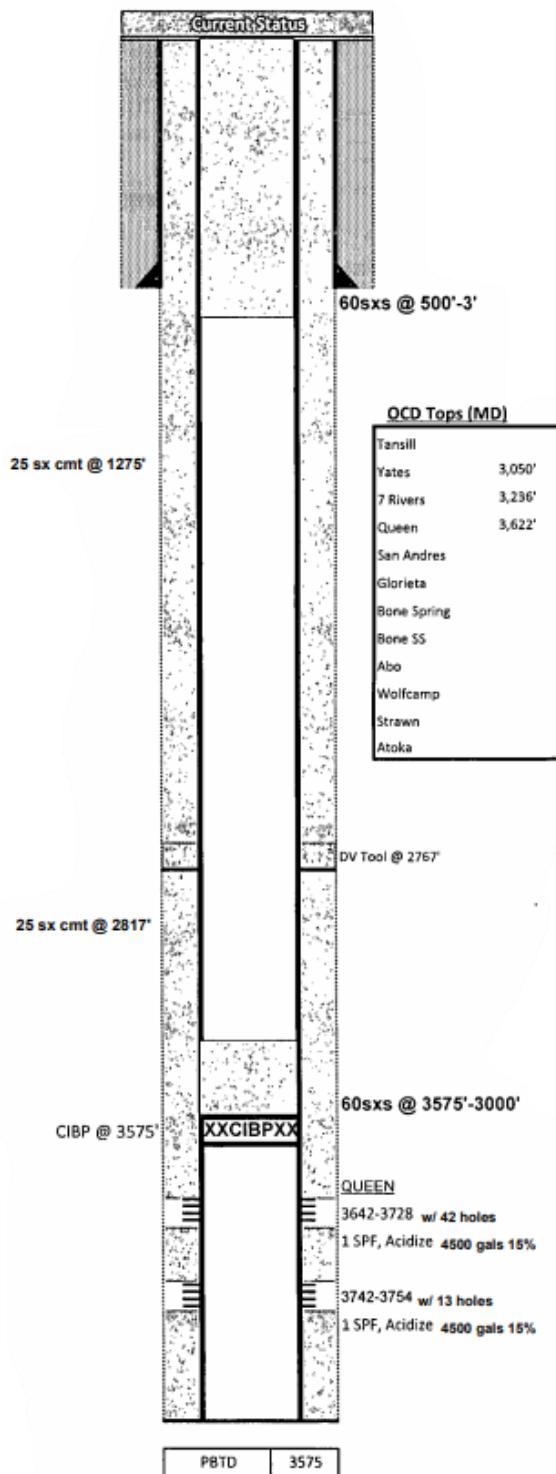
Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Cement</u>
Type of Packer:	<u>OTIS Perma-latch</u>
Packer Depth Set:	<u>~3559'</u>

Additional Data

1. New well drilled for injection
  2. Injection Formation: Queen
  3. Field: Langlie Mattix
  4. Well has NOT been perforated before.
  5. Overlying Oil Zone: Seven Rivers Formation
    - Depth of Overlying Zone: +3326'
- Underlying Oil Zone: Grayburg
- Depth of Underlying Zone: ±4000'

## III. Well Data

## INJECTION WELL DATA SHEET

OPERATOR: FAE II OPERATING LLCAPI: 30-025-28510WELL NAME & NUMBER: STATE A A/C 3 #11WELL LOCATION: 1345 FNL & 2615 FEL G10 23S 36E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGECURRENT WELBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size:	<u>12-1/4"</u>
Casing Size:	<u>8-5/8"</u>
Depth Set:	<u>445'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>275 sx</u>
Method Determined:	<u>circulated</u>

Production Casing

Hole Size:	<u>7-7/8"</u>
Casing Size:	<u>5-1/2"</u>
Depth Set:	<u>3800'</u>
Top of Cement:	<u>surface</u>
Cement with	<u>1300 sx</u>
Method Determined:	<u>circulated</u>

Proposed Injection Interval

SR- Queen Inj. Zone
<u>~3,575' to ~3,705'</u>
Zone will be Perforated

Tubing

Tubing Size:	<u>2-3/8"</u>
Lining Material:	<u>Cement</u>
Type of Packer:	<u>OTIS Perma-latch</u>
Packer Depth Set:	<u>~3572'</u>

Additional Data

1. New well drilled for water injection
2. Injection Formation: Queen
3. Field: Langlie Mattix
4. Well has NOT been perforated before.
5. Overlying Oil Zone: Seven Rivers Formation

- Depth of Overlying Zone: +3326'

Underlying Oil Zone: Grayburg

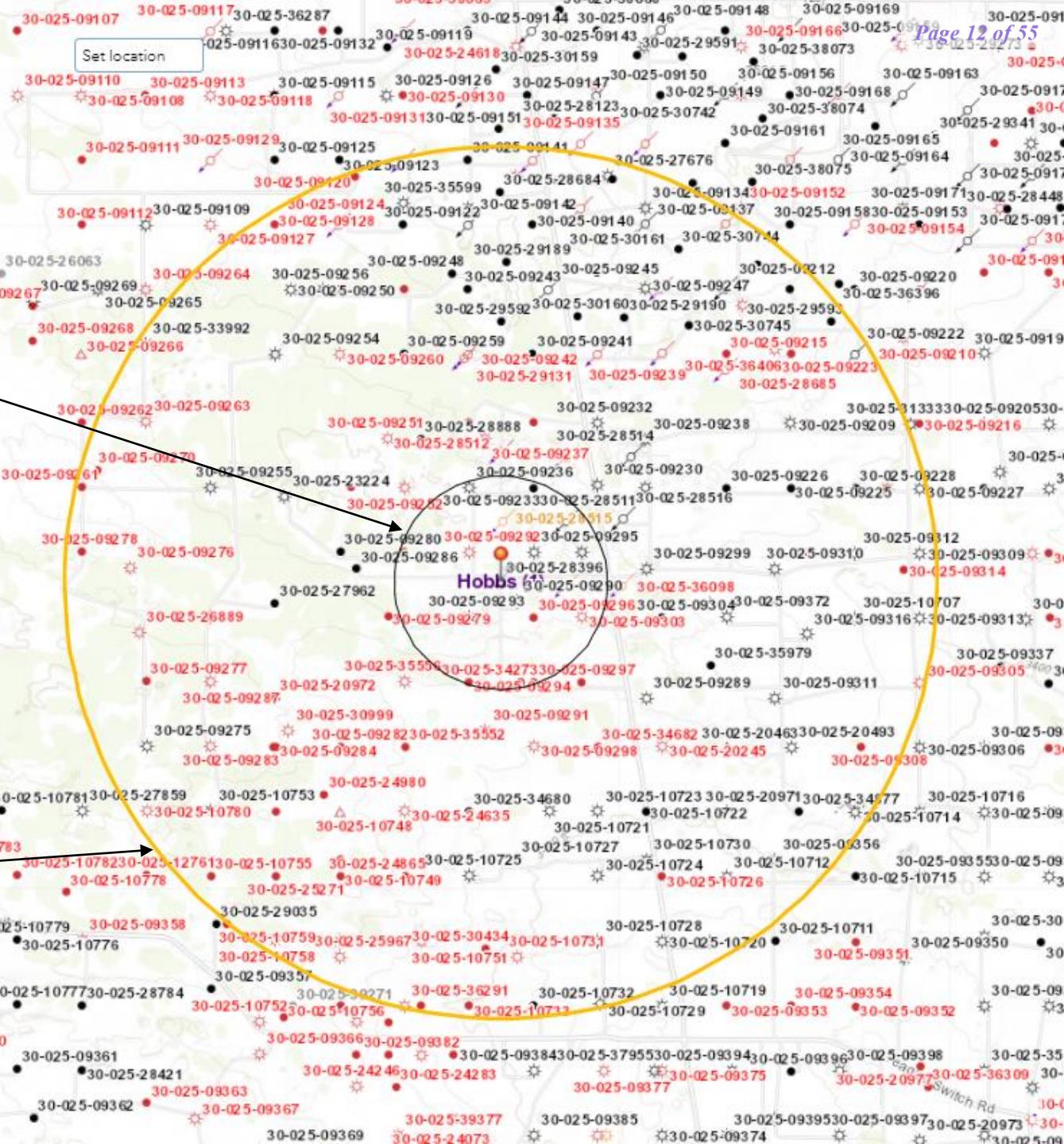
- Depth of Underlying Zone: ±4000'

## State A A/C 1 # 116

V.  
 Exhibit A1 shows 17 unique well locations within a  $\frac{1}{2}$  mile radius of the proposed new drill injector locations, and 176 unique well locations within a 2 mile radius and all associated leases

1/2 Mile Radius

2 Mile Radius

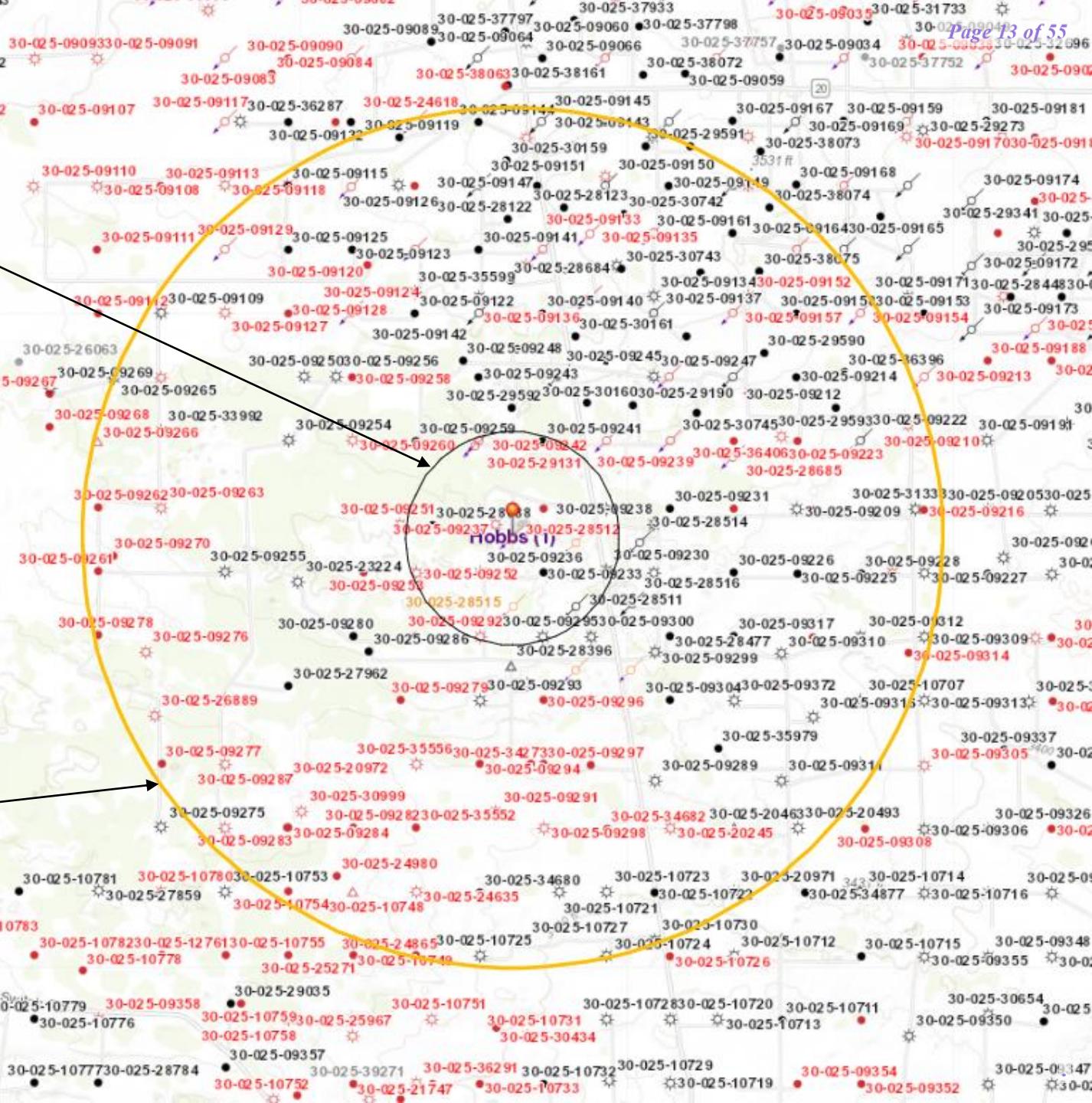


## State A A/C 1 # 117

1/2 Mile Radius

2 Mile Radius

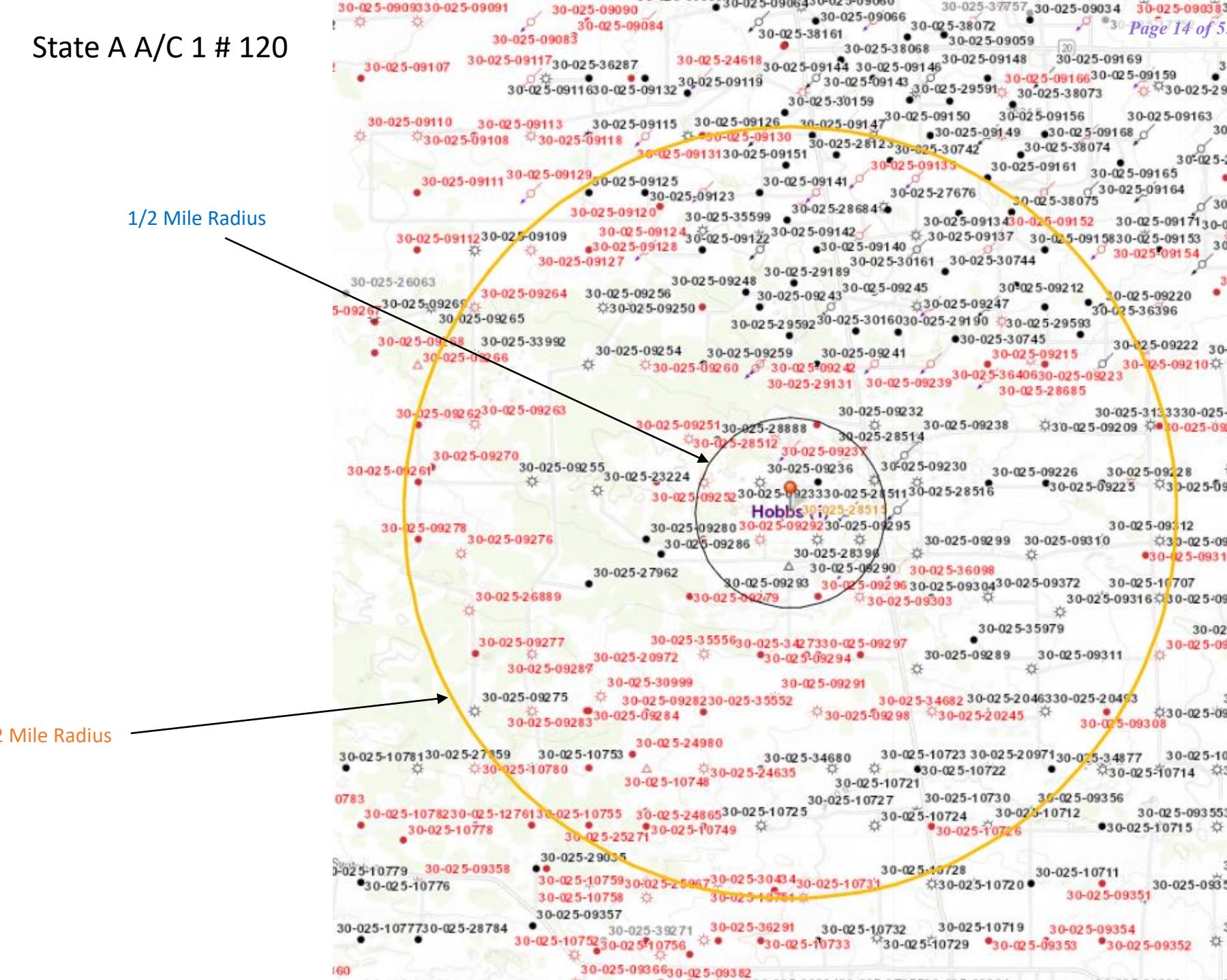
V.  
 Exhibit A2 shows 18 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 197 unique well locations within a 2 mile radius and all associated leases



## State A A/C 1 # 120

V.

Exhibit A3 shows 20 unique well locations within a  $\frac{1}{2}$  mile radius of the proposed new drill injector locations, and 178 unique well locations within a 2 mile radius and all associated leases

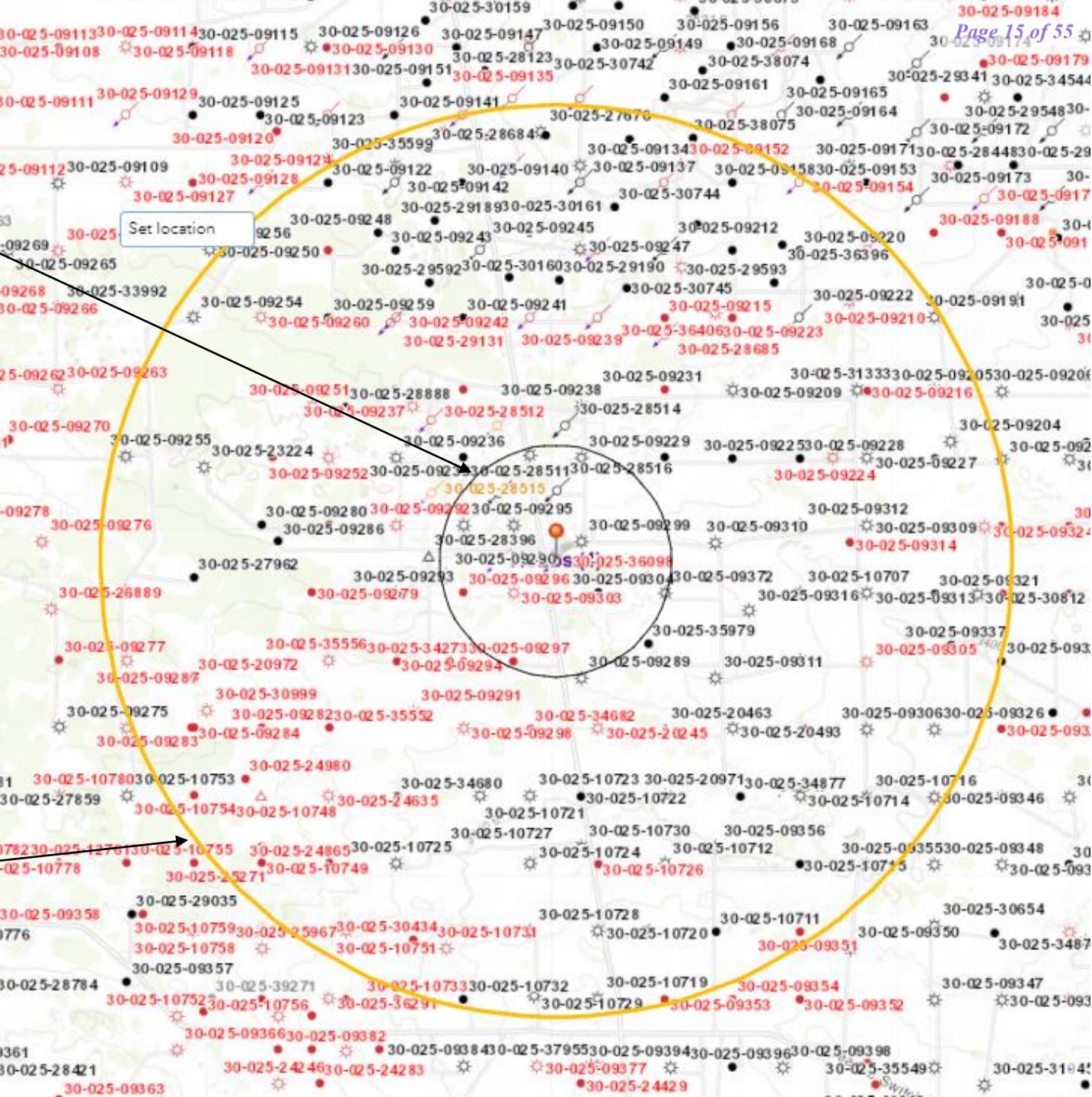


## State A A/C 3 # 10

V.  
 Exhibit A4 shows 19 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 179 unique well locations within a 2 mile radius and all associated leases

1/2 Mile Radius

2 Mile Radius

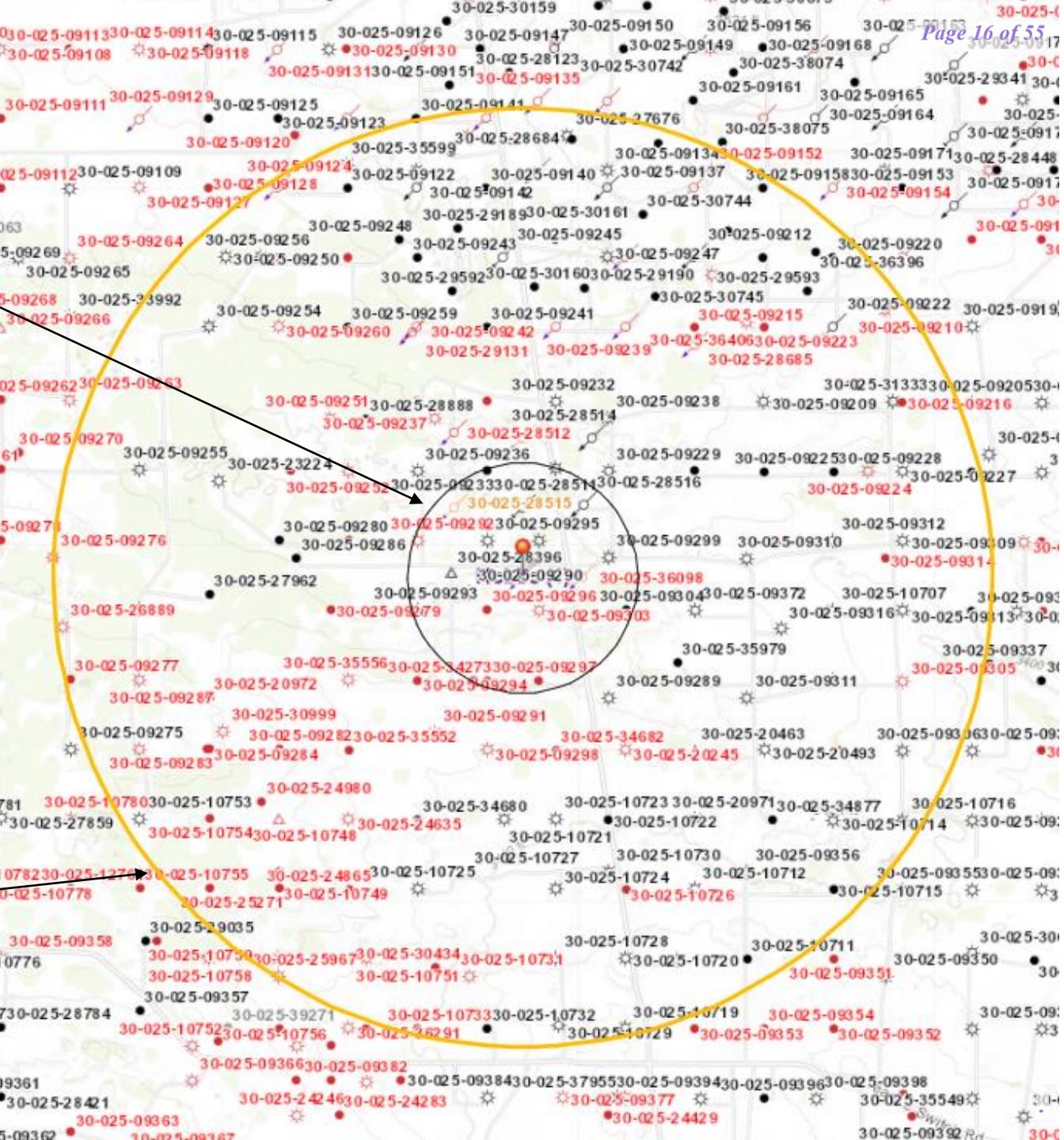


## State A A/C 3 # 11

V.  
 Exhibit A5 shows 21 unique well locations within a ½ mile radius of the proposed new drill injector locations, and 173 unique well locations within a 2 mile radius and all associated leases

1/2 Mile Radius

2 Mile Radius



VI.

Following Exhibit A, the tabulation of the wells with each well's type, construction, date drilled, location, depth, and completion date of wells within a  $\frac{1}{2}$  mile radius are displayed in **Exhibit B1-B5**. The plugged well wellbore diagrams are displayed in **Exhibit C1-C17**.

## Exhibit B1

### State A AC 1 #116

UWJ / API	Operator	Well Label	ID	Well Type	Current Zone	Distance in Miles	Distance in Feet From:	SPUD Date	Township Range Section	Footage	Surface	Surftn	Surfn	Well Tie	Status
3002502336	FAE II OPERATING LLC	STATE A/C/C #116	8400	Salt Water Disposal ABQ TS/H	0	0	1983-1-24-09	285 36E 10	1160 FNL 1310 FWL CONGRESS SECTION	31 3 3227306 -103 256584 STATE A/C/C 2 #116 Active					
3002502320	FAE II OPERATING LLC	STATE A/C/C #037	3280	TANSLI YATES	0.12	6336	1955-02-28	285 36E 10	9901 FNL 990 FWL CONGRESS SECTION	31 3 31439856 -103 257887 STATE A/C/C 2 #116 Active					
3002502322	FAE II OPERATING LLC	STATE A/C/C #049	3800	Gas	0.2	1056	1955-03-16	285 36E 10 NW NW	660 FNL 660 FWL CONGRESS SECTION	31 3 34385 -103 25894 STATE A/C/C 2 #116 Plugged (site released)					
3002502325	FAE II OPERATING LLC	STATE A/C/C #081	3754	Gas	0.2	1056	1960-01-21	285 36E 10	660 FNL 1980 FWL CONGRESS SECTION	31 3 247347 -103 2567 STATE A/C/C 2 #116 Active					
3002502323	FAE II OPERATING LLC	STATE A/C/C #055	3800	Gas	0.22	11616	1955-03-25	285 36E 10 NW NW	1980 FNL 660 FWL CONGRESS SECTION	31 3 207586 -103 25694 STATE A/C/C 2 #116 Active					
3002502326	PETROHAWK OPERATING CO	STATE A/C/C #086	3595	Oil	0.22	11616	1960-03-20	285 36E 10	1980 FNL 1980 FWL CONGRESS SECTION	31 3 207465 -103 25467 STATE A/C/C 2 #116 Plugged (site released)					
3002502326	PETROHAWK OPERATING CO	STATE A/C/C #120	3850	Injection	0.28	14784	1960-03-27	285 36E 10	25 FNL 1345 FWL CONGRESS SECTION	31 3 261251 -103 25672 STATE A/C/C 2 #116 Temporary Abandonment (expired)					
3002502310	FAE II OPERATING LLC	STATE A/C/C #011	3800	Injection	0.3	1584	1984-04-04	285 36E 10	1345 FNL 2615 FEL CONGRESS SECTION	31 3 224864 -103 25247 STATE A/C/C 2 #116 Temporary Abandonment (expired)					
3002502300	FAE II OPERATING LLC	STATE A/C/C #004	3729	Gas	0.39	2052	1960-02-19	285 36E 10 NW NE	660 FNL 2310 FEL CONGRESS SECTION	31 3 243669 -103 25148 STATE A/C/C 2 #116 Active					
3002502303	PETROHAWK OPERATING CO	STATE A/C/C #005	3588	Gas	0.41	21548	1960-05-17	285 36E 10 NW NE	1980 FNL 2310 FEL CONGRESS SECTION	31 3 207387 -103 25148 STATE A/C/C 2 #116 Plugged (site released)					
3002502301	FAE II OPERATING LLC	STATE A/C/C #012	3810	Injection	0.41	21563	1984-04-12	285 36E 10	25 FNL 2615 FEL CONGRESS SECTION	31 3 2611 -103 25247 STATE A/C/C 2 #116 Active					
3002502326	FAE II OPERATING LLC	STATE A/C/C #043	3825	Gas	0.46	24288	1957-12-09	285 36E 10 SW SW SW	660 FNL 660 FWL CONGRESS SECTION	31 3 280133 -103 25895 STATE A/C/C 2 #116 Active					
3002502323	FAE II OPERATING LLC	STATE A/C/C #048	3800	Oil	0.46	24288	1955-03-07	285 36E 10 SW SW	660 FNL 1980 FWL CONGRESS SECTION	31 3 23803 -103 25688 STATE A/C/C 2 #116 Active					
3002502055	CLAYTON WILLIAMS ENERGY INC	STATE A/C/C #041	3800	Oil	0.46	24288	1957-11-04	285 36E 9	660 FNL 660 FWL CONGRESS SECTION	31 3 243948 -103 26921 STATE A/C/C 2 #116 Plugged (site released)					
3002502473	CHEVRON U.S.A. INC	GARELL #001	7965	Oil	0.47	24816	1998-02-09	285 36E 10 NE SW	1980 FNL 1718 FWL CONGRESS SECTION	31 3 171131 -103 25532 STATE A/C/C 2 #116 Plugged (site released)					
3002502394	CLAYTON WILLIAMS ENERGY INC	STATE A/C/C #056	3765	Oil	0.48	25344	1955-04-05	285 36E 10 NW SW	1980 FNL 1980 FWL CONGRESS SECTION	31 3 171186 -103 25894 STATE A/C/C 2 #116 Plugged (site released)					
3002502327	PETROHAWK OPERATING CO	STATE A/C/C #038	3678	Oil	0.48	25344	1960-04-20	285 36E 10 NE SW	1980 FNL 1980 FWL CONGRESS SECTION	31 3 171115 -103 2567 STATE A/C/C 2 #116 Plugged (site released)					

# Exhibit B2

## State A AC 1 #117

UWJ / API	Operator	Well Label	ID	Well Type	Current Zone	Distance in Miles	Distance in Feet From:	SPUD Date	Township Range Section	Footage	Surface	Surfcon	Well Tie	Status
3002528612	FAE II OPERATING LLC	STATE A AC 1 #117	3830	Injection	QUEEN	0	0	1994-03-17	331 355 3	1391 FSL 1345 FWL CONGRESS SECTION	32 23 390078	-103.2597	STATE A/C 2 #117	Plugged (Site released)
3002509231	FAE II OPERATING LLC	STATE A AC 1 #035	3625	Gas	TRANSIL / YATES	0.1	528	1992-10-19	235 356 3	1650 FSL 1590 FWL CONGRESS SECTION	32 23 30752	-103.2597	STATE A/C 2 #117	Plugged (Site released)
3002509234	CLAYTON WILLIAMS ENERGY INC	STATE A AC 1 #047	3800	Oil	UNKNOWN	0.19	1003	1959-02-22	235 356 3	1980 FSL 1980 FWL CONGRESS SECTION	32 23 31651	-103.2547	STATE A/C 2 #117	Plugged (Site released)
3002509235	PETROHAWK OPERATING CO	STATE A AC 1 #046	3800	Oil	UNKNOWN	0.2	1056	1959-02-11	235 356 3	1980 FSL 1660 FWL CONGRESS SECTION	32 23 31642	-103.259	STATE A/C 2 #117	Plugged (Site released)
3002509233	FAE II OPERATING LLC	STATE A AC 1 #048	3800	Oil	QUEEN	0.22	1161	1994-03-07	235 356 3 SW	660 FSL 1980 FWL CONGRESS SECTION	32 23 28003	-103.2547	STATE A/C 2 #117	Active
3002509236	FAE II OPERATING LLC	STATE A AC 1 #043	3825	Gas	QUEEN	0.22	1161	1957-12-09	235 356 3 SW	660 FSL 660 FWL CONGRESS SECTION	32 23 28013	-103.259	STATE A/C 2 #117	Active
3002528513	FAE II OPERATING LLC	STATE A AC 1 #118	3830	Injection	QUEEN	0.3	1584	1984-03-06	235 356 3	1295 FSL 2615 FWL CONGRESS SECTION	32 23 29745	-103.2553	STATE A/C 2 #117	Temporary Abandonment (expired)
3002528075	FAE II OPERATING LLC	STATE A AC 1 #120	3830	Injection	QUEEN	0.32	1689	1984-03-27	235 356 10	25 FSL 1345 FWL CONGRESS SECTION	32 23 28125	-103.2567	STATE A/C 2 #117	Temporary Abandonment (expired)
3002508088	FAE II OPERATING LLC	JF LAND & NAT'L RENTS	3900	Oil	QUEEN	0.38	2005	1984-11-09	235 356 4	1650 FSL 1340 FWL CONGRESS SECTION	32 23 30742	-103.2562	STATE A/C 2 #117	Active
3002528571	FAE II OPERATING LLC	STATE A AC 1 #012	3830	Injection	QUEEN	0.44	2323	1984-04-12	235 356 10	25 FSL 2615 FWL CONGRESS SECTION	32 23 28115	-103.255	STATE A/C 2 #117	Active
3002509232	FAE II OPERATING LLC	STATE A AC 1 #051	3719	Gas	QUEEN	0.46	2428	1959-05-04	235 356 3	1980 FSL 1980 FWL CONGRESS SECTION	32 23 31651	-103.2504	STATE A/C 2 #117	Active
3002523151	LINN OPERATING LLC	SEVEN RIVERS QUEEN UNIT #055	3930	Injection	QUEEN	0.46	2428	1985-05-19	235 356 3 SW NW	2080 FSL 560 FWL CONGRESS SECTION	32 23 35204	-103.2593	STATE A/C 2 #117	Plugged (Site released)
3002509230	FAE II OPERATING LLC	STATE A AC 1 #064	3682	Gas	SEVEN RIVERS / QUEEN	0.46	2428	1959-08-05	235 356 3	710 FSL 1980 FWL CONGRESS SECTION	32 23 3813	-103.2504	STATE A/C 2 #117	Active
3002509241	BUP OPERATING LLC	SEVEN RIVERS QUEEN UNIT #050	3830	Oil	UNKNOWN	0.47	2481	1959-10-03	235 356 3	1980 FSL 1980 FWL CONGRESS SECTION	32 23 35248	-103.2547	STATE A/C 2 #117	Active
3002509442	ARCO OIL & GAS CORP	PINE-ONGARD WELL #049	3800	Injection	UNKNOWN	0.47	2481	1959-09-21	235 356 3	1980 FSL 660 FWL CONGRESS SECTION	32 23 35479	-103.259	STATE A/C 2 #117	Plugged (Site released)
3002509252	ARCH PETROLEUM INC	JF LAND & NAT'L RENT #002	3825	Gas	TRANSIL / YATES	0.48	2534	1957-03-29	235 356 4	660 FSL 660 FWL CONGRESS SECTION	32 23 28023	-103.2562	STATE A/C 2 #117	Plugged (Site released)
3002509235	FAE II OPERATING LLC	STATE A AC 1 #081	3754	Gas	QUEEN	0.48	2534	1960-01-24	235 356 10	660 FSL 1980 FWL CONGRESS SECTION	32 23 24575	-103.2547	STATE A/C 2 #117	Active
3002509232	FAE II OPERATING LLC	STATE A AC 1 #049	3800	Gas	QUEEN	0.49	2587	1959-03-16	235 356 10 NW NW	660 FSL 660 FWL CONGRESS SECTION	32 23 24385	-103.2589	STATE A/C 2 #117	Plugged (Site released)

## Exhibit B3

### State A AC 1 #120

UW / API	Operator	Well Label	TD	Well Type	Current Zone	Distance in Miles	Distance in Feet From:	Stud Date	Township/Range Section	Frontage	Surflat	Surfcon	Well Tie	status
3002505255	FAE II OPERATING LLC	STATE A/C 1 #120	3850	Injection	QUEEN	0	1884-03-27 235 36E 10	22 FNL 1345 FNL CONGRESS SECTION	32 3236125	-103 2557	STATE A/C 2 #120	Temporary Abandonment (expired)		
3002505255	FAE II OPERATING LLC	STATE A/C 1 #0481	3734	Gas	QUEEN	0.2	1056 1865-01-21 235 36E 10	650 FNL 1980 FNL CONGRESS SECTION	32 3234375	-105 2547	STATE A/C 2 #120	Active		
3002505253	FAE II OPERATING LLC	STATE A/C 1 #048	3800	Oil	QUEEN	0.21	1108.8 1859-03-07 235 36E 3 3/4 SW	660 FNL 1980 FNL CONGRESS SECTION	32 3238003	-105 2547	STATE A/C 2 #120	Plugged (site released)		
3002505252	FAE II OPERATING LLC	STATE A/C 1 #049	3800	Gas	QUEEN	0.21	1108.8 1859-03-15 235 36E 10 NW NW	660 FNL 660 FNL CONGRESS SECTION	32 3234585	-105 2548	STATE A/C 2 #120	Plugged (site released)		
3002505256	FAE II OPERATING LLC	STATE A/C 1 #043	3825	Gas	QUEEN	0.22	1161.6 1857-12-09 235 36E 3 3/2 SW SW	660 FNL 660 FNL CONGRESS SECTION	32 3238013	-103 2559	STATE A/C 2 #120	Active		
3002505256	FAE II OPERATING LLC	STATE A/C 1 #116	8400	Salt Water Disposal	ABO SW/	0.28	1478.4 1883-12-09 235 36E 10	1260 FNL 1310 FNL CONGRESS SECTION	32 322731	-105 2558	STATE A/C 2 #120	Active		
3002505251	FAE II OPERATING LLC	STATE A/C 3 #012	3830	Injection	QUEEN	0.29	1531.2 1884-04-12 235 36E 10	21 FNL 2615 FNL CONGRESS SECTION	32 3236115	-103 2553	STATE A/C 2 #120	Active		
3002505252	FAE II OPERATING LLC	STATE A/C 1 #117	3830	Injection	QUEEN	0.32	1689.8 1884-03-17 235 36E 3	1399 FNL 1345 FNL CONGRESS SECTION	32 3230028	-105 2567	STATE A/C 2 #120	Plugged (site released)		
3002505250	FAE II OPERATING LLC	STATE A/C 1 #037	3280	Gas	TANILL / YATES	0.37	1933.6 1855-02-28 235 36E 10	980 FNL 990 FNL CONGRESS SECTION	32 3234596	-105 2579	STATE A/C 2 #120	Active		
3002505251	FAE II OPERATING LLC	STATE A/C 1 #035	3625	Gas	TANILL / YATES	0.39	2059.2 1952-10-15 235 36E 3	1050 FNL 990 FNL CONGRESS SECTION	32 3235072	-105 2579	STATE A/C 2 #120	Plugged (site released)		
3002505250	FAE II OPERATING LLC	STATE A/C 3 COM A #004	3779	Gas	QUEEN	0.39	2059.2 1860-02-19 235 36E 10 NW NE	660 FNL 1310 FNL CONGRESS SECTION	32 3234567	-103 2555	STATE A/C 2 #120	Active		
3002505251	FAE II OPERATING LLC	STATE A/C 1 #118	3820	Injection	QUEEN	0.42	2217.6 1884-03-05 235 36E 3	1399 FNL 2615 FNL CONGRESS SECTION	32 3239743	-105 2555	STATE A/C 2 #120	Temporary Abandonment (expired)		
3002505250	FAE II OPERATING LLC	STATE A/C 3 #011	3800	Injection	QUEEN	0.42	2217.6 1884-04-04 235 36E 10	1345 FNL 2615 FNL CONGRESS SECTION	32 3232246	-105 2525	STATE A/C 2 #120	Temporary Abandonment (expired)		
3002505256	PETROHAWK OPERATING CO	STATE A/C 1 #085	3696	Oil	QUEEN	0.46	2428.8 1860-03-20 235 36E 10 NW	1980 FNL 1980 FNL CONGRESS SECTION	32 3230746	-105 2547	STATE A/C 2 #120	Plugged (site released)		
3002505253	FAE II OPERATING LLC	STATE A/C 1 #055	3800	Gas	QUEEN	0.47	2481.6 1859-03-25 235 36E 10 SW NW	1880 FNL 660 FNL CONGRESS SECTION	32 3230757	-103 2559	STATE A/C 2 #120	Active		
3002505250	FAE II OPERATING LLC	STATE A/C 1 #064	3692	Gas	SEVEN RIVERS / QUEEN	0.47	2481.6 1859-08-05 235 36E 3	770 FNL 1360 FNL CONGRESS SECTION	32 3232813	-105 2550	STATE A/C 2 #120	Active		
3002505255	CLAYTON WILLIAMS ENERGY INC	STATE A/C 1 #041	3800	Oil	UNKNOWN	0.47	2481.6 1857-11-04 235 36E 9	660 FNL 660 FNL CONGRESS SECTION	32 3234595	-105 2552	STATE A/C 2 #120	Plugged (site released)		
3002505254	CLAYTON WILLIAMS ENERGY INC	STATE A/C 1 #047	3800	Oil	UNKNOWN	0.47	2481.6 1859-02-22 235 36E 3	1980 FNL 1980 FNL CONGRESS SECTION	32 3231651	-105 2547	STATE A/C 2 #120	Plugged (site released)		
3002505252	ARICH PETROLEUM INC	STATE A/C 1 #022	3825	Gas	TANILL / YATES	0.48	2534.4 1859-03-29 235 36E 4	660 FNL 660 FNL CONGRESS SECTION	32 3238023	-103 2552	STATE A/C 2 #120	Plugged (site released)		
3002505255	PETROHAWK OPERATING CO	STATE A/C 1 #046	3800	Oil	UNKNOWN	0.48	2534.4 1859-02-11 235 36E 3	1980 FNL 660 FNL CONGRESS SECTION	32 3231642	-103 2559	STATE A/C 2 #120	Plugged (site released)		

# Exhibit B4

## State A AC 3 #10

UVI/API Operator	Well Label	ID	Well Type	Current Zone	Distance in Miles	Distance in Feet from SPUD Date	Township Range Section	Footage	Surface	Surface	Well Tie	Status
30025026519 FAE II OPERATING LLC	STATE A/C/3 #010	31800	Injection	GRAYBURN	0	1984-02-06	235 36E 10	1345' FNL 1480' FEL CONGRESS SECTION	32 3222473	-103 2488 STATE A/C/3 #010	Temporary Abandonment	
30025026510 FAE II OPERATING LLC	STATE A/C/3 COM A #001	31655	Gas	TANSLILL /ATES	0.14	759 2	1955-01-08	235 36E 10	990' FNL 990' FEL CONGRESS SECTION	32 3234493	-103 2477 STATE A/C/3 #010	Active
30025026514 FAE II OPERATING LLC	STATE A/C/3 #007	31753	Oil	GRAYBURN	0.23	1214.4	1962-09-10	235 36E 10	1980' FNL 660' FEL CONGRESS SECTION	32 3207254	-103 2465 STATE A/C/3 #010	Active
<b>30025026503 PETROHAWK OPERATING CO</b>	<b>STATE A/C/3 COM A #005</b>	<b>31658</b>	<b>Gas</b>	<b>QUEEN</b>	<b>0.23</b>	<b>1214.4</b>	<b>1960-05-17</b>	<b>235 36E 10 SW NE</b>	<b>1980' FNL 2310' FEL CONGRESS SECTION</b>	<b>32 3207387</b>	<b>-103 2415 STATE A/C/3 #010</b>	<b>Plugged (site released)</b>
30025026477 FAE II OPERATING LLC	STATE A/C/3 #009	31770	Oil	GRAYBURN	0.24	1267.2	1982-01-30	235 36E 10	660' FNL 660' FEL CONGRESS SECTION	32 3245537	-103 2465 STATE A/C/3 #010	Active
30025026300 FAE II OPERATING LLC	STATE A/C/3 COM A #004	31779	Gas	QUEEN	0.24	1267.2	1980-02-19	235 36E 10 NW NE	660' FNL 2310' FEL CONGRESS SECTION	32 3245669	-103 2415 STATE A/C/3 #010	Active
30025026510 FAE II OPERATING LLC	STATE A/C/3 #011	31800	Injection	QUEEN	0.25	1350	1984-04-04	235 36E 10	1345' FNL 2615' FEL CONGRESS SECTION	32 3222486	-103 2425 STATE A/C/3 #010	Temporary Abandonment (expired)
30025026516 FAE II OPERATING LLC	STATE A/C/1 #121	31800	Injection	GRAYBURN	0.31	1656.8	1984-02-18	235 36E 3	25' FNL 1460' FEL CONGRESS SECTION	32 3236243	-103 2487 STATE A/C/3 #010	Active
30025026511 FAE II OPERATING LLC	STATE A/C/3 #012	31810	Injection	QUEEN	0.39	2059.2	1984-04-12	235 36E 10	25' FNL 2615' FEL CONGRESS SECTION	32 3261148	-103 2425 STATE A/C/3 #010	Active
30025026509 LEGACY RESERVES OPERATING LP	SAPPHIRE STATE #003	31647	Salt Water Disposal/Paddock	QUEEN	0.41	2164.8	2003-1-18	235 36E 11 NW SW NW	1650' FNL 330' FEL CONGRESS SECTION	32 3216233	-103 2412 STATE A/C/3 #010	Plugged (site released)
30025026526 PETROHAWK OPERATING CO	STATE A/C/1 #085	31696	Oil	QUEEN	0.43	2270.4	1960-03-20	235 36E 10	1980' FNL 1980' FWL CONGRESS SECTION	32 3207465	-103 2447 STATE A/C/3 #010	Plugged (site released)
30025026525 FAE II OPERATING LLC	STATE A/C/1 #081	31734	Gas	QUEEN	0.44	2373.2	1960-01-21	235 36E 10	660' FNL 1980' FWL CONGRESS SECTION	32 3243741	-103 2447 STATE A/C/3 #010	Active
30025026529 FAE II OPERATING LLC	STATE A/C/1 #069	31675	Gas	TANSLILL /ATES	0.45	2428.8	1958-10-09	235 36E SE SE	560' FNL 990' FEL CONGRESS SECTION	32 3227984	-103 2477 STATE A/C/3 #010	Active
30025026520 FAE II OPERATING LLC	STATE A/C/1 #064	3162	Gas	SEVEN RIVERS / QUEEN	0.48	2554.4	1958-08-05	235 36E 3	710' FNL 1980' FEL CONGRESS SECTION	32 32813	-103 2404 STATE A/C/3 #010	Active
<b>30025026501 PETROHAWK OPERATING CO</b>	<b>STATE A/C/3 #003</b>	<b>8500</b>	<b>Oil</b>	<b>UNKNOWN</b>	<b>0.48</b>	<b>2554.4</b>	<b>1958-05-24</b>	<b>235 36E 10</b>	<b>1980' FNL 660' FEL CONGRESS SECTION</b>	<b>32 3177068</b>	<b>-103 2446 STATE A/C/3 #010</b>	<b>Plugged (site released)</b>
30025026502 CLAYTON WILLIAMS ENERGY INC.	STATE A/C/3 #006	31695	Oil	SEVEN RIVERS / QUEEN	0.48	2554.4	1960-07-14	235 36E 10	1980' FNL 2310' FEL CONGRESS SECTION	32 3171061	-103 2415 STATE A/C/3 #010	Plugged (site released)
30025026520 FAE II OPERATING LLC	STATE A/C/1 #037	31290	Gas	TANSLILL /ATES	0.49	2587.2	1955-02-28	235 36E 10	990' FNL 990' FWL CONGRESS SECTION	32 3143956	-103 2479 STATE A/C/3 #010	Active
30025026522 FAE II OPERATING LLC	STATE A/C/1 #099	31737	Gas	UNKNOWN	0.5	2640	1962-08-21	235 36E 11 SW NW	1980' FNL 660' FWL CONGRESS SECTION	32 3207126	-103 2419 STATE A/C/3 #010	Active
30025026537 FAE II OPERATING LLC	STATE A/C/1 #092	31693	Oil	UNKNOWN	0.5	2640	1960-09-03	235 36E 11 CNW NW	660' FNL 660' FWL CONGRESS SECTION	32 3243409	-103 2419 STATE A/C/3 #010	Active

# Exhibit B5

## State A AC 3 #11

UVI/API	Operator	Well Label	ID	Well Type	Current Zone	Distance in Miles	Distance in Feet From:	Start Date	Township Range Section	Footage	Surfat	Surfin	Well Tie	Status
3002559310	FIRE II OPERATING LLC	STATE A/C 3-R011		3800' Injection	QUEEN	0	0	1984-04-04	235' 36E 10 NE	1345' FNL 265' FEL CONGRESS SECTION	32,322,4854	-103-25247	STATE A/C 3-R011	Temporary Abandonment (expired)
3002559302	Retrohawk Operating Co	STATE A/C 3-COM A-R005	3508	Gas	QUEEN	0.16	844.8	1965-05-17	235' 36E 10 SW NE	1980' FNL 2310' FEL CONGRESS SECTION	32,310737	-103-25158	STATE A/C 3-R011	Plugged (Site released)
3002559300	FIRE II OPERATING LLC	STATE A/C 3-COM A-R004	377.9	Gas	QUEEN	0.17	897.6	1966-02-19	235' 36E 10 NW NE	660' FNL 2310' FEL CONGRESS SECTION	32,3245669	-103-25148	STATE A/C 3-R011	Active
3002559306	Retrohawk Operating Co	STATE A/C 1-R006	3696	Oil	QUEEN	0.21	1108.8	1966-03-20	235' 36E 10	1980' FNL 1980' FWL CONGRESS SECTION	32,3107465	-103-25467	STATE A/C 3-R011	Plugged (Site released)
3002559305	FIRE II OPERATING LLC	STATE A/C 1-R031	3754	Gas	QUEEN	0.22	1161.6	1966-02-21	235' 36E 10	650' FNL 1980' FWL CONGRESS SECTION	32,3145747	-103-25457	STATE A/C 3-R011	Active
3002559309	FIRE II OPERATING LLC	STATE A/C 1-R037	3290	Gas	TANSLI / YATES	0.24	167.2	1955-02-28	235' 36E 10	990' FNL 990' FWL CONGRESS SECTION	32,3145956	-103-25787	STATE A/C 3-R011	Active
3002559309	FIRE II OPERATING LLC	STATE A/C 3-R010	3800	Injection	GRAEBURG	0.25	1320	1984-02-06	235' 36E 10	1345' FNL 1480' FEL CONGRESS SECTION	32,322,4779	-103-24879	STATE A/C 3-R011	Temporary Abandonment
3002559311	FIRE II OPERATING LLC	STATE A/C 3-R012	383.0	Injection	QUEEN	0.3	1584	1984-04-12	235' 36E 10	25' FNL 265' FEL CONGRESS SECTION	32,3265118	-103-25247	STATE A/C 3-R011	Active
3002559306	FIRE II OPERATING LLC	STATE A/C 1-R116	8400	Salt Water Disposal	AEO / SH	0.3	1584	1983-12-09	235' 36E 10	1260' FNL 131.0' FWL CONGRESS SECTION	32,322,7306	-103-25684	STATE A/C 3-R011	Active
3002559309	FIRE II OPERATING LLC	STATE A/C 3-COM A-R001	3165	Gas	TANSLI / YATES	0.37	1955.6	1955-01-08	235' 36E 10	990' FNL 990' FWL CONGRESS SECTION	32,323,4483	-103-24721	STATE A/C 3-R011	Active
3002559310	FIRE II OPERATING LLC	STATE A/C 1-R121	3800	Injection	GRAEBURG	0.4	2112	1985-02-28	235' 36E 3	25' FNL 460' FEL CONGRESS SECTION	32,322,6243	-103-24873	STATE A/C 3-R011	Active
3002559315	FIRE II OPERATING LLC	STATE A/C 1-R120	3850	Injection	QUEEN	0.42	2217.6	1984-03-27	235' 36E 10	25' FNL 1345' FWL CONGRESS SECTION	32,3262521	-103-25672	STATE A/C 3-R011	Temporary Abandonment (expired)
3002559307	Clayton Williams Energy Inc	STATE A/C 3-R005	3695	Oil	SEVEN RIVERS / QUEEN	0.45	2376	1960-07-14	235' 36E 10	1980' FNL 2310' FEL CONGRESS SECTION	32,3171061	-103-25148	STATE A/C 3-R011	Plugged (Site released)
3002559304	FIRE II OPERATING LLC	STATE A/C 3-R007	3773	Oil	GRAEBURG	0.46	2428.8	1965-04-10	235' 36E 10	1980' FNL 660' FEL CONGRESS SECTION	32,3107254	-103-24654	STATE A/C 3-R011	Active
3002558477	FIRE II OPERATING LLC	STATE A/C 3-R009	3770	Oil	GRAEBURG	0.46	2428.8	1984-01-30	235' 36E 10	660' FNL 660' FEL CONGRESS SECTION	32,3245537	-103-24614	STATE A/C 3-R011	Active
3002559303	Retrohawk Operating Co	STATE A/C 1-R008	3678	Oil	QUEEN	0.47	2481.6	1966-04-20	235' 36E 10	1980' FNL 980' FWL CONGRESS SECTION	32,317115	-103-25467	STATE A/C 3-R011	Plugged (Site released)
3002559309	FIRE II OPERATING LLC	STATE A/C 1-R035	3800	Gas	QUEEN	0.47	2481.6	1959-03-25	235' 36E 10 SW NW	1980' FNL 660' FWL CONGRESS SECTION	32,3207568	-103-25894	STATE A/C 3-R011	Active
3002559305	FIRE II OPERATING LLC	STATE A/C 1-R019	3800	Gas	QUEEN	0.47	2481.6	1959-03-27	235' 36E 10 NW NW	660' FNL 660' FWL CONGRESS SECTION	32,3124385	-103-25894	STATE A/C 3-R011	Plugged (Site released)
3002559303	FIRE II OPERATING LLC	STATE A/C 1-R038	3800	Oil	STATE A/C 1-R054	0.48	2534.6	1959-03-07	235' 36E 5 SE SW	660' FNL 1980' FWL CONGRESS SECTION	32,322,6003	-103-25468	STATE A/C 3-R011	Active
3002559302	FIRE II OPERATING LLC	STATE A/C 1-R054	3682	Gas	SEVEN RIVERS / QUEEN	0.48	2534.6	1959-08-05	235' 36E 3	710' FNL 1980' FWL CONGRESS SECTION	32,3124384	-103-25441	STATE A/C 3-R011	Active
3002559301	Chevron U.S.A. Inc.	GASEL#R001	7965	Oil	PENNYSVANIA	0.49	2587.2	1998-02-09	235' 36E 10 NE SW	1980' FNL 1718' FWL CONGRESS SECTION	32,317131	-103-25522	STATE A/C 3-R011	Plugged (Site released)

# State A A/C 1 #49

API# 30-025-09292

660 FNL 660 FWL,

Sec 10, T23S, R36E Lea Co., NM



MERIT ENERGY COMPANY

Lease & Well No.	<b>State A/A/C 1 #49</b>
Field Name	Jalmat
Location	660' FNL 660' FWL; Unit D, Sec. 10, T23S, R36E

**Well Information**

Spud: 3/16/59      Ground Elevation: \_\_\_\_\_      D.F. Elevation: 3,486'  
 Completed: \_\_\_\_\_      KB Elevation: \_\_\_\_\_      Total Depth: \_\_\_\_\_

**Pipe Data**

Surface						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
	319 ft	8 5/8"	24.0#	H-40	300 sx	Cement Circ to Surface
Production						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
	3790 ft	5-1/2"	14.0#	J-55	250 sx	TOC=2665' Temp Survey
Downhole Tubulars (Top to Bottom)						
MA,5N,115 Jts 2 3/8"						
GA, 2" x 1 1/4" x 12' RWTC, 2"x3/4",5-7/8",99-3/4",35-7/8"						

**Well History**

<u>3/29/1959</u>	Queen: Perf 3690-3710, 3722-32, 3744-48, 3760-66 w/4 spf, Stimulate with 25000 gals oil and 50,000# 20/40 sand IP: 77 BO and 21 BW FTP=675 (33.3 API Gravity)
<u>4/1/1969</u>	Install Pumping Unit
<u>2/14/1989</u>	Set Howco EZSV Retainer @ 3680'; Pump 320 sxs Class C
<u>2/16/1989</u>	Perf 7Rivers: 3461, 3536,38,50,85,87,3818,22,38; RIH with Pkr and Acidize; ISIP: 200 psi 5: 0 Frac with 31000 gals 30# XL 50,50# 12/20 24 bpm@2900 psig down tbg
<u>3/2/1989</u>	Perf 7Rivers: 3323,26,29,39,41,44,94,97,3400 // Acidize & Frac with 19000 gals XL 3200# 12/20
<u>11/22/1989</u>	Perf Yates: 3159,63,70,89,95,99,3206,28,35,54,56 / Acidize & Frac: 26 bpm @ 3200 psig 52000 gal 10000# 12/20 1-2-3-4-5 ppg / ISIP: 851 15:668 0 BO 169 MCF 21 BW
<u>12/20/1989</u>	CO to 3687" // Couple Pump Changes from 1989-1998 noting scale / Wtr analysis 24000 CL
<u>8/28/1998</u>	Tag @ 3601' / Replace bottom 12 jts, SN, MA
<u>7/15/2003</u>	Tbg Parted; Pull 35-7/8" 90-3/4" to rod body break; Pull 105 jts to 2 3/8" body break; Run 4 11/16" O.S. TOF=3238' / Could not L/O to Fish / RIH with SN, 101 jts 2 3/8" Run 84-3/4" and 35-7/8"
<u>7/16/2003</u>	Left 9-3/4" 5-7/8" 2" x 1 1/2" RWTC TOF=3238' // Left 10 jts 2 3/8" SN MJ TOF=3285'

**P/A Procedures**

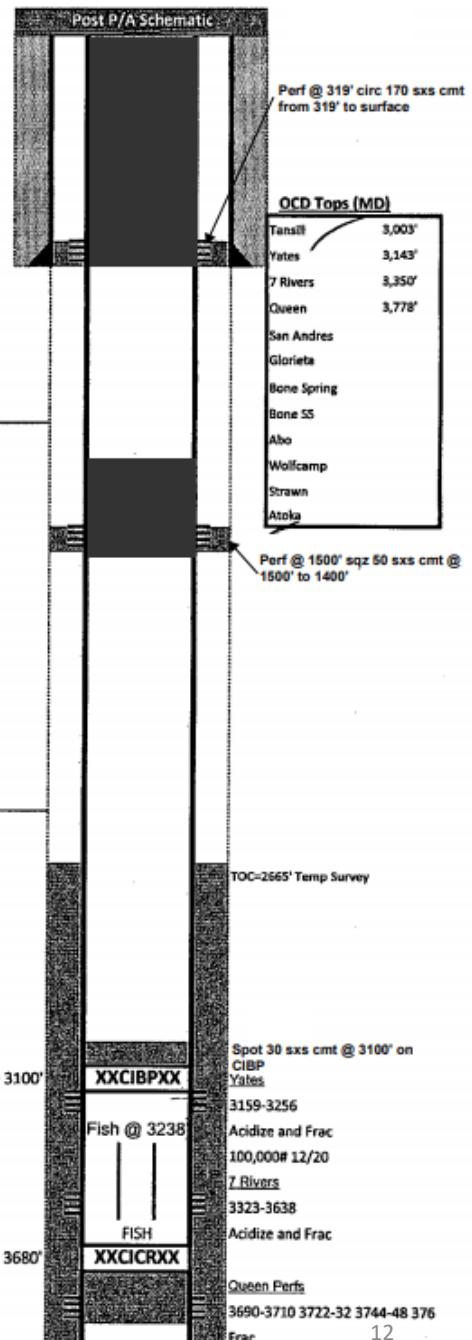
- 1 Pole Test Anchors / MIRU W/O Rig. RU H2S Equipment - Pre-job stft mtg / Disc Pwr supply Lock/out Tag/out
- 2 ND HH; RU Rod Equipment; Unseat Pump and TOH with Rods-LD Rods / ND WH, NU BOPs w/ 2 3/8" Rams and Test / Rack Back Tubing
- 3 Inspect Rods and Tubing; NU 4 3/4" Varel Bit and RIH to PBTD / TOH and Rack Back Tubing
- 4 MIRU W/L; Set CIBP @ 3100' + / Dump Ball 35' cement / RD W/L / W.O.C. / RIH and Tag Cement / Circ MLF / TOH - Rack Back Tubing
- 5 W/L Perf @ 1500' / RIH with Workstring and Squeeze with 30 sks Cement / W.O.C. / Tag Cement
- 6 W/L Perf @ 319' / Pump 50 sks Cement / RIH with 1 Jts and Circ Cemnt to surface
- 7 Cut-off wellhead below ground level; weld on 5 1/2" Steel Plate / Install P/A Marker
- 8 Clean Location / Remove Pumping Unit

**Well History Continued**

6/23/2011: Set 5-1/2" CIBP @ 3100'  
 6/24/2011: Circ hole w/ salt gel @ 3100'. Spot 30 sxs cmt @ 3100' on CIBP. Perf @ 1500' sqz 50 sxs cmt @ 1500' to 1400' woc & tag  
 6/27/2011: Tag cmt @ 1445'. Perf @ 319' circ 170 sxs cmt from 319' to surface

**VI. Exhibit C1****Wellbore Diagram**

Status	Active
County & State	Lea County, NM
API No.	30-025-09292
Pool Name	Jalmat: Tansill Yates Seven Rivers



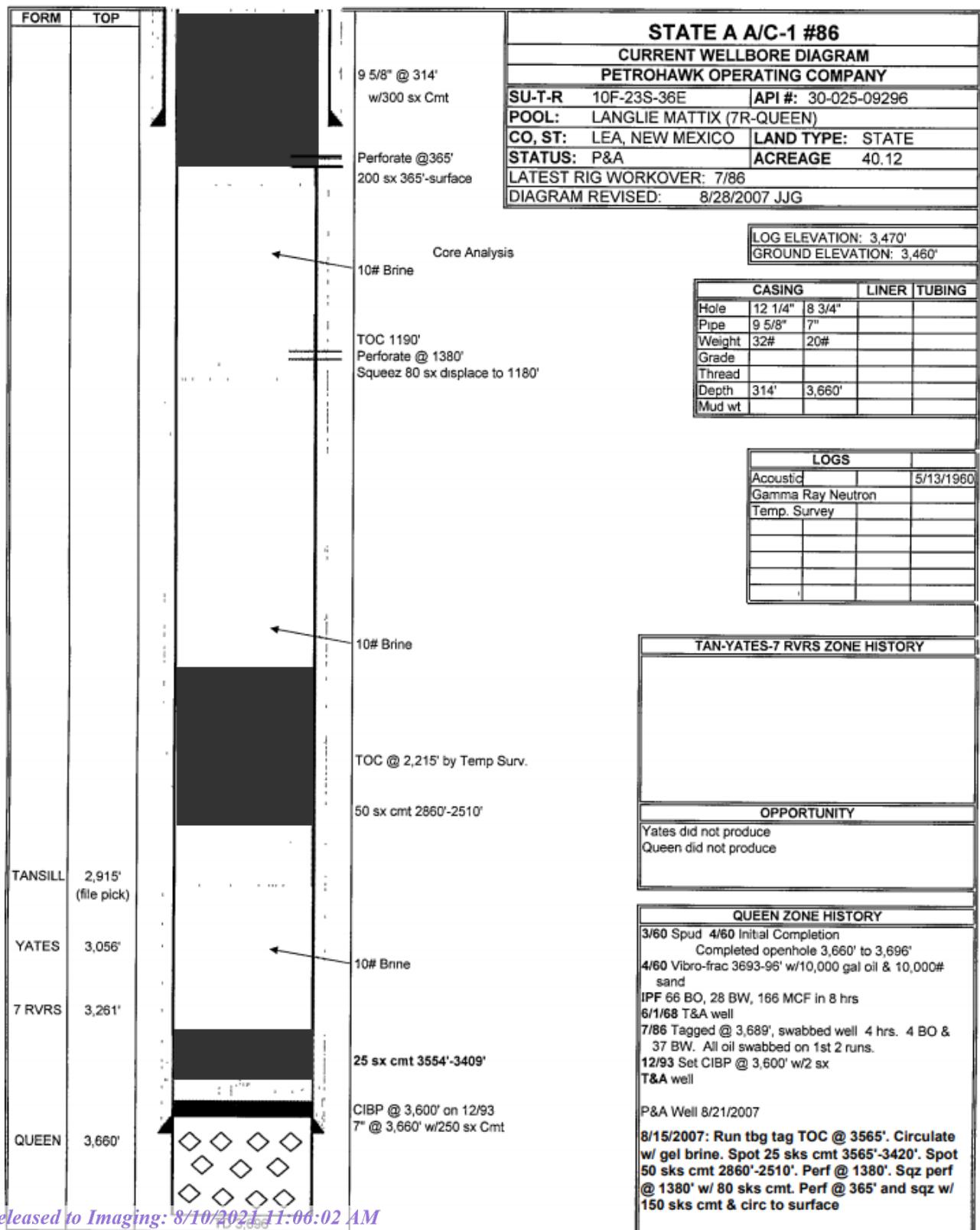
# State A A/C 1 #86

API# 30-025-09296

1980 FNL 1980 FWL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C2



# State A A/C 3 Com #005

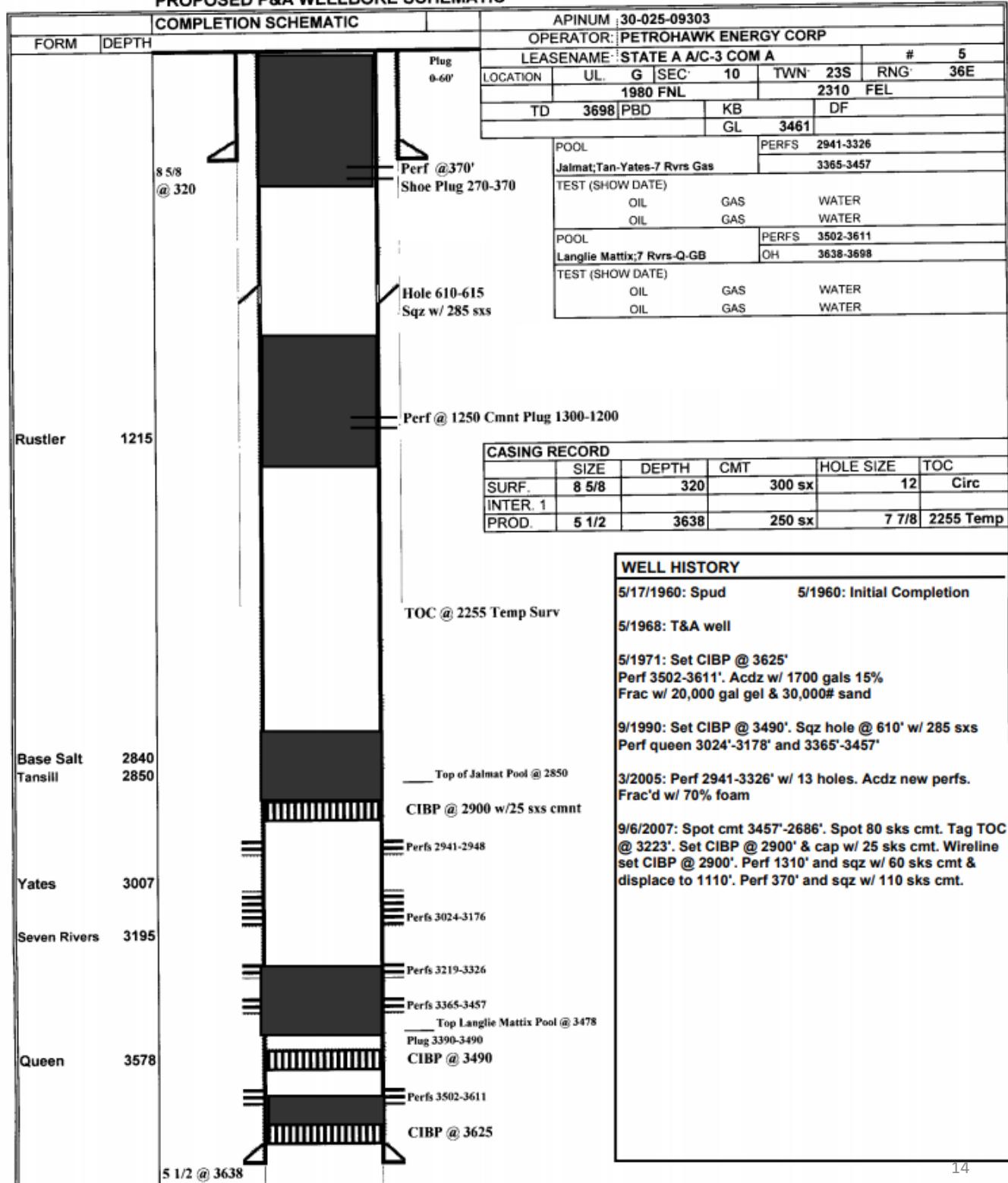
API# 30-025-09303

1980 FNL 2310 FEL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C3

### PROPOSED P&A WELLBORE SCHEMATIC



# State A A/C 1 #041

API# 30-025-09285

660 FNL 660 FEL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C4

Well Name: State A A/C 1 #41

Plantation ID Number: \_\_\_\_\_

Lease Type: STATELocation: 660 FNL, 660 FEL; Unit ASec: 9Township: 23SRange: 36ECounty: LeaState: NMAPI: 30-025-09285Formation: Jalamat; Tansill, Tates, 7 Rivers**CURRENT**Surface CsgSize: 5-5/8"

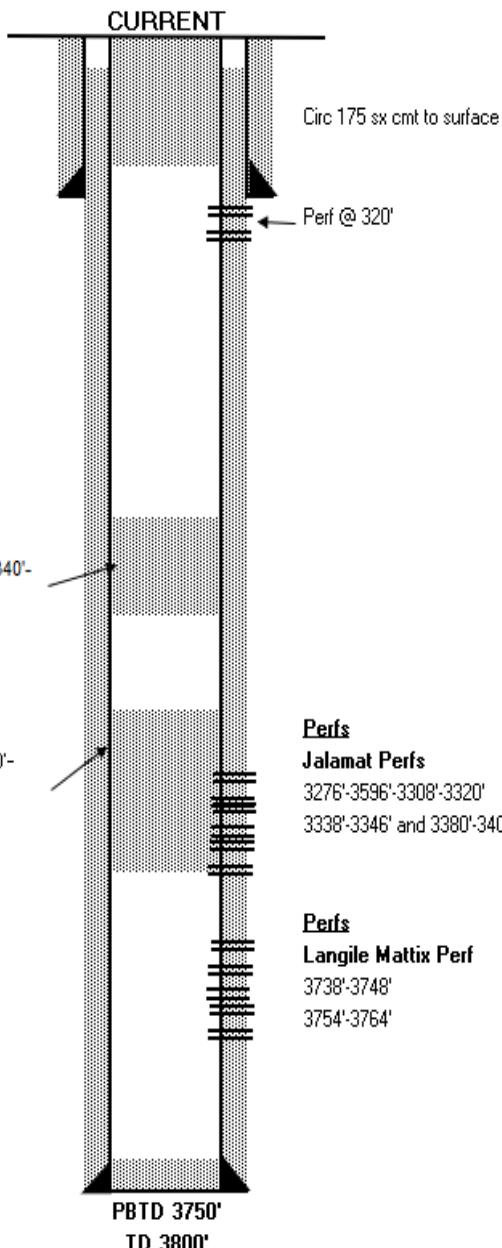
Wt.&amp;Thrd: \_\_\_\_\_

Grade: \_\_\_\_\_

Set @: 309'Sxs cmt: 300

Circ: \_\_\_\_\_

TOC: \_\_\_\_\_

Hole Size: 12-1/4"

KB: \_\_\_\_\_

DF: \_\_\_\_\_

GL: 3493'Spud Date: 11/4/1957Compl. Date: 5/31/1966History - Highlights

11/4/1957: Spud well

9/12/1994:

Spotted balanced plug from 2870'-3397' w/ 100 sx. Tagged top of plug @ 2870'. Spotted balanced plug from 2340'-2496' w/ 25 sx Class C. Perf casing at 320'. Circ cmt down 7" casing and up the 7" to 9-5/8" annulus to surface w/ 175 sx

# Gazelle #001

API# 30-025-34273  
 1980 FNL 1718 FEL,  
 Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C5

**Well Name:** Gazelle #001

**Location:** 1980 FSL 1718 FWL; Unit K. 23S-36E-10

**Lease Type:** \_\_\_\_\_ State \_\_\_\_\_

**County/State:** Lea/NM

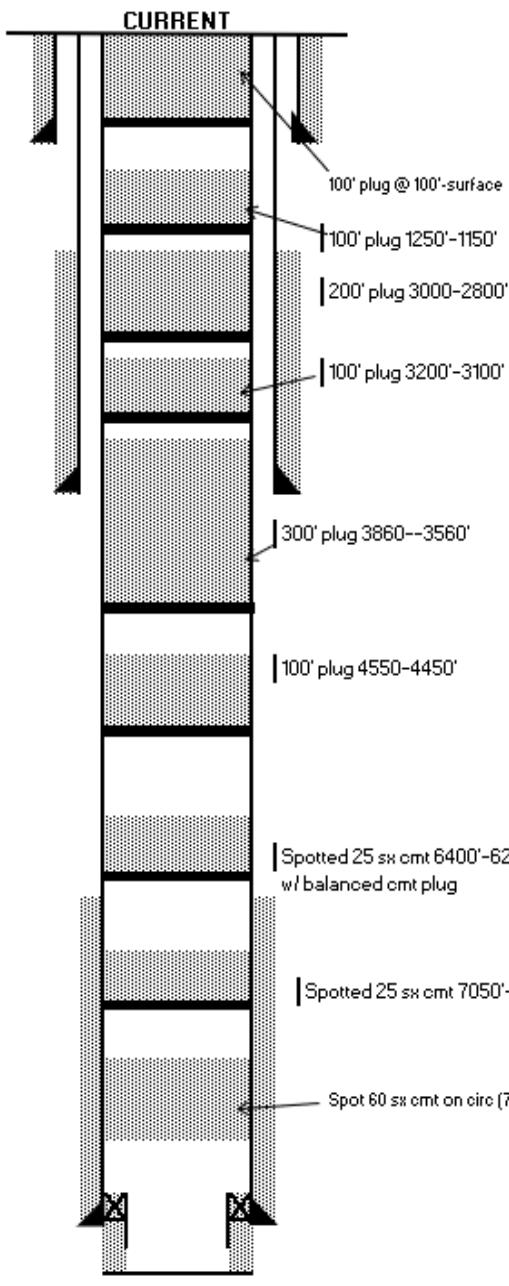
**Field/Formation:** Wildcat

**API:** 30-025-34273

**Surface C.**  
 Size: 11-3/4"  
 Wt.&Thrd: 42  
 Grade: \_\_\_\_\_  
 Set @: 400'  
 Sxs cmt: 300  
 Circ: \_\_\_\_\_  
 TOC: Surface  
 Hole Size: 14-3/4"-

**Intermediate Csg**  
 Size: 8-5/8"  
 Wt.&Thrd: 24  
 Grade: \_\_\_\_\_  
 Set @: 2950'  
 Sxs cmt: 900  
 Circ: \_\_\_\_\_  
 TOC: Surface  
 Hole Size: 11"

**Production Csg**  
 Size: 5-1/2"  
 Wt.&Thrd: 15.5  
 Grade: \_\_\_\_\_  
 Set @: 7797'  
 Sxs Cmt: 300  
 Circ: \_\_\_\_\_  
 TOC: 6000'  
 Hole Size: 7-7/8"



**KB:** \_\_\_\_\_

**DF:** \_\_\_\_\_

**GL:** 3439'

**Spud Date:** 2/9/1998

**Compl. Date:** 3/10/1998

### History - Highlights

**2/9/1998:** Spud well

**6/12/1998:**

Place 100' balanced cmt plug 7050'-6850' & 6400'-6300'  
 Set the following balanced cmt plugs: 100' plug 4550'-4450';  
 300' plug 3860'-3560'; 100' plug 3200'-3100'; 200' plug 3000'-2800';  
 100' plug 1250'-1150'; 100' plug 100'-surface

**8/10/1998 - 8/17/1998:**

POH w/ tbg. Set Circ @ 7749'. Spotted 60 sx cmt on circ (7749'-7689').  
 Spotted 25 sx cmt 7050'-6853'. Spotted 25 sx cmt 6400'-6203'.  
 Spotted 25 sx cmt 5900'-5654'. Spotted 50 sx cmt 4591'.  
 Tagged @ 4441'  
 Spotted 100 sx cmt 3860'-3560'. Spotted 35 sx cmt 3200'-3100'.  
 Spotted 75 sx cmt @ 3000'. Tagged @ 2797'  
 Spotted 30 sx cmt 1250'-1140'. Spotted 30 sx cmt 450'-340'.  
 Spotted 30 sx cmt 100' - surface.

Spotted 25 sx cmt 7050'-6853' with 100' balanced cmt plug

Spot 60 sx cmt on circ (7749'-7689')

# State A A/C 1 #56

API# 30-025-09294

1980 FSL 660 FWL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C6

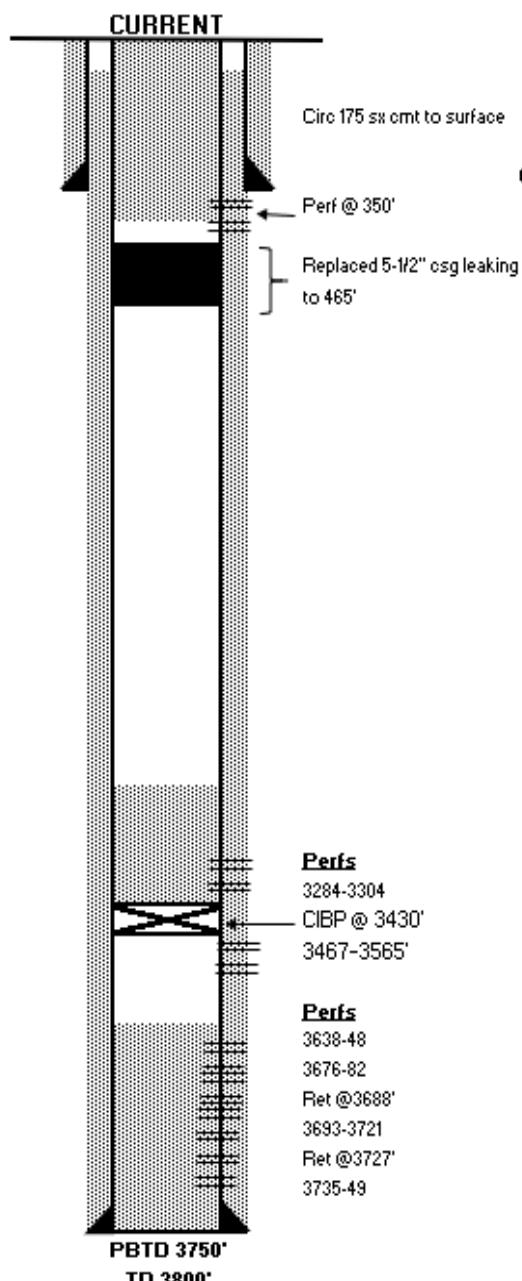
Well Name State A A/C 1 #56

Plantation ID Number: \_\_\_\_\_

Lease Type STATE

Location: 1980 FSL, 660 FWL; Unit L Sec: 10Township: 23SRange: 36ECounty: LeaState: NMFormation: Langlie MattixAPI: 30-025-09294

Surface Csg  
 Size: 8-5/8"  
 Wt.&Thrd: 24  
 Grade:  
 Set @: 340'  
 Sxs cmt: 300  
 Circ:  
 TOC: Surface  
 Hole Size: 12-1/4"



Production Csg  
 Size: 5-1/2"  
 Wt.&Thrd: 14  
 Grade:  
 Set @: 3764'  
 Sxs Cmt: 250  
 Circ:  
 TOC:  
 Hole Size: 7-7/8"

# State A A/C 1 #88

API# 30-025-09297

1980 FSL 1980 FWL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C7

FORM	TOP							
					Pump 125 sks cmt dn csg & circ cmt out surface  9 5/8" @ 320' w/300 sx Cmt  Run wireline & perf @375'	<b>STATE A A/C-1 #88</b> <b>CURRENT WELLBORE DIAGRAM</b> <b>MISSION RESOURCES</b>  <b>SU-T-R</b> 10K -23S-36E API #: 30-025-09297 <b>POOL:</b> JALMAT,TAN-YATES-7 RVRS (PRO GAS) <b>CO, ST:</b> LEA, NEW MEXICO <b>LAND TYPE:</b> STATE <b>STATUS:</b> T&A <b>ACREAGE</b> <b>LATEST RIG WORKOVER:</b>		
						LOG ELEVATION: N/R GROUND ELEVATION: 3441"		
					Well is listed on C-115 as Langlie Mattix. Actually it is in the Jalmat.	<b>CASING</b>	<b>LINER</b>	<b>TUBING</b>
					Run wireline & perf @1360'. Sqz holes @ 1360' w/65 sks cmt & displace to 1160'	Hole 12" 8-3/4" Pipe 9 5/8" 7" Weight 32# 20# Grade Thread Depth 320' 3,625' Mud wt		
					TOC @ 2,106' by Temp Surv	<b>LOGS</b>		
					Dump 35' cmt on Retainer @ 3,000' on 6/89	Gamma Neutron 5/60 Temperature Survey 4/60		
TANSILL	2,859' (file pick)				Perfs: 3016-3195', sqz 6/89 3016, 3028, 3050, 3056, 3067, 3090, 3094, 3113, 3125, 3144, 3153, 3195 CIBP @ 3,250' on 6/89	<b>TAN-YATES-7 RVRS ZONE HISTORY</b>  3/89 Recompleted from Queen. <b>Perforated</b> 3392-3568' Acidized w/1000 gal 15% Frac w/25,830 gal gel & 25,886# sand. Set RBP @ 3,250'. <b>Perforated</b> 3016-3195' Acidized w/1000 gal 15%, w/PPI tool. Frac w/85,596 gal gel & 156,000# sand. 4/89 Water analysis 5/89 Pull RBP @ 3,250'. Set RBP @ 3,135'. Pmp lstd 3016-3195' 6/89 Pull RBP @ 3,135'. Set CIBP @ 3,250'. Set retr @ 3,000'. Sqz perfs 3016-3195'. Left retr undrid Tested 0 MCFD, 460 BWPD Recompletion unsuccessful. 6/89 Fluid level shot, fluid @ 1,464' 2/90 LD rods & tbgs. 3/16/92 T&A well 3/7/1992, 3/16/97 Pressure tested casing		
YATES	3,008'				Perfs: 3392-3568'	<b>OPPORTUNITY</b>		
7 RVRS	3,213'				Retainer @ 3,606' on 3/89, sqzd OH 7" @ 3,625' w/250 sx Cmt	None seen		
QUEEN	3,607'					<b>LANGLIE MATTIX (LWR 7RVRS-QUEEN) HISTORY</b>  Spud. 4/20/60 Initial Completion 5/7/60 Completed openhole 3,625' to 3,678'. Vibro-fri SOT w/10,000 gal oil & 10,000# sand Frac Tested flowing @ 288 BOPD (Calc.)  3/89 Set retr @ 3606', sqzd OH.		

# State A A/C 1 #117

API# 30-025-28512

1930 FSL 660 FWL,

Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C8

### Wellbore Diagram

Lease & Well No.	<b>State A A/C 1 #117</b>
Field Name	Jalmat
Location	1930' FNL 660' FWL; Unit K, Sec. 03, T23S, R36E

Status	TA'd
County & State	Lea County, NM
API No.	30-025-28512
Pool Name	Jalmat: Tansill Yates Seven Rivers

#### Well Information

Spud:	3/17/1984	Ground Elevation:	3,468'	D.F. Elevation:	
Completed:	4/03/84	KB Elevation:		Total Depth:	3,830'

#### Pipe Data

Surface						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
12-1/4"	435'	8-5/8"	24.0#		275 sx	CTS
Production						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
7-7/8"	3,830'	5-1/2"	14.0#		1,300 sx	CTS

Downhole Tubulars (Top to Bottom):


#### Well History

4/3/1984	Perf 3772-96, 1 SPF, 25 holes. Acdz w/ 2500 gals 15%. Perf 3706-14, 3727-33, and 3748-58. 1 SPF, 27 holes Acdz w/ 2500 gals 15%. Perf 3652-60 and 3670-98. 1 SPF, 38 holes. Acdz w/ 3500 gals 15%.
4/10/1984	RILH w/ packer and turn to injection.
11/1/1987	Set CIBP @ 3550'. TA well.
3/20/2007	AFE in well file to recomplete Yates/7 Rivers. But Workover reports in 3/20/2008 show casing passing pressure test with CIBP at 3550'. If this is the case then the AFE work was never done.
5/28/2015	MIRU, Tag BP @ 3550' - circ hole w/ MLF. Spot 70 sxs cmt @ 3550' to 2876'
5/29/2015	Spot 25 sxs cmt @ 1300' to 1059', spot 25 sxs cmt from 506' to 265' - Tag @ 260', spot 15 sxs from 63' to surface

TA expiration expires 12/16/2013

25 sx cmt @ 1300'  
to 1059'

OCD Tops (MD)	
Tansill	2,986'
Yates	3,141'
7 Rivers	3,335'
Queen	3,747'
San Andres	
Glorieta	
Bone Spring	
Bone SS	
Abo	
Wolfcamp	
Strawn	
Atoka	

POTENTIAL Injection well for Queen waterflood?

#### Procedures

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0

PBTD	3550
Total Depth	3,830

70sx @ 3550' to 2950

CIBP @ 3550'

Queen

3652-3796 (see history for detail)

1 SPF, 90 holes total

# State A A/C 1 #35

API# 30-025-09237

1650 FSL 990 FWL,  
Sec 03, T23S, R36E Lea Co., NM

MERIT ENERGY COMPANY

Lease & Well No.	State A A/C 1 # 35
Field Name	Jalmat
Location	1650' FSL & 990' FWL; Unit L, Sec. 03, T23S, R36E

**Well Information**

Spud: 10/15/52      Ground Elevation: 3,491'      D.F. Elevation: 3,481'  
 Completed: 11/04/52      KB Elevation:      Total Depth: 3,625'

**Pipe Data**

Surface						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
12"	338'	9-5/8"	32.0#	J-55	360 sx	CTS. Circ 60sx
Production						
Hole size	Depth	Size (OD)	Weight	Grade	Sx. Cmt	Comments
8-3/4"	3,017'	7"	20.0#	J-55#	851 sx	CTS. Circ 100sx

**Downhole Tubulars (Top to Bottom):**

None.

**Well History**

10/52 Spud  
 11/52 Initial Completion. IP 5210 MCF  
 2/88 POOH w/ tbg & pkr. Left approx. 283' tailpipe fish  
 3/89 CO (besides fish) to 3,380'  
 Acidize 3,017'-3,380' w/ 1500 gal 15%  
 5/89 Frac 3,017-3,380 w/ 5,000 gal gel and 10,500# sand.  
 POP  
 Before: SI  
 After: 0 BO, 0 BW, 120 MCFFPD  
 1997 Well SI  
 9/03 Raptor submitted plan to TA well  
 6/01/2015 MIRU, Tag BP @ 2950'. Circ hole w/ MLF. Spot 25 sxs cmt from 2950'-2709'  
 Spot 25 sxs cmt from 1400' to 1255'. Spot 25 sxs cmt from 388' to 243' - Tag @ 240'. Spot 15 sxs cmt from 63' to surface RDMO

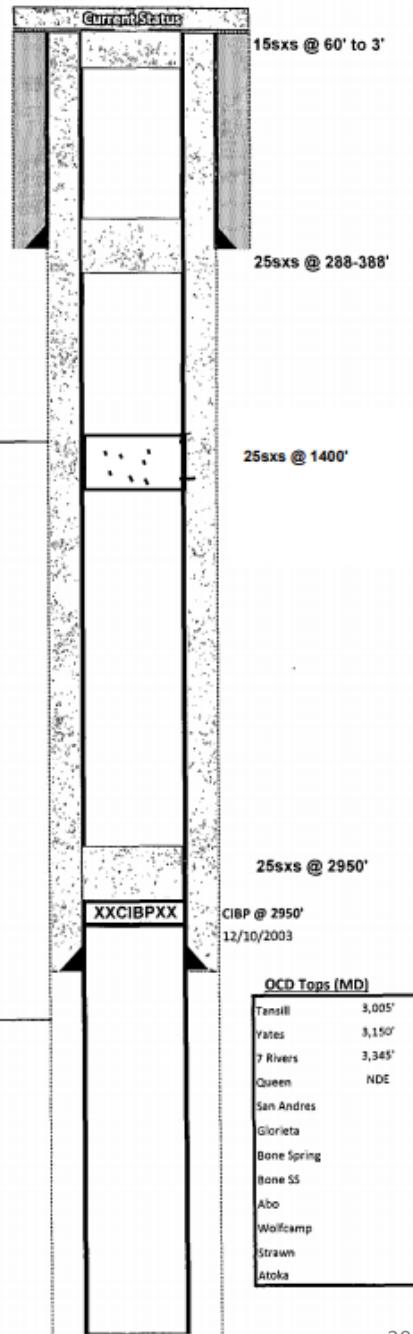
**POTENTIAL** None seen**Procedures**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

## VI. Exhibit C9

### Wellbore Diagram

Status	TA'd
County & State	Lea County, NM
API No.	30-025-09237
Pool Name	Jalmat: Tansill Yates Seven Rivers



Total Depth 3,625'

# State A A/C 1 #47

API# 30-025-09234  
1980 FSL 1980 FWL,  
Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C10

Well Name: **State A A/C 1 #47**

Plantation ID Number: \_\_\_\_\_

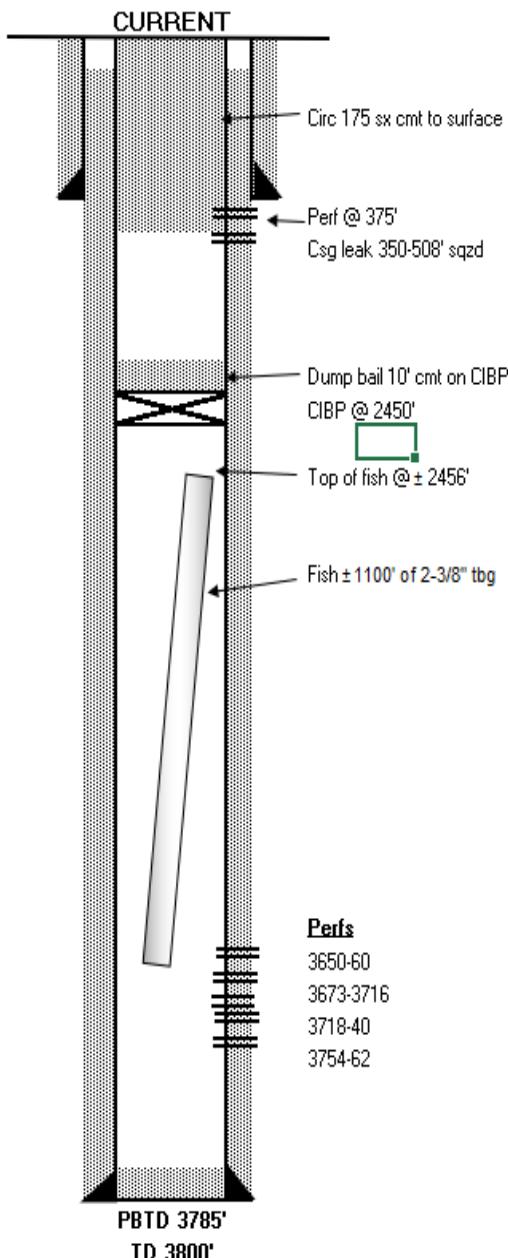
Lease Type: **STATE**Location: **1980 FSL, 1980 FWL**

Unit

K Sec:

**3**Township: **23S**Range: **36E**County: **Lea**State: **NM**API: **30-025-09234**Formation: **Langlie Mattix - SR-Qu-GB**

Surface Csg  
Size: **8-5/8"**  
Wt.&Thrd: **28**  
Grade:  
Set @: **324'**  
Sxs cmt: **300 sx**  
Circ:  
TOC:  
Hole Size: **11"**



KB: \_\_\_\_\_  
DF: \_\_\_\_\_  
GL: **3601'**  
Spud Date: **2/22/1959**  
Compl. Date: **3/4/1959**

### History - Highlights

**2/22/1959:** Spud well

**3/1959:**  
Perf 3650-60-3718-40

**3/1976:**  
Add perf 3673-3716. Acdz w/ 2000 g

**9/1990:**  
During Recompletion effort to Yates, lost 1100' of 2-3/8" tbg  
Fished for 4 days - unsuccessful  
TA well

**12/17/1992 - 12/28/1992:**  
Set CIBP @ 2450'. Dump bail 38' cmt on CIBP  
Circulated 10# gelled brine from CIBP to surface  
Perf 5-1/2" csg @ 375', 2 SPF. Unable to break circulation up annulus. Pumped  
75 sx Class C into perfs  
P&A marker

Production Csg  
Size: **5-1/2"**  
Wt.&Thrd: **14**  
Grade:  
Set @: **3799'**  
Sxs Cmt: **250sx**  
Circ:  
TOC:  
Hole Size: **7-7/8"**

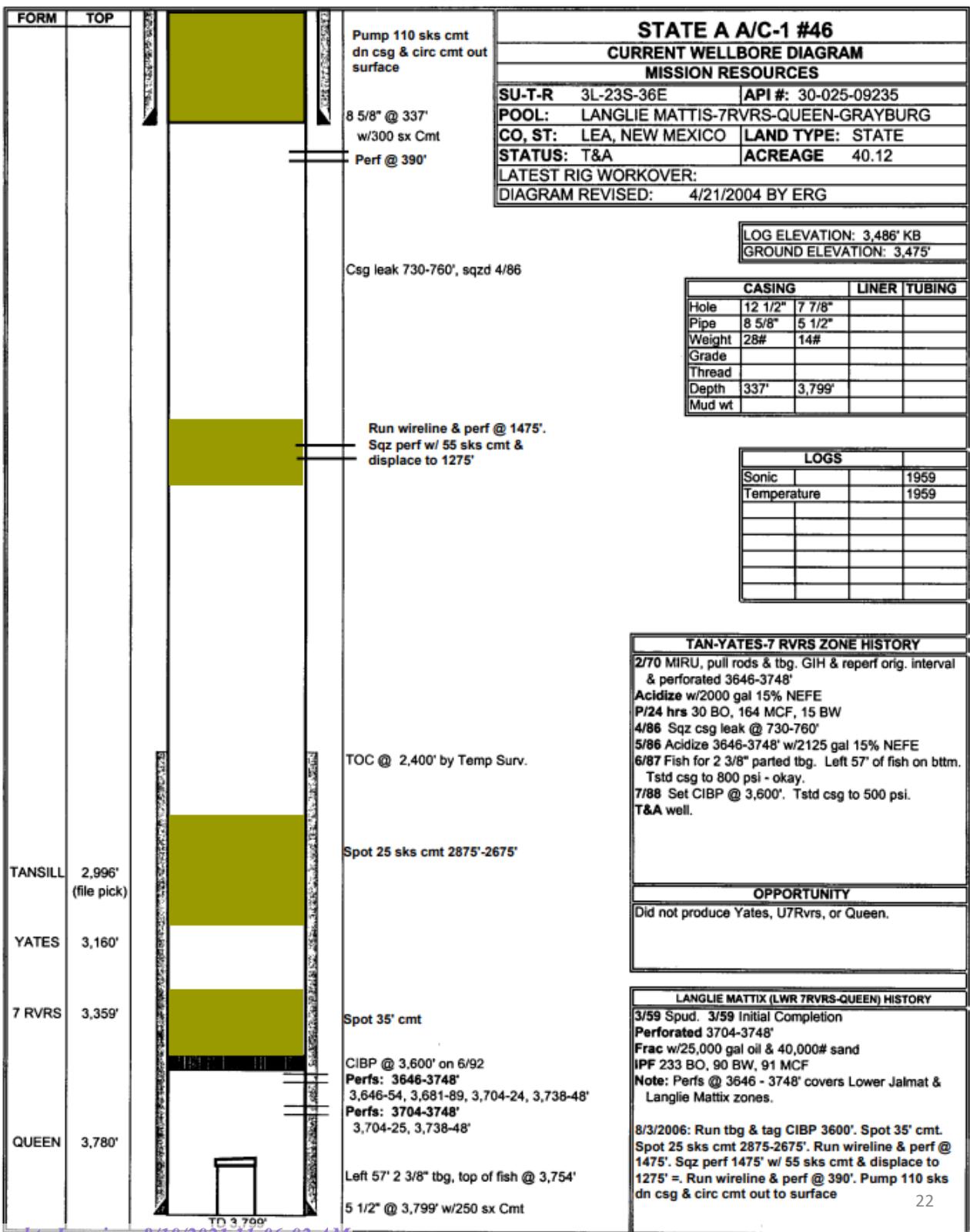
# State A A/C 1 #46

API# 30-025-09235

1980 FSL 1980 FWL,

Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C11



# Pre – Ongard #49

API# 30-025-09242

660 FWL 1980 FNL,

Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C12

Well Name Pre Ongard #49

Plantation ID Number:

Lease Type STATE

Location: 660 FWL, 1980 FNL; Unit E Sec: 3

Township: 23S

Range: 36E

County: Lea

State: NM

API: 30-025-09242

Formation: Langlie Mattix, 7 Rivers, Queen

Surface Csg

Size: 8-5/8"

Wt.&amp;Thrd: 24

Grade: J-55

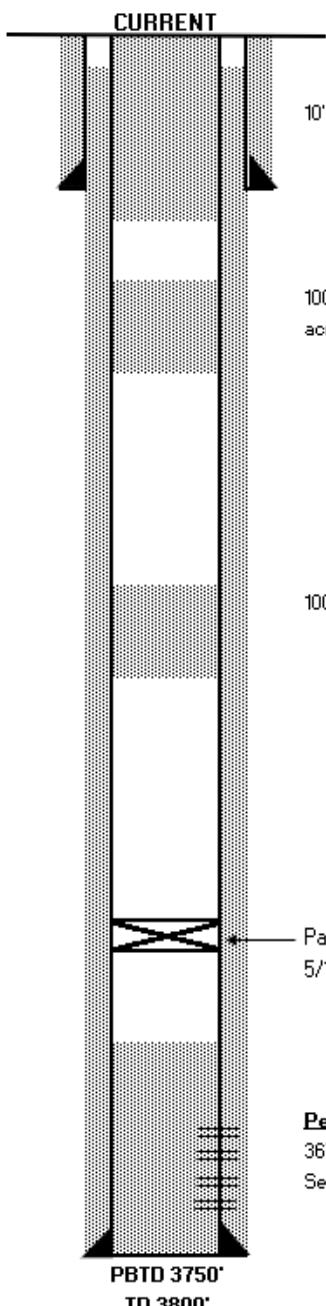
Set @: 315'

Sxs cmt: 225

Circ:

TOC: Surface

Hole Size: 12-1/4"



10' cmt plug @ surface

100' cmt plug 350'-250'  
across 8-5/8"

100' cmt plug 1350'-1450'

Packer set @ 3592' on  
5/12/1978.**Perfs**

3676-3744'

Set cmt retr @ 3498'

KB: \_\_\_\_\_

DF: \_\_\_\_\_

GL: 3483'

Spud Date: 9/21/1959

Compl. Date: 9/29/1959

**History - Highlights**

9/21/1959: Spud well

**2/1985:**

Set cmt retr @ 3498'. Cmt sqz perfs 3676-3744' &amp; corrosive csg. Pull tbg out of retr &amp; dump 35' cmt on top

Spot 100' cmt plug across top of salt 1350'-1450'.

Spot 100' cmt plug 350-250' across 8-5/8" csg shoe

Spot 10' cmt plug @ surface, cut off wellhead

Production Csg

Size: 4-1/2"

Wt.&amp;Thrd: 9.5

Grade: J-55

Set @: 3800'

Sxs Cmt: 1000

Circ:

TOC:

Hole Size: 6-3/4"

# Seven Rivers Queen #51

API# 30-025-09240

1980 FNL 1980 FEL,

Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C13

elevation: KB 3494'

**ORIGINAL OPERATOR:** Arco Oil and Gas Co.**SPUDDED:** 9/2/60**IP:** 191bopd**12 1/4" HOLE**

8 5/8" csg @ 418' Cmt'd w/300 sx to surf.

Perf @ 468' sqz 40 sx

**7 7/8" HOLE****ENA RESOURCES, INC.****SRQU # 51****LEA COUNTY, NEW MEXICO**

1980'FNL 1980' FEL Sec 3, T-23S, R-36E

API NO.:30-025-09240

**TUBING RECORD:**

2 3/8" @ 3636'

**ROD STRING RECORD:****PUMP RECORD:****PUMPING UNIT:****TREATMENT HISTORY:**

1/14/2015: Tagged CIBP @ 3530'

1/15/2015: Spot 25sx plug 3000'-2632'  
Perf w/ 4 holes, sqz 30 sx 1300'-1200' WOC and tag1/16/2015: Spot 25 sx 1350'-982' WOC & tag @ 1003'  
Perf @ 468' sqzed 40 sx into perf WOC & tag1/17/2015: Tagged plug @ 185'  
Filled 30' spot 10sx Class C cmt to surface  
Cut off & dry hole marker

Packer @ 3636'

Perforations

3652'-3755'

4 1/2" 14#csg @ 3851'

Cmt'd w/1210 sx

PBTD 3825'

TD: 3856'

# J F Janda NCT J #002

API# 30-025-09252

660 FSL 660 FEL,

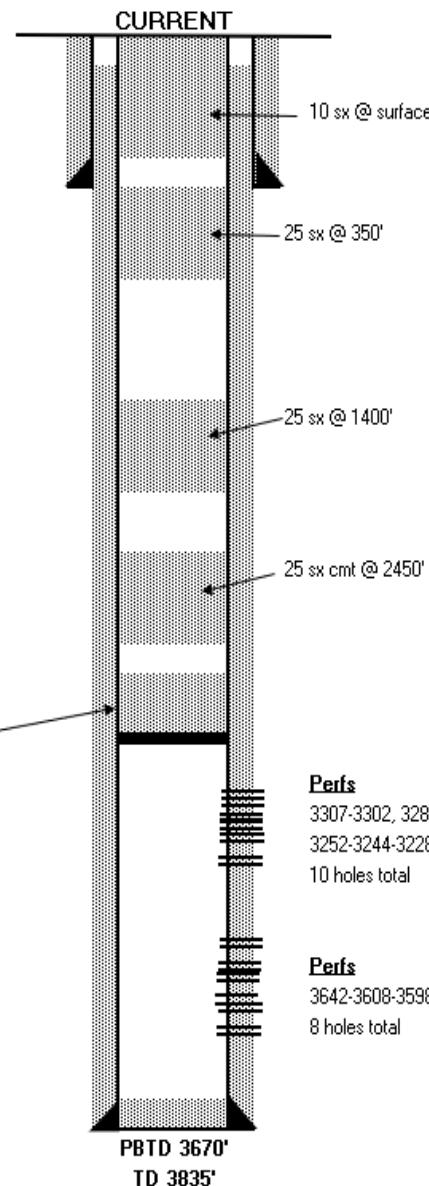
Sec 03, T23S, R36E Lea Co., NM

## VI. Exhibit C14

Well Name: **J F JANDA NCT J #002** Plantation ID Number: \_\_\_\_\_  
 Location: 660 FSL, 660 FEL; Unit P Sec: 4 Township: 23S  
 County: Lea State: NM API: 30-025-09252

Lease Type: STATE  
 Range: 36E  
 Formation: Jalamat; Tansill

Surface Csg  
 Size: 8-5/8"  
 Wt.&Thrd: 24#  
 Grade: \_\_\_\_\_  
 Set @: 427'  
 Sxs cmt: 325  
 Circ: \_\_\_\_\_  
 TOC: \_\_\_\_\_  
 Hole Size: 12-1/4"



KB: \_\_\_\_\_  
 DF: \_\_\_\_\_  
 GL: 3514'  
 Spud Date: 3/29/1957  
 Compl. Date: 4/14/1957

### History - Highlights

**3/29/1957:** Spud well

**6/21/1987:**

Perfs w/  
 4" guns w/ 1-1/8" JHPF @ 3642-3608-3598-3592-3518-34, 54-3399-3380, 8 holes total. Acdz w/ 3500 gals 15% NEFE  
 4" guns w/ 1" JHPF @ 3307-3302, 3288-3280, 3264-3252-3244-3228-3218-3210, 10 holes total. Acdz w/ 3500 gals 15% NEFE

**9/17/1997:**

TIH w/ tbg to CIBP @ 3140'. Circ hole w/ mud

**9/18/1997:**

Spot 25 sx cmt @ 2450', 25 sx @ 1400', 25 sx @ 350', and 10 sx @ surface Cmt to surface visible. Cut wellhead off.

### Perfs

3307-3302, 3288-3280, 3264-3252-3244-3228-3218-3210  
 10 holes total

### Perfs

3642-3608-3598-3592-3518-34, 54-3399-3380  
 8 holes total

Production Csg  
 Size: 5-1/2"  
 Wt.&Thrd: 14#  
 Grade: \_\_\_\_\_  
 Set @: 3835'  
 Sxs Cmt: 1250  
 Circ: \_\_\_\_\_  
 TOC: \_\_\_\_\_  
 Hole Size: 7-7/8"

# Saphire State #003

API# 30-025-36098  
 1650 FNL 330 FWL,  
 Sec 11, T23S, R36E Lea Co., NM

## VI. Exhibit C15

### Sapphire State #3

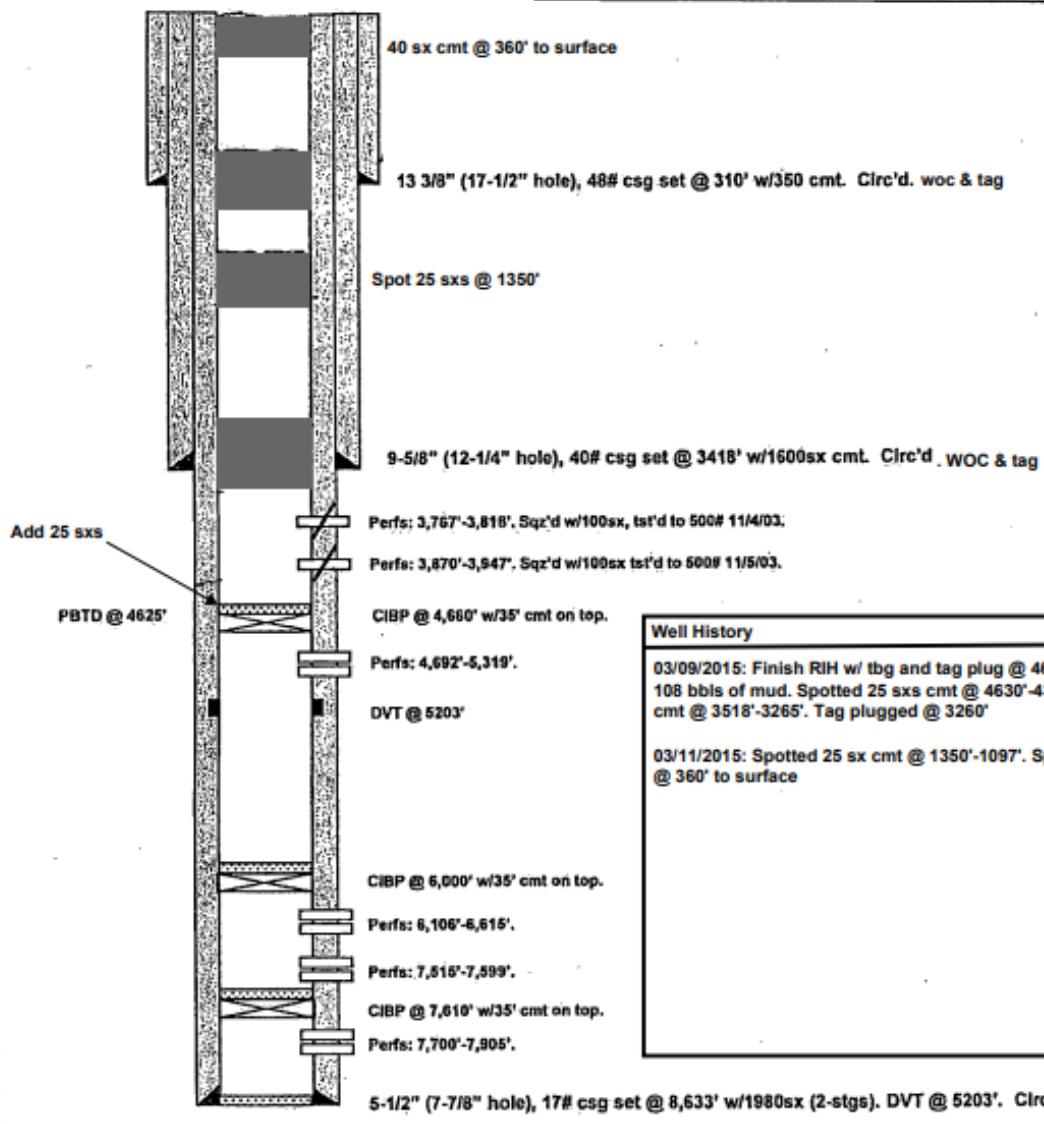
LOCATION: 1650' FNL & 330' FWL, Sec 11, T23S, R36E

FIELD: Teague Northwest  
 COUNTY: Lea  
 STATE: New Mexico

GL: 3456'  
 KB: 3469'  
 SPUD DATE: 01/18/03  
 COMPLETED: 2/13/03

LATEST UPDATE:  
 BY:  
 API No: 30-025-36098

#### PROPOSED WELLBORE SKETCH AFTER PXA



TD: 8648'

#### Well History

03/09/2015: Finish RIH w/ tbg and tag plug @ 4630'. Circ hole w/ 108 bbls of mud. Spotted 25 sxs cmt @ 4630'-4377'. Spotted 25 sxs cmt @ 3518'-3265'. Tag plugged @ 3260'

03/11/2015: Spotted 25 sx cmt @ 1350'-1097'. Spotted 40 sx cmt @ 360' to surface

# State A A/C 3#003

API# 30-025-09301

1980 FSL 660 FEL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C16

FORM	TOP		Pump 260 sks cmt dn csg & circ out to surface  13 3/8" @ 341' w/350 sx Cmt  Perf @ 385'	<b>STATE A A/C-3 #3</b> <b>CURRENT WELBORE DIAGRAM</b> <b>MISSION RESOURCES INC</b> <b>SU-T-R</b> 10I-23S-36E <b>API #:</b> 30-025-09301 <b>POOL:</b> LANGIE MATTIX-7RVRVS-QUEEN-GRAYBURG <b>CO, ST:</b> LEA, NEW MEXICO <b>LAND TYPE:</b> STATE <b>STATUS:</b> T&A <b>ACREAGE</b> 40.12 <b>LATEST RIG WORKOVER:</b> <b>DIAGRAM REVISED:</b> 4/2/2004 BY RSL		
TANSILL	2,830' (file pick)		Plugged back from 8,500' w/ 25 sx @ 8,500' 20 sx @ 7,660' 20 sx @ 6,800' 20 sx @ 6,500' 20 sx @ 5,500' 20 sx @ 4,300' 20 sx @ 3,900' CIBP @ 3,810' w/15 sx.	<b>LOG ELEVATION:</b> 3,467' KB <b>GROUND ELEVATION:</b> 3,453'		
YATES	2,950'		100 sks cmt @ perf 1410'	<b>CASING</b> <b>LINER</b> <b>TUBING</b> Hole 17 1/4" 11" Pipe 13 3/8" 8 5/8" Weight 48# 32# Grade Thread Depth 341" 3,846" Mud wt		
7 RVRVS	3,148'		Perf 2350', sqzd 7/59 w/960 sx	<b>LOGS</b> Temp Survey		
QUEEN	3,508'		TOC @ 2,450' by Temp Surv.	<b>TAN-YATES-7 RVRVS ZONE HISTORY</b> 07/28/2006: Run tbg & tag CIBP @ 3606'. Circ hole w/ 10 ppg gel. Spot 35' cmt on CIBP. Spot 60 sks cmt @ 2850'-2650'. Run wireline and perf 1410'. Squeeze perf 1410' w/ sks 100 cmt & displace to 1210'. Run wireline & perf @ 385'. Pump 260 sks cmt dn csg & circ out surface		
G-BURG	3,685' (file pick)		Spot 60 sks cmt @ 2850'-2650'	<b>OPPORTUNITY</b> 4/2/04 Yates & 7-Rvrvs not perfed.      RSL		
			Csg leak & gas entry 2,925', sqzd 7/59, TOC @ 350'	<b>LANGIE MATTIX (LWR 7RVRVS-QUEEN) HISTORY</b> 5/24/59 Spud. 7/16/59 Initial Completion 7/59 PB well 3,846-8,500' w/spot plugs. Csg leak/gas entry @ 3,925' by perf 2,350' & sqz w/approx 940 sx. (Not in OCD info). Perforated 3652-77'. Frac w/10,000 gal oil & 10,000# sand. IP 12 BO, 108 BW, 2071 MCF 8/66 POP 11/70 Dumped 500 gal acid down csg. 2/85 LD rods & tbg, T&A well 6/92 Set CIBP @ 3,603'. Tst csg to 500 psi. T&A well. 6/97 Retest csg - OK. Approval of T&A expired 7/2000 - no indication of any additional work.		
			Spot 35' cmt on CIBP  CIBP @ 3,603' on 6/92 Perfs: 3652, 3663, 3669, 3677'  PBTD 3,803' 8 5/8" @ 3,846' w/375 sx Cmt			

# State A A/C 3#006

API# 30-025-09302

1980 FSL 2310 FEL,

Sec 10, T23S, R36E Lea Co., NM

## VI. Exhibit C17

FORM	TOP		STATE A A/C-3 #6																												
		8 5/8" @ 300' w/300 sx Cmt Hole 390' circ cmt to surf.  Cmt plug 402' to surf.	<b>SU-T-R</b> 10J-23S-36E   <b>API #:</b> 30-025-09302 <b>POOL:</b> JALMAT;TAN-YATES-7 RVRS (PRO GAS) <b>CO, ST:</b> LEA, NEW MEXICO   <b>LAND TYPE:</b> STATE <b>STATUS:</b> P&A   <b>ACREAGE</b> 40.12 <b>LATEST RIG WORKOVER:</b> <b>DIAGRAM REVISED:</b> 2/2/2004 BY ERG																												
		10 ppg gelled brine Cmt plug 402' to surf.	<b>LOG ELEVATION:</b> <b>GROUND ELEVATION:</b> 3,435'																												
		Perf @ 1423'. Spot 25 sx cmt w/ 2% CaCl.  25 sx cmt @ 1482'	<b>CASING</b>   <b>LINER</b>   <b>TUBING</b> <table border="1"> <tr><td>Hole</td><td>12 1/4"</td><td>7 7/8"</td><td></td></tr> <tr><td>Pipe</td><td>8 5/8"</td><td>5 1/2"</td><td></td></tr> <tr><td>Weight</td><td>24#</td><td>14#</td><td></td></tr> <tr><td>Grade</td><td></td><td></td><td></td></tr> <tr><td>Thread</td><td></td><td></td><td></td></tr> <tr><td>Depth</td><td>300'</td><td>3,631'</td><td></td></tr> <tr><td>Mud wt</td><td></td><td></td><td></td></tr> </table>	Hole	12 1/4"	7 7/8"		Pipe	8 5/8"	5 1/2"		Weight	24#	14#		Grade				Thread				Depth	300'	3,631'		Mud wt			
Hole	12 1/4"	7 7/8"																													
Pipe	8 5/8"	5 1/2"																													
Weight	24#	14#																													
Grade																															
Thread																															
Depth	300'	3,631'																													
Mud wt																															
		TOC @ 2,140' by Temp Log	<b>LOGS</b> <table border="1"> <tr><td>Sonic</td><td></td><td>1960</td></tr> <tr><td>Electrical</td><td></td><td>1960</td></tr> <tr><td>Comp. Neutron</td><td></td><td>1990</td></tr> <tr><td>Perforating</td><td></td><td>1990</td></tr> <tr><td>Perforating</td><td></td><td>1960</td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table>	Sonic		1960	Electrical		1960	Comp. Neutron		1990	Perforating		1990	Perforating		1960													
Sonic		1960																													
Electrical		1960																													
Comp. Neutron		1990																													
Perforating		1990																													
Perforating		1960																													
		25 sx cmt @ 2900'-2660' CIBP @ 2,900' on 9/94 w/35' cmt Perfs: 2,954-3,065' (14 holes) 2,954, 60, 66, 77, 90, 97, 3,005, 07, 25, 33, 37, 55, 57, 3,065'	<b>TAN-YATES-7 RVRS ZONE HISTORY</b> 10/90 Recompleted from Queen Perforated 2,954-3,065'. Acidized w/1400 gal 15% NEFE. Frac w/55,000 gal gel & 219,000# sand. 9/94 LD lbg & rods. Set CIBP @ 2,900' w/35' cmt 12/94 P&A well 2/2007: Re plug 6/19/2009: Tag CIBP @ 2900'. Circ 10# MLF. Spot 25 sx cmt @ 2900' - 2660'. 6/22/2009: Perf @ 1432'. Spot 25 sx cmt w/ 2% CaCl @ 1482'. Spot 25 sx cmt at 1482' 6/23/2009: Tag TOC @ 1212'. Circ 40 sx cmt @ 440' to surface																												
		QUEEN 3,530'	<b>OPPORTUNITY</b> <table border="1"> <tr><td>YATES 2,954'</td><td>7 RVRS 3,146'</td></tr> </table>	YATES 2,954'	7 RVRS 3,146'																										
YATES 2,954'	7 RVRS 3,146'																														
		CIBP @ 3,420' on 10/90 Perfs: 3,456-3,602' 3,456, 66, 70, 77, 87, 92, 97, 3,508, 14, 29, 38, 46, 53, 62, 66, 72, 80, 83, 94, 3,602' CIBP @ 3,610' on 2/71 5 1/2" @ 3,631' w/250 sx Cmt  TD 3,695'	<b>LANGIE MATTIX (LWR 7RVRS-QUEEN) HISTORY</b> 8/60 Spud. 8/60 Initial Completion OH 3631-3695 8/60 Vitro-fract w/3 #3 shots 8/60 Frac OH w/10,000 gal oil & 10,000# sand. IPF 80 BO, 200 BW in 8 hrs 2/71 Perforated 3,456-3,602'. Acidized w/1750 gal NE 15%. Frac w/20,000 gal gel & 30,000# sand CIBP set @ 3,610' 6/1/68 T&A well 6/60 Squeeze hole @ 390'. Circ cmt to surf. Not completely sealed. 1/2 BPM @ 450 psi. POP 7/3/80 P/24 hrs 0 BO, 102 BW, 80 MCF 10/90 Finished squeezing leak @ 390'. Set CIBP @ 28 3420'.																												

## VII. Proposed Injection Operation

1. Average injection rate target will be ~600 bpd. Maximum injection rate will be 1000 bpd. These numbers are based off of typical injection rates in nearby Yates-Seven Rivers-Queen water floods.
2. The system will be a closed system. The injection well will not be made available for commercial disposal purposes.
3. Average injection pressure will be ~700 psi. Maximum injection pressure will be calculated relative to the depth of the highest perforation, using a factor of 0.2 psi/ft. The proposed injector will have perforation depths of approximately 3,640' and 3599' (or 728 psi and 720 psi maximum injection pressure, respectively). Pending results of a step rate test, the maximum injection pressure could potentially be increased to a factor of 0.6 psi/ft (or 2,184 psi at 3,640' and 2160 psi at 3599').
4. The water source will be produced water from nearby wells and water transfer lines.
5. Injection will be into the Seven Rivers – Queen formation, which is immediately productive in the area.

## VIII. Geologic Data

The waterflood will be injecting into the Seven Rivers – Queen reservoir. The portion that will be injected consists mainly of sandstones interbedded with dolomites and anhydrites. The reservoir quality rocks have porosities ranging from 10% to 20% and averages around 16%. Formation Tops Are:

Southern Injection Zone		
Formation	Offset Top (STATE A A/C 1#116) 30-025-28396	Contents
Alluvium	GL	Fresh Water
Rustler	1230	Anhydrite
Salado (top of salt)	1422	Salt
Tansill (base of salt)	3018	Gas, Oil, & Water
Yates	3119	Gas, Oil, & Water
Seven Rivers	3326	Gas, Oil, & Water
<i>SR-Queen Injection Interval</i>	<i>3640-4000</i>	<i>Gas, Oil, &amp; Water</i>
Queen	3740	Gas, Oil, & Water
Grayburg	4020	Gas, Oil, & Water
Total Depth	8400	

## IX. Proposed Stimulation Program

The injectors will be acidized with 5,000 gal 15% HCl for each set of perforations. Acid in the Seven Rivers – Queen formation is known to break down the perfs and cause injection at lower pressures vs perforating alone. The injectors will not be sand frac'd so there will be better vertical conformance.

## X. Logging and Test Data for Wells

The STATE A A/C 1 #116, STATE A A/C 1 #117, STATE A A/C 1 #120, STATE A A/C 3 #10, and STATE A A/C 3 #11 will be reactivated as an injector. The well logs for this well have been submitted to the NMOCD previously.

Test Data for the above mentioned wells is as follows:

### STATE A A/C 1 #116

Date: 03/01/1984

Perf Interval: 3798-3827 w/ 4" CG

3740-3786 w/ 4" CG

3666-3726 w/ 4" CG

3666-3726 w/ 4" CG

Method: Acdz w/1600 gals 15% NEFEHCL

Acdz w/ 2500 gals 15% NEFEHCL

Acdz w/ 2500 gals 15% NEFEHCL

Sqz w/ 250 sxs 11 C11, respectively

Result: Inj rate into perfs 3740-3832 @ 1BPM of water at 400 psi

### STATE A A/C 1 #117

Date: 4/3/1984

Perf Interval: 3772-3796 w/ 25 holes. 1 SPF

3706-3714 w/ 27 holes. 1 SPF

3727-3733 w/ 27 holes. 1 SPF

3748-3758 w/ 27 holes. 1 SPF

3652-3670 w/ 38 holes. 1 SPF

Method: Acdz w/2500 gals 15% NEFEHCL

Acdz w/ 2500 gals 15% NEFEHCL

Acdz w/ 2500 gals 15% NEFEHCL

Acdz w/ 3500 gals 15% NEFEHCL, respectively

Result: Inj rate into perfs 3652-3796 w/ 100 bbls lse water @ 1BPM on Vac

### STATE A A/C 1 #120

Date: 03/28/1984

Perf Interval: 3792-3798 w/ 11 holes, 1 JSPF.

3738-3791 w/ 43 holes, 1 JSPF.

3666-3724 w/ 38 holes, 1 JSPF.

Method: Acdz w/ 750 gals 15% NEFE HCL

Acdz w/ 5000 gals 15% NEFE HCL

Acdz w/ 4000 gals 15% NEFE HCL, respectively

Result: WIW, Inj rate 1 BPM on Vac

**STATE A A/C 3 #10**Date: 04/6/1984Perf Interval: 3700-3710 w/ 10 holes, 1 JSPF.

3655-3700 w/ 46 holes, 1 JSPF.

Method: Acdz w/ 1000 gals 15% NEFE HCL

Acdz w/ 4000 gals 15% NEFE HCL

2 x 1-1/2 x 16' gas lift

Result: 15 bbls oil, 166 bbls water, 10 mcf in 24 hours.**STATE A A/C 3 #11**Date: 04/6/1984Perf Interval: 3742-3754 w/ 13 holes, 1 JSPF.

3642-3718 w/ 44 holes, 1 JSPF.

Method: Acdz w/ 1000 gals 15% NEFE HCL

Acdz w/ 4500 gals 15% NEFE HCL

2 x 1-1/2 x 16' gas lift

Result: WIW, Inj. 1 BPM on Vac**XI. Chemical Analysis of Fresh Water Wells**

According to records from the Office of the State Engineer (Exhibit D1-5a) there is 1 active water wells within the 1 mile radius around the proposed STATE A A/C 1 #116, STATE A A/C 1 #117, STATE A A/C 1 #120, STATE A A/C 3 #10, and STATE A A/C 3 #11

FAE II Operating, LLC has obtained water analyses on 2 freshwater samples. The closest water sample, NE BXP Battery, is 1.42 miles from the State A A/C 1 #117, 225' (md) deep, and considered a "shallow" water supply. The second water sample, a trough 25 feet from the 7 Rivers Queen Unit #058 well, is 2.7 miles away from State A A/C 1 #117, 160' (md) deep and considered a "shallow" water supply. See Exhibits E1- E4.

**XII.** Based on the available geologic and engineering data, it has been determined that there is no evidence of open faults or any other hydrologic connection between the injection zone and shallow fresh water sources.

**XIII.** BXP OPERATING, LLC is the offset operators. Surface Owners are RRR – State and Strain King Ranch, LLC

**BXP Operating, LLC:** P.O. Box 7227  
Dallas, TX 75209

**RRR – STATE:** 4005 Roadrunner Trail, Midland, Texas 79707

**STRAIN KING RANCH, LLC:** 4119 MESCALERO DRIVE, Hobbs, NM, 88240, USA

## XI. Exhibit E1

# Imperative Water Analysis Report

**IMPERATIVE**  
CHEMICAL PARTNERS  
201 W. Wall Street, Suite 900  
Midland, TX 79701

### SYSTEM IDENTIFICATION

Company: FAE II  
Location: NE BXP Battery  
Sample Source: Pond Fresh Water  
Account Rep: Junior Garcia

Sample ID#: W-42493  
Sample Date: 07-20-2021  
Report Date: 07-29-2021

### WATER CHEMISTRY

CATIONS		ANIONS	
Calcium(as Ca)	55.50	Chloride(as Cl)	2200
Magnesium(as Mg)	28.14	Sulfate(as SO <sub>4</sub> )	40.00
Barium(as Ba)	0.0790	Dissolved CO <sub>2</sub> (as CO <sub>2</sub> )	10.00
Strontium(as Sr)	1.49	Bicarbonate(as HCO <sub>3</sub> )	100.00
Sodium(as Na)	1363	H <sub>2</sub> S (as H <sub>2</sub> S)	1.70
Potassium(as K)	7.96	Boron(as B)	0.00
Lithium(as Li)	0.0800		
Iron(as Fe)	0.00		
Manganese(as Mn)	0.00		

### PARAMETERS

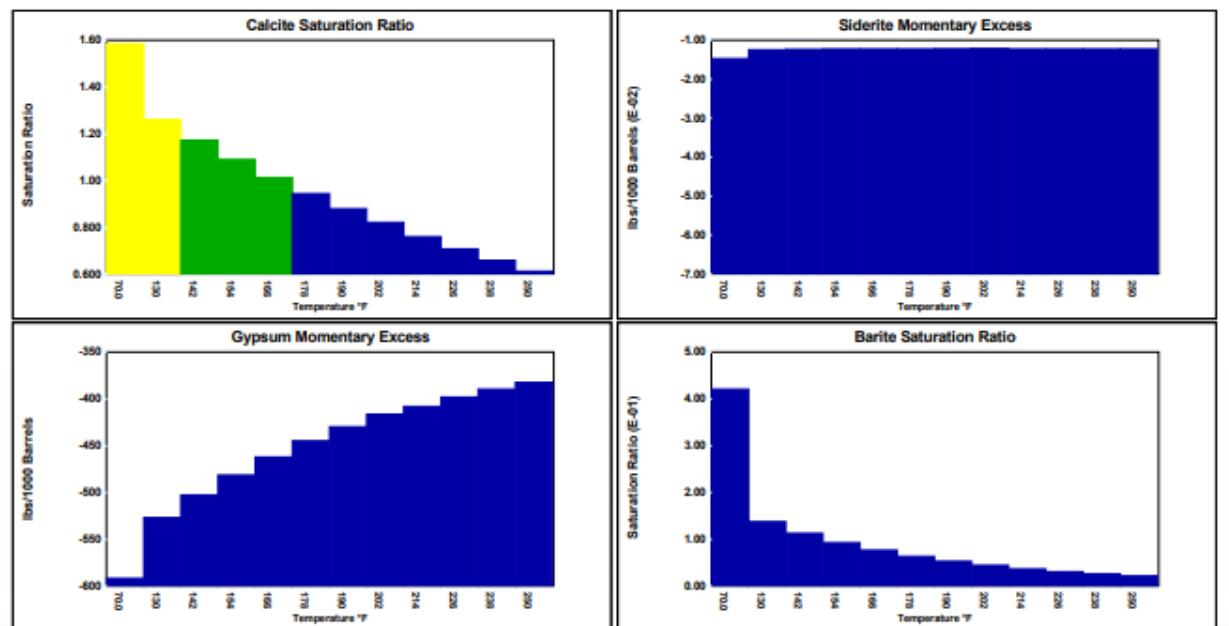
Temperature(°F)	77.00	Sample pH	8.30
Conductivity	6648	Sp.Gr.(g/mL)	1.000
Resistivity	150.42	T.D.S.	3794

### SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (atm)	Calcite CaCO <sub>3</sub>	Anhydrite CaSO <sub>4</sub>	Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O	Barite BaSO <sub>4</sub>	Celestite SrSO <sub>4</sub>	Siderite FeCO <sub>3</sub>	Mackinawite FeS	CO <sub>2</sub> (mpy)	pCO <sub>2</sub> (atm)							
70.00	1.000	1.58	0.356	0.00207	-695.36	0.00354	-592.26	0.420	-0.0644	0.00487	-61.18	0.00	-0.0148	0.00	-0.00180	0.00403	< 0.001
130.00	10.000	1.26	0.103	0.00315	-539.61	0.00413	-527.38	0.137	-0.291	0.00553	-55.45	0.00	-0.0125	0.00	-0.00684	0.0241	0.00469
142.00	19.000	1.17	0.0642	0.00362	-497.07	0.00445	-503.27	0.112	-0.366	0.00560	-54.75	0.00	-0.0124	0.00	-0.00868	0.0260	0.00892
154.00	28.000	1.09	0.0319	0.00424	-453.05	0.00476	-481.71	0.0919	-0.454	0.00564	-54.18	0.00	-0.0124	0.00	-0.0109	0.0306	0.0131
166.00	37.000	1.01	0.00406	0.00505	-408.87	0.00506	-462.45	0.0758	-0.558	0.00567	-53.72	0.00	-0.0123	0.00	-0.0136	0.0346	0.0174
178.00	46.000	0.942	-0.0188	0.00610	-365.64	0.00534	-445.30	0.0627	-0.681	0.00568	-53.37	0.00	-0.0123	0.00	-0.0169	0.0336	0.0216
190.00	55.000	0.879	-0.0383	0.00747	-324.17	0.00562	-430.08	0.0521	-0.824	0.00567	-53.14	0.00	-0.0123	0.00	-0.0206	0.0180	0.0258
202.00	64.000	0.820	-0.0550	0.00927	-285.06	0.00587	-416.66	0.0435	-0.991	0.00563	-53.03	0.00	-0.0122	0.00	-0.0251	0.0159	0.0300
214.00	73.000	0.759	-0.0728	0.0115	-250.97	0.00603	-408.47	0.0359	-1.20	0.00551	-53.51	0.00	-0.0123	0.00	-0.0305	0.0195	0.0343
226.00	82.000	0.707	-0.0867	0.0145	-217.46	0.00623	-398.46	0.0300	-1.43	0.00543	-53.67	0.00	-0.0123	0.00	-0.0365	0.0235	0.0385
238.00	91.000	0.657	-0.0997	0.0185	-186.98	0.00640	-389.88	0.0252	-1.70	0.00533	-53.96	0.00	-0.0123	0.00	-0.0434	0.0281	0.0427
250.00	100.000	0.611	-0.112	0.0239	-159.52	0.00654	-382.66	0.0211	-2.01	0.00522	-54.38	0.00	-0.0123	0.00	-0.0512	0.0321	0.0469
		Lbs per xSAT	1000	Lbs per xSAT	1000	Lbs per xSAT	1000	Lbs per xSAT	1000	Lbs per xSAT	1000	Lbs per xSAT	1000	Lbs per xSAT	1000		
		Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels	Barrels		

Saturation Ratios (xSAT) are the ratio of ion activity to solubility, e.g.  $(\text{Ca}^2+/\text{CaCO}_3)/K_{\text{sp}}$ . pCO<sub>2</sub> (atm) is the partial pressure of CO<sub>2</sub> in the gas phase.

Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



# XI. Exhibit E2



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

***Analytical Results For:***

FORTY ACRES ENERGY  
11777 KATY FREEWAY STE. 305 B  
HOUSTON TX, 77079

Project: BLACKBEARD AREA  
Project Number: FRESH WATER  
Project Manager: JAMES MARTINEZ  
Fax To:

Reported:  
03-Aug-21 14:50

**API 30025-28120 7 RIVER QUEEN UNIT #58  
H212024-03 (Water)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride*	104		4.00	mg/L	1	1080304	GM	03-Aug-21	4500-Cl-B	
TDS*	663		5.00	mg/L	1	1080213	AC	03-Aug-21	160.1	
Sulfide, total	<0.0100		0.0100	mg/L	1	1080305	AC	03-Aug-21	376.2	A-01

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Released to Imaging: 8/10/2021 11:06:02 AM

# XI. Exhibit E3



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

FORTY ACRES ENERGY  
11777 KATY FREEWAY STE. 305 B  
HOUSTON TX, 77079

Project: BLACKBEARD AREA  
Project Number: FRESH WATER  
Project Manager: JAMES MARTINEZ  
Fax To:

Reported:  
03-Aug-21 14:50

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1072912 - Filtration</b>										
<b>Blank (1072912-BLK1)</b>										
TDS	ND	5.00	mg/L							
<b>LCS (1072912-BS1)</b>										
TDS	541	mg/L		500		108	80-120			
<b>Duplicate (1072912-DUP1)</b>										
TDS	332000	5.00	mg/L		340000			2.61	20	
<b>Batch 1080213 - Filtration</b>										
<b>Blank (1080213-BLK1)</b>										
TDS	ND	5.00	mg/L							
<b>LCS (1080213-BS1)</b>										
TDS	542	mg/L		500		108	80-120			
<b>Duplicate (1080213-DUP1)</b>										
TDS	807	5.00	mg/L		789			2.26	20	
<b>Batch 1080304 - General Prep - Wet Chem</b>										
<b>Blank (1080304-BLK1)</b>										
Chloride	ND	4.00	mg/L							
<b>LCS (1080304-BS1)</b>										
Chloride	104	4.00	mg/L	100		104	80-120			

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damage. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated theories or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

# XI. Exhibit E4



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

***Analytical Results For:***

FORTY ACRES ENERGY  
11777 KATY FREEWAY STE. 305 B  
HOUSTON TX, 77079

Project: BLACKBEARD AREA  
Project Number: FRESH WATER  
Project Manager: JAMES MARTINEZ  
Fax To:

Reported:  
03-Aug-21 14:50

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	--------	-----	-----------	-------

**Batch 1080304 - General Prep - Wet Chem**

**LCS Dup (1080304-BSD1)** Prepared & Analyzed: 03-Aug-21

Chloride	104	4.00	mg/L	100	104	80-120	0.00	20
----------	-----	------	------	-----	-----	--------	------	----

**Batch 1080305 - General Prep - Wet Chem**

**Blank (1080305-BLK1)** Prepared & Analyzed: 03-Aug-21

Sulfide, total	ND	0.0100	mg/L					
----------------	----	--------	------	--	--	--	--	--

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors, arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Eloey D. Trujillo*



















