

HOLLAND & HART LLP



Michael H. Feldewert
Recognized Specialist in the Area of
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New Mexico Board of Legal
Specialization

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August 18, 2009

VIA HAND DELIVERY

Mark E. Fesmire, P.E., Director
Oil Conservation Division
N.M. Department of Energy,
Minerals and Natural Resources
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Case 14385

RECEIVED OCD
2009 AUG 18 P 3:24

Re: Application of BTA Oil Producers for approval of a lease water flood project in the Lower Brushy Canyon interval of the Delaware formation and for Qualification of said project for the Recovered Oil Tax Rate Pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico.

Dear Mr. Fesmire:

Enclosed is the Form C-108 Application of BTA Oil Producers in the above-referenced matter as well as a copy of a legal advertisement. BTA requests that this application be placed on the docket for the September 17, 2009 Examiner hearing.

Sincerely,

Michael H. Feldewert

cc: OCD – District 2-Artesia

Holland & Hart LLP

Phone [505] 988-4421 **Fax** [505] 983-6043 **www.hollandhart.com**

110 North Guadalupe Suite 1 Santa Fe, NM 87501 **Mailing Address** P.O. Box 2208 Santa Fe, NM 87504-2208

Aspen Billings Boise Boulder Cheyenne Colorado Springs Denver Denver Tech Center Jackson Hole Salt Lake City Santa Fe Washington, D.C.

CASE 14385 Application of BTA Oil Producers for approval of a lease water flood project in the Lower Brushy Canyon interval of the Delaware formation and for Qualification of said project for the Recovered Oil Tax Rate Pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico. Applicant seeks approval to utilize its 8808 JV-P Pardue D Well #2 (API No. 30-015-26406) for a water flood project covering 80 acres located in the NW/4 of Section 11, T-23-S, R-28-E, NMPM, Eddy County, NM. Said well is located 990 feet from the North line and 660 feet from the West line in Section 11. Applicant proposes to inject up to 1500 barrels of water per day from the Brushy Canyon zone into the Lower Brushy Canyon interval of the Delaware formation at a maximum surface pressure of 930 psi and at an approximate depth of 4,722 feet to 6,134 feet. Applicant also seeks to qualify said project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act. Additional information on this project can be obtained by contacting Thomas J. Williams, Production Engineer, at 104 S. Pecos, Midland, TX 79701, telephone number (432) 682-3753.



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

BTA OIL PRODUCERS

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

GULF COAST DISTRICT
FOUR GREENSPRING PLAZA
16945 NORTHCHASE DRIVE, STE. 1600
HOUSTON, TEXAS 77060
PH. 281-872-5022 FAX 281-872-5054

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

August 14, 2009

Re: Application for Authorization for Injection
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, NM

NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION DIVISION
2040 S. Pacheco Street
Santa Fe, NM 87505

Attention: Mr. Mark Fesmire, P.E. Director

RECEIVED OGD
2009 AUG 18 P 3:25

Dear Mr. Fesmire,

BTA Oil Producers LLC hereby seeks approval for Authorization to Inject at the above referenced location. It is our understanding that this application and waterflood project will require a hearing. Please set for hearing on your September 17th docket.

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 Carlsbad Current-Argus. 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,

PAMELIA D. INSKEEP
For BTA Oil Producers LLC

/pdi

Enclosures

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes X 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 X 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: Pam Inskeep TITLE: Regulatory Administrator

SIGNATURE: Tom Driskell DATE: 8/14/2009

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:

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

BTA OIL PRODUCERS LLC
Application for Authorization to Inject
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, New Mexico

Attachment A

III. Well Data

Section A:

1. Lease Name: 8808 JV-P Pardue D #2
Location: 990' FNL & 660' FWL, Sec. 11, T23S-R28E, Eddy County, NM
2. Casing and Cement:
EXISTING

<u>Csg Size</u>	<u>Setting Depth</u>	<u>SX Cmt</u>	<u>Hole Size</u>	<u>Top of Cement</u>
8-5/8"	510'	400	12-1/4"	Circ to Surface
5-1/2"	6250'	1300	7-7/8"	Circ to Surface

PROPOSED

<u>Csg Size</u>	<u>Setting Depth</u>	<u>SX Cmt</u>	<u>Hole Size</u>	<u>Top of Cement</u>
8-5/8"	510'	400	12-1/4"	Circ to Surface
5-1/2"	6250'	1300	7-7/8"	Circ to Surface
3. Tubing: 2-7/8", 6.5# N80 EUE internally plastic coated set at ± 4650'.
4. Packer: Baker Loc-Set set at ± 4650'.

Section B:

1. Injection Formation: Productive Brushy Canyon sand
Field or Pool Name: Loving, Brushy Canyon, East
2. Injection Interval: 4722 – 6134'
Note: After testing injectivity and waterflood response in the upper Brushy Canyon (4722-4750' and 4762-4779'), BTA will evaluate injecting into the entire Brushy Canyon interval down to 6134'.
3. Original purpose of well: Oil and gas production
4. Other perforated intervals, bridge plugs, cement plugs:
5815 – 5860' Delaware B sand
5982 – 6030' Delaware D sand
6070 – 6134' Delaware Loving sand
CIBP @ 5775'
5. Next higher oil and gas zone: Cherry Canyon ✓ 3608'
Next lower oil and gas zone: Bone Springs ✓ 6188'

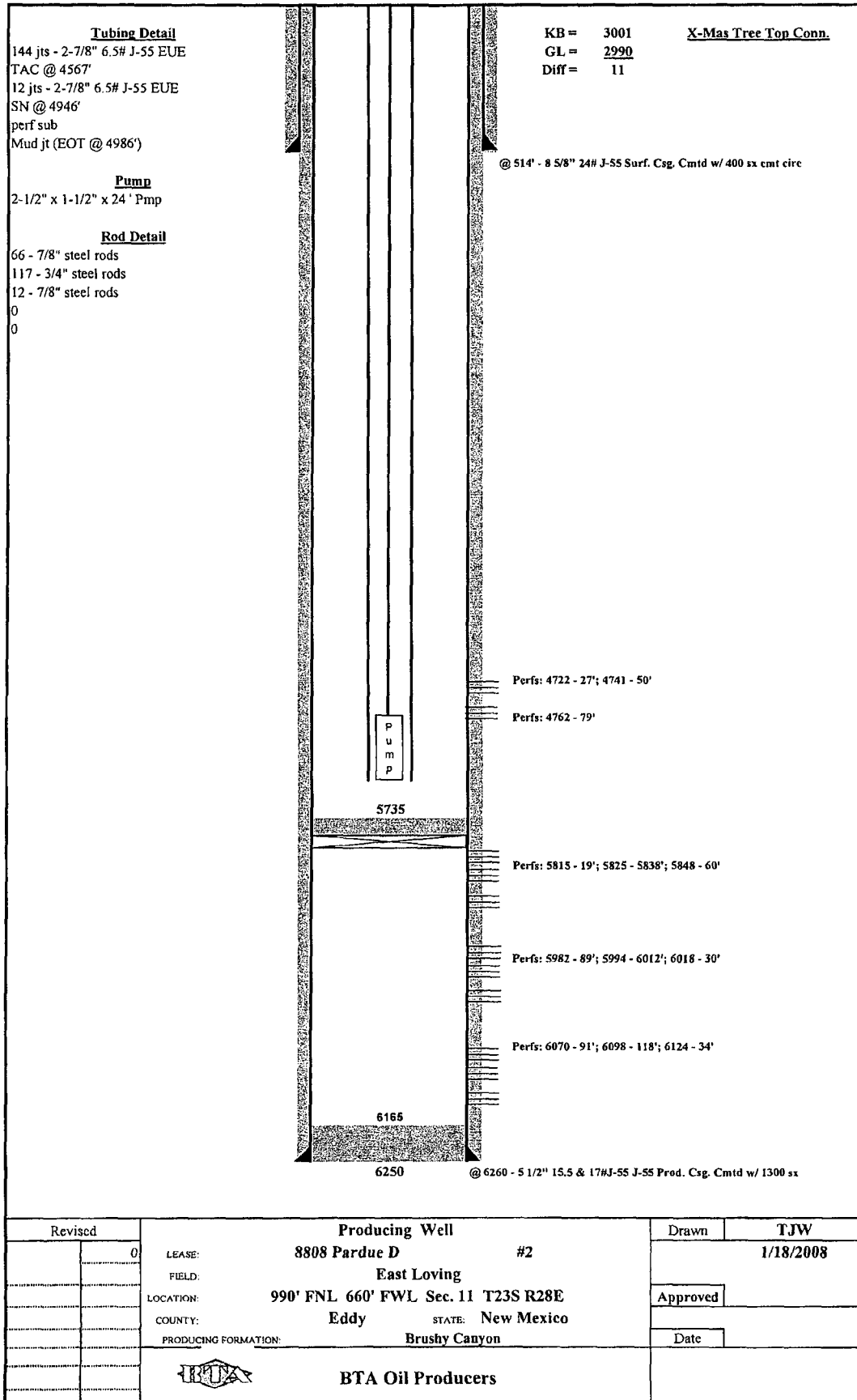
See current and proposed wellbore schematics (Attachments B and C)

See Structural Cross Section (Attachment E)

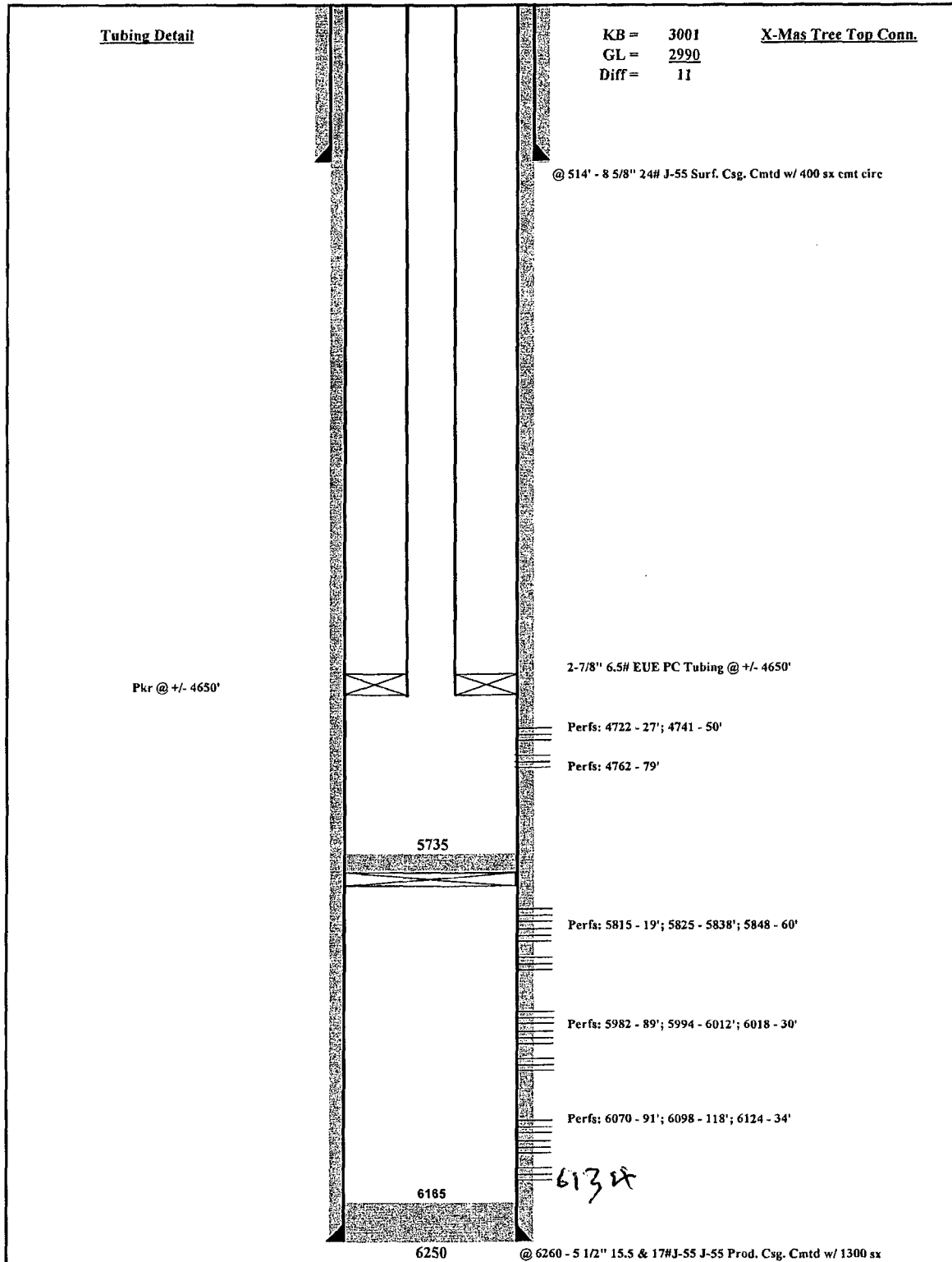
4722
4650
72'


} OK

III. Current Wellbore Schematic



III. PROPOSED WELLBORE SCHEMATIC



Revised	0	LEASE:	8808 Pardue D	#2	Drawn	TJW
		FIELD:	East Loving		1/18/2008	
		LOCATION:	990' FNL 660' FWL Sec. 11 T23S R28E		Approved	
		COUNTY:	Eddy	STATE: New Mexico	Date	
		PRODUCING FORMATION:	Brushy Canyon			
		 BTA Oil Producers				

VI. AOR Well Data

OPERATOR	WELL NAME	LOCATION	TYPE OF WELL	SPUD DATE	COMP DATE	TD PBDT	COMP INTERVAL	PROD FORM	CASING	CASING PROGRAM AMT CMT	HOLE SIZE	TOC
BTA Oil Producers, LLC	8808 JV-P PARDUE B #2	1,980' FSL & 765' FWL, 11-23S-28E	Oil	5/14/1990	6/6/1990	6,250' 6,166'	5726-6156'	BRUSHY CANYON	8-5/8" 5-1/2"	515' 6,250'	12-1/4" 7-7/8"	Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE #1	2,310' FSL & 660' FWL, 11-23S-28E	Gas	8/27/1988	11/24/1988	12,858' 12,740'	11604-12481'	ATOKA, MORROW (NOTE: THIS WELL PRODUCES NO WATER)	16" 10-3/4" 7-5/8"	433' 2,000' 2,400'	20" 14-3/4" 9-1/2"	Circ Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE B #3	2,310' FSL & 1,650' FWL, 11-23S-28E	Oil	11/27/2002	12/22/2002	5,640' 5,547'	4704-4760'	BRUSHY CANYON	8-5/8" 5-1/2"	447' 1,210'	12-1/4" 7-7/8"	Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE B #5	2,310' FSL & 2,220' FWL, 11-23S-28E	Oil	4/6/2006	6/3/2006	6,285' 6,189'	5754-6068'	BRUSHY CANYON	8-5/8" 5-1/2"	451' 6,282'	12-1/4" 7-7/8"	Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE D #1	1,980' FNL & 660' FWL, 11-23S-28E	Oil	5/29/1990	6/15/1990	6,260' 6,170'	4717-6154'	BRUSHY CANYON	8-5/8" 5-1/2"	538' 6,260'	12-1/4" 7-7/8"	Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE D #3	1,655' FNL & 990' FWL, 11-23S-28E	Oil	12/15/2007	2/25/2008	6,400' 4,980'	4738-6302'	BRUSHY CANYON	8-5/8" 5-1/2"	450' 6,400'	12-1/4" 7-7/8"	Circ Circ
Range Operating New Mexico Inc.	AMOCO 11 FEDERAL #5	1,977' FNL & 1,387' FEL, 11-23S-28E	Oil	3/6/1991	4/2/1991	6,500'	4746-6330'	BRUSHY CANYON	8-5/8" 5-1/2"	575' 6,500'	12-1/4" 7-7/8"	Circ Circ
Range Operating New Mexico Inc.	ONSUREZ #1	660' FNL & 1,980' FWL, 11-23S-28E	Oil	1/11/1981	6/24/1981	9,825' 5,223'	4764-6632' 9386-9646'	BRUSHY CANYON	13-3/8" 8-5/8" 5-1/2"	450' 2,656' 9,825'	17-1/2" 12-1/4" 7-7/8"	Circ Circ Circ
BTA Oil Producers, LLC	8808 JV-P PARDUE D #2	990' FNL & 660' FWL, 11-23S-28E	Oil	7/17/1990	8/6/1990	6,250'	4772-6134'	BRUSHY CANYON	8-5/8" 5-1/2"	514' 6,260'	12-1/4" 7-7/8"	Circ Circ
Chesapeake Operating Inc.	PARDUE FARMS #2	1,950' FNL & 660' FEL, 10-23S-28E	Oil	9/26/1990	10/20/1990	6,270' 6,250'	6072-6160'	BRUSHY CANYON	8-5/8" 5-1/2"	525' 6,270'	11" 7-7/8"	Circ Circ
Range Operating New Mexico Inc.	ONSUREZ #2	1,980' FNL & 1,980' FWL, 11-23S-28E	Oil	9/17/1990	10/13/1990	6,300' 6,090'	4728-6182'	BRUSHY CANYON	8-5/8" 5-1/2"	548' 6,300'	12-1/4" 7-7/8"	Circ Circ
Chesapeake Operating Inc.	PARDUE FARMS #4	660' FNL & 660' FEL, 10-23S-28E	Oil	5/22/1991	8/16/1991	6,265' 6,200'	6108-6146'	BRUSHY CANYON	8-5/8" 4-1/2"	500' 6,243'	12-1/4" 7-7/8"	Circ Circ
Chesapeake Operating Inc.	PARDUE MARTIN #1	330' FSL & 330' FWL, 2-23S-28E	Oil	7/24/1991	8/13/1991	6,350' 6,304'	6163-6177'	BRUSHY CANYON	8-5/8" 5-1/2"	440' 6,350'	12-1/4" 7-7/8"	Circ Circ
Chesapeake Operating Inc.	HALLWOOD FEDERAL #1	990' FSL & 990' FEL, 3-23S-28E	Oil	9/15/1992	10/10/1992	6,350' 6,298'	6128-6178'	BRUSHY CANYON	8-5/8" 5-1/2"	314' 6,350'	12-1/4" 7-7/8"	Circ Circ
Range Operating New Mexico Inc.	AMOCO 11 FEDERAL #9	330' FNL & 1,425' FEL, 11-23S-28E	Oil	6/14/2005	7/15/2005	6,490' 6,386'	5998-6288'	BRUSHY CANYON	8-5/8" 5-1/2"	555' 6,490'	12-1/4" 7-7/8"	Circ Circ

BTA OIL PRODUCERS LLC
Application for Authorization to Inject
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, New Mexico

VII. Operation Data

1. Proposed average daily injection volume: 550 BWPD
Proposed maximum daily injection volume: 1500 BWPD
2. This will be a closed system. ✓
3. Proposed average daily injection pressure: 500 psi ✓
Proposed maximum daily injection pressure: 930 psi ✓
4. Sources of injection water will be produced water from area Brushy Canyon Producers: ✓

8808 JV-P Pardue Lease – no wells on this lease currently produce water
8808 JV-P Pardue B Lease, Wells No. 1, 2
8808 JV-P Pardue C Lease, Wells No. 1-Y, 2
8808 JV-P Pardue D Lease, Wells No. 1, 2, 3
Any future wells drilled on any of these leases.

A water analysis from each well is attached.

5. Not applicable.

DATE

9

CHEMLINK

WATER ANALYSIS REPORT

Lab ID No. : 121290B

Analysis Date: December 10, 1990

Company : BTA Oil Producers
 Field :
 Lease/Unit : Pardue "B"
 Well ID. : No. 1
 Sample Loc.:

Sampled By : Pro-Kem, Inc.
 Sample Date: *
 Salesperson: Gerald Phillips
 Formation :
 Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	30,622	1,531	Hydroxyl as OH-	0	0
Magnesium as Mg++	3,191	262	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	76,307	3,318	Bicarbonate as HCO3-	73	1
Barium as Ba++	Below 5		Sulfate as SO4=	240	5
Oil Content	0		Chloride as Cl-	180,959	5,104

Total Dissolved Solids, Calculated:

291,393 mg/L.

Calculated Resistivity: 0.010 ohm-meters
 mg/L. Hydrogen Sulfide: 40
 mg/L. Carbon Dioxide: 200
 mg/L. Dissolved Oxygen: Not Determined

pH: 6.500
 Specific Gravity 60/60 F.: 1.205
 Saturation Index @ 80 F.: +2.355
 @ 140 F.: +3.455

Total Hardness: 89,498 mg/L. as CaCO3
 Total Iron: 100.00 mg/L. as Fe++

PROBABLE MINERAL COMPOSITION
 COMPOUND MG/L MEQ/L

	Ca(HCO3)2	97	1.2
	CaSO4	340	5.0
Calcium Sulfate Scaling Potential Not Present	CaCl2	84,633	1,524.9
	Mg(HCO3)2	0	0.0
	MgSO4	0	0.0
Estimated Temperature of Calcium Carbonate Instability is 51 F.	MgCl2	12,456	261.6
	NaHCO3	0	0.0
	Na2SO4	0	0.0
Analyst	NaCl	193,953	3,317.7
07:04 PM			

DOXE

CHEMLINK

WATER ANALYSIS REPORT

Lab ID No. : 121290C

Analysis Date: December 10, 1990

Company : BTA Oil Producers
Field :
Lease/Unit : Pardue "B"
Well ID. : No. 2
Sample Loc.:

Sampled By : Pro-Kem, Inc.
Sample Date: *
Salesperson: Gerald Phillips
Formation :
Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	28,477	1,424	Hydroxyl as OH-	0	0
Magnesium as Mg++	4,314	354	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	77,963	3,390	Bicarbonate as HCO3-	68	1
Barium as Ba++	Below 5		Sulfate as SO4=	260	5
Oil Content	0		Chloride as Cl-	182,959	5,161

Total Dissolved Solids, Calculated:

294,041 mg/L.

Calculated Resistivity: 0.010 ohm-meters
mg/L. Hydrogen Sulfide: 40
mg/L. Carbon Dioxide: 250
mg/L. Dissolved Oxygen: Not Determined

pH: 6.400
Specific Gravity 60/60 F.: 1.208
Saturation Index @ 80 F.: +2.856
@ 140 F.: +3.296

Total Hardness: 88,768 mg/L. as CaCO3
Total Iron: 10.00 mg/L. as Fe++

PROBABLE MINERAL COMPOSITION		
COMPOUND	MG/L	MEQ/L
Ca(HCO3)2	91	1.1
CaSO4	369	5.4
CaCl2	78,660	1,417.3
Mg(HCO3)2	0	0.0
MgSO4	0	0.0
MgCl2	16,839	353.6
NaHCO3	0	0.0
Na2SO4	0	0.0
NaCl	198,161	3,389.7

Calcium Sulfate Scaling Potential
Not Present

Estimated Temperature of Calcium
Carbonate Instability is
47 F.

Analyst

07:04 PM

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES.

to Mr. Steve Salmon
104 South Pecos, Midland, Texas

LABORATORY NO. 59048
SAMPLE RECEIVED 5-7-90
RESULTS REPORTED 5-10-90

COMPANY BTA Oil Producers LEASE Pardue "C" #1
FIELD OR POOL _____
SECTION _____ BLOCK _____ SURVEY _____ COUNTY Eddy STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

No. 1 Pit sample. 5-7-90
No. 2 Recovered water - top. 5-6-90
No. 3 Recovered water - middle. 5-6-90
No. 4 Recovered water - bottom. 5-6-90.

REMARKS: DST #1 - Delaware - 5,636'-5,825'

[illegible]

Form No. 3.

8.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

CHEMLINK

WATER ANALYSIS REPORT

Lab ID No. : 121290D

Analysis Date: December 10, 1990

Company : BTA Oil Producers

Sampled By : Pro-Kem, Inc.

Field : Loving, East

Sample Date: *

Lease/Unit : Pardue "C" #2

Salesperson: Gerald Phillips

Well ID. : Water Tank

Formation : Delaware

Sample Loc.: SW/SW, Sec 11, T23S, R38E
Eddy County, New Mexico

Location : Loving, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	29,062	1,453	Hydroxyl as OH-	0	0
Magnesium as Mg++	3,309	271	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	77,276	3,360	Bicarbonate as HCO3-	68	1
Barium as Ba++	Not Determined		Sulfate as SO4=	340	7
Oil Content	0		Chloride as Cl-	179,959	5,076

Total Dissolved Solids, Calculated:

290,016 mg/L.

Calculated Resistivity: 0.010 ohm-meters

pH: 6.200

mg/L. Hydrogen Sulfide: 40

Specific Gravity 60/60 F.: 1.199

mg/L. Carbon Dioxide: 300

Saturation Index @ 80 F.: +2.405

mg/L. Dissolved Oxygen: Not Determined

@ 140 F.: +3.105

Total Hardness: 86,093 mg/L. as CaCO3

Total Iron: 100.00 mg/L. as Fe++

PROBABLE MINERAL COMPOSITION

COMPOUND	MG/L	MEQ/L
Ca(HCO3)2	91	1.1
CaSO4	482	7.1
CaCl2	80,191	1,444.9
Mg(HCO3)2	0	0.0
MgSO4	0	0.0
MgCl2	12,918	271.3
NaHCO3	0	0.0
Na2SO4	0	0.0
NaCl	196,416	3,359.8

Calcium Sulfate Scaling Potential
Not Present

Estimated Temperature of Calcium
Carbonate Instability is
49 F.

Analyst 07:05 PM

CHEMLINK

WATER ANALYSIS REPORT

Lab ID No. : 121290E

Analysis Date: December 10, 1990

Company : BTA Oil Producers
 Field :
 Lease/Unit : Pardue "D"
 Well ID. : No. 1
 Sample Loc.:

Sampled By : Pro-Kem, Inc.
 Sample Date: *
 Salesperson: Gerald Phillips
 Formation :
 Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	29,452	1,473	Hydroxyl as OH-	0	0
Magnesium as Mg++	3,309	271	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	76,797	3,339	Bicarbonate as HCO3-	64	1
Barium as Ba++	Below 5		Sulfate as SO4=	280	6
Oil Content	0		Chloride as Cl-	179,959	5,076

Total Dissolved Solids, Calculated:

289,862 mg/L.

Calculated Resistivity: 0.010 ohm-meters
 mg/L. Hydrogen Sulfide: 40
 mg/L. Carbon Dioxide: 250
 mg/L. Dissolved Oxygen: Not Determined

pH: 6.300
 Specific Gravity 60/60 F.: 1.200
 Saturation Index @ 80 F.: +2.481
 @ 140 F.: +3.181

Total Hardness: 87,066 mg/L. as CaCO3
 Total Iron: 50.00 mg/L. as Fe++

PROBABLE MINERAL COMPOSITION

COMPOUND	MG/L	MEQ/L
Ca(HCO3)2	85	1.0
CaSO4	397	5.8
CaCl2	81,347	1,465.7
Mg(HCO3)2	0	0.0
MgSO4	0	0.0
MgCl2	12,918	271.3
NaHCO3	0	0.0
Na2SO4	0	0.0
NaCl	195,199	3,339.0

Calcium Sulfate Scaling Potential
Not Present

Estimated Temperature of Calcium
Carbonate Instability is
49 F.

Analyst 07:05 PM

DAYE

9

CHEMLINK

WATER ANALYSIS REPORT

Lab ID No. : 121290F

Analysis Date: December 10, 1990

Company : BTA Oil Producers
Field :
Lease/Unit : Pardue "D"
Well ID. : No. 2
Sample Loc.:

Sampled By : Pro-Kem, Inc.
Sample Date: *
Salesperson: Gerald Phillips
Formation :
Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	27,209	1,360	Hydroxyl as OH-	0	0
Magnesium as Mg++	4,255	349	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	76,323	3,318	Bicarbonate as HCO3-	82	1
Barium as Ba++	Not Determined		Sulfate as SO4=	320	7
Oil Content	0		Chloride as Cl-	177,960	5,020

Total Dissolved Solids, Calculated:

286,149 mg/L.

Calculated Resistivity: 0.010 ohm-meters
mg/L. Hydrogen Sulfide: 40
mg/L. Carbon Dioxide: 250
mg/L. Dissolved Oxygen: Not Determined

pH: 6.000
Specific Gravity 60/60 F.: 1.201
Saturation Index @ 80 F.: +2.034
@ 140 F.: +2.954

Total Hardness: 85,363 mg/L. as CaCO3
Total Iron: 62.00 mg/L. as Fe++

PROBABLE MINERAL COMPOSITION
COMPOUND MG/L MEQ/L

	Ca(HCO3)2	109	1.3
	CaSO4	454	6.7
Calcium Sulfate Scaling Potential Not Present	CaCl2	75,060	1,352.4
	Mg(HCO3)2	0	0.0
	MgSO4	0	0.0
Estimated Temperature of Calcium Carbonate Instability is 51 F.	MgCl2	16,609	348.8
	NaHCO3	0	0.0
	Na2SO4	0	0.0
Analyst	NaCl	193,993	3,318.4
07:06 PM			

BTA OIL PRODUCERS LLC
Application for Authorization to Inject
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, New Mexico

Geologic Data

VIII. Geological Data

Pardue –D- No. 2 Geological Discussion Regarding Proposed Injection Interval

A. Injection Zone

The Delaware Mountain Group has a total thickness in excess of 3,500 feet within this locality. It is comprised of alternating units of siltstone, sandstone and limestone with minor units of shale. Oil production occurs from sandstone located near the top of the Brushy Canyon Formation within the Delaware Mountain Group. The proposed injection interval lies within 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 units represent submarine channel/fan sequences deposited down dip of the shelf margin, which were mostly deposited during storm events. The siltstone, limestone and shale units represent the normal deposition that occurs within a marine basin during normal deposition.

B. Fresh Water Sources

Fresh water sands are present within the Quaternary aged sediments which are found from the surface down to the top of the Rustler Anhydrite at approximately 250 feet.

Byron Bachschmid
August 18, 2009

Summary Report

Skip Baca
BTA Oil Producers
104 S. Pecos
Midland, TX 79701

Report Date: August 6, 2009

Work Order: 9080310



Project Location: Loving, NM
Project Name: Pardue SWD
Project Number: Env. 2009-042

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
204429	Tony Residence	water	2009-07-30	13:30	2009-08-03
204430	Pardue Dry Well	water	2009-07-30	13:55	2009-08-03
204431	#9 Donaldson Farm Rd.	water	2009-07-30	14:17	2009-08-03

Sample: 204429 - Tony Residence

Param	Flag	Result	Units	RL
Chloride		286	mg/L	0.500

Sample: 204430 - ^{Zn}Pardue Dry Well

Param	Flag	Result	Units	RL
Chloride		166000	mg/L	0.500

Sample: 204431 - #9 Donaldson Farm Rd.

Param	Flag	Result	Units	RL
Chloride		304	mg/L	0.500



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
209 East Sunset Road, Suite E El Paso, Texas 79922 886•588•1443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Skip Baca
BTA Oil Producers
104 S. Pecos
Midland, TX, 79701

Report Date: August 6, 2009

Work Order: 9080310



Project Location: Loving, NM
Project Name: Pardue SWD
Project Number: Env. 2009-042

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
204429	Tony Residence	water	2009-07-30	13:30	2009-08-03
204430	Pardue Dry Well	water	2009-07-30	13:55	2009-08-03
204431	#9 Donaldson Farm Rd.	water	2009-07-30	14:17	2009-08-03

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Pardue SWD were received by TraceAnalysis, Inc. on 2009-08-03 and assigned to work order 9080310. Samples for work order 9080310 were received intact at a temperature of 12.6 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	53037	2009-08-05 at 12:42	62195	2009-08-06 at 10:22

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9080310 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: August 6, 2009
Env. 2009-042

Work Order: 9080310
Pardue SWD

Page Number: 4 of 6
Loving, NM

Analytical Report

Sample: 204429 - Tony Residence

Laboratory:	Midland	Analytical Method:	E 300.0	Prep Method:	N/A
Analysis:	Chloride (IC)	Date Analyzed:	2009-08-06	Analyzed By:	AR
QC Batch:	62195	Sample Preparation:	2009-08-05	Prepared By:	AR
Prep Batch:	53037				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		286	mg/L	50	0.500

Sample: 204430 - ^{Trj.} Pardue ~~Dry~~ Well

Laboratory:	Midland	Analytical Method:	E 300.0	Prep Method:	N/A
Analysis:	Chloride (IC)	Date Analyzed:	2009-08-06	Analyzed By:	AR
QC Batch:	62195	Sample Preparation:	2009-08-05	Prepared By:	AR
Prep Batch:	53037				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		166000	mg/L	5000	0.500

Sample: 204431 - #9 Donaldson Farm Rd.

Laboratory:	Midland	Analytical Method:	E 300.0	Prep Method:	N/A
Analysis:	Chloride (IC)	Date Analyzed:	2009-08-06	Analyzed By:	AR
QC Batch:	62195	Sample Preparation:	2009-08-05	Prepared By:	AR
Prep Batch:	53037				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		304	mg/L	50	0.500

Method Blank (1) QC Batch: 62195

QC Batch:	62195	Date Analyzed:	2009-08-06	Analyzed By:	AR
Prep Batch:	53037	QC Preparation:	2009-08-05	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.475	mg/L	0.5

Report Date: August 6, 2009
Env. 2009-042

Work Order: 9080310
Pardue SWD

Page Number: 5 of 6
Loving, NM

Laboratory Control Spike (LCS-1)

QC Batch: 62195
Prep Batch: 53037

Date Analyzed: 2009-08-06
QC Preparation: 2009-08-05

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	26.3	mg/L	1	25.0	<0.475	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	26.2	mg/L	1	25.0	<0.475	105	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 204385

QC Batch: 62195
Prep Batch: 53037

Date Analyzed: 2009-08-06
QC Preparation: 2009-08-05

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	¹ 138	mg/L	5	138	16.7	88	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	² 138	mg/L	5	138	16.7	88	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 62195

Date Analyzed: 2009-08-06

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	25.5	102	90 - 110	2009-08-06

Standard (CCV-1)

QC Batch: 62195

Date Analyzed: 2009-08-06

Analyzed By: AR

¹ Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

² Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August 6, 2009
Env. 2009-042

Work Order: 9080310
Pardue SWD

Page Number: 6 of 6
Loving, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	26.2	105	90 - 110	2009-08-06

BTA OIL PRODUCERS LLC
Application for Authorization to Inject
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, New Mexico

Attachment G

XIII . Notice of Offset Operators Within ½ Mile

WORKING INTEREST OWNERS

BTA Oil Producers LLC

Chesapeake Expl Ltd Partnership
P. O. Box 960165
Oklahoma City, OK 73196-0165

SURFACE OWNER

Antonio Onsurez, et ux Gloria
P. O. Box 598
Loving, NM 88256

OFFSET OPERATOR LIST

Chesapeake Operating, Inc.
P. O. Box 190
Hobbs, NM 88241

Range Operating New Mexico, Inc.
777 Main Street, Suite 800
Fort Worth, TX 76102

I hereby certify that notification of BTA's application was mailed via certified mail on this 17th day of August to the above listed.

Signed:

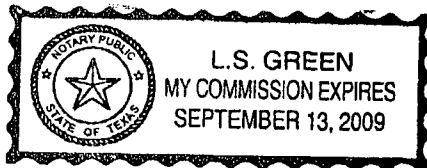

Pam Inskeep


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 August 17, 2009 of the New Mexico Oil Conservation Division Form C-108, "Application for Authorization to Inject" for the 8808 JV-P Pardue D #2, located in Section 11, T23S, 283E, Eddy County, New Mexico.

SUBSCRIBED AND SWORN TO before me on this 17th day of August, 2009, to certify which witness my hand and seal of office.




Lou S. Green
Notary Public, State of Texas

Attachment H

XIII. Legal Notice

BTA OIL PRODUCERS LLC

**Application for Authorization to Inject
Pardue D, 8808 JV-P #2
990' FNL & 660' FWL
Section 11, T23S, R28E
Eddy County, NM**

BTA OIL PRODUCERS LLC, 104 S. Pecos, Midland, Texas 79701, has filed a form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking approval for a water flood project covering 80 acres located in Section 11, T23S, R28E, Eddy County, NM.. Applicant seeks to utilize the 8808 JV-P Pardue D #2 located 990' FNL & 660' FWL of Section 11 to inject water from area wells producing from the Brushy Canyon zone into the Lower Brushy Canyon member of the Delaware formation at a depth of 4,722' – 6,134'. BTA proposes to inject at a maximum surface pressure of 930 psi and an average rate of 550 BWPD. BTA also seeks to qualify said project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act. Additional information can be obtained by contacting Thomas J. Williams, Production Engineer, at 104 S. Pecos, Midland, TX 79701, or (432) 682-3753.