

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

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

- [D] Other: Specify \_\_\_\_\_

*Handwritten notes:*  
 Sand Powder Fed SWD #1  
 (30-015-Pooling) 32552  
 Delaware Energy, LLC  
 ULB - S20-T20S-R29E  
 Devonian  
 96101  
 Not up potash  
 or 111-P

[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

[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.

<b>Preston Stein</b>		<b>Vice-President</b>	<b>10/10/2016</b>
Print or Type Name	Signature	Title	Date
		<u>preston@delawareenergyllc.com</u>	
		e-mail Address	

**Delaware Energy, LLC**  
**Application for Injection/SWD**  
**Sand Pounder Fed SWD #1**

UL B, Sec. 20, T-20-S, R-29-E, 660' FNL & 1980' FEL, Eddy Co., NM

October 10, 2016

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**Contents:**

1. Administrative Application Checklist
2. Form C-108: Application for Authority to Inject
3. Form C-108 Additional Questions Answered
4. Form C-102
5. Chemical Analysis of Bone Springs Formation Water Sample from T25S, R28E, Eddy Co., NM
6. Chemical Analysis of Wolfcamp Formation Water Sample from T26S, R29E, Eddy Co., NM
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8. Wellbore Diagram of Sand Pounder Fed SWD #1 as plugged
9. Wellbore diagram of Sand Pounder Fed SWD #1 as planned
10. ~~Tabular Data on All Wells of Public Record within the Area of Review which Penetrate the Proposed Injection Zone (No applicable wells)~~
11. Average depth to fresh water per State Engineers Website
12. Water Well Samples:
  - a. Sec. 20, T20S, R29E
13. Map Identifying 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
14. Sample of Letter Sent with This Application Packet to Owner of 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
15. Legal Notice that will be run as required in the Carlsbad Current-Argus
16. Formation Tops
17. Old regulatory filings

2016 OCT 11 10:00 AM

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: Delaware Energy LLC

ADDRESS: 3001 W. Loop 250 N, Suite C-105-318, Midland TX 79705

CONTACT PARTY: Preston Stein PHONE: 214-558-1371

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 XXX 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: Preston Stein TITLE: Vice-President

SIGNATURE: Preston Stein DATE: 10/10/2016

E-MAIL ADDRESS: Prestonms@delawareenergyllc.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.

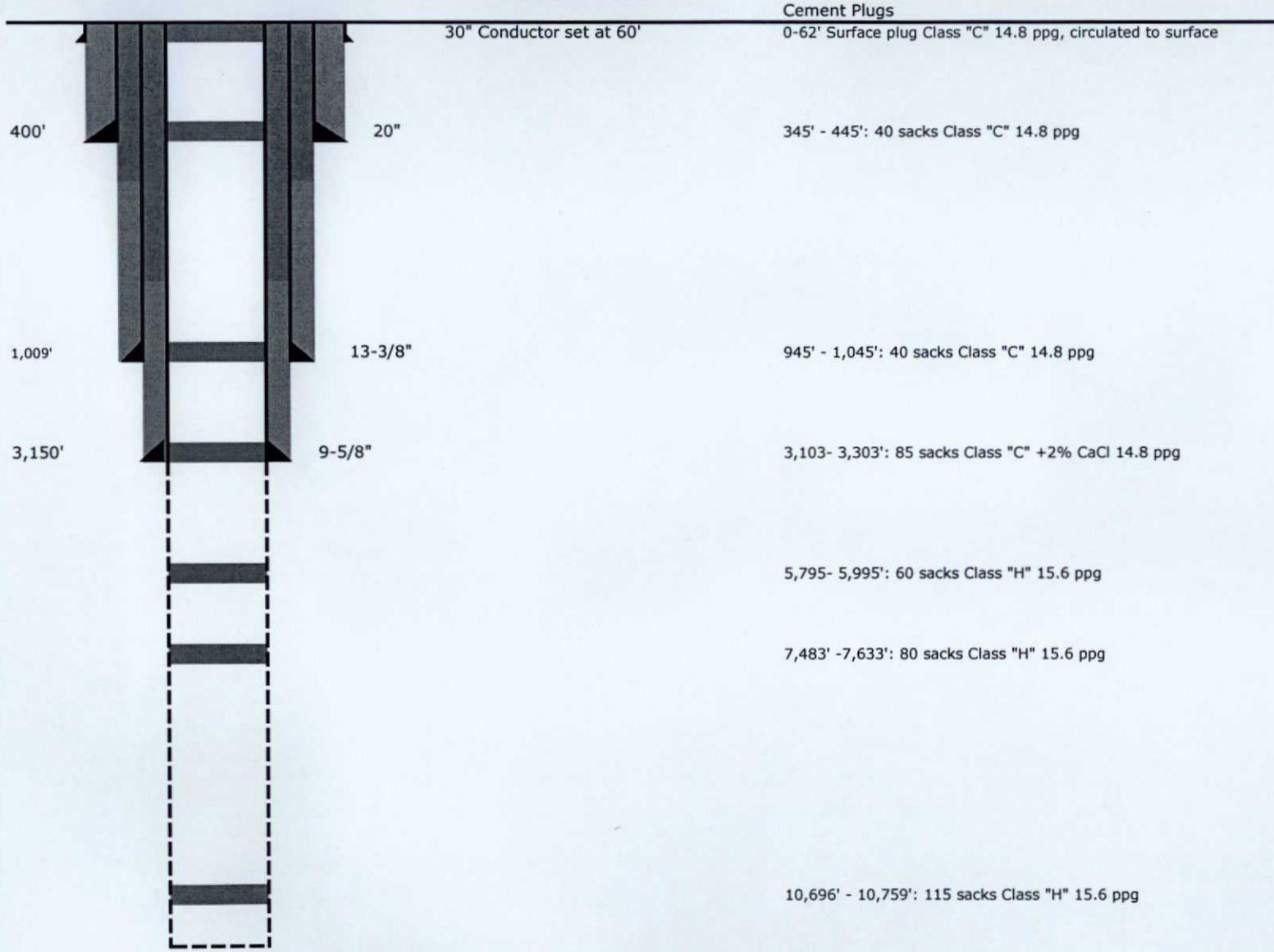
Delaware Energy, LLC

### Sand Pounder Federal #1

#### Wellbore Diagram

Burton Flat East Morrow Field  
Eddy County NM  
API # 30-015-32552

As Plugged 03/16/03

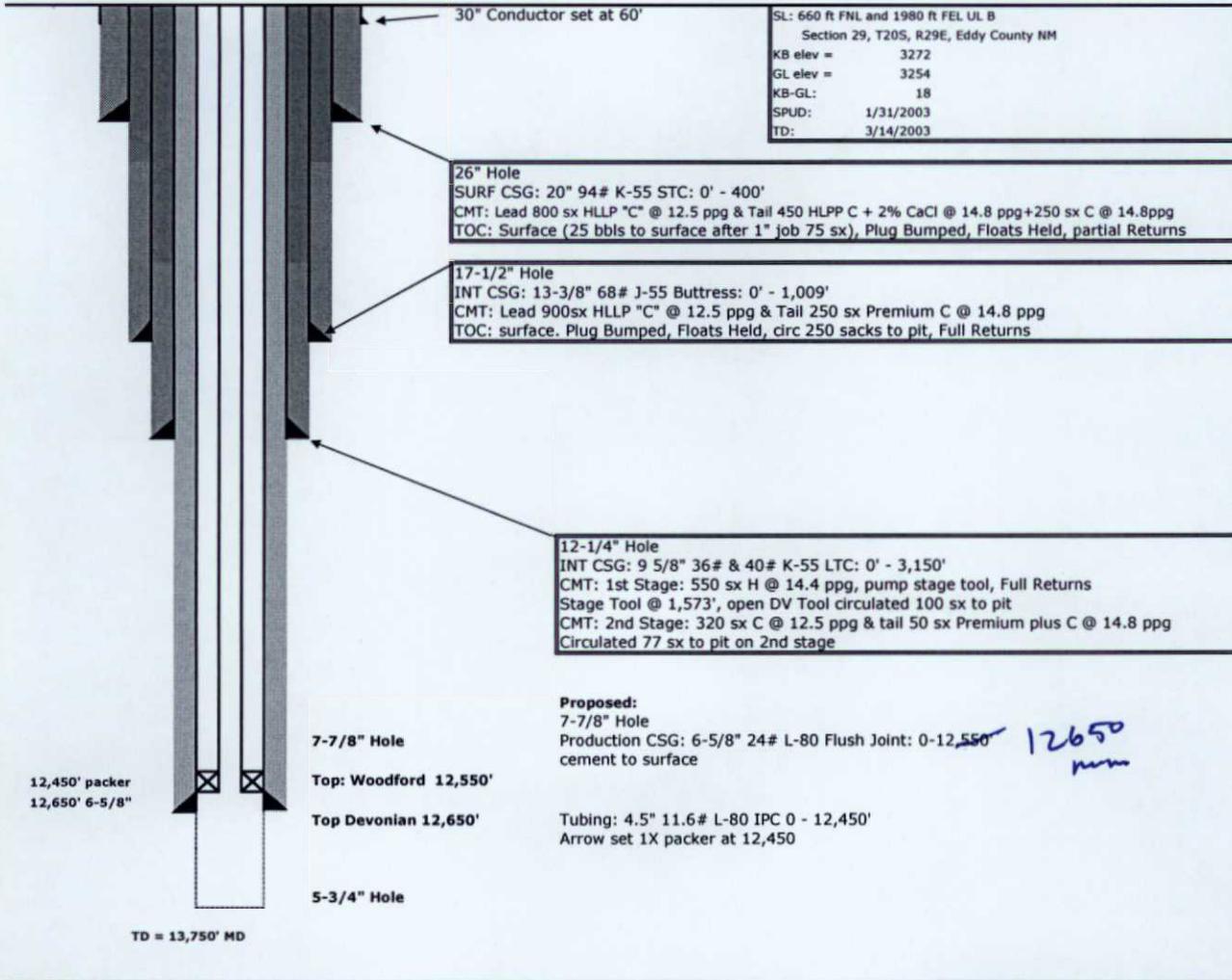


TD = 11,950' MD

**Sand Pounder Federal #1**

**As Proposed 10/10/16**

**Wellbore Diagram**  
 Burton Flat East Morrow Field  
 Eddy County NM  
 API # 30-015-32552



WELL NAME & NUMBER: Sand Pounder Federal SWD No 1

WELL LOCATION: 660' FNL, 1980' FEL B 29 20S 29E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

**WELLBORE SCHEMATIC**

**WELL CONSTRUCTION DATA**

Surface Casing

Hole Size: <u>26"</u>	Casing Size: <u>20"</u>
Cemented with: <u>800</u> sx.	or <u>ft<sup>3</sup></u>
Top of Cement: <u>SURFACE</u>	Method Determined: <u>Circulated</u>
Total Depth: <u>400'</u>	

Intermediate Casing (No. 1)

Hole Size: <u>17-1/2"</u>	Casing Size: <u>13-3/8"</u>
Cemented with: <u>1150</u> sx.	or <u>ft<sup>3</sup></u>
Top of Cement: <u>Surface</u>	Method Determined: <u>Circulated</u>
Total Depth: <u>1009'</u>	

Intermediate Casing (No. 2)

Hole Size: <u>12-1/4"</u>	Casing Size: <u>9-5/8"</u>
Cemented with: <u>870</u> sx.	or <u>ft<sup>3</sup></u>
Top of Cement: <u>surface</u>	Method Determined: <u>Circulated</u>
Total Depth: <u>3,150'</u>	

Production Casing (\*Proposed)

Hole Size: <u>7-7/8"</u>	Casing Size: <u>6-5/8" UFI</u>
Cemented with: <u>1560</u> sx	
Total Depth: <u>13,650'</u>	Method Determined: <u>Circulated</u>

Injection Interval (Open Hole)

12,650' to 13,750'

**INJECTION WELL DATA SHEET**

Tubing Size: 4.5" Lining Material: Internally plastic coated

Type of Packer: Weatherford Arrow Set 1X Injection Packer (Nickel Plated)

Packer Setting Depth: 50-100ft above open hole

Other Type of Tubing/Casing Seal (if applicable): NONE

**Additional Data**

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

2. Name of the Injection Formation: Devonian

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

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.

No perforations, see attached WBD for cemented plugs.

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

BELOW: None

ABOVE: Bone Spring 5,880'-9,380', Wolfcamp 9,200'-9,900', Morrow 11,336'-12,105'

Additional Questions on C-108

**VII.**

**1. Proposed average and maximum daily rate and volume of fluids to be injected;**

Average 5,000-10,000 BWPD, Max 15,000 BWPD

**2. Whether the system is open or closed;**

Open System, Commercial SWD

**3. Proposed average and maximum injection pressure;**

Average 400-1,000 PSI, Max 2,530 PSI

**4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,**

Bone Spring, Delaware, and Wolfcamp produced water. No known incompatibility exists with these produced water types and the Devonian. Devonian formation is used as a disposal interval in offset Derringer SWD for Wolfcamp, Bone Springs, and Delaware produced water. See attached water analysis from Bone Spring, Wolfcamp, and Delaware produced water.

**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.).**

Disposal interval tested water with no hydrocarbons in offset set Derringer SWD.

**\*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.**

The proposed disposal interval is located in the Devonian formation 12,650'-13,750'. Devonian is an impermeable Shale at the very top (12,550ft, Woodford Shale) 100ft thick followed by permeable dolomite/Lime 1000ft thick. There are no fresh water zones underlying the proposed injection zone. Usable water depth is from surface to +/-300', the water source is older alluvium (Quaternary) and Rustler. All of the fresh water wells in the area have an average depth to water of 52ft - 90ft. The Devonian was tested in the nearby Derringer SWD, test produced water with no hydrocarbons.

**IX. Describe the proposed stimulation program, if any.**

20,000 gallons 15% HCL acid job with packer

**X. Attach appropriate logging and test data on the well**

Logs will be filed following drilling operations. See attached log of the Devonian interval from the nearby Derringer SWD. Logs of previous test have already been submitted by previous operator.

**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.**

one water well exists in each offset section of 28, 30, and 20. Included in the application is the location of these water wells and depth. Water sample from well in section 20, 20S 29E is included. Chlorides were measured at 50 and depth is 63 feet. Formation listed is Rustler.

**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.**

Delaware Energy, L.L.C. has reviewed and examined available geologic and engineering data in the area of interest for the Sand Pounder Federal SWD #1 and have found no evidence of faults or other hydrologic connections between the Devonian disposal zone and the underground sources of drinking water. Furthermore, there exist many impermeable intervals between the injection interval and the fresh ground water in the 12,300' feet of lithology between the top of the Devonian and the base of the ground water.

**Preston Stein** **Vice-President** **10/10/2016**  
 \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

**III. WELL DATA**

**(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.**  
 Sand Pounder Federal SWD #1, Sec. 20-T20S-R29E, 660' FNL & 1980' FEL, UL B, Eddy County, New Mexico

**(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. \*proposed**

Casing Size	Setting Depth	Sacks of Cement	Hole Size	Top of Cement	Determined
20"	400'	800	26"	surface	CIRC
13-3/8"	1009'	1150	17-1/2"	Surface	CIRC
9-5/8"	3,150'	870	12-1/2"	Surface	CIRC
6-5/8" Flush Joint *	12,650'	1560	7-7/8"	Surface	CIRC*

**(3) A description of the tubing to be used including its size, lining material, and setting depth.**  
 4-1/2" OD, Internally Plastic Coated Tubing set 50 to 100ft above open hole

**(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.**  
 Weatherford Arrow set 1X injection packer, nickel plated with on/off tool

**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.**  
 Devonian Formations  
 Pool Name: SWD (Devonian)

**(2) The injection interval and whether it is perforated or open-hole.**  
 12,650' to 13,750' (OH)

**(3) State if the well was drilled for injection or, if not, the original purpose of the well.**

Original well drilled to test the Morrow

**(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.**

No perforations, no production casing run. See attached plugging report for cement plugs.

**(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.**

Next Higher: Bone Spring 5,880'-9,380', Wolfcamp 9,200'-9,900', Morrow 11,336'-12,105'

Next Lower: None

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office  
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-32552	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name Burton Flat East Undesignated
<sup>4</sup> Property Code	<sup>5</sup> Property Name SAND POUNDER FEDERAL	
<sup>7</sup> OGRID No. 371195	<sup>8</sup> Operator Name Delaware Energy LLC	<sup>6</sup> Well Number 1  <sup>9</sup> Elevation 3254'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	29	20 S	29 E		660	NORTH	1980	EAST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>16</sup>  	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>
GPS Coordinates: N 32 - 32' 59.5" W 104 - 05' 42.0"	<sup>18</sup> SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>

Sec 22, T25S, R28E

North Permian Basin Region  
 P.O. Box 740  
 Sundown, TX 79372-0740  
 (806) 228-8121  
 Lab Team Leader - Sheila Hernandez  
 (432) 495-7240

Bone Spring

**Water Analysis Report by Baker Petrolite**

Company:		Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	534665
Lease/Platform:	PINOCHLE 'BPN' STATE COM	Analysis ID #:	106795
Entity (or well #):	2 H	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 534665 @ 75 F					
Sampling Date:	03/10/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	03/18/11	Chloride:	109818.0	3091.92	Sodium:	70275.7	3058.82
Analyst:	SANDRA GOMEZ	Bicarbonate:	2135.0	34.99	Magnesium:	195.0	16.04
TDS (mg/l or g/m3):	184911.1	Carbonate:	0.0	0.	Calcium:	844.0	42.12
Density (g/cm3, tonne/m3):	1.113	Sulfate:	747.0	15.55	Strontium:	220.0	5.02
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.8	0.01
Carbon Dioxide:	0.50 PPM	Borate:			Iron:	6.5	0.23
Oxygen:		Silicate:			Potassium:	889.0	22.22
Comments:		Hydrogen Sulfide:		0 PPM	Aluminum:		
		pH at time of sampling:		7	Chromium:		
		pH at time of analysis:			Copper:		
		pH used in Calculation:		7	Lead:		
					Manganese:	0.100	0.
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
		Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	0	1.08	188.52	-1.20	0.00	-1.18	0.00	-0.11	0.00	0.56	0.28	1.72
100	0	1.10	208.05	-1.29	0.00	-1.20	0.00	-0.15	0.00	0.35	0.28	2.35
120	0	1.12	224.17	-1.36	0.00	-1.19	0.00	-0.17	0.00	0.16	0.00	3.17
140	0	1.13	243.17	-1.42	0.00	-1.18	0.00	-0.18	0.00	0.00	0.00	4.21

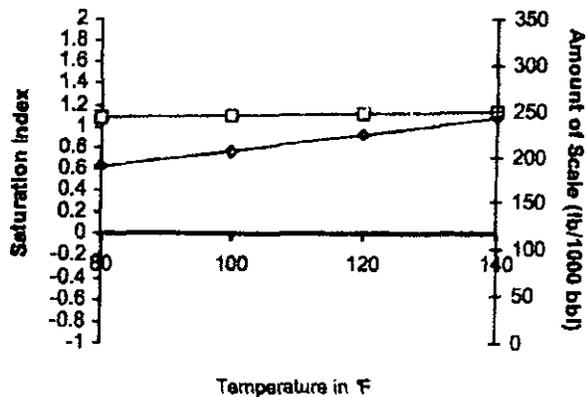
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.  
 Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.  
 Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

# Scale Predictions from Baker Petrolite

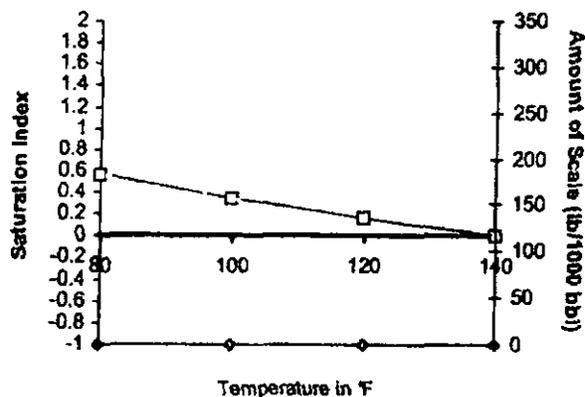
Analysis of Sample 534665 @ 75 °F for

03/18/11

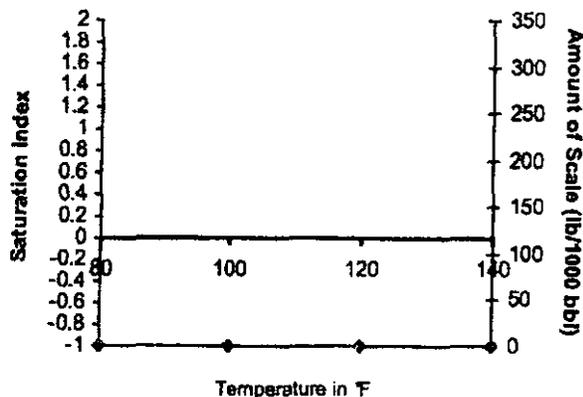
### Calcite - CaCO<sub>3</sub>



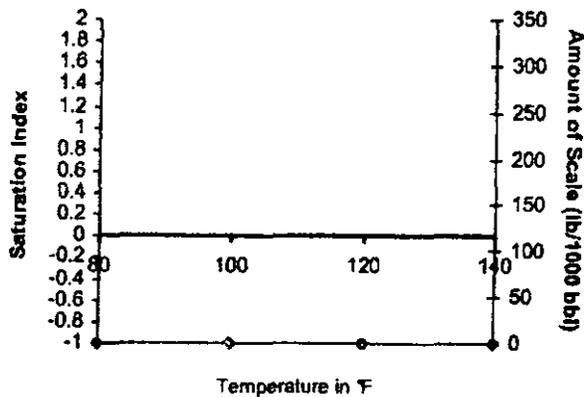
### Barite - BaSO<sub>4</sub>



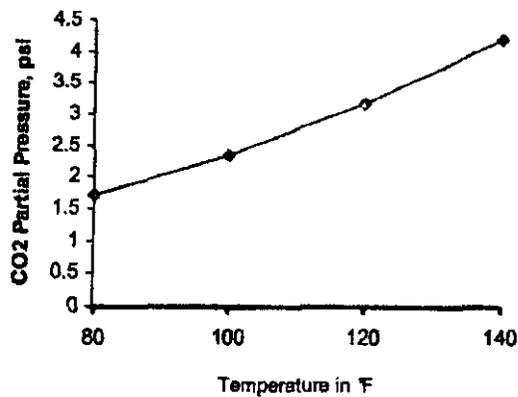
### Gypsum - CaSO<sub>4</sub>·2H<sub>2</sub>O



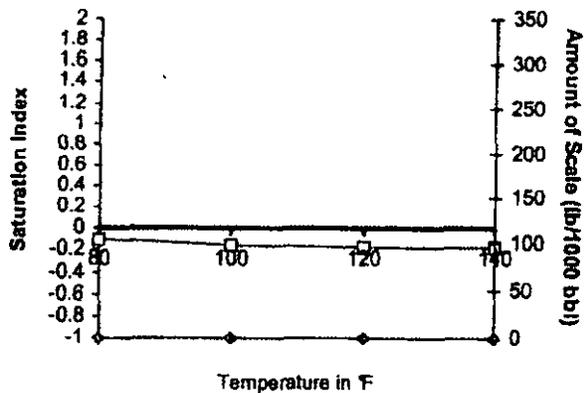
### Anhydrite - CaSO<sub>4</sub>



### Carbon Dioxide Partial Pressure



### Celestite - SrSO<sub>4</sub>



# Wolfcamp



## Water Analysis

Date: 23-Aug-11

2708 West County Road, Hobbs NM 88240  
Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For

*Brushy Draw 1#1*

Company	Well Name	County	State
	BD	Lea	New Mexico

Sample Source	Swab Sample	Sample #	
		<i>Eddy</i>	<i>1-265-29E</i>
			1

Formation	Depth

Specific Gravity	1.170	SG @ 60 °F	1.172
pH	6.30	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

### Cations

Sodium (Calc)	in Mg/L	77,962	in PPM	66,520
Calcium	in Mg/L	4,000	in PPM	3,413
Magnesium	in Mg/L	1,200	in PPM	1,024
Soluble Iron (FE2)	in Mg/L	10.0	in PPM	9

### Anions

Chlorides	in Mg/L	130,000	in PPM	110,922
Sulfates	in Mg/L	250	in PPM	213
Bicarbonates	in Mg/L	127	in PPM	108

Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	12,799
Total Dissolved Solids (Calc)	in Mg/L	213,549	in PPM	182,209
Equivalent NaCl Concentration	in Mg/L	182,868	in PPM	156,031

### Scaling Tendencies

\*Calcium Carbonate Index 507,520

*Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable*

\*Calcium Sulfate (Gyp) Index 1,000,000

*Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable*

*\*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.*

Remarks RW=.048@70F

Report # 3188

See 16, T23S. R 28E



PRODUCTION DEPARTMENT

MILLER CHEMICALS, INC.

Post Office Box 298  
 Artesia, N.M. 88211-0298  
 (505) 746-1919 Artesia Office  
 (505) 392-2893 Hobbs Office  
 (505) 746-1918 Fax  
 mci@plateautel.net

Delaware Brushy Canyon

WATER ANALYSIS REPORT

Company : Date : MARCH 17, 2008  
 Address : Date Sampled : MARCH 17, 2008  
 Lease : LOVING "AIB"  
 Well : #15  
 Sample Pt. : WELLHEAD Analysis No. :

ANALYSIS	mg/L		* meq/L	
1. pH	6.0			
2. H2S	0			
3. Specific Gravity	1.070			
4. Total Dissolved Solids	304684.9			
5. Suspended Solids	NR			
6. Dissolved Oxygen	NR			
7. Dissolved CO2	NR			
8. Oil In Water	NR			
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	927.0	HCO3	15.2
12. Chloride	Cl	187440.0	Cl	5287.4
13. Sulfate	SO4	500.0	SO4	10.4
14. Calcium	Ca	37200.0	Ca	1856.3
15. Magnesium	Mg	996.3	Mg	82.0
16. Sodium (calculated)	Na	77586.6	Na	3374.8
17. Iron	Fe	35.0		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		97000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
1856   *Ca <----- *HCO3   15	Ca(HCO3)2	81.0	15.2 1231
/----->    -----	CaSO4	68.1	10.4 709
82   *Mg -----> *SO4   10	CaCl2	55.5	1830.7 101584
<-----/    -----	Mg(HCO3)2	73.2	
3375   *Na -----> *Cl   5287	MgSO4	60.2	
/----->    -----	MgCl2	47.6	82.0 3902
Saturation Values Dist. Water 20 C	NaHCO3	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	3374.8 197223
BaSO4 2.4 mg/L			

REMARKS:

Delaware Energy, LLC

**Sand Pounder Federal #1**

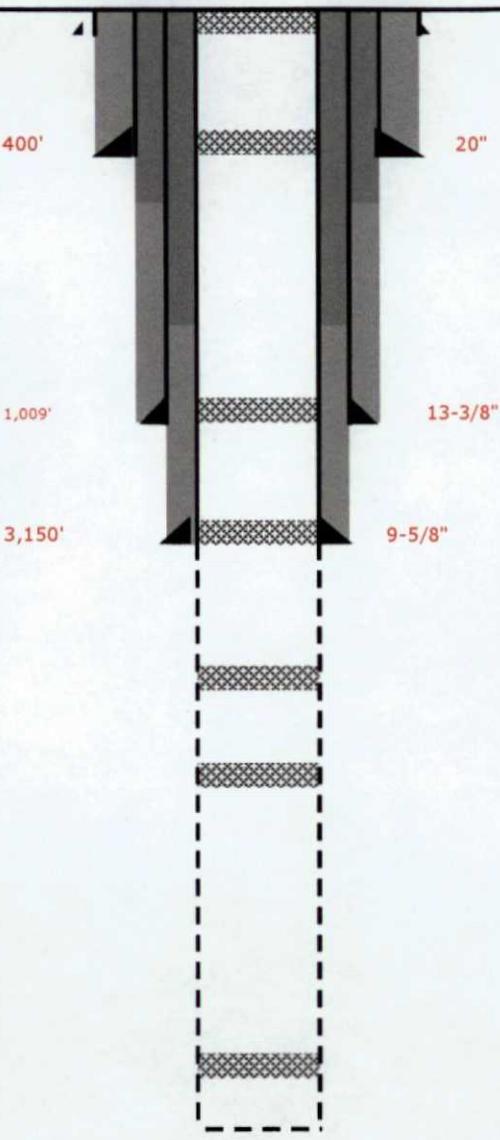
**Wellbore Diagram**

Burton Flat East Morrow Field

Eddy County NM

API # 30-015-32552

**As Plugged 03/16/03**



30" Conductor set at 60'

**Cement Plugs**

0-62' Surface plug Class "C" 14.8 ppg, circulated to surface

345' - 445': 40 sacks Class "C" 14.8 ppg

945' - 1,045': 40 sacks Class "C" 14.8 ppg

3,103' - 3,303': 85 sacks Class "C" +2% CaCl 14.8 ppg

5,795' - 5,995': 60 sacks Class "H" 15.6 ppg

7,483' - 7,633': 80 sacks Class "H" 15.6 ppg

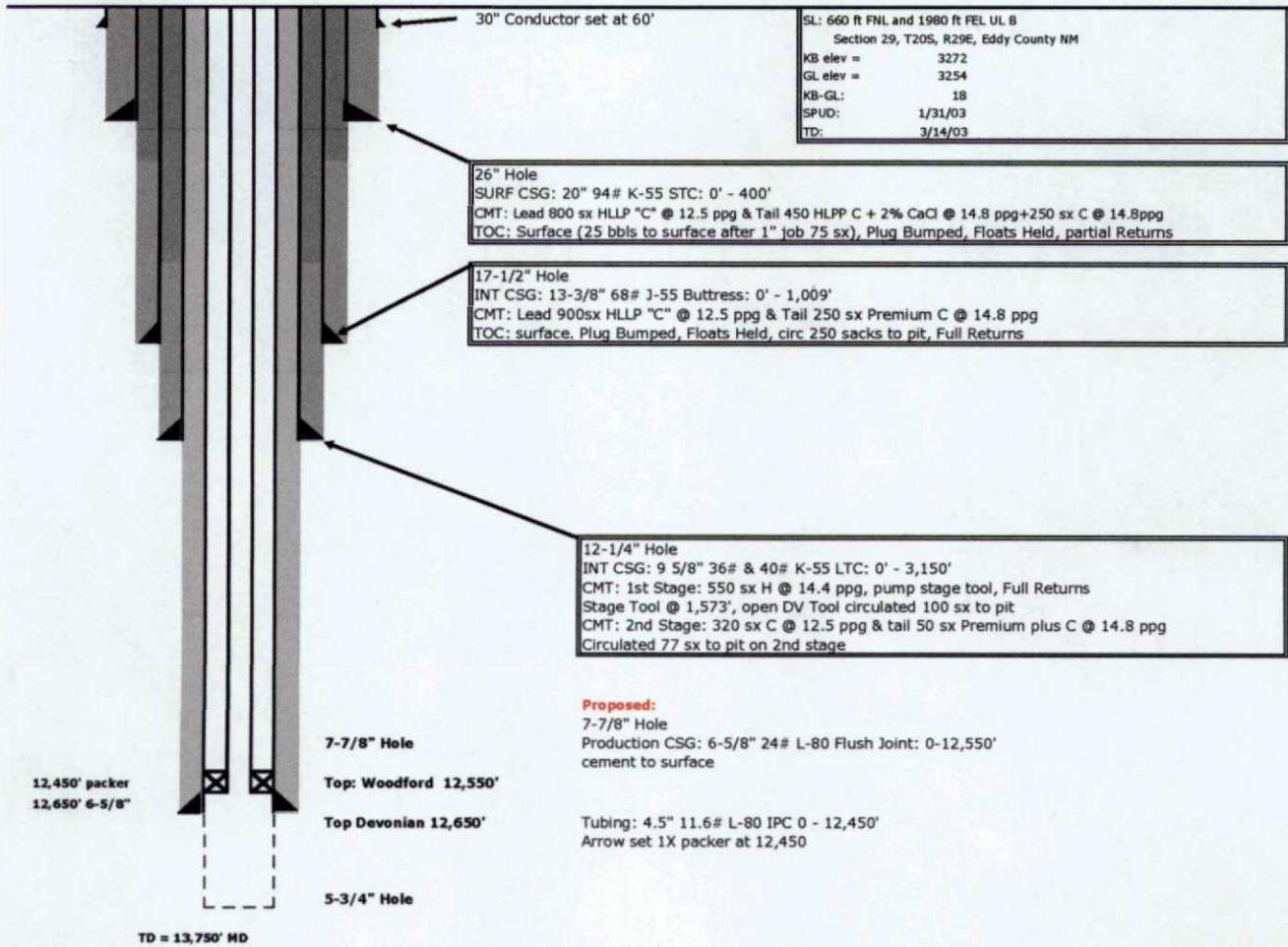
10,696' - 10,759': 115 sacks Class "H" 15.6 ppg

TD = 11,950' MD

**Sand Pounder Federal #1  
Wellbore Diagram**

Burton Flat East Morrow Field  
Eddy County NM  
API # 30-015-32552

As Proposed 10/10/16





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q Q Q	64 16 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00936 POD1			ED	3 4 2	30	20S	29E		583661	3601238*	70	52	18

Average Depth to Water: **52 feet**  
 Minimum Depth: **52 feet**  
 Maximum Depth: **52 feet**

**Record Count: 1**

**PLSS Search:**

Section(s): 30

Township: 20S

Range: 29E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
 O=orphaned,  
 C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q Q Q	64 16 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 03265 POD1	CUB	ED	1 1 3	20	20S	29E	584052	3602648*			89	52	37

Average Depth to Water: **52 feet**

Minimum Depth: **52 feet**

Maximum Depth: **52 feet**

**Record Count: 1**

**PLSS Search:**

Section(s): 20

Township: 20S

Range: 29E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q Q Q	64 16 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00759			ED	4 2 28			20S	29E	586984	3601360*	205	90	115

Average Depth to Water: **90 feet**

Minimum Depth: **90 feet**

Maximum Depth: **90 feet**

**Record Count: 1**

**PLSS Search:**

Section(s): 28

Township: 20S

Range: 29E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



- ~ Home
- ~ Production Data ▶
- ~ Well Data ▶
- ~ NM Priceshet ▶
- ~ Water Data ▶
- ~ Projects ▶
- ~ Software ▶
- ~ Archive ▶
- ~ Other Links ▶
- ~ Help ▶

North American Oil and Gas News

Lone Pine Resources and Arsenal Energy combine to form Prairie Provident Resources

Ceiba Energy Services initiates strategic review process for growth objectives, provides management update

Delphi Energy increases production capability to 9,100 boe/d

Pacific Exploration and Production provides update on restructuring transaction and anticipated implementation date

Source: Oil Voice

<b>NYMEX LS Crude</b>	<b>45.19</b>
<b>Navajo WTXI</b>	<b>0</b>
<b>Henry Hub</b>	<b>2.903</b>
Updated :	9/13/2016

State Land Office Data Access

OCD well/log image files

PRRC NM-TECH NM-BGMR

[-] NM WAIDS

[-] Data

- Produced Water
- Ground Water
- Conversion Tools

[-] Scale

- Scale details
- Stiff
- Oddo
- Probable Mineral Composition mix

[-] Corrosion

[-] Theory

- Uniform
- Galvanic
- Crevice
- Hydrogen Damage

General Information About: Sample 27926

<b>Section/ Township/Range</b>	20 / 20S / 29E	<b>Lat/Long</b>	32.5588/-104.0968
<b>Elevation</b>	3241	<b>Depth</b>	63
<b>Date Collected</b>	5/9/1989 12:00:00 AM	<b>Chlorides</b>	50
<b>Collector / Point of Collection</b>	SEO/DP	<b>Use</b>	Stock
<b>Formation</b>	RSLR	<b>TDS</b>	0



**Delaware Energy, L.L.C.**  
3001 W. Loop 250 N., Suite C-105-318  
Midland, TX 79705  
Office: (214) 558-1371

October 10, 2016

**Surface Owner / Offset Operators**

Re: Notification of Application for Authorization to Inject  
Sand Pounder Federal #1 Well . API 30-015-32552

Ladies and Gentlemen:

Delaware Energy, LLC is seeking administrative approval to utilize the proposed Sand Pounder Federal #1 as a Salt Water Disposal well. As required by the New Mexico Oil Conservation Division Rules, we are notifying you of the following proposed salt water disposal well. This letter is a notice only. No action is required unless you have questions or objections.

<u>Well:</u>	Sand Pounder Federal SWD #1
<u>Proposed Disposal Zone:</u>	Devonian Formations (from 12,650' - 13,750')
<u>Location:</u>	660' FNL & 1980' FEL, Sec. 29, UL B, T20S, R29E, Eddy Co., NM
<u>Applicants Name:</u>	Delaware Energy, L.L.C.
<u>Applicants Address:</u>	3001 W. Loop 250 N., Suite C-105-318, Midland, TX 79705

This application for water disposal well will be filed with the New Mexico Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. And their phone number is 505-476-3460.

Please call Preston Stein with Delaware Energy, LLC if you have any questions at 214-558-1371.

Sincerely,

Preston Stein

## **LEGAL NOTICE**

Delaware Energy, L.L.C., 3001 W. Loop 250N, Suite C-105-318, Midland, TX 79705, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to utilize the proposed Sand Pounder Federal #1 (API – 30-015-32552) as a Salt Water Disposal well.

The Sand Pounder Federal #1 is located at 660' FNL and 1800' FWL, Unit Letter B, Section 29, Township 20 South, Range 29 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian Formation from 12,650' to 13,750' at a maximum rate of 15,000 barrels of water per day at a maximum pressure of 2,530 psi.

Interested parties must file objections or requests for hearing with the Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

Additional information can be obtained by contacting Delaware Energy, L.L.C., at (214) 558-1371.

**Sand Pounder Federal No 1**

**API#: 30-015-32552**

**Location: Sec. 29, T-20S, R-29E, UL B**

**Formation Tops**

Eroded Permian at surface Rustler/Salado

Base Salado	1,005'
Yates	1,006'
Delaware Mtn. Group-Bell Canyon	3,200'
Bone Springs Lime	5,880'
Wolfcamp	9,380'
Strawn	10,400'
Atoka	10,668'
Morrow	11,018'
Barnett	11,700'
Mississippian Lime	12,100'
Woodford Shale	12,550'
Devonian	12,650'

~~3,200'~~  
3,550'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Oil Cons. N.M. DIV-Dist. 2  
1001 W. Grand Avenue  
Artesia NM 88210

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPlicate** (Original, 1st Copy, 2nd Copy)

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
 Manzano Oil Corporation /

3a. Address  
 P.O. Box 2107, Roswell, NM 88202-2107

3b. Phone No. (include area code)  
 505/623-6199

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 660' FNL & 1980' FEL  
 Section 29, T20S-R29E **UT. B**

5. Lease Serial No.  
 NM-03677

6. If Indian, Allottee or Tribe Name

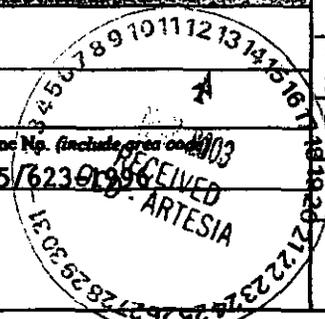
7. If Unit or CA Agreement, Name and/or No.

8. Well Name and No.  
 Sand Pounder Federal #1

9. API Well No.  
 30-015-32552

10. Field and Pool, or Exploratory Area  
 Burton Flat East Morrow

11. County or Parish, State  
 Eddy, New Mexico

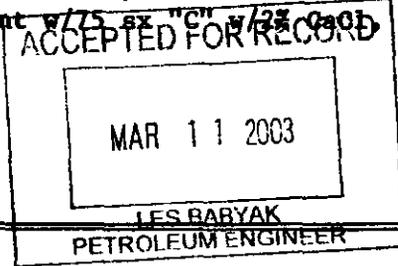


**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other <u>Spud &amp; run casing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1/31/03 MIRU Patterson UTI Rig #504 - Spud & drill 26" hole @ 8:30 pm - Lost circ @ 335'  
 2/1/03 TD @ 400' 1:00 pm w/returns - Pump Viscous LCM pill/regain partial returns - Run 10 jts-20", 94#/ft K-55, Butress casing (404') w/Texas pattern guide shoe & insert float (4 centralizers) to TD - RU Halliburton Cementing Services & cement w/100 sx Thixset "H" (14.4 ppg/1.60 ft<sup>3</sup>/sx) + 450 sx HLPP "C" + 2% CaCl + .25#/sx Flocele (12.50 ppg/1.96 ft<sup>3</sup>/sx) + 250 sx Premium Plus "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx)  
 2/2/03 Plug down @ 2:30 am - Cement operation w/partial returns/did not circ. cement - Run temp survey TOC @ 52 1/2' - Run 1" to 52' & cement w/75 sx "C" w/2% CaCl circ 25 sx to pit.



14. I hereby certify that the foregoing is true and correct  
 Name (Printed/Typed) Michael G. Hanagan Title Agent

Signature *Michael G. Hanagan* Date 2/25/03

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office \_\_\_\_\_

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**Oil Cons.**  
**N.M. Div-Dist. 2**  
**1301 W. Grand Avenue**  
**Alamogordo, NM 88210**

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or re-work an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT INDICATES OTHER INFORMATION**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Manzano Oil Corporation /

3a. Address  
P.O. Box 2107, Roswell, NM 88202-2107

3b. Phone No. (Include Area Code)  
505/623-1996

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
660' FNL & 1980' FEL  
Section 29, T-20-S, R-29-E **LT B**

5. Lease Serial No.  
NM-03677

6. If Indian, Allottee or Tribe Name

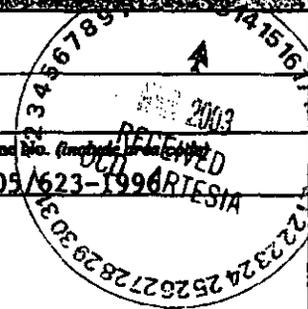
7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Sand Pounder Federal #1

9. API Well No.  
30-015-32552

10. Field and Pool, or Exploratory Area  
Burton Flat East Morrow

11. County or Parish, State  
Eddy, New Mexico



**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

- 2/3/03 Drill out in 17-1/2" hole
- 2/4/03 TD 17-1/2" hole @ 1005' - 7:30 am - Run 24 jts 13-3/8" 68#/ft, J-55, Butress (1009') casing w/Texas Pattern Guide Shoe, Float collar (5 centralizers) to TD - RU Halliburton Cementing Services & cement w/900 sx HLPP "C" + 2% CaCl + .25#/sx Flocele (12.50 ppg/1.96 ft<sup>3</sup>/sx) + 250 sx Premium Plus "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx), Plug down @ 3:00 pm, Circ. 250 sx to pit.
- 2/5/03 NU 3M BOP & test to 1000# w/rig pumps - Tested good - Drill out in 12-1/4" hole
- 1/11/03 TD 12-1/4" hole @ 3150' - 2:30 am - Run 80 jts 9-5/8" 36# & 40#/ft, K-55, LT&C (3154') casing w/Guide Shoe, float collar, Multiple Stage Cement Tool (@ 1573') & (7 centralizer to TD - RU Haliburton & cement 1st stage w/550sx "H" of .25 #/sx Flocele + 2% CaCl (14.4 ppg/1.34 ft<sup>3</sup>/sx) - Open DV Tool & circ. 100 sx to pit - 2nd Stage w/320 sx "C" + .25#/sx Flocele + 2% CaCl (12.5 ppg/1.96 ft<sup>3</sup>/sx) + 50 sx Premium Plus "C" + 2% CaCl - Plug down @ 6:00 am, Circ 77 sx to Pit. NU 5M BOP & test to 1500# w/Independent Tester.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Michael G. Hanagan

Signature

Title Agent

Date 2/25/03

ACCEPTED FOR RECORD

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

LESZYBYAK  
PETROLEUM ENGINEER

**Oil Cons.**  
**UNITED STATES N.M. DIV-Dist. 2**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**  
**300 W. Grand Avenue**  
**Altesia NM 88210**

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPlicate: Original and 2 Copies**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
 Manzano Oil Corporation

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 P.O. Box 2107, Roswell, NM 88202

3b. Phone No. (include area code)  
 (505) 623-1996

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 660' FNL & 1980' FEL  
 Section 29, T20S, R29E

5. Lease Serial No.  
 NM-03677

6. If Indian, Allottee or Tribe Name

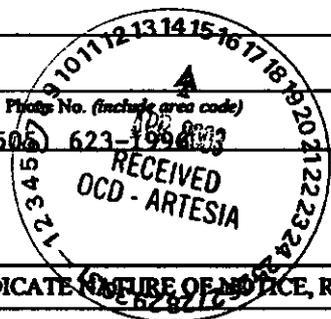
7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
 Sand Pounder Federal #1

9. API Well No.  
 30-015-32552

10. Field and Pool, or Exploratory Area  
 Burton Flat East Morrow

11. County or Parish, State  
 Eddy, New Mexico



**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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3/14/03 7:00 a.m. - TD 7-7/8" hole @ 11950'  
 3/15/03 5:00 p.m. - TIH - Open ended w/345 jts 4-1/2" drill pipe  
 3/16/03 12:00 a.m. - RU Halliburton Cementing Services  
 Pump 1st plug; 10969' - 10759', 115 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 105 jts DP  
 Pump 2nd plug; 7633' - 7483', 80 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 53 jts DP  
 Pump 3rd plug; 5945' - 5795', 60 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 83 jts DP  
 Pump 4th plug; 3303' - 3103', 85 sx "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx) Lay down 71 jts DP  
 Pump 5th plug; 1045' - 945', 40 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx) Lay down 19 jts DP  
 Pump 6th plug; 445' - 345', 40 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx) Lay down 12 jts DP  
 Pump 7th plug; 62' - Surface 50 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx)  
 12:00 p.m. - Plug down, cement circulated to surface - BLM Field Representative, Homer Saenz, on location to witness P&A operation.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) Toby Solis Title Engineer

Signature [Signature] Date 4/2/03

Post P&A

Approved by (ORIG SGD) ALEXIS C. SWOBODA **PETROLEUM ENGINEER** APR 14 2003

Conditions of approval, if any, are stated. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Approved as to plugging of the well bore.  
 Liability under bond is retained until  
 surface restoration is completed.

District I  
1625 N. French Dr Hobbs, NM 88240

District II  
871 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

Form C-102  
Revised March 17, 1999  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Burton Flats East Morrow
Property Code	Property Name	Well Number
	SAND POUNDER FED.	1
OGRID No.	Operation Name	Elevation
	MANZANO OIL CORP.	3254

Surface Location

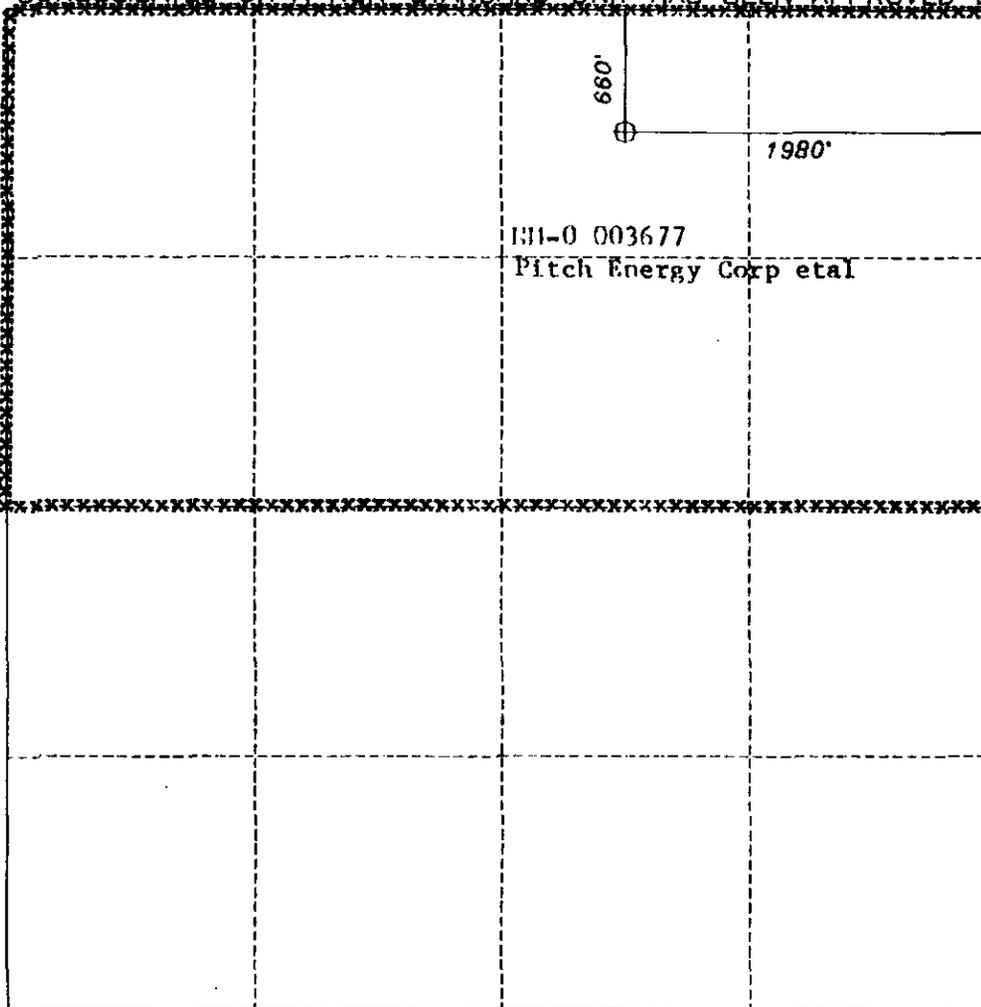
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
B	29	20 S	29 E		660	NORTH	1980	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DMSION



**OPERATOR CERTIFICATION**  
I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Signature: *George R. Smith*

Printed Name: George R. Smith

Title: agent

Date: October 29, 2002

---

**SURVEYOR CERTIFICATION**  
I HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Date of Survey: OCTOBER 29, 2002

Signature and Seal of Professional Surveyor: *George R. Smith*

NEW MEXICO REGISTERED PROFESSIONAL ENGINEER LAND SURVEYOR 5412

NM PE&PS #5412  
Certificate Number

Delaware E - Sand Powder

English

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Text Updates

Email Updates

DATE & TIME	STATUS OF ITEM	LOCATION
October 31, 2016, 12:17 pm	Delivered, Left with Individual	ARTESIA, NM 88210
<p>Your item was delivered to an individual at the address at 12:17 pm on October 31, 2016 in ARTESIA, NM 88210.</p>		
October 30, 2016, 3:45 am	In Transit to Destination	
October 28, 2016, 10:32 pm	Departed USPS Facility	LUBBOCK, TX 79402

DATE & TIME	STATUS OF ITEM	LOCATION
October 28, 2016 , 9:45 pm	Arrived at USPS Facility	LUBBOCK, TX 79402
October 27, 2016 , 11:53 pm	Departed USPS Facility	MIDLAND, TX 79711
October 27, 2016 , 9:25 pm	Arrived at USPS Origin Facility	MIDLAND, TX 79711
October 27, 2016 , 4:53 pm	Acceptance	MIDLAND, TX 79707

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Date: 10/27/2016

Post Office and ZIP Code: **NA 000**

Post Office Name: **AerVsm** (SMB 000)

PS Form 3800, April 2005 (with amendments) and for use on letter mail

**Affidavit of Publication**

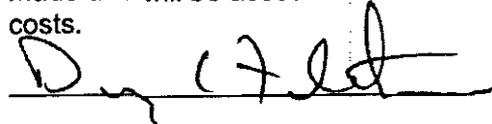
State of New Mexico,  
County of Eddy, ss.

**Danny Fletcher**, being first duly  
sworn, on oath says:

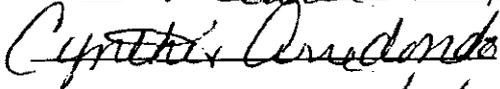
That he is the Publisher of the  
Carlsbad Current-Argus, a  
newspaper published daily at the  
City of Carlsbad, in said county of  
Eddy, state of New Mexico and of  
general paid circulation in said  
county; that the same is a duly  
qualified newspaper under the laws  
of the State wherein legal notices  
and advertisements may be  
published; that the printed notice  
attached hereto was published in the  
regular and entire edition of said  
newspaper and not in supplement  
thereof on the date as follows, to wit:

October 27 2016

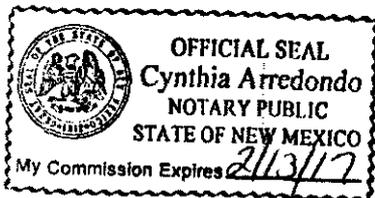
That the cost of publication is \$68.15  
and that payment thereof has been  
made and will be assessed as court  
costs.



Subscribed and sworn to before me  
this 28 day of October, 2016

  
My commission Expires 2/13/17

Notary Public



**October 27, 2016**

Delaware Energy, L.L.C., 3001 W. Loop 250N, Suite C-105-318, Midland, TX 79705, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to utilize the proposed Sand Pounder Federal #1 (API - 30-015-32552) as a Salt Water Disposal well.

The Sand Pounder Federal #1 is located at 660 FNL and 1800 FWL Unit Letter B, Section 29, Township 20 South, Range 29 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian Formation from 12,650' to 13,750' at a maximum rate of 15,000 barrels of water per day at a maximum pressure of 2,530 psi.

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.

Additional information can be obtained by contacting Delaware Energy, L.L.C., at (214) 558-1371.



**C-108 Review Checklist:** Received 10/24/2016 Add. Request: 10/26/2016 Reply Date: 11/4/2016 Suspended: \_\_\_\_\_ [Ver 15]

**ORDER TYPE:** WFX / PMX / SWD Number: \_\_\_\_\_ Order Date: \_\_\_\_\_ Legacy Permits/Orders: \_\_\_\_\_

Well No. 1 Well Name(s): Sand Ponder Federal SWD

API: 30-0 15-32-552 Spud Date: 7/31/2003 New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 660' FUL 1950' FUL Lot \_\_\_\_\_ or Unit B Sec 29 Tsp 205 Rge 29E County Eddy

General Location: 7 1/2 miles W Hobbs Pool: SWD, Devonian Pool No.: \_\_\_\_\_

BLM 100K Map: Antesic Operator: \_\_\_\_\_ OGRID: \_\_\_\_\_ Contact: \_\_\_\_\_

COMPLIANCE RULE 5.9: Total Wells: 0 Inactive: \_\_\_\_\_ Fincl Assur: \_\_\_\_\_ Compl. Order? \_\_\_\_\_ IS 5.9 OK? \_\_\_\_\_ Date: \_\_\_\_\_

WELL FILE REVIEWED  Current Status: PFA

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_

Planned Rehab Work to Well: 6 5/8 CBL to 3100'

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>26 1/2 / 20"</u>	<u>400</u>	<u>875</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod	<u>17 1/2 / 13 3/8"</u>	<u>1009</u>	<u>1150</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod	<u>12 1/4 / 9 5/8"</u>	<u>3150</u>	<u>870</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Prod/Liner	<u>7 7/8 / 6 9/8"</u>			<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ <input checked="" type="radio"/> PERF	<u>12650 / 3750</u>			

Injection Lithostratigraphic Units	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		<u>wd</u>	<u>12530</u>	Drilled TD <u>11950</u> PBDT _____
Confining Unit: Litho. Struc. Por.		<u>DV</u>	<u>12650</u>	NEW TD <u>13750</u> NEW PBDT _____
Proposed Inj Interval TOP:				NEW Open Hole <input checked="" type="radio"/> or NEW Perfs <input type="radio"/>
Proposed Inj Interval BOTTOM:				Tubing Size <u>4.5</u> in. Inter Coated? _____
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>12450</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>1250</u> (100-ft limit)
				Proposed Max. Surface Press <u>2530</u> psi
				Admin. Inj. Press. <u>2500</u> (0.2 psi per ft)

**AOR: Hydrologic and Geologic Information**

POTASH: R-111-P MA Noticed?  BLM Sec Ord  WIPP  Noticed?  Salt/Salado T: 60' B: 100' NW: Cliff House fm MA

FRESH WATER: Aquifer WILFORD Max Depth 205' HYDRO AFFIRM STATEMENT By Qualified Person

NMOSE Basin: CAPITAN CAPITAN REEF (thru BONE SPRING) adj NA No. Wells within 1-Mile Radius? 1 FW Analysis

Disposal Fluid: Formation Source(s) WILFORD Analysis?  On Lease  Operator Only  or Commercial

Disposal Int: Inject Rate (Avg/Max BWPD): 104/151 Protectable Waters?  Source: \_\_\_\_\_ System: Closed or Open

HC Potential: Producing Interval? MA Formerly Producing? \_\_\_\_\_ Method: Logs/DST/P&A/Other REGIONAL 2-Mile Radius Pool Map

AOR Wells: 1/2-M Radius Map?  Well List? \_\_\_\_\_ Total No. Wells Penetrating Interval: 0 Horizontals?

Penetrating Wells: No. Active Wells 0 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? \_\_\_\_\_

Penetrating Wells: No. P&A Wells 0 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? \_\_\_\_\_

NOTICE: Newspaper Date 10/24/16 Mineral Owner BLX1 Surface Owner BLX1 N. Date 11-01-2016

RULE 26.7(A): Identified Tracts?  Affected Persons: YATES, MATADO N. Date 10-24-2016

Order Conditions: Issues: \_\_\_\_\_

Add Order Cond: see below

\* Operator shall run casing to top of wood bond. Circ cement blh

CAPR 1282 (bottom 3063) B&T 3158 3200'