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**STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
OIL CONSERVATION DIVISION**

**APPLICATION OF MANZANO LLC  
FOR APPROVAL OF A PRESSURE  
MAINTENANCE PROJECT AND  
AUTHORIZATION TO INJECT,  
LEA COUNTY, NEW MEXICO.**

**CASE NO. 22458**

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A-2	Plat of Project Area
A-3	C-108
A-4	Notice of Hearing Letter and Associated Green Cards
A-5	Affidavit of Publication
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STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
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APPLICATION OF MANZANO LLC  
FOR APPROVAL OF A PRESSURE  
MAINTENANCE PROJECT AND  
AUTHORIZATION TO INJECT,  
LEA COUNTY, NEW MEXICO.

CASE NO. 22458

SELF-AFFIRMED STATEMENT  
OF NICK C. MCCLELLAND

1. I am the Land Manager at Manzano LLC ("Manzano"). I am over 18 years of age, have personal knowledge of the matters addressed herein, and am competent to provide this Self-Affirmed Statement. I have previously testified before the New Mexico Oil Conservation Division ("Division"), and my qualifications as an expert in petroleum land matters were accepted and made a matter of record.

2. I am familiar with the Application in this case and with the land matters pertaining to this Application. Copies of the application and proposed notice are attached as **Exhibit A-1**.

3. Manzano's Application seeks an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the Jenkins San Andres pool (Pool Code 33950) within the San Andres formation in a project area ("Project Area") comprised of the SE/4 and E/2NE/4 of Section 30, and the E/2SE/4 of Section 19, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producing well to an injector.

4. Manzano operates the following described wells within or near the Project Area currently producing from the Jenkins San Andres Pool:

- a. **Sodbuster 21 Fee #4H** (API 30-025-43704) horizontally drilled from a surface hole location at 200 FSL, 1650 FWL in Section 21 to a bottom hole location at 330 FNL, 1650 FWL in Section 21;
  - b. **Rag Mama 30-19 Fee #1** (API 30-025-44067) horizontally drilled from a surface hole location at 25 FSL, 528 FEL in Section 30 to a bottom hole location at 2303 FSL, 394 FEL in Section 19; and
  - c. **Vince BGH No. 1H** (API No. 30-025-37104) ("Vince") vertically drilled at 1980 FSL, 1750 FEL (Unit J) of Section 30.
5. The wells were initially drilled as producers within the San Andres formation.
  6. The perforated interval of the Rag Mama 30-19 Fee #1 is 5,250' to 12,123'; the perforated interval of the Sodbuster 21 Fee #4H is 5,150' to 9,330'; and the perforated interval of the Vince BGH No. 1H is 4840' to 4850'.
  7. The Vince well currently produces 2 BOPD and 31 BWPD and is deemed uneconomic. Therefore, Manzano proposes to convert the well from a producer into an injection well to provide pressure maintenance support for the Rag Mama 30 19 Fee #1 well. Converting the well from a producer to an injector will also reduce flaring.
  8. Manzano plans to inject produced gas from the Sodbuster 21 Fee #4 and Rag Mama 30-19 Fee #1 into the San Andres formation through a closed system using the Vince BGH No. 1H at depths of 4840' to 4850' within the San Andres formation.
  9. Accordingly, Manzano proposes the unitized interval be defined as the Jenkins San Andres pool (Pool Code 33950) within the San Andres formation at depths of 4840' to 4850' as defined on the Manzano Vince BGH #1 well log provided on page 24 of Form C-108.

10. **Exhibit A-2** is a plat of the Project Area which includes a ½ mile area of review. The exhibit depicts the Project area in red and identifies the status of the lands surrounding the Project Area. The exhibit also identifies the Sodbuster 21 Fee #4H and Rag Mama 30-19 Fee #1 well as black lines and the Vince well as a green circle within the Project Area. The exhibit also identifies the area of injection for the Vince well is approximately 48.4 acres.

11. **Exhibit A-3** includes a copy of Manzano's Application for Authorization to Inject ("Form C-108"). I am generally familiar with the land matters addressed in the Form C-108.

12. Page 32 of Form C-108 contains a land map of the Project Area that identifies surface and mineral ownership interests entitled to notice within the area of review and includes applicable lease numbers. There are no other operators within a ½ mile area of review radius.

13. Page 12 of Form C-108 is an area of review map of the Project Area that depicts the producing wells and other wells within the ½ mile radius areas of review that penetrate the proposed injection zone. Pages 13-18 of Form C-108 provide detailed well information for the wells within the areas of review.

14. Manzano conducted a diligent, good-faith effort to identify the correct addresses of persons entitled to notice and has complied with the Division's notice requirements.

15. Notice of the Division's hearing was provided to all affected parties at least 20 days prior to the hearing date. A sample of the hearing notice letter and the associated return receipts are attached as **Exhibit A-4**.

16. Notice of the hearing was also published more than ten business days prior to the hearing date. The affidavit of publication is attached as **Exhibit A-5**.

17. The exhibits referenced above were either prepared by me or under my supervision or were compiled from company business records.



18. In my opinion, the granting of Manzano's application would serve the interests of conservation, the prevention of waste, and the protection of correlative rights.

19. I understand this Self-Affirmed Statement will be used as written testimony in this case. I affirm that my testimony in paragraphs 1 through 18 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.



Nick C. McClelland

1/3/22  
Date

**STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
OIL CONSERVATION DIVISION**

**APPLICATION OF MANZANO LLC  
FOR APPROVAL OF A PRESSURE  
MAINTENANCE PROJECT AND  
AUTHORIZATION TO INJECT,  
LEA COUNTY, NEW MEXICO.**

Case No. 22458

**APPLICATION**

In accordance with NMAC 19.15.27.8, Manzano LLC ("Applicant") (OGRID No. 231429) files this application with the Oil Conservation Division for an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the San Andres formation in a project area ("Project Area") comprised of the SE/4 and E/2NE/4 of Section 30, and the E/2SE/4 of Section 19, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producing well to an injector. In support of its application, Applicant states:

1. Applicant operates the following described wells within or near the Project Area:
  - the **Sodbuster 21 Fee #4H** (API 30-025-43704) with a surface hole location at 200 FSL, 1650 FWL of Section 21 and a bottom hole location at 330 FNL, 1650 FWL of Section 21;
  - the **Rag Mama 30-19 Fee #1** (API 30-025-44067) with a surface hole location at 25 FSL, 528 FEL of Section 30 and a bottom hole location at 2303 FSL, 394 FEL of Section 19; and
  - The **Vince BGH No. 1H** (API No. 30-025-37104) located at 1980 FSL, 1750 FEL (Unit J) of Section 30.
2. The wells are currently producing from the Jenkins San Andres Pool (Pool No. 33950).

MANZANO LLC

Case No. 22458

Exhibit A-1

3. Applicant proposes to convert its Vince BGH No. 1H well from a producer into an injection well for pressure maintenance operations. Applicant plans to inject produced gas from the Sodbuster 21 Fee #4 and Rag Mama 30-19 Fee #1 into the San Andres formation through a closed system using the Vince BGH No. 1H. Applicant does not anticipate compatibility issues.

4. The injection interval of the Vince BGH No. 1H is 4840 feet to 4850 feet.

5. Injection will provide pressure maintenance support for the Rag Mama 30 19 Fee #1 well and will also reduce flaring.

6. The expected average injection rate of produced gas into the Vince BGH No. 1H is 150 MCFGPD. The expected maximum injection rate is 1,000 MCFGPD to provide Manzano the option to inject more gas as the GOR increases or if Manzano drills additional wells in the Jenkins San Andres Pool.

7. The expected average injection pressure of produced gas into the Vince BGH No. 1H is 500 psi and the proposed maximum injection pressure is 950 psi.

8. Applicant's proposed pressure maintenance project can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.

9. Approval of this application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

10. A copy of the applicable C-108 is attached as Exhibit A.

WHEREFORE, Applicant requests this application be set for hearing on January 6, 2022, and after notice and hearing, the Division enter an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the San Andres formation in the Project Area; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producer to an injector.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy

Michael Rodriguez

P.O. Box 2068

Santa Fe, NM 87504-2068

Phone: (505) 982-4554

Facsimile: (505) 982-8623

dhardy@hinklelawfirm.com

mrodriguez@hinklelawfirm.com

Counsel for Manzano LLC



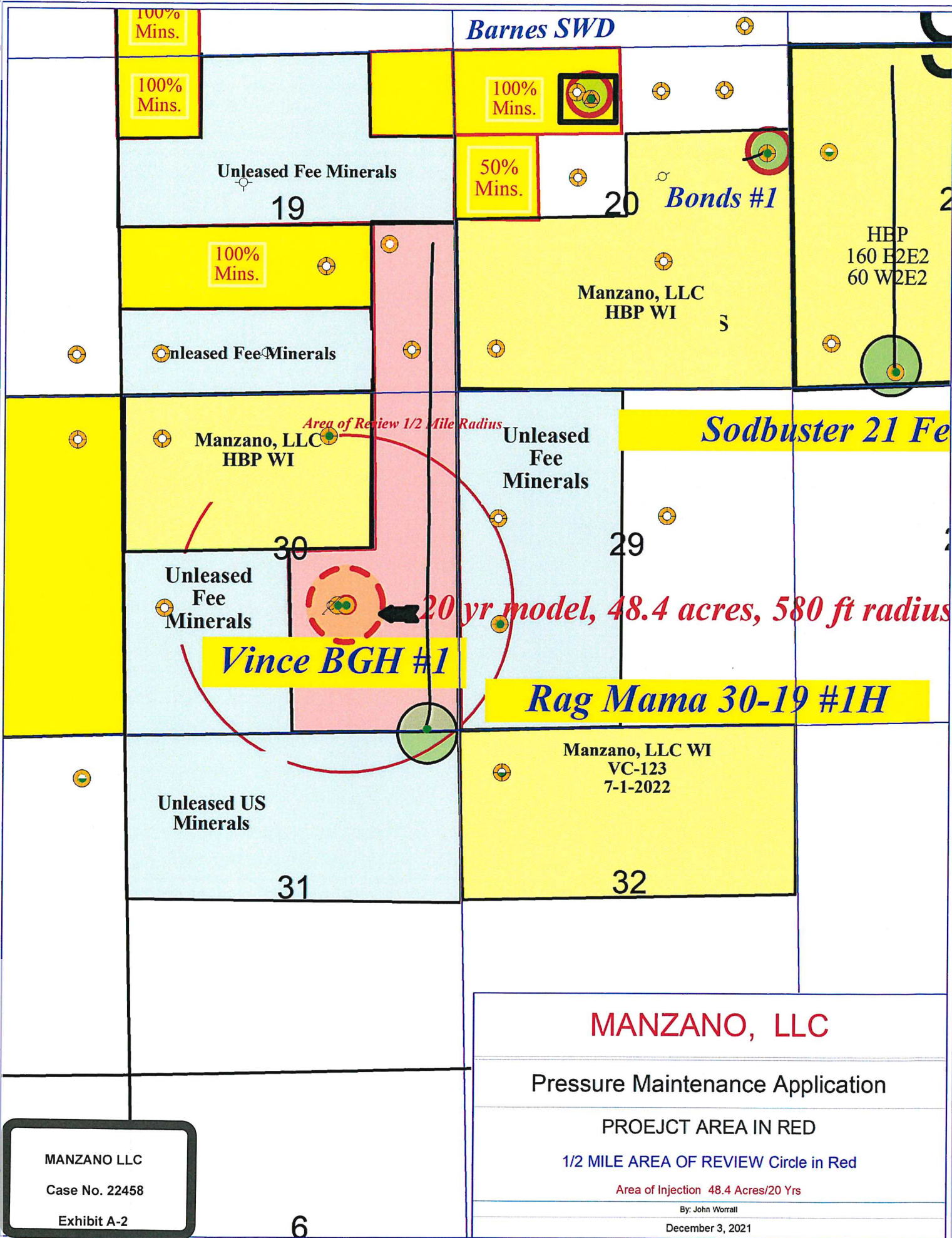
This is to notify all interested parties, including Donivan D. Crockett; Hayden G. Crockett; William Harrel Delafield, Jr.; Mary Ann Delafield Frazier; Gleason Wildcats, LLC; Donald Joseph Marczeski; Dorothy Ann Middaugh; Margaret Ann Morgan Lilly, Edward R. Lilly; Patricia Ann Morgan McNally; Leo Patrick Morgan, Jr.; Mary Carol Morgan; Sharon Y. Weisler; Crayton Weisler; William Marvin Zahn, Jr.; Stephanie Zahn; Darwin D. Crockett; Dorothy Fitzgerald; Walta Neuner Ocker; Keith Z. Neuner; Robert Franklin White, Sr., Rebecca Ann Gallun, Trustee of the Rebecca Ann Gallun Exempt Trust; Everett Bruce Lomax, Trustee of the Everett Bruce Lomax Exempt Trust; Kay Lomax Jerin, Trustee of the Kay Lomax Jerin Exempt Trust; Kathryn Ann Barwick Fox; Maxine E. Barber; Tom Barber; Rozella M. Jones; Arville O. Glenn, Jr.; Arlis E. Schleiger; Worth Fullingim; Rena F. Kerr; Rodean Gleason; Beal Gleason; Cleo Dickinson; James Don Dickinson; Barbara S. Dickinson; Grace G. Glenn; Prosperity State Bank, Successor to American State Bank, Trustee of the Willa Ruth Simmons Trust; Kenneth Edward Bennett and Frieda Johanna Bennett, Successors Trustees of the Bennett Family Living Trust; Lawrence A. Wangler, Trustee of the Wangler Trust; Sherry McCray, Trustee, McCray Family Trust; Oliver Falls; Melissa Glenn; Gerald Glenn; Bonnie Downing; Michael Goolsby; Cindy Corkins; Phillip Corkins; Melanie Caywood; Patsy Jean Howard Guinn; Doug Guinn; Dolores Davis; Don Glenn; Clark A. Glenn; Carolyn Taylor; Rex Glenn; Brenda Sue Ehlert Hayden; Marilyn K. Glenn; Toni Martin; Laura Oglesby; Claudia Moyers; Jennifer Glenn; Cliff Glenn; Scott Alan Frost; Glenda King; Laura Hand; Alice Reed; Gary McCray; Janelle McCray; William E. Glenn, Jr.; Patricia Horton; Lance Jackson; Tiffany Latner; Amanda McCasland; Amelia Jackson; Kathryn Ann Barwick Fox; Alvin Simpson; Christine Simpson; Worth Fullingim; Lawrence A. Wangler, Trustee of the Wangler Trust; Cindy Corkins; Phillip Corkins; Melanie Caywood, the Bureau of Land Management; the New Mexico State Land Office; and their successors and assigns, that the New Mexico Oil Conservation Division will conduct a hearing on an application submitted by Manzano LLC (Case No. 22458). During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. The hearing will be conducted on January 6, 2022, beginning at 8:15 a.m. To participate in the electronic hearing, see the instructions posted on the docket for that date: <https://www.emnrd.nm.gov/oed/hearing-info/>. Applicant seeks an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the San Andres formation in a project area ("Project Area") comprised of the SE/4 and E/2NE/4 of Section 30, and the E/2SE/4 of Section 19, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producing well to an injector. Applicant operates the following described wells within or near the Project Area:

- the Sodbuster 21 Fee #4H (API 30-025-43704) with a surface hole location at 200 FSL, 1650 FWL of Section 21 and a bottom hole location at 330 FNL, 1650 FWL of Section 21;
- the Rag Mama 30-19 Fee #1 (API 30-025-44067) with a surface hole location at 25 FSL, 528 FEL of Section 30 and a bottom hole location at 2303 FSL, 394 FEL of Section 19; and
- The Vince BGH No. 1H (API No. 30-025-37104) located at 1980 FSL, 1750 FEL (Unit J) of Section 30.

The wells are currently producing from the Jenkins San Andres Pool (Pool No. 33950). Applicant proposes to convert its Vince BGH No. 1H well from a producer into an injection well for pressure maintenance operations. Applicant plans to inject produced gas from the Sodbuster 21 Fee #4 and Rag Mama 30-19 Fee #1 into the San Andres formation through a closed system using the Vince BGH No. 1H. Applicant does not anticipate compatibility issues. The injection interval of the

Vince BGH No. 1H is 4840 feet to 4850 feet. Injection will provide pressure maintenance support for the Rag Mama 30 19 Fee #1 well and will also reduce flaring. The expected average injection rate of produced gas into the Vince BGH No. 1H is 150 MCFGPD. The expected maximum injection rate is 1,000 MCFGPD to provide Manzano the option to inject more gas as the GOR increases or if Manzano drills additional wells in the Jenkins San Andres Pool. The expected average injection pressure of produced gas into the Vince BGH No. 1H is 500 psi and the proposed maximum injection pressure is 950 psi. Applicant's proposed pressure maintenance project can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment. The wells are located approximately 18.1 miles north of Tatum, New Mexico.





Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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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: <u>Manzano, LLC</u>	OGRID Number: <u>231429</u>
Well Name: <u>VINCE BGH #1</u>	API: <u>30-025-37104</u>
Pool: <u>JENKINS SAN ANDRES</u>	Pool Code: <u>319660</u>

**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  
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.

JOHN WORRALL  
Print or Type Name  
  
  
Signature

9/28/2021  
Date  
  
575-623-1996 EXT. 302  
Phone Number  
  
JWORRALL@MANZANOENERGY.C  
e-mail Address

MANZANO LLC  
Case No. 22458





September 28, 2021

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

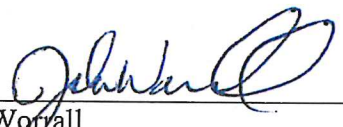
New Mexico Oil Conservation Division  
1625 N. French Drive  
Hobbs, NM 88240

RE: Gas Injection Application  
Manzano, LLC Vince BGH #1

Manzano, LLC hereby submits an application to convert the Vince BGH #1 to a gas injection well. Accordingly, please find enclosed an original and one copy of our application Form C-108 with attachments. A third copy has been sent to the Division Office in Hobbs. A Legal Notice of our application has been filed with the Hobbs Sun newspaper.

Should you have any questions regarding our application, I can be reached at 575-623-1996 ext. 302 or 575-420-5853 cell. Thank you for your assistance in handling our application.

Sincerely,

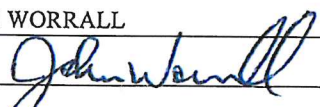
  
\_\_\_\_\_  
John Worrell  
On behalf of Manzano, LLC

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: MANZANO, LLC  
ADDRESS: P.O. BOX 1737, ROSWELL, NM 88202-1737  
CONTACT PARTY: JOHN WORRALL PHONE: 575-623-1996
- 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: \_\_\_\_\_
- 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: JOHN WORRALL TITLE: MANAGER  
SIGNATURE:  DATE: 9/27/21  
E-MAIL ADDRESS: JWORRALL@MANZANOENERGY.COM
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

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

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.

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.



**Answers to FORM C-108. Application of Manzano, LLC to inject gas into the VINCE BGH #1.**

III. The well data for the proposed injection well is attached along with the current and proposed wellbore diagram.

V. Attached is the Area of Review map identifying six total wells within the ½ mile radius of the Injection well including the injection well, one producing oil well, and four plugged and abandoned wells.

VI. The table of well data shows casing and cement information, the perforated intervals, and the plugging and abandonment information. Wellbore diagrams are attached for the five wells within the Area of Review.

VIII. 1. Manzano, LLC proposes to inject an average of 150 MCFGPD into the well. The maximum daily rate requested is 1000 MCFGPD to give Manzano the option to inject more gas as the GOR increases or if Manzano drills additional wells in the Jenkins San Andres pool.

2. The system is closed. There are two source wells and one injection well, all in the same reservoir, the San Andres P-1 dolomite.

3. The proposed average injection pressure is 500 psi, the proposed maximum injection pressure is 950 psi.

4. Source Wells: The gas to be injected is produced in the only two active wells in the Jenkins San Andres pool. It will be injected into the same zone in the injection well. There should no compatibility issues. These two source wells currently produce 59 BOPD, 129 MCFGPD, and 1068 BWPD.

a. Manzano, LLC Rag Mama 30 19 Fee #1 (API 30-025-37104) located at 25 FSL, 528 FEL Sec. 30-T9S-R35E.

b. Manzano, LLC Sodbuster 21 Fee #4H (API 30-025-43704) located at 200 FSL, 1650 FWL Sec. 21-T9S-R35E.

5. Gas analyses from the two source wells are attached.

VIII. Geologic Information of the Injection zone: See the attached log section cross section. The gas will be injected into the San Andres P-1 dolomite in existing perforations at 4840 to 4850 feet in the Vince BGH #1. This well will be converted from an existing oil producer to a gas injector for the purpose of maintaining reservoir pressure, to allow for more oil to be produced from the reservoir. The well currently produces 2 BOPD and 31 BWPD and is uneconomic. Reservoir: The San Andres formation is present from 4000 to 5460 feet in this well. The interval from 4810 to 4900 is known as the P-1 dolomite, which is a fine crystalline dolomite with 4% to 12% porosity, and 20 to 100 ohm-m of resistivity. The interval has up to 100 feet of porosity greater than 6% (See attached isopach map). Oil and gas is stratigraphically trapped where this



reservoir pinches out northward into anhydrite. The zone is also overlain by anhydrite, and underlain by a tight limestone.

Water Aquifer: The water aquifer in the area are the Ogallala red beds. Attached is a map ("Figure 4") from Atkins Engineering of Roswell showing the top of the aquifer is present at 4025 feet above sea level. The Vince BGH #1 well has a drill floor elevation of 4183 feet, which means water is found in the red beds at 158 feet. Atkins Engineering indicates there is approximately 25 feet of water in this area

IX. No additional stimulation is planned. The zone has already been acidized with 41,000 gallons of 15% NEFE acid.

X. Logs of this well are attached.

XI. There are no water wells within one mile of the proposed injection well. Attached is a map from Atkins Engineering ("Figure 3") which identifies the nearest water wells, all of which are located 2.5 to 3 miles from the injection well.

XIII. An Affidavit is attached.

XIV. Attached is a Land Map showing that there are no other operators within the ½ mile Area of Review radius. A copy of the application has been sent by certified mail to the surface owner, C J. Kinsolving. A receipt is attached.

Attached is the Legal Notice filed with the Hobbs News Sun.

Other Attachments to this application:

Injection Well Data Sheet

Injection Well Current Wellbore Diagram

Injection Well Proposed Wellbore Diagram

Area of Review Map

Table of Well Data

Wellbore Diagrams of other five wells within the Area of review

Gas Analysis – Manzano, LLC Rag Mama 30 19 Fee #1H

Gas Analysis – Manzano, LLC Sodbuster 21 Fee #4H

Log Cross Section of the P-1 Dolomite

Net Porosity Isopach Map of the P-1 Dolomite

Map of Top of Water in the Ogallala Red Beds from Atkins Engineering

Location Map of Fresh Water Wells from Atkins Engineering

Land Map

Affidavit

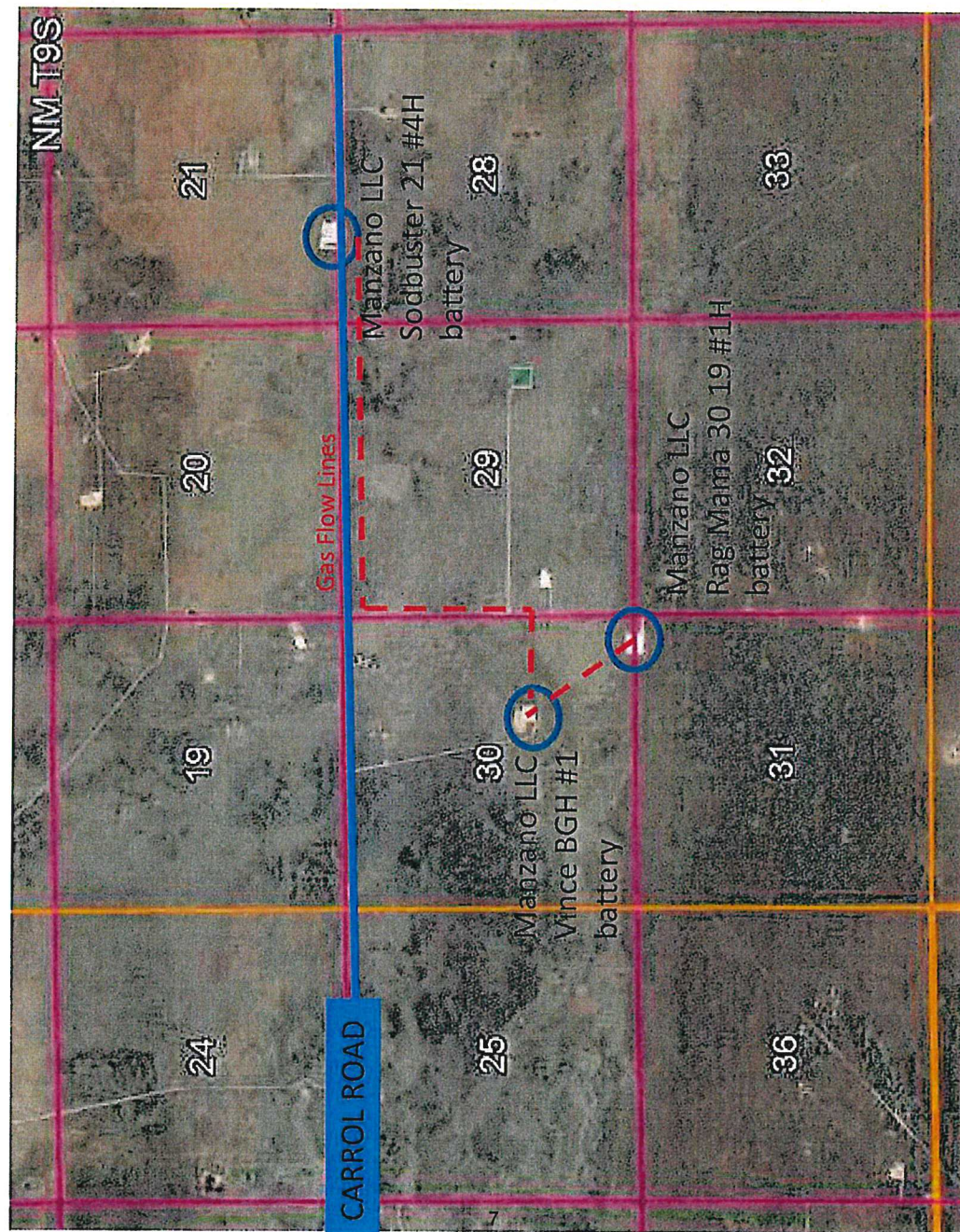
Legal Notice in the Hobbs News Sun

Proof of Notice to the Surface Owner Charles Kinsolving

Proof of Notice to the Bureau of Land Management Carlsbad Office

Statement on Seismicity Analysis





- VIII. 1. Manzano proposes to inject an average of 150 Mcfgpd into the Vince BGH #1. The maximum proposed rate is 1000 MCFGPD.
2. The system is closed.
3. The average proposed injection pressure is 500 psi. The maximum proposed pressure is 950 psi. A 10 day shut in test on the Vince, revealed the current bottomhole pressure is 378 psi. The original bottomhole pressure is calculated as 1697 psi.
4. Gas will be sourced by the Sodbuster 21 #4H and the Rag Mama 30 19 Fee #1H wells. These wells currently produce 59 BOPD, 129 MCFGPD and 1068 BWPD.



Side 1

INJECTION WELL DATA SHEET

OPERATOR: MANZANO, LLC

WELL NAME & NUMBER: VINCE BGH #1

WELL LOCATION: 1980 FSL, 1750 FEL

FOOTAGE LOCATION

J

UNIT LETTER

30

SECTION

T9S

TOWNSHIP

R35E

RANGE

WELLBORE SCHEMATIC

(SEE ATTACHED)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"  
Cemented with: 426 sx. or 975 ft<sup>3</sup>  
Top of Cement: SURFACE Method Determined: CIRC.

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"  
Cemented with: 1103 sx. or 2500 ft<sup>3</sup>  
Top of Cement: SURFACE Method Determined: CIRC.

Production Casing

Hole Size: 8 3/4" Casing Size: 5 1/2"  
Cemented with: 1420 sx. or 3200 ft<sup>3</sup>  
Top of Cement: 3645 Method Determined: CALC.  
Total Depth: 12650

Injection Interval

4840 feet to 4850 (PERFS)

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: \_\_\_\_\_  
Type of Packer: ARROWSET 1-X  
Packer Setting Depth: 4750  
Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection? \_\_\_\_\_ Yes ☒ No ☐  
If no, for what purpose was the well originally drilled? \_\_\_\_\_

DEVONIAN OIL WELL

2. Name of the Injection Formation: SAN ANDRES  
3. Name of Field or Pool (if applicable): JENKINS SAN ANDRES

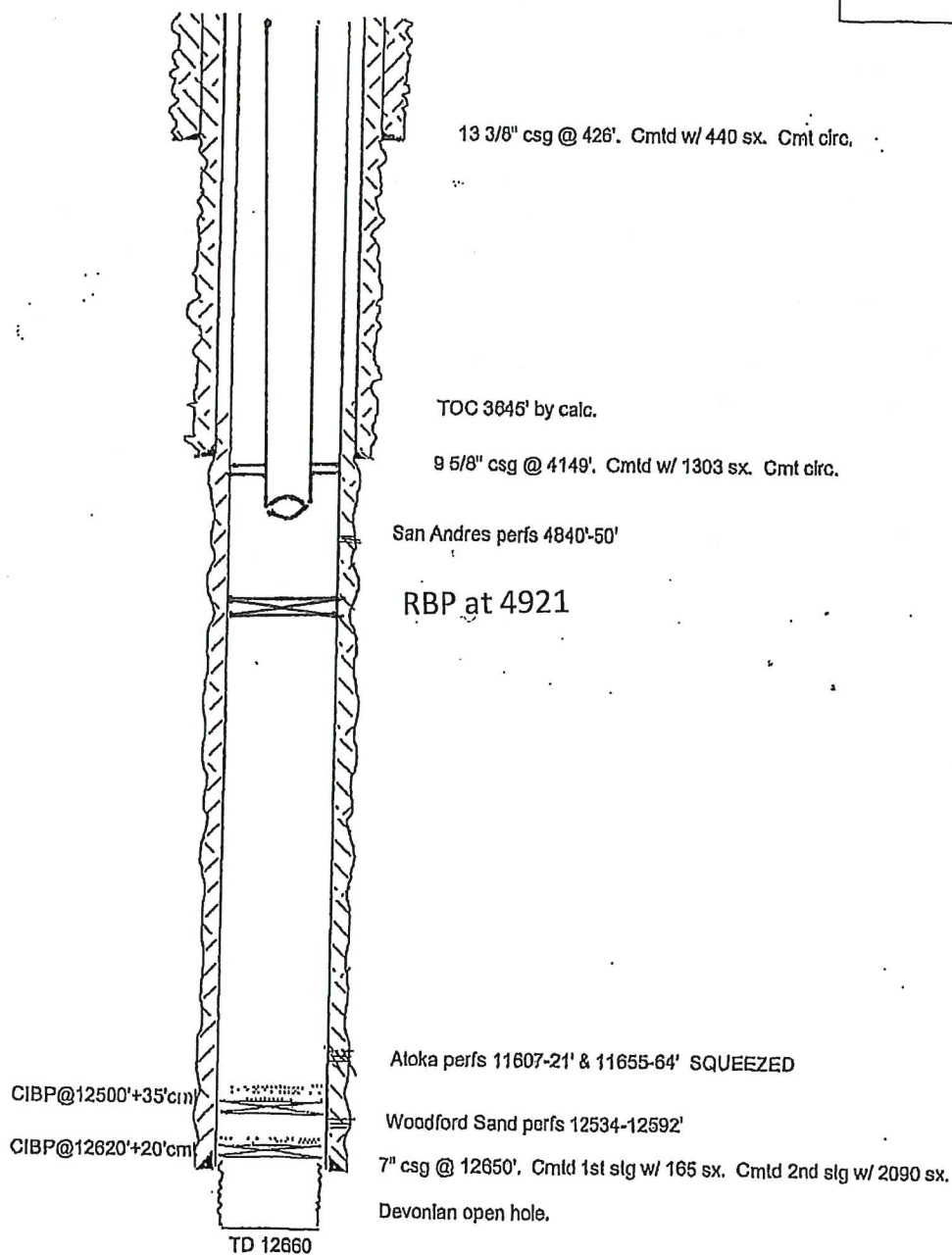
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 1. DEVONIAN UPHOLE SET CIBP AT 12620. 20 CMT ON TOP 2. WOODFORD 12534-12592 SET CIBP AT 12500 30' CMT. 3. ATOKA PERFS 11607-11621, 11655-11664. SQUEEZED. 4. SAN ANDRES 4840-50.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: SAN ANDRES IS PRODUCTIVE. TOP IS 4000. BOUGH C FORMERLY PRODUCED, NOW INACTIVE IN AREA, TOP IS 9738, DEVONIAN(TOP OF 12650) PRODUCES IN SECTION 20.



Well Name: Vince BGH No. 1 Field: Wildcat  
Location: 1980' ESL & 1750' FEL Sec. 30-9S-35E Lea Co, NM  
GL: 4165' Zero:            AGL:            KB: 4183'  
Spud Date: 4/25/05 Completion Date:             
Comments:           

Casing Program	
Size/Wt/Grade/Conn	Depth Se
13 3/8" 48# H40	426'
9 5/8" 36& 40 # J55	4149'
7" 26# J55, L80, HCP110	12650'

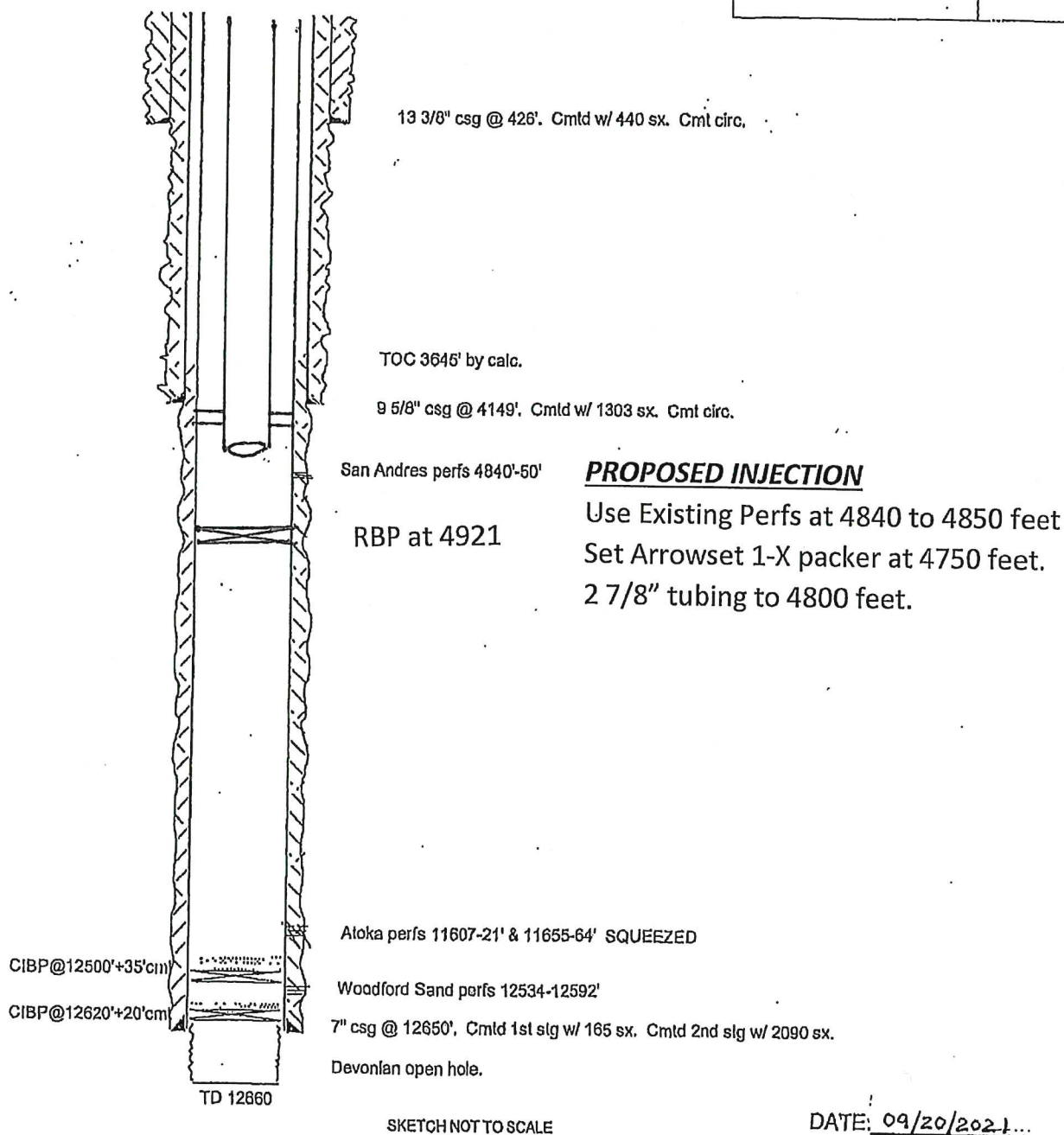


SKETCH NOT TO SCALE

DATE: 09/20/2021...

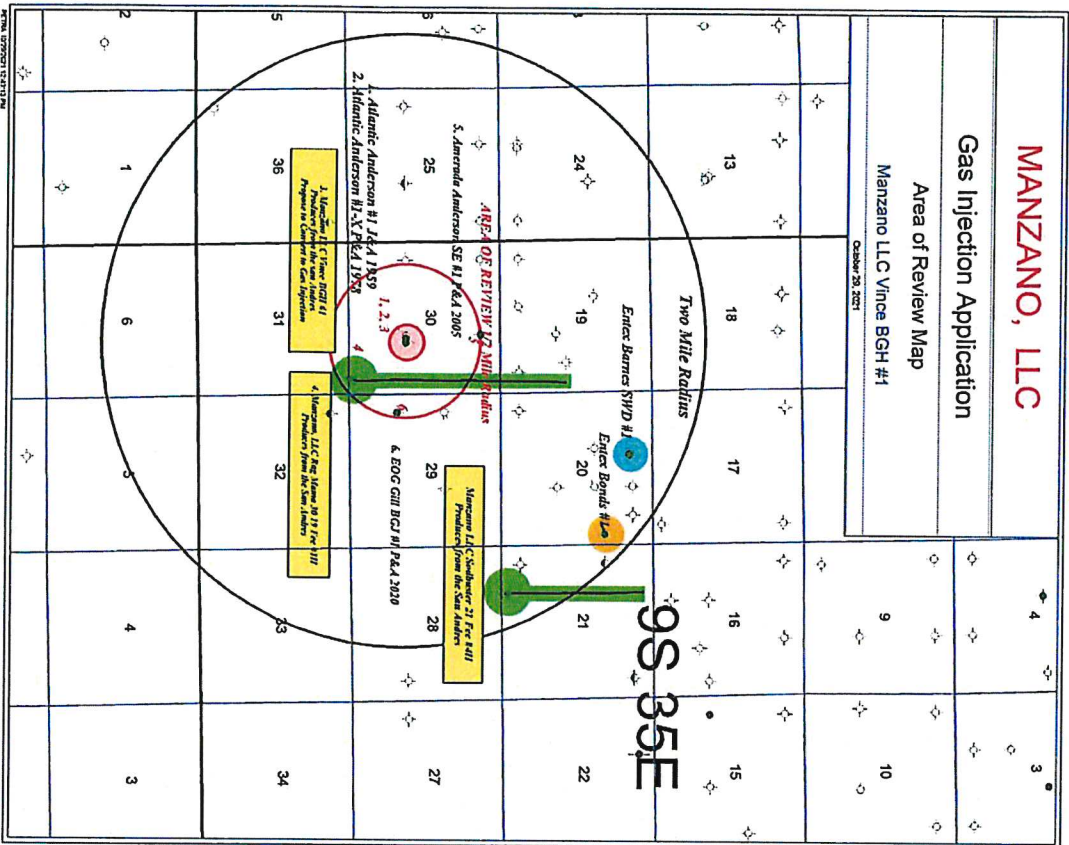
Well Name: Vince BGH No. 1 Field: Wildcat  
Location: 1980' FSL & 1750' FEL Sec. 30-9S-35E Lea Co, NM  
GL: 4185' Zero:            AGL:            KB: 4183'  
Spud Date: 4/25/05 Completion Date:             
Comments:           

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" 48# H40	426'
9 5/8" 36& 40 # J55	4149'
7" 26# J55, L80, HCP110	12650'



SKETCH NOT TO SCALE

DATE: 09/20/2021...



Manzano is applying to inject gas produced from the Manzano Sodbuster 21 Fee #4H and Manzano Rag Mama 30 19 Fee #1H wells into the Vince BGH #1 well. All three wells are currently perforated in the same P-1 dolomite reservoir. The two source wells currently produce a total of 59 BOPD, 129 MCFGPD and 1068 BWPD. Produced water is disposed in the Entex Barnes SWD #1 well. Gas is currently flared due to a lack of a pipeline. The proposed injection well, currently produces 2 BOPD and 31 BWPD and is deemed uneconomic. The purpose of this application is to comply with the new flare rule, while preventing waste, and recovering more oil from the reservoir by increasing the reservoir pressure.



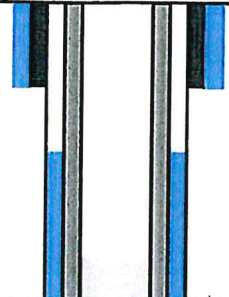

## TABLE OF WELL DATA

WELL ID#	1	2	3	4	5	6
API NUMBER	30-025-02666	30-025-02667	30-025-37104	30-025-44067	30-025-20488	30-025-37103
OPERATOR	ATLANTIC REFINING CO	ATLANTIC REFINING CO	MANZANO, LLC	MANZANO, LLC	AMERADA PETROLEUM	EOG RESOURCES
LEASE NAME	ANDERSON	ANDERSON	VINCE BGH	RAG MAMA 30-19 FEE	ANDERSON SE	GILL BG1
WELL#	1	1-X	1	1H	1	1
WELL TYPE	DRY HOLE	OIL	OIL	OIL	OIL WELL	OIL WELL
STATUS	P&A	P&A	ACTIVE	ACTIVE	P&A	P&A
FOOTAGES	1980 FSL, 1980 FEL	1980 FSL, 1880 FEL	1980 FSL, 1750 FEL	25 FSL, 528 FEL	660 FNL, 1980 FEL	1650 FSL, 660 FNL
SURFC UNIT	J	J	J	P	C	L
SECTION	30	30	30	30	30	29
TOWNSHIP	9S	9S	9S	9S	9S	9S
RANGE	35E	35E	35E	35E	35E	35E
SPUD DATE	2/1/1959	3/1/1959	4/25/2005	11/30/2017	1/15/1963	8/1/2005
TRUE VERTICAL DEPTH	4752	10025	12,655	12,655	12,690	12,670
MEASURED DEPTH	4752	10025	12,655	12,160	12,690	12,670
1st STRING HOLE SIZE	17 1/2"	17 1/2"	17 1/2"	12 1/4"	17 1/2"	17 1/2"
CASING SIZE	13 3/8"	13 3/8"	13 3/8"	8 5/8"	13 3/8"	13 3/8"
SET AT	436	408	426	2268	400	420
SX CMT	375	375	240	950	500	440
CMT TO	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
HOW MEASURED	CIRCULATED	CIRCULATED	CIRCULATED	CIRCULATED	CIRCULATED	CIRCULATED
2ND STRING HOLE SIZE	12 1/4"	12 1/4"	12 1/4"	7 7/8"	11"	12 1/4"
CASING SIZE	9 5/8"	9 5/8"	9 5/8"	5 5"	8 5/8"	9 5/8"
SET AT	4350	4333	4145	12160	4315	4170
SX CMT	1600	1500	1103	2100	1400	1575
CMT TO	1475	1350	SURFACE	SURFACE	2417	SURFACE
HOW MEASURED	TEMP. SURVEY	TEMP. SURVEY	CIRCULATED	CIRCULATED	TEMP. SURVEY	CIRCULATED
3RD STRING HOLE SIZE	NONE	7 7/8"	8 3/4"	NONE	7 7/8"	8 3/4"
CASING SIZE	NONE	5 1/2"	5 1/2"	NONE	7" O TO 9952	5 1/2"
SET AT	NONE	5050	12650	NONE	5 1/2' 9952 TO 12688	12660
SX CMT	NONE	325	1420	NONE	800	3400
CMT TO	NONE	NONE	3645	NONE	7833	3670
HOW MEASURED	NONE	NONE	CALCULATED	NONE	TEMP. SURVEY	CALCULATED
CURRENT COMPLETION, MID	NONE	NONE	4840 TO 4850	5250 TO 12123	NONE	NONE
CURRENT COMPLETION, TVD	JUNKED & ABANDONED	NONE	4840 TO 4850	4847 TO 4804	NONE	NONE
PRIOR COMPLETION DEPTHS	NONE	4846 to 4866 (San Andras)	12534 TO 12592	NONE	4771 to 4901	11603 TO 11877
PRIOR COMPLETION DEPTHS			11607 TO 11664		9737 TO 9755	
P&A INFORMATION					12634 TO 12655	
	SET RETAINER AT 4151	250 sxs cmt 10025 to 9347	WELLBORE DIAGRAM ATTACHED	CLBP set at 12,584	Retainer set at 8175 ft	SET CLBP AT 12615
	SQUEEZED 200 SXS INTO PARTED CASING AT 4245	75 sxs cmt 5200 to 5050		Perf at 4300 and 4985, Sqzd 120 sxs 4300-4985	30 SXS CMT 12377 TO 12615	30 SXS CMT 12377 TO 12615
	5 SXS ON RETAINER	shot off 9 5/8" csg at 630 feet		50 SXS CMT 4200 TO 4090	25 SXS CMT 11934 TO 11487	55 SXS CMT 11934 TO 11487
	CUT OFF WELLHEAD	35s sxs cmt 646 to 608		60 SXS CMT 2260 TO 2058	30 SXS CMT 10056 TO 9853	25 SXS CMT 10056 TO 9853
	WELD PLATE ON TOP	5 sxs cmt, TOC at 485		60 SXS CMT 525 TO 378	25 SXS CMT 5521 TO 5268	25 SXS CMT 5521 TO 5268
		50 sxs cmt TOC at 385		45 SXS CMT 60 TO SURF	40 SXS CMT 4282 TO 3877	25 SXS CMT 4282 TO 3877
		50 sxs cmt TOC at 340			25 SXS CMT 2887 TO 2634	25 SXS CMT 523 TO 270
		CUT OFF WELLHEAD			40 SXS CMT 270 TO SURF	40 SXS CMT 270 TO SURF
		WELD PLATE ON TOP			CUT OFF WELLHEAD	CUT OFF WELLHEAD
		12/05/1973 1st time				
		8/7/1978	ACTIVE WELL	ACTIVE WELL	6/16/2005	4/16/2020
P&A DATE	3/5/1959					

General	Company:	EOG RESOURCES		Prospect:	JENKINS
	Well Name:	GILL BGJ #1		TD (MD/TVD):	12670
	County:	LEA		Elevation:	4175 (KB)
	State:	NEW MEXICO		Latitude & longitude:	
	API Number:	30-025-37103		Section-Township-Range	29-T9S-R35E
				Surface Location:	1650 Fsl, 660 Fel
				Bottom Hole Location:	Same
DIRECTIONS:					
FORMATION	PERFS	Casing Profile	Hole Size	Casing Specifications	P&A INFORMATION
					P&A 4/16/2020. Cut off Wellhead 40 sxs 270 to surface 25 sxs 523 to 270
			17 1/2"	13 3/8" set at 420	
					25 sxs 2887 to 2634
					40 sxs 4282 to 3877
			12 1/4"	9 5/8" set at 4170. CMT with 1575 sxs to surf.	
					25 sxs 5521 to 5268
					30 sxs 7786 to 7542
					25 sxs 10056 to 9853
Atoka	11603 11877				55 sxs 11934 to 11486
Devonian (OH)	12660 12670			8 3/4" 5 1/2" to 12660. Cmt with 3400 sxs TOC 3670 calculated. TD 12670	30 sxs 12377 to 12615 CIBP at 12615
Comments	This well produced 160,828 BO, 1,968 MCFG and 8,083,377 BW from the Devonian.				
	It produced 1611 BO, 136,796 MCFG and 180 BW from Atoka perforations.				
	It was plugged and abandoned in 2020.				





General	Company:	Atlantic Refining		Prospect:	Jenkins	
	Well Name:	Anderson #1		TD (MD/TVD):	4752	
	County:	Lea		Elevation:	4175 (DF)	
	State:	New Mexico		Latitude & longitude:		
	API Number:	30-025-02666		Section-Township-Range	30-T9S-R35E	
				Surface Location:	1980 FSL, 1980 FEL	
			Bottom Hole Location:	1980 FSL, 1980 FEL		
DIRECTIONS:						
Formation	Depth MD TVD		Casing Profile	Hole Size	Casing Specifications	P&A Info.
				17 1/2	Set 13 3/8 at 426 feet. Cement with 426 sxs	3-5-1959 Cut off wellhead weld plate on top Skid rig to Anderson 1-X
				12 1/4	Set 9 5/8" at 4350 feet. Cement with 1500 sxs TOC at 1475 by Temp.	Casing parted at 4275. Squeezed part with 200 sxs cmt.
				7 7/8"	J&A 4752 ft TD	Junked and abandoned at TD of 4753 feet.
<div>Comments</div> <p>No completion attempted after intermediate casing parted and the well was junked and abandoned.</p>						

Released to Imaging: 12/8/2021 11:11:00 AM  
Released to Imaging: 1/4/2022 4:26:43 PM



18



Certificate of Analysis  
Number: 6030-21070001-001A

Artesia Laboratory  
200 E Main St.  
Artesia, NM 88210  
Phone 575-746-3481

Manzano Energy  
Manzano Energy  
300 W 2nd St  
Roswell, NM 88201

July 01, 2021

Station Name: Rag Mamma Heater  
Station Number: Heater treater  
Station Location: Manzano  
Sample Point: Heater Ball Valve  
Instrument: 6030\_GC6 (Inficon GC-3000 Micro)  
Last Inst. Cal.: 06/28/2021 0:00 AM  
Analyzed: 07/01/2021 10:35:01 by EJR

Sampled By: Cameron Rivera  
Sample Of: Gas Spot  
Sample Date: 06/30/2021 09:30  
Sample Conditions: 20 psig Ambient: 70 °F  
Effective Date: 06/30/2021 09:30  
Method: GPA-2261M  
Cylinder No: 5030-00488

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	2.10000	2.716		GPM TOTAL C2+
Nitrogen	4.465	4.45505	4.735		GPM TOTAL C3+
Methane	60.630	60.49464	36.823		GPM TOTAL iC5+
Carbon Dioxide	13.129	13.09975	21.874		
Ethane	8.833	8.81352	10.055	2.362	
Propane	5.586	5.57395	9.326	1.539	
Iso-butane	0.829	0.82725	1.824	0.271	
n-Butane	2.005	2.00043	4.412	0.632	
Iso-pentane	0.693	0.69106	1.892	0.253	
n-Pentane	0.667	0.66571	1.822	0.242	
Hexanes Plus	1.282	1.27864	4.521	0.559	
	98.119	100.00000	100.000	5.858	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.9138	3.2176
Calculated Molecular Weight	26.36	93.19
Compressibility Factor	0.9955	

GPA 2172 Calculation:

Calculated Gross BTU per ft<sup>3</sup> @ 14.696 psia & 60°F

Real Gas Dry BTU	1138	5129
Water Sat. Gas Base BTU	1118	5040
Ideal, Gross HV - Dry at 14.696 psia	1132.7	5129.2
Ideal, Gross HV - Wet	1112.7	5039.7

Comments: H2S Field Content 2.1 %

Data reviewed by: Eric Ramirez, Analyst

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis  
Number: 6030-21070001-003A

Artesia Laboratory  
200 E Main St.  
Artesia, NM 88210  
Phone 575-746-3481

Manzano Energy  
Manzano Energy  
300 W 2nd St  
Roswell, NM 88201

July 01, 2021

Station Name: Sodbuster Heater  
Station Number: Heater Treater  
Station Location: Manzano  
Sample Point: Heater Ball Valve  
Instrument: 6030\_GC6 (Inficon GC-3000 Micro)  
Last Inst. Cal.: 06/28/2021 0:00 AM  
Analyzed: 07/01/2021 11:34:42 by EJR

Sampled By: Cameron Rivera  
Sample Of: Gas Spot  
Sample Date: 06/30/2021 09:15  
Sample Conditions: 20 psig Ambient: 70 °F  
Effective Date: 06/30/2021 09:15  
Method: GPA-2261M  
Cylinder No: 1111-002209

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.000	2.40000	2.991		GPM TOTAL C2+	5.431
Nitrogen	7.990	8.17264	8.371		GPM TOTAL C3+	3.311
Methane	54.324	55.56411	32.591		GPM TOTAL IC5+	1.185
Carbon Dioxide	15.374	15.72463	25.302			
Ethane	7.736	7.91305	8.700	2.120		
Propane	4.769	4.87800	7.865	1.346		
Iso-butane	0.670	0.68499	1.456	0.225		
n-Butane	1.716	1.75559	3.731	0.555		
Iso-pentane	0.559	0.57135	1.507	0.209		
n-Pentane	0.600	0.61360	1.619	0.223		
Hexanes Plus	1.684	1.72204	5.867	0.753		
	95.422	100.00000	100.000	5.431		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.9482	3.2176
Calculated Molecular Weight	27.35	93.19
Compressibility Factor	0.9956	
GPA 2172 Calculation:		
Calculated Gross BTU per ft <sup>3</sup> @ 14.696 psia & 60°F		
Real Gas Dry BTU	1059	5129
Water Sat. Gas Base BTU	1041	5040
Ideal, Gross HV - Dry at 14.696 psia	1054.6	5129.2
Ideal, Gross HV - Wet	1036.0	5039.7

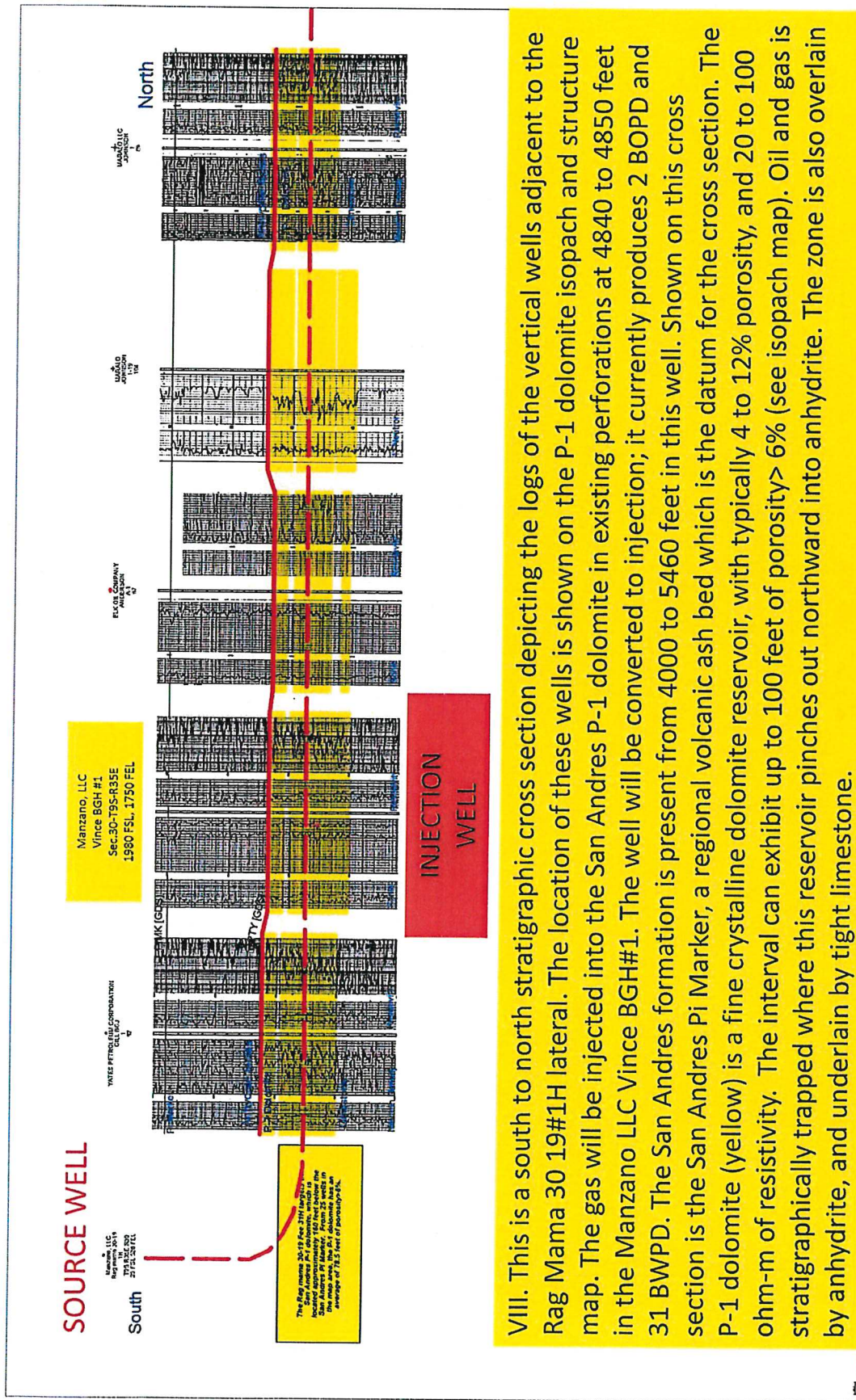
Comments: H2S Field Content 2.4 %

Data reviewed by: Eric Ramirez, Analyst

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Powered By SURECHEM

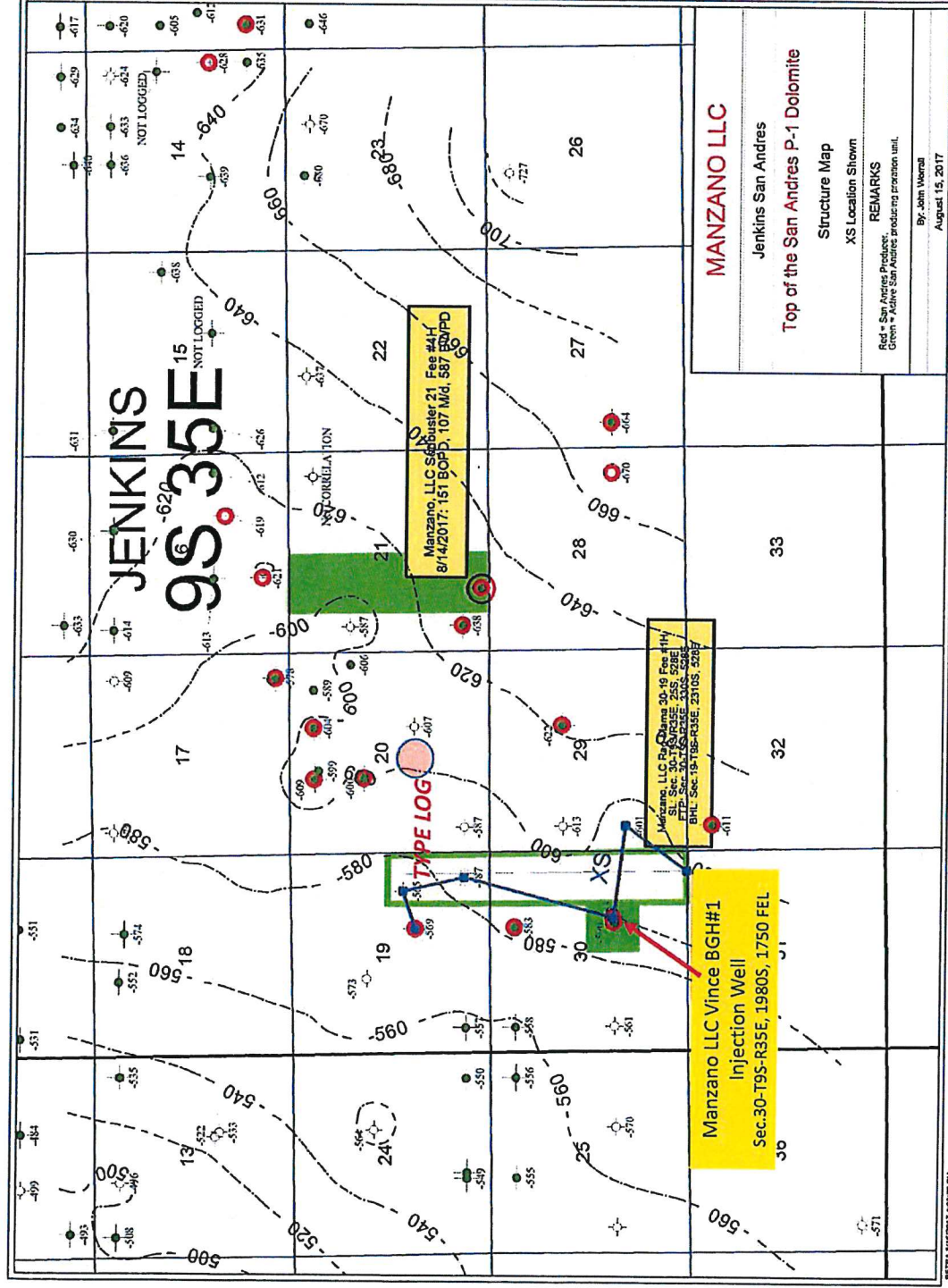




VIII. This is a south to north stratigraphic cross section depicting the logs of the vertical wells adjacent to the Rag Mama 30 19#1H lateral. The location of these wells is shown on the P-1 dolomite isopach and structure map. The gas will be injected into the San Andres P-1 dolomite in existing perforations at 4840 to 4850 feet in the Manzano LLC Vince BGH#1. The well will be converted to injection; it currently produces 2 BOPD and 31 BWPD. The San Andres formation is present from 4000 to 5460 feet in this well. Shown on this cross section is the San Andres Pi Marker, a regional volcanic ash bed which is the datum for the cross section. The P-1 dolomite (yellow) is a fine crystalline dolomite reservoir, with typically 4 to 12% porosity, and 20 to 100 ohm-m of resistivity. The interval can exhibit up to 100 feet of porosity > 6% (see isopach map). Oil and gas is stratigraphically trapped where this reservoir pinches out northward into anhydrite. The zone is also overlain by anhydrite, and underlain by tight limestone.

MANZANO LLC  
Case No. 22458  
Exhibit A-4





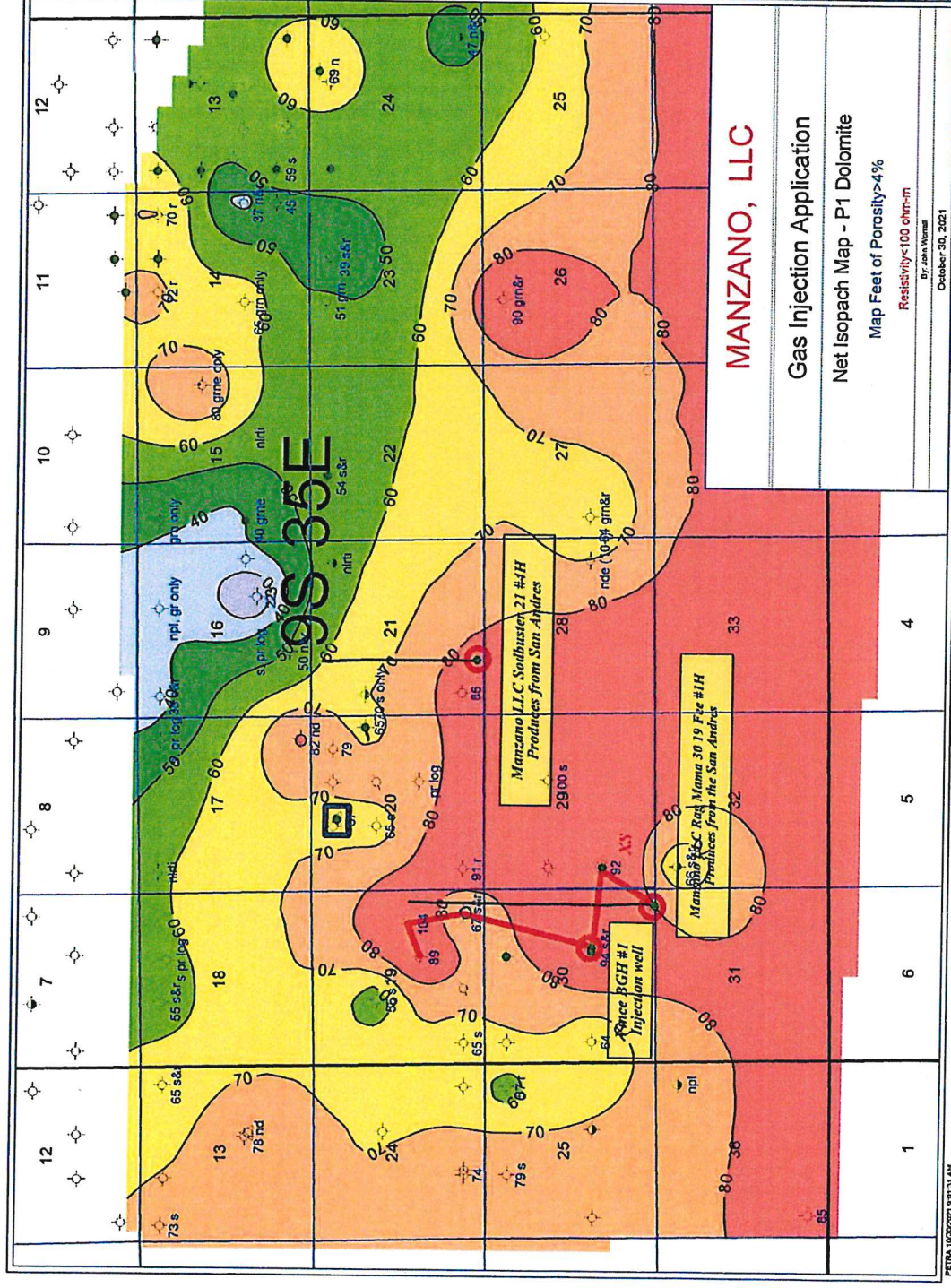
## VIII. GEOLOGY

This is a structure map on top of the P-1 dolomite showing the reservoir is relatively flat with only 40 feet of east dip per mile (a half degree slope).

Wells in red have historically produced oil or gas from this reservoir, or exhibit shows. Currently, Manzano produces oil from the two horizontal wells and the Vince #1. The other red wells have been plugged and abandoned.

The location of the cross section is shown on this map.



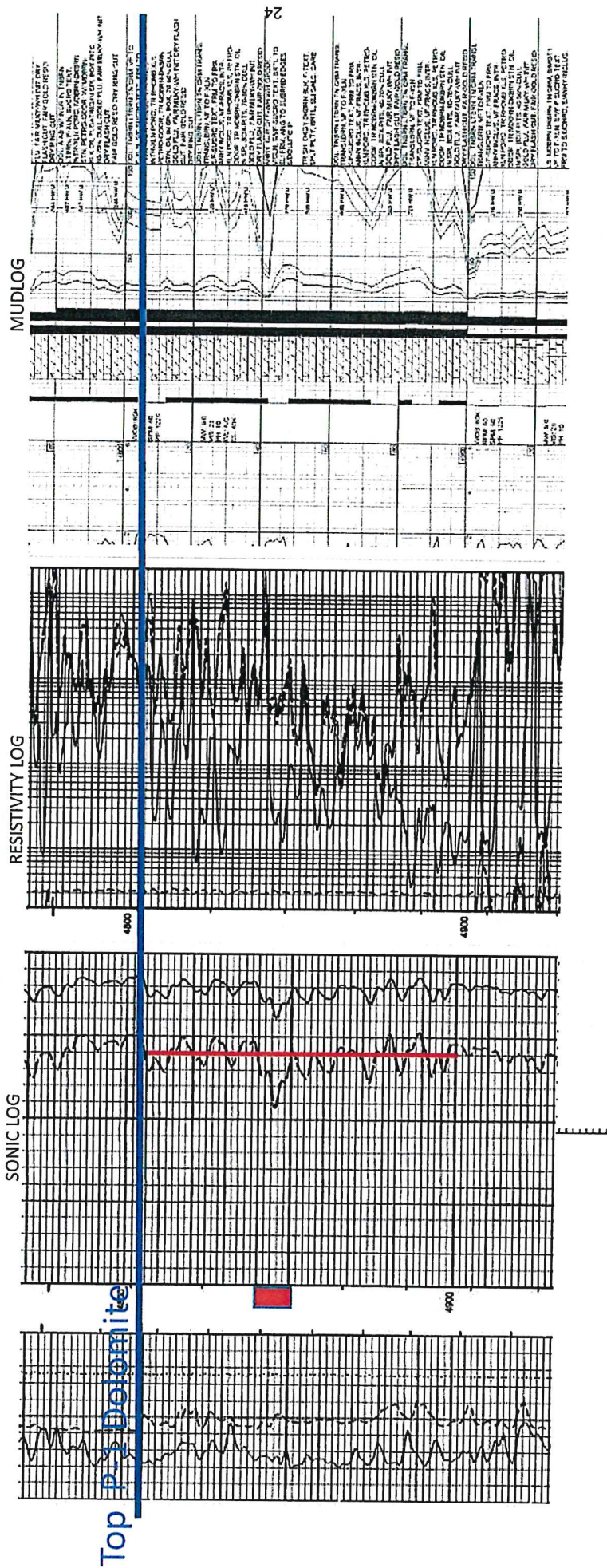


This is a net isopach of the P-1 dolomite showing feet of porosity >4% and/or resistivity log showing < 100 ohm-m. It shows the P-1 dolomite has up to 100 feet of reservoir. Northward the zone is present but porosity grades into tight anhydrite and anhydrite filled dolomite, which sets up the stratigraphic trap.

The cross section location is shown along with the injection well and the two source wells.



X. Log Data of the Manzano Vince BGH #1 located in Section 30-T9S-R35E, 1980 Fsl, 1750 Fel.  
Injection will be through existing perforations at 4840 to 50 feet. Logs show the pay is a dolomite with good porosity and resistivity from 4810 to 4900 ft.





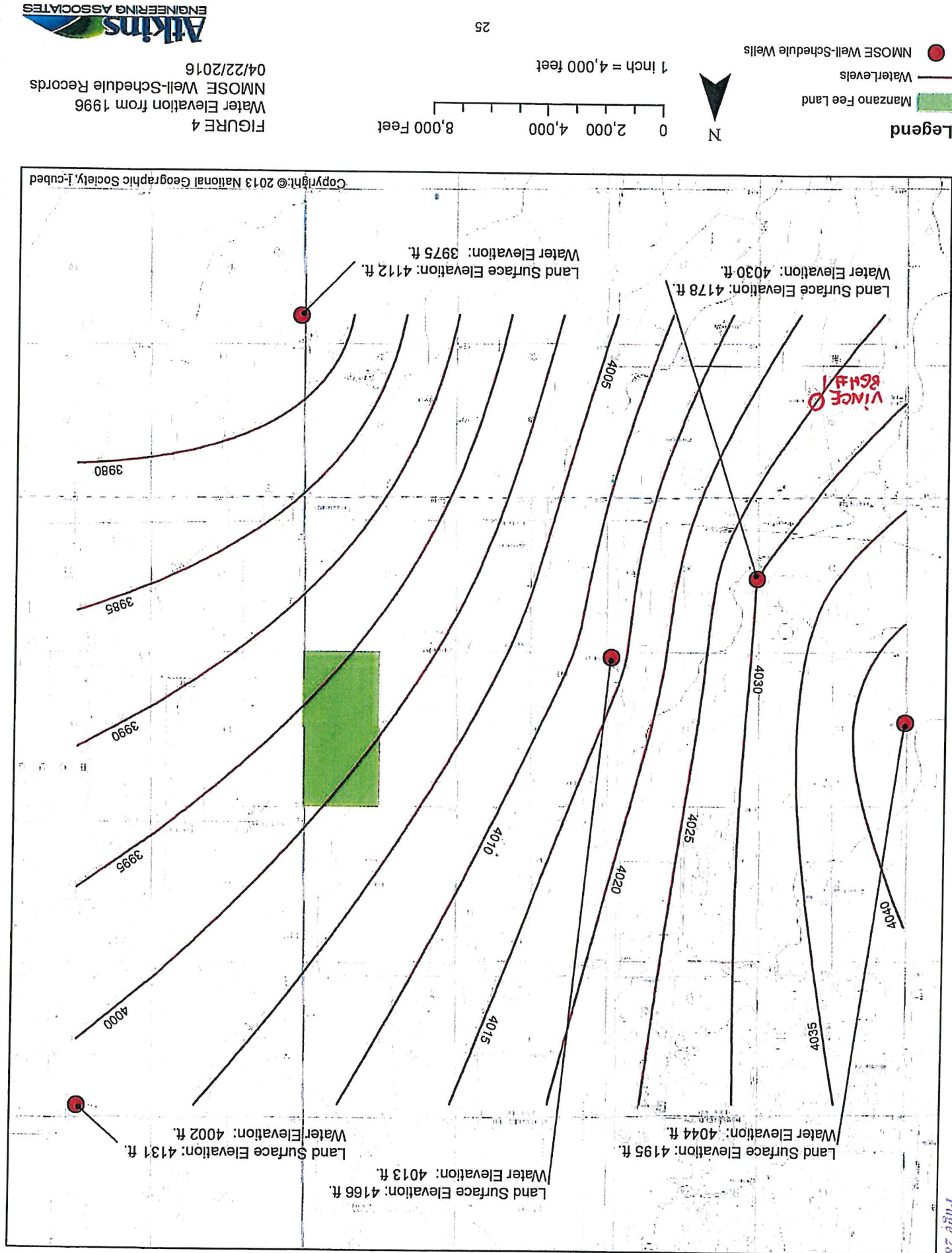
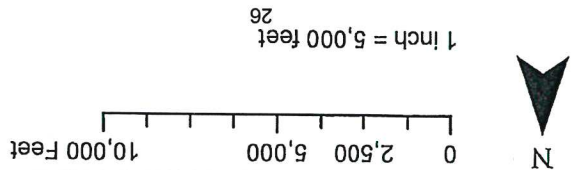


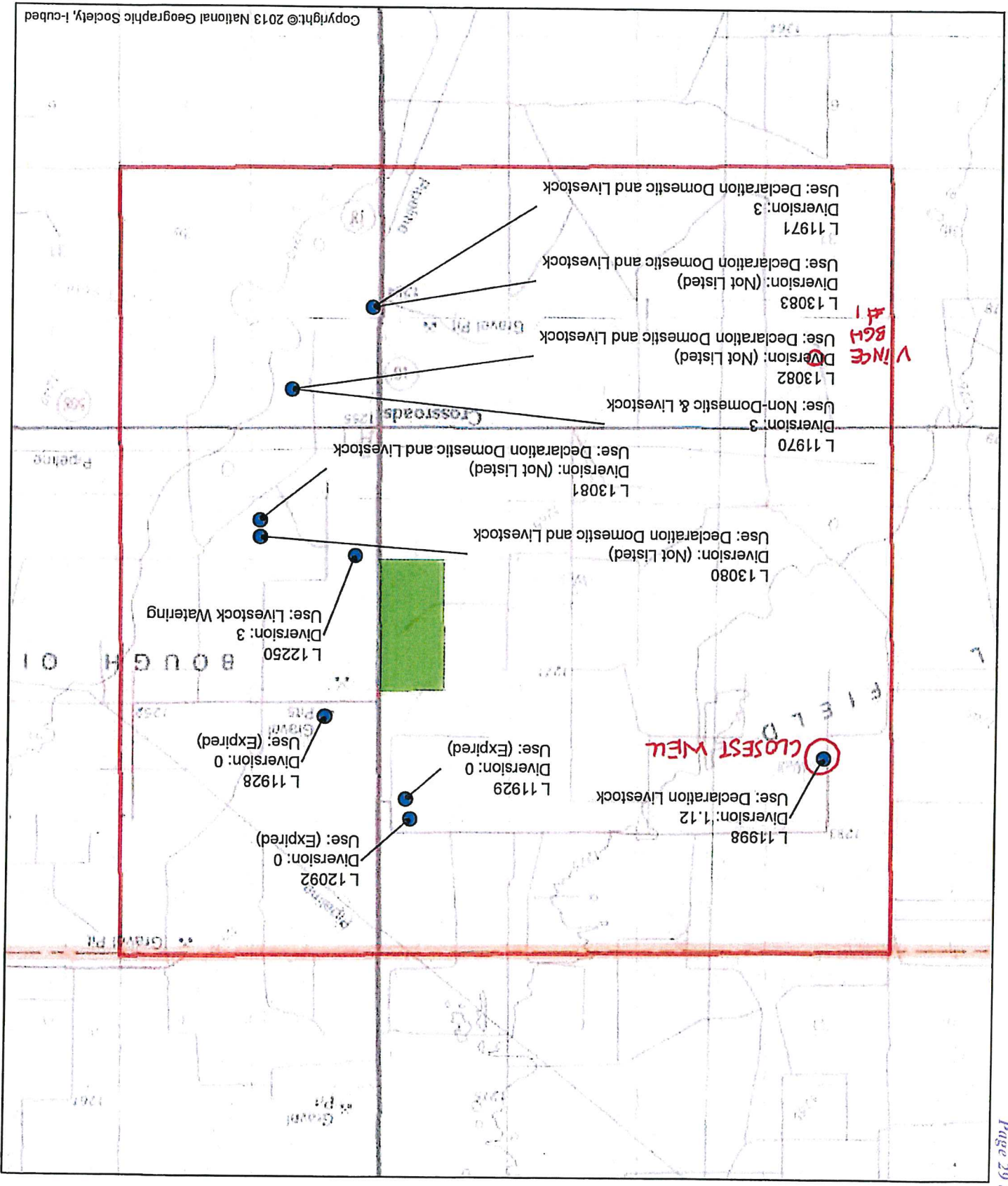


FIGURE 3  
NMOSE DB Wells  
04/22/2016



Legend

- Township 9S Range 35 E N.M.P.M.
- NMOSE DB Wells
- Manzano Fee Land





## LEGAL NOTICE

October 1, 2021

Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line, and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and a maximum pressure of 950 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Should you have any questions please contact John Worral at Manzano, LLC at 575-623-1996 ext. 302.

#36902

Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line, and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and a maximum pressure of 950 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis

LEGAL NOTICE  
October 1, 2021

Ad Text:

Payment Reference:

Total Due	42.64
Total:	39.92
Tax:	2.72
Net:	42.64
Prepaid:	0.00

28

AFF2 Affidavits (Legals)	BOLD bold	07 07 Daily News-Sun	10/1/2021	10/1/2021	1	32.67	32.67	6.25	1.00
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Description	Start	Stop	Ins.	Cost/Day	Amount
-------------	-------	------	------	----------	--------

Sort Line: 36902 BGH#1

Class: 671

KEN BARBIE  
MANZANO OIL CORPORATION  
P.O. BOX 2107  
ROS WELL, NM 88202-2107

Cust#: 01101555  
Ad #: 00259095  
Phone: (575)623-1996  
Date: 09/29/2021  
Salesperson: HA  
Ad Taker: Kayla

# Advertising Invoice

Hobbs Daily News-Sun  
201 N Thorp  
P. O. Box 850  
Hobbs, NM 88241  
Phone: 575-393-2123  
Fax: 575-397-0610  
URL: www.hobbsnews.com

LEGAL NOTICE

Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line, and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and a maximum pressure of 950 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Should you have any questions please contact John Worral at Manzano, LLC at 575-623-1996 ext. 302.





October 25, 2021

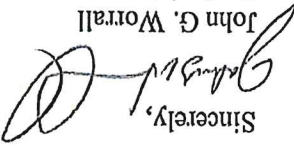
New Mexico Oil Conservation Division  
Attention: Dylan Rose-Coss  
Geological and Engineering Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Ladies and Gentlemen,

RE: Application to Inject Gas into the  
Manzano, LLC Vince BGH State #1

The following statement is sent regarding the need for Seismicity Analysis for the proposed injection of gas into the caption well.

The injection gas will be placed back into the San Andres formation from which it comes. The maximum proposed injection pressure is 950 PSI, which will be in perforations from 4840 to 4850 feet in the Vince BGH State #1. This maximum pressure is only a 196 PSI/ft pressure gradient, which is well below the normal pressure gradient for the formation of .35 psi/ft, and way below the expected .9 to 1.0 psi/ft frac gradient for the formation. Second, the zone of injection is 8000 feet above the Precambrian Basement in this area. For both of these reasons, there is no need for an analysis of the potential for induced seismic activity in this area. Should you have any questions, regarding this issue or statement, please advise.

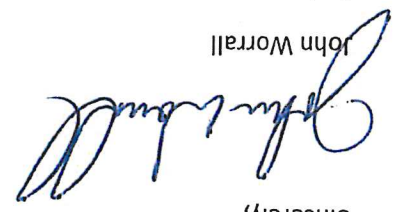
Sincerely,  
  
John G. Worral  
Geologist

Form C-108 Item XII.  
Manzano, LLC Vince BGH #1

AFFIDAVIT

Manzano, LLC has examined the geological and engineering data associated with the proposed injection well and find no evidence of open faults or other hydrologic connections between the injection zone and good sources of drinking water.

Sincerely,



John Worral  
Partner

Manzano, LLC







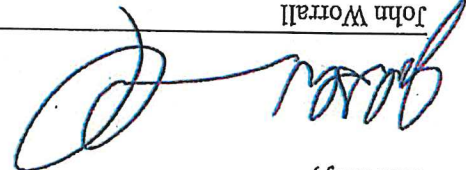
October 25, 2021

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220

To whom it may concern:

Attached for your notice is a copy of the permit filed with the New Mexico Oil Conservation Division, located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. The Bureau of Land Management manages unleased minerals within the area of interest. In this application, the Vince BGH #1, located at 1980 FSL, 1750 FRL, in Section 30 of T9S-R35E. Should you have any questions, please contact me or Mike Hamagan at 575-623-1996. Thank you.

Sincerely,

  
John Worral  
On behalf of Manzano, LLC

PS Form 3811, July 2015 PSN 7530-02-008-9063

7020 1290 0001 1523 8184

Article Number (Transfer from service label)

9590 9402 5491 9249 9341 08

620 E. Greene St.  
Carlsbad, NM 88220

1. Article Addressed to:  
or on the front if space permits.  
■ Attach this card to the back of the mailpiece, so that we can return the card to you.  
■ Print your name and address on the reverse  
■ Complete items 1, 2, and 3.

SENDER: COMPLETE THIS SECTION

3. Service type  
☒ Adult Signature Restricted Delivery  
☐ Adult Signature Mail<sup>TM</sup>  
☐ Registered Mail<sup>TM</sup>  
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☐ Return Receipt for Merchandise  
☐ Signature Confirmation<sup>TM</sup>  
☐ Signature Confirmation<sup>TM</sup> Mail

2. Article Addressed to:  
or on the front if space permits.  
■ Attach this card to the back of the mailpiece, so that we can return the card to you.  
■ Print your name and address on the reverse  
■ Complete items 1, 2, and 3.

SENDER: COMPLETE THIS SECTION

A. Signature  
B. Received by (Printed Name)  
C. Date of Delivery  
D. Is delivery address different from item 1? ☐ Yes ☐ No  
If YES, enter delivery address below:

COMPLETE THIS SECTION ON DELIVERY



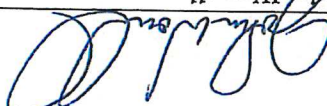
September 28, 2021

Mr. Charles J. Kinsolving  
HC 65 Box 209  
Crossroads, NM 88114

Mr. Kinsolving,

Attached for your notice is a copy of the permit filed with the New Mexico Oil Conservation Division, located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. In this application, Manzano, LLC is proposing to reinject gas at 4840 to 4850 feet in the San Andres formation in the Vince BGH #1, located at 1980 FSL, 1750 FEL, in Section 30 of T9S-R35E, on surface lands owned by you. Should you have any questions, please contact me or Mike Hanagan at 575-623-1996. Thank you.

Sincerely,

  
John Worrall  
On behalf of Manzano, LLC

575-623-1996 • PO Box 173734 Roswell, NM 88202-1737

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Total Postage and Fees	

Sent to: Mr. Charles Kinsolving  
Street and Apt. No., or PO Box No. HC 65 Box 209  
City, State, ZIP+4® Crossroads, NM 88114

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SEP 28 2021  
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