

# Initial Application Part I

Received 11/5/20

*This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete*

Revised March 23, 2017

IW1Y4-201105-C-1080

|                   |           |           |                       |
|-------------------|-----------|-----------|-----------------------|
| RECEIVED: 11/5/20 | REVIEWER: | TYPE: SWD | APP NO: pBL2031450338 |
|-------------------|-----------|-----------|-----------------------|

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & 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

**Applicant:** DJR Operating, LLC **OGRID Number:** 371838  
**Well Name:** North Alamito Unit SWD #001 **API:** 30-045-38185  
**Pool:** SWD; Entrada **Pool Code:** 96436

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]  
 A. Location - Spacing Unit - Simultaneous Dedication  
 NSL       NSP (PROJECT AREA)       NSP (PRORATION UNIT)       SD

SWD-2402

- B. Check one only for [ I ] or [ II ]  
 [ I ] Commingling - Storage - Measurement  
 DHC     CTB     PLC     PC     OLS     OLM  
 [ II ] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.  
 A.  Offset operators or lease holders  
 B.  Royalty, overriding royalty owners, revenue owners  
 C.  Application requires published notice  
 D.  Notification and/or concurrent approval by SLO  
 E.  Notification and/or concurrent approval by BLM  
 F.  Surface owner  
 G.  For all of the above, proof of notification or publication is attached, and/or,  
 H.  No notice required

|                          |                              |
|--------------------------|------------------------------|
| <b>FOR OCD ONLY</b>      |                              |
| <input type="checkbox"/> | Notice Complete              |
| <input type="checkbox"/> | Application Content Complete |

- 3) **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.**

Dave Brown

Print or Type Name

Signature

November 5, 2020  
Date

303-887-3695  
Phone Number

dbrown@djrlc.com  
e-mail Address



August 15, 2019

Mr. Will Jones  
New Mexico Oil Conservation Division – Engineering Bureau  
1200 South St. Francis St.  
Santa Fe, NM 87505

Re: Application for North Alamito WDW #1, San Juan Co., NM

Dear Mr. Jones:

Enclosed is DJR Operating, LLC's application for disposal of produced water in the North Alamito WDW #1. In fulfilling the requirements of the application, the following materials are provided herein.

1. Form C-108, Application for Authorization to Inject
2. Tabular and schematic data on proposed injection well
3. Two-mile radius map identifying all wells with a one-half mile radius drawn around the proposed injection well
4. Data sheet of all wells within 2-miles of proposed injection well, highlighting those wells inside one-half mile radius of the proposed injection well
5. Lease and surface owner maps identifying all lessees and surface owners within a two-mile radius with one-half mile radius drawn around the proposed injection well
6. Operations plan for proposed injection well
7. Water analysis of produced water to be to be disposed in injection well
8. Required geologic, stimulation, logging, test and fresh water data from nearby wells
9. Signed statement of geologic and engineering data
10. Proof of notice in the form of notification letters sent to offsetting operators and surface owners and a copy of the Affidavit of Publication of the notice as it appeared in the Farmington Daily Times.

If you have questions or require additional information, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ningning Li', with a small flourish at the end.

Ningning Li  
Completions Manager

Attachments

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL  
RESOURCES DEPARTMENT

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

FORM C-108  
Revised June 10, 2003

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: DJR Operating, LLC

ADDRESS: 1 Road 3263, Aztec, NM 87410

CONTACT PARTY: Dave Brown PHONE: 303-887-3695

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project?  Yes \_\_\_\_\_ No  
If yes, give the Division order number authorizing the project: SWD-2255

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: Dave Brown TITLE: Manager, Regulatory & Government Affairs

SIGNATURE:  DATE: 11/04/2020

E-MAIL ADDRESS: dbrown@djrlc.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: August 23, 2019; Original Application

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

Side 2

## 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.

Amended Application for Authorization to Inject

DJR Operating, LLC

North Alamito Unit SWD #001

Administrative Order SWD-2255

General Information

DJR Operating, LLC has made an application for administrative approval to dispose of produced water by underground injection which was approved on April 9, 2020. The North Alamito Unit SWD #001 well is located 908' FNL & 1176' FEL in Section 1, Township 22 North, Range 8 West, San Juan County, New Mexico. Produced water will be injected into the Entrada Sandstone. The maximum injection pressure will be 1380 psi and the maximum injection rate will be 6000 barrels of water daily.

As of November 3, 2020, the well has been drilled to 7282' TVD and perforated from 6950' to 7110'. A permanent packer has been set at 6845'. A 72-hour flow rate pressure test is underway and then a Mechanical Integrity Test will be performed. The lab result of the Entrada Sandstone Formation water taken from the North Alamito Unit SWD #001 indicated a TDS of 13,200 mg/L.

Application for Authorization to Inject

DJR Operating, LLC

North Alamito WDW #1

Part III. Well Data

A. Tabular Information

1. Name: North Alamito WDW #1

Location: 908' FNL & 1176' FEL  
Sec. 1, T22N, R8W  
San Juan County, NM

2. Surface Casing:

9-5/8 in, 36 lb, J-55 set at 500 ft, ST&C coupling, Cemented with 253 sx (352 cu ft). Circulate cement to surface, Hole size – 12-1/4 in.

Production Casing:

7 in, 26 lb, N-80 (7070 ft) set at 7070 ft., LT&C coupling, Cement in two stages with stage tool (DV) at 3795 ft using 739 cu ft (626 cu ft 1<sup>st</sup> stage and 113 cu ft in 1<sup>st</sup> tail) in first stage and 739 (626 2<sup>nd</sup> stage and 113 in 2<sup>nd</sup> tail) cubic ft in second stage. Hole size – 8-3/4 in.

Injection Tubing:

3-1/2 in J-55 EUE 9.3 lb/ft Internally Coated Tubing set at 6885 ft.

Packer:

7 in by 3 ½ in AS1-X packer 10K nickel coated, will be set in tension at 6825 ft or 50 ft above the upper most perforation.

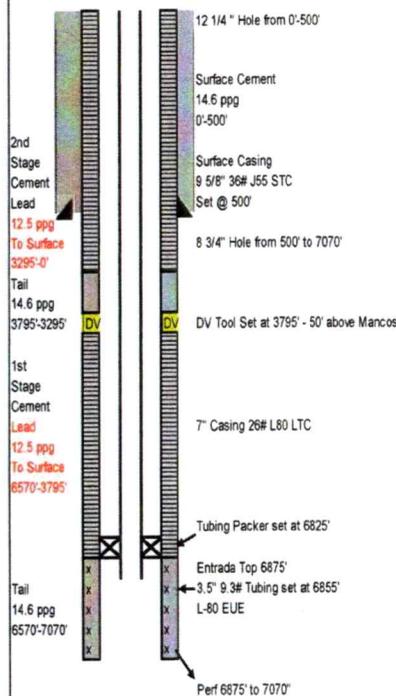
B. Additional Information

1. Injection Interval: Entrada Sandstone
2. The injection interval (Entrada 6875' – 7070') will be perforated.
3. The well (North Alamito WDW #1) will be drilled for the purpose of injection into the Entrada Sandstone.
4. Only the injection interval is to be perforated.
5. Fruitland Coal / Pictured Cliffs Sandstone-Approx. 1025' – 1459', Gallup-Approx. 4515'-5624' and Dakota Sandstone-Approx. 5775'.

**Injection Well Data Sheet**  
**Operator: DJR Operating LLC**  
**Well Name and Number: North Alamito WDW No. 1**

**WELL NAME:** North Alamito Unit WDW #1      **STATE:** New Mexico  
**API NO:**      **COUNTY:** San Juan  
**TVD:** 7050'

**LOCATION:** 908' FNL & 1176' FEL  
 ULA Sec 1 T22N R8W  
**TARGET FORMATION:** Entrada



| CASING DATA and OTHER TOOLS |              |             |       |        |       |                          |
|-----------------------------|--------------|-------------|-------|--------|-------|--------------------------|
|                             | OD           | WT/FT       | GRADE | THREAD | TOP   | EOC                      |
| Srf Csg                     | 9.625"       | 36.00 lb/ft | J-55  | STC    | 0'    | 500'                     |
| Prod Liner                  | 7.00"        | 26.00 lb/ft | L-80  | LT&C   | 0'    | 7070'                    |
| DV Tool                     |              |             |       |        | 3795' |                          |
| Packer                      | 7" by 3 1/2" |             |       |        |       |                          |
|                             |              |             |       |        |       | AS 1-X 10K Nickel coated |

|            |           | CEMENT |          |                       |  |
|------------|-----------|--------|----------|-----------------------|--|
|            |           | SX     | WT.      |                       |  |
| Surface    | Tail only | 253    | 14.6 ppg | 25% Excess over gauge |  |
| Production |           |        |          |                       |  |
| 1st Stage  | Lead      | 314    | 12.5 ppg | 50% Excess over gauge |  |
| 2nd Stage  | Lead      | 82     | 14.6 ppg |                       |  |
| 2nd Stage  | Tail      | 373    | 12.5 ppg |                       |  |
|            |           | 82     | 14.6 ppg |                       |  |
| Total      |           | 851    |          |                       |  |

| Geology            |      |        |             |             |       |            |
|--------------------|------|--------|-------------|-------------|-------|------------|
| Formation          | Tops | Subsea | TVD         | MD          | O/G/W | Pressure   |
| Ojo Alamo          | 6110 |        | 725         | 725         | W     | normal     |
| Kirtland           | 6070 |        | 765         | 765         | W     | normal     |
| Fruitland          | 5810 |        | 1025        | 1025        | G/W   | sub-normal |
| Pictured Cliffs    | 5555 |        | 1280        | 1280        | G/W   | sub-normal |
| Lewis              | 5375 |        | 1460        | 1460        | G/W   | normal     |
| Chacra             | 4800 |        | 2035        | 2035        | G/W   | normal     |
| Cliff House        | 4105 |        | 2730        | 2730        | G/W   | sub-normal |
| Menefee            | 4070 |        | 2765        | 2765        | G/W   | normal     |
| Point Lookout      | 3160 |        | 3675        | 3675        | G/W   | normal     |
| Mancos             | 2990 |        | 3845        | 3845        | O/G   | normal     |
| Gallup             | 2320 |        | 4515        | 4515        | O/G   | normal     |
| Greenhorn          | 1210 |        | 5625        | 5625        | O/G/W | normal     |
| Dakota             | 1060 |        | 5775        | 5775        | O/G/W | normal     |
| Todiito            | 20   |        | 6815        | 6815        | G/W   | normal     |
| Entrada            | -40  |        | 6875        | 6875        | W     | normal     |
| <b>Total Depth</b> |      |        | <b>-235</b> | <b>7070</b> |       |            |

| Tubing and Packer |              |              |
|-------------------|--------------|--------------|
| Size              | Tubing Depth | Packer Depth |
| 3.500"            | 6855'        | 6825'        |

INJECTION WELL DATA SHEET**Tubing Size:****Surface Casing:**

9-5/8 in, 36 lb, J-55 set at 500 ft, ST&C coupling, Cemented with 253 sx (352 cu ft). Circulate cement to surface, Hole size – 12-1/4 in.

**Production Casing:**

7 in, 26 lb, N-80 (7070 ft) set at 7070 ft., LT&C coupling, Cement in two stages with stage tool (DV) at 3795 ft using 739 cu ft (626 cu ft 1<sup>st</sup> stage and 113 cu ft in 1<sup>st</sup> tail) in first stage and 739 (626 2<sup>nd</sup> stage and 113 in 2<sup>nd</sup> tail) cubic ft in second stage. Hole size – 8-3/4 in.

**Injection Tubing:**

3-1/2 in J-55 EUE 9.3 lb/ft Internally Coated Tubing

**Type of Packer:**

7 in by 3 ½ in AS1-X packer 10K nickel coated,

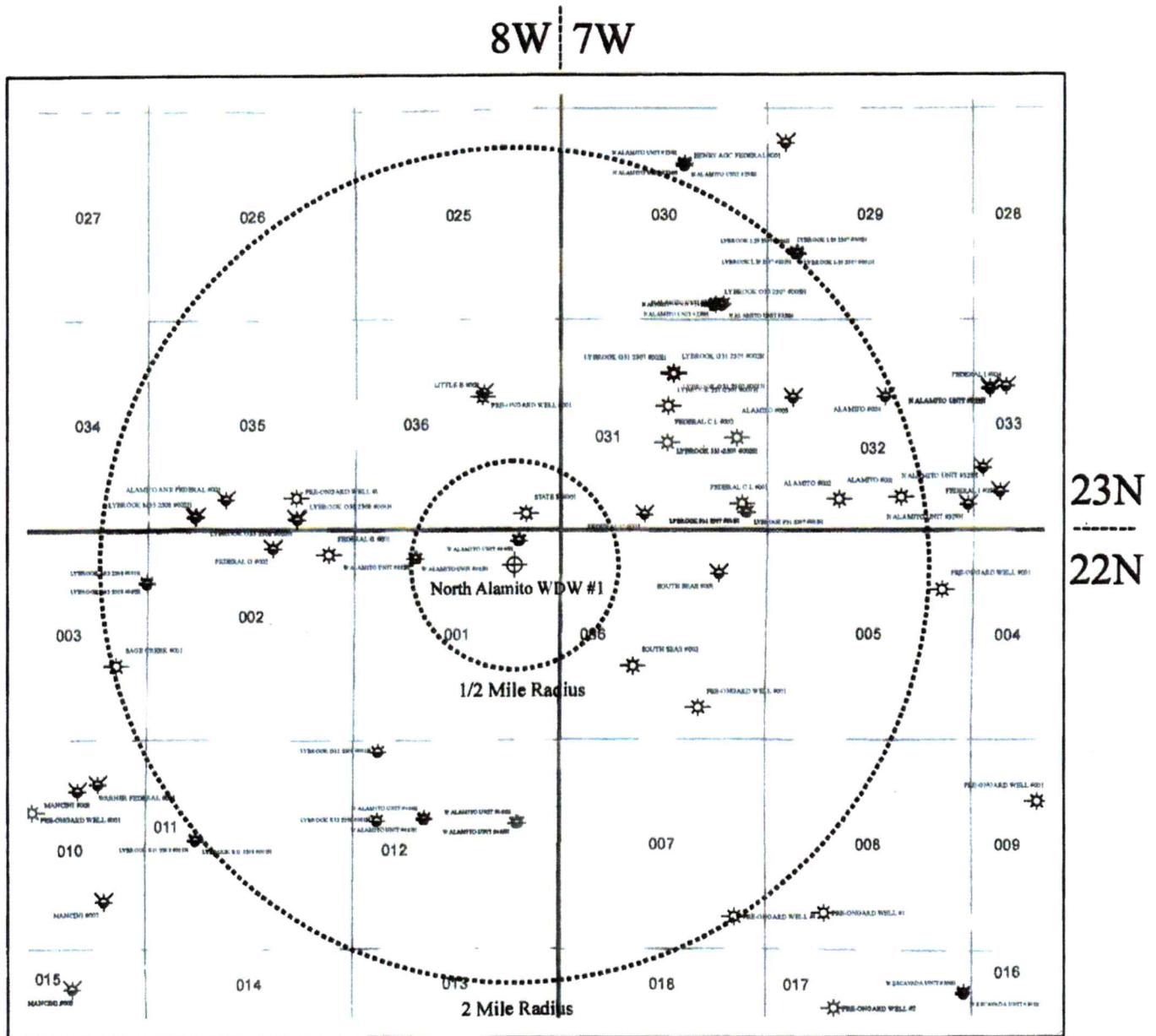
**Packer Setting Depth:**

Set in tension at 6825 ft or 50 ft above the upper most perforation.

Other Type of Tubing/Casing Seal (If applicable): -NA-

Additional Data

1. Is this a new well drilled for injection: X Yes No  
If no, for what purpose was the well originally drilled?
2. Name of Injection Formation: Entrada Sandstone
3. Name of Field or Pool (If applicable): NA
4. Has the well ever been perforated in other zone(s) No  
List all such Perforated intervals and give plugging detail, i.e. Sacks of cement or plug(s) used:  
NA
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Fruitland Formation-1025', Picture Cliffs-1280', Mancos Shale-3845', Gallup Sandstone-4515', Dakota Sandstone-5775'



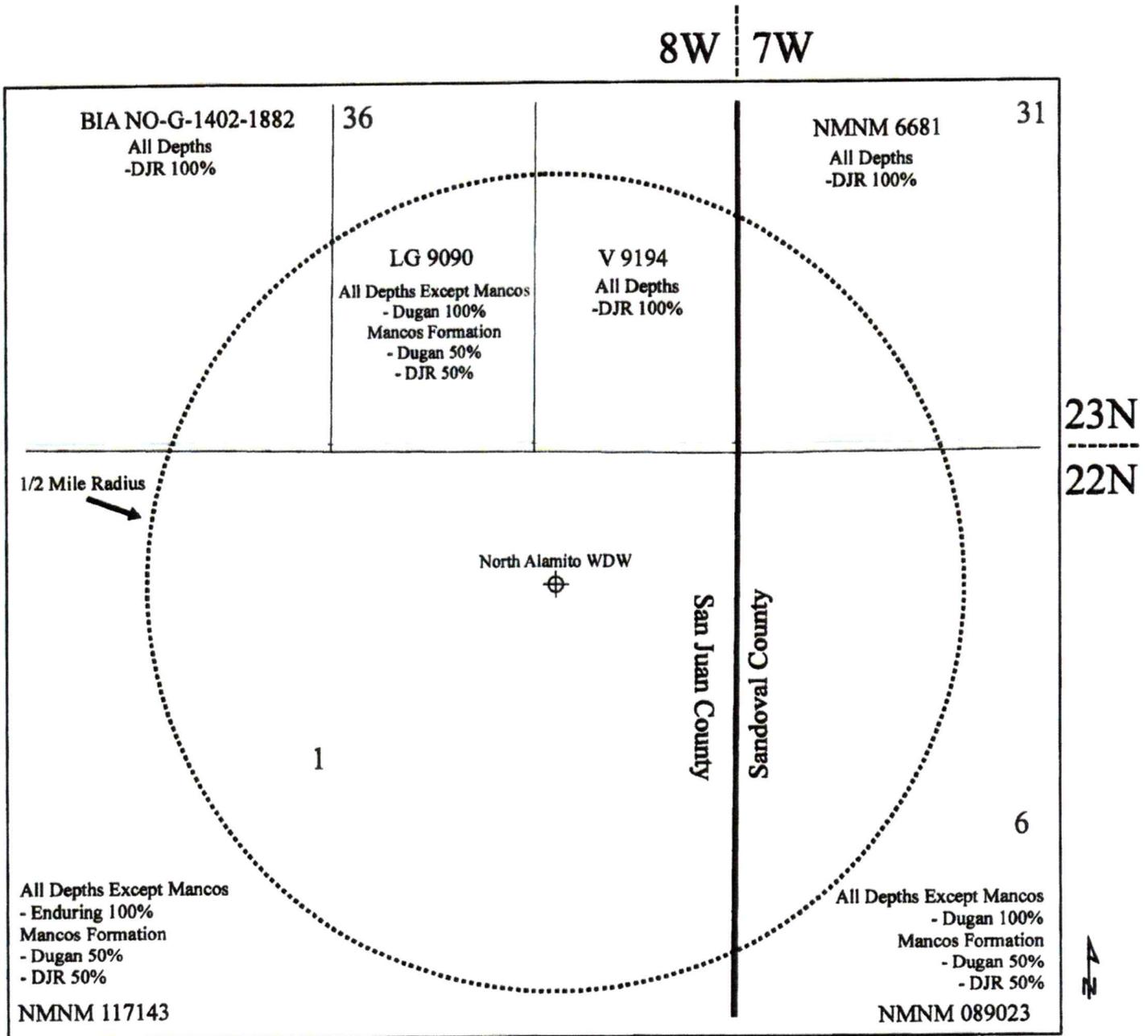
**2 Mile Radius Map - Legend**

-  1/2 Mile Radius
-  2 Mile Radius
-  Suspended, Cancelled, Plugged
-  New, Active
-  North Alamito Unit WDW



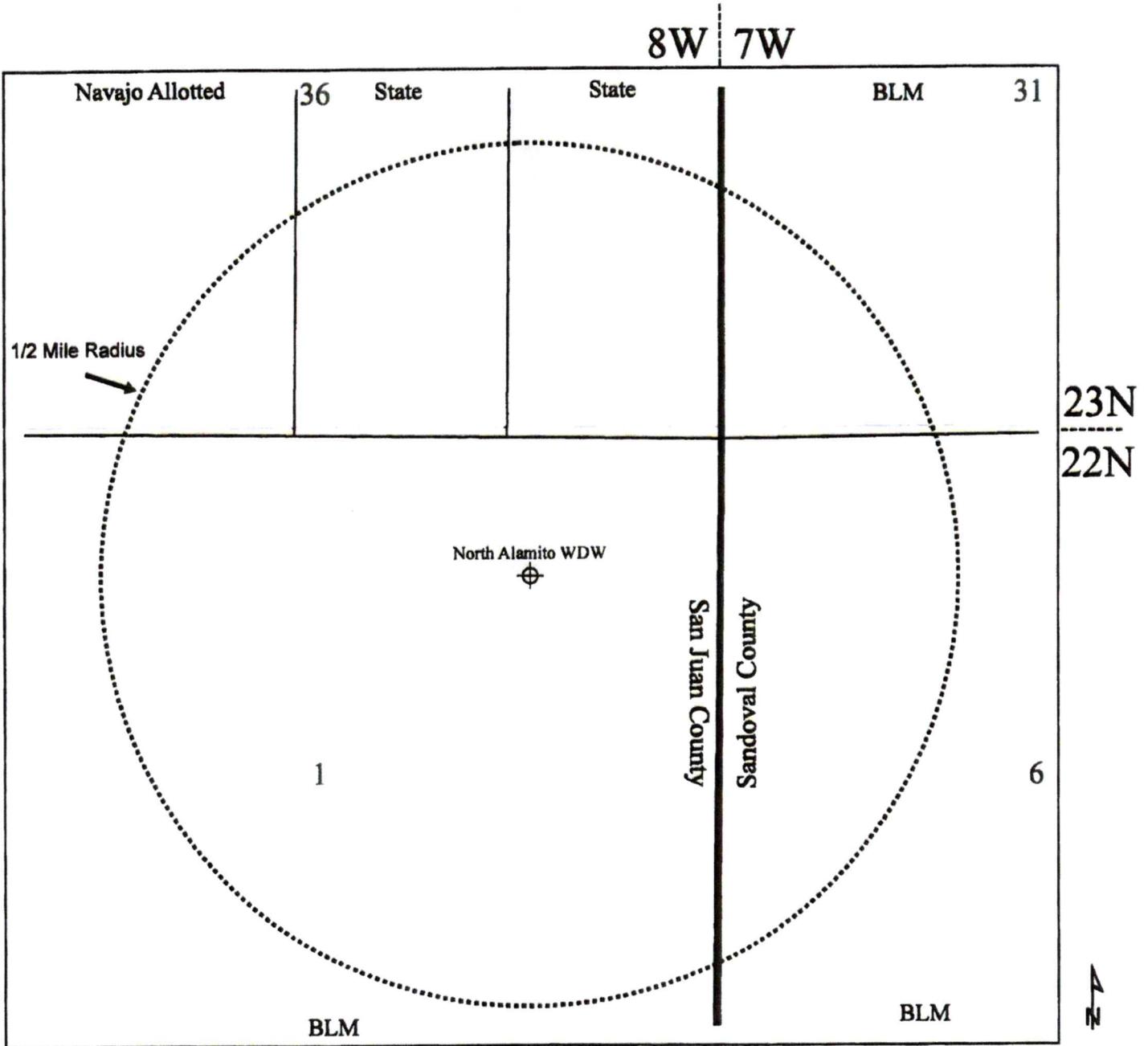
M-1

Township 22 North, Range 7 West  
 Township 23 North, Range 7 West  
 Sandoval County, NM  
 Township 22 North, Range 8 West  
 Township 23 North, Range 8 West  
 San Juan County, NM



C-108 Application to Inject  
 North Alamito Unit WDW #1  
 Part V. b.  
 Lease Ownership Map

Township 22 North, Range 7 West  
Township 23 North, Range 7 West  
Sandoval County, NM  
Township 22 North, Range 8 West  
Township 23 North, Range 8 West  
San Juan County, NM



C-108 Application to Inject  
North Alamito Unit WDW #1  
Part V. c.  
Surface Ownership Map



**Application for Authorization to Inject**

**DJR Operating, LLC**

**North Alamito WDW #1**

**Part VI. Data on Offset Wells**

There are no wells within the ½ mile area of review which penetrate the proposed injection zone. There are also no plugged wells in the ½ mile radius of the proposed injection well.

North Alamito WDW #1 - Data Sheet of All Wells Within 2 Miles

| API          | Well Name         | Well Number | Type | Mineral Owner | Surface Owner | Status                 | Sec | Township | Range | OCD Unit<br>Lighter | Last Production | Spud Date  | Plugged On                        | Current Operator                     |
|--------------|-------------------|-------------|------|---------------|---------------|------------------------|-----|----------|-------|---------------------|-----------------|------------|-----------------------------------|--------------------------------------|
| 30-043-21229 | LYBROOK P31 2307  | #001H       | Gas  | Federal       |               | New                    | 31  | 23N      | 07W   | P                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21228 | LYBROOK P31 2307  | #001H       | Gas  | Federal       |               | New                    | 31  | 23N      | 07W   | P                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21217 | LYBROOK G31 2307  | #001H       | Gas  | Federal       | Navejo        | Plugged, Site Released | 31  | 23N      | 07W   | G                   | 1/1800          | 12/9/2015  |                                   | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-043-21216 | LYBROOK G31 2307  | #002H       | Gas  | Federal       |               | Plugged, Site Released | 31  | 23N      | 07W   | G                   | 1/1800          | 12/9/2015  |                                   | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-043-21218 | LYBROOK G31 2307  | #003H       | Gas  | Federal       |               | Plugged, Site Released | 31  | 23N      | 07W   | G                   | 1/1800          | 12/9/2015  |                                   | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-043-21214 | LYBROOK J31-2307  | #001H       | Gas  | Federal       | Navejo        | Plugged, Site Released | 31  | 23N      | 07W   | J                   | 1/1800          | 12/9/2015  |                                   | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-043-21215 | LYBROOK J31-2307  | #002H       | Gas  | Federal       | Navejo        | Plugged, Site Released | 31  | 23N      | 07W   | J                   | 1/1800          | 12/9/2015  |                                   | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-043-20826 | FEDERAL C         | #003        | Oil  | Federal       |               | Active                 | 31  | 23N      | 07W   | N                   | 1/1800          | May-19     | 7/12/1988                         | [372834] EPIC ENERGY, L.L.C.         |
| 30-043-05164 | FEDERAL C L       | #001        | Oil  | Federal       |               | Plugged, Site Released | 31  | 23N      | 07W   | P                   | 1/1800          | Apr-04     | 7/26/1978                         | [23846] QEP ENERGY COMPANY           |
| 30-043-20081 | FEDERAL C L       | #002        | Oil  | Federal       |               | Plugged, Site Released | 31  | 23N      | 07W   | I                   | 1/1800          | Feb-95     | 7/26/1978                         | [23846] QEP ENERGY COMPANY           |
| 30-043-21225 | N ALAMITO UNIT    | #234H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | G                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21236 | N ALAMITO UNIT    | #235H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | G                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21237 | N ALAMITO UNIT    | #236H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | G                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21211 | N ALAMITO UNIT    | #238H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | O                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21210 | N ALAMITO UNIT    | #239H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | O                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21267 | N ALAMITO UNIT    | #240H       | Oil  | Federal       | Indian        | New                    | 30  | 23N      | 07W   | O                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-043-21198 | N ALAMITO UNIT    | #328H       | Oil  | State         | Indian        | Active                 | 32  | 23N      | 07W   | P                   | 1/1800          | Jun-19     | 9/13/2014                         | [371838] DIR OPERATING, LLC          |
| 30-043-20814 | ALAMITO           | #003        | Oil  | State         |               | Active                 | 32  | 23N      | 07W   | E                   | 1/1800          | May-19     | 8/21/1987                         | [372834] EPIC ENERGY, L.L.C.         |
| 30-043-20815 | ALAMITO           | #004        | Oil  | State         |               | Active                 | 32  | 23N      | 07W   | G                   | 1/1800          | May-19     | 8/28/1987                         | [372834] EPIC ENERGY, L.L.C.         |
| 30-043-20807 | ALAMITO           | #001        | Gas  | State         |               | Plugged, Site Released | 32  | 23N      | 07W   | O                   | 1/1800          | Aug-89     | 8/16/1986                         | [23846] QEP ENERGY COMPANY           |
| 30-043-20816 | ALAMITO           | #002        | Oil  | State         |               | Plugged, Site Released | 32  | 23N      | 07W   | N                   | 1/1800          | Feb-05     | 8/14/1987                         | [23846] QEP ENERGY COMPANY           |
| 30-045-35713 | W ALAMITO UNIT    | #460H       | Oil  | Federal       | Indian        | New                    | 1   | 22N      | 08W   | A                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35714 | W ALAMITO UNIT    | #461H       | Oil  | Federal       | Indian        | New                    | 1   | 22N      | 08W   | A                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35715 | W ALAMITO UNIT    | #462H       | Oil  | Federal       | Indian        | New                    | 1   | 22N      | 08W   | C                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35716 | W ALAMITO UNIT    | #463H       | Oil  | Federal       | Indian        | New                    | 1   | 22N      | 08W   | C                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-26912 | FEDERAL G         | #002        | Oil  | Federal       |               | Active                 | 2   | 22N      | 08W   | B                   | 1/1800          | May-19     | 7/5/1988                          | [372834] EPIC ENERGY, L.L.C.         |
| 30-045-05067 | FEDERAL G         | #001        | Oil  | Federal       |               | Plugged, Site Released | 2   | 22N      | 08W   | A                   | 1/1800          | Jun-09     | 7/24/1978                         | [23846] QEP ENERGY COMPANY           |
| 30-045-35669 | LYBROOK A03 2208  | #001H       | Gas  | Federal       | Indian        | New                    | 3   | 22N      | 08W   | A                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-045-35668 | LYBROOK A03 2208  | #002H       | Gas  | Federal       | Indian        | New                    | 3   | 22N      | 08W   | A                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-045-26757 | SAGE CREEK        | #001        | Oil  | Federal       |               | Plugged, Site Released | 3   | 22N      | 08W   | I                   | 1/1800          | Feb-03     | 10/8/1986                         | [6515] DUGAN PRODUCTION CORP         |
| 30-045-34429 | SATCHMO COM       | #001        | Gas  | Federal       |               | Active                 | 3   | 22N      | 08W   | N                   | 1/1800          | May-19     | 12/12/2007                        | [6515] DUGAN PRODUCTION CORP         |
| 30-045-35670 | LYBROOK D12 2208  | #001H       | Gas  | Federal       | Indian        | New                    | 12  | 22N      | 08W   | D                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-045-35664 | LYBROOK E12 2208  | #001H       | Gas  | Federal       |               | New                    | 12  | 22N      | 08W   | E                   | 1/1800          |            |                                   | [371838] DIR OPERATING, LLC          |
| 30-045-35717 | W ALAMITO UNIT    | #464H       | Oil  | Federal       | Indian        | New                    | 12  | 22N      | 08W   | H                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35719 | W ALAMITO UNIT    | #465H       | Oil  | Federal       | Indian        | New                    | 12  | 22N      | 08W   | H                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35720 | W ALAMITO UNIT    | #466H       | Oil  | Federal       | Indian        | New                    | 12  | 22N      | 08W   | F                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35526 | W ALAMITO UNIT    | #467H       | Oil  | Federal       | Indian        | New                    | 12  | 22N      | 08W   | F                   | 1/1800          |            |                                   | [372286] ENDURING RESOURCES, LLC     |
| 30-045-35526 | LYBROOK M35 2308  | #001H       | Oil  | Federal       |               | Active                 | 35  | 23N      | 08W   | M                   | 1/1800          | 19-Jun     | 9/25/2014                         | [371838] DIR OPERATING, LLC          |
| 30-045-35527 | LYBROOK M35 2308  | #002H       | Oil  | Federal       |               | Active                 | 35  | 23N      | 08W   | N                   | 1/1800          | 19-Jun     | 10/6/2014                         | [371838] DIR OPERATING, LLC          |
| 30-045-35525 | LYBROOK O35 2308  | #001H       | Oil  | Federal       | Indian        | Active                 | 35  | 23N      | 08W   | O                   | 1/1800          | 19-Jun     | 10/27/2014                        | [371838] DIR OPERATING, LLC          |
| 30-045-35524 | LYBROOK O35 2308  | #002H       | Oil  | Federal       |               | Active                 | 35  | 23N      | 08W   | O                   | 1/1800          | 19-Jun     | 10/15/2014                        | [371838] DIR OPERATING, LLC          |
| 30-045-28989 | ALAMITO ANR FEDER | #001        | Oil  | Federal       |               | Active                 | 35  | 23N      | 08W   | G                   | 1/1800          | 19-May     | 10/2/1993                         | [6515] DUGAN PRODUCTION CORP         |
| 30-045-28333 | LITTLE B          | #002        | Gas  | State         |               | Active                 | 36  | 23N      | 08W   | G                   | 1/1800          | 19-May     | 11/23/1990                        | [6515] DUGAN PRODUCTION CORP         |
| 30-045-28665 | STATE K           | #001        | Oil  | State         |               | Plugged, Site Released | 36  | 23N      | 08W   | P                   | 1/1800          | 9-May      | 5/23/1992                         | [282327] ENCANA OIL & GAS (USA) INC. |
| 30-045-27855 | PRE-ONGARD WELL   | #001        | Gas  | State         |               | Active                 | 6   | 22N      | 07W   | A                   | 1/1800          | 19-May     | 7/30/1993                         | [6515] DUGAN PRODUCTION CORP         |
| 30-043-20897 | SOUTH SEAS        | #001        | Gas  | Federal       |               | Active                 | 6   | 22N      | 07W   | A                   | 1/1800          | 10-Oct     | 4/29/1994                         | [6515] DUGAN PRODUCTION CORP         |
| 30-043-20914 | SOUTH SEAS        | #002        | Gas  | Federal       |               | Plugged, Site Released | 6   | 22N      | 07W   | K                   | 1/1800          | 8/25/1979  | [214263] PRE-ONGARD WELL OPERATOR |                                      |
| 30-043-20361 | PRE-ONGARD WELL   | #001        | Oil  | Federal       |               | Plugged, Site Released | 6   | 22N      | 07W   | O                   | 1/1800          | 10/31/1978 |                                   |                                      |

\* Wells in bold type are located within the 1/2 Mile Area of Review

**Application for Authorization to Inject**

**DJR Operating, LLC**

**North Alamito Unit WDW #1**

Well Details located within the ½ mile Area of Review. Based on information gathered from NMOCD records.

8/23/2019

OCD Permitting - Well Details

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# OCD Permitting

Home Wells Well Details

## 30-045-35717 W ALAMITO UNIT #464H [321257]

### General Well Information

|                   |                                  |                  |            |
|-------------------|----------------------------------|------------------|------------|
| Operator:         | [372286] ENDURING RESOURCES, LLC |                  |            |
| Status:           | New                              | Direction:       | Horizontal |
| Well Type:        | Oil                              | Multi-Lateral:   | No         |
| Work Type:        | New                              | Mineral Owner:   | Federal    |
|                   |                                  | Surface Owner:   | Indian     |
| Surface Location: | H-12-22N-08W                     | 2091 FNL         | 1046 FEL   |
| Lat/Long:         | 36.155705,-107.628169 NAD83      |                  |            |
| GL Elevation:     | 6803                             |                  |            |
| KB Elevation:     |                                  | Sing/Mult Compl: | Single     |
| DF Elevation:     |                                  | Potash Waiver:   | False      |

### Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

### Proposed Formation and/or Notes

AMW HS/104 DS/PLAT/NSL

### Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

### Depths

|                          |       |                      |   |
|--------------------------|-------|----------------------|---|
| Proposed:                | 13017 | True Vertical Depth: | 0 |
| Measured Vertical Depth: | 0     | Plugback Measured:   | 0 |

### New Searches

- [New Well Search](#)

### Formation Tops

| Formation | Top | Producing | Method Obtained |
|-----------|-----|-----------|-----------------|
|-----------|-----|-----------|-----------------|

### Event Dates

|                           |            |                            |            |
|---------------------------|------------|----------------------------|------------|
| Initial APD Approval:     | 02/12/2016 |                            |            |
| Most Recent APD Approval: | 04/19/2018 | Current APD Expiration:    | 01/29/2020 |
| APD Cancellation:         |            |                            |            |
| APD Extension Approval:   | 12/13/2017 |                            |            |
| Spud:                     |            | Gas Capture Plan Received: |            |
| Approved Temporary        |            | TA Expiration:             |            |
| Abandonment:              |            |                            |            |
| Shut In:                  |            |                            |            |
| Plug and Abandoned Intent |            | PNR Expiration:            |            |
| Received:                 |            | Last MIT/BHT:              |            |
| Well Plugged:             |            |                            |            |
| Site Release:             |            |                            |            |
| Last Inspection:          |            |                            |            |

### History

| Effective Date | Property | Well Number | Operator | C-101 Work Type | Well Type | Well Status | Apd Cancelled | Plug Date |
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

|            |                               |       |  |     |     |     |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|
| 02/12/2016 | [315082] W<br>ALAMITO<br>UNIT | #464H | [120782] WPX<br>ENERGY<br>PRODUCTION,<br>LLC | New | Oil | New |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|

**Comments**

**Operator**

**General Contact Information**

Company: [372286] ENDURING RESOURCES, LLC Main Phone: 303-350-5716  
 Address: 1050 17TH STREET, SUITE 2500 Main Fax: 303-573-0461  
 DENVER, CO 80265  
 Country: U.S.A.

**Central Contact**

Name: Travis Whitham Phone Number: 303-350-5716  
 Title: Landman Cell Number: 719-688-5521  
 E-Mail Address: twhitham@enduringresources.com Fax Number: 303-573-0461

**Aztec Contact**

Name: Andrea Felix Phone Number: 505-636-9741  
 Title: Regulatory Manager Cell Number: 505-386-8205  
 E-Mail Address: afelix@enduringresources.com Fax Number:

**Pits**

No Pits Found

**Casing**

No Casing Found

**Well Completions**

**[98163] ALAMITO MANCOS W**

Status: New, Not Drilled Last Produced:  
 Bottomhole Location: P-13-22N-08W 330 FSL 550 FEL  
 Lat/Long:  
 Acreage: 240 13-22N-08W Units: A H I P  
 12-22N-08W Units: I P  
 DHC: Consolidation Code:  
 Production Method:

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OCD Permitting - Well Details

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Gas-Oil Ratio: 0 Kcf / bbl Oil Gravity: 0.0 Corr. API  
 Disposition of Gas: Water Volume: 0.0 bbls

**Perforations**

| Date | Top Measured Depth<br>(Where Completion<br>Enters Formation) | Bottom Measured<br>Depth<br>(End of Lateral) | Top Vertical Depth | Bottom Vertical<br>Depth |
|------|--|--|--------------------|--------------------------|
|------|--|--|--------------------|--------------------------|

**Notes**

**Event Dates**

|                              |            |                             |    |
|------------------------------|------------|-----------------------------|----|
| Initial Effective/Approval:  | 02/12/2016 | TA Expiration:              |    |
| Most Recent Approval:        | 04/19/2018 | Confidential Until:         |    |
| Confidential Requested On:   |            | Test Allowable End:         |    |
| Test Allowable Approval:     |            | DHC:                        |    |
| TD Reached:                  |            | Rig Released:               |    |
| Deviation Report Received:   | No         | Logs Received:              | No |
| Directional Survey Run:      | No         | Closure Pit Plat Received:  |    |
| Directional Survey Received: | No         | First Gas Production:       |    |
| First Oil Production:        |            | Completion Report Received: |    |
| First Injection:             |            | New Well C-104 Approval:    |    |
| Ready to Produce:            |            | Revoked Until:              |    |
| C-104 Approval:              |            |                             |    |
| Plug Back:                   |            |                             |    |
| Authorization Revoked Start: |            |                             |    |

**Well Completion History**

| Effective Date | Property                | Well Number | Operator                            | Completion Status | TA Expiration Date |
|----------------|-------------------------|-------------|-------------------------------------|-------------------|--------------------|
| 04/19/2018     | [321257] W ALAMITO UNIT | #464H       | [372286] ENDURING RESOURCES, LLC    | New, Not Drilled  |                    |
| 02/12/2016     | [315082] W ALAMITO UNIT | #464H       | [120782] WPX ENERGY PRODUCTION, LLC | New, Not Drilled  |                    |

**Financial Assurance**

| Effective  | Bond Type | Base   | Balance | Issuer                | Cash/Surety | Cancellation Date |
|------------|-----------|--------|---------|-----------------------|-------------|-------------------|
| 06/30/2017 | Blanket   | 250000 | 250000  | RLI INSURANCE COMPANY | Surety      |                   |

Requests to release bonds must be submitted in writing. You may send an e-mail to [Denise.Gallegos@state.nm.us](mailto:Denise.Gallegos@state.nm.us) or fax a letter to (505) 476-3453.

**Compliance**

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

8/23/2019

OCD Permitting - Well Details

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report may be recorded here as a spill, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

**Orders**

No Orders Found

**Production / Injection**

Earliest Production in OCD Records: Last [Show All Production](#) [Export to Excel](#)

| Time Frame   | Production |          |             |          | Injection   |          |          |       |          |
|--------------|------------|----------|-------------|----------|-------------|----------|----------|-------|----------|
|              | Oil(BBLS)  | Gas(MCF) | Water(BBLS) | Days P/I | Water(BBLS) | Co2(MCF) | Gas(MCF) | Other | Pressure |
| Grand Total: | 0          | 0        | 0           | 0        | 0           | 0        | 0        | 0     | N/A      |

**Transporters**

| Transporter | Product | Most Recent for Property |
|-------------|---------|--------------------------|
|-------------|---------|--------------------------|

**Points of Disposition**

| ID | Type | Description | Pool(s) |
|----|------|-------------|---------|
|----|------|-------------|---------|

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8/23/2019

OCD Permitting - Well Details

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# OCD Permitting

Home Wells Well Details

## 30-045-35718 W ALAMITO UNIT #465H [321257]

### General Well Information

Operator: [372286] ENDURING RESOURCES, LLC  
 Status: New Direction: Horizontal  
 Well Type: Oil Multi-Lateral: No  
 Work Type: New Mineral Owner: Federal  
 Surface Owner: Indian  
 Surface Location: H-12-22N-08W 2089 FNL 1086 FEL  
 Lat/Long: 36.155708,-107.628305 NAD83  
 GL Elevation: 6803  
 KB Elevation: Sing/Mult Compl: Single  
 DF Elevation: Potash Waiver: False

### Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

### Proposed Formation and/or Notes

AMW HD/104 DS/PLAT/NSL

### Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

### Depths

Proposed: 13015 True Vertical Depth: 0  
 Measured Vertical Depth: 0 Plugback Measured: 0

### New Searches

- [New Well Search](#)

### Formation Tops

| Formation | Top | Producing | Method Obtained |
|-----------|-----|-----------|-----------------|
|-----------|-----|-----------|-----------------|

### Event Dates

Initial APD Approval: 02/12/2016  
 Most Recent APD Approval: 04/19/2018 Current APD Expiration: 01/29/2020  
 APD Cancellation:  
 APD Extension Approval: 12/13/2017  
 Spud: Gas Capture Plan Received:  
 Approved Temporary TA Expiration:  
 Abandonment:  
 Shut In:  
 Plug and Abandoned Intent PNR Expiration:  
 Received: Last MIT/BHT:  
 Well Plugged:  
 Site Release:  
 Last Inspection:

### History

| Effective Date | Property | Well Number | Operator | C-101 Work Type | Well Type | Well Status | Apd Cancelled | Plug Date |
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

|            |                               |       |  |     |     |     |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|
| 02/12/2016 | [315082] W<br>ALAMITO<br>UNIT | #465H | [120782] WPX<br>ENERGY<br>PRODUCTION,<br>LLC | New | Oil | New |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|

**Comments**

**Operator**

**General Contact Information**

Company: [372286] ENDURING RESOURCES, LLC Main Phone: 303-350-5716  
 Address: 1050 17TH STREET, SUITE 2500 Main Fax: 303-573-0461  
 DENVER, CO 80265  
 Country: U.S.A.

**Central Contact**

Name: Travis Whitham Phone Number: 303-350-5716  
 Title: Landman Cell Number: 719-688-5521  
 E-Mail Address: twhitham@enduringresources.com Fax Number: 303-573-0461

**Aztec Contact**

Name: Andrea Felix Phone Number: 505-636-9741  
 Title: Regulatory Manager Cell Number: 505-386-8205  
 E-Mail Address: afelix@enduringresources.com Fax Number:

**Pits**

No Pits Found

**Casing**

No Casing Found

**Well Completions**

**[98163] ALAMITO MANCOS W**

Status: New, Not Drilled Last Produced:  
 Bottomhole Location: O-13-22N-08W 330 FSL 1800 FEL  
 Lat/Long:  
 Acreage: 240 13-22N-08W Units: B G J O  
 12-22N-08W Units: J O  
 DHC: Consolidation Code:  
 Production Method:

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

Gas-Oil Ratio: 0 Kcf / bbl Oil Gravity: 0.0 Corr. API  
 Disposition of Gas: Water Volume: 0.0 bbls

**Perforations**

| Date | Top Measured Depth<br>(Where Completion<br>Enters Formation) | Bottom Measured<br>Depth<br>(End of Lateral) | Top Vertical Depth | Bottom Vertical<br>Depth |
|------|--|--|--------------------|--------------------------|
|------|--|--|--------------------|--------------------------|

**Notes**

**Event Dates**

|                              |            |                             |    |
|------------------------------|------------|-----------------------------|----|
| Initial Effective/Approval:  | 02/12/2016 | TA Expiration:              |    |
| Most Recent Approval:        | 04/19/2018 | Confidential Until:         |    |
| Confidential Requested On:   |            | Test Allowable End:         |    |
| Test Allowable Approval:     |            | DHC:                        |    |
| TD Reached:                  |            | Rig Released:               |    |
| Deviation Report Received:   | No         | Logs Received:              | No |
| Directional Survey Run:      | No         | Closure Pit Plat Received:  |    |
| Directional Survey Received: | No         | First Gas Production:       |    |
| First Oil Production:        |            | Completion Report Received: |    |
| First Injection:             |            | New Well C-104 Approval:    |    |
| Ready to Produce:            |            | Revoked Until:              |    |
| C-104 Approval:              |            |                             |    |
| Plug Back:                   |            |                             |    |
| Authorization Revoked Start: |            |                             |    |

**Well Completion History**

| Effective Date | Property                | Well Number | Operator                            | Completion Status | TA Expiration Date |
|----------------|-------------------------|-------------|-------------------------------------|-------------------|--------------------|
| 04/19/2018     | [321257] W ALAMITO UNIT | #465H       | [372286] ENDURING RESOURCES, LLC    | New, Not Drilled  |                    |
| 02/12/2016     | [315082] W ALAMITO UNIT | #465H       | [120782] WPX ENERGY PRODUCTION, LLC | New, Not Drilled  |                    |

**Financial Assurance**

| Effective  | Bond Type | Base   | Balance | Issuer                | Cash/Surety | Cancellation Date |
|------------|-----------|--------|---------|-----------------------|-------------|-------------------|
| 06/30/2017 | Blanket   | 250000 | 250000  | RLI INSURANCE COMPANY | Surety      |                   |

Requests to release bonds must be submitted in writing. You may send an e-mail to [Denise Gallegos@state.nm.us](mailto:Denise.Gallegos@state.nm.us) or fax a letter to (505) 476-3453.

**Compliance**

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

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OCD Permitting - Well Details

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report may be recorded here as a spm, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

Orders

No Orders Found

Production / Injection

Earliest Production in OCD Records: Last [Show All Production](#) [Export to Excel](#)

| Time Frame   | Production |          |             | Days<br>P/I | Injection   |          |          |       |          |
|--------------|------------|----------|-------------|-------------|-------------|----------|----------|-------|----------|
|              | Oil(BBLS)  | Gas(MCF) | Water(BBLS) |             | Water(BBLS) | Co2(MCF) | Gas(MCF) | Other | Pressure |
| Grand Total: | 0          | 0        | 0           | 0           | 0           | 0        | 0        | 0     | N/A      |

Transporters

| Transporter | Product | Most Recent for Property |
|-------------|---------|--------------------------|
|-------------|---------|--------------------------|

Points of Disposition

| ID | Type | Description | Pool(s) |
|----|------|-------------|---------|
|----|------|-------------|---------|

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

# OCD Permitting

Home Wells Well Details

## 30-045-35719 W ALAMITO UNIT #466H [321257]

### General Well Information

Operator: [372286] ENDURING RESOURCES, LLC  
 Status: New Direction: Horizontal  
 Well Type: Oil Multi-Lateral: No  
 Work Type: New Mineral Owner: Federal  
 Surface Owner: Indian  
 Surface Location: F-12-22N-08W 1944 FNL 1850 FWL  
 Lat/Long: 36.156096,-107.636207 NAD83  
 GL Elevation: 6794  
 KB Elevation: Sing/Mult Compl: Single  
 DF Elevation: Potash Waiver: False

### Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

### Proposed Formation and/or Notes

WAM HD/104 DS/PLAT/NSL

### Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

### Depths

Proposed: 12958 True Vertical Depth: 0  
 Measured Vertical Depth: 0 Plugback Measured: 0

### New Searches

- [New Well Search](#)

### Formation Tops

| Formation | Top | Producing | Method Obtained |
|-----------|-----|-----------|-----------------|
|-----------|-----|-----------|-----------------|

### Event Dates

Initial APD Approval: 02/12/2016  
 Most Recent APD Approval: 04/19/2018 Current APD Expiration: 02/03/2020  
 APD Cancellation:  
 APD Extension Approval: 01/08/2018  
 Spud: Gas Capture Plan Received:  
 Approved Temporary TA Expiration:  
 Abandonment:  
 Shut In:  
 Plug and Abandoned Intent PNR Expiration:  
 Received: Last MIT/BHT:  
 Well Plugged:  
 Site Release:  
 Last Inspection:

### History

| Effective Date | Property | Well Number | Operator | C-101 Work Type | Well Type | Well Status | Apd Cancelled | Plug Date |
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

|            |                               |       |  |     |     |     |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|
| 02/12/2016 | [315082] W<br>ALAMITO<br>UNIT | #466H | [120782] WPX<br>ENERGY<br>PRODUCTION,<br>LLC | New | Oil | New |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|

**Comments**

**Operator**

**General Contact Information**

Company: [372286] ENDURING RESOURCES, LLC Main Phone: 303-350-5716  
 Address: 1050 17TH STREET, SUITE 2500 Main Fax: 303-573-0461  
 DENVER, CO 80265  
 Country: U.S.A.

**Central Contact**

Name: Travis Whitham Phone Number: 303-350-5716  
 Title: Landman Cell Number: 719-688-5521  
 E-Mail Address: twhitham@enduringresources.com Fax Number: 303-573-0461

**Aztec Contact**

Name: Andrea Felix Phone Number: 505-636-9741  
 Title: Regulatory Manager Cell Number: 505-386-8205  
 E-Mail Address: afelix@enduringresources.com Fax Number:

**Pits**

No Pits Found

**Casing**

No Casing Found

**Well Completions**

**[98163] ALAMITO MANCOS W**

Status: New, Not Drilled Last Produced:  
 Bottomhole Location: N-13-22N-08W 330 FSL 2250 FWL  
 Lat/Long:  
 Acreage: 240 13-22N-08W Units: C F K N  
 12-22N-08W Units: K N  
 DHC: Consolidation Code:  
 Production Method:

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

Gas-Oil Ratio: 0 Kcf / bbl Oil Gravity: 0.0 Corr. API  
 Disposition of Gas: Water Volume: 0.0 bbls

**Perforations**

| Date | Top Measured Depth<br>(Where Completion<br>Enters Formation) | Bottom Measured<br>Depth<br>(End of Lateral) | Top Vertical Depth | Bottom Vertical<br>Depth |
|------|--|--|--------------------|--------------------------|
|------|--|--|--------------------|--------------------------|

**Notes**

**Event Dates**

|                              |            |                             |    |
|------------------------------|------------|-----------------------------|----|
| Initial Effective/Approval:  | 02/12/2016 | TA Expiration:              |    |
| Most Recent Approval:        | 04/19/2018 | Confidential Until:         |    |
| Confidential Requested On:   |            | Test Allowable End:         |    |
| Test Allowable Approval:     |            | DHC:                        |    |
| TD Reached:                  |            | Rig Released:               |    |
| Deviation Report Received:   | No         | Logs Received:              | No |
| Directional Survey Run:      | No         | Closure Pit Plat Received:  |    |
| Directional Survey Received: | No         | First Gas Production:       |    |
| First Oil Production:        |            | Completion Report Received: |    |
| First Injection:             |            | New Well C-104 Approval:    |    |
| Ready to Produce:            |            | Revoked Until:              |    |
| C-104 Approval:              |            |                             |    |
| Plug Back:                   |            |                             |    |
| Authorization Revoked Start: |            |                             |    |

**Well Completion History**

| Effective Date | Property                | Well Number | Operator                            | Completion Status | TA Expiration Date |
|----------------|-------------------------|-------------|-------------------------------------|-------------------|--------------------|
| 04/19/2018     | [321257] W ALAMITO UNIT | #466H       | [372286] ENDURING RESOURCES, LLC    | New, Not Drilled  |                    |
| 02/12/2016     | [315082] W ALAMITO UNIT | #466H       | [120782] WPX ENERGY PRODUCTION, LLC | New, Not Drilled  |                    |

**Financial Assurance**

| Effective  | Bond Type | Base   | Balance | Issuer                | Cash/Surety | Cancellation Date |
|------------|-----------|--------|---------|-----------------------|-------------|-------------------|
| 06/30/2017 | Blanket   | 250000 | 250000  | RLI INSURANCE COMPANY | Surety      |                   |

Requests to release bonds must be submitted in writing. You may send an e-mail to [Denise.Gallegos@state.nm.us](mailto:Denise.Gallegos@state.nm.us) or fax a letter to (505) 476-3453.

**Compliance**

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

Report may be recorded here as a spill, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

**Orders**

No Orders Found

**Production / Injection**

Earliest Production in OCD Records: Last [Show All Production](#) [Export to Excel](#)

| Time Frame   | Production |          |             | Injection |             |          |          |       |          |
|--------------|------------|----------|-------------|-----------|-------------|----------|----------|-------|----------|
|              | Oil(BBLS)  | Gas(MCF) | Water(BBLS) | Days      | Water(BBLS) | Co2(MCF) | Gas(MCF) | Other | Pressure |
|              | P/I        |          |             |           |             |          |          |       |          |
| Grand Total: | 0          | 0        | 0           | 0         | 0           | 0        | 0        | 0     | N/A      |

**Transporters**

| Transporter | Product | Most Recent for Property |
|-------------|---------|--------------------------|
|             |         |                          |

**Points of Disposition**

| ID | Type | Description | Pool(s) |
|----|------|-------------|---------|
|    |      |             |         |

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

# OCD Permitting

Home Wells Well Details

## 30-045-35720 W ALAMITO UNIT #467H [321257]

### General Well Information

Operator: [372286] ENDURING RESOURCES, LLC  
 Status: New Direction: Horizontal  
 Well Type: Oil Multi-Lateral: No  
 Work Type: New Mineral Owner: Federal  
 Surface Owner: Indian  
 Surface Location: F-12-22N-08W 1978 FNL 1830 FWL  
 Lat/Long: 36.156001,-107.636275 NAD83  
 GL Elevation: 6794  
 KB Elevation: Sing/Mult Compl: Single  
 DF Elevation: Potash Waiver: False

### Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

### Proposed Formation and/or Notes

AMW HD/104 DS/PLAT/NSL

### Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

### Depths

Proposed: 13013 True Vertical Depth: 0  
 Measured Vertical Depth: 0 Plugback Measured: 0

### New Searches

- [New Well Search](#)

### Formation Tops

| Formation | Top | Producing | Method Obtained |
|-----------|-----|-----------|-----------------|
|-----------|-----|-----------|-----------------|

### Event Dates

Initial APD Approval: 02/12/2016  
 Most Recent APD Approval: 04/19/2018 Current APD Expiration: 02/03/2020  
 APD Cancellation:  
 APD Extension Approval: 01/08/2018  
 Spud: Gas Capture Plan Received:  
 Approved Temporary TA Expiration:  
 Abandonment:  
 Shut In:  
 Plug and Abandoned Intent PNR Expiration:  
 Received: Last MIT/BHT:  
 Well Plugged:  
 Site Release:  
 Last Inspection:

### History

| Effective Date | Property | Well Number | Operator | C-101 Work Type | Well Type | Well Status | Apd Cancelled | Plug Date |
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|
|----------------|----------|-------------|----------|-----------------|-----------|-------------|---------------|-----------|

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

|            |                               |       |  |     |     |     |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|
| 02/12/2016 | [315082] W<br>ALAMITO<br>UNIT | #467H | [120782] WPX<br>ENERGY<br>PRODUCTION,<br>LLC | New | Oil | New |  |  |
|------------|-------------------------------|-------|--|-----|-----|-----|--|--|

**Comments**

**Operator**

**General Contact Information**

Company: [372286] ENDURING RESOURCES, LLC Main Phone: 303-350-5716  
 Address: 1050 17TH STREET, SUITE 2500 Main Fax: 303-573-0461  
 DENVER, CO 80265  
 Country: U.S.A.

**Central Contact**

Name: Travis Whitham Phone Number: 303-350-5716  
 Title: Landman Cell Number: 719-688-5521  
 E-Mail Address: twitham@enduringresources.com Fax Number: 303-573-0461

**Aztec Contact**

Name: Andrea Felix Phone Number: 505-636-9741  
 Title: Regulatory Manager Cell Number: 505-388-8205  
 E-Mail Address: afelix@enduringresources.com Fax Number:

**Pits**

No Pits Found

**Casing**

No Casing Found

**Well Completions**

**[98163] ALAMITO MANCOS W**

Status: New, Not Drilled Last Produced:  
 Bottomhole Location: M-13-22N-08W 330 FSL 1100 FWL  
 Lat/Long:  
 Acreage: 240 13-22N-08W Units: D E L M  
 12-22N-08W Units: L M  
 DHC: Consolidation Code:  
 Production Method:

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

Gas-Oil Ratio: 0 Kcf / bbl Oil Gravity: 0.0 Corr. API  
 Disposition of Gas: Water Volume: 0.0 bbls

**Perforations**

| Date | Top Measured Depth<br>(Where Completion Enters Formation) | Bottom Measured<br>Depth<br>(End of Lateral) | Top Vertical Depth | Bottom Vertical<br>Depth |
|------|---|--|--------------------|--------------------------|
|------|---|--|--------------------|--------------------------|

**Notes**

**Event Dates**

|                              |            |                             |    |
|------------------------------|------------|-----------------------------|----|
| Initial Effective/Approval:  | 02/12/2016 | TA Expiration:              |    |
| Most Recent Approval:        | 04/19/2018 | Confidential Until:         |    |
| Confidential Requested On:   |            | Test Allowable End:         |    |
| Test Allowable Approval:     |            | DHC:                        |    |
| TD Reached:                  |            | Rig Released:               |    |
| Deviation Report Received:   | No         | Logs Received:              | No |
| Directional Survey Run:      | No         | Closure Pit Plat Received:  |    |
| Directional Survey Received: | No         | First Gas Production:       |    |
| First Oil Production:        |            | Completion Report Received: |    |
| First Injection:             |            | New Well C-104 Approval:    |    |
| Ready to Produce:            |            | Revoked Until:              |    |
| C-104 Approval:              |            |                             |    |
| Plug Back:                   |            |                             |    |
| Authorization Revoked Start: |            |                             |    |

**Well Completion History**

| Effective Date | Property                | Well Number | Operator                            | Completion Status | TA Expiration Date |
|----------------|-------------------------|-------------|-------------------------------------|-------------------|--------------------|
| 04/19/2018     | [321257] W ALAMITO UNIT | #467H       | [372286] ENDURING RESOURCES, LLC    | New, Not Drilled  |                    |
| 02/12/2016     | [315082] W ALAMITO UNIT | #467H       | [120782] WPX ENERGY PRODUCTION, LLC | New, Not Drilled  |                    |

**Financial Assurance**

| Effective  | Bond Type | Base   | Balance | Issuer                | Cash/Surety | Cancellation Date |
|------------|-----------|--------|---------|-----------------------|-------------|-------------------|
| 06/30/2017 | Blanket   | 250000 | 250000  | RLI INSURANCE COMPANY | Surety      |                   |

Requests to release bonds must be submitted in writing. You may send an e-mail to [Denise.Gallegos@state.nm.us](mailto:Denise.Gallegos@state.nm.us) or fax a letter to (505) 476-3453.

**Compliance**

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

report may be recorded here as a spin, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

**Orders**

No Orders Found

**Production / Injection**

Earliest Production in OCD Records: Last [Show All Production](#) [Export to Excel](#)

| Time Frame   | Production |          |             |          | Injection   |          |          |       |          |
|--------------|------------|----------|-------------|----------|-------------|----------|----------|-------|----------|
|              | Oil(BBLS)  | Gas(MCF) | Water(BBLS) | Days P/I | Water(BBLS) | Co2(MCF) | Gas(MCF) | Other | Pressure |
| Grand Total: | 0          | 0        | 0           | 0        | 0           | 0        | 0        | 0     | N/A      |

**Transporters**

| Transporter | Product | Most Recent for Property |
|-------------|---------|--------------------------|
|-------------|---------|--------------------------|

**Points of Disposition**

| ID | Type | Description | Pool(s) |
|----|------|-------------|---------|
|----|------|-------------|---------|

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OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

# OCD Permitting

Home Wells Well Details

## 30-045-28665 STATE K #001 [313014]

### General Well Information

Operator: [282327] ENCANA OIL & GAS (USA) INC.  
 Status: Plugged, Site Direction: Vertical  
 Released Multi-Lateral: No  
 Well Type: Oil Mineral Owner: State  
 Work Type: New Surface Owner:  
 Surface Location: P-36-23N-08W 400 FSL 900 FEL  
 Lat/Long: 36.1771545,-107.6274185 NAD83  
 GL Elevation: 6942  
 KB Elevation: Sing/Mult Compl:  
 DF Elevation: Potash Waiver: False

### Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

### Proposed Formation and/or Notes

P&A 6-29-09

### Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

### Depths

Proposed: 0 True Vertical Depth: 5130  
 Measured Vertical Depth: 5130 Plugback Measured: 5060

### New Searches

- [New Well Search](#)

### Formation Tops

| Formation                 | Top  | Producing | Method Obtained |
|---------------------------|------|-----------|-----------------|
| Ojo Alamo Formation       | 793  |           |                 |
| Kirtland Formation        | 957  |           |                 |
| Pictured Cliffs Formation | 1370 |           |                 |
| Cliff House Formation     | 2634 |           |                 |
| Menefee Formation         | 2672 |           |                 |
| Point Lookout Formation   | 3752 |           |                 |
| Mancos Formation          | 3942 |           |                 |
| Gallup Formation          | 4602 |           |                 |

### Event Dates

Initial APD Approval: 05/11/1992  
 Most Recent APD Approval: 12/19/2013 Current APD Expiration: 05/11/1994  
 APD Cancellation:  
 APD Extension Approval:  
 Spud: 05/23/1992 Gas Capture Plan Received:  
 TA Expiration:

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

Site Release: 12/12/2016  
 Last Inspection: 12/12/2016

**History**

| Effective Date | Property         | Well Number | Operator                             | C-101 Work Type | Well Type | Well Status               | Apd Cancelled | Plug Date  |
|----------------|------------------|-------------|--------------------------------------|-----------------|-----------|---------------------------|---------------|------------|
| 12/19/2013     | [313014] STATE K | #001        | [282327] ENCANA OIL & GAS (USA) INC. | New             | Oil       | Plugged, Site Released    |               | 06/29/2009 |
| 09/01/1994     | [16174] STATE K  | #001        | [23846] QEP ENERGY COMPANY           | New             | Oil       | Zones Permanently Plugged |               |            |
| 06/01/1992     | [1911] STATE K   | #001        | [1883] BCO INC                       | New             | Oil       | Active                    |               |            |

**Comments**

**Operator**

**General Contact Information**

Company: [282327] ENCANA OIL & GAS (USA) INC. Main Phone: 720-876-5240  
 Address: 370 17th Street Suite 1700 Main Fax: 720-876-6240  
 Denver, CO 80202  
 Country: U.S.A.

**Central Contact**

Name: Katie Wegner Phone Number: 720-876-5240  
 Title: Manager, Regulatory & Permitting Cell Number: 303-819-7349  
 E-Mail Address: julia.carter@encana.com Fax Number: 720-876-6240

**Aztec Contact**

Name: Tom Lawlor Phone Number: 720-876-3082  
 Title: Cell Number: 720-201-3815  
 E-Mail Address: tom.lawlor@encana.com Fax Number:

**Pits**

**Pit On Site: Number 1**

Pit Type: Workover Status: Active  
 Registration Denied:  
 Closure Approved:  
 Closure Denied:

8/23/2019

OCD Permitting - Well Details

SCRUES76 (REGULATORY SPECIALIST FOR DJR OPERATING, LLC) SIGN OUT HELP

Wells Operator Data Submit Form **Fee Application** Administration

| Date       | Detail     |
|------------|------------|
| 07/02/2009 | RR 6-30-09 |

**Casing**

| String/Hole Type  | Taper | Date Set | Boreholes, Strings and Equipment Specifications |     |                | Specifications for Strings and Tubing |        |        | Strings Cemented and Intervals |            |      | Cement and Plug Description |       |                     |
|-------------------|-------|----------|---|-----|----------------|---------------------------------------|--------|--------|--------------------------------|------------|------|-----------------------------|-------|---------------------|
|                   |       |          | Diameter  | Top | Bottom (Depth) | Grade                                 | Length | Weight | Bot of Cem                     | Top of Cem | Meth | Class of Cement             | Sacks | Pressure Test (Y/N) |
| Surface Casing    | 1     |          | 8.625   | 0   | 356            |                                       | 0      | 0.0    | 356                            | 0          | Circ | Unknown                     | 275   | No                  |
| Production Casing | 1     |          | 4.500   | 0   | 5119           |                                       | 0      | 0.0    | 5119                           | 0          | Circ | Unknown                     | 800   | No                  |
| Tubing 1          | 1     |          | 2.375   | 0   | 4980           |                                       | 0      | 0.0    | 0                              | 0          |      |                             | 0     | No                  |

**Well Completions**

**[1039] ALAMITO-GALLUP (O)**

Status: Zone Permanently Plugged Last Produced: 05/01/2009  
 Bottomhole Location: P-36-23N-08W 400 FSL 900 FEL  
 Lat/Long:  
 Acreage:  
 DHC: No Consolidation Code:  
 Production Method: Flowing

**Well Test Data**

Production Test: Test Length: 0 hours  
 Flowing Tubing Pressure: 0 psi Flowing Casing Pressure: 0 psi  
 Choke Size: 0.000 inches Testing Method:  
 Gas Volume: 0.0 MCF Oil Volume: 0.0 bbls  
 Gas-Oil Ratio: 0 Kcf / bbl Oil Gravity: 0.0 Corr. API  
 Disposition of Gas: Water Volume: 0.0 bbls

**Perforations**

| Date | Top Measured Depth (Where Completion Enters Formation) | Bottom Measured Depth (End of Lateral) | Top Vertical Depth | Bottom Vertical Depth |
|------|--|--|--------------------|-----------------------|
|      | 4775   | 5017                                   | 0                  | 0                     |

**Notes**

**Event Dates**

8/23/2019

OCD Permitting - Well Details

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Wells Operator Data Submit Form **Fee Application** Administration

|                              |            |                             |            |
|------------------------------|------------|-----------------------------|------------|
| Directional Survey Run:      | No         | Logs Received:              | No         |
| Directional Survey Received: | No         | Closure Pit Plat Received:  |            |
| First Oil Production:        | 06/01/1992 | First Gas Production:       | 06/01/1992 |
| First Injection:             |            | Completion Report Received: |            |
| Ready to Produce:            | 06/18/1992 | New Well C-104 Approval:    |            |
| C-104 Approval:              | 06/18/1992 | Revoked Until:              |            |
| Plug Back:                   |            |                             |            |
| Authorization Revoked Start: |            |                             |            |

Well Completion History

| Effective Date | Property        | Well Number | Operator                   | Completion Status        | TA Expiration Date |
|----------------|-----------------|-------------|----------------------------|--------------------------|--------------------|
| 06/29/2009     | [16174] STATE K | #001        | [23846] QEP ENERGY COMPANY | Zone Permanently Plugged |                    |
| 09/01/1994     | [16174] STATE K | #001        | [23846] QEP ENERGY COMPANY | Active                   |                    |
| 06/01/1992     | [1911] STATE K  | #001        | [1883] BCO INC             | Active                   |                    |

Financial Assurance

| Effective  | Bond Type   | Base  | Balance | Issuer                                   | Cash/Surety | Cancellation Date |
|------------|-------------|-------|---------|--|-------------|-------------------|
| 07/20/2011 | Blanket     | 50000 | 50000   | TRAVELERS CASUALTY AND SURETY OF AMERICA | Surety      |                   |
| 12/06/2013 | Single Well | 10130 | 10130   | TRAVELERS CASUALTY AND SURETY OF AMERICA | Surety      |                   |

Requests to release bonds must be submitted in writing. You may send an e-mail to [Denise.Gallegos@state.nm.us](mailto:Denise.Gallegos@state.nm.us) or fax a letter to (505) 476-3453.

Compliance

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports ([Inactive Well Report](#), [Financial Assurance Report](#)).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

cJK1634041074

Violation Source:

|                      |            |           |            |
|----------------------|------------|-----------|------------|
| Date of Violation:   | 12/05/2016 | Resolved: | 12/12/2016 |
| Compliance Required: | 03/10/2017 |           |            |

Notes

Well number and UL/Qt/Qt section information missing from P&A marker, location cannot be released. 12/12/2016 follow up inspection found that well number and UL / Qt/Qt section have been added to marker, loc ok to release, compliance cleared.

Actions/Events

8/23/2019

OCD Permitting - Well Details

SCRUES76 (REGULATORY SPECIALIST FOR DJR OPERATING, LLC) SIGN OUT HELP

Wells Operator Data Submit Form **Fee Application** Administration

|            |               |        |
|------------|---------------|--------|
| 12/05/2016 | Notifications | E-Mail |
|------------|---------------|--------|

**Complaints, Incidents and Spills**

No Incidents Found

Please note that incidents that impact ground water are recorded along with "facilities" which may not be wells, so although the initial report may be recorded here as a spill, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

**Orders**

No Orders Found

**Production / Injection**

Earliest Production in OCD Records: 12/1992 Last

[Show All Production](#) [Export to Excel](#)

5/2009

| Time Frame      | Production |          |             |          | Injection   |          |          |       |     | Pressure |
|-----------------|------------|----------|-------------|----------|-------------|----------|----------|-------|-----|----------|
|                 | Oil(BBLS)  | Gas(MCF) | Water(BBLS) | Days P/I | Water(BBLS) | Co2(MCF) | Gas(MCF) | Other |     |          |
| 1992 Cumulative | 2335       | 25250    | 345         | 99       | 0           | 0        | 0        | 0     | N/A |          |
| 1993            | 1627       | 25929    | 525         | 330      | 0           | 0        | 0        | 0     | N/A |          |
| 1994            | 1362       | 15307    | 90          | 343      | 0           | 0        | 0        | 0     | N/A |          |
| 1995            | 1073       | 13526    | 80          | 364      | 0           | 0        | 0        | 0     | N/A |          |
| 1996            | 991        | 9433     | 68          | 366      | 0           | 0        | 0        | 0     | N/A |          |
| 1997            | 826        | 7481     | 65          | 365      | 0           | 0        | 0        | 0     | N/A |          |
| 1998            | 842        | 6829     | 61          | 365      | 0           | 0        | 0        | 0     | N/A |          |
| 1999            | 797        | 6513     | 54          | 365      | 0           | 0        | 0        | 0     | N/A |          |
| 2000            | 751        | 6027     | 34          | 366      | 0           | 0        | 0        | 0     | N/A |          |
| 2001            | 707        | 4971     | 25          | 351      | 0           | 0        | 0        | 0     | N/A |          |
| 2002            | 636        | 5594     | 22          | 364      | 0           | 0        | 0        | 0     | N/A |          |
| 2003            | 587        | 4707     | 35          | 365      | 0           | 0        | 0        | 0     | N/A |          |
| 2004            | 562        | 4993     | 2           | 366      | 0           | 0        | 0        | 0     | N/A |          |
| 2005            | 512        | 4616     | 116         | 365      | 0           | 0        | 0        | 0     | N/A |          |
| 2006            | 572        | 4421     | 230         | 363      | 0           | 0        | 0        | 0     | N/A |          |

8/23/2019

OCD Permitting - Well Details

SCRUES76 (REGULATORY SPECIALIST FOR DJR OPERATING, LLC) SIGN OUT HELP

Wells Operator Data Submit Form **Fee Application** Administration

|              |       |        |      |      |   |   |   |   |     |
|--------------|-------|--------|------|------|---|---|---|---|-----|
| 2008         | 0     | 0      | 0    | 0    | 0 | 0 | 0 | 0 | N/A |
| 2009         | 38    | 0      | 0    | 1    | 0 | 0 | 0 | 0 | N/A |
| Grand Total: | 14471 | 148528 | 1981 | 5390 | 0 | 0 | 0 | 0 | N/A |

Transporters

| Transporter | Product | Most Recent for Property |
|-------------|---------|--------------------------|
|-------------|---------|--------------------------|

Points of Disposition

| ID     | Type  | Description | Pool(s)                   |
|--------|-------|-------------|---------------------------|
| 537950 | Water |             | [1039] ALAMITO-GALLUP (O) |
| 537930 | Gas   |             | [1039] ALAMITO-GALLUP (O) |
| 537910 | Oil   |             | [1039] ALAMITO-GALLUP (O) |

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 1220 South St. Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

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Amended Application for Authorization to Inject

DJR Operating, LLC

North Alamito Unit SWD #001

Administrative Order SWD-2255

Operations Plan

1. Average Injection Rate: 3,000-bwpd with a maximum of 6,000-bwpd.
2. The system will be closed.
3. The average injection pressure: 1,000 psi and the maximum will be 1,380 psi.
4. The source of injected water will be produced water from DJR Operating, LLC wells in the San Juan Basin of New Mexico from the Fruitland Coal, Pictured Cliffs, Mancos, and Gallup Dakota formations. The water to be injected is compatible with the water in the disposal zone.
5. Injection is for disposal purposes into a zone (Entrada Sandstone) that is not productive of oil or gas within one mile of the proposed injection well.

## **Produced Water Samples**

### **1. Lybrook M35-2308-01H/02H**

UL M & N, Section 35-23N-8W

API: 030-45-35526 – 01H

API: 030-45-35527 – 02H

### **2. Lybrook O35-2308-01H/02H**

UL O, Section 35-23N-8W

API: 030-45-35525-01H

API: 030-45-35524-02H

**Multi-Chem Analytical Laboratory**

1553 East Highway 40  
Vernal, UT 84078

Units of Measurement: **Standard**



**Water Analysis Report**

Production Company: **DJR Operating, LLC**  
Well Name: **LYBROOK M35-2308-01H/02H**  
Sample Point: **SEPARATOR**  
Sample Date: **4/9/2019**  
Sample ID: **WA-385502**

Sales Rep: **Craig Smith**  
Lab Tech: **Amanda Harvey**

Scaling potential predicted using ScaleSoftPitzer from  
Brine Chemistry Consortium (Rice University)

| Sample Specifics                  |           | Analysis @ Properties in Sample Specifics |         |   |          |
|-----------------------------------|-----------|---|---------|---|----------|
|                                   |           | Cations                                   |         | Anions  |          |
|                                   |           | mg/L                                      |         | mg/L  |          |
| Test Date:                        | 4/19/2019 | Sodium (Na):                              | 9648.38 | Chloride (Cl):  | 15500.00 |
| System Temperature 1 (°F):        | 50        | Potassium (K):                            | 28.17   | Sulfate (SO <sub>4</sub> ):                             | 16.00    |
| System Pressure 1 (psig):         | 15        | Magnesium (Mg):                           | 42.98   | Bicarbonate (HCO <sub>3</sub> ):                        | 335.50   |
| System Temperature 2 (°F):        | 200       | Calcium (Ca):                             | 280.55  | Carbonate (CO <sub>3</sub> ):                           |          |
| System Pressure 2 (psig):         | 200       | Strontium (Sr):                           | 72.84   | Hydroxide (HO):   |          |
| Calculated Density (g/ml):        | 1.0152    | Barium (Ba):                              | 23.43   | Acetic Acid (CH <sub>3</sub> COO)                       |          |
| pH:                               | 7.00      | Iron (Fe):                                | 84.00   | Propionic Acid (C <sub>2</sub> H <sub>5</sub> COO)      |          |
| Calculated TDS (mg/L):            | 26049.70  | Zinc (Zn):                                | 0.96    | Butanoic Acid (C <sub>3</sub> H <sub>7</sub> COO)       |          |
| CO <sub>2</sub> in Gas (%):       |           | Lead (Pb):                                | 0.00    | Isobutyric Acid ((CH <sub>3</sub> ) <sub>2</sub> CHCOO) |          |
| Dissolved CO <sub>2</sub> (mg/L): | 99.00     | Ammonia (NH <sub>3</sub> ):               |         | Fluoride (F):   |          |
| H <sub>2</sub> S in Gas (%):      |           | Manganese (Mn):                           | 1.38    | Bromine (Br):   |          |
| H <sub>2</sub> S in Water (mg/L): | 0.00      | Aluminum (Al):                            | 0.04    | Silica (SiO <sub>2</sub> ):                             | 15.51    |
| Tot. Suspended Solids (mg/L):     |           | Lithium (Li):                             | 1.23    | Calcium Carbonate (CaCO <sub>3</sub> ):                 |          |
| Corrosivity (Langlier Sat. Indx)  | 0.00      | Boron (B):                                | 3.05    | Phosphates (PO <sub>4</sub> ):                          | 1.50     |
| Alkalinity:                       |           | Silicon (Si):                             | 7.25    | Oxygen (O <sub>2</sub> ):                               |          |

**Notes:**

(PTB = Pounds per Thousand Barrels)

| Temp (°F) | PSI    | Calcium Carbonate |       | Barium Sulfate |       | Iron Sulfide |      | Iron Carbonate |       | Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O |      | Celestite SrSO <sub>4</sub> |      | Halite NaCl |      | Zinc Sulfide |      |      |
|-----------|--------|-------------------|-------|----------------|-------|--------------|------|----------------|-------|---|------|-----------------------------|------|-------------|------|--------------|------|------|
|           |        | SI                | PTB   | SI             | PTB   | SI           | PTB  | SI             | PTB   | SI  | PTB  | SI                          | PTB  | SI          | PTB  | SI           | PTB  |      |
| 200.00    | 200.00 | 0.62              | 26.38 | 0.21           | 2.97  | 0.00         | 0.00 | 2.01           | 54.73 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 183.00    | 179.00 | 0.50              | 20.91 | 0.25           | 3.42  | 0.00         | 0.00 | 1.89           | 53.26 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 167.00    | 159.00 | 0.38              | 15.78 | 0.30           | 4.00  | 0.00         | 0.00 | 1.77           | 51.50 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 150.00    | 138.00 | 0.28              | 11.13 | 0.36           | 4.68  | 0.00         | 0.00 | 1.65           | 49.47 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 133.00    | 118.00 | 0.18              | 6.99  | 0.44           | 5.46  | 0.00         | 0.00 | 1.53           | 47.14 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 117.00    | 97.00  | 0.09              | 3.36  | 0.53           | 6.32  | 0.00         | 0.00 | 1.40           | 44.50 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 100.00    | 77.00  | 0.01              | 0.26  | 0.65           | 7.24  | 0.00         | 0.00 | 1.28           | 41.54 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 83.00     | 56.00  | 0.00              | 0.00  | 0.78           | 8.19  | 0.00         | 0.00 | 1.15           | 38.33 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 67.00     | 36.00  | 0.00              | 0.00  | 0.95           | 9.14  | 0.00         | 0.00 | 1.03           | 34.97 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |
| 50.00     | 15.00  | 0.00              | 0.00  | 1.14           | 10.06 | 0.00         | 0.00 | 0.93           | 32.03 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 | 0.00 |

**Multi-Chem Analytical Laboratory**  
 1553 East Highway 40  
 Vernal, UT 84078

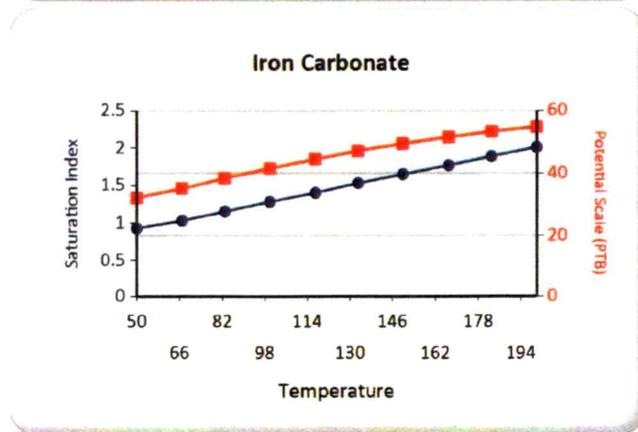
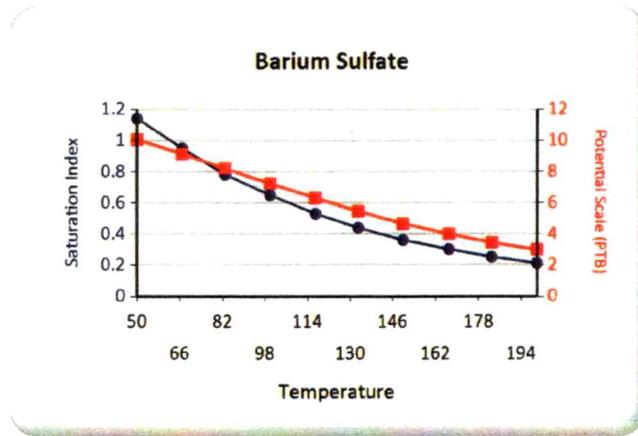
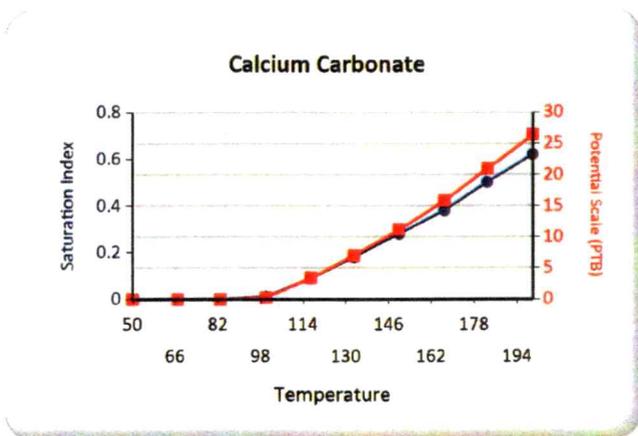


**Water Analysis Report**

| Temp (°F) | PSI    | Hemihydrate CaSO4~0.5H2O |      | Anhydrate CaSO4 |      | Calcium Fluoride |      | Zinc Carbonate |      | Lead Sulfide |      | Mg Silicate |      | Ca Mg Silicate |      | Fe Silicate |       |
|-----------|--------|--------------------------|------|-----------------|------|------------------|------|----------------|------|--------------|------|-------------|------|----------------|------|-------------|-------|
|           |        | SI                       | PTB  | SI              | PTB  | SI               | PTB  | SI             | PTB  | SI           | PTB  | SI          | PTB  | SI             | PTB  | SI          | PTB   |
| 200.00    | 200.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.08           | 0.11 | 0.00         | 0.00 | 0.28        | 1.62 | 0.00           | 0.00 | 7.49        | 34.44 |
| 183.00    | 179.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 6.78        | 33.06 |
| 167.00    | 159.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 6.09        | 31.01 |
| 150.00    | 138.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 5.41        | 28.37 |
| 133.00    | 118.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 4.75        | 25.32 |
| 117.00    | 97.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 4.11        | 22.00 |
| 100.00    | 77.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 3.50        | 18.62 |
| 83.00     | 56.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 2.93        | 15.35 |
| 67.00     | 36.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 2.41        | 12.41 |
| 50.00     | 15.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00 | 0.00           | 0.00 | 2.06        | 10.45 |

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Fe Silicate

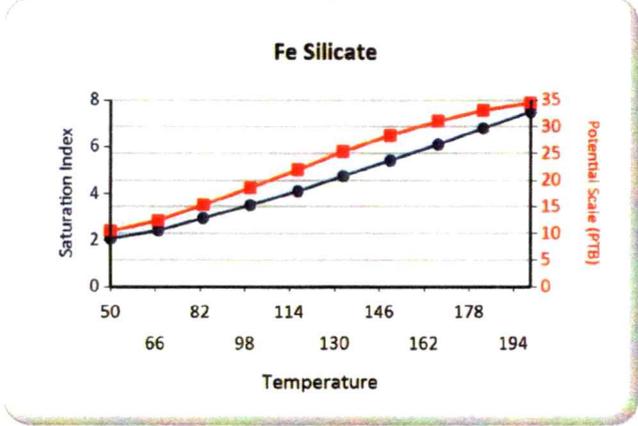
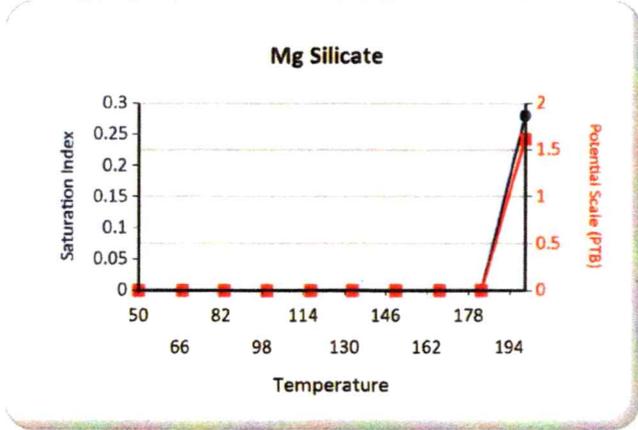
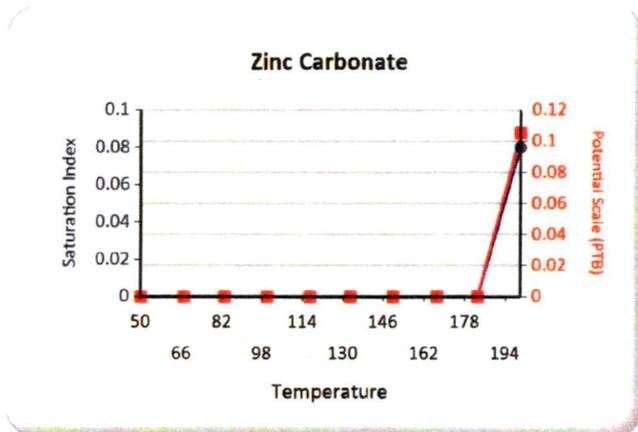
These scales have positive scaling potential under final temperature and pressure: Barium Sulfate Iron Carbonate Fe Silicate



Multi-Chem Analytical Laboratory  
1553 East Highway 40  
Vernal, UT 84078

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Water Analysis Report



**Multi-Chem Analytical Laboratory**

1553 East Highway 40  
Vernal, UT 84078

Units of Measurement: **Standard**



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**Water Analysis Report**

Production Company: **DJR Operating, LLC**  
Well Name: **LYBROOK O35-2308-01H/02H**  
Sample Point: **SEPARATOR**  
Sample Date: **4/9/2019**  
Sample ID: **WA-385478**

Sales Rep: **Craig Smith**  
Lab Tech: **Amanda Harvey**

Scaling potential predicted using ScaleSoftPitzer from  
Brine Chemistry Consortium (Rice University)

| Sample Specifics                  |           | Analysis @ Properties in Sample Specifics |          |   |          |
|-----------------------------------|-----------|---|----------|---|----------|
|                                   |           | Cations                                   | mg/L     | Anions  | mg/L     |
| Test Date:                        | 4/19/2019 | Sodium (Na):                              | 13492.45 | Chloride (Cl):  | 21500.00 |
| System Temperature 1 (°F):        | 50        | Potassium (K):                            | 47.70    | Sulfate (SO <sub>4</sub> ):                             | 0.00     |
| System Pressure 1 (psig):         | 15        | Magnesium (Mg):                           | 56.95    | Bicarbonate (HCO <sub>3</sub> ):                        | 335.50   |
| System Temperature 2 (°F):        | 200       | Calcium (Ca):                             | 323.89   | Carbonate (CO <sub>3</sub> ):                           |          |
| System Pressure 2 (psig):         | 200       | Strontium (Sr):                           | 89.20    | Hydroxide (HO):   |          |
| Calculated Density (g/ml):        | 1.0218    | Barium (Ba):                              | 29.22    | Acetic Acid (CH <sub>3</sub> COO)                       |          |
| pH:                               | 7.30      | Iron (Fe):                                | 13.86    | Propionic Acid (C <sub>2</sub> H <sub>5</sub> COO)      |          |
| Calculated TDS (mg/L):            | 35921.58  | Zinc (Zn):                                | 0.10     | Butanoic Acid (C <sub>3</sub> H <sub>7</sub> COO)       |          |
| CO <sub>2</sub> in Gas (%):       |           | Lead (Pb):                                | 0.00     | Isobutyric Acid ((CH <sub>3</sub> ) <sub>2</sub> CHCOO) |          |
| Dissolved CO <sub>2</sub> (mg/L): | 99.00     | Ammonia NH <sub>3</sub> :                 |          | Fluoride (F):   |          |
| H <sub>2</sub> S in Gas (%):      |           | Manganese (Mn):                           | 0.45     | Bromine (Br):   |          |
| H <sub>2</sub> S in Water (mg/L): | 0.00      | Aluminum (Al):                            | 0.05     | Silica (SiO <sub>2</sub> ):                             | 32.26    |
| Tot. Suspended Solids (mg/L):     |           | Lithium (Li):                             | 1.68     | Calcium Carbonate (CaCO <sub>3</sub> ):                 |          |
| Corrosivity (Langlier Sat. Indx)  | 0.00      | Boron (B):                                | 5.64     | Phosphates (PO <sub>4</sub> ):                          | 0.98     |
| Alkalinity:                       |           | Silicon (Si):                             | 15.08    | Oxygen (O <sub>2</sub> ):                               |          |

**Notes:**

(PTB = Pounds per Thousand Barrels)

| Temp (°F) | PSI    | Calcium Carbonate |       | Barium Sulfate |      | Iron Sulfide |      | Iron Carbonate |      | Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O |      | Celestite SrSO <sub>4</sub> |      | Halite NaCl |      | Zinc Sulfide |      |
|-----------|--------|-------------------|-------|----------------|------|--------------|------|----------------|------|---|------|-----------------------------|------|-------------|------|--------------|------|
|           |        | SI                | PTB   | SI             | PTB  | SI           | PTB  | SI             | PTB  | SI  | PTB  | SI                          | PTB  | SI          | PTB  | SI           | PTB  |
| 200.00    | 200.00 | 0.87              | 30.69 | 0.00           | 0.00 | 0.00         | 0.00 | 1.38           | 9.34 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 183.00    | 179.00 | 0.76              | 26.00 | 0.00           | 0.00 | 0.00         | 0.00 | 1.29           | 9.15 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 167.00    | 159.00 | 0.66              | 21.66 | 0.00           | 0.00 | 0.00         | 0.00 | 1.18           | 8.90 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 150.00    | 138.00 | 0.57              | 17.81 | 0.00           | 0.00 | 0.00         | 0.00 | 1.08           | 8.57 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 133.00    | 118.00 | 0.48              | 14.40 | 0.00           | 0.00 | 0.00         | 0.00 | 0.97           | 8.16 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 117.00    | 97.00  | 0.40              | 11.44 | 0.00           | 0.00 | 0.00         | 0.00 | 0.86           | 7.65 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 100.00    | 77.00  | 0.33              | 8.93  | 0.00           | 0.00 | 0.00         | 0.00 | 0.74           | 7.00 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 83.00     | 56.00  | 0.27              | 6.86  | 0.00           | 0.00 | 0.00         | 0.00 | 0.62           | 6.22 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 67.00     | 36.00  | 0.21              | 5.24  | 0.00           | 0.00 | 0.00         | 0.00 | 0.51           | 5.32 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |
| 50.00     | 15.00  | 0.18              | 4.41  | 0.00           | 0.00 | 0.00         | 0.00 | 0.41           | 4.47 | 0.00  | 0.00 | 0.00                        | 0.00 | 0.00        | 0.00 | 0.00         | 0.00 |

**Multi-Chem Analytical Laboratory**  
 1553 East Highway 40  
 Vernal, UT 84078

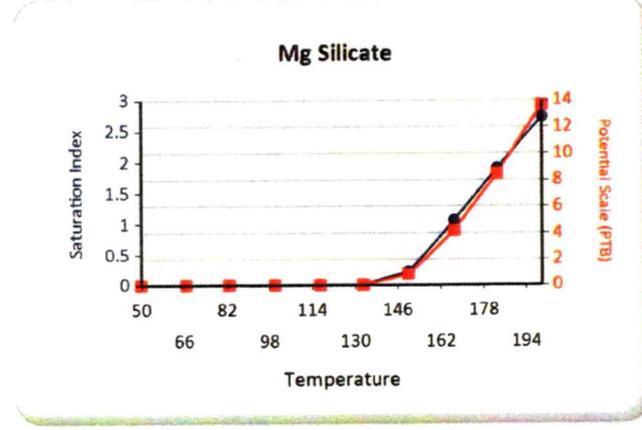
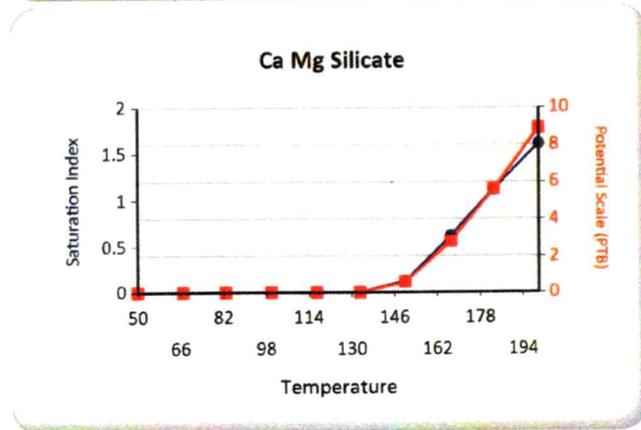
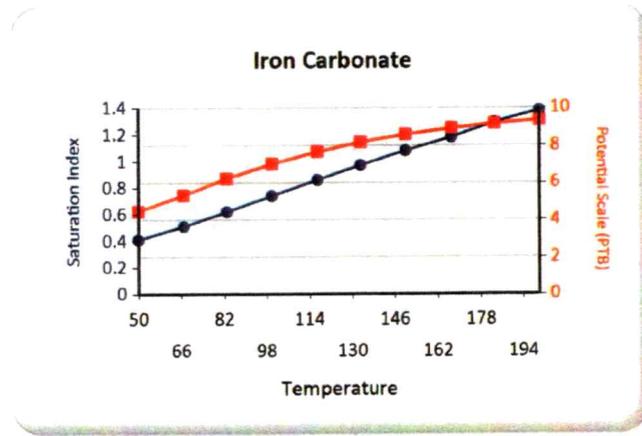
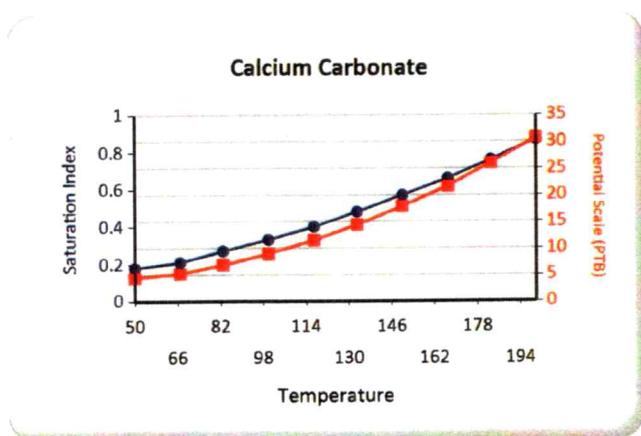


**Water Analysis Report**

| Temp (°F) | PSI    | Hemihydrate CaSO4~0.5H2O |      | Anhydrate CaSO4 |      | Calcium Fluoride |      | Zinc Carbonate |      | Lead Sulfide |      | Mg Silicate |       | Ca Mg Silicate |      | Fe Silicate |       |
|-----------|--------|--------------------------|------|-----------------|------|------------------|------|----------------|------|--------------|------|-------------|-------|----------------|------|-------------|-------|
|           |        | SI                       | PTB  | SI              | PTB  | SI               | PTB  | SI             | PTB  | SI           | PTB  | SI          | PTB   | SI             | PTB  | SI          | PTB   |
| 200.00    | 200.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 2.73        | 13.64 | 1.61           | 8.91 | 7.12        | 10.52 |
| 183.00    | 179.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 1.90        | 8.47  | 1.12           | 5.60 | 6.51        | 10.34 |
| 167.00    | 159.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 1.06        | 4.20  | 0.62           | 2.80 | 5.91        | 10.07 |
| 150.00    | 138.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.22        | 0.81  | 0.12           | 0.55 | 5.31        | 9.67  |
| 133.00    | 118.00 | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 4.72        | 9.11  |
| 117.00    | 97.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 4.14        | 8.37  |
| 100.00    | 77.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 3.57        | 7.48  |
| 83.00     | 56.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 3.04        | 6.48  |
| 67.00     | 36.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 2.55        | 5.48  |
| 50.00     | 15.00  | 0.00                     | 0.00 | 0.00            | 0.00 | 0.00             | 0.00 | 0.00           | 0.00 | 0.00         | 0.00 | 0.00        | 0.00  | 0.00           | 0.00 | 2.21        | 4.76  |

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

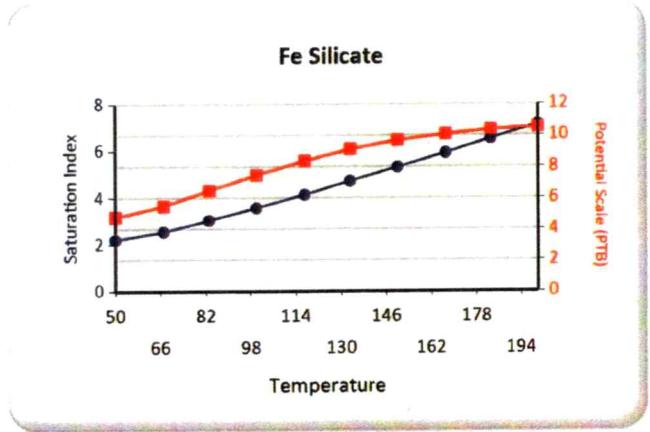
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Fe Silicate



Multi-Chem Analytical Laboratory  
1553 East Highway 40  
Vernal, UT 84078

**multi-chem**  
A HALLIBURTON SERVICE

Water Analysis Report





dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

DJR Operating  
1 Road 3263  
Aztec NM, 87410

Project: API  
Project Name / Number: [none]  
Project Manager: Lansa Farrell

Reported:  
10/27/20 15:48

### Notes and Definitions

|     |  |
|-----|--|
| U   | Estimated concentration. Analyte concentration was less than the MDL.  |
| B3  | Target analyte detected in method blank or continuing calibration blank. Reporting limit elevated to account for blank result. |
| DET | Analyte DETECTED   |
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| NR  | Not Reported   |
| dry | Sample results reported on a dry weight basis<br>*Results reported on as received basis unless designated as dry.              |
| RPD | Relative Percent Difference  |
| LCS | Laboratory Control Sample (Blank Spike)  |
| RL  | Report Limit   |
| MDL | Method Detection Limit   |

Green Analytical Laboratories

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt, Reports Manager

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|   |   |                             |
|---|---|-----------------------------|
| DJR Operating<br>1 Road 3263<br>Aztec NM, 87410 | Project: API<br>Project Name / Number: [none]<br>Project Manager: Lansa Farrell | Reported:<br>10/27/20 15:48 |
|---|---|-----------------------------|

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID       | Laboratory ID | Matrix | Date Sampled   | Date Received  | Notes |
|-----------------|---------------|--------|----------------|----------------|-------|
| Fruitland Coal  | 2010242-01    | Water  | 10/22/20 10:24 | 10/22/20 15:08 |       |
| Gallup Dakota   | 2010242-02    | Water  | 10/22/20 12:33 | 10/22/20 15:08 |       |
| Pictured Cliffs | 2010242-03    | Water  | 10/22/20 11:56 | 10/22/20 15:08 |       |

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Project: API  
Project Name / Number: [none]  
Project Manager: Lansa Farrell

Reported:  
10/27/20 15:48

## Fruitland Coal

## 2010242-01 (Water)

| Analyte   | Result | RL     | MDL   | Units               | Dilution | Analyzed       | Method        | Notes | Analyst |
|---|--------|--------|-------|---------------------|----------|----------------|---------------|-------|---------|
| <b>General Chemistry</b>                        |        |        |       |                     |          |                |               |       |         |
| Alkalinity, Bicarbonate as CaCO <sub>3</sub> *  | 710    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Carbonate as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Hydroxide as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Total as CaCO <sub>3</sub> *        | 710    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Chloride*                                       | 7940   | 500    | 44.3  | mg/L                | 500      | 10/26/20 13:20 | EPA300.0      |       | AES     |
| Conductivity*                                   | 26700  | 1.00   |       | umho/cm @<br>25.0°C | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| pH*   | 7.60   |        |       | pH Units            | 1        | 10/23/20 11:05 | EPA150.1      |       | VJW     |
| Resistivity                                     | 37.4   |        |       | ohm/cm              | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| Total Dissolved Solids*                         | 14900  | 40.0   |       | mg/L                | 4        | 10/23/20 17:15 | EPA160.1      |       | VJW     |
| Specific Gravity                                | 1.010  | 0.8000 |       | No Unit             | 1        | 10/26/20 09:50 | ASTM D1429-03 |       | VJW     |
| Sulfate*  | <7.62  | 50.0   | 7.62  | mg/L                | 50       | 10/27/20 03:22 | EPA300.0      | U     | AES     |
| <b>Total Recoverable Metals by ICP (E200.7)</b> |        |        |       |                     |          |                |               |       |         |
| Iron*   | <5.00  | 5.00   | 0.813 | mg/L                | 50       | 10/27/20 12:46 | EPA200.7      | B3    | AES     |
| <b>Dissolved Metals by ICP</b>                  |        |        |       |                     |          |                |               |       |         |
| Hardness  | 289    | 33.1   | 6.90  | mg/L                | 50       | 10/27/20 12:15 | 2340 B        |       | AES     |
| Barium*   | 1.27   | 1.00   | 0.078 | mg/L                | 50       | 10/27/20 12:16 | EPA200.7      |       | AES     |
| Calcium*  | 76.6   | 5.00   | 0.829 | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Iron*   | <2.50  | 2.50   | 0.920 | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Magnesium*                                      | 23.7   | 5.00   | 1.17  | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Manganese*                                      | <1.00  | 1.00   | 0.078 | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Potassium*                                      | <50.0  | 50.0   | 6.51  | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Sodium*   | 4780   | 50.0   | 5.03  | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Strontium*                                      | <5.00  | 5.00   | 0.208 | mg/L                | 50       | 10/27/20 12:15 | EPA200.7      |       | AES     |
| Cation/Anion Balance                            | -5.24  |        |       |                     |          |                |               |       |         |

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Debbie Zufelt, Reports Manager

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Project: API  
Project Name / Number: [none]  
Project Manager: Lansa Farrell

Reported:  
10/27/20 15:48

## Gallup Dakota

## 2010242-02 (Water)

| Analyte   | Result | RL     | MDL   | Units               | Dilution | Analyzed       | Method        | Notes | Analyst |
|---|--------|--------|-------|---------------------|----------|----------------|---------------|-------|---------|
| <b>General Chemistry</b>                        |        |        |       |                     |          |                |               |       |         |
| Alkalinity, Bicarbonate as CaCO <sub>3</sub> *  | 710    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Carbonate as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Hydroxide as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Total as CaCO <sub>3</sub> *        | 710    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Chloride*                                       | 8970   | 500    | 44.3  | mg/L                | 500      | 10/26/20 13:39 | EPA300.0      |       | AES     |
| Conductivity*                                   | 30000  | 1.00   |       | umho/cm @<br>25.0°C | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| pH*   | 7.21   |        |       | pH Units            | 1        | 10/23/20 11:05 | EPA150.1      |       | VJW     |
| Resistivity                                     | 33.3   |        |       | ohm/cm              | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| Total Dissolved Solids*                         | 17400  | 40.0   |       | mg/L                | 4        | 10/23/20 17:15 | EPA160.1      |       | VJW     |
| Specific Gravity                                | 1.010  | 0.8000 |       | No Unit             | 1        | 10/26/20 09:50 | ASTM D1429-03 |       | VJW     |
| Sulfate*  | 393    | 50.0   | 7.62  | mg/L                | 50       | 10/27/20 03:41 | EPA300.0      |       | AES     |
| <b>Total Recoverable Metals by ICP (E200.7)</b> |        |        |       |                     |          |                |               |       |         |
| Iron*   | 25.0   | 5.00   | 0.813 | mg/L                | 50       | 10/27/20 12:53 | EPA200.7      | B3    | AES     |
| <b>Dissolved Metals by ICP</b>                  |        |        |       |                     |          |                |               |       |         |
| Hardness  | 423    | 33.1   | 6.90  | mg/L                | 50       | 10/27/20 12:18 | 2340 B        |       | AES     |
| Barium*   | <1.00  | 1.00   | 0.078 | mg/L                | 50       | 10/27/20 12:19 | EPA200.7      |       | AES     |
| Calcium*  | 119    | 5.00   | 0.829 | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Iron*   | 19.5   | 2.50   | 0.920 | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Magnesium*                                      | 30.7   | 5.00   | 1.17  | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Manganese*                                      | <1.00  | 1.00   | 0.078 | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Potassium*                                      | 103    | 50.0   | 6.51  | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Sodium*   | 5910   | 50.0   | 5.03  | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Strontium*                                      | 18.6   | 5.00   | 0.208 | mg/L                | 50       | 10/27/20 12:18 | EPA200.7      |       | AES     |
| Cation/Anion Balance                            | -1.18  |        |       |                     |          |                |               |       |         |

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Debbie Zufelt, Reports Manager

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Page 4 of 10 2010242 GAL FINAL 10 27 20 1548 10/27/20 15:48:29



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DJR Operating  
1 Road 3263  
Aztec NM, 87410

Project: API  
Project Name / Number: [none]  
Project Manager: Lansa Farrell

Reported:  
10/27/20 15:48

## Pictured Cliffs

## 2010242-03 (Water)

| Analyte   | Result | RL     | MDL   | Units               | Dilution | Analyzed       | Method        | Notes | Analyst |
|---|--------|--------|-------|---------------------|----------|----------------|---------------|-------|---------|
| <b>General Chemistry</b>                        |        |        |       |                     |          |                |               |       |         |
| Alkalinity, Bicarbonate as CaCO <sub>3</sub> *  | 540    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Carbonate as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Hydroxide as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Alkalinity, Total as CaCO <sub>3</sub> *        | 540    | 10.0   | 7.16  | mg/L                | 10       | 10/26/20 14:00 | 2320 B        |       | VJW     |
| Chloride*                                       | 27300  | 1000   | 88.6  | mg/L                | 1000     | 10/26/20 13:59 | EPA300.0      |       | AES     |
| Conductivity*                                   | 63100  | 1.00   |       | umho/cm @<br>25.0°C | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| pH*   | 7.31   |        |       | pH Units            | 1        | 10/23/20 11:05 | EPA150.1      |       | VJW     |
| Resistivity                                     | 15.8   |        |       | ohm/cm              | 1        | 10/23/20 11:05 | 2510 B        |       | VJW     |
| Total Dissolved Solids*                         | 38800  | 100    |       | mg/L                | 10       | 10/23/20 17:15 | EPA160.1      |       | VJW     |
| Specific Gravity                                | 1.025  | 0.8000 |       | No Unit             | 1        | 10/26/20 09:50 | ASTM D1429-03 |       | VJW     |
| Sulfate*  | <15.2  | 100    | 15.2  | mg/L                | 100      | 10/27/20 04:01 | EPA300.0      | U     | AES     |
| <b>Total Recoverable Metals by ICP (E200.7)</b> |        |        |       |                     |          |                |               |       |         |
| Iron*   | 67.4   | 10.0   | 1.63  | mg/L                | 100      | 10/27/20 12:56 | EPA200.7      | B3    | AES     |
| <b>Dissolved Metals by ICP</b>                  |        |        |       |                     |          |                |               |       |         |
| Hardness  | 1540   | 66.2   | 13.8  | mg/L                | 100      | 10/27/20 12:25 | 2340 B        |       | AES     |
| Barium*   | 46.4   | 2.00   | 0.155 | mg/L                | 100      | 10/27/20 12:26 | EPA200.7      |       | AES     |
| Calcium*  | 411    | 10.0   | 1.66  | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Iron*   | 5.12   | 5.00   | 1.84  | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Magnesium*                                      | 125    | 10.0   | 2.35  | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Manganese*                                      | <2.00  | 2.00   | 0.155 | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Potassium*                                      | <100   | 100    | 13.0  | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Sodium*   | 11900  | 100    | 10.1  | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Strontium*                                      | 70.5   | 10.0   | 0.416 | mg/L                | 100      | 10/27/20 12:25 | EPA200.7      |       | AES     |
| Cation/Anion Balance                            | -17.24 |        |       |                     |          |                |               |       |         |

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## **Entrada Formation Water Samples**

**1. Entrada SWD**  
Section 8-25N-3W

**2. Santa Fe 20 No. 1 SWD**  
Section 20-21N-8W

**3. Herry Monster #3 SWD**  
Section 11-24N-11W



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DJR Operating  
1 Road 3263  
Aztec NM, 87410

Project: API  
Project Name / Number: North Alamito WDW #1  
Project Manager: Dave Brown

Reported:  
11/03/20 15:47

## North Alamito WDW #1

## 2010288-01 (Water)

| Analyte   | Result | RL     | MDL   | Units               | Dilution | Analyzed       | Method        | Notes | Analyst |
|---|--------|--------|-------|---------------------|----------|----------------|---------------|-------|---------|
| <b>General Chemistry</b>                        |        |        |       |                     |          |                |               |       |         |
| Alkalinity, Bicarbonate as CaCO <sub>3</sub> *  | 290    | 10.0   | 7.16  | mg/L                | 5        | 10/30/20 14:00 | 2320 B        |       | JDA     |
| Alkalinity, Carbonate as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 5        | 10/30/20 14:00 | 2320 B        |       | JDA     |
| Alkalinity, Hydroxide as CaCO <sub>3</sub> *    | <10.0  | 10.0   |       | mg/L                | 5        | 10/30/20 14:00 | 2320 B        |       | JDA     |
| Alkalinity, Total as CaCO <sub>3</sub> *        | 290    | 10.0   | 7.16  | mg/L                | 5        | 10/30/20 14:00 | 2320 B        |       | JDA     |
| Chloride*                                       | 2350   | 200    | 17.7  | mg/L                | 200      | 11/02/20 12:04 | EPA300.0      |       | JDA     |
| Conductivity*                                   | 19300  | 1.00   |       | umho/cm @<br>25.0°C | 1        | 10/30/20 13:35 | 2510 B        |       | JDA     |
| pH*   | 7.40   |        |       | pH Units            | 1        | 10/30/20 11:15 | EPA150.1      |       | JDA     |
| Resistivity                                     | 51.8   |        |       | ohm/cm              | 1        | 10/30/20 13:35 | 2510 B        |       | JDA     |
| Total Dissolved Solids*                         | 13200  | 20.0   |       | mg/L                | 2        | 10/30/20 14:29 | EPA160.1      |       | JDA     |
| Specific Gravity                                | 1.011  | 0.8000 |       | No Unit             | 1        | 10/30/20 14:00 | ASTM D1429-03 |       | JDA     |
| Sulfate*  | 5300   | 200    | 30.5  | mg/L                | 200      | 11/02/20 12:04 | EPA300.0      |       | JDA     |
| <b>Total Recoverable Metals by ICP (E200.7)</b> |        |        |       |                     |          |                |               |       |         |
| Iron*   | 55.1   | 1.25   | 0.407 | mg/L                | 25       | 11/03/20 11:33 | EPA200.7      |       | AES     |
| <b>Dissolved Metals by ICP</b>                  |        |        |       |                     |          |                |               |       |         |
| Hardness  | 494    | 16.5   | 3.45  | mg/L                | 25       | 11/03/20 14:30 | 2340 B        |       | AES     |
| Barium*   | <0.500 | 0.500  | 0.039 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Calcium*  | 178    | 2.50   | 0.415 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Iron*   | <1.25  | 1.25   | 0.460 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Magnesium*                                      | 12.0   | 2.50   | 0.587 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Manganese*                                      | 0.514  | 0.500  | 0.039 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Potassium*                                      | 1280   | 25.0   | 3.25  | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Sodium*   | 3110   | 25.0   | 2.51  | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Strontium*                                      | 8.44   | 2.50   | 0.104 | mg/L                | 25       | 11/03/20 14:30 | EPA200.7      |       | AES     |
| Cation/Anion Balance                            | -98    |        |       |                     |          |                |               |       |         |

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Debbie Zufelt, Reports Manager

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Page 3 of 8 2010288 GAL FINAL 11 03 20 1547 11/03/20 15:47:46



Multi-Chem Analytical Laboratory  
 1122 S. FM1788  
 Midland, TX 76708



Units of Measurement: Standard

Water Analysis Report

Production Company: TNT Environmental  
 Well Name: SWD ENTRADA  
 Sample Point: SWD  
 Sample Date: 11/20/2014  
 Sample ID: WA-294316

Sales Rep: Greg Ramelho  
 Lab Tech: Andrew Callaghan

Scaling potential predicted using ScaleSoft/Pitzer from  
 Brine Chemistry Consortium (Rice University)

| Sample Specifics           |            | Analytical Properties in Sample Specifics |         |                                |         |
|----------------------------|------------|---|---------|--------------------------------|---------|
| Test Date:                 | 11/25/2014 | Cations                                   |         | Anions                         |         |
|                            |            | mg/L                                      |         | mg/L                           |         |
| System Temperature 1 (°F): | 31         | Sodium (Na):                              | 4455.36 | Chloride (Cl):                 | 6000.00 |
| System Pressure 1 (psig):  | 15         | Potassium (K):                            | 44.79   | Sulfate (SO4):                 | 1094.00 |
| System Temperature 2 (°F): | 300        | Magnesium (Mg):                           | 23.10   | Bicarbonate (HCO3):            | 427.00  |
| System Pressure 2 (psig):  | 300        | Calcium (Ca):                             | 115.57  | Carbonate (CO3):               | 120.00  |
| Calculated Density (g/ml): | 1.0050     | Strontium (Sr):                           | 7.60    | Acetic Acid (CH3COO):          |         |
| pH:                        | 7.60       | Barium (Ba):                              | 9.30    | Propionic Acid (C2H5COO):      |         |
| Calculated TDS (mg/L):     | 12320.63   | Iron (Fe):                                | 1.62    | Butanoic Acid (C3H7COO):       |         |
| CO2 in Gas (%):            |            | Zinc (Zn):                                | 0.10    | Isobutyric Acid ((CH3)2CHCOO): |         |
| Dissolved CO2 (mg/L):      | 80.00      | Lead (Pb):                                | 0.00    | Fluoride (F):                  |         |
| H2S in Gas (%):            |            | Ammonia NH3:                              |         | Bromine (Br):                  |         |
| H2S in Water (mg/L):       | 2.50       | Manganese (Mn):                           | 0.55    | Silica (SiO2):                 | 21.35   |

Notes:

(PTB = Pounds per Thousand Barrels)

| Temp (°F) | PSI    | SI   | PTB   | SI   | PTB  | SI   | PTB  | SI   | PTB  | SI   | PTB  | SI   | PTB  | SI   | PTB  | SI   | PTB  |
|-----------|--------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 300.00    | 300.00 | 1.90 | 85.63 | 1.92 | 5.47 | 2.21 | 0.99 | 1.95 | 1.31 | 0.00 | 0.00 | 0.00 | 1.02 | 0.00 | 0.00 | 6.95 | 0.05 |
| 270.00    | 268.00 | 1.58 | 77.73 | 1.90 | 5.47 | 2.04 | 0.99 | 1.80 | 1.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.04 | 0.05 |
| 240.00    | 236.00 | 1.47 | 68.31 | 1.90 | 5.47 | 1.89 | 0.98 | 1.63 | 1.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.17 | 0.05 |
| 210.00    | 205.00 | 1.26 | 57.99 | 1.92 | 5.47 | 1.76 | 0.97 | 1.45 | 1.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.32 | 0.05 |
| 180.00    | 173.00 | 1.06 | 47.51 | 1.98 | 5.48 | 1.67 | 0.96 | 1.25 | 1.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.53 | 0.05 |
| 150.00    | 141.00 | 0.88 | 37.61 | 2.08 | 5.49 | 1.62 | 0.96 | 1.03 | 1.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.79 | 0.05 |
| 120.00    | 110.00 | 0.71 | 29.02 | 2.23 | 5.51 | 1.64 | 0.96 | 0.81 | 1.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.13 | 0.05 |
| 90.00     | 78.00  | 0.57 | 22.00 | 2.44 | 5.52 | 1.73 | 0.97 | 0.59 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.56 | 0.05 |
| 60.00     | 48.00  | 0.46 | 16.76 | 2.73 | 5.53 | 1.92 | 0.96 | 0.36 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.11 | 0.05 |
| 31.00     | 15.00  | 0.39 | 13.73 | 3.10 | 5.53 | 2.26 | 0.99 | 0.16 | 0.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.83 | 0.05 |

| Temp (°F) | PSI    | SI   | PTB  | SI   | PTB   | SI   | PTB  | SI   | PTB  | SI   | PTB  | SI   | PTB   | SI   | PTB   | SI   | PTB  |
|-----------|--------|------|------|------|-------|------|------|------|------|------|------|------|-------|------|-------|------|------|
| 300.00    | 300.00 | 0.00 | 0.00 | 0.14 | 31.79 | 0.00 | 0.00 | 0.91 | 0.06 | 0.00 | 0.00 | 7.71 | 25.75 | 4.14 | 13.11 | 9.66 | 1.42 |
| 270.00    | 268.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.75 | 0.06 | 0.00 | 0.00 | 6.34 | 25.03 | 3.32 | 12.39 | 8.62 | 1.41 |
| 240.00    | 236.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.54 | 0.05 | 0.00 | 0.00 | 4.87 | 22.02 | 2.45 | 10.55 | 7.49 | 1.41 |
| 210.00    | 205.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.29 | 0.03 | 0.00 | 0.00 | 3.30 | 15.59 | 1.51 | 7.07  | 6.31 | 1.40 |
| 180.00    | 173.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.67 | 7.51  | 0.54 | 2.57  | 5.08 | 1.38 |
| 150.00    | 141.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 3.84 | 1.32 |
| 120.00    | 110.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 2.66 | 1.18 |
| 90.00     | 78.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 1.55 | 0.90 |
| 60.00     | 48.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.61 | 0.45 |
| 31.00     | 15.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.01 | 0.01 |



**CORE LABORATORIES, INC.**  
 Petroleum Reservoir Engineering  
 DALLAS, TEXAS  
**WATER ANALYSIS**

**RECEIVED**  
**MAR 25 1977**

30-045-22291  
 G-20-21n-8w

Minerals Management Inc.

File WA - 5

Company Dome Petroleum Corp. Well Name Santa Fe 20 No. 1 Sample No. SS-2  
 Formation \_\_\_\_\_ Depth \_\_\_\_\_ Sampled From \_\_\_\_\_  
 Location Sec 20 T 21N R 8W Field \_\_\_\_\_ County San Juan State N.M.  
 Date Sampled 3-9-77 Date Analyzed 3-13-77 Engineer RGC

Total Dissolved Solids 11,114.5 mg/L

Sp. Gr. 1.009 @ 70 °F.

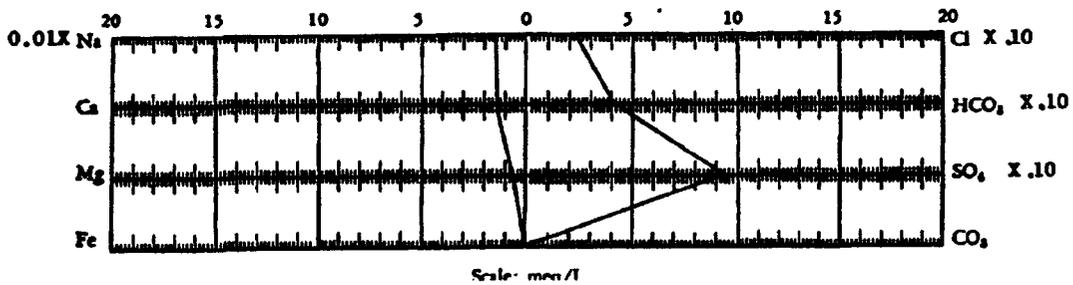
Resistivity 1.0 ohm-meters @ 70 °F.

Hydrogen Sulfide Present

pH 7.73

| Constituents | meq/L         | mg/L          | Constituents | meq/L        | mg/L          |
|--------------|---------------|---------------|--------------|--------------|---------------|
| Sodium       | <u>140.44</u> | <u>3228.7</u> | Chloride     | <u>25.47</u> | <u>903.0</u>  |
| Calcium      | <u>1.35</u>   | <u>27.0</u>   | Bicarbonate  | <u>41.73</u> | <u>2546.0</u> |
| Magnesium    | <u>0.73</u>   | <u>8.9</u>    | Sulfate      | <u>91.61</u> | <u>4400.0</u> |
| Iron         | <u>0.03</u>   | <u>0.9</u>    | Carbonate    | <u>ND</u>    | <u>ND*</u>    |
| Barium       | <u>ND</u>     | <u>ND</u>     | Hydroxide    | <u>ND</u>    | <u>ND</u>     |

\*ND = Less than 0.1 mg/L



# HALLIBURTON

## Water Analysis Report

30-045-33217

F-11-24n-11w

|               |                                    |            |                    |
|---------------|------------------------------------|------------|--------------------|
| To:           | <u>Dugan Production</u>            | Date:      | <u>11/10/2005</u>  |
| Submitted by: | <u>Halliburton Energy Services</u> | Date Rec:  | <u>11/10/2005</u>  |
| Attention:    | <u>Darrin Steed</u>                | Report #:  | <u>FLMMSA44</u>    |
| Well Name:    | <u>Herry Monster #3 SWD</u>        | Formation: | <u>Entrada/SWD</u> |

|                        |       |         |
|------------------------|-------|---------|
| Specific Gravity       | 1.005 |         |
| pH                     | 8.4   |         |
| Resistivity            | 0.89  | @ 70° F |
| Iron (Fe)              | 0     | Mg / L  |
| Potassium (K)          | 200   | Mg / L  |
| Sodium (Na)            | 4165  | Mg / L  |
| Calcium (Ca)           | 176   | Mg / L  |
| Magnesium (Mg)         | 15    | Mg / L  |
| Chlorides (Cl)         | 2200  | Mg / L  |
| Sulfates (SO4)         | 2000  | Mg / L  |
| Carbonates (CO3)       | 40    | Mg / L  |
| Bicarbonates (HCO3)    | 5612  | Mg / L  |
| Total Dissolved Solids | 14408 | Mg / L  |

Respectfully: Bill Longbridge  
 Title: Senior Scientist  
 Location: Farmington, NM

**Application for Authorization to Inject**

**DJR Operating, LLC**

**North Alamito WDW #1**

**Part VIII. Geologic Data**

The proposed injection interval is the Entrada Sandstone from approximately 6875' to 7070' below the surface.

The proposed injection interval for the North Alamito water disposal well is the Entrada Sandstone from approximately 6875 ft to 7070 ft.

Point of diversion data (POD) obtained from the New Mexico Office of the State Engineer (NMOSE) on July 17, 2019 and field verification performed by DJR indicates that there are no water wells located within 1 mile of the proposed North Alamito water disposal well.

The NMOSE POD dataset also indicates that the closest surface water diversion to the North Alamito water disposal well is SD 05187, which is located 20.7 miles to the north west of the North Alamito water disposal well.

The National Hydrography Dataset indicates that the closest surface water feature to the North Alamito water disposal well is an unnamed arroyo, which is located 1,300 ft to the north west.

There are no known drinking water sources below the Mesaverde interval. The formation tops in the wells are as follows:

|                    |             |
|--------------------|-------------|
| Ojo Alamo          | 725         |
| Kirtland           | 765         |
| Fruitland          | 1025        |
| Pictured Cliffs    | 1280        |
| Lewis              | 1460        |
| Chacra             | 2035        |
| Cliff House        | 2730        |
| Menefee            | 2765        |
| Point Lookout      | 3675        |
| Mancos             | 3845        |
| Gallup             | 4515        |
| Greenhorn          | 5625        |
| Dakota             | 5775        |
| Todilto            | 6815        |
| <b>Entrada</b>     | <b>6875</b> |
| <b>Total Depth</b> | <b>7070</b> |

**Part IX. Stimulation Program**

Following injection rate tests, it may be necessary to stimulate the Entrada Sandstone by acidizing or fracturing.

**Part X. Logging and Test Data**

All logs and test data for the injection well will be submitted to the New Mexico Oil & Gas Conservation Division in Aztec, NM.

**Part XI. Fresh Water Samples**

Point of diversion data (POD) obtained from the New Mexico Office of the State Engineer (NMOSE) on July 17, 2019 and field verification performed by DJR indicates that there are no water wells located within 1 mile of the proposed North Alamito water disposal well.

**NORTH ALAMITO UNIT SWD #001**  
NOTICE OF APPLICATION  
FORM C-108 FOR AUTHORIZATION TO INJECT  
AFFIDAVIT OF MAILING

**SURFACE OWNER UNDER SWD LOCATION**

BUREAU OF LAND MANAGEMENT  
301 DINOSAUR TRAIL  
SANTA FE, NM 87508

BUREAU OF LAND MANAGEMENT  
6251 COLLEGE BLVD., STE. A  
FARMINGTON, NM 87402  
ATTN: JOE KILLINS

NEW MEXICO STATE LAND OFFICE  
310 OLD SANTA FE TRAIL  
SANTA FE, NM 87501

**LEASEHOLD OWNERS WITHIN ONE-HALF MILE RADIUS OF SWD LOCATION**

DUGAN PRODUCTION CORP.  
P.O. BOX 420  
FARMINGTON, NM 87499  
ATTN: RAMON HANCOCK

ENDURING RESOURCES, LLC.  
511 16<sup>TH</sup> STREET, STE. 700  
DENVER, CO 80202  
ATTN: PAUL BROOKE

DJR ENERGY  
1600 BROADWAY STE 1960  
DENVER CO 80202-4955

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FIRST-CLASS  
AUG 19 2019  
Mailed from ZIP 80202  
7 or First-Class Mail Plus Rate



071S0077793

**USPS CERTIFIED MAIL**



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USA  
BUREAU OF LAND MANAGEMENT  
301 DINOSAUR TRL  
SANTA FE NM 87508-1560



DJR ENERGY  
1600 BROADWAY STE. 1960  
DENVER CO 80202-4955

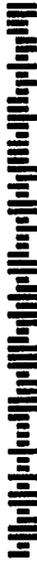
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Aug 19 2019  
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**USPS CERTIFIED MAIL**



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ENDURING RESOURCES  
PAUL BROOKE  
511 16TH ST STE 700  
DENVER CO 80202-4248



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DJR ENERGY  
1600 BROADWAY STE 1960  
DENVER CO 80202-4955

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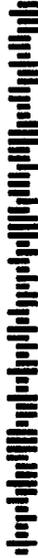


**9407 1108 9876 5041 7499 30**

DUGAN PRODUCTION CORP.  
RAMON HANCOCK  
PO BOX 420  
FARMINGTON NM 87499-0420



071S00777793



DJR ENERGY  
1600 BROADWAY STE 1960  
DENVER CO 80202-4955

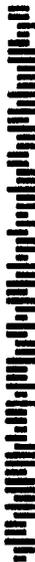
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Mailed from ZIP 80202  
7 oz First-Class Mini Flat Rate

**USPS CERTIFIED MAIL**



**9407 1108 9876 5041 7497 87**

BUREAU OF LAND MANAGEMENT  
JOE KILINS  
6251 COLLEGE BLVD STE A  
FARMINGTON NM 87402-1738



071S00777793

# THE DAILY TIMES

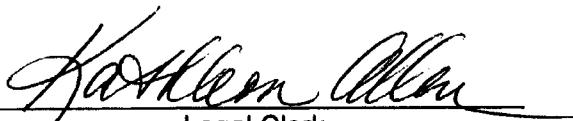
## AFFIDAVIT OF PUBLICATION

**Ad No.**  
**0001293746**

ANIMAS PROPERTY LAW P.C.  
858 MAIN, SUITE 204  
DURANGO CO 81301

I, being duly sworn say: THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the internet at The Daily Times web site on the following days(s):

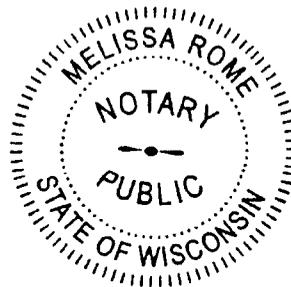
08/13/19

  
\_\_\_\_\_  
Legal Clerk

Subscribed and sworn before me this  
13th of August 2019.

  
\_\_\_\_\_  
State of WI, County of Brown  
NOTARY PUBLIC

1-12-2021  
\_\_\_\_\_  
My Commission Expires



DJR Operating, LLC, 1600 Broadway, Suite 1960, Denver, CO 80202 is making application for administrative approval to dispose of produced and flow-back water by underground injection. Contact person is Ningning Li, Phone 303-407-7390. The proposed disposal site is North Alamito WDW #1, located 908' FNL & 1176' FEL, Sec 1 T22N R8W, San Juan Co NM. Water will be injected into the Entrada Sandstone between the depths of approximately 6875' to 7070' below the surface. Maximum anticipated injection pressure is 1300 psi. Maximum injection rate will be 6000 barrels of water per day. Any interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, NM 87505 within 15 days of the date of this publication.

Legal No. 1293746 published in The Daily Times on August 13, 2019.