

DATE IN 1/13	SUSPENSE	ENGINEER WJ	LOGGED IN	TYPE SD	APPROVED WJ
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

*Legend Natural Gas III, L.P.
 State GP Com #1*

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

7/25S/28E/EDX

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

*Protested
 BX
 New BOURNE
 2/13/13
 with you
 2/22/13*

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Jennifer Mosley Jennifer Mosley Regulatory Analyst 01/08/2013
 Print or Type Name Signature Title Date
jmosley@nrc2.com
 e-mail Address



January 8, 2013

New Mexico Oil Conservation Division
Attn: William V. Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Application for Authorization to Inject
State GQ Com No. 1
Sect. 7, Township 25S, Range 28E
1980 FSL, 1980 FEL Unit J
Eddy County, New Mexico

Mr. Jones:

Legend Natural Gas III, LP respectfully requests administrative approval or authorization to inject for the State GQ Com No. 1 well as referenced above. Attached for your review is a copy of the C-108 application. Once we receive the newspaper publication, I will send you a copy.

If there are any questions regarding the paperwork please call me at (817)872-7822.

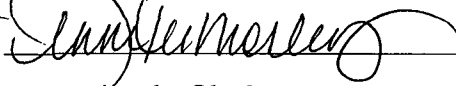
If you have questions for the engineer please call Kemper Williams at (281)644-5947.

Sincerely,

Jennifer Mosley
Regulatory Compliance Analyst
Legend Natual Gas III, LC
Office: (817)872-7822
Fax: (817)872-7898

RECEIVED OGD
2013 JAN 11 P 4:19

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance ☒ Disposal _____ Storage
Application qualifies for administrative approval? ☒ Yes _____ No
- II. OPERATOR: Legend Natural Gas III, LP
ADDRESS: 15021 Katy Freeway, Ste. 200, Houston, TX 77494
CONTACT PARTY: Kemper Williams PHONE: (281)644-5947
- 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 underlying 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: Jennifer Mosley TITLE: Regulatory Analyst
SIGNATURE:  DATE: 01/08/2013
E-MAIL ADDRESS: jmosley@lng2.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: _____

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.

C-108 Application for Authorization to Inject
Legend Natural Gas III, LP
State GQ Com No. 1
API 30-015-22894
1980' FSL & 1980' FEL (Unit J)
Section 7, T-25S, R-28E
Eddy County, New Mexico

- I. The purpose of this application is to request approval to convert the existing State GQ Com No. 1 to a Salt Water Disposal into the Delaware formation from ~~5000'~~ 5500'. 4500' 1
- II. Legend Natural Gas III, LP
15021 Katy Freeway, Suite 200
Houston, TX 77494
Contact Party: Kemper Williams (281)644-5947
- III. Injection well data sheet and wellbore schematic diagram attached
- IV. This is not an expansion of an existing project
- V. Map is attached showing wells within the ½ mile "Area of Review"
- VI. Wells within the ½ mile radius "Area of Review" that penetrate the proposed injection zone include :
1. State GQ Com No. 2 (API 30-015-35868, operated by Legend Natural Gas III, LP) all data has been filed with the ENMRD 09/04.
- VII.
1. The proposed average daily injection rate is approximately 3,000 BWPD. The maximum rate will be approximately 5,000 BWPD. If the average or maximum rate increases in the future the Division will be notified.
 2. This is a closed loop system.
 3. Proposed maximum injection pressure is 820 psig (0.2 psi/ft x 4100'). OK
 4. Source of injected water will be from Bone Spring formation. No compatibility problems are expected. Analyses of Delaware and Bone Spring formations are attached. OK
- VIII. The injection zone is the Delaware composed of Sandstone from 4,080'-5,550'. Any underground water sources will be shallower than 100' based on State Engineers records.
- IX. The Delaware injection interval will be acidized with approximately 10,000 gal 7-1/2% NEFE acid and frac with approximately 250,000 lbs. of sand.
- X. Logs for this well have been submitted to the ENMRD.
- XI. There are no fresh water wells located within one-mile of the injection well.
- XII. Affirmative Statement is attached
- XIII. Proof of Notice is attached

III.

WELL DATA

INJECTION WELL DATA SHEET

OPERATOR: Legend Natural Gas III, LP

WELL NAME & NUMBER: State GQ Com No. 1

WELL LOCATION: 1980 FSL 1980 FEL J 7 25S 28E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 20" Casing Size: 16"

Cemented with: 500 sx. or ft³

Top of Cement: Surface Method Determined: Circulate

Intermediate Casing

Hole Size: 14 3/4" Casing Size: 10 3/4"

Cemented with: 2400 sx. or ft³

Top of Cement: Surface Method Determined: Circulate

Production Casing

Hole Size: 9 1/2" Casing Size: 7 5/8"

Cemented with: 2100 sx. or ft³

Top of Cement: Surface Method Determined: Circulate

Total Depth: 12930'
 4 1/2" liner from 8642'-12930'; cemented
 with 490 sxs, TOC 9090' CBL

Injection Interval

4100 feet to 5500 (Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 3 1/2" Lining Material: plastic

Type of Packer: AS1X

Packer Setting Depth: +/- 4050'

Other Type of Tubing/Casing Seal (if applicable):

Additional Data

1. Is this a new well drilled for injection? Yes X No

If no, for what purpose was the well originally drilled? Gas Well

2. Name of the Injection Formation: Delaware

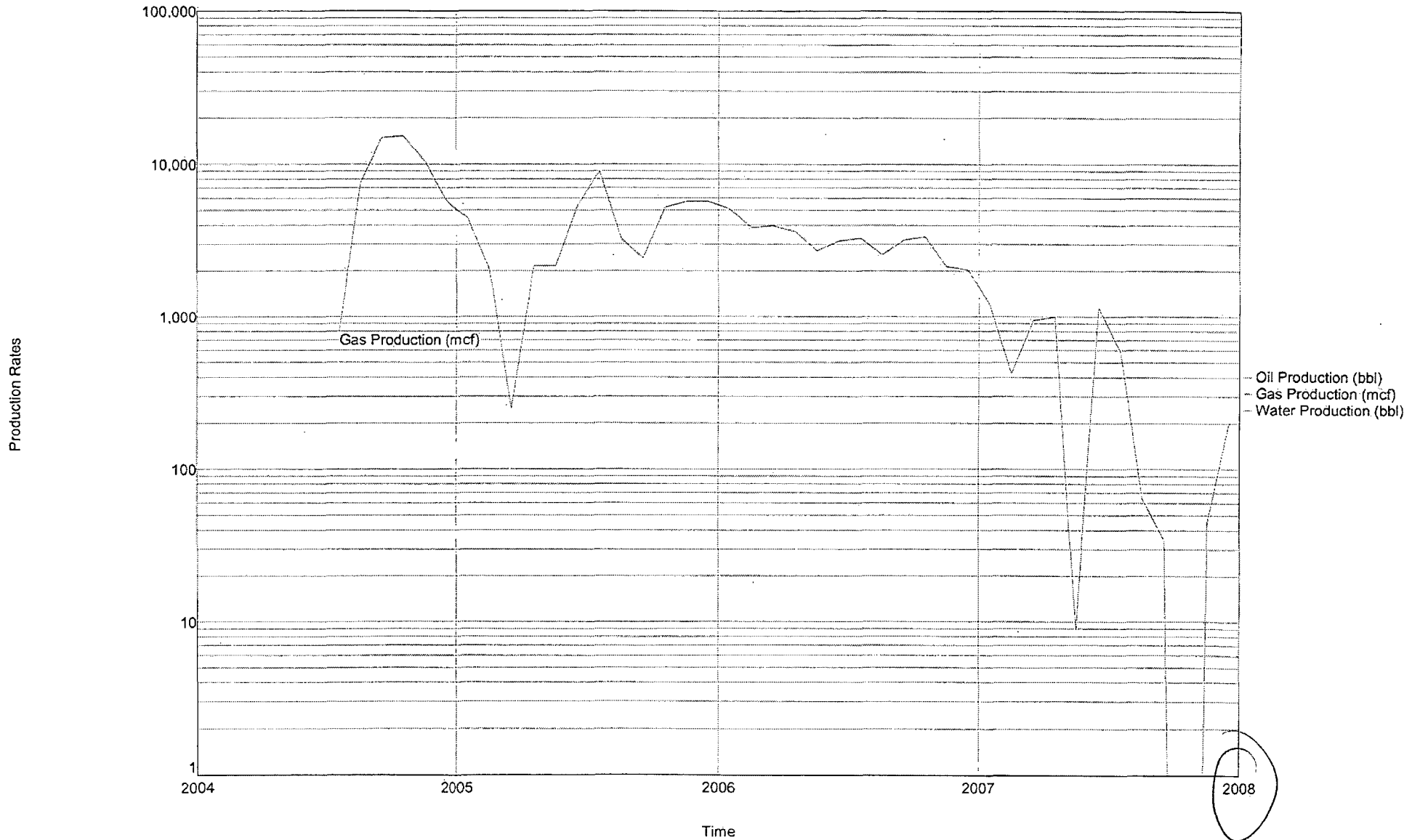
3. Name of Field or Pool (if applicable): Black River

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 12544'-64' (CIBP 11,100'), 10330'-10346', 10660'-10702' (CIBP 7990 w/10'cement) 6720'-60', 6770'-90', 6800'-20'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: 12544'-64' (Morrow),
10330'-10346', 10660'-10702' (Wolfcamp),
6720'-60', 6770'-90', 6800'-20' (Bone Springs)

Lease Name: STATE GQ COM
County, State: EDDY, NM
Operator: LEGEND NATURAL GAS III LP
Field: SALT DRAW WEST
Reservoir: MORROW
Location: 7 25S 28E C NW SE

STATE GQ COM - SALT DRAW WEST



NO. OF COPIES RECEIVED	3
DISTRIBUTION	
SANTA FE	1
FILE	1
U.S.G.S.	
LAND OFFICE	
OPERATOR	1

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

<p>SUNDRY NOTICES AND REPORTS ON WELLS</p> <p>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. SEE APPLICATION FOR PERMIT, FORM C-101 FOR SUCH PROPOSALS.)</p>		<p>5a. Indicate Type of Lease</p> <p>State <input checked="" type="checkbox"/> Fee <input type="checkbox"/></p>
<p>1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/></p>		<p>3. State Oil & Gas Lease No.</p> <p>L-3536</p>
<p>2. Name of Operator</p> <p>Amoco Production Company</p>		<p>7. Unit Agreement Name</p>
<p>3. Address of Operator</p> <p>P.O. Box 68, Hobbs NM 88240</p>		<p>8. Farm or Lease Name</p> <p>State "GO" Com</p>
<p>4. Location of Well</p> <p>UNIT LETTER J 1980' FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 7 TOWNSHIP 25-S RANGE 28-E N.M.P.M.</p>		<p>9. Well No.</p> <p>1</p>
<p>15. Elevation (Show whether DF, RT, GK, etc.)</p> <p>3089.2 RDB</p>		<p>10. Field and Pool, or Wildcat</p> <p>Wildcat Morrow</p>
		<p>11. County</p> <p>Eddy</p>

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
WELL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Description of Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Drilled to a TD of 9274' and ran 7 5/8" 33.7# & 39# S95 casing set at 9273'. Cemented with 1500 SX TLW cement with 1/4# Flocele per SX and .75% CFRZ and 200 SX Class H cement with .75% CFRZ and 5% KCL. Plug down 3:00 PM 5-10-79. WOC 18 hrs. Tested casing with 1500# for 30 min. Test OK. Reduced hole to 6 1/2" and resumed drilling.

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

SIGNED Lay Cox TITLE Admin. Supv. DATE 6-19-79

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JUN 25 1979

CONDITIONS OF APPROVAL, IF ANY:

0 + 4 NMOCD - A 1-Hov 1-BD 1-Susp 1-Pecos Irrigation 1-Southland Royalty Co.

INSTRUCTIONS

This form is to be filed with the nearest District Office of the Commission not later than 15 days after the completion of any newly-drilled or reopened well. It shall be accompanied by one copy of all electrical and log data taken from the well on termination of all reported tests conducted, including full open bottom. All data for this report shall be measured by the owner of the well. In the case of an electrically drilled well, the vertical depth shall also be reported. For double completion wells, the formation shall be reported for each zone. This form is to be filed in quadruplicate except on state rock, where six copies are required. See Rule 11.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn 11,560'	T. Kirtland Frontland _____	T. Penn. "C" _____
T. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Miccos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Quartz _____
T. Glorieta _____	T. McKee _____	T. Base Greenhorn _____	T. Granite _____
T. Padlock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blanchry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abu _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp 9314'	T. M. Morrow 12,612'	T. Chinle _____	T. _____
T. Penn. _____	T. C. Morrow 12,960'	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. Morrow 12,350'	T. Penn. "A" _____	T. _____
	T. Barnett 13,240'		

No. 1, from None to _____ No. 4, from _____ to _____
 No. 2, from _____ to _____ No. 5, from _____ to _____
 No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to _____ feet.
 No. 2, from _____ to _____ feet.
 No. 3, from _____ to _____ feet.
 No. 4, from _____ to _____ feet.

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	530'	530'	Surface				
530'	1767'	1237'	Lime-Anhy				
1767'	2421'	654'	Salt-Anhy				
2421'	2545'	124'	Anhy				
2545'	3623'	1078'	Sand & Lime				
3623'	12417'	8794'	Lime-Shale				
12,417'	12588'	171'	Lime-Chert				
12,588'	13290'	702'	Lime-Shale-Sandstone				

**Legend Natural Gas III, LP
State GQ Com #1
30-015-22894
Black River Field
Eddy County, New Mexico**

Current Information

Total Depth: 12,930'

Plug Back Total Depth: 7,980' (CIBP at 7,990' + 10' cmt)

Surface Casing: 16", 84#, K-55, csg @ 413' w/ 500 sx cmt

Intermediate Casing: 10-3/4", 40.5#, J-55 csg @ 2,419' w/ 2,400 sx cmt

Production Casing: 7-5/8", 33.7/39#, P-110 LT&C csg @ 9,273' w/ 2,100 sx cmt

Production Liner: 4-1/2", 13.5#, P-110 liner 8,642'-12,930' w/ 490 sx cmt

Production BHA: 2-7/8", 7.9#, P-110 tbg, EOT 6,790'

Producing Perforations: 6,720' – 6,760', 6,770' – 6,790', 6,800' – 6,820' (2 spf)

Perforations below CIBP: fr/10,330' – 46', 10,660'-702', 12,544' – 64'

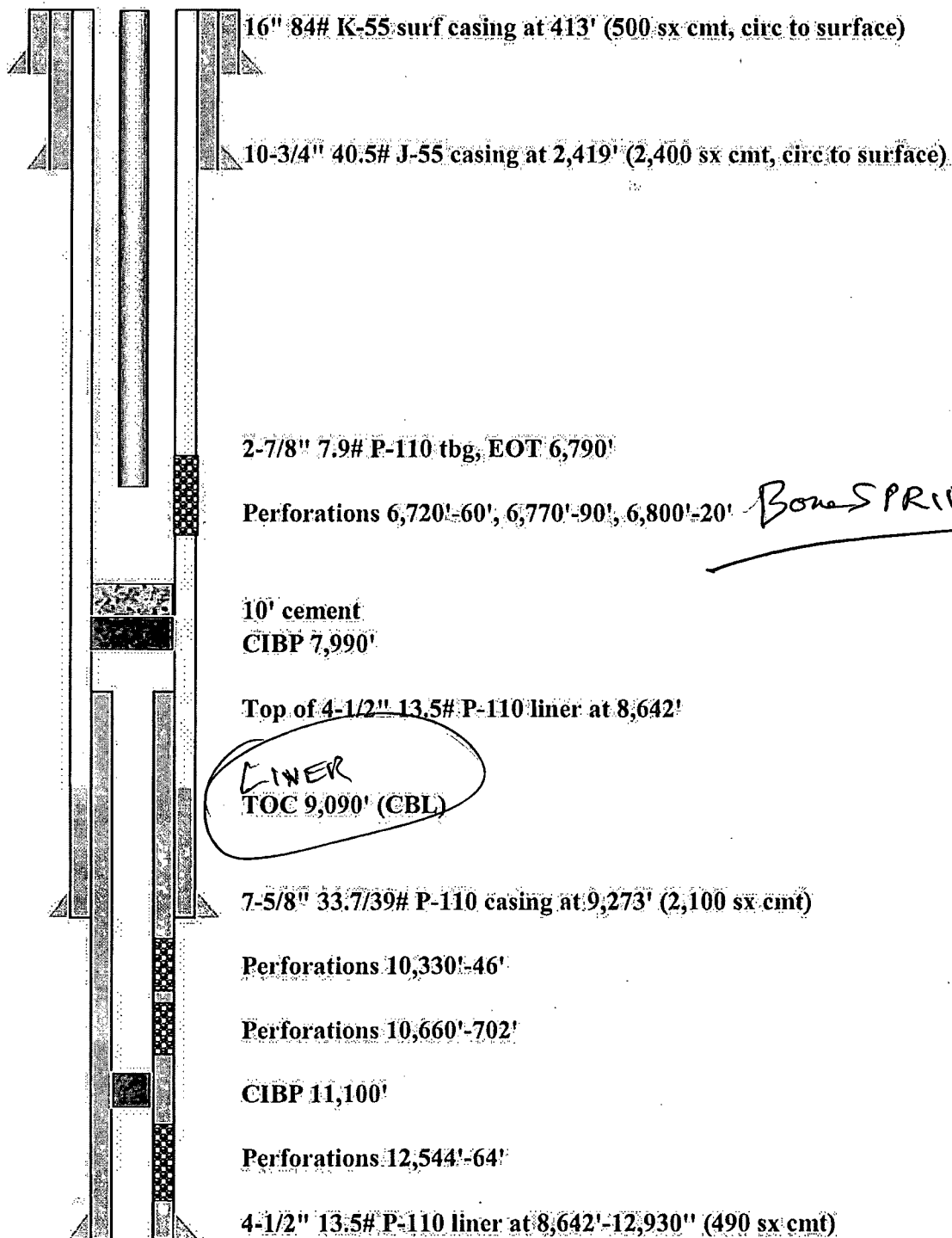
Workover Procedure to conversion to SWD well

1. MIRU WOR. ND WH, NU BOP.
2. POOH 2-7/8" tbg
3. MIRU EL. RIH w/ Cement Bond log from 6600' to surface. RDMO EL.
4. If CBL shows that cement coverage is not at least up to 3,900', then perforations and cement squeezing must be performed to ensure correct casing cement coverage.
5. RIH w/ EL and set CIBP at 6,500'. POH and dump 10' cement on CIBP. RDMO EL.
6. Once cement is cured RIH w/ tbg/pkr and pressure test cement plug to 500 psig. Pump 7% KCL to down casing to test. If no leaks, release packer and POH.
7. MIRU EL and RIH w/ casing gun and perforate from 4,100' – 5,500, 6 spf. RDMO EL.
8. Acidize with approximately 10,000 gal 7-1/2% NEFE acid.
9. Swab test and Step rate test to determine if frac is necessary.
10. Frac with approximately 250,000 lbs of sand if necessary. Clean out wellbore after frac.
11. RIH w/packer and 3-1/2" lined tubing and set packer at +/- 4,050'.

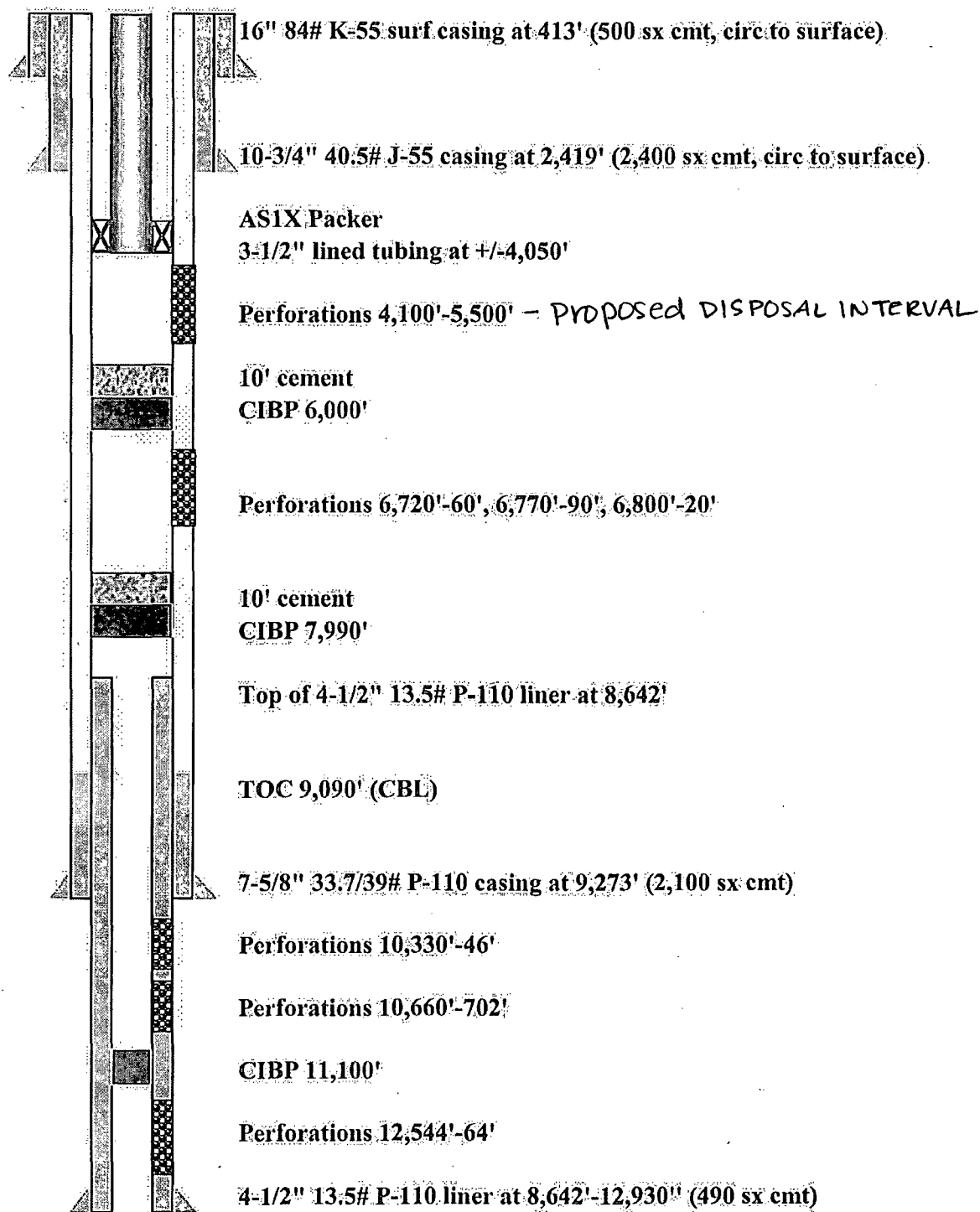
12. ND BOP, NU WH. RDMO WOR.

13. Setup well for salt water disposal.

State GQ Com #1 current wellbore diagram
(API 30-015-22894)

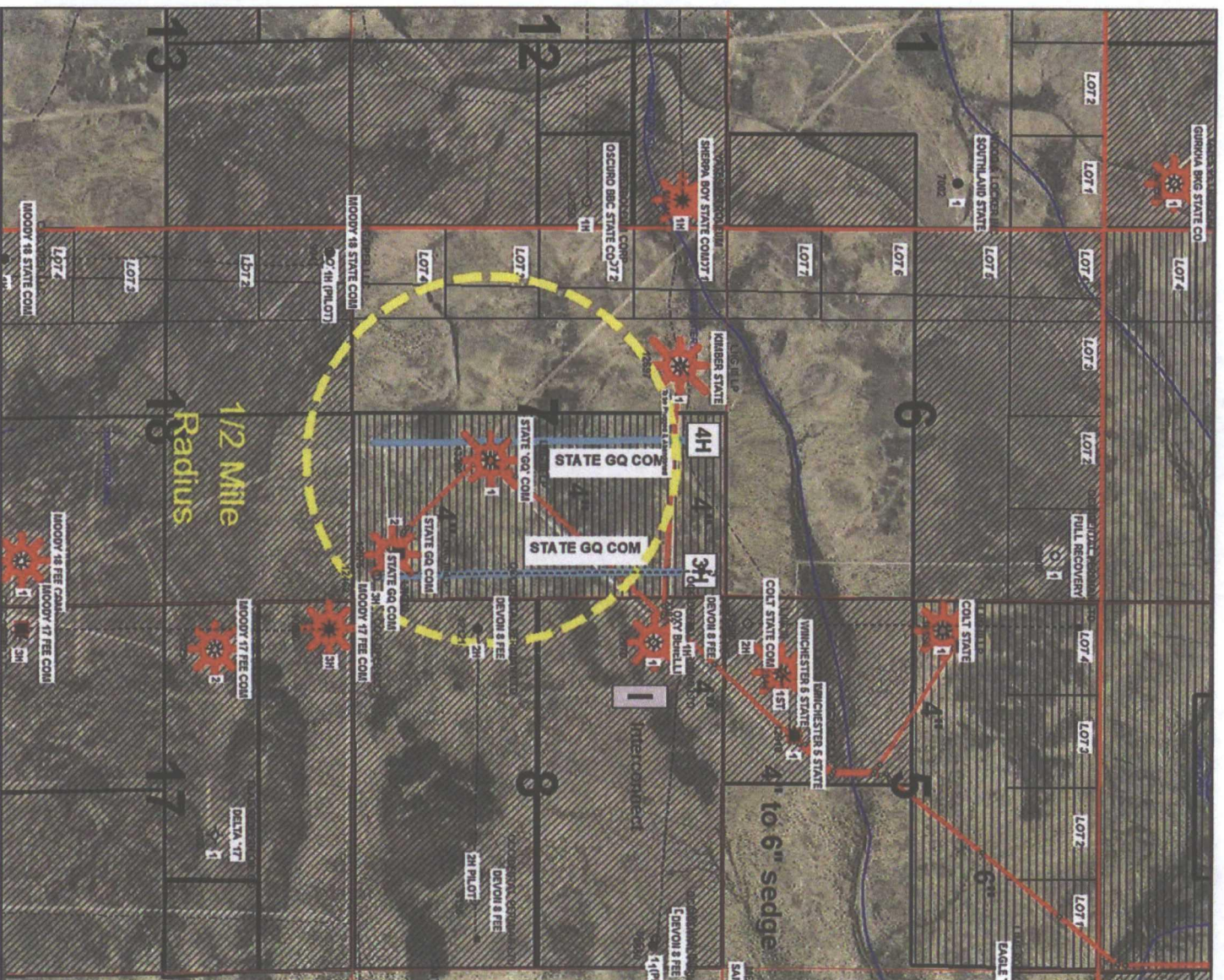


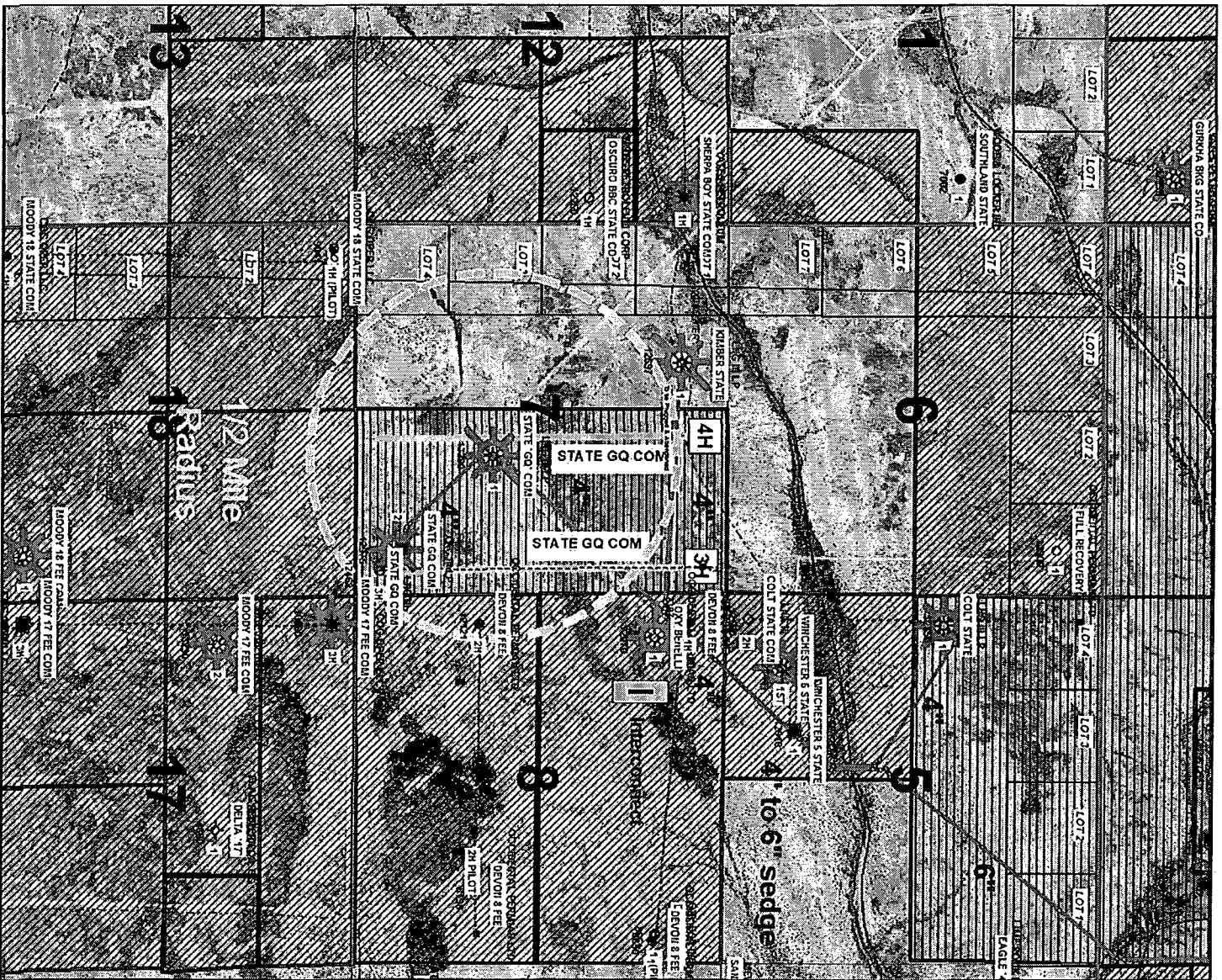
**State GQ Com #1 proposed SWD wellbore diagram
(API 30-015-22894)**

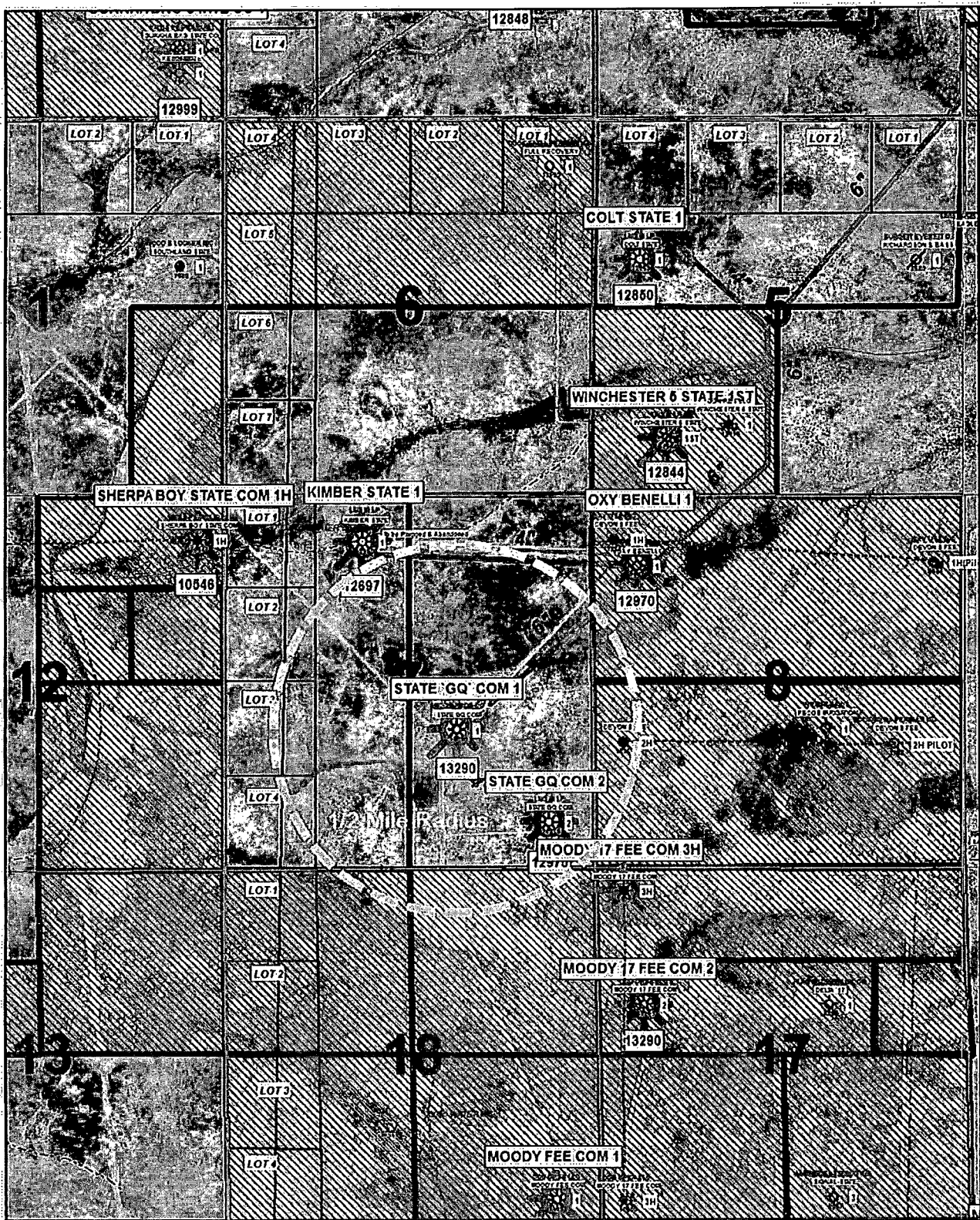


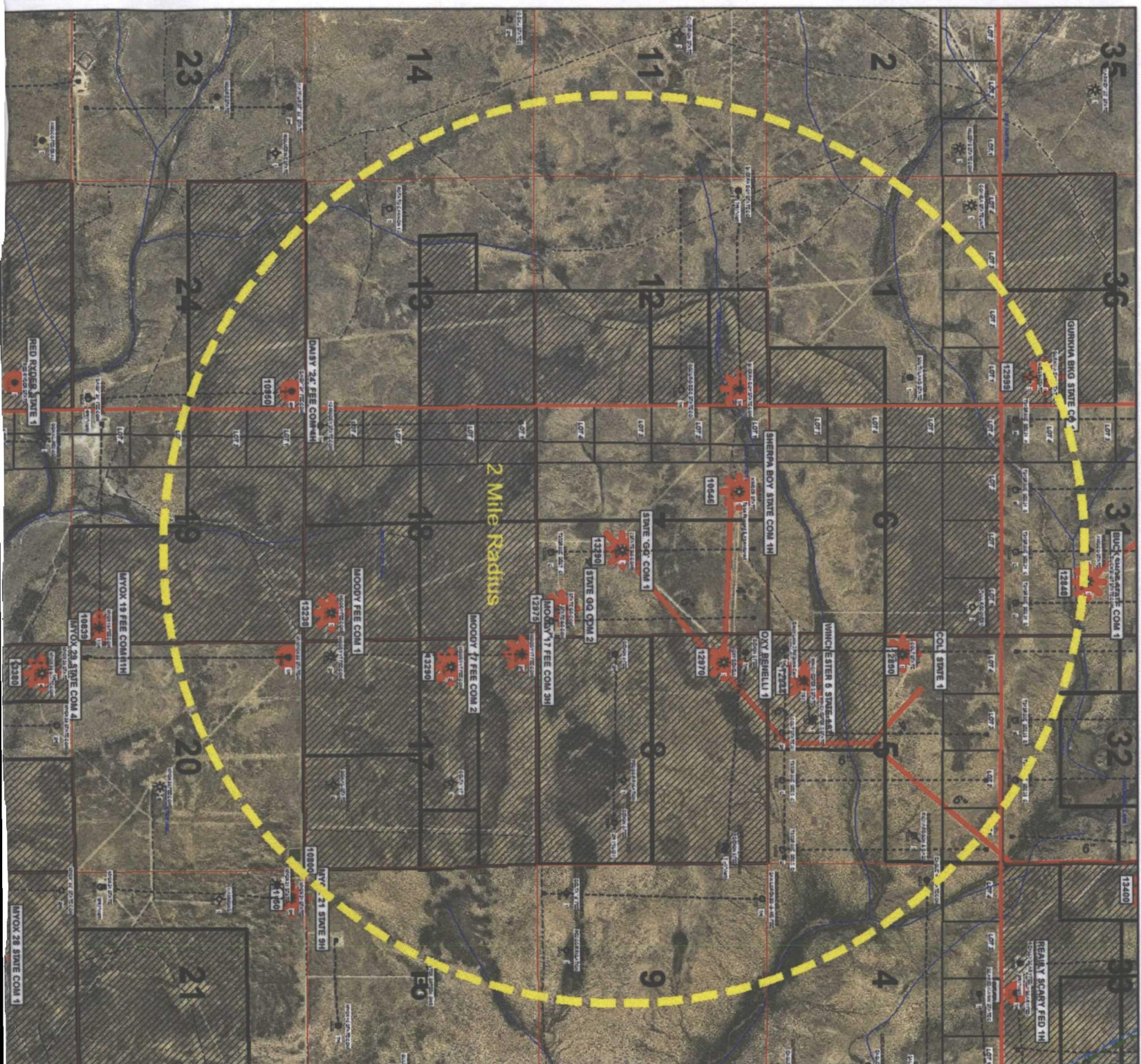
V.

MAP









SWD candidate

Wells within one half mile of

State GQ Com #1

State GQ Com 2 30-015-22894

State GQ Com 1

(API 30-015-22894)

16" to 413' - Circ to surf

10-3/4" to 2419' - Circ to surf

7-5/8" to 9,273' - circ to surf

4-1/2" 8,642' to 12,930', TOC 9,090' (CBL)

State GQ Com 2

13-3/8" to 530' - Circ to surf

9-5/8" to 2410' - Circ to surf

7" 9,358', TOC calculated 5,865'

4-1/2" from 9,118' to 12,975'

X

**Annular Fillup for Cement
(Calculation Sheet)**

1/3/2013

Well Name: State GQ Com #1

30-015-22894

Production Casing:

Entries:

Hole size	<u>9.5</u> (inches)
Casing size	<u>7.625</u> (inches)
Excess	<u>0.34</u> (typically 20% as per state. Input as .20)
Cement sacks	<u>2100</u> (sks)
Casing TD	<u>9273</u> (ft)
Cement yield	<u>1.18</u> (cu. ft./sk) (Use 1.18 unless actual is found in the well records)

Calculated:

Annular Volume 3.77 (ft/cu. ft.) $[(183.35/(E12^2-E13^2))*(1-E14)]$

Top of Cement (TOC) -66 (ft) $[=E16-((E15*E17)*E20)]$
(This value is to be used for behind pipe cement fillup. A negative value (-) means it circulated.)

Annular Fillup for Cement
(Calculation Sheet)

1/3/2013

Well Name: State GQ Com #2

30-015-22894

Production Casing:

Entries:

Hole size	<u>8.75</u> (inches)
Casing size	<u>7</u> (inches)
Excess	<u>0.2</u> (typically 20% as per state; Input as .20)
Cement sacks	<u>890</u> (sks)
Casing TD	<u>9358</u> (ft)
Cement yield	<u>2</u> (cu. ft./sk) (well records)

Calculated:

Annular Volume 5.32 (ft/cu. ft.) $[(183.35/(E12^2-E13^2))*(1-E14)]$

Top of Cement (TOC) -115 (ft) $[E16-((E15*E17)*E20)]$
(This value is to be used for behind pipe cement fillup. A negative value (-) means it circulated.)

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-35868
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator OGX Resources, LLC		6. State Oil & Gas Lease No.
3. Address of Operator POB 2064 Midland, TX 79702		7. Lease Name or Unit Agreement Name State GQ Com
4. Well Location Unit Letter P, 660 feet from the South line and 660 feet from the East line Section 7 Township 25S Range 28E NMPM Eddy County		8. Well Number 2
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3052' GL		9. OGRID Number 217955
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat Salt Draw; Morrow West (Gas)
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____		
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input checked="" type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

2nd Intermediate Casing:

12-9-2007 RIH with float shoe, 1 jt. 7" P-110 26# csg, float collar & 112 jts. 7" casing. Casing set @ 9358'. Cemented lead w/ 20 bbls H2O spacer + 690 sks 50/50 POZ Premium cmt. + 10% Bentonite + 0.3% Halad-9 + 5% Salt + 0.125 lbm/sk Poly-E-Flake. Yield= 2.50, Wt.= 11.8. Tail slurry: 200 sks Premium cmt. + 0.5% Halad-9. Yield=1.19, Wt. = 15.6. Displace w/ 340 bbls H2O. Bumped plug - held OK. NU BOP.

12-0-2007 Finish NU BOP and test to 10,000 psi for 30 min. WOC 38 hrs. total. Reduce hole size to 6 1/8" and resume drilling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Angela Lightner TITLE Consultant DATE 12-10-2007

Type or print name Angela Lightner E-mail address: angela@rkford.com Telephone No. 432-682-0440

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Accepted for record - NMOC

12/18/07

VII.

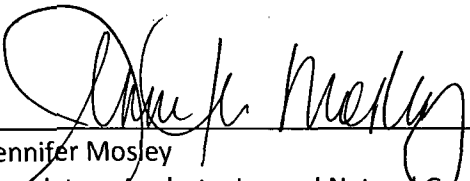
Water Analysis Produced and Receiving Formation Water

WATER SAMPLES REPRESENTATIVE OF WATER BEING INJECTED INTO THE PROPOSED SWD WELL												
Delaware												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2011128362	Sly Hawk State	1	William D Polk	9/28/2011	9/13/2011	1.17	4.06	256802.26	6.50		26180.00	4101.14
Bone Spring												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2012108003	Boyles	24 1H	William D Polk	4/16/2012	4/3/2012	1.13	3.41	206441.81	6.69		3700.86	841.87
Wolfcamp												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2012105892	Augustus 10	1H		3/15/2012	3/8/2012	1.06	1.46	89771.55	6.60		3963.30	639.83

TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
83379.63	62970.16	1133.12	36.78	20.06	1.64	905.03	9.33		73.00	0.00		70.00	161300.00	360.00	0.00
TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
13271.35	69386.15	1109.30	0.00	17.57	0.00	483.07	0.00		1403.00	0.00		700.00	128800.00	400.00	0.00
TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
13352.51	28320.32	350.70	0.00	17.85	1.77	707.79	0.00		220.00	0.00		950.00	54600.00	60.00	0.00

C-108 Affirmative Statement
Legend Natural Gas III, LP
State GQ Com No. 1
API 30-015-22894
1980' FSL & 1980' FEL (Unit J)
Section 7, T-25S, R-28E
Eddy County, New Mexico

Available geologic and engineering data has been examined with no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.



Jennifer Mosley
Regulatory Analyst – Legend Natural Gas III, LP



Date

C-108 Application for Authorization to Inject
Legend Natural Gas III, LP
State GQ Com No. 1
API 30-015-22894
1980' FSL & 1980' FEL (Unit J)
Section 7, T-25S, R-28E
Eddy County, New Mexico

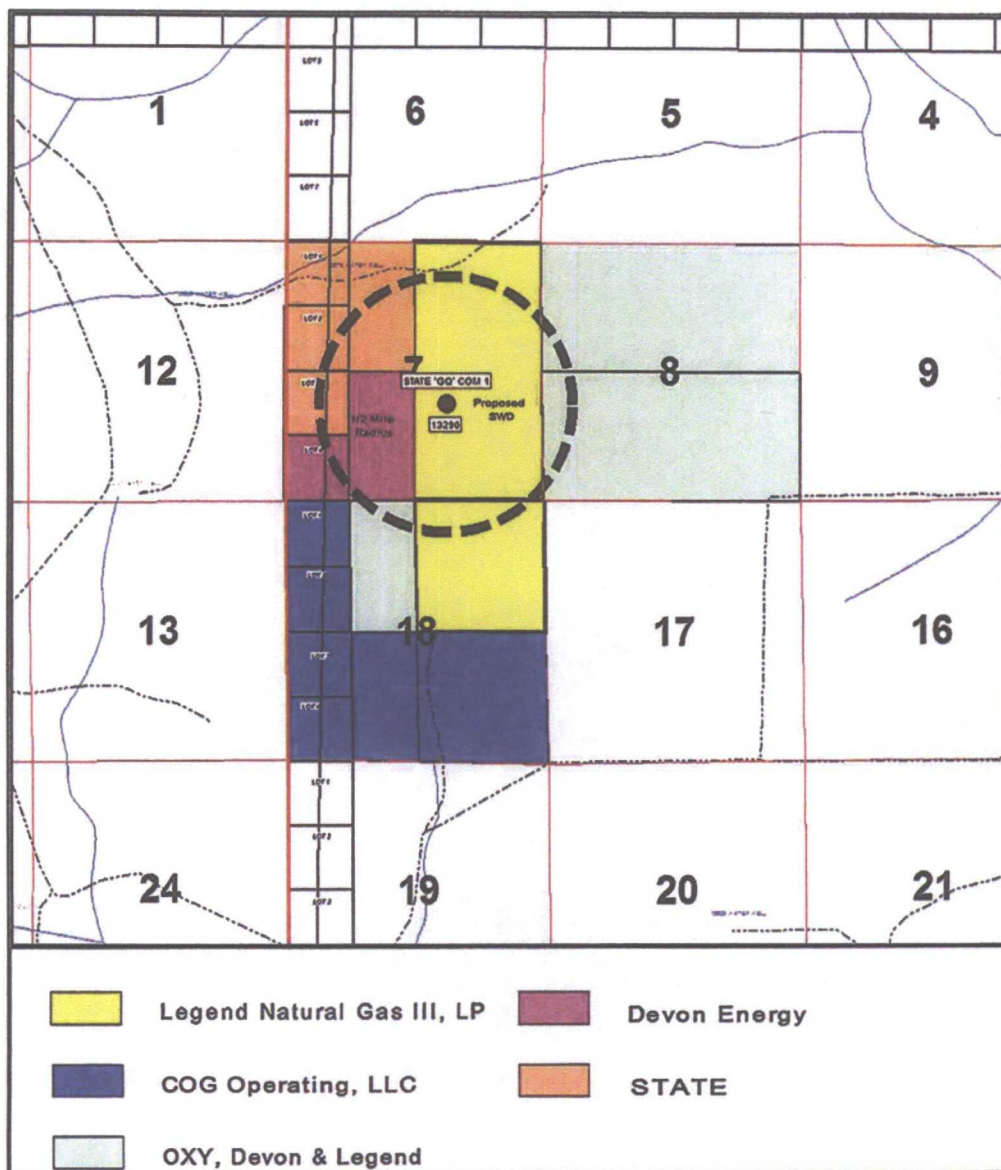
OFFSET OPERATOR/LEASEHOLDER/SURFACE OWNER NOTIFICATION LIST

Section 18 : COG Operating, LLC
Attn: Brian Collins
2208 W. Main Street
Artesia, NM 88210

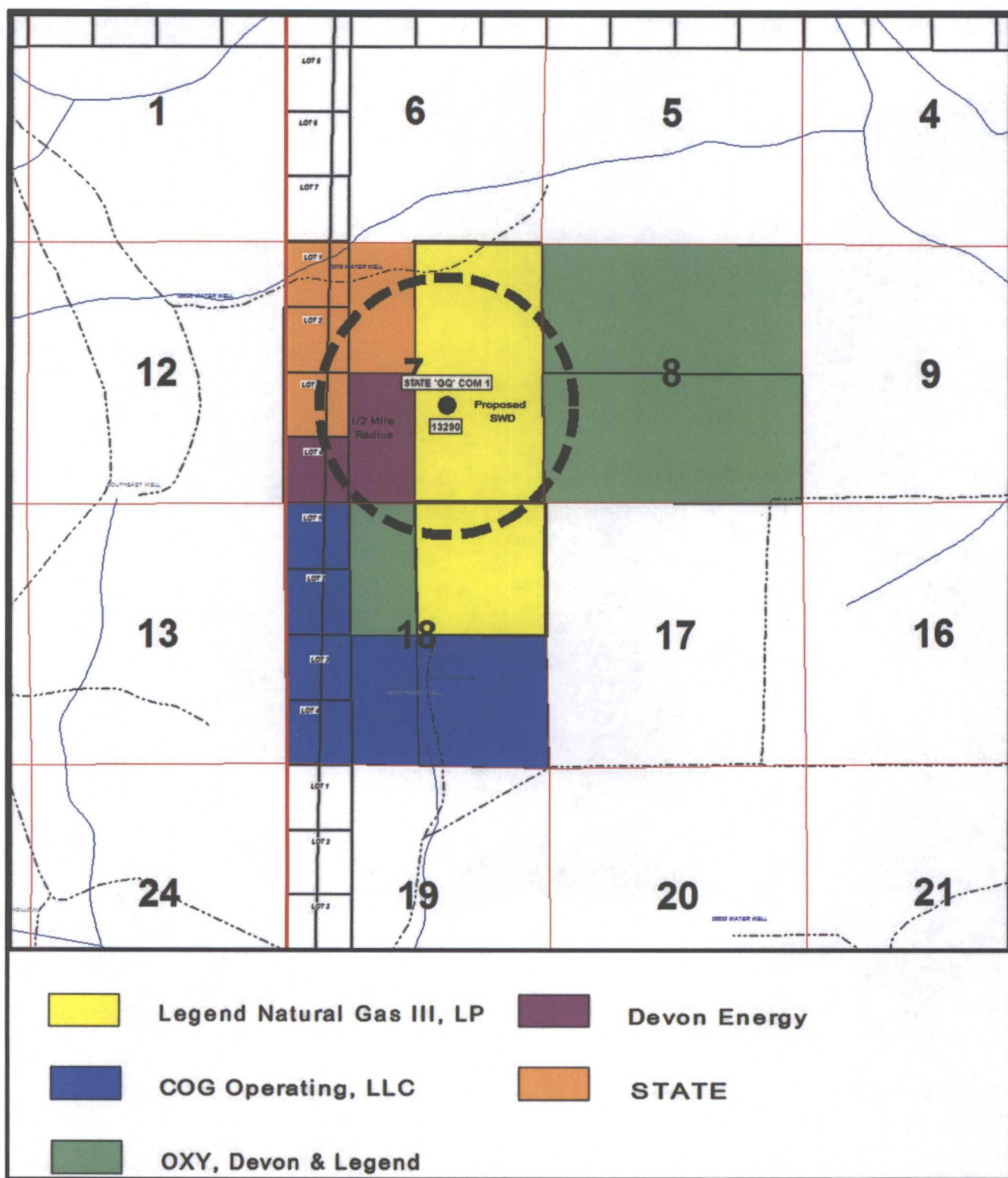
Section 8: Occidental Petroleum Corporation
Attn: Jeremy D. Murphrey
5 Greenway Plaza, Suite 110
Houston, TX 77046-0521

Surface Owner: State of New Mexico
Attn: Nick Jaramillo
310 Old Santa Fe Trail
Santa Fe, NM 87501-2708

Leaseholder: Devon Energy Production Company, LP
Attn: Ken Gray
20 North Broadway Ave.
Oklahoma City, OK 73102



State 'GQ' Com No. 1
 1980 FSL & 1980 FEL
 Sec. 7; T25S – R28E
 Eddy County, New Mexico



State 'GQ' Com No. 1
1980 FSL & 1980 FEL
Sec. 7; T25S – R28E
Eddy County, New Mexico



January 9, 2013

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

TO: OFFSET LEASEHOLD OWNERS & SURFACE OWNERS

Re: Legend Natural Gas III, LP
Form C-108 (Application for Authorization to Inject)
State GQ Com No. 1
API-30-015-22894
1980' FSL & 1980' FEL, Unit J, Section 7, T-25S, R-28E
Eddy County, New Mexico

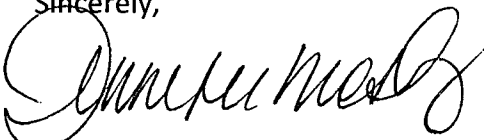
Ladies & Gentlemen:

Enclosed please find a copy of the Oil Conservation Division Form C-108 (Application for Authorization to Inject) for the Legend Natural Gas III, LP conversion of the State GQ Com No. 1 to a SWD well. You are being provided a copy of the application as an offset leaseholder or the surface owner of the land on which the well is located. Legend Natural Gas III, LP proposed to convert the current State GQ Com No. 1 well to a SWD and utilize the well as a produced water disposal well, injection to occur into the Delaware, Black River formation through a perforated interval from approximately 4100 feet to 5500 feet.

Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

If you have any questions please contact myself at (817)872-7822 or Mr. Kemper Williams at (281)644-5947.

Sincerely,



Jennifer Mosley
Regulatory Analyst
Legend Natural Gas III, LP
15021 Katy Freeway, Suite 200
Houston, TX 77494

State GQ Com 1H Offset Operator/Leaseholder/Surface Owner Contact Information

Doug J. Schutz
1925 Aspen Drive #800B
Santa Fe, NM 87505

Mewbourne Oil Company
Attn: Corey Mitchell (Landman)
500 W. Texas, Suite 1020
Midland, TX 79701

Devon Energy Production Company, LP
Attn: Ken Gray
20 North Broadway Ave.
Oklahoma City, OK 73102

BOPCO
6 Desta Drive #3700
Midland, TX 79705-5516

Occidental Petroleum Corporation
Attn: Jeremy D. Murphey
5 Greenway Plaza, Suite 110
Houston, TX 77046-0521

State of New Mexico
Attn: Nick Jaramillo
310 Old Santa Fe Trail
Santa Fe, NM 87501-2708

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PS Form 3800, August 2006 See Reverse for Instructions

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PS Form 3800, August 2005 See Reverse for Instructions	

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S, LLC
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IX 76102

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UNITED STATES POSTAGE

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 0001673808 FEB 05 2013
 MAILED FROM ZIP CODE 76102

Doug J. Schutz
 1925 Aspen Drive, # 800B
 Santa Fe, New Mexico 87505

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

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Here

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Street, Apt. No., or PO Box No.	6 Desta Drive, #3700
City, State, ZIP+4	Midland, TX 79705-5516

PS Form 3800, August 2006 See Reverse for Instructions

ND

S, LLC

et

X 76102



7011 0000 0000 0000 0073



BOPCO
6 Desta Drive, Suite 3700
Midland, Texas 79705-5516

LEGEND

NATURAL GAS, LLC

777 Main Street
Suite 900
Fort Worth, TX 76102

CERTIFIED MAIL™

7011 3500 0003 0333 2991



Occidental Petroleum Corporation
ATTN: Jeremy D. Murphey
5 Greenway Plaza, Suite 110
Houston, Texas 77046-0521

CERTIFIED MAIL™

LEGEND

NATURAL GAS, LLC

777 Main Street
Suite 900
Fort Worth, TX 76102



7011 3500 0003 0333 2984



COG Operating, LLC
ATTN: Brian Collins
2208 West Main Street
Artesia, New Mexico 88210

CERTIFIED MAIL™

LEGEND

NATURAL GAS, LLC

777 Main Street
Suite 900
Fort Worth, TX 76102

7011 3500 0003 0333 3004

State of New Mexico
ATTN: Nick Jaramillo
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501-2708



CERTIFIED MAIL™

LEGEND

NATURAL GAS, LLC

777 Main Street
Suite 900
Fort Worth, TX 76102

7011 3500 0003 0333 3011

Devon Energy Production Company, LP
ATTN: Ken Gray
20 North Broadway Avenue
Oklahoma City, Oklahoma 73102



7011 3500 0003 0333 3011

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Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To Duon Energy
 Street, Apt. No., or PO Box No. 20 N. Broadway Ave
 City, State, ZIP+4 OKC, OK 73102
 PS Form 3800, August 2006 See Reverse for Instructions

400E EEE0 E000 005E T011

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
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Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To State of New Mexico
 Street, Apt. No., or PO Box No. 310 Old Santa Fe Trail
 City, State, ZIP+4 Santa Fe, NM 87501-2708
 PS Form 3800, August 2006 See Reverse for Instructions

7011 3500 0003 0333 2984

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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To COG Operating LLC
 Street, Apt. No., or PO Box No. 2208 W. Main Street
 City, State, ZIP+4 Artesia, NM 88210
 PS Form 3800, August 2006 See Reverse for Instructions

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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To Occidental Petroleum
 Street, Apt. No., or PO Box No. 5 Greenway Plaza, #110
 City, State, ZIP+4 Houston, TX 77046-0521
 PS Form 3800, August 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

COG Operating, LLC
ATTN: Brian Collins
2208 West Main Street
Artesia, New Mexico 88210

2. Article Number

(Transfer from service label)

7011 3500 0003 0333 2984

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

☒ Agent
☐ Addressee

B. Received by (Printed Name)

Amy Beaur

C. Date of Delivery

1-14-13

 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Devon Energy Production Company, LP
ATTN: Ken Gray
20 North Broadway Avenue
Oklahoma City, Oklahoma 73102

2. Article Number

(Transfer from service label)

7011 3500 0003 0333 3011

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-15

COMPLETE THIS SECTION ON DELIVERY

A. Signature

☐ Agent
☐ Addressee

B. Received by (Printed Name)

Ken Gray

C. Date of Delivery

1-14-13

 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Occidental Petroleum Corporation
ATTN: Jeremy D. Murphey
5 Greenway Plaza, Suite 110
Houston, Texas 77046-0521

2. Article Number

(Transfer from service label)

7011 3500 0003 0333 2991

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

☐ Agent
☐ Addressee

B. Received by (Printed Name)

Jeremy D. Murphey

C. Date of Delivery

1-14-13

 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

State of New Mexico
ATTN: Nick Jaramillo
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501-2708

2. Article Number

(Transfer from service label)

7011 3500 0003 0333 3004

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-15

COMPLETE THIS SECTION ON DELIVERY

A. Signature

☐ Agent
☐ Addressee

B. Received by (Printed Name)

Nick Jaramillo

C. Date of Delivery

1-14-13

 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

3. Service Type

☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

LEGAL NOTICE

Legend Natural Gas III, LP, 15021 Katy Freeway, Suite 200, Houston, TX, 77094, has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well is located 1980 FSL and 1980 FEL, Sec. 7, Township 25S, Range 28E, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Hay Hollow; Bone Spring, North formation. The disposal water will be injected into the Delaware formation at a depth of 4,100'-5500' at a maximum injection pressure of 820 psig and a maximum rate of 3,000 BWPD. The well is located approximately 6.5 miles South/Southwest of Magala, NM. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Street, Santa Fe, New Mexico, 87505, within 15 days of the date of this publication. Any interested party with questions or comments may contact Mr. Kemper Williams at Legend Natural Gas III, LP, 15021 Katy Freeway, Suite 200, Houston, TX 77494 or call (281)644-5947.

Affidavit of Publication

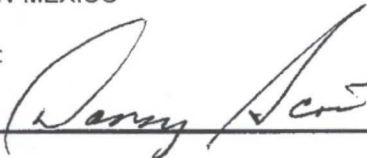
NO.

22424

STATE OF NEW MEXICO

County of Eddy:

Danny Scott



being duly sworn, says that he is the

Publisher

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/days on the same day as follows:

First Publication

January 11, 2013

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

11th

day of

January

2013



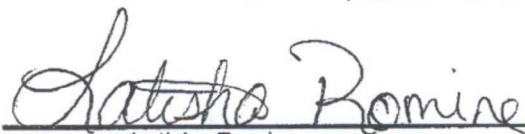
OFFICIAL SEAL

Latisha Romine

NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires:

5/12/2015



Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Legend Natural Gas III, LP, 15021 Katy Freeway, Suite 200, Houston, TX, 77094, has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well is located 1980 FSL and 1980 FEL, Sec. 7, Township 25S, Range 28E, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Hay Hollow, Bone Spring, North formation. The disposal water will be injected into the Delaware formation at a depth of 4,100'-5500' at a maximum injection pressure of 820 psig and a maximum rate of 3,000 BWPD. The well is located approximately 6.5 miles South/Southwest of Magala, NM. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Street, Santa Fe, New Mexico, 87505, within 15 days of the date of this publication. Any interested party with questions or comments may contact Mr. Kemper Williams at Legend Natural Gas III, LP, 15021 Katy Freeway, Suite 200, Houston, TX 77494 or call (281)644-5947. Published in the Artesia Daily Press, Artesia, N.M., Jan. 11, 2013. Legal No 22424.

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.
	1		<u>Operator, Well, and Contact info:</u>
	2	II	Name of person submitting the application: <u>Jennifer Mosley</u> Other Contact? <u>Kemper Williams</u>
	3	II	Did you Include a contact Email in the application? <u>Y</u> and Mailing Address? <u>Y</u> and Phone? <u>Y</u>
	4	II	Operator Name: <u>Legend Natural Gas III, LP</u> OGRID Num: <u>217955</u>
	5		RULE 5.9 Compliance..... Number of Inactive Wells _____ vs Total Wells Operated _____ Is financial assurance required on any well? _____
	6		Is there any hearing order finding this operator out of compliance with Division Rule 19.15.5.9 NMAC? <u>NO</u>
	7		Are all Rule 5.9 issues OK to allow the Division to issue Disposal Permits? <u>Y</u>
	8	III	Well Name: <u>State GQ Com No. 1</u>
	9	III	API Num: <u>30-015-22894</u> Spud Date: <u>04/21/04</u>
	10		Have you included API numbers on all wellbore diagrams and well list(s) in this application? <u>Yes</u>
	11	III	Proposed well...Footages <u>1980 FSL 1980 FEL</u> Unit <u>D</u> Sec <u>7</u> Tsp <u>25S</u> Rge <u>28E</u> County _____
	12		General Location (i.e. Y miles NW of Z): <u>6.5 miles south/southwest of Magala</u>
	13		Current Well Status: _____
	14	I	General Summary of Planned Work to Well: <u>Convert to SWD</u>
	15		<u>INTERVAL TOP and BOTTOM:</u>
	16	IIIB.(2)	Proposed disposal Top Depth: <u>4100</u> Formation Name: <u>Delaware, Black River</u> (include Member Names for Delaware or Mesaverde)
	17	IIIB.(2)	Proposed disposal Bottom Depth: <u>5500</u> Formation Name: <u>Delaware, Black River</u>
	18	IIIB.(2)	Is the disposal interval OpenHole? _____ or Perfed? <u>X</u> or Both? _____
	19	IIIB.(2)	What will be the disposal tubing size OD? <u>3 1/2</u> Packer Seat, Feet: <u>ASIX ± 4050'</u>

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.
	20	VII	What max surf inj. psi are you proposing? <u>820</u> If differing from 0.2 psi/ft surf. Grad., is supporting data attached such as a Step Rate Test? _____
	21		<u>FRESH WATERS:</u>
	22	VIII	Depth to bottom of Fresh Waters: _____ Formation Name(s)? _____
	23	XI	Any Fresh Water Wells Within 1 Mile? <u>NO</u> If so, did you attach an analysis from these Wells? _____
	24		Are all "Fresh" waters isolated with Casing and Cement? _____ ("Fresh" water is defined as less than 10,000 mg/l of TDS)
	25	XII	Included "Affirmative Statement" concerning any Connection from Disposal Depths to existing Fresh Waters? <u>yes</u>
	26		<u>WASTE WATERS:</u>
	27	XIV	Will this be a Lease Only disposal well? _____ or only used for the Operator's own waste needs? <u>X</u> or Commercial Disposal? _____
	28	VII	Which formations will supply the waste waters to be disposed into this well... List most common...? <u>Hay Hollow, Bone Spring</u>
	29	VII	Are Waste waters compatible with proposed disposal interval waters? <u>yes</u> Did you include waste water analysis? <u>yes</u>
	30		<u>AT PROPOSED WELL....INSITU WATERS AND HYDROCARBON POTENTIAL:</u>
	31		Is a discussion included of the potential for future OIL/GAS recovery from the proposed disposal interval? <u>NO</u>
	32		If your proposed well for disposal is a depleted producer (within the proposed interval); do you know what was the cumulative oil/gas/water? _____ and did you include a Rate-Time plot of this depleted interval? _____
	33	VII	Insitu water analysis Included? _____ Is the salinity within the disposal interval more than 10,000 mg/l of TDS? _____ or how will you determine this insitu water salinity? _____
	34	VIII	Does the application include a list of Formation tops down to and including the bottom of the target formation? _____
	35		What is the top _____ and bottom _____ of the Salado Salt (...If this well is in the Southeast and the Salt is present)
	36	X	Are all existing Logs (including any CBL over the disposal interval) are on the OCD Web Site? <u>yes</u> If logs not there, please send _____
	37	IIIA.	Are the wellbore diagrams for this well included in the Application.....Before Conversion? <u>yes</u> and After Conversion? <u>yes</u>

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.
	38		Are the top and bottom footage of the proposed disposal interval marked on the "after" diagram? <u>YES</u>
	39		<u>NOTICE:</u>
	40	XIV	Date of the Newspaper Notice in the County: <u>01/09/2013 - emailed to newspaper will send affidavit when returned.</u>
	41	V	Within 1/2 mile, did you clearly identify (either on a map or by legal description) all separately owned tracts of lands within the disposal interval? <u>YES</u>
	42	XIII	Did you identify the owner(s) of each of these separately owned tracts? _____ Were they all formally noticed? _____
	43	XIII	If reentering a P&Aed well, are there depth divisions of ownership within that well? _____If so, have you also noticed all the shallower interests of the intent to use the well for disposal? _____
	44	XIII	Is the proposed well within the R-111-P defined Potash Area or the BLM Secretaries Potash Area? <u>NO</u> If so, did you send notice to the nearest Potash lessee? _____
	45	XIV	Who owns the surface lands at the disposal well site (BLM, SLO, or who)? _____ Was that party formally noticed? _____
	46		<u>Area of Review:</u>
	47	V	Did you include a map identifying all wells within 2 miles? <u>YES</u>
	48	VI	Did you include a list of all AOR wells? <u>YES</u> Is the list available to be emailed (if requested) in spreadsheet format? _____
	49	VI	Does this list identify all wells penetrating (at least the top of) the disposal interval within 1/2 mile of the proposed well? _____
	50	VI	Did you include wellbore diagrams for all P&Aed wells that exist within the 1/2 mile AOR that penetrate the disposal interval? _____
	51		How many wells exist within the 1/2 mile AOR that penetrate the disposal interval? _____ How many of these are Plugged/Dry and Abandoned? _____
	52	VI	Did you include details on cement coverage of the proposed disposal interval for all wells penetrating the disposal interval within 1/2 mile of the proposed well? _____
	53	VI	Do all reported cement tops describe how that "top" was determined? <u>YES</u> If you calced any tops, what fillup efficiency factor did you use? _____
	54	VI	Did you identify the presence and depth of all Cement Stage Tools (DV) in the subject well and in the AOR wells? _____

Miss	Row	C-108	C-108 disposal application submittals... CHECKLIST to ensure all items are supplied or considered.
	55	VIII	For the target formation, is there significant formation structural depth changes within the 1/2 mile AOR? <u>NO</u>
	56	VIII	Is there any Karst or Massive Limestone in this target formation? <u>NO</u> ...or in the formations directly above or below?
	57		<u>Administrative or Hearing:</u>
	58	VI	How many wells within the 1/2 mile AOR currently are producing (or still have open perforations) within the disposal interval? <u>1</u> is it "gas" or "oil"?
	59		... NOTE: If the proposed disposal interval is a "Gas" interval or if any AOR wells are producing or have open perforations within this interval then this application may not be properly classified as a "disposal". These types of applications must be processed at an examiner hearing.
	60		Any other Issues..?

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Friday, February 01, 2013 3:30 PM
To: Jennifer Mosley (jmosley@lng2.com)
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Dade, Randy, EMNRD; Warnell, Terry G. (twarnell@slo.state.nm.us); glarson@hinklelawfirm.com
Subject: Disposal application from Legend Natural Gas III, L.P.: State GQ Com #1 30-015-22894 Cherry Canyon and Brushy Canyon from 4100 to 5500 feet perforated

Hello Jennifer,

Today, I reviewed this application and wanted to relay concerns or questions,

- a. The lands in Unit C of Section 7 are partially within the Area of Review for this well and are shown in this application as "State". However, in the subsequent application for the Kimber State #1, these lands are listed as owned by Doug J. Schutz. And today we received notice from BOPCO, L.P.'s attorney that BOPCO owns these lands. In addition, Mewbourne Oil Co. has very recently obtained permits to drill (as a deeper operator) within Unit letter C. In order to be thorough in the notice for this application, please provide proof of notice to:
 - a. Doug J. Schutz
 - b. BOPCO, L.P. and
 - c. Mewbourne Oil Co. (because it is operator of deeper wells in this Section)
- b. Any permit for this well should include a requirement to first run a Cement Bond Log on the 7 inch casing – the primary cement top is questionable up to where it was cutoff in the late 1970's. If cement coverage is found to not extend above 4100 feet, then the well will need another squeeze job prior to perforating for disposal.
- c. The new horizontal wells being drilled in this Area of Review are proposing first stage cement to cover the vertical Delaware section – but that coverage is not a certainty. In addition, Legend just changed its cementing intentions on its well being drilled at this time to NOT use a DV tool which would have caused cement to certainly be from that depth and up-hole from there. Any SWD permit for this well will be conditioned to expire unless there is proof of cement coverage (up to at least 3900 feet) by surrounding wells being proposed at this time by Legend and Mewbourne. Please alert the OCD district office in Artesia of your intentions for disposal into the Delaware and the need for cement coverage of these new wells.
- d. Please do another quick check of the ½ mile AOR for this well and include any recently proposed well. Let me know if additional wells should be added to the list and the cement coverage actual/planned for those wells.

Thanks in advance for this!

William V. Jones, P.E.
505-476-3448W 505-476-3462F
Engineering Bureau, Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Jones, William V., EMNRD

From: Jennifer Mosley <jmosley@lng2.com>
Sent: Thursday, January 17, 2013 4:10 PM
To: Jones, William V., EMNRD
Subject: Re: Colt State GQ Com No. 1_SWD_Artesia Press Affidavit

Sorry! I'll get it to you first thing tomorrow morning.

Sent from my iPhone

On Jan 17, 2013, at 4:40 PM, "Jones, William V., EMNRD" <William.V.Jones@state.nm.us> wrote:

Nothing attached....

From: Jennifer Mosley [<mailto:jmosley@lng2.com>]
Sent: Thursday, January 17, 2013 2:38 PM
To: Jones, William V., EMNRD
Subject: Colt State GQ Com No. 1_SWD_Artesia Press Affidavit

Will,

Here is the affidavit for the Colt State GQ Com No. 1 SWD application that I submitted.

Thanks,

Jennifer

Do you need a hard copy as well?

Jones, William V., EMNRD

From: Jennifer Mosley <jmosley@lng2.com>
Sent: Wednesday, February 06, 2013 8:01 AM
To: Jones, William V., EMNRD
Subject: RE: Disposal application from Legend Natural Gas III, L.P.: State GQ Com #1 30-015-22894 Cherry Canyon and Brushy Canyon from 4100 to 5500 feet perforated
Attachments: State GQ COM 1_SWD_supplement packet_130206.pdf

Will,
I think this should take care of everything. If you need something else, please let me know.

Jennifer

From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Friday, February 01, 2013 4:30 PM
To: Jennifer Mosley
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Dade, Randy, EMNRD; Warnell, Terry G.; glarson@hinklelawfirm.com
Subject: Disposal application from Legend Natural Gas III, L.P.: State GQ Com #1 30-015-22894 Cherry Canyon and Brushy Canyon from 4100 to 5500 feet perforated

Hello Jennifer,
Today, I reviewed this application and wanted to relay concerns or questions,

- 2/5/13
- a. The lands in Unit C of Section 7 are partially within the Area of Review for this well and are shown in this application as "State". However, in the subsequent application for the Kimber State #1, these lands are listed as owned by Doug J. Schutz. And today we received notice from BOPCO, L.P.'s attorney that BOPCO owns these lands. In addition, Mewbourne Oil Co. has very recently obtained permits to drill (as a deeper operator) within Unit letter C. In order to be thorough in the notice for this application, please provide proof of notice to:
 - a. Doug J. Schutz
 - b. BOPCO, L.P. and
 - c. Mewbourne Oil Co. (because it is operator of deeper wells in this Section)
 - b. Any permit for this well should include a requirement to first run a Cement Bond Log on the 7 inch casing – the primary cement top is questionable up to where it was cutoff in the late 1970's. If cement coverage is found to not extend above 4100 feet, then the well will need another squeeze job prior to perforating for disposal.
 - c. The new horizontal wells being drilled in this Area of Review are proposing first stage cement to cover the vertical Delaware section – but that coverage is not a certainty. In addition, Legend just changed its cementing intentions on its well being drilled at this time to NOT use a DV tool which would have caused cement to certainly be from that depth and up-hole from there. Any SWD permit for this well will be conditioned to expire unless there is proof of cement coverage (up to at least 3900 feet) by surrounding wells being proposed at this time by Legend and Mewbourne. Please alert the OCD district office in Artesia of your intentions for disposal into the Delaware and the need for cement coverage of these new wells.
 - d. Please do another quick check of the ½ mile AOR for this well and include any recently proposed well. Let me know if additional wells should be added to the list and the cement coverage actual/planned for those wells.

Thanks in advance for this!



RECEIVED

February 13, 2012 13 P 3:20

VIA HAND DELIVERY

Jami Bailey, Director
Oil Conservation Division
New Mexico Department of Energy
Minerals and Natural Resources
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Legend Natural Gas III, LP Application for Authorization to Convert the State GQ Com No. 1 at to a Salt Water Disposal Well, Eddy County, New Mexico.

Dear Ms. Bailey:

Mewbourne Oil Company ("Mewbourne") hereby objects to the above-referenced application filed by Legend Natural Gas III, LP seeking authorization to inject produced water in the State GQ Com No. 1 well, located 1980 FSL and 1980 FEL (Unit J) in Section 7, Township 25 South, Range 28 East, NMPM, Eddy County, New Mexico.

Pursuant to Division Rule 19.15.26.8, this application must be set for hearing before a Division Examiner in order to be further considered, as Mewbourne has timely objected to this application. Your attention to this matter is appreciated.

Sincerely,

Adam G. Rankin

cc: Attn: Jennifer Mosley
Legend Natural Gas III, LP
15021 Katy Freeway, Suite 200
Houston, TX 77494

Corey Mitchell, Mewbourne Oil Company

Jones, William V., EMNRD

From: Adam Rankin <AGRankin@hollandhart.com>
Sent: Friday, February 22, 2013 1:40 PM
To: Jones, William V., EMNRD; glarson@hinklelawfirm.com; Jennifer Mosley (jmosley@lng2.com)
Subject: RE: Legend SWD Applications
Attachments: doc04018620130212101839.pdf

Will,

Mewbourne's protest is with the Kimber State well, not the State GQ well. The confusion arose because the notice to Mewbourne references the Kimber in the Re: line, but the body of the letter discusses the State GQ well and includes the well data sheet for the State GQ, and no well data sheet for the Kimber. See attached.

Sorry for the confusion on our end, but that is the reason for it.

Best,
Adam

From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Friday, February 22, 2013 11:00 AM
To: Adam Rankin; glarson@hinklelawfirm.com; Jennifer Mosley (jmosley@lng2.com)
Subject: RE: Legend SWD Applications

Adam, Gary, and Jennifer,

Here is the way I see it:

The OCD Santa Fe has two pending "Legend" SWD applications here within this same Section 7. The application for the State GQ is suspended due to the active protest from Mewbourne.

I will hopefully fully evaluate the "Kimber State" within the next week. The Kimber State was protested by BOPCO LP on Feb 1, but BOPCO dropped its protest on Feb 14. Gary Larson is representing BOPCO and submitted the protest correspondence. I have proof of notice mailers for this well to: Occidental, Devon, Yates, Doug Schutz, and the State Land Office. Not sure how BOPCO became aware of this one.

Please let me know if anyone sees something different.

Will

From: Adam Rankin [<mailto:AGRankin@hollandhart.com>]
Sent: Thursday, February 21, 2013 5:32 PM
To: Jones, William V., EMNRD
Cc: Jennifer Mosley; Brooks, David K., EMNRD
Subject: RE: Legend SWD Applications

Will,

We are a little confused by the cover letter to the application as it references both the Kimber State No. 1 well and the State GQ Com. No. 1. Is Legend Natural Gas III, LP seeking to convert only the State GC Com. No. 1 well to injection or both it and the Kimber State No. 1 well, or only the Kimber State No. 1 well?

Perhaps Jennifer can clarify that issue for us.

Thanks!

From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Thursday, February 21, 2013 8:29 AM
To: Adam Rankin
Cc: Jennifer Mosley; Brooks, David K., EMNRD
Subject: RE: Legend SWD Applications

Hello Adam,

RE: SWD application from Legend Natural Gas III, LP for the State GQ Com #1 30-015-22894 (Located J/7/25S/28E/Eddy)

I have received a letter of protest on behalf of Mewbourne from you (Holland & Hart, LLP) dated Feb 13, 2013 with a cc to Jennifer Mosley with Legend by snail mail.

Would you confirm this? Or let me know if Mewbourne has dropped the protest?

Thanks Much,

Will Jones

From: Jennifer Mosley [<mailto:jmosley@lng2.com>]
Sent: Thursday, February 21, 2013 5:48 AM
To: Jones, William V., EMNRD
Subject: RE: Legend SWD Applications

Will,

No one with Legend has received a protest for the State GQ. We received one from BOBPCO for the Kimber State, but then we received an email stating they were withdrawing their protest.

Thanks,
Jennifer

Injection Permit Checklist: Received 1/11/13 First Email Date: 2/1/13 Final Reply Date: 2/22/13 Final Notice Date: 2/5/13

Issued Permit: Type: WFX/PMX/SWD, Number: 1401 Permit Date: 2/28/13 (Legacy Permit: _____)

Wells 1 Well Name(s): State GQ Com #1

API Num: 30-015-22894 Spud Date: 4/1/79 New/Old: Q (UIC CI II Primacy March 7, 1982)

Footages 1980 FSL/FEL Lot _____ Unit J Sec 7 Tsp 25S Rge 28E County EDDY

General Location or Pool Area: 6.5 mi SSW of MALAKA (BLACK RIVER)

Operator: LEGEND Natural Gas, L.P.

Contact: Jennifer Mosley/Kemp

OPRD: 217955 RULE 5.9 Compliance (Wells) 2/25

(Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed 28894 Current Status: SHUT-IN

Planned Work to Well: _____

Diagrams: Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging? ✓

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing <u>✓</u> Surface	<u>20 - 16</u>	<u>413'</u>	<u>-</u>	<u>500SX</u>	<u>CRC</u>
Planned ___ or Existing <u>✓</u> Interm	<u>14 3/4 - 3 1/2</u>	<u>2419'</u>	<u>-</u>	<u>2400SX</u>	<u>CRC</u>
Planned ___ or Existing <u>✓</u> LongSt	<u>9 1/2 - 7 5/8</u>	<u>9273'</u>	<u>-</u>	<u>2100 SX</u>	<u>1800 CBL</u>
Planned ___ or Existing <u>✓</u> Liner	<u>4 1/2</u>	<u>8642' - 12730'</u>	<u>-</u>	<u>490SX</u>	<u>9090 CBL</u>
Planned ___ or Existing <u>✓</u> OpenHole					

Depths/Formations:

	Depths, Ft.	Formation	Tops?
Above	<u>2474</u>	<u>Del</u>	<u>✓</u>
Above	<u>2510</u>	<u>Del SAND</u>	<u>✓</u>
Proposed Interval TOP:	<u>5500</u>	<u>Cherry</u>	<u>✓</u>
Proposed Interval BOTTOM:	<u>5780</u>	<u>Lower Brnly</u>	<u>✓</u>
Below	<u>4775</u>	<u>Brnly</u>	<u>✓</u>
Below	<u>5780</u>	<u>Lower Brnly</u>	<u>✓</u>
	<u>3460</u>	<u>Cherry</u>	<u>✓</u>

Capitan Reef? (In /thru) _____ Potash? _____ Noticed? _____ (WIRP? _____ Noticed? _____) Salado Top 1767 Bot 2421 Cliff House? _____

Fresh Water: MaxDepth: _____ FW Formation _____ Wells? NO Analysis? _____ Affirmative Statement ✓

Disposal Fluid: Formation Source(s) B.S. (Hay House, BS) On Lease _____ Only from Operator ✓ or Commercial ✓

Disposal Interval: Protectable Waters? NO H/C Potential: Log _____ /Mudlog _____ /DST _____ /Tested _____ /Depleted _____ Other _____

Notice: Newspaper Date 1/11/13 Mineral Owner _____ Surface Owner SLO N. Date 1/10/13

RULE 26.7(A) Identified Tracts? _____ Affected Persons OG/O&M/OKY/ N. Date 2/5/13

AOR: Maps? _____ Well List? _____ Producing in Interval? NO Formerly Produced in Interval? _____

Penetrating.....No. Active Wells 1 Num Repairs? _____ on which well(s)? _____

Penetrating.....No. P&Aed Wells 0 Num Repairs? 0 on which well(s)? _____ Diagrams? _____

Permit Conditions: Run CBL prior to perf

Issues: _____

Issues: well above 30-015-40867 CMT coverage?

Issues: _____