



**BTA OIL PRODUCERS, LLC**

104 SOUTH PECOS STREET  
MIDLAND, TEXAS 79701-5021  
432-682-3753  
FAX 432-683-0311

CARLTON BEAL, JR.  
BARRY BEAL  
SPENCER BEAL  
KELLY BEAL  
BARRY BEAL, JR.  
STUART BEAL  
ROBERT DAVENPORT, JR.

**GULF COAST DISTRICT**  
TOTAL PLAZA  
1201 LOUISIANA STREET, STE. 570  
HOUSTON, TEXAS 77002  
713-658-0077 FAX 713-655-0346

**ROCKY MOUNTAIN DISTRICT**  
600 17TH STREET, STE. 2230 SOUTH  
DENVER, COLORADO 80202  
303-534-4404 FAX 303-534-4661

October 11, 2012

RE: Application for Authorization to Inject  
Gem, 8705 JV-P #3 WIW  
660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, NM

NEW MEXICO OIL CONSERVATION COMMISSION  
OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Attn: Mr. William Jones

RECEIVED OCT 15 10 15 AM '12

Dear Mr. Jones,

BTA Oil Producers LLC hereby seeks approval for Authorization to Inject at the above referenced location. This is a current disposal well (SWD-794). We are proposing to plug back from the current Delaware perforations and open a new Delaware interval. We plan to utilize this well to enhance recovery.

Enclosed herewith is our Application Packet.

BTA has notified all Offset Operators and the Surface Owner of our intentions by certified mail. We will forward copies of the signed "green card" PS Form 3811 certifications as soon as all are received back.

BTA has also published a Legal Notice in the Hobbs Daily News-Sun. We will forward the Affidavit of Publication as soon as it is provided us.

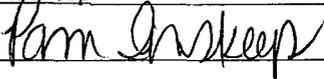
Should further information be required to approve this application, please advise.

Respectfully,

*Pam Inskeep*  
Pam Inskeep  
BTA Oil Producers LLC

Enc.

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  Yes  No
- II. OPERATOR: BTA OIL PRODUCERS LLC  
ADDRESS: 104 S Pecos, Midland, TX 79701  
CONTACT PARTY: Pam Inskeep PHONE: 432-682-3753
- 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: \_\_\_\_\_  
Note: This location is in a potash area
- 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.  
Well will be acidized with 1500 gal 15% HC NeFe.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).  
Well logs were filed with the Division with the original completion.
- \*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: Pam Inskeep TITLE: Regulatory Administrator  
SIGNATURE:  DATE: 10/11/2012  
E-MAIL ADDRESS: pinskeep@btaoil.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.

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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: BTA OIL PRODUCERS LLC

WELL NAME & NUMBER: 8705 JV-P Gem No. 3 WIW

WELL LOCATION: 660' FSL & 1980' FEL, UL O, Sec. 2, T20S, R33E, Lea County, NM

FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
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**WELLBORE SCHEMATIC**

**WELL CONSTRUCTION DATA**

Surface Casing

Hole Size: 26" Casing Size: 20"

Cemented with: 2100 sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: surface Method Determined: circ

Intermediate Casing

Hole Size: 17-1/2" Casing Size: 13-3/8"

Cemented with: 2200 sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: surface Method Determined: circ

Production Casing

Hole Size: 12-1/4" Casing Size: 9-5/8"

Cemented with: 1600 sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: surface Method Determined: circ

Total Depth: 13700'

Injection Interval

Propose 6618 feet to 6648 Perf

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 2-7/8" Lining Material: internally plastic-coated

Type of Packer: Arrowset II

Packer Setting Depth: 6568'

Other Type of Tubing/Casing Seal (if applicable): CIBP @ ±7700, cap w/40' cmt

Additional Data

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

If no, for what purpose was the well originally drilled? Oil Producer, 1991; convert to disposal 2003

2. Name of the Injection Formation: Delaware

3. Name of Field or Pool (if applicable): SWD; Delaware

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. Yes, see Item 4 on

Attachment A

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Yates 3300'; Bone Spring 9300'

\_\_\_\_\_  
\_\_\_\_\_

BTA Oil Producers LLC  
 Application for Authorization to Inject  
 Gem, 8705 JV-P No. 3 WIW  
 660' FSL & 1980' FEL  
 Section 2, T20S, R33E  
 Lea County, New Mexico

Attachment A

III Well Data

Section A:

1. Lease Name: Gem, 8705 JV-P No. 3 WIW  
 Location: 660' FSL & 1980' FEL, Sec 2, T20S, R33E, Lea County, NM  
 Note: Well is located in a potash area
  
2. Casing and Cement

EXISTING

<u>Casing Size</u>	<u>Setting Depth</u>	<u>Sacks Cement</u>	<u>Hole Size</u>	<u>Top of Cement</u>
20"	1385'	2100	26"	Circ to Surface
13-3/8"	3100'	2200	17-1/2"	Circ to Surface
9-5/8"	5426'	1600	12-1/4"	Circ to Surface
5-1/2"	13,700'	2900	8-3/4"	Circ to Surface

PROPOSED

<u>Casing Size</u>	<u>Setting Depth</u>	<u>Sacks Cement</u>	<u>Hole Size</u>	<u>Top of Cement</u>
20"	1385'	2100	26"	Circ to Surface
13-3/8"	3100'	2200	17-1/2"	Circ to Surface
9-5/8"	5426'	1600	12-1/4"	Circ to Surface
5-1/2"	13,700'	2900	8-3/4"	Circ to Surface

Section B:

1. Injection Formation: Delaware  
 Field or Pool Name: SWD; Delaware
  
2. Injection Interval: 6618 – 6648'
  
3. Original Purpose of Well: Drilled to test Morrow Formation  
 Current Purpose of Well: Disposal in the Delaware

BTA Oil Producers LLC  
Application for Authorization to Inject  
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660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, New Mexico

4. Other perforated intervals, bridge plugs, cement plugs:
  - Morrow Perforations: 13534 – 13588' CIBP @ 13500' w/20' cement
  - Morrow Perforations: 13222 – 13393' CIBP @ 13190' w/40' cement
  - Atoka Sand Perforations: 12762 – 12781' Squeezed w/25 sx cement, CIBP @ 12550' w/40' cement
  - Bone Spring Perforations: 9320 – 9340' CIBP @ 9250' w/30' cement
  - 9388 – 9448'
  - 9538 – 9585'
  - 9843 – 9864'
  - 10196 – 10237'
  - Delaware Perforations: 7743 – 8022' (Proposed CIBP @ ±7700')
5. Next higher oil & gas zone: Yates (3300')
- Next lower oil & gas zone: Bone Spring (9300')

See current and proposed wellbore schematic (Attachments B & C)

See Structural Cross-Section (Attachment E)

**Tubing Detail**

2-7/8" 6.5# IPC Steel Tbg

KB = 14'

X-Mas Tree Top Conn.

@ 1385' - 20" 106.5# K-55 Surf. Csg. Cmtd w/ 2100 Sx Cmt Circ

@ 3100' - 13-3/8" 61 & 68# K-55 Interm Csg. Cmtd w/ 2200 Sx Cmt Circ

← 2-7/8" 6.5# IPC Steel Tbg

@ 5462' - 9-5/8" 40# K-55& HC-80 Interm Csg. Cmtd w/ 1600 Sx Cmt Circ

5-1/2" Ni plt'd Loc-set Pkr w/ on-off tool w/ 1.87" ID nipple @ 7,566'

Delaware Perfs 7,743 - 7,839'; 7,900 - 7920' w/ 2 JSPF

Delaware Perfs 7,926 - 7,940' w/ 4 JSPF

Delaware Perfs 8,016 - 8,022' w/ 4 JSPF

9220

Bone Spring Perfs 9,388 - 448' w/ 1 JSPF

Bone Spring Perfs 9,538 - 85' w/ 1 JSPF

Bone Spring Perfs 9,843 - 64' w/ 1 JSPF

Bone Spring Perfs 10,196 - 237' w/ 1 JSPF

12510

CIBP @ 12550'

Atoka Perfs 12,762- 781' w/ 4 JSPF

40' 3-1/8" dump bailer

Morrow Perfs 13,297 - 321'; 13,375 - 393'; 13,422- 428' w/ 2 JSPF

Morrow Perfs 13,534- 540'; 13,548 - 569'; 13,574 - 588' w/ 1 JSPF

13,627'

13700

@ 13700' - 5-1/2" 20 & 23# L-80 Prod. Csg. Cmtd w/ 2900 sx Cmt Circ

# Attachment B

Revised	SWD Well		Drawn	TJW
	LEASE:	8705 JV-P GEM #3 SWD	4/13/2011	
	FIELD:	TEAS (Delaware)	Approved	
	LOCATION:	660' FSL 1980' FEL Sec. 2 T20S R33E	Date	
	COUNTY:	Lea STATE: New Mexico		
	PRODUCING FORMATION:			
			BTA Oil Producers	

**Tubing Detail**

2-7/8" 6.5# IPC Steel Tbg

KB = 14'

X-Mas Tree Top Conn.

@ 1385' - 20" 106.5# K-55 Surf. Csg. Cmtd w/ 2100 Sx Cmt Circ

@ 3100' - 13-3/8" 61 & 68# K-55 Intern Csg. Cmtd w/ 2200 Sx Cmt Circ

@ 5462' - 9-5/8" 40# K-55& HC-80 Intern Csg. Cmtd w/ 1600 Sx Cmt Circ

← 2-7/8" 6.5# IPC Steel Tbg

Proposed Delaware Perfs 6618 - 6648'

7680

Delaware Perfs 7,743 - 7,839'; 7,900 - 7,920' w/ 2 JSPF  
 Delaware Perfs 7,926 - 7,940' w/ 4 JSPF  
 Delaware Perfs 8,016 - 8,022' w/ 4 JSPF

9220

Bone Spring Perfs 9,388 - 448' w/ 1 JSPF  
 Bone Spring Perfs 9,538 - 585' w/ 1 JSPF  
 Bone Spring Perfs 9,843 - 647' w/ 1 JSPF  
 Bone Spring Perfs 10,196 - 237' w/ 1 JSPF

Atoka Perfs 12,762- 781' w/ 4 JSPF

40' 3-1/8" dump bailer

Morrow Perfs 13,297 - 321'; 13,375 - 393'; 13,422- 428' w/ 2 JSPF

Morrow Perfs 13,534- 540'; 13,548 - 569'; 13,574 - 588' w/ 1 JSPF

13,627'

@ 13700' - 5-1/2" 20 & 23# L-80 Prod. Csg. Cmtd w/ 2900 sx Cmt Circ

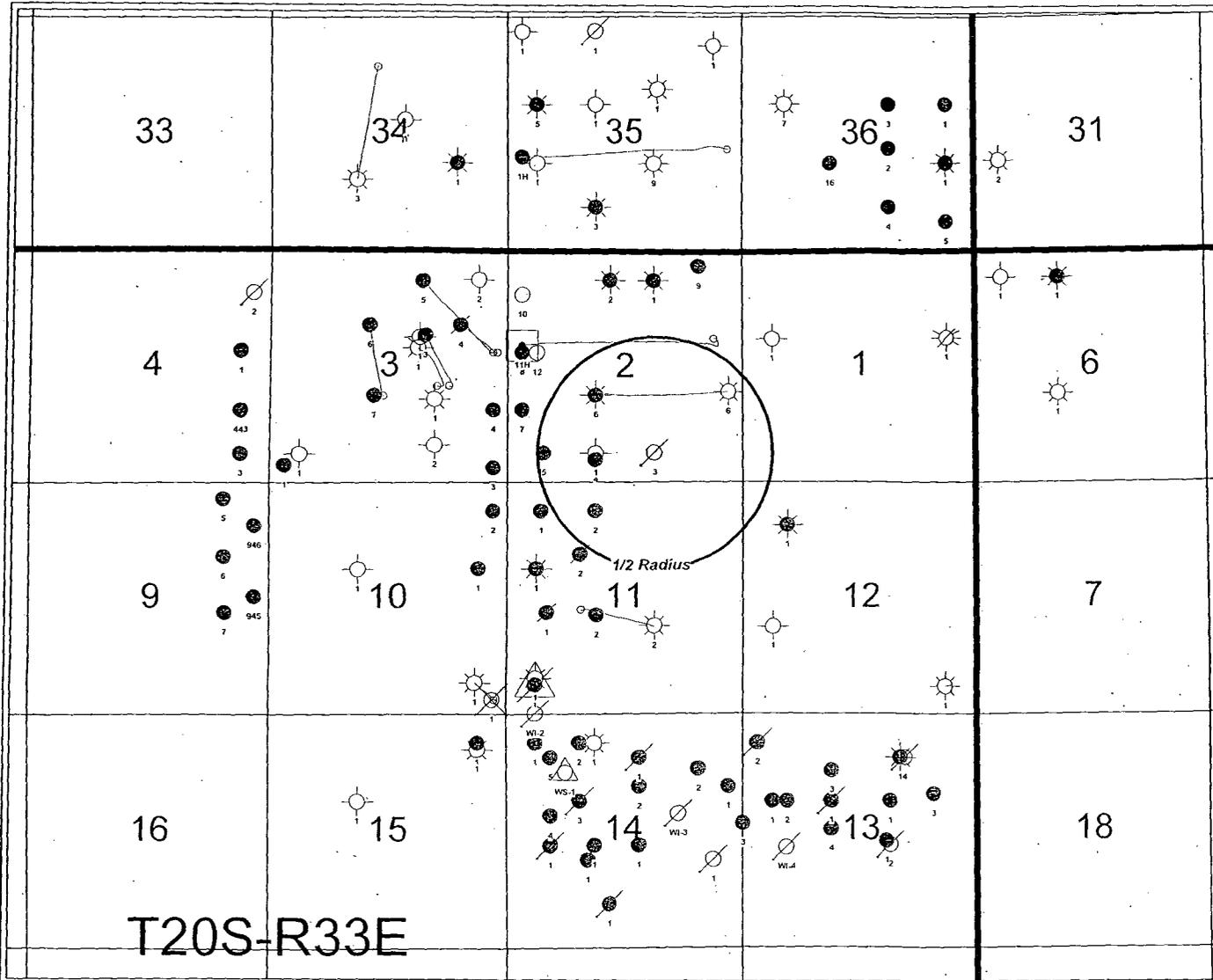
13700

# Attachment C

Revised	<p><b>PROPOSED</b></p> <p>LEASE: 8705 JV-P GEM #3 WIW</p> <p>FIELD: <del>TEAS</del> (Delaware)</p> <p>LOCATION: 660' FSL 1980' FEL Sec. 2 T20S R33E</p> <p>COUNTY: Lea STATE: New Mexico</p> <p>PRODUCING FORMATION:</p>	Drawn	TJW
			4/13/2011
		Approved	
		Date	
 <p><b>BTA Oil Producers</b></p>			



# Attachment D1



<b>BTA OIL PRODUCERS, LLC</b>	
<b>8705 JV-P Gem #3</b>	
<b>Location Map</b> Lea Co. New Mexico	
<b>POSTED WELL DATA</b>	
● Well Number	
<b>WELL SYMBOLS</b>	
○	Location Only
◻	Drilled, Waiting on Completion
●	Oil Well
⊙	Gas Well
⊙	Oil & Gas Well
⊙	Dry Hole
⊙	Injection Well
⊙	Plugged & Abandoned Oil Well
⊙	Plugged & Abandoned Gas Well
⊙	Injection From Oil
⊙	Plugged Injection From Oil
△	Service Well
⊙	Oil & Gas Well
⊙	Abandoned Service
<b>REMARKS</b>	
1/2 Mile Radius Indicated in Red	
Only Wells Within 2 Mile Radius Shown on Map	
See Exhibit "A" For Well List	
By: JHB	
May 7, 2012	

BTA Oil Producers LLC  
 Application for Auth to Inject  
 Gem 8705 JV-P No. 3 W/M/W

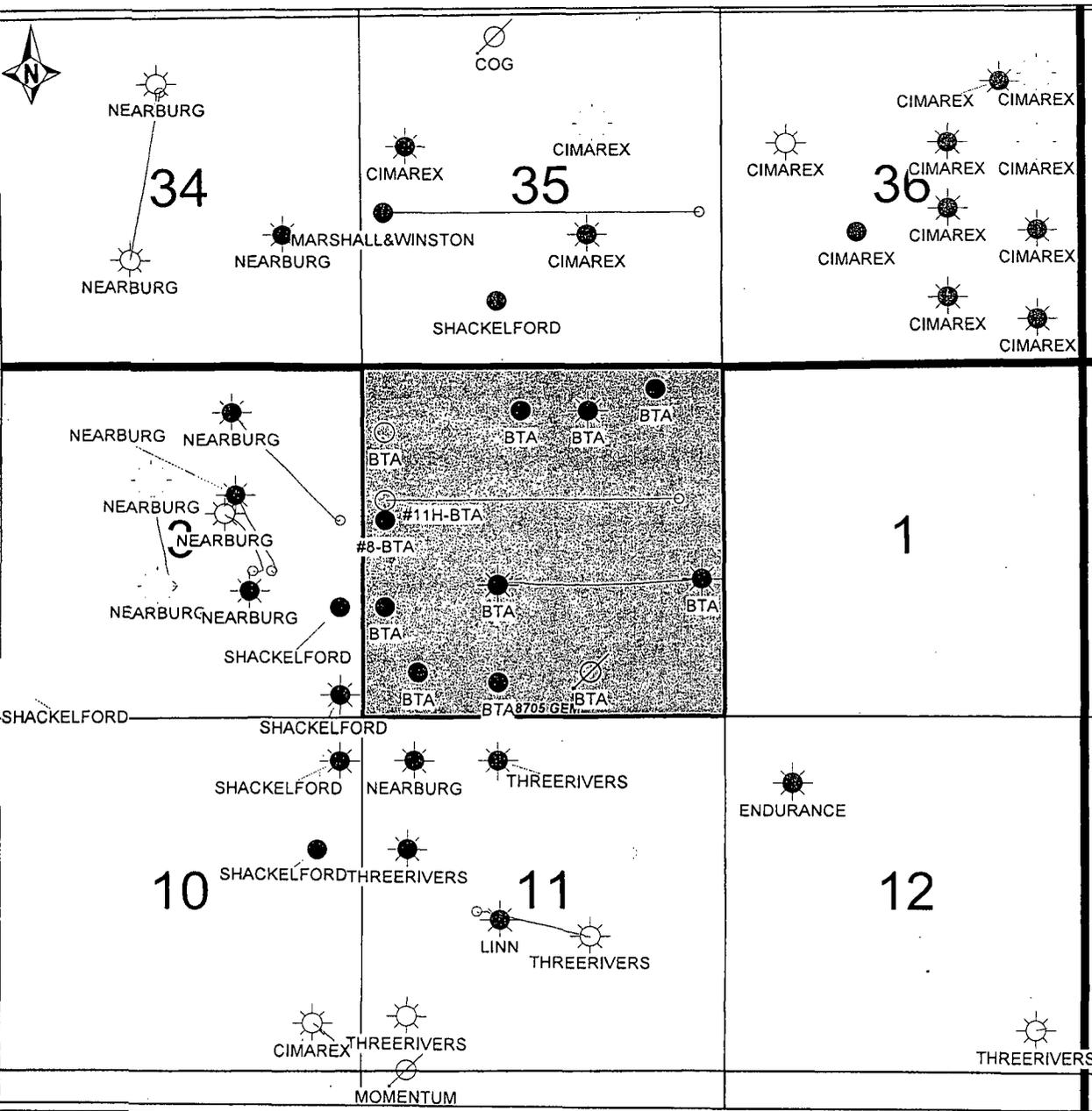
BTA Oil Producers LLC  
 Application for Authorization to Inject  
 Gem, 8705 JV-P No. 3 WIW  
 660' FSL & 1980' FEL  
 Section 2, T20S, R33E  
 Lea County, NM

VI AOR Well Data

Well Name	Operator	Location	Type of Well	Spud Date	Comp Date	TD PBTB	Comp Interval	Producing Formation	Casing Program			
									Casing	Depth	Amt Cmt	Circ
Gem 8705 JV-P #6H	BTA Oil Producers LLC	1980' FSL & 1980' FWL 2039 FSL & 340' FEL BHL 2-20S-33E	Oil	8/5/1991	10/29/1991 Rec 12/26/2008	12908' MD 10178' TVD 12409' CIBP @ 12675'	10400 - 12392'	Bone Spring	20" 13-3/8" 8-5/8" 5-1/2"	1385 3116 5490 13640	2200 2200 1700 2600	Circ Circ 4090 Circ
Gem 8705 JV-P #6H	BTA Oil Producers LLC	660' FSL & 810' FWL 2-20S-33E	Oil	6/5/1991	9/7/1991	10,340' 7,962'	6540 - 6560'	Delaware	20" 13-3/8" 8-5/8" 5-1/2"	1400 3100 5490 10340	2200 2100 1700 1500	Circ Circ 4130 5310
Gem 8705 JV-P #4	BTA Oil Producers LLC	510' FSL & 1980' FWL 2-20S-33E	Oil	4/12/1991	6/1/1991	10,297' 10,206'	9367 - 9418' 6583 - 6591'	Delaware Bone Spring (commingled)	20" 13-3/8" 8-5/8" 5-1/2"	1370 3310 5550 10293	2100 2200 1700 1500	Circ Circ 4160 Circ
Gem 8705 JV-P #1	BTA Oil Producers LLC	660' FNL & 1980' FEL 2-20S-33E	Oil	6/7/1987	1/1/1991	13,700' 10,230' RBP @ 6975'	6592 - 6599' 6312 - 6360'	Delaware Bone Spring (commingled)	20" 13-3/8" 8-5/8" 5-1/2"	1350 3085 4015 13700	2200 2150 640 3500	Circ Circ 4300 5800
Gem 8705 JV-P #5	BTA Oil Producers LLC	660' FSL & 810' FWL 2-20S-33E	Oil	6/5/1991	8/27/1991 Rec 9/09/1999	10,340' 7,962'	6540 - 6550'	Delaware	20" 13-3/8" 8-5/8" 5-1/2"	1400 3100 5490 10340	2200 2100 1700 1500	Circ Circ 4130 5310
Smith Ranch Federal #2	Three Rivers Op Co LLC	660' FNL & 1980' FWL 11-20S-33E	Oil	1/26/1991	11/8/1993 Rec 1/28/2008	9,746' 9,724'	6483 - 6590'	Delaware	13-3/8" 8-5/8" 5-1/2"	438 5279 9744	500 800 1350	Circ Circ 4500
State YS #1	Aztec Oil & Gas	660' FSL & 1980' FWL 2-20S-33E	P&A	10/28/1971	11/12/1971	3,562'	3460-3562'	Seven Rivers	9-5/8" 7"	1396 3150	650 100	Surf* 2291*

\* BTA Calculated

# Attachment D2



**BTA OIL PRODUCERS, LLC**

**8705 JV-P Gem**

**Active Location Operator List**

**Sec. 2 - T20S - R33E**

**Lea Co. New Mexico**

**POSTED WELL DATA**

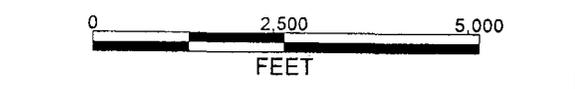
● Operator

- WELL SYMBOLS**
- Location Only
  - Oil Well
  - ☀ Gas Well
  - ☀● Oil & Gas Well
  - ⊗ Injection Well
  - ⊗● Injection From Oil

**REMARKS**

BTA Acreage highlighted in lt. blue  
Only active locations shown on map

By: JHB



October 31, 2011

TRA 10/31/2011 4:01:58 PM

BTA Oil Producers LLC  
Application for Auth to Inject  
Gem. 8705 JV-P No. 3 W1W  
30-025-30977

## Exhibit "A" to Active Operator Map

API #	Operator	Well Name	Well No.	Sec	TwN	Rng	Footage Calls
30025243240000	BELL KELLY INC	LAGUNA TONTO	1	34	19S	33E	2310'FNL & 2310'FEL
30025343900000	NEARBURG PROD CO	JADE 34 FEDERAL COM	1	34	19S	33E	1980'FSL & 1150'FEL
30025343900001	NEARBURG PROD CO	JADE 34 FEDERAL COM	1	34	19S	33E	1980'FSL & 1150'FEL
30025343900002	NEARBURG PROD CO	JADE 34 FEDERAL	1	34	19S	33E	1980'FSL & 1150'FEL
30025368200000	NEARBURG PROD CO	JADE 34 FEDERAL COM	3	34	19S	33E	1115'FNL & 2364'FWL
30025017030000	HUDSON & HUDSON	SAUNDERS FEDERAL	1	35	19S	33E	1980'FNL & 1980'FWL
30025017040000	TEXACO INCORPORATED	COLE	1	35	19S	33E	660'FNL & 660'FEL
30025225970000	COG OPERATING LLC	GORMAN FEDERAL	1	35	19S	33E	330'FNL & 1980'FWL
30025236360000	MCKNIGHT BYRON M	MARK SMITH RANCH	1	35	19S	33E	330'FNL & 330'FWL
30025258860000	MATADOR OPER CO	LAGUNA DEEP FEDERAL	1	35	19S	33E	1650'FNL & 1900'FEL
30025271520000	MATADOR OPER CO	LAGUNA DEEP UNIT	3	35	19S	33E	990'FSL & 1980'FWL
30025271520001	MATADOR OPERATING CO	LAGUNA DEEP FEDERAL	3	35	19S	33E	990'FSL & 1980'FWL
30025271520002	SHACKELFORD OIL CO	LAGUNA DEEP FEDERAL	3	35	19S	33E	990'FSL & 1980'FWL
30025335720000	BASS ENTRPRS PROD CO	GEM 35 FEDERAL	1	35	19S	33E	1980'FSL & 660'FWL
30025347490000	CIMAREX ENERGY OF CO	LAGUNA DEEP UNIT FEDERAL	5	35	19S	33E	1980'FNL & 660'FWL
30025347490001	CIMAREX ENERGY OF CO	LAGUNA DEEP FEDERAL UNIT	5	35	19S	33E	1980'FNL & 660'FWL
30025376860000	CIMAREX ENERGY OF CO	LAGUNA DEEP UNIT	9	35	19S	33E	1980'FSL & 1980'FEL
30025399460000	MARSHALL & WINSTON INC	LAGUNA DEEP UNIT FEDERAL 35	1H	35	19S	33E	2310'FSL & 330'FEL
30025299180000	MALLON OIL COMPANY	PENNZOIL STATE 36 COM	1	36	19S	33E	1980'FSL & 660'FEL
30025299180001	MALLON OIL CO	PENNZOIL 36 STATE	1	36	19S	33E	1980'FSL & 660'FEL
30025299180002	MALLON OIL CO	PENNZOIL 36 STATE	1	36	19S	33E	1980'FSL & 660'FEL
30025362550000	CIMAREX ENERGY OF CO	LAGUNA DEEP UNIT	7	36	19S	33E	1980'FNL & 950'FWL
30025362550001	CIMAREX ENERGY OF CO	LAGUNA DEEP UNIT	7	36	19S	33E	1980'FNL & 950'FWL
30025379910000	CIMAREX ENERGY OF CO	PENNZOIL B36 STATE	1	36	19S	33E	1980'FNL & 660'FEL
30025383000000	CIMAREX ENERGY OF CO	PENNZOIL B 36 STATE	2	36	19S	33E	2310'FSL & 1980'FEL
30025385560000	CIMAREX ENERGY OF CO	LAGUNA DEEP UNIT	16	36	19S	33E	1980'FSL & 1980'FWL
30025385580000	CIMAREX ENERGY OF CO	PENNZOIL B 36 STATE	3	36	19S	33E	1980'FNL & 1980'FEL
30025385590000	CIMAREX ENERGY OF CO	PENNZOIL B 36 STATE	4	36	19S	33E	990'FSL & 1980'FEL
30025385600000	CIMAREX ENERGY OF CO	PENNZOIL B 36 STATE	5	36	19S	33E	660'FSL & 660'FEL
30025303360000	FASKEN OIL AND RANCH LTD	LING FEDERAL	2	31	19S	34E	1980'FSL & 660'FWL
30025017050000	PENROSE NEVILLE G	CROZIER AD-1	1	1	20S	33E	1980'FNL & 660'FWL
30025308960000	BRECK OPERATING CORP	GRACE 1 FEDERAL	1	1	20S	33E	1980'FNL & 660'FEL
30025308960001	BRECK OPERATING CORP	GRACE FEDERAL	1	1	20S	33E	1980'FNL & 660'FEL
30025238970000	AZTEC OIL & GAS CO	STATE YS	1	2	20S	33E	660'FSL & 1980'FWL

## Exhibit "A" to Active Operator Map

API #	Operator	Well Name	Well No.	Sec	TwN	Rng	Footage Calls
30025299160000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	1	2	20S	33E	660'FNL & 1980'FEL
30025299160001	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	1	2	20S	33E	660'FNL & 1980'FEL
30025299160002	BTA OIL PRODUCERS LLC	8705 JV-P GEM	1	2	20S	33E	660'FNL & 1980'FEL
30025304680000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	2	2	20S	33E	660'FNL & 2310'FWL
30025304680001	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	2	2	20S	33E	660'FNL & 2310'FWL
30025309770000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	3	2	20S	33E	660'FSL & 1980'FEL
30025309770001	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	3	2	20S	33E	660'FSL & 1980'FEL
30025309770002	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	3	2	20S	33E	660'FSL & 1980'FEL
30025312090000	BTA OIL PRODUCERS LLC	8705-JVP GEM	4	2	20S	33E	510'FSL & 1980'FWL
30025312090001	BTA OIL PRODUCERS LLC	8705 JV-P GEM	4	2	20S	33E	510'FSL & 1980'FWL
30025312710000	BTA OIL PRODUCERS LLC	8705 JV-P GEM	5	2	20S	33E	660'FSL & 810'FWL
30025312710001	BTA OIL PRODUCERS LLC	8705 JV-P GEM	5	2	20S	33E	660'FSL & 810'FWL
30025313180000	BTA OIL PRODUCERS LLC	8705 JV-P GEM	6	2	20S	33E	1980'FSL & 1980'FWL
30025313180001	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	6	2	20S	33E	1966'FSL & 1975'FWL
30025347260000	BTA OIL PRODUCERS LLC	8705 JV-P GEM	7	2	20S	33E	1650'FSL & 330'FWL
30025347270000	BTA OIL PRODUCERS LLC	8705 JV-P GEM	8	2	20S	33E	2310'FNL & 330'FWL
30025347270001	BTA OIL PRODUCERS LLC	8705 JV-P GEM	8	2	20S	33E	2310'FNL & 330'FWL
30025348410000	BTA OIL PRODUCERS LLC	8705 JV-P GEM	9	2	20S	33E	330'FNL & 990'FEL
30025401280000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	12	2	20S	33E	2310'FNL & 660'FWL
30025403150000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	10	2	20S	33E	990'FNL & 330'FWL
30025403160000	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	11H	2	20S	33E	1980'FNL & 660'FEL
30025017060000	MCCRATH & SMITH INC	TRIGG-FED	1	3	20S	33E	660'FSL & 660'FWL
30025017070000	TRIGG JOHN H	FEDERAL LEA 3	2	3	20S	33E	658'FNL & 660'FEL
30025218360000	HANKS ROGER C INC	U.S GOVERNMENT	1	3	20S	33E	1980'FNL & 1980'FEL
30025345430000	NEARBURG PROD CO	VIPER '3' FEDERAL	1	3	20S	33E	2200'FSL & 1600'FEL
30025347280000	SHACKELFORD OIL CO	TONTO FEDERAL	3	3	20S	33E	330'FSL & 330'FEL
30025348720000	NEARBURG PROD CO	PYTHON '3' FEDERAL	1	3	20S	33E	1900'FSL & 1650'FEL
30025349130000	NEARBURG PROD CO	PYTHON '3' FEDERAL	2	3	20S	33E	855'FSL & 1650'FEL
30025349350000	SHACKELFORD OIL CO	TONTO FEDERAL	4	3	20S	33E	1650'FSL & 330'FEL
30025350810000	NEARBURG PROD CO	PYTHON '3' FEDERAL	3	3	20S	33E	2200'FSL & 1330'FEL
30025354210000	NEARBURG PROD CO	PYTHON '3' FEDERAL	7	3	20S	33E	1980'FSL & 2310'FWL
30025354740000	NEARBURG PROD CO	PYTHON '3' FEDERAL	4	3	20S	33E	2310'FNL & 230'FEL
30025354750000	NEARBURG PROD CO	PYTHON '3' FEDERAL	5	3	20S	33E	2310'FNL & 330'FEL
30025356470000	NEARBURG PROD CO	PYTHON '3' FEDERAL	6	3	20S	33E	1980'FSL & 2510'FWL

## Exhibit "A" to Active Operator Map

API #	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls
30025364180000	SHACKELFORD OIL CO	LONE RANGER	1	3	20S	33E	400'FSL & 330'FWL
30025320120000	CHESAPEAKE OPER INC	SCHARBAUER 4	3	4	20S	33E	660'FSL & 660'FEL
30025359760000	CHESAPEAKE OPER INC	WEST TEAS YATES SEVEN RIVERS UNIT	443	4	20S	33E	1650'FSL & 660'FEL
30025364110000	CHESAPEAKE OPER INC	SMITH 4 FEDERAL	1	4	20S	33E	2310'FNL & 660'FEL
30025367300000	CHESAPEAKE OPER INC	SMITH 4 FEDERAL	2	4	20S	33E	990'FNL & 395'FEL
30025322170000	CHESAPEAKE OPER INC	FEDERAL '9	5	9	20S	33E	330'FNL & 990'FEL
30025322170001	STEVENS & TULL INC	FEDERAL '9	5	9	20S	33E	330'FNL & 990'FEL
30025325170000	CHESAPEAKE OPER INC	FEDERAL '9'	6	9	20S	33E	1650'FNL & 990'FEL
30025330040000	CHESAPEAKE OPER INC	FEDERAL '9	7	9	20S	33E	2310'FSL & 990'FEL
30025360790000	CHESAPEAKE OPER INC	TEAS YATES SEVEN RIVERS WEST UNIT	945	9	20S	33E	2612'FNL & 330'FEL
30025364120000	CHESAPEAKE OPER INC	WTYSRU	946	9	20S	33E	990'FNL & 330'FEL
30025017160000	WESTERN DRLG CO INC	ANDERSON-PRICHARD	1	10	20S	33E	330'FSL & 330'FEL
30025017160001	ANADARKO PROD CO	TEAS YATES UN TR 14	WS-1	10	20S	33E	330'FSL & 330'FEL
30025203720000	STOLTZ DEANE H	UNION TEXAS	1	10	20S	33E	1980'FNL & 1980'FWL
30025292650000	SHACKELFORD OIL CO	TONTO FEDERAL	1	10	20S	33E	1980'FNL & 660'FEL
30025292650001	GRACE PETROLEUM CORP	TONTO FEDERAL	1	10	20S	33E	1980'FNL & 660'FEL
30025292650002	SHACKELFORD OIL CO	TONTO FEDERAL	1	10	20S	33E	1980'FNL & 660'FEL
30025351010000	SHACKELFORD OIL CO	TONTO FEDERAL	2	10	20S	33E	660'FNL & 330'FEL
30025380550000	CIMAREX ENERGY OF CO	NEW SHERIFF 10 FEDERAL COM	1	10	20S	33E	330'FSL & 280'FEL
30025017170000	ANADARKO PETRO CORP	FEDERAL 11	1	11	20S	33E	660'FSL & 660'FWL
30025017170001	ANADARKO PROD CO	TEAS YATES UN TR 13	1	11	20S	33E	660'FSL & 660'FWL
30025268100000	GRACE PETROLEUM CORP	SMITH RANCH FEDERAL	1	11	20S	33E	1980'FNL & 660'FWL
30025268100001	GRACE PETROLEUM CORP	SMITH RANCH FEDERAL	1	11	20S	33E	1980'FNL & 660'FWL
30025268100002	SAMSON RESOURCES CO	SMITH RANCH FEDERAL	1	11	20S	33E	1980'FNL & 660'FWL
30025280330000	MOMENTUM OPER CO INC	TES(YTES)UNIT TR 13	WI-2	11	20S	33E	10'FSL & 660'FWL
30025311380000	THREE RIVERS OPER CO LLC	SMITH RANCH FEDERAL	2	11	20S	33E	660'FNL & 1980'FWL
30025311380001	SAMSON RESOURCES CO	SMITH RANCH FEDERAL	2-11	11	20S	33E	660'FNL & 1980'FWL
30025312550000	MERIT ENERGY COMPANY	SMITH RANCH '11' FEDERAL	1	11	20S	33E	2310'FSL & 900'FWL
30025316830000	LINN OPERATING INC	SMITH RANCH '11' FED	2	11	20S	33E	2250'FSL & 2014'FWL
30025347010000	NEARBURG PROD CO	ANACONDA '11' FEDERAL	1	11	20S	33E	660'FNL & 760'FWL
30025349340000	NEARBURG PROD CO	ANACONDA '11' FEDERAL	2	11	20S	33E	1650'FNL & 1650'FWL
30025349340001	NEARBURG PROD CO	ANACONDA 11 FEDERAL	2	11	20S	33E	1650'FNL & 1650'FWL
30025367970000	THREE RIVERS OPER CO LLC	GUNSLINGER 11 FEDERAL COM	1	11	20S	33E	810'FSL & 660'FWL
30025381220000	THREE RIVERS OPER CO LLC	GUNSLINGER 11 FEDERAL	2	11	20S	33E	2380'FSL & 1675'FWL

## Exhibit "A" to Active Operator Map

API #	Operator	Well Name	Well No.	Sec	Tw	Rng	Footage Calls
30025017180000	JEFFERS OIL COMPANY	JIMENEZ	1	12	20S	33E	1980'FNL & 660'FWL
30025277090000	WESTALL RAY	EST SMH RNC FDRL CM	1	12	20S	33E	990'FNL & 990'FWL
30025277090001	WESTALL RAY	EAST SMITH RANCH FEDERAL COM	1	12	20S	33E	990'FNL & 990'FWL
30025379960000	THREE RIVERS OPER CO LLC	MARSHALL 12 FEDERAL COM	1	12	20S	33E	660'FNL & 550'FWL
30025017190000	MOMENTUM OPER CO INC	TEAS YATES UN TR8	2	13	20S	33E	1980'FNL & 990'FWL
30025017200000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR2	1	13	20S	33E	1980'FNL & 1980'FWL
30025017200001	ANADARKO PROD CO	TEAS(YATES)UNIT TR2	WI-1	13	20S	33E	1980'FNL & 1980'FWL
30025017210000	MOMENTUM OPER CO INC	TEAS YATES UN TR4	1	13	20S	33E	1980'FNL & 1980'FWL
30025017220000	MOMENTUM OPER CO INC	BOBB C	2	13	20S	33E	2310'FNL & 1980'FWL
30025017220001	ANADARKO PROD CO	TEAS YATES UN TR3	2	13	20S	33E	2310'FNL & 1980'FWL
30025017220002	ANADARKO PROD CO	TEAS YATES UNIT TR3	2	13	20S	33E	2310'FNL & 1980'FWL
30025017230000	MOMENTUM OPER CO INC	BOBB-FEDERAL	3	13	20S	33E	1815'FNL & 990'FWL
30025017240000	MOMENTUM OPER CO INC	FED BOBB C	4	13	20S	33E	990'FNL & 1650'FWL
30025017240001	ANADARKO PROD CO	TEAS YATES U TR 3	WI-4	13	20S	33E	990'FNL & 1650'FWL
30025017250000	MOMENTUM OPER CO INC	TEAS YATES UN TR2	2	13	20S	33E	660'FNL & 330'FWL
30025017250001	ANADARKO PROD CO	TEAS (YATES) UNIT TR 2	WI-2	13	20S	33E	660'FNL & 330'FWL
30025017260000	BAXTER MURPHY H	FEDERAL	1	13	20S	33E	1980'FNL & 660'FWL
30025280280000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR 2	3	13	20S	33E	1295'FNL & 1980'FWL
30025280280001	ANADARKO PROD CO	TEAS (YATES) UNIT TR 2	3	13	20S	33E	1295'FNL & 1980'FWL
30025280290000	MOMENTUM OPER CO INC	TEAS (YATES) UN TR2	4	13	20S	33E	2615'FNL & 1980'FWL
30025280290001	ANADARKO PROD CO	TEAS (YATES) UNIT TR 2	4	13	20S	33E	2615'FNL & 1980'FWL
30025280300000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR 8	3	13	20S	33E	2490'FNL & 10'FWL
30025280310000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR 8	WI-4	13	20S	33E	2250'FNL & 975'FWL
30025312740000	RKI E&P LLC	SIX SHOOTER '13' FEDERAL	1	13	20S	33E	990'FNL & 1750'FWL
30025312740001	RKI EXP & PROD LLC	SIX SHOOTER 13 FEDERAL	1	13	20S	33E	990'FNL & 1750'FWL
30025313970000	RKI E&P LLC	SHARP NOSE FEDERAL	1	13	20S	33E	2395'FNL & 2065'FWL
30025017270000	MOMENTUM OPER CO INC	TEAS YATES UN TR11	1	14	20S	33E	990'FNL & 2310'FWL
30025017270001	ANADARKO PROD CO	TEAS (YATES)UNIT TR 11	WI-1	14	20S	33E	990'FNL & 2310'FWL
30025017280000	ANADARKO PROD CO	TEAS YATES UN TR5	1	14	20S	33E	660'FNL & 660'FWL
30025017290000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR5	3	14	20S	33E	1980'FNL & 1650'FWL
30025017290001	ANADARKO PROD CO	TEAS(YATES)UNIT TR5	WI-3	14	20S	33E	1980'FNL & 1650'FWL
30025017300000	MOMENTUM OPER CO INC	AMERICAN REPUBLICS A	2	14	20S	33E	660'FNL & 1650'FWL
30025017300001	ANADARKO PROD CO	TEAS(YATES)UNIT TR5	2	14	20S	33E	660'FNL & 1650'FWL
30025017300002	ANADARKO PROD CO	TEAS(YATES)UNIT TR5	2	14	20S	33E	660'FNL & 1650'FWL

## Exhibit "A" to Active Operator Map

API #	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls
30025017310000	MOMENTUM OPER CO INC	FEDERAL A	4	14	20S	33E	2310'FNL & 990'FWL
30025017320000	MOMENTUM OPER CO INC	TEAS YATES UN TR7	1	14	20S	33E	2310'FSL & 1980'FWL
30025017330000	MOMENTUM OPER CO INC	TEAS YATES UN TR10	1	14	20S	33E	1650'FNL & 330'FEL
30025017340000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TR9	1	14	20S	33E	990'FSL & 2310'FWL
30025017340001	ANADARKO PROD CO	TEAS(YATES)UNIT TR9	WJ-1	14	20S	33E	990'FSL & 2310'FWL
30025017350000	HONDO O&G CO	MAHAFFEY-FEDERAL AR	1	14	20S	33E	660'FNL & 1980'FWL
30025017360000	MOMENTUM OPER CO INC	FEDERAL FOREST 3	1	14	20S	33E	2310'FSL & 2310'FEL
30025017360001	ANADARKO PROD CO	TEXAS YATES U TR 14	2	14	20S	33E	2310'FSL & 2310'FEL
30025017370000	MOMENTUM OPER CO INC	TEAS YATES UN TR10	2	14	20S	33E	1650'FNL & 2310'FEL
30025017380000	ANADARKO PETRO CORP	FEDERAL	1	14	20S	33E	1980'FSL & 660'FEL
30025212440000	MOMENTUM OPER CO INC	TEAS YATES UN TR6	1	14	20S	33E	2310'FSL & 990'FWL
30025212440001	ANADARKO PROD CO	TEAS(YATES)UNIT TR6	WI-1	14	20S	33E	2310'FSL & 990'FWL
30025247450000	MOMENTUM OPER CO INC	TEAS YATES UN TR 5	5	14	20S	33E	990'FNL & 990'FWL
30025273130000	ANADARKO PROD CO	TEAS /YATES/UNIT	WS-1	14	20S	33E	1330'FNL & 1330'FWL
30025276350000	MOMENTUM OPER CO INC	TEAS(YATES)UNIT TRIO	WI-3	14	20S	33E	2265'FNL & 1425'FEL
30025280320000	MOMENTUM OPER CO INC	TEAS(YATES)UN TR 11	2	14	20S	33E	1250'FNL & 1000'FEL
30025367190000	THREE RIVERS OPER CO LLC	MAVERICK 14 FEDERAL COM	1	14	20S	33E	1980'FSL & 1830'FWL
30025017390000	MOMENTUM OPER CO INC	TEAS YATES UN TR12	1	15	20S	33E	660'FNL & 660'FEL
30025204590000	KNOX GORDON ASSOCS	TENNECO FEDERAL	1	15	20S	33E	1980'FNL & 1980'FWL
30025372300000	THREE RIVERS OPER CO LLC	BANDIT 15 FEDERAL COM	1	15	20S	33E	810'FNL & 660'FEL
30025313180100	BTA OIL PRODUCERS LLC	GEM 8705 JV-P	6	20	20S	33EE	1980'FSL & 1980'FWL
30025024180000	TRIGG JOHN H	LEA-FEDERAL 6	1	6	20S	34E	660'FNL & 681'FWL
30025306880000	MATADOR OPER CO	FEDERAL 6 COM	1	6	20S	34E	660'FNL & 1980'FWL
30025306880001	MATADOR OPERATING CO	FEDERAL 6 COM	1	6	20S	34E	660'FNL & 1980'FWL
30025317140000	COLLINS & WARE INC	QUIET MAN FEDERAL	1	6	20S	34E	1980'FSL & 1980'FWL
30025317140001	COLLINS & WARE INC	QUIET MAN FEDERAL	1	6	20S	34E	1980'FSL & 1980'FWL

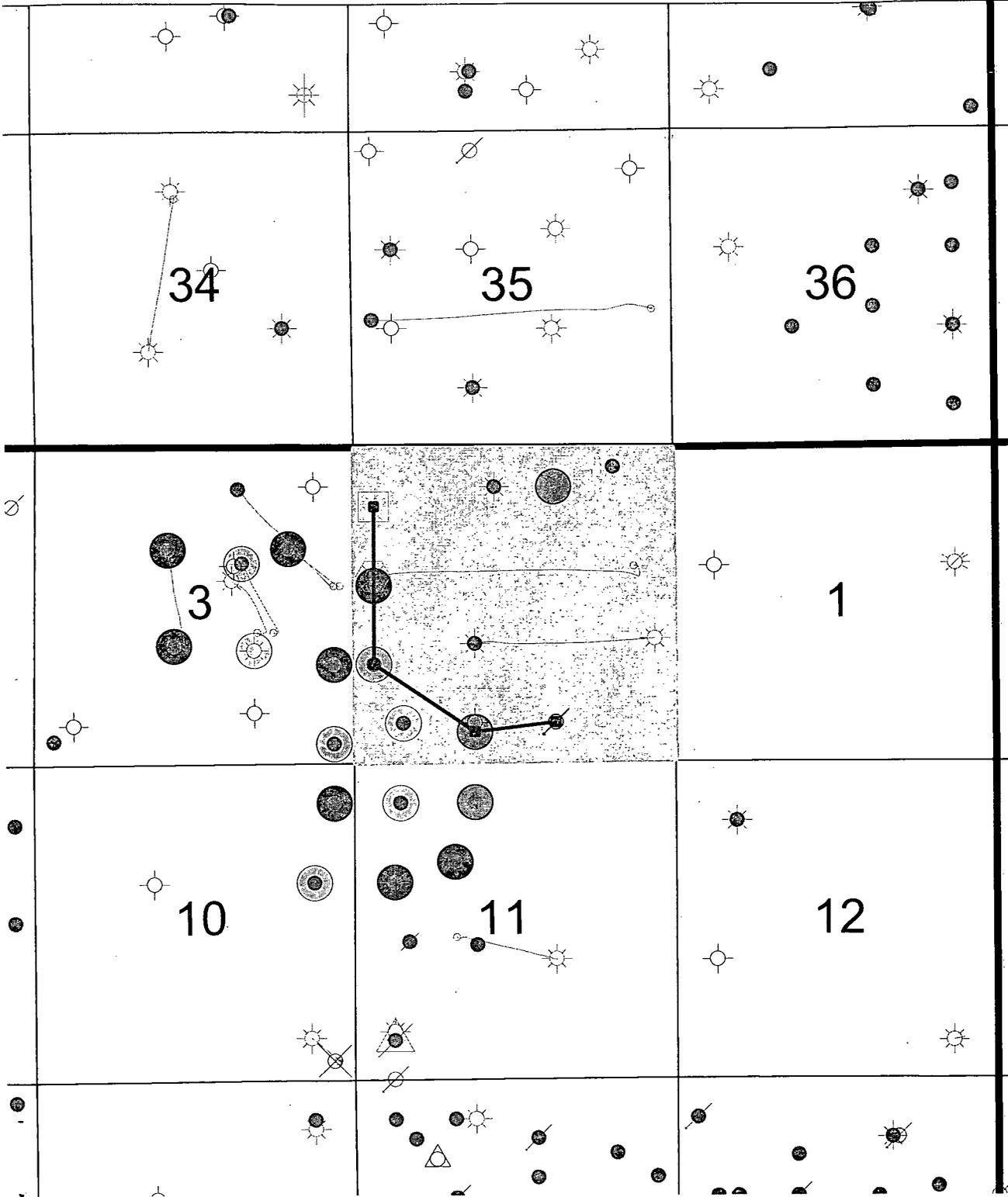
**LOCATOR MAP FOR CROSS SECTION**

BTA Oil Producers LLC

Application for Auth to Inject

Gem. 8705 JV-P No. 3 WIW

30-025-30977



**BTA OIL PRODUCERS**

**NEW MEXICO REGIONAL**

**GEM FIELD**

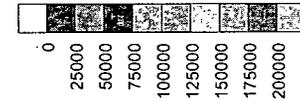
**DELAWARE X-SECTION**

**LEA COUNTY, NEW MEXICO**

**BUBBLE MAP**

PROD - O\_DELAWARE - Cumulative Oil Production

PROD - O\_DELAWARE - Cumulative Oil Production



**WELL SYMBOLS**

- Drilled, Waiting on Completion
- Completing/Completed
- Oil Well
- Gas Well
- Oil & Gas Well
- Dry Hole
- Injection Well
- Plugged & Abandoned Oil Well
- Plugged & Abandoned Gas Well
- Injection From Oil
- Plugged Injection From Oil
- Service Well
- Oil & Gas Well
- Abandoned GAS Well

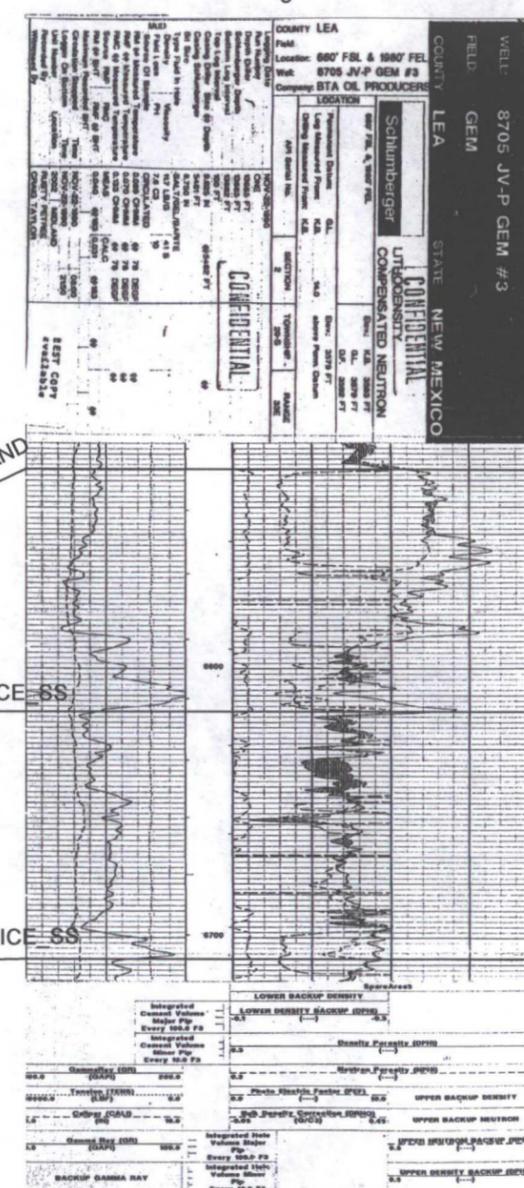
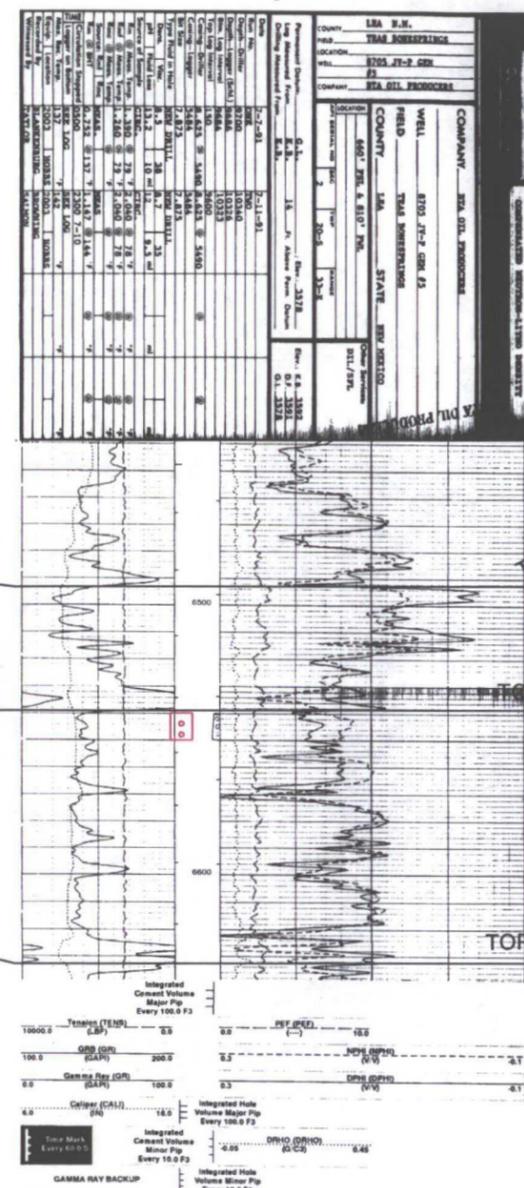
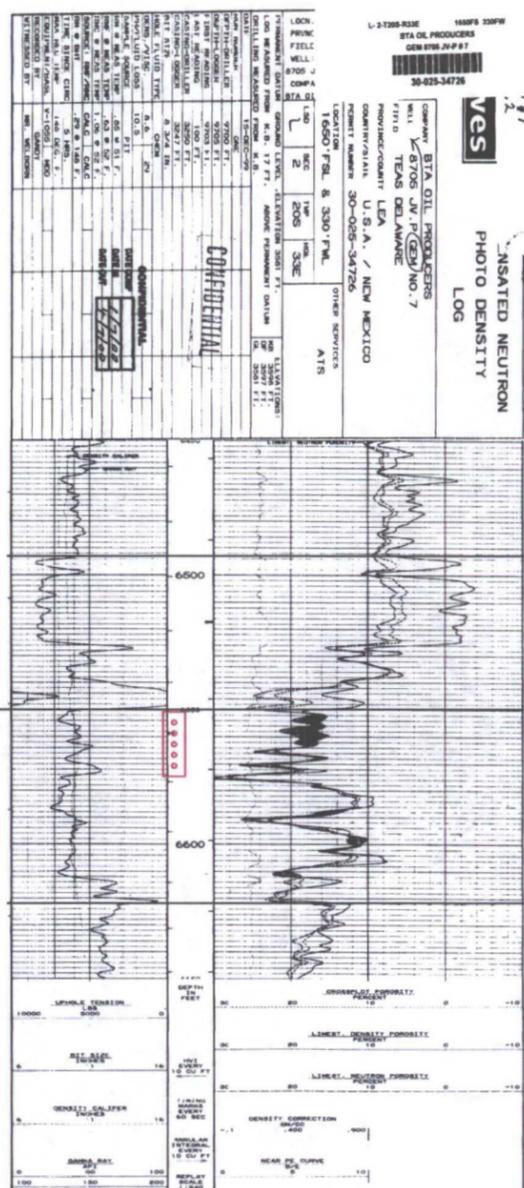
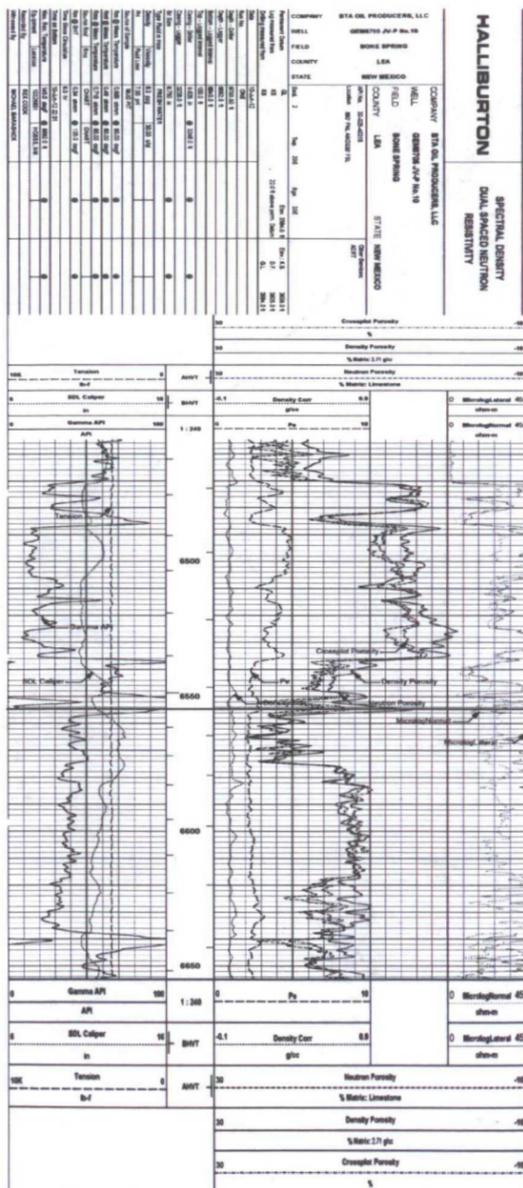


BTA OIL PRODUCER LLC  
GEM 8705 JV-P  
10

BTA OIL PRODUCERS LLC  
8705 JV-P GEM  
7

BTA OIL PRODUCERS LLC  
8705 JV-P GEM  
5

BTA OIL PRODUCERS  
GEM 8705 JV-P  
3



TOP\_PARDUE-PRICE\_SAND

TOP\_WILLOWLAKE\_PRICE\_SS

TOP\_CEDARCANYON\_PRICE\_SS

101,219

165,652

67,762

# Attachment E

BTA Oil Producers LLC  
Application for Auth to Inject  
Gem. 8705 JV-P No. 3 WIW  
30-025-30977

BTA Oil Producers LLC  
Application for Authorization to Inject  
Gem, 8705 JV-P No. 3 WIW  
660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, New Mexico

VII      Operation Data

1. Proposed average daily injection volume      500 BWPD  
Proposed maximum daily injection volume      1500 BWPD
  
2. This will be a closed system.
  
3. Proposed average daily injection pressure      700 psi  
Proposed maximum daily injection pressure      1320 psi
  
4. Sources of injection water will be produced water from area Delaware and Bone Spring producers that have been drilled, or may be drilled, on the Gem 8705 JV-P Lease (see list of source wells, Attachment G).

BTA Oil Producers LLC  
 Application for Authorization to Inject  
 Gem, 8705 JV-P No. 3 WIW  
 660' FSL & 1980' FEL  
 Section 2, T20S, R33E  
 Lea County, NM

## LIST OF SOURCE WELLS

### Attachment G

Property	Well Name	Lease Type	ULSTR	OCD UL	API	Well Type	Pool
305261	GEM 8705 JV-P #001	S	2-2 -20S-33E	B	30-025-29916	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #001	S	2-2 -20S-33E	B	30-025-29916	O	96797 TEAS;DELAWARE
	GEM 8705 JV-P #002	S	3-2 -20S-33E	C	30-025-30468	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #003	S	O-2 -20S-33E	O	30-025-30977	S	96100 SWD;DELAWARE
	GEM 8705 JV-P #004	S	N-2 -20S-33E	N	30-025-31209	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #004	S	N-2 -20S-33E	N	30-025-31209	O	96797 TEAS;DELAWARE
	GEM 8705 JV-P #005	S	M-2 -20S-33E	M	30-025-31271	O	96797 TEAS;DELAWARE
	GEM 8705 JV-P #006	S	K-2 -20S-33E	K	30-025-31318	G	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #007	S	L-2 -20S-33E	L	30-025-34726	O	96797 TEAS;DELAWARE
	GEM 8705 JV-P #008	S	E-2 -20S-33E	E	30-025-34727	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #009	S	1-2 -20S-33E	A	30-025-34841	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #010	S	4-2 -20S-33E	D	30-025-40315	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #011H	S	H-2 -20S-33E	H	30-025-40316	O	58960 TEAS;BONE SPRING
	GEM 8705 JV-P #012	S	E-2 -20S-33E	E	30-025-40128	O	27390 GEM;YATES, EAST

BTA Oil Producers LLC  
Application for Authorization to Inject  
Gem, 8705 JV-P No. 3 WIW  
660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, New Mexico

VII      Item 5

Disposal Zone Formation Water

Injection into the Gem #3 WIW will be for enhanced recovery purposes. The zone identified for disposal is productive of oil or gas at this location. There are five wells within the AOR of the Gem No. 3 WIW that are completed in the Delaware. Four are BTA wells, one is Three Rivers Op Co LLC Smith Ranch Fed #2, 11-20S-33E.

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VIII    Geologic Data

Gem No. 3 WIW Geological Discussion Regarding Proposed Disposal Interval

A. Disposal Zone

The Delaware Mountain Group has a total thickness in excess of 3,100 feet within this locality. It is comprised of alternating units of siltstone, sandstone, and limestone with minor units of shale. Oil production occurs from a sandstone located near the top of the Brushy Canyon Formation within the Delaware Mountain Group. The proposed disposal interval lies with the Lower Brushy Canyon Formation, nearly 1,200 feet below the producing interval.

The Delaware Mountain Group was deposited within a deep marine basin. The cleaner sandstone units represent submarine channel/fan sequences deposited down dip of the shelf margin under turbiditic conditions triggered by tectonic activity, gravity slumping or sea level changes. The siltstone, limestone and/or shale units represent the normal deposition that occurs within a marine basin between the catastrophic interruptions of turbiditic events.

B. Fresh Water Sources:

Ogallala Aquifer occurs between 200 and 300 feet from the surface.

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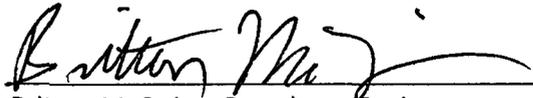
XI      Fresh Water Analysis

To the best of my knowledge, there are no fresh water wells located within one mile of the Gem 8705 JV-P Well No. 3.

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XII      Geological Statement

I have examined all geologic and engineering data available for the Delaware field and find no evidence of open faults or other hydrologic connection between the disposal zone and any underground drinking water sources.

A handwritten signature in black ink, appearing to read "Britton McQuien", written over a horizontal line.

Britton McQuien, Petroleum Engineer  
For BTA Oil Producers, LLC

BTA Oil Producers LLC  
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XIII     Notice of Offset Operators Within ½ Mile

I hereby certify that BTA Oil Producers LLC holds 100% Working Interest in this well.

Surface Owner is the State of New Mexico

Offset Operator List

THREE RIVERS OPERATING COMPANY LLC  
1122 S. Capital of Texas Hwy Suite 325  
Austin, TX 78746

I hereby certify that notification of BTA's application was mailed via certified mail on his 11<sup>th</sup> day of October, 2012 to the above listed Offset Operator.

  
\_\_\_\_\_  
Pam Inskeep



**BTA OIL PRODUCERS, LLC**

104 SOUTH PECOS STREET  
MIDLAND, TEXAS 79701-5021  
432-682-3753  
FAX 432-683-0311

CARLTON BEAL, JR.  
BARRY BEAL  
SPENCER BEAL  
KELLY BEAL  
BARRY BEAL, JR.  
STUART BEAL  
ROBERT DAVENPORT, JR.

**GULF COAST DISTRICT**  
TOTAL PLAZA  
1201 LOUISIANA STREET, STE. 570  
HOUSTON, TEXAS 77002  
713-658-0077 FAX 713-655-0346

**ROCKY MOUNTAIN DISTRICT**  
600 17TH STREET, STE. 2230 SOUTH  
DENVER, COLORADO 80202  
303-534-4404 FAX 303-534-4661

October 11, 2012

RE: Offset Operator Notification  
Application for Authorization to Inject  
Gem, 8705 JV-P #3 WIW  
660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, NM

INTERESTED PARTIES

Gentlemen,

BTA has filed an application for Authorization to Inject at the above referenced location. This is a current disposal well (SWD-794). We are proposing to plug back from the current Delaware perforations and open a new Delaware interval. We plan to utilize this well to enhance recovery.

We are currently permitted, in this well, in the SWD, Delaware Pool. Attached please find a copy of our letter to the State of New Mexico requesting approval along with a copy of our Application Packet. Should you have concerns or objections to the application, you may object in writing to the Oil Conservation at 1220 S. St. Francis Drive, Santa Fe, NM 87505.

Should you have any questions regarding this, please do not hesitate to contact Tom Williams at the letterhead address.

Respectfully,

A handwritten signature in black ink that reads 'Pam Inskeep'.

Pam Inskeep  
BTA Oil Producers LLC

Enc.



## BTA OIL PRODUCERS, LLC

104 SOUTH PECOS STREET  
MIDLAND, TEXAS 79701-5021  
432-682-3753  
FAX 432-683-0311

**GULF COAST DISTRICT**  
TOTAL PLAZA  
1201 LOUISIANA STREET, STE. 570  
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CARLTON BEAL, JR.  
BARRY BEAL  
SPENCER BEAL  
KELLY BEAL  
BARRY BEAL, JR.  
STUART BEAL  
ROBERT DAVENPORT, JR.

October 11, 2012

Re: Offset Operator Notification  
Application to Amend Authorization for Injection  
Gem, 8705 JV-P #3 WIW  
660' FSL & 1980' FEL  
Section 2, T20S, R33E  
Lea County, NM

### OFFSET OPERATORS

Gentlemen,

BTA has filed an application to amend our Authorization to Inject at the above referenced location.

We are currently permitted in the SWD, Delaware Pool. We are proposing to plug back from the current Delaware perforations and open a new Delaware interval. We plan to utilize this well to enhance recovery. Attached please find a copy of our letter to the State of New Mexico requesting approval along with a copy of our Application Packet. Should you have concerns or objections to the application, you may object in writing to the Oil Conservation at 1220 S. St. Francis Drive, Santa Fe, NM 87505.

If you have any questions regarding this, please do not hesitate to contact me at the letterhead address.

Respectfully,

A handwritten signature in black ink that reads 'Pam Inskeep'.

PAMELIA D. INSKEEP  
For BTA Oil Producers LLC

/pdi

Enclosures

BTA Oil Producers LLC  
Application for Authorization to Inject  
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XIII     Legal Notice

BTA OIL PRODUCERS LLC, 104 S Pecos, Midland, Texas 79701, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking approval for an enhanced recovery well. The proposed well, the 8705 JV-P Gem #3 is located 660' FSL & 1980' FEL, Section 2, T20S, R33E, Lea County, NM. Disposal water will be sourced from area wells producing from the Delaware and Bone Springs. The disposal water will be injected into the Delaware formation at a depth of 6618 – 6648', at a maximum surface pressure of 1320 psi, and an average rate of 500 BWPD.

All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505, within 15 days. Additional information can be obtained by contacting Tom Williams, Production Engineer, at 104 S Pecos, Midland, TX 79701, or (432) 682-3753.

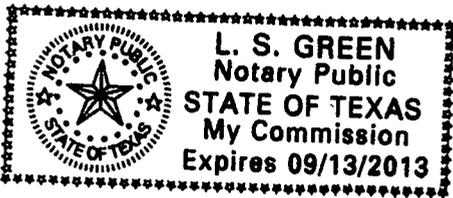
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Lea County, New Mexico

STATE OF TEXAS

COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Pam Inskeep, a Regulatory Administrator with BTA Oil Producers LLC, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list have been sent a copy on October 11, 2012, of the New Mexico Oil Conservation Division Form C-108 "Application for Authorization to Inject" for the 8705 JV-P Gem #3 WIW, located in Section 2, T20S, R33E, Lea County, New Mexico.

SUBSCRIBED AND SWORN TO before me on this 11<sup>th</sup> day of October, 2012, to certify which witness my hand and seal of office.



  
Lou S. Green  
Notary Public, State of Texas