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RECEIVED OCD

2013 OCT 18 P 1:32

October 15, 2013

*Case 15059*

Florene Davidson  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Florene:

Enclosed for filing, on behalf of Mesquite SWD, Inc., is an application for a salt water disposal well, together with a proposed advertisement. The advertisement has also been e-mailed to the Division. Please set this matter for the November 14, 2013 Examiner hearing. Thank you.

Very truly yours,

  
James Bruce

Attorney for Mesquite SWD, Inc.

Persons Notified of Hearing

Bureau of Land Management  
620 East Greene  
Carlsbad, New Mexico 88220

Oil Conservation Division  
1625 North French Drive  
Hobbs, New Mexico 88240

Matador Petroleum Corp.  
Suite 1500  
5400 LBJ Freeway  
Dallas, Texas 75240

Devon Energy Production Company, L.P.  
333 West Sheridan  
Oklahoma City, Oklahoma 73102

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

RECEIVED OOD

APPLICATION OF MESQUITE SWD, INC. FOR  
APPROVAL OF A SALT WATER DISPOSAL  
WELL, LEA COUNTY, NEW MEXICO.

2013 OCT 18 P 3: 55

Case No. 15059

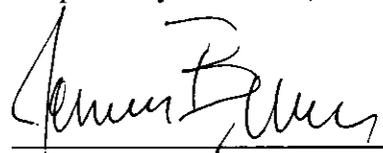
APPLICATION

Mesquite SWD, Inc. applies for an order approving a salt water disposal well, and in support thereof, states:

1. Applicant proposes to drill its proposed Blue Quail SWD Well No. 1, to be located 2100 feet from the north line and 1660 feet from the west line of Section 11, Township 25 South, Range 32 East, N.M.P.M., Lea County, New Mexico.
2. Applicant proposes to dispose of produced water into the Bell Canyon and Cherry Canyon members of the Delaware formation at approximate depths of 4790 to 7350 feet subsurface.
3. A Form C-108 for the subject well is attached hereto as Exhibit A.
4. The granting of this application will prevent waste and protect correlative rights.

**WHEREFORE**, applicant requests that, after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,



James Bruce  
Post Office Box 1056  
Santa Fe, New Mexico 87504  
(505) 982-2043

Attorney for Mesquite SWD, Inc.

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: Mesquite SWD, Inc

ADDRESS: P.O. Box 1478 Carlsbad, NM 88220

CONTACT PARTY: Kay Havenor PHONE: 575-626-4518

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:

- Proposed average and maximum daily rate and volume of fluids to be injected;
- Whether the system is open or closed;
- Proposed average and maximum injection pressure;
- Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
- 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.).

EXHIBIT **A**

\*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: Kay Havenor TITLE: Agent

SIGNATURE: Kay C Havenor DATE: 6/20/2013

E-MAIL ADDRESS: KHavenor@georesources.com

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

### III. WELL DATA

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

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

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

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

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

### XIV. PROOF OF NOTICE

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

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

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

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

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

INJECTION WELL DATA SHEET

OPERATOR: Mesquite SWD, Inc. (OGRID 161968)

WELL NAME & NUMBER: Blue Quail SWD #1 30-025-NA (New Drill)

WELL LOCATION: 2100' FNL & 1660' FWL F 11 25S 32E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

Sec attached diagram

PROPOSED WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 20" Casing Size: 16" Conductor

Cemented with:                      sx. or 144 ft<sup>3</sup>

Top of Cement: Surface Method Determined: Opr

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 9-5/8" 40# K-55

Cemented with: 500 sx. or                      ft<sup>3</sup>

Top of Cement: Surface Method Determined: Opr

Production Casing

Hole Size: 8-5/8" Casing Size: 7" 26# L-80

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

Top of Cement: Surface Method Determined: Opr

Total Depth: Approx 7,350'

Injection Interval

Approximately 4,790' To Approximately 7,350'

(Perforated or Open Hole; indicate which) Open Hole

**INJECTION WELL DATA SHEET**

Tubing Size: 4-1/2" 12.75# L/N-80 Lining Material: Fiberglass coated

Type of Packer: Lok-Set or equivalent

Packer Setting Depth: Approx 4,740 ft

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

Additional Data

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

If no, for what purpose was the well originally drilled? \_\_\_\_\_

\_\_\_\_\_

2. Name of the Injection Formation: Delaware Bell Canyon and Cherry Canyon

3. Name of Field or Pool (if applicable): \_\_\_\_\_

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. New

\_\_\_\_\_

\_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: No commercially potential zone in Delaware Group expected above Brushy Canyon Formation (beneath projected TD).

\_\_\_\_\_

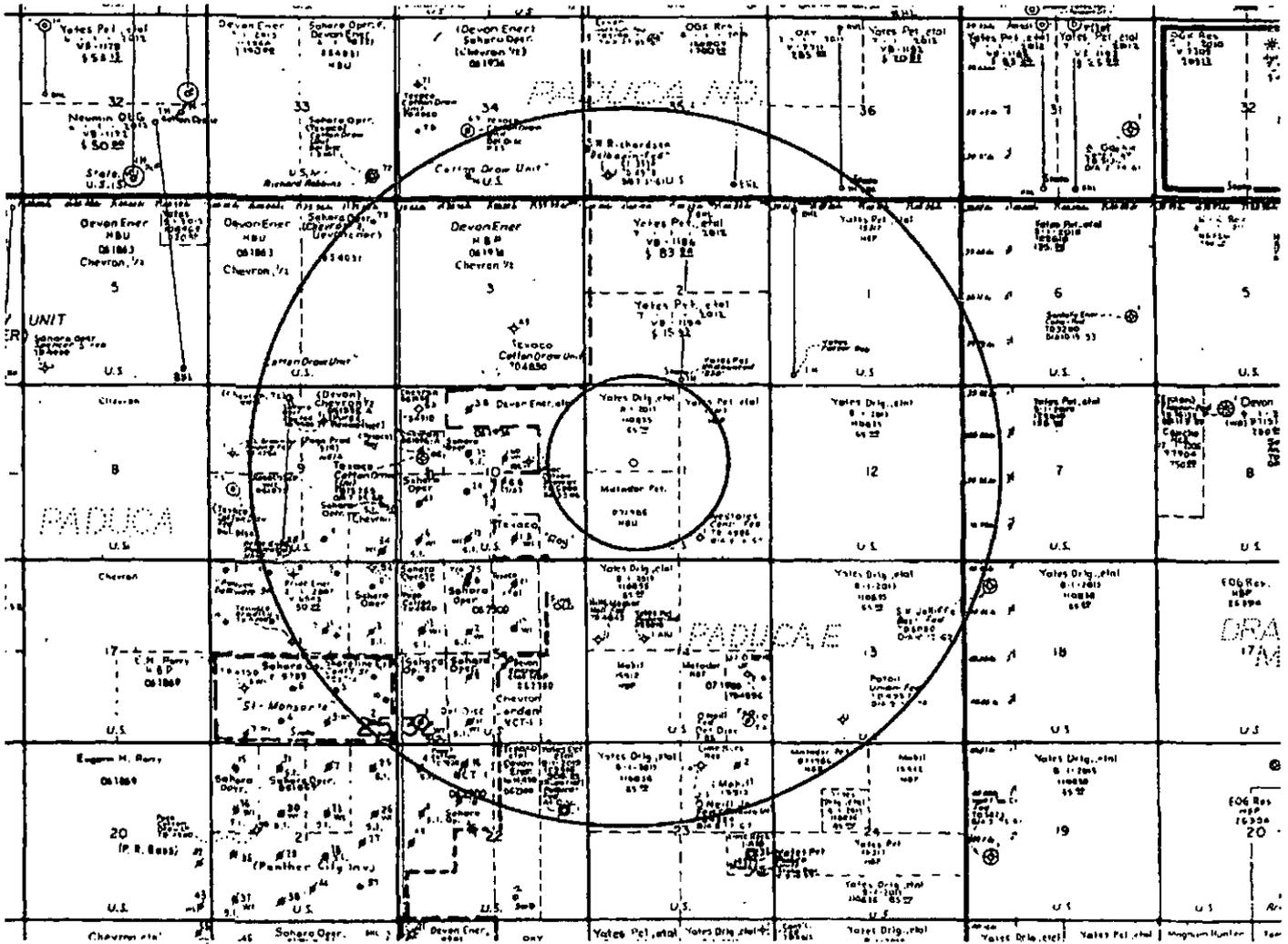
\_\_\_\_\_

Mesquite SWD, Inc.  
 Blue Quail SWD #1  
 2100' FNL & 1660' FWL  
 Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

Item V:

Area of Review  
 1/2 Mile AOR and 2 Mile Radius

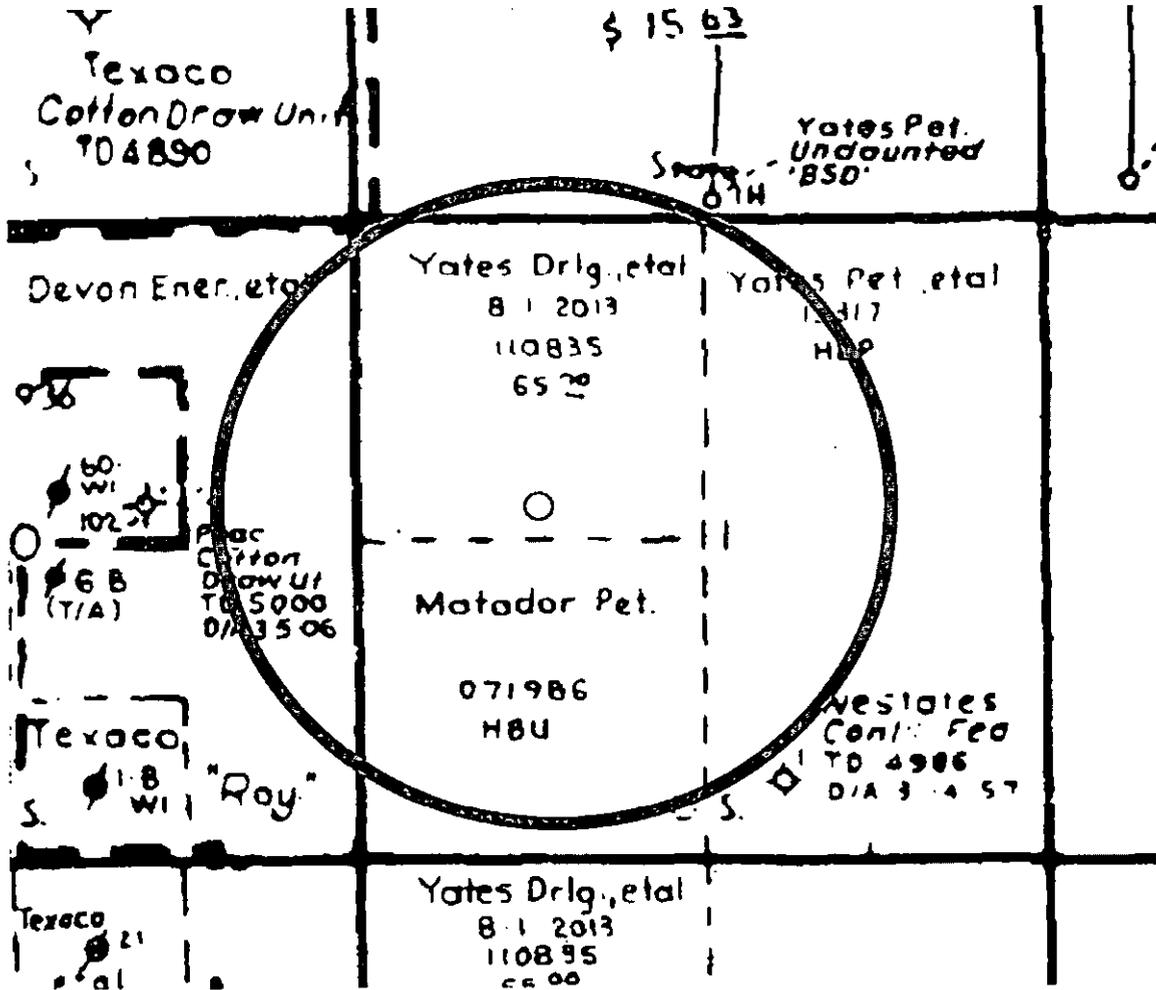


Mesquite SWD, Inc.  
Blue Quail SWD #1  
2100' FNL & 1660' FWL  
Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

Item V (a):

Area of Review  
1/2 Mile AOR



Mesquite SWD, Inc.  
 Blue Quail SWD #1  
 2100' FNL & 1660' FWL  
 Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

**Item VI: Data on wells in AOR:**

There are no known wells presently existing within the Half-mile AOR.

**Item VII:**

1. The maximum injected volume anticipated is 6,000 BWPD. Average anticipated is 3,500 BWPD.
2. Injection will be through a closed system.
3. Maximum injection pressure is expected to be 958 psi, or as controlled by depth.
4. Sources will be produced water that is compatible with known waters in the disposal zones.
5. Water sample analyses from the OXY Cotton Draw Unit No. 4, Unit D, Sec. 22, T25S-R32E, Lea Co., is shown below, TDS 276,839 mg/l (Source: NM WAIDS):



**Water Samples for Well COTTON DRAW UNIT 004**

API = 3002508221

Formation = DEL

Field = PADUCA

**Current Water Production Information**

**Instructions:**

- Click For general information about this sample.
  - Click For scale calculation pages (Stiff-Davis or Oddo Tomson methods).
  - Click To select this water sample for water mixing. It will lead to the main page, and add the sample ID to the mixing table.
  - Click 664 Click the hyperlinked sample number to make a .csv for that sample, or select several check boxes and click Submit for multiple samples
- The ions are in (mg/L) units.

SampleID	T	R	S	SO4	CL	CO3	HCO3	K	Na	Ca	Mg
4293				2552	170500	null	198	null	null	null	null

Before disposal the interval will be evaluated to confirm the projected absence of commercial hydrocarbons.

Mesquite SWD, Inc.  
Blue Quail SWD #1  
2100' FNL & 1660' FWL  
Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

**Item VIII:**

Disposal will be into the Delaware Mountain Group (Delaware). The Delaware is comprised of sandstones, dolomites, and shales. The proposed disposal interval is in the Bell Canyon and the Cherry Canyon. All the Delaware members are interbedded sandstones and shales with occasional dolomite horizons. The lateral transmissivities of the sandstone beds are highly variable and often form selective barriers to the movement of hydrocarbons while allowing down-gradient movement of water. The transmissivity variations are fundamentally due to 1) the very-fine grained nature of the sands and 2) the local percentage of silt and clay. The Delaware sandstone members are typically overlain and underlain by bounding shale, dolomite, and/or silty shale horizons. The depth to the Delaware Ramsey sand in this well will be approximately 4,790'. The base of the Delaware (top of Bone Springs Formation) is estimated at approximately 8,850', well below this well's projected TD of approximately 7,350'.

There is no known fresh, potable water within a 2-mile radius. Records from the New Mexico Office of the State Engineer on 6/17/2013 show no known water wells within the 2-mile radius of the proposed Mesquite SWD disposal well.



*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

No PODs found.

POD Search:

POD Basin: Carlstad

UTMCSAD83 Radius Search (in meters):

Easting (X): 627448

Northing (Y): 3557273

Radius: 3220

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

6/17/13 5:16 PM

ACTIVE & INACTIVE POINTS OF DIVERSION

The surface geology of the greater area, including the 2-mile radius as shown in Item V above, is Quaternary colian and piedmont deposits of Holocene to middle Pleistocene age. These are underlain by the Permian Rustler Formation and evaporites. Based upon surface geology and available shallow e-logs the depth to potential potable water, if present, is estimated to be less than 150'.

Mesquite SWD, Inc.  
Blue Quail SWD #1  
2100' FNL & 1660' FWL  
Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

**Item IX:**

No formation stimulation is currently planned.

**Item X:**

Logs will be filed with the OCD upon completion of the well.

**Item XI:**

No water wells are reported in the 2-mile radius of the proposed SWD. Please note Item VIII discussion above.

**Item XII:**

There is no geological evidence of open faults or hydrologic connection between the disposal zone and any possible underground sources of protectable water.

**Amendment:**

Drilling/evaluation of this Delaware interval in the greater area around the proposed location has demonstrated a lack of reasonable potential for commercial hydrocarbon production by horizontal or conventional vertical drilling in the AOR for the Bell Canyon or Cherry Canyon Formations. The proposed interval has been without significant hydrocarbon shows in the disposal target formations east and southeast of the Cotton Draw Unit area. Mesquite SWD intends to have a mud logging unit on the well for drilling the Delaware.

Mesquite SWD, Inc.  
 Blue Quail SWD #1  
 2100' FNL & 1660' FWL  
 Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

Proposed Drilling/Completion of Blue Quail SWD #1 Well

Proposed New Well Completion Diagram

API: 30025xxxxx  
 Operator: Mesquite SWD, Inc.  
 Lease: Blue Quail SWD  
 Location: Sec 11, T25S-R32E Lea Co., NM  
 Footage: 2100' FNL & 1660' FWL

Well No: 1

KB: 3517 Est  
 GL: 3497 Est

**Surface Csg**

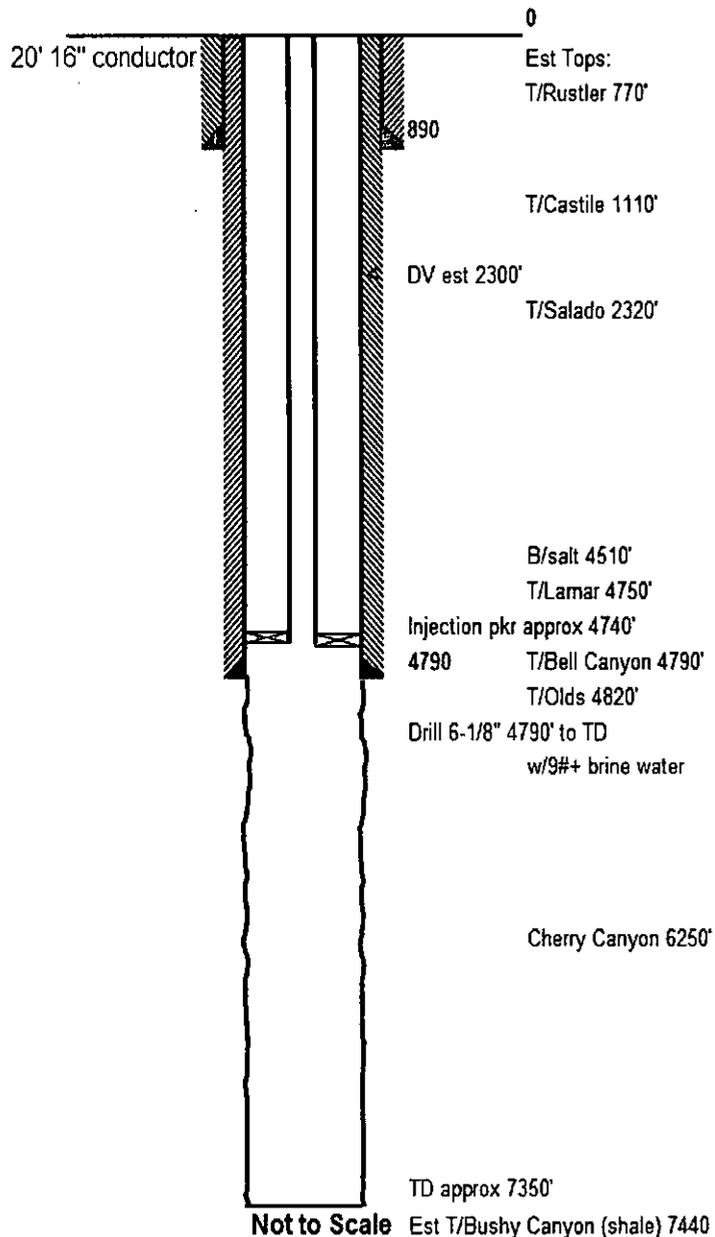
Size: 9-5/8" 36# K-55  
 Set @: 890  
 Sxs cmt: 500  
 Circ: Yes  
 TOC: Surface  
 Hole Size: 12-1/4"

**Production Csg**

Size: 7" 26# L-80  
 Set @: 4790  
 Sxs cmt: 2200  
 Circ: Circ to Surface  
 TOC: Surface  
 Hole Size: 8-3/4"

Tubular requirements (made-up):  
 4740' 4-1/2" L/N80 12.75# upset Fiberglass lined  
 Lok-Set (or equivalent) Packer set approx 4740'

Load tubing annulus w/corrosion inhibitor  
 Complete surface head for disposal



Mesquite SWD, Inc.  
Blue Quail SWD #1  
2100' FNL & 1660' FWL  
Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

**Item XIII: Proof of Notice**

**Minerals Owner:**

Bureau of Land Management  
620 E. Greene St.  
Carlsbad, NM 87220

**Surface BLM Lessee:**

Brininstool XL Ranch  
P.O. Box 940  
Jal, NM 88252

**Operators:**

Devon Energy Production Co. LP  
333 W. Sheridan Ave  
Oklahoma City, OK 73102

NW/4 Sec. 11, E/2 E/2 Sec. 10

Matador Petroleum Corp.  
5400 LBJ Freeway, Ste 1500  
Dallas, TX 75240

SW/4 Sec. 11

Yates Petroleum Corp.  
105 S. 4<sup>th</sup> Street  
Artesia, NM 88210

S/2 Sec. 2, E/2 Sec. 11

Mesquite SWD, Inc.  
Blue Quail SWD #1  
2100' FNL & 1660' FWL  
Sec. 11, T25S-R32E Lea County, NM

API 30-025-NA

**Item XIII: Legal Publication**

**Affidavit of Publication**

State of New Mexico,  
County of Lea.

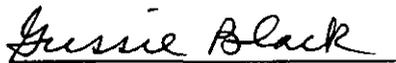
I, DANIEL RUSSELL  
PUBLISHER  
of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

of 1 issue(s).  
Beginning with the issue dated  
June 20, 2013  
and ending with the issue dated  
June 20, 2013



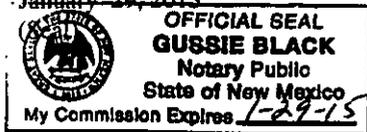
PUBLISHER

Sworn and subscribed to before me  
this 20th day of  
June, 2013



Notary Public

My commission expires  
January 20, 2015



This newspaper is duly qualified to  
publish legal notices or  
advertisements within the meaning of  
Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.

**Legal Notice  
June 20, 2013**

Mesquite SWD, Inc., c/o Kay Havenor, 904 Moore Ave,  
Roswell, NM 88201, (575) 828-4518, email:  
KHavenor@georesources.com, is seeking approval from  
the New Mexico Oil Conservation Division to drill and  
complete the Mesquite SWD, Inc. Blue Quail SWD No.1  
well, API: unassigned, located 2,100 feet from the north line  
and 1,680 feet from the west line of Section 11, T25S,  
R32E, Lea County, NM. The well, approximately 4.8 miles  
south from the junction of NM-128 and Lea Co. CR-1, Ora  
Road, and east 1.3 miles, will be for commercial produced  
water disposal. The proposed disposal interval is in the  
Delaware Bell Canyon and Cherry Canyon beneath 7" cas-  
ing into open hole from approximately 4,700 feet to 7,350  
feet. Mesquite SWD, Inc plans to dispose of a maximum  
8,000 BWPD at a maximum pressure of 968 psi. Parties  
with questions regarding this proposal are urged to contact  
Kay Havenor at the email address or phone number above.  
Interested parties must file objections or requests for  
hearing within 15 days to the New Mexico Oil Conservation  
Division, 1220 S. St. Francis Dr., Santa Fe, NM 87505.  
#28237

67106552

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GEOSCIENCE TECHNOLOGIES  
904 MOORE AVE  
ROSWELL, NM 88201

PROPOSED ADVERTISEMENT

Case No. 15059:

*Application of Mesquite SWD, Inc. for approval of a water disposal well, Lea County, New Mexico.* Applicant seeks an order approving disposal of produced water into the Bell Canyon and Cherry Canyon members of the Delaware formation at depths of 4790-7350 feet subsurface in the proposed Blue Quail SWD Well No. 1, to be located 2100 feet from the north line and 1660 feet from the west line of Section 11, Township 25 South, Range 32 East, NMPM. The well is located approximately 25 miles west of Bennett, New Mexico.

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