

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. <span style="border: 2px solid red; padding: 2px;">30-039-31454</span>	
3a. Address		3b. Phone No. (include area code)  10. Field and Pool, or Exploratory	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish  13. State	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No of acres in lease  17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. in file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start*  23. Estimated duration	
24. Attachments  The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Date	
Office		Date	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

(Continued on page 2)

\*(Instructions on page 2)



**DISTRICT I**1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-9720**DISTRICT II**811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170**DISTRICT IV**1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 475-3460 Fax: (505) 475-3462State of New Mexico  
Energy, Minerals & Natural Resources DepartmentForm C-102  
Revised August 1, 2011Submit one copy to appropriate  
District OfficeOIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-039-31454</b>	<sup>2</sup> Pool Code <b>22619</b>	<sup>3</sup> Pool Name <b>ESCRITO GALLUP</b>
<sup>4</sup> Property Code <b>335220</b>	<sup>5</sup> Property Name <b>Escrito Gallup Unit</b>	<sup>6</sup> Well Number <b>02H</b>
<sup>7</sup> OGRID No. <b>371838</b>	<sup>8</sup> Operator Name <b>DJR OPERATING, LLC</b>	<sup>9</sup> Elevation <b>7284'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	17	24N	7W		950'	NORTH	1719'	WEST	RIO ARRIBA

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

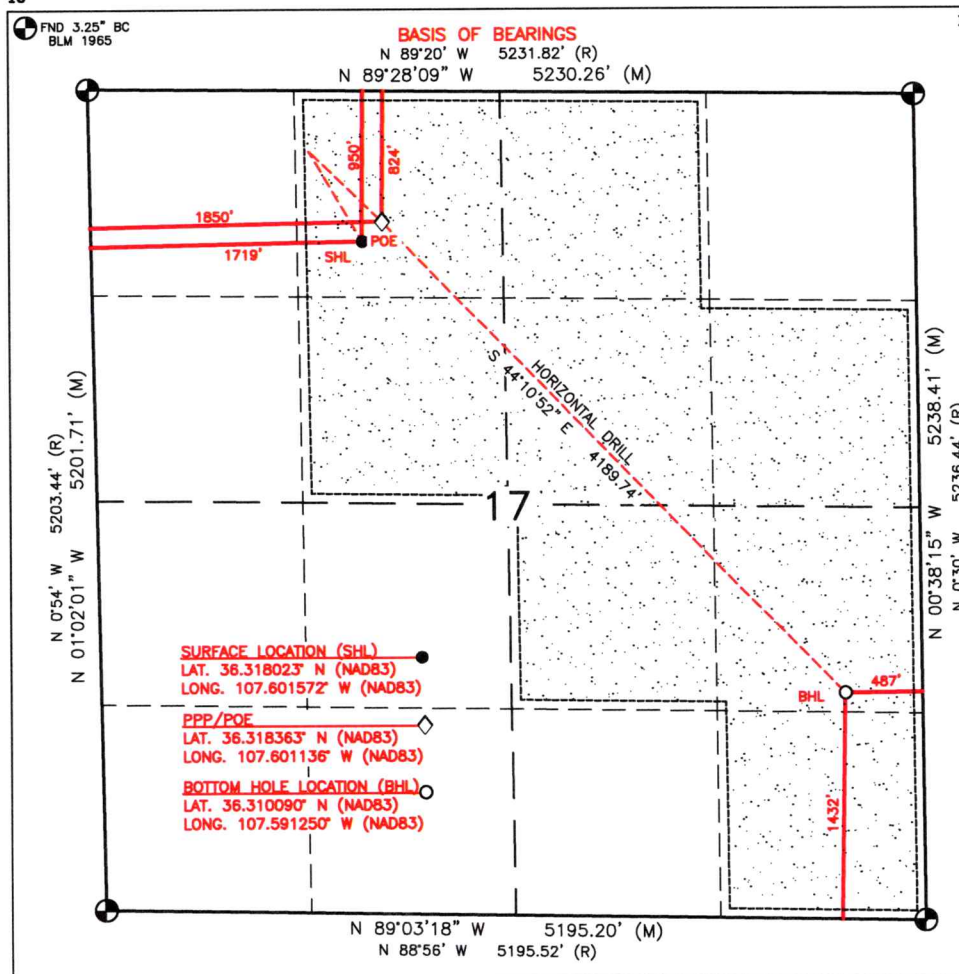
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	24N	7W		1432'	SOUTH	487'	EAST	RIO ARRIBA

<sup>12</sup> Dedicated Acres PENETRATED SPACING UNIT; SEC 17: NE/NW, SE/NW, NW/NE, SW/NE, SE/NE, NW/SE, NE/SE & SE/SE = 320 ACRES	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>R-1793A</b>
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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## 17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Shaw-Marie Ford* 12/06/21  
Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

E-mail Address

## SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 31, 2020

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number 11393

State of New Mexico  
Energy, Minerals and Natural Resources DepartmentSubmit Electronically  
Via E-permittingOil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505**NATURAL GAS MANAGEMENT PLAN**

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

**Section 1 – Plan Description**  
**Effective May 25, 2021****I. Operator:** DJR Operating, LLC **OGRID:** 371838 **Date:** 1 / 3 / 2024**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Escrito C17-2407 01H	TBD	C-17-24N-07W	974 FNL x 1687 FWL	410	610	145
Escrito Gallup Unit 02H	TBD	C-17-24N-07W	950 FNL x 1719 FWL	205	305	75
Escrito C17-2407 03H	TBD	C-17-24N-07W	962 FNL x 1703 FWL	355	530	130
Escrito Gallup Unit 04H	TBD	C-17-24N-07W	938 FNL x 1736 FWL	220	325	80
Escrito C17-2407 05H	TBD	C-17-24N-07W	926 FNL x 1753 FWL	300	450	110

**IV. Central Delivery Point Name:** Chaco Processing Plant [See 19.15.27.9(D)(1) NMAC]**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Escrito C17-2407 01H	TBD	4/9/2024	4/19/2024	7/15/2024	7/25/2024	7/27/2024
Escrito Gallup Unit 02H	TBD	4/10/2024	4/20/2024	7/15/2024	7/27/2024	7/29/2024
Escrito C17-2407 03H	TBD	4/11/2024	4/21/2024	7/15/2024	7/28/2024	7/30/2024
Escrito Gallup Unit 04H	TBD	4/12/2024	4/22/2024	7/15/2024	7/29/2024	8/1/2024
Escrito C17-2407 05H	TBD	4/13/2024	4/23/2024	7/15/2024	7/30/2024	8/2/2024

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### **X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrlc.com
Date: 1/3/2024
Phone: 505-716-3297
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.  
OGRID NO: 371838  
NATURAL GAS MANAGEMENT PLAN  
Escrito C17-2407 01H, 03H, 05H, and  
Escrito Gallup Unit 02H and 04H  
NENW C-17-24N-07W

### SEPARATION EQUIPMENT

DJR Operating, LLC (DJR) has pulled representative pressurized samples from wells in the same producing formation. DJR has utilized these samples in process simulations to determine the amount of gas anticipated in each stage of the process and utilized this information with a safety factor to size the equipment listed below:

Separation equipment will be set as follows:

- Individual 3-phase separator will be set for the individual well.
- The separator will be sized based on the anticipated volume of the well and the pressure of the lines utilized for oil, gas, and water takeaway.
- The 3-phase production separator will be equipped with a 0.75 MMBtu/hr indirect fired heater.

Heater treaters will be set as follows:

- Individual heater treaters will be set for the individual well.
- The heater treaters are sized based on the anticipated combined volume of oil and produced water predicted to come from the initial 3-phase separator.
- Oil will be separated from the produced water and the oil/produced water will be sent to its respective tanks.
- The combined oil and natural gas stream is routed to the Vapor Recovery Tower.

Vapor Recovery Equipment will be set as follows:

- The Vapor Recovery Tower has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks.
- The Vapor Recovery Unit has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks. The Vapor Recovery Unit is utilized to push the recovered gas into the sales pipeline.

Production storage tanks will be set as follows:

- The oil and produced water tanks utilize a closed vent capture system to ensure all breathing, working, and flashing losses are routed to the Vapor Recovery Tower and Vapor Recovery Unit.
- Each of the production storage tanks will be equipped with a 0.5 MMBtu/hr indirect heater.



DJR OPERATING, LLC.  
OGRID NO: 371838  
NATURAL GAS MANAGEMENT PLAN  
Escrito C17-2407 01H, 03H, 05H, and  
Escrito Gallup Unit 02H and 04H  
NENW C-17-24N-07W

### **VENTING and FLARING**

DJR Operating, LLC (DJR) has a natural gas system available prior to startup of completion operations. DJR utilizes a Vapor Recovery Unit System and sells all natural gas except during periods of startup, shutdown, maintenance, or malfunction for the gas capturing equipment, including the vapor recovery tower, vapor recovery unit, storage tanks, and pipelines.

Currently, DJR utilizes the following from list A-I of Section 3 for its operations to minimize flaring:

- a) DJR utilizes natural gas-powered generators to power its leases where grid power isn't available.
- b) When electrical grid power is unavailable, natural gas generators will be used for major equipment onsite.
- c) DJR's in service compression will be natural gas powered.
- d) Should liquids removal, such as dehydration be required, units will be powered by natural gas.

DJR will only flare gas during the following times:

- o Scheduled maintenance for gas capturing equipment including:
  - o Vapor Recovery Tower
  - o Vapor Recovery Unit
  - o Storage tanks
  - o Pipelines
  - o Emergency flaring



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Escrito Gallup Unit 02H and 04H  
NENW C-17-24N-07W

## **OPERATIONAL PRACTICES**

### **19.15.27.8 A. Venting and Flaring of Natural Gas**

DJR Operating, LLC (DJR) understands the requirements of NMAC 19.15.27.8 which states that the venting and flaring of natural gas during drilling, completion or production that constitutes waste as defined in 19.15.2 are prohibited.

### **19.15.27.8 B. Venting and flaring during drilling operations**

- DJR shall capture or combust natural gas if technically feasible during drilling operations using best industry practices.
- A flare stack with a 100% capacity for expected volumes will be set on location of the facility at least 100 feet from the nearest surface hole location, well heads, and storage tanks.
- In the event of an emergency, DJR will vent natural gas in order to avoid substantial impact. DJR shall report the vented or flared gas to the NMOCD.

### **19.15.27.8 E. Venting and flaring during completion or recompletion operations**

During Completion Operations, DJR utilizes the following:

- DJR facilities are built and ready from day 1 of Flowback.
- Individual well test separators will be set to properly separate gas and liquids. Temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline. See Separation Equipment for details.
- Should the facility not yet be capable of processing gas, or the gas does not meet quality standards, then storage tanks will be set that are tied into gas busters or temporary flare to manage natural gas. This flare would meet the following requirements:
  - 1) An appropriately sized flare stack with an automatic igniter.
  - 2) DJR analyzes the natural gas samples twice per week.
  - 3) DJR routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met.
  - 4) DJR provides the NMOCD with pipeline specifications and natural gas data.



#### **19.15.27.8 D. Venting and flaring during production operations**

During Production Operations DJR will not vent or flare natural gas except under the following circumstances:

1. During an emergency or malfunction
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided:
  - a. DJR does not vent after the well achieves a stabilized rate and pressure.
  - b. DJR will remain present on-site during liquids unloading by manual purging and take all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time.
  - c. DJR will optimize the system to minimize natural gas venting on any well equipped with a plunger lift or auto control system.
  - d. Best Management Practices will be used during downhole well maintenance.
3. During the first year of production from an exploratory well provided:
  - a. DJR receives approval from the NMOCD.
  - b. DJR remains in compliance with the NM gas capture requirements.
  - c. DJR submits an updated C-129 form to the NMOCD.
4. During the following activities unless prohibited:
  - a. Gauging or sampling a storage tank or low-pressure production vessel.
  - b. Loading out liquids from a storage tank.
  - c. Repair and maintenance.
  - d. Normal operation of gas activated pneumatic controller or pump.
  - e. Normal operation of a storage tank but not including venting from a thief hatch.
  - f. Normal operation of dehydration units.
  - g. Normal operations of compressors, compressor engines, turbines, valves, flanges, and connectors.
  - h. During a bradenhead, packer leakage test, or production test lasting less than 24-hours.
  - i. When natural gas does not meet the gathering pipeline specifications.
  - j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities.

#### **19.15.27.8 E. Performance standards**

1. DJR has utilized process simulations with a safety factor to design all separation and storage equipment. The equipment is routed to a Vapor Recovery System and utilizes a flare as back up for periods of startup, shutdown, maintenance, or malfunction of the VRU System.
2. DJR will install a flare that designed to handle the full volume of vapors from the facility in case of the VRU failure and it is designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.



- a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.
  - b. Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts DJR of flare malfunction within 18 months after May 25, 2021.
  - c. Flare stacks replaced after May 25, 2021, will be equipped with an automatic ignitor or continuous pilot if located at a well or facility with average daily production of 60,000 cubic feet of natural gas or less.
  - d. Flare stacks will be located at least 100 feet from the well and storage tanks and securely anchored.
4. DJR will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
  5. DJR will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
  6. DJR may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
  7. Facilities will be designed to minimize waste.
  8. DJR will resolve emergencies as promptly as possible.

#### **19.15.27.8 F. Measurement or estimation of vented and flared natural gas**

1. DJR will have meters on both the low- and high-pressure sides of the flares and the volumes will be recorded in DJR's SCADA system.
2. DJR will install equipment to measure the volume of flared natural gas that has an average daily production of 60,000 cubic feet or greater of natural gas.
3. DJR's measuring equipment will conform to the industry standards.
4. The measurement system is designed such that it cannot be bypassed except for inspections and servicing meters.
5. DJR will estimate the volume of vented or flared natural gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
6. DJR will estimate the volume of flared and vented natural gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on Form C-116.
7. DJR will install measuring equipment whenever the NMOCD determines that metering is necessary.



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### **BEST MANAGEMENT PRACTICES**

DJR Operating, LLC (DJR) utilizes the following Best Management Practices to minimize venting during active and planned maintenance.

DJR has a closed vent capture system to route emissions from the heater treater, tanks, and vapor recovery to the vapor recovery unit with an enclosed combustion device (ECD) for backup. The system is designed such that if the vapor recovery unit is taken out of service for any reason, the vapors will be routed to the ECD for combustion.

DJR will isolate and attempt to route all vapors to the vapor recovery unit or ECD prior to opening any lines for maintenance to minimize venting from the equipment.

DJR shall notify the NMOCD of venting or flaring that exceeds 50 MCF but less than 500 MCF in volume that either resulted from an emergency or malfunction, or an event lasting over eight hours or more cumulatively within any 24-hour period from a single event by filing a form C-129 no later than 15 days following the discovery or commencement of venting or flaring.

DJR shall notify the NMOCD verbally or by e-mail within 24-hours following discovery or commencement of venting or flaring that exceeds 500 MCF in volume or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event and provide the information required in form C-129 to the NMOCD no later than 15 days that verifies, updates, or corrects the verbal or e-mail notification.

DJR will install measuring equipment to conform to industry standards such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares.

DJR's measuring equipment shall not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

DJR shall report the volume of vented and flared natural gas for each well or facility at which venting or flaring occurred on a monthly basis.

Rev 0



## DRILLING PLAN

### Escrito Gallup Unit #02H

### Rio Arriba County, New Mexico

**Surface Location**

1719-ft FWL & 950-ft FNL  
 Sec 17 T24N R07W  
 Graded Elevation 7284' MSL  
 RKB Elevation 7298' (14' KB)

**SHL Geographical Coordinates (NAD-83)**

Latitude 36.3180230° N  
 Longitude 107.6015720° W

**Kick Off Point for Horizontal Build Curve**

5495-ft MD  
 5451-ft TVD

**Local Coordinates (from SHL)**

568-ft North  
 334-ft West

**Heel Location (Pay zone entry)**

1850-ft FWL & 824-ft FNL  
 Sec 17 T24N R07W

**Heel Geographical Coordinates (NAD-83)**

Latitude 36.3183633° N  
 Longitude 107.60113610° W

**Bottom Hole Location (TD)**

487-ft FEL & 1432-ft FSL  
 Sec 17 T24N R07W

**BHL Geographical Coordinates (NAD-83)**

Latitude 36.31008985° N  
 Longitude 107.5912499° W

**Well objectives**

This well is planned as a 4190-ft lateral in the Gallup C sand.

**Bottom Hole temperature and pressure**

The temperature in the Gallup C horizontal objective is 152°F. Bottom hole pressure in the Gallup C is forecast to be 1985 psi.

**Formation Tops** (Sd = Sand; Sh = Shale; Siltstone = Slt, Coal = C; W = water; O = oil; G = gas; NP = no penetration)

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	1924	1913	Sd	W	8.3	8.4 – 8.8
Kirtland	2080	2067	Sh	-	8.3	8.4 – 8.8
Fruitland	2339	2324	C	G	8.3	9.0 - 9.5
Pictured Cliffs	2635	2617	Sd	W	8.3	9.0 - 9.5
Lewis	3441	3416	Sh	-		9.0 - 9.5
Chacra	4167	4135	Sd	-	8.3	9.0 - 9.5
Menefee	4185	4153	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4935	4896	Sd	-	8.3	9.0 - 9.5
Mancos	5172	5131	Sh	-		9.0 - 9.5
Mancos Silt	5603	5559	Slt	O/G	6.6	9.0 - 9.5
Gallup A	6038	5955	Slt	O/G	6.6	9.0 - 9.5
Gallup B	6133	6021	Sd	O/G	6.6	8.8 -9.0
Gallup C	6338	6126	Sd	O/G	6.6	8.8 -9.0
Target	6589	6171	Sd	O/G	6.6	8.8 -9.0

**Casing Program**

Casing OD	Hole Size	Weight (#/ft)	Grade	Coupling	MD Top	MD Bottom	TVD Top	TVD Bottom	Top of Cement
9-5/8"	12-1/4"	36	K-55	STC	surf	350	surf	350	surface
7"	8-3/4"	26	K-55	LTC	surf	6524	surf	6169	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	6246	10779	6086	6109	6246

Note: all casing will be new

Rev 0



## Casing Design Load Cases

Description		Casing String		
		9-5/8" Surface	7" Intermediate	4-1/2" Production Liner
Collapse	Full internal evacuation <sup>1</sup>	✓	✓	✓
	Cementing	✓	✓	✓
Burst	Pressure test	✓ <sup>2</sup>	✓ <sup>2</sup>	✓
	Gas kick		✓ <sup>3</sup>	
	Fracture at shoe, 1/3 BHP at surface		✓ <sup>4</sup>	
	Injection down casing			✓ <sup>5</sup>
Axial	Dynamic load on casing coupling <sup>6</sup>	✓	✓	✓
Axial	Overpull <sup>7</sup>	✓	✓	✓

## Note #

- 1 Fluid level at shoe, air column to surface, pore pressure outside
- 2 Tested to 80% of minimum internal yield with freshwater inside, pore pressure outside
- 3 50 bbl kick at TD, 0.50 ppg intensity, 4" drill pipe, 9.0 ppg mud, fracture gradient at shoe
- 4 2060 psi BHP, 687 psi surface pressure, 12.5 ppg EMW shoe integrity
- 5 Surface stimulation pressure of 8000 psi on 8.3 ppg fluid column. Stimulation will be down frac string, so load does not apply to 7" intermediate casing.
- 6 Shock load from abrupt pipe deceleration, evaluated against coupling rating
- 7 Overpull values as follows: Surface casing 20,000 lbs, Intermediate & Production 100,000 lbs

## Casing Design Factors

Casing string		Design Factors			
		Burst	Collapse	Axial	Triaxial
Surface	9-5/8"	1.25	13.38	8.16	1.56
Intermediate	7"	1.25	1.50	1.68	1.34
Production liner	4-1/2"	1.37	3.68	1.88	1.69

## Cement Design

## 9-5/8" Surface Casing

	Lead
Name	Redi-Mix
Type	I-II
Planned top	Surface
Density (ppg)	14.50
Yield (cf/sx)	1.61
Mix water (gal/sx)	7.41
Volume (sx)	114
Volume (bbls)	33
Volume (cu. ft.)	185
Excess %	50

## 7" Intermediate Casing

	Lead	Tail
	BJ Services	BJ Services
Type	III	Poz/G
Planned top	Surface	4995-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	487	244
Volume (bbls)	203	65
Volume (cu.ft.)	1141	365
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	6246-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	380
Volume (bbls)	106
Volume (cu.ft)	594
Excess %	40

**Wellhead & Pressure Control**

The well head will be an 11" 5M multi-bowl system. A 3M BOPE conforming to Onshore Order #2 will be installed on the surface casing. The BOP and accumulator will meet API 16D and 16E respectively.

A PVT mud monitoring system and a trip tank will be rigged up and operational for all hole intervals. An electronic geolograph will be employed to monitor and record drilling data (ROP, WOB, SPM, Pressure, RPM and torque).

**Mud Program**

Surface hole will be drilled with a fresh water, native mud system. In intermediate hole, a low weight 7% KCl LSND drilling fluid will be used, with KCl providing chemical stability for the young shales and clays present in the interval. In production hole a LSND system with polymer and lubricant additives is programmed. Sufficient drill water and mud additives will be on hand to maintain adequate pit volumes and maintain well control.

Hole Section	Fluid type	Interval (MD)	Density (ppg)	Funnel Viscosity	Yield Point	Fluid Loss (cc/30 min)
Surface	Fresh water spud mud	0 – 350	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	350 – 6524	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	6524 – 10779	8.8 – 9.2	34 – 38	6 – 8	6 – 8

**Cores, tests and logs**

Wellbore surveying: Drift (inclination only) surveys will be obtained in surface hole. MWD directional surveys will be taken in intermediate and production hole.

Logging while drilling: None in surface hole. MWD GR in intermediate and production hole.

Mud logging: a two-person mud logging unit with C1 – C4 gas analysis will be operational in intermediate and production hole.

Electric logging: No open hole electric logs are programmed. A cased hole GR/CCL will be run during completions for perforating depth control.

**Cuttings and drilling fluids management**

A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports with a bucket loader. Drying agents will be used if necessary. The solids will be taken to a licensed commercial disposal facility. Whole mud will be dewatered back to drill water and used as make up for subsequent wells or hauled off for disposal. A diagram of the closed loop system is included.

**Completion**

It is envisioned that this well will be completed with a multi-stage sand frac, using the plug and perf technique. After drilling out the plugs, the current plan is to install a 2-7/8" plunger-assisted gas lift tubing string. The stimulation and completion plan will be sundried at a later date.



## **DJR Operating**

**Escrito Area  
C17 2407 Pad  
# 2H**

**Original Drilling  
APD**

## **Anticollision Report**

**24 September, 2020**





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	9/21/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	10,778.58	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C17 2407 Pad						
# 1H - Original Drilling - APD	425.00	425.00	40.12	37.49	15.208	CC, ES
# 1H - Original Drilling - APD	600.00	597.64	45.45	41.60	11.812	SF
# 3H - Original Drilling - APD	425.00	425.00	20.17	17.53	7.645	CC
# 3H - Original Drilling - APD	600.00	599.97	20.88	17.00	5.373	ES
# 3H - Original Drilling - APD	6,126.21	6,090.07	170.06	124.93	3.769	SF
# 4H - Original Drilling - APD	425.00	425.00	19.96	17.32	7.564	CC
# 4H - Original Drilling - APD	500.00	499.73	20.37	17.19	6.416	ES
# 4H - Original Drilling - APD	10,778.80	11,101.11	805.45	556.51	3.236	SF
# 5H - Original Drilling - APD	425.00	425.00	39.91	37.27	15.127	CC
# 5H - Original Drilling - APD	500.00	499.42	40.36	37.19	12.721	ES
# 5H - Original Drilling - APD	900.00	895.59	58.34	52.26	9.601	SF

Offset Design		C17 2407 Pad - # 1H - Original Drilling - APD										Offset Site Error:		0.00 usft
Survey Program:		0-MWD+HDGM										Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-126.14	-23.66	-32.41	40.12					
100.00	100.00	100.00	100.00	0.15	0.15	-126.14	-23.66	-32.41	40.12	39.82	0.31	130.155		
200.00	200.00	200.00	200.00	0.51	0.51	-126.14	-23.66	-32.41	40.12	39.10	1.03	39.138		
300.00	300.00	300.00	300.00	0.87	0.87	-126.14	-23.66	-32.41	40.12	38.38	1.74	23.032		
400.00	400.00	400.00	400.00	1.23	1.23	-126.14	-23.66	-32.41	40.12	37.67	2.46	16.317		
425.00	425.00	425.00	425.00	1.32	1.32	-126.14	-23.66	-32.41	40.12	37.49	2.64	15.208	CC, ES	
500.00	499.99	499.18	499.17	1.59	1.57	-97.93	-24.60	-32.61	40.98	37.82	3.16	12.968		
600.00	599.89	597.64	597.53	1.95	1.90	-106.65	-28.75	-33.49	45.45	41.60	3.85	11.812	SF	
700.00	699.58	695.03	694.63	2.31	2.24	-118.14	-36.10	-35.06	55.53	50.98	4.54	12.218		
800.00	798.93	791.29	790.30	2.68	2.58	-128.42	-46.45	-37.28	72.53	67.28	5.25	13.827		
813.20	812.01	804.12	803.04	2.73	2.63	-129.59	-47.96	-37.60	75.20	69.86	5.34	14.076		
900.00	898.02	888.46	886.77	3.05	2.94	-135.91	-57.87	-39.72	93.59	87.63	5.95	15.719		
1,000.00	997.10	985.63	983.24	3.44	3.31	-140.66	-69.29	-42.16	115.66	109.00	6.66	17.367		
1,100.00	1,096.18	1,082.80	1,079.70	3.82	3.68	-143.88	-80.71	-44.60	138.24	130.87	7.37	18.763		
1,200.00	1,195.27	1,179.97	1,176.16	4.21	4.05	-146.20	-92.13	-47.05	161.13	153.05	8.08	19.942		
1,300.00	1,294.35	1,277.14	1,272.63	4.61	4.43	-147.94	-103.55	-49.49	184.20	175.41	8.79	20.946		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
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<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 1H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,400.00	1,393.43	1,374.31	1,369.09	5.00	4.81	-149.29	-114.97	-51.93	207.40	197.89	9.51	21.807		
1,500.00	1,492.52	1,471.47	1,465.56	5.40	5.19	-150.37	-126.39	-54.37	230.68	220.45	10.23	22.553		
1,600.00	1,591.60	1,568.64	1,562.02	5.79	5.57	-151.25	-137.81	-56.81	254.03	243.08	10.95	23.204		
1,700.00	1,690.68	1,665.81	1,658.49	6.19	5.95	-151.99	-149.22	-59.25	277.43	265.76	11.67	23.776		
1,800.00	1,789.77	1,762.98	1,754.95	6.59	6.33	-152.61	-160.64	-61.69	300.86	288.47	12.39	24.282		
1,900.00	1,888.85	1,860.15	1,851.41	6.98	6.71	-153.14	-172.06	-64.14	324.32	311.21	13.11	24.734		
2,000.00	1,987.93	1,957.32	1,947.88	7.38	7.10	-153.59	-183.48	-66.58	347.80	333.97	13.84	25.139		
2,100.00	2,087.02	2,054.48	2,044.34	7.78	7.48	-153.99	-194.90	-69.02	371.30	356.74	14.56	25.503		
2,200.00	2,186.10	2,151.65	2,140.81	8.18	7.87	-154.35	-206.32	-71.46	394.82	379.54	15.28	25.833		
2,300.00	2,285.18	2,248.82	2,237.27	8.58	8.25	-154.66	-217.74	-73.90	418.35	402.34	16.01	26.134		
2,400.00	2,384.27	2,345.99	2,333.74	8.98	8.64	-154.94	-229.16	-76.34	441.89	425.16	16.73	26.408		
2,500.00	2,483.35	2,443.16	2,430.20	9.38	9.02	-155.19	-240.57	-78.78	465.44	447.98	17.46	26.660		
2,600.00	2,582.43	2,540.33	2,526.66	9.78	9.41	-155.42	-251.99	-81.23	489.00	470.81	18.18	26.891		
2,700.00	2,681.52	2,637.50	2,623.13	10.18	9.79	-155.63	-263.41	-83.67	512.56	493.65	18.91	27.105		
2,800.00	2,780.60	2,734.66	2,719.59	10.58	10.18	-155.81	-274.83	-86.11	536.13	516.49	19.64	27.302		
2,900.00	2,879.68	2,831.83	2,816.06	10.98	10.57	-155.99	-286.25	-88.55	559.70	539.34	20.36	27.486		
3,000.00	2,978.77	2,929.00	2,912.52	11.39	10.95	-156.14	-297.67	-90.99	583.28	562.19	21.09	27.657		
3,100.00	3,077.85	3,026.17	3,008.99	11.79	11.34	-156.29	-309.09	-93.43	606.86	585.04	21.82	27.816		
3,200.00	3,176.93	3,123.34	3,105.45	12.19	11.73	-156.43	-320.51	-95.88	630.45	607.90	22.54	27.965		
3,300.00	3,276.02	3,220.51	3,201.91	12.59	12.11	-156.55	-331.93	-98.32	654.04	630.76	23.27	28.105		
3,400.00	3,375.10	3,317.67	3,298.38	12.99	12.50	-156.67	-343.34	-100.76	677.63	653.63	24.00	28.236		
3,500.00	3,474.18	3,414.84	3,394.84	13.39	12.89	-156.78	-354.76	-103.20	701.22	676.49	24.73	28.359		
3,600.00	3,573.27	3,512.01	3,491.31	13.79	13.28	-156.88	-366.18	-105.64	724.82	699.36	25.45	28.475		
3,700.00	3,672.35	3,609.18	3,587.77	14.20	13.66	-156.97	-377.60	-108.08	748.42	722.23	26.18	28.585		
3,800.00	3,771.43	3,706.35	3,684.24	14.60	14.05	-157.06	-389.02	-110.52	772.02	745.11	26.91	28.688		
3,900.00	3,870.52	3,803.52	3,780.70	15.00	14.44	-157.15	-400.44	-112.97	795.62	767.98	27.64	28.786		
4,000.00	3,969.60	3,900.68	3,877.16	15.40	14.83	-157.23	-411.86	-115.41	819.22	790.85	28.37	28.879		
4,100.00	4,068.68	3,997.85	3,973.63	15.80	15.21	-157.30	-423.28	-117.85	842.83	813.73	29.10	28.968		
4,200.00	4,167.77	4,095.02	4,070.09	16.20	15.60	-157.37	-434.70	-120.29	866.43	836.61	29.82	29.052		
4,300.00	4,266.85	4,192.19	4,166.56	16.61	15.99	-157.44	-446.11	-122.73	890.04	859.49	30.55	29.131		
4,400.00	4,365.93	4,289.36	4,263.02	17.01	16.38	-157.50	-457.53	-125.17	913.65	882.37	31.28	29.207		
4,500.00	4,465.02	4,386.53	4,359.49	17.41	16.76	-157.56	-468.95	-127.61	937.26	905.25	32.01	29.280		
4,600.00	4,564.10	4,483.70	4,455.95	17.81	17.15	-157.62	-480.37	-130.06	960.87	928.13	32.74	29.349		
4,700.00	4,663.18	4,580.86	4,552.41	18.21	17.54	-157.68	-491.79	-132.50	984.48	951.01	33.47	29.415		
4,800.00	4,762.27	4,678.03	4,648.88	18.62	17.93	-157.73	-503.21	-134.94	1,008.09	973.89	34.20	29.479		
4,900.00	4,861.35	4,775.20	4,745.34	19.02	18.31	-157.78	-514.63	-137.38	1,031.70	996.77	34.93	29.539		
5,000.00	4,960.43	4,872.37	4,841.81	19.42	18.70	-157.83	-526.05	-139.82	1,055.31	1,019.66	35.66	29.597		
5,100.00	5,059.52	4,969.54	4,938.27	19.82	19.09	-157.87	-537.46	-142.26	1,078.93	1,042.54	36.39	29.653		
5,200.00	5,158.60	5,066.71	5,034.73	20.22	19.48	-157.91	-548.88	-144.71	1,102.54	1,065.43	37.11	29.706		
5,300.00	5,257.68	5,164.12	5,130.05	20.63	19.89	-157.95	-560.30	-147.15	1,126.15	1,088.32	37.84	29.757		
5,400.00	5,356.77	5,262.93	5,227.15	21.03	20.29	-157.99	-571.72	-149.59	1,149.76	1,111.21	38.57	29.804		
5,495.35	5,451.24	5,357.09	5,321.24	21.41	20.67	-158.03	-583.14	-152.03	1,173.37	1,134.27	39.30	29.848		
5,500.00	5,455.85	5,361.72	5,325.87	21.43	20.69	-158.04	-584.66	-152.14	1,174.90	1,135.80	39.32	29.850		
5,550.00	5,505.63	5,411.50	5,375.65	21.62	20.88	-158.06	-596.08	-154.16	1,198.51	1,159.41	40.05	29.893		
5,600.00	5,555.59	5,461.46	5,425.61	21.78	21.04	-158.07	-607.50	-156.18	1,222.12	1,183.02	40.78	29.935		
5,650.00	5,605.42	5,511.29	5,475.44	21.92	21.18	-158.08	-618.92	-158.20	1,245.73	1,206.63	41.51	29.976		
5,700.00	5,654.82	5,560.72	5,524.89	22.04	21.30	-158.09	-630.34	-160.22	1,269.34	1,230.24	42.24	30.016		
5,750.00	5,703.48	5,609.38	5,573.55	22.15	21.41	-158.10	-641.76	-162.24	1,292.95	1,253.85	42.97	30.056		
5,800.00	5,751.09	5,656.99	5,621.16	22.25	21.51	-158.11	-653.18	-164.26	1,316.56	1,277.46	43.70	30.095		
5,850.00	5,797.38	5,692.25	5,656.82	22.33	21.59	-158.12	-664.60	-166.28	1,340.17	1,301.07	44.43	30.134		
5,900.00	5,842.04	5,736.91	5,701.58	22.42	21.68	-158.13	-676.02	-168.30	1,363.78	1,324.68	45.16	30.173		
5,950.00	5,884.81	5,779.68	5,744.35	22.50	21.76	-158.14	-687.44	-170.32	1,387.39	1,348.29	45.89	30.212		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
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<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 1H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,000.00	5,925.42	6,615.78	6,029.35	22.59	28.03	96.34	-46.82	-776.30	767.93	718.04	49.89	15.391		
6,050.00	5,963.62	6,583.83	6,029.13	22.68	27.51	94.52	-69.64	-753.94	764.71	714.91	49.80	15.355		
6,100.00	5,999.18	6,548.96	6,028.88	22.80	26.98	92.56	-94.54	-729.54	763.41	713.83	49.58	15.396		
6,115.41	6,009.57	6,537.66	6,028.80	22.84	26.81	91.93	-102.61	-721.63	763.34	713.85	49.50	15.422		
6,150.00	6,031.88	6,511.39	6,028.61	22.93	26.41	90.51	-121.38	-703.25	763.66	714.40	49.26	15.503		
6,200.00	6,061.51	6,471.35	6,028.33	23.11	25.84	88.46	-149.98	-675.22	765.09	716.20	48.89	15.649		
6,250.00	6,087.89	6,429.08	6,028.03	23.32	25.26	86.47	-180.17	-645.64	767.30	718.80	48.50	15.821		
6,300.00	6,110.86	6,385.27	6,026.51	23.57	24.70	84.55	-211.35	-614.92	769.95	721.81	48.13	15.997		
6,350.00	6,130.29	6,342.69	6,022.18	23.88	24.18	82.71	-241.31	-584.99	772.86	725.04	47.82	16.161		
6,400.00	6,146.04	6,300.00	6,015.03	24.25	23.70	80.91	-270.88	-555.05	775.99	728.42	47.57	16.313		
6,450.00	6,158.02	6,260.99	6,006.05	24.66	23.29	79.28	-297.37	-527.87	779.24	731.81	47.42	16.431		
6,500.00	6,166.16	6,221.61	5,994.66	25.13	22.92	77.70	-323.50	-500.70	782.55	735.20	47.35	16.528		
6,550.00	6,170.40	6,183.06	5,981.28	25.65	22.60	76.21	-348.37	-474.47	785.84	738.49	47.35	16.597		
6,588.60	6,171.00	6,150.00	5,968.09	26.08	22.41	75.01	-369.09	-452.34	788.33	740.96	47.37	16.643		
6,600.00	6,170.83	6,145.29	5,966.09	26.21	22.38	74.86	-371.99	-449.22	789.07	741.64	47.43	16.636		
6,700.00	6,169.35	6,075.04	5,932.53	27.47	22.24	72.52	-413.64	-403.73	798.09	750.27	47.81	16.692		
6,800.00	6,167.87	6,013.01	5,897.45	28.90	22.19	70.09	-447.62	-365.54	812.35	764.03	48.33	16.810		
6,900.00	6,166.39	5,958.81	5,862.87	30.48	22.13	67.74	-474.89	-333.97	832.80	783.87	48.93	17.019		
7,000.00	6,164.91	5,911.70	5,830.06	32.19	22.08	65.55	-496.61	-308.09	860.01	810.44	49.57	17.350		
7,100.00	6,163.43	5,870.80	5,799.62	34.01	22.02	63.57	-513.87	-286.91	894.16	843.98	50.18	17.818		
7,200.00	6,161.95	5,835.23	5,771.80	35.92	21.97	61.79	-527.61	-269.54	935.13	884.38	50.74	18.429		
7,300.00	6,160.47	5,800.00	5,743.07	37.91	21.91	60.01	-540.01	-253.35	982.54	931.37	51.18	19.199		
7,400.00	6,158.99	5,777.01	5,723.75	39.97	21.86	58.83	-547.44	-243.36	1,035.83	984.18	51.65	20.056		
7,500.00	6,157.51	5,750.00	5,700.50	42.08	21.81	57.45	-555.48	-232.21	1,094.46	1,042.51	51.94	21.070		
7,600.00	6,156.03	5,731.91	5,684.62	44.24	21.78	56.52	-560.44	-225.12	1,157.77	1,105.52	52.25	22.159		
7,700.00	6,154.56	5,700.00	5,656.04	46.44	21.71	54.89	-568.35	-213.34	1,225.40	1,173.10	52.30	23.430		
7,800.00	6,153.08	5,700.00	5,656.04	48.68	21.71	54.89	-568.35	-213.34	1,296.29	1,243.65	52.64	24.624		
7,900.00	6,151.60	5,681.17	5,638.86	50.95	21.66	53.93	-572.51	-206.84	1,370.45	1,317.74	52.71	25.999		
8,000.00	6,150.12	5,667.56	5,626.31	53.24	21.63	53.25	-575.28	-202.36	1,447.35	1,394.56	52.79	27.419		
8,100.00	6,148.64	5,650.00	5,609.97	55.56	21.59	52.36	-578.56	-196.85	1,526.63	1,473.84	52.79	28.921		
8,200.00	6,147.16	5,650.00	5,609.97	57.90	21.59	52.36	-578.56	-196.85	1,607.94	1,555.03	52.91	30.392		
8,300.00	6,145.68	5,650.00	5,609.97	60.27	21.59	52.36	-578.56	-196.85	1,691.25	1,638.26	52.99	31.918		
8,400.00	6,144.20	5,624.45	5,585.89	62.64	21.52	51.10	-582.73	-189.38	1,775.64	1,722.78	52.86	33.594		
8,500.00	6,142.72	5,600.00	5,562.57	65.03	21.46	49.90	-586.04	-182.85	1,861.91	1,809.18	52.73	35.313		
8,600.00	6,141.24	5,600.00	5,562.57	67.44	21.46	49.90	-586.04	-182.85	1,948.95	1,896.19	52.76	36.937		
8,700.00	6,139.76	5,600.00	5,562.57	69.85	21.46	49.90	-586.04	-182.85	2,037.18	1,984.40	52.78	38.594		
8,800.00	6,138.28	5,600.00	5,562.57	72.28	21.46	49.90	-586.04	-182.85	2,126.46	2,073.67	52.79	40.279		
8,900.00	6,136.80	5,600.00	5,562.57	74.72	21.46	49.90	-586.04	-182.85	2,216.65	2,163.86	52.79	41.989		
9,000.00	6,135.32	5,600.00	5,562.57	77.16	21.46	49.90	-586.04	-182.85	2,307.65	2,254.86	52.78	43.719		
9,100.00	6,133.84	5,576.14	5,539.56	79.62	21.39	48.75	-588.63	-177.07	2,398.82	2,346.17	52.65	45.565		
9,200.00	6,132.36	5,571.00	5,534.59	82.08	21.38	48.51	-589.10	-175.90	2,490.92	2,438.31	52.61	47.348		
9,300.00	6,130.88	5,550.00	5,514.13	84.54	21.32	47.52	-590.73	-171.42	2,583.81	2,531.32	52.49	49.224		
9,400.00	6,129.40	5,550.00	5,514.13	87.02	21.32	47.52	-590.73	-171.42	2,676.82	2,624.34	52.48	51.006		
9,500.00	6,127.92	5,550.00	5,514.13	89.49	21.32	47.52	-590.73	-171.42	2,770.32	2,717.85	52.47	52.800		
9,600.00	6,126.44	5,550.00	5,514.13	91.98	21.32	47.52	-590.73	-171.42	2,864.26	2,811.80	52.45	54.604		
9,700.00	6,124.96	5,550.00	5,514.13	94.46	21.32	47.52	-590.73	-171.42	2,958.59	2,906.15	52.44	56.418		
9,800.00	6,123.48	5,550.00	5,514.13	96.96	21.32	47.52	-590.73	-171.42	3,053.29	3,000.86	52.43	58.240		
9,900.00	6,122.00	5,550.00	5,514.13	99.45	21.32	47.52	-590.73	-171.42	3,148.31	3,095.90	52.41	60.069		
10,000.00	6,120.52	5,550.00	5,514.13	101.95	21.32	47.52	-590.73	-171.42	3,243.63	3,191.24	52.40	61.904		
10,100.00	6,119.04	5,550.00	5,514.13	104.46	21.32	47.52	-590.73	-171.42	3,339.23	3,286.85	52.38	63.745		
10,200.00	6,117.56	5,550.00	5,514.13	106.96	21.32	47.52	-590.73	-171.42	3,435.08	3,382.70	52.37	65.590		
10,300.00	6,116.08	5,550.00	5,514.13	109.47	21.32	47.52	-590.73	-171.42	3,531.15	3,478.79	52.36	67.440		



Lonestar Consulting, LLC  
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 2H - Slot 3
Project:	Escrito Area	TVD Reference:	GL 7284' & RKB 14' @ 7298.00usft
Reference Site:	C17 2407 Pad	MD Reference:	GL 7284' & RKB 14' @ 7298.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design C17 2407 Pad - # 1H - Original Drilling - APD												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,400.00	6,114.61	5,528.12	5,492.69	111.98	21.25	46.51	-591.91	-167.24	3,627.01	3,574.74	52.27	69.393	
10,500.00	6,113.13	5,525.62	5,490.23	114.50	21.24	46.40	-592.01	-166.80	3,723.39	3,671.14	52.25	71.260	
10,600.00	6,111.65	5,523.22	5,487.87	117.02	21.24	46.29	-592.10	-166.38	3,819.95	3,767.71	52.24	73.129	
10,700.00	6,110.17	5,500.00	5,464.96	119.54	21.16	45.24	-592.62	-162.63	3,917.06	3,864.92	52.15	75.117	
10,778.80	6,109.00	5,500.00	5,464.96	121.52	21.16	45.24	-592.62	-162.63	3,993.32	3,941.18	52.14	76.582	
10,779.13	6,109.00	5,500.00	5,464.96	121.53	21.16	45.24	-592.62	-162.63	3,993.64	3,939.35	54.29	73.557	



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 3H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-126.55	-12.01	-16.20	20.17					
100.00	100.00	100.00	100.00	0.15	0.15	-126.55	-12.01	-16.20	20.17	19.86	0.31	65.427		
200.00	200.00	200.00	200.00	0.51	0.51	-126.55	-12.01	-16.20	20.17	19.15	1.03	19.674		
300.00	300.00	300.00	300.00	0.87	0.87	-126.55	-12.01	-16.20	20.17	18.43	1.74	11.578		
400.00	400.00	400.00	400.00	1.23	1.23	-126.55	-12.01	-16.20	20.17	17.71	2.46	8.202		
425.00	425.00	425.00	425.00	1.32	1.32	-126.55	-12.01	-16.20	20.17	17.53	2.64	7.645 CC		
500.00	499.99	499.98	499.98	1.59	1.59	-96.10	-11.24	-16.81	20.30	17.13	3.17	6.397		
600.00	599.89	599.97	599.89	1.95	1.95	-97.91	-8.35	-19.08	20.88	17.00	3.89	5.373 ES		
700.00	699.58	699.89	699.73	2.31	2.30	-107.85	-5.28	-21.50	22.29	17.68	4.61	4.838		
800.00	798.93	799.60	799.37	2.68	2.66	-123.21	-2.21	-23.92	26.02	20.69	5.33	4.878		
813.20	812.01	812.74	812.50	2.73	2.71	-125.34	-1.80	-24.24	26.78	21.35	5.43	4.931		
900.00	898.02	899.13	898.83	3.05	3.02	-136.91	0.86	-26.33	32.68	26.62	6.06	5.391		
1,000.00	997.10	998.67	998.28	3.44	3.38	-145.70	3.92	-28.74	40.58	33.80	6.79	5.979		
1,100.00	1,096.18	1,098.20	1,097.74	3.82	3.73	-151.54	6.98	-31.15	49.12	41.61	7.51	6.541		
1,200.00	1,195.27	1,197.73	1,197.19	4.21	4.09	-155.62	10.05	-33.56	58.01	49.78	8.23	7.047		
1,300.00	1,294.35	1,297.26	1,296.65	4.61	4.45	-158.61	13.11	-35.97	67.12	58.17	8.96	7.495		
1,400.00	1,393.43	1,396.79	1,396.10	5.00	4.81	-160.88	16.18	-38.38	76.37	66.69	9.68	7.890		
1,500.00	1,492.52	1,496.32	1,495.56	5.40	5.17	-162.66	19.24	-40.79	85.70	75.30	10.40	8.238		
1,600.00	1,591.60	1,595.86	1,595.01	5.79	5.53	-164.09	22.30	-43.20	95.11	83.98	11.13	8.547		
1,700.00	1,690.68	1,695.39	1,694.47	6.19	5.89	-165.26	25.37	-45.62	104.56	92.71	11.85	8.822		
1,800.00	1,789.77	1,794.92	1,793.93	6.59	6.25	-166.24	28.43	-48.03	114.05	101.47	12.58	9.068		
1,900.00	1,888.85	1,894.45	1,893.38	6.98	6.61	-167.07	31.49	-50.44	123.57	110.26	13.30	9.289		
2,000.00	1,987.93	1,993.98	1,992.84	7.38	6.97	-167.77	34.56	-52.85	133.10	119.08	14.03	9.488		
2,100.00	2,087.02	2,093.51	2,092.29	7.78	7.33	-168.39	37.62	-55.26	142.66	127.91	14.75	9.669		
2,200.00	2,186.10	2,193.05	2,191.75	8.18	7.69	-168.92	40.69	-57.67	152.23	136.75	15.48	9.834		
2,300.00	2,285.18	2,292.58	2,291.20	8.58	8.05	-169.40	43.75	-60.08	161.81	145.60	16.21	9.984		
2,400.00	2,384.27	2,392.11	2,390.66	8.98	8.41	-169.82	46.81	-62.49	171.40	154.47	16.93	10.122		
2,500.00	2,483.35	2,491.64	2,490.11	9.38	8.77	-170.19	49.88	-64.90	181.00	163.34	17.66	10.250		
2,600.00	2,582.43	2,591.17	2,589.57	9.78	9.13	-170.53	52.94	-67.31	190.61	172.22	18.39	10.367		
2,700.00	2,681.52	2,690.70	2,689.02	10.18	9.49	-170.83	56.01	-69.72	200.22	181.11	19.11	10.476		
2,800.00	2,780.60	2,790.23	2,788.48	10.58	9.85	-171.11	59.07	-72.14	209.84	190.00	19.84	10.577		
2,900.00	2,879.68	2,889.77	2,887.93	10.98	10.21	-171.36	62.13	-74.55	219.46	198.89	20.57	10.671		
3,000.00	2,978.77	2,989.30	2,987.39	11.39	10.57	-171.60	65.20	-76.96	229.08	207.79	21.29	10.758		
3,100.00	3,077.85	3,088.83	3,086.84	11.79	10.93	-171.81	68.26	-79.37	238.71	216.69	22.02	10.840		
3,200.00	3,176.93	3,188.36	3,186.30	12.19	11.29	-172.01	71.33	-81.78	248.34	225.60	22.75	10.917		
3,300.00	3,276.02	3,287.89	3,285.75	12.59	11.65	-172.19	74.39	-84.19	257.98	234.50	23.47	10.990		
3,400.00	3,375.10	3,387.42	3,385.21	12.99	12.01	-172.36	77.45	-86.60	267.62	243.41	24.20	11.058		
3,500.00	3,474.18	3,486.96	3,484.66	13.39	12.37	-172.51	80.52	-89.01	277.25	252.33	24.93	11.122		
3,600.00	3,573.27	3,586.49	3,584.12	13.79	12.73	-172.66	83.58	-91.42	286.90	261.24	25.66	11.182		
3,700.00	3,672.35	3,686.02	3,683.57	14.20	13.09	-172.80	86.65	-93.83	296.54	270.15	26.38	11.239		
3,800.00	3,771.43	3,785.55	3,783.03	14.60	13.45	-172.93	89.71	-96.24	306.18	279.07	27.11	11.293		
3,900.00	3,870.52	3,885.08	3,882.48	15.00	13.81	-173.05	92.77	-98.66	315.83	287.99	27.84	11.345		
4,000.00	3,969.60	3,984.61	3,981.94	15.40	14.17	-173.16	95.84	-101.07	325.48	296.91	28.57	11.394		
4,100.00	4,068.68	4,084.15	4,081.39	15.80	14.53	-173.27	98.90	-103.48	335.12	305.83	29.29	11.440		
4,200.00	4,167.77	4,183.68	4,180.85	16.20	14.89	-173.37	101.97	-105.89	344.77	314.75	30.02	11.484		
4,300.00	4,266.85	4,283.21	4,280.30	16.61	15.25	-173.46	105.03	-108.30	354.42	323.67	30.75	11.526		
4,400.00	4,365.93	4,382.74	4,379.76	17.01	15.61	-173.55	108.09	-110.71	364.07	332.60	31.48	11.567		
4,500.00	4,465.02	4,482.27	4,479.22	17.41	15.97	-173.64	111.16	-113.12	373.73	341.52	32.20	11.605		
4,600.00	4,564.10	4,581.80	4,578.67	17.81	16.33	-173.72	114.22	-115.53	383.38	350.45	32.93	11.642		
4,700.00	4,663.18	4,681.34	4,678.13	18.21	16.69	-173.80	117.29	-117.94	393.03	359.37	33.66	11.677		
4,800.00	4,762.27	4,780.87	4,777.58	18.62	17.05	-173.87	120.35	-120.35	402.69	368.30	34.39	11.710		
4,900.00	4,861.35	4,880.40	4,877.04	19.02	17.41	-173.94	123.41	-122.76	412.34	377.23	35.12	11.743		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 3H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,960.43	4,979.93	4,976.49	19.42	17.77	-174.01	126.48	-125.18	422.00	386.16	35.84	11.774		
5,100.00	5,059.52	5,079.46	5,075.95	19.82	18.13	-174.07	129.54	-127.59	431.65	395.08	36.57	11.803		
5,200.00	5,158.60	5,178.99	5,175.40	20.22	18.49	-174.13	132.61	-130.00	441.31	404.01	37.30	11.832		
5,300.00	5,257.68	5,278.52	5,274.86	20.63	18.85	-174.19	135.67	-132.41	450.97	412.94	38.03	11.859		
5,400.00	5,356.77	5,378.06	5,374.31	21.03	19.21	-174.25	138.73	-134.82	460.63	421.87	38.75	11.886		
5,495.35	5,451.24	5,472.96	5,469.15	21.41	19.55	-174.30	141.65	-137.12	469.83	430.39	39.45	11.910		
5,500.00	5,455.85	5,477.59	5,473.77	21.43	19.57	-175.08	141.80	-137.23	470.27	430.79	39.48	11.911		
5,550.00	5,505.63	5,527.50	5,523.64	21.62	19.75	164.38	143.33	-138.44	472.91	433.06	39.84	11.869		
5,600.00	5,555.59	5,606.16	5,602.16	21.78	20.03	64.42	146.71	-141.26	471.47	431.15	40.32	11.694		
5,650.00	5,605.42	5,759.51	5,751.32	21.92	20.63	39.10	171.65	-164.33	458.14	418.10	40.04	11.443		
5,700.00	5,654.82	5,879.80	5,860.05	22.04	21.15	38.53	208.81	-199.31	432.57	393.81	38.76	11.161		
5,750.00	5,703.48	5,964.93	5,930.25	22.15	21.56	44.62	243.72	-232.33	399.02	361.50	37.52	10.635		
5,800.00	5,751.09	6,021.95	5,973.41	22.25	21.87	54.54	270.74	-257.95	361.04	324.22	36.82	9.806		
5,850.00	5,797.38	6,058.68	5,999.37	22.33	22.08	66.22	289.57	-275.83	321.22	284.43	36.79	8.732		
5,900.00	5,842.04	6,081.12	6,014.49	22.42	22.22	77.18	301.60	-287.26	281.62	244.18	37.44	7.521		
5,950.00	5,884.81	6,093.45	6,022.53	22.50	22.30	85.59	308.37	-293.68	244.23	205.43	38.79	6.296		
6,000.00	5,925.42	6,098.46	6,025.76	22.59	22.33	90.84	311.15	-296.33	211.37	170.60	40.77	5.184		
6,050.00	5,963.62	6,098.10	6,025.52	22.68	22.33	93.10	310.95	-296.14	186.12	143.07	43.05	4.323		
6,100.00	5,999.18	6,093.68	6,022.68	22.80	22.30	92.75	308.50	-293.81	172.02	127.23	44.79	3.841		
6,126.21	6,016.69	6,090.07	6,020.35	22.87	22.28	91.63	306.51	-291.91	170.06	124.93	45.12	3.769 SF		
6,150.00	6,031.88	6,086.15	6,017.79	22.93	22.25	90.11	304.35	-289.86	171.66	126.65	45.01	3.814		
6,200.00	6,061.51	6,076.18	6,011.21	23.11	22.19	85.48	298.92	-284.71	184.73	140.96	43.76	4.221		
6,250.00	6,087.89	6,064.28	6,003.20	23.32	22.11	79.25	292.54	-278.64	208.21	166.20	42.01	4.956		
6,300.00	6,110.86	6,050.00	5,993.37	23.57	22.03	71.68	285.03	-271.51	238.51	198.05	40.46	5.894		
6,350.00	6,130.29	6,036.08	5,983.57	23.88	21.95	64.09	277.85	-264.70	272.82	233.33	39.49	6.909		
6,400.00	6,146.04	6,020.29	5,972.20	24.25	21.86	56.45	269.91	-257.17	309.27	270.37	38.90	7.951		
6,450.00	6,158.02	6,000.00	5,957.19	24.66	21.74	48.85	260.01	-247.77	346.69	308.25	38.44	9.019		
6,500.00	6,166.16	5,986.22	5,946.75	25.13	21.67	43.30	253.48	-241.58	384.23	345.64	38.59	9.957		
6,550.00	6,170.40	5,968.20	5,932.81	25.65	21.58	38.11	245.19	-233.73	421.46	382.75	38.71	10.888		
6,588.60	6,171.00	5,950.00	5,918.41	26.08	21.48	34.37	237.11	-226.07	449.76	411.04	38.72	11.616		
6,600.00	6,170.83	5,950.00	5,918.41	26.21	21.48	34.37	237.11	-226.07	458.05	419.11	38.94	11.763		
6,700.00	6,169.35	5,915.52	5,890.28	27.47	21.32	31.72	222.63	-212.37	533.64	494.18	39.46	13.524		
6,800.00	6,167.87	5,885.95	5,865.33	28.90	21.18	29.66	211.11	-201.48	613.28	573.31	39.97	15.344		
6,900.00	6,166.39	5,850.00	5,834.04	30.48	21.02	27.39	198.24	-189.33	696.24	656.03	40.20	17.318		
7,000.00	6,164.91	5,850.00	5,834.04	32.19	21.02	27.39	198.24	-189.33	781.60	740.56	41.03	19.047		
7,100.00	6,163.43	5,817.82	5,805.22	34.01	20.88	25.58	187.81	-179.51	868.69	827.54	41.15	21.110		
7,200.00	6,161.95	5,800.00	5,788.97	35.92	20.80	24.65	182.50	-174.51	957.63	916.20	41.43	23.113		
7,300.00	6,160.47	5,800.00	5,788.97	37.91	20.80	24.65	182.50	-174.51	1,048.21	1,006.37	41.84	25.051		
7,400.00	6,158.99	5,770.54	5,761.67	39.97	20.68	23.22	174.43	-166.94	1,139.31	1,097.43	41.88	27.205		
7,500.00	6,157.51	5,750.00	5,742.34	42.08	20.59	22.31	169.35	-162.18	1,231.73	1,189.74	41.99	29.337		
7,600.00	6,156.03	5,750.00	5,742.34	44.24	20.59	22.31	169.35	-162.18	1,324.80	1,282.57	42.23	31.371		
7,700.00	6,154.56	5,750.00	5,742.34	46.44	20.59	22.31	169.35	-162.18	1,418.82	1,376.40	42.42	33.443		
7,800.00	6,153.08	5,726.72	5,720.19	48.68	20.50	21.34	164.15	-157.32	1,513.00	1,470.56	42.45	35.645		
7,900.00	6,151.60	5,718.09	5,711.91	50.95	20.47	20.99	162.37	-155.66	1,607.91	1,565.37	42.55	37.792		
8,000.00	6,150.12	5,700.00	5,694.45	53.24	20.39	20.31	158.89	-152.43	1,703.37	1,660.79	42.58	40.000		
8,100.00	6,148.64	5,700.00	5,694.45	55.56	20.39	20.31	158.89	-152.43	1,799.01	1,756.31	42.70	42.131		
8,200.00	6,147.16	5,700.00	5,694.45	57.90	20.39	20.31	158.89	-152.43	1,895.09	1,852.29	42.80	44.279		
8,300.00	6,145.68	5,700.00	5,694.45	60.27	20.39	20.31	158.89	-152.43	1,991.56	1,948.68	42.88	46.440		
8,400.00	6,144.20	5,700.00	5,694.45	62.64	20.39	20.31	158.89	-152.43	2,088.37	2,045.41	42.96	48.612		
8,500.00	6,142.72	5,678.71	5,673.74	65.03	20.31	19.54	155.27	-149.07	2,185.00	2,142.04	42.96	50.861		
8,600.00	6,141.24	5,673.68	5,668.82	67.44	20.29	19.37	154.49	-148.35	2,282.11	2,239.09	43.01	53.059		
8,700.00	6,139.76	5,650.00	5,645.58	69.85	20.20	18.59	151.18	-145.31	2,379.76	2,336.76	43.01	55.336		



**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 3H - Original Drilling - APD													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,800.00	6,138.28	5,650.00	5,645.58	72.28	20.20	18.59	151.18	-145.31	2,477.09	2,434.03	43.06	57.520		
8,900.00	6,136.80	5,650.00	5,645.58	74.72	20.20	18.59	151.18	-145.31	2,574.62	2,531.50	43.12	59.709		
9,000.00	6,135.32	5,650.00	5,645.58	77.16	20.20	18.59	151.18	-145.31	2,672.34	2,629.17	43.17	61.902		
9,100.00	6,133.84	5,650.00	5,645.58	79.62	20.20	18.59	151.18	-145.31	2,770.21	2,727.00	43.22	64.098		
9,200.00	6,132.36	5,650.00	5,645.58	82.08	20.20	18.59	151.18	-145.31	2,868.24	2,824.97	43.26	66.296		
9,300.00	6,130.88	5,650.00	5,645.58	84.54	20.20	18.59	151.18	-145.31	2,966.39	2,923.09	43.31	68.497		
9,400.00	6,129.40	5,650.00	5,645.58	87.02	20.20	18.59	151.18	-145.31	3,064.67	3,021.32	43.35	70.698		
9,500.00	6,127.92	5,650.00	5,645.58	89.49	20.20	18.59	151.18	-145.31	3,163.05	3,119.66	43.39	72.899		
9,600.00	6,126.44	5,650.00	5,645.58	91.98	20.20	18.59	151.18	-145.31	3,261.54	3,218.11	43.43	75.101		
9,700.00	6,124.96	5,650.00	5,645.58	94.46	20.20	18.59	151.18	-145.31	3,360.11	3,316.64	43.47	77.302		
9,800.00	6,123.48	5,650.00	5,645.58	96.96	20.20	18.59	151.18	-145.31	3,458.76	3,415.25	43.51	79.502		
9,900.00	6,122.00	5,650.00	5,645.58	99.45	20.20	18.59	151.18	-145.31	3,557.49	3,513.95	43.54	81.700		
10,000.00	6,120.52	5,627.39	5,623.24	101.95	20.11	17.90	148.60	-142.96	3,655.82	3,612.27	43.55	83.947		
10,100.00	6,119.04	5,625.20	5,621.07	104.46	20.11	17.83	148.39	-142.76	3,754.58	3,711.00	43.58	86.145		
10,200.00	6,117.56	5,623.11	5,618.99	106.96	20.10	17.77	148.18	-142.58	3,853.41	3,809.79	43.62	88.340		
10,300.00	6,116.08	5,600.00	5,596.03	109.47	20.01	17.12	146.26	-140.86	3,952.69	3,909.06	43.63	90.597		
10,400.00	6,114.61	5,600.00	5,596.03	111.98	20.01	17.12	146.26	-140.86	4,051.54	4,007.87	43.67	92.779		
10,500.00	6,113.13	5,600.00	5,596.03	114.50	20.01	17.12	146.26	-140.86	4,150.45	4,106.74	43.71	94.958		
10,600.00	6,111.65	5,600.00	5,596.03	117.02	20.01	17.12	146.26	-140.86	4,249.40	4,205.66	43.75	97.133		
10,700.00	6,110.17	5,600.00	5,596.03	119.54	20.01	17.12	146.26	-140.86	4,348.41	4,304.62	43.79	99.306		
10,778.80	6,109.00	5,600.00	5,596.03	121.52	20.01	17.12	146.26	-140.86	4,426.46	4,382.64	43.82	101.015		
10,779.13	6,109.00	5,600.00	5,596.03	121.53	20.01	17.12	146.26	-140.86	4,426.78	4,379.91	46.87	94.450		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 4H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	54.29	11.65	16.20	19.96					
100.00	100.00	100.00	100.00	0.15	0.15	54.29	11.65	16.20	19.96	19.65	0.31	64.731		
200.00	200.00	200.00	200.00	0.51	0.51	54.29	11.65	16.20	19.96	18.93	1.03	19.465		
300.00	300.00	300.00	300.00	0.87	0.87	54.29	11.65	16.20	19.96	18.21	1.74	11.454		
400.00	400.00	400.00	400.00	1.23	1.23	54.29	11.65	16.20	19.96	17.50	2.46	8.115		
425.00	425.00	425.00	425.00	1.32	1.32	54.29	11.65	16.20	19.96	17.32	2.64	7.564 CC		
500.00	499.99	499.73	499.72	1.59	1.59	85.10	12.62	16.12	20.37	17.19	3.17	6.416 ES		
600.00	599.89	599.35	599.24	1.95	1.95	86.59	16.93	15.74	22.20	18.31	3.89	5.709		
700.00	699.58	698.90	698.49	2.31	2.31	88.73	24.68	15.06	25.52	20.91	4.61	5.539		
800.00	798.93	798.37	797.31	2.68	2.67	90.97	35.85	14.09	30.36	25.02	5.34	5.686		
813.20	812.01	811.48	810.31	2.73	2.72	91.26	37.58	13.93	31.11	25.67	5.44	5.722		
900.00	898.02	897.70	895.55	3.05	3.04	91.05	50.41	12.81	36.68	30.59	6.09	6.026		
1,000.00	997.10	996.73	992.94	3.44	3.43	87.11	68.29	11.25	44.52	37.67	6.85	6.502		
1,100.00	1,096.18	1,095.24	1,089.14	3.82	3.84	81.28	89.40	9.40	54.35	46.74	7.61	7.143		
1,200.00	1,195.27	1,193.00	1,183.83	4.21	4.27	74.98	113.59	7.29	66.72	58.36	8.36	7.980		
1,300.00	1,294.35	1,291.26	1,278.37	4.61	4.71	69.40	140.25	4.95	81.39	72.27	9.12	8.922		
1,400.00	1,393.43	1,389.90	1,373.25	5.00	5.18	65.49	167.13	2.60	96.68	86.79	9.90	9.769		
1,500.00	1,492.52	1,488.54	1,468.13	5.40	5.65	62.65	194.01	0.25	112.30	101.62	10.67	10.520		
1,600.00	1,591.60	1,587.18	1,563.01	5.79	6.12	60.50	220.89	-2.10	128.11	116.66	11.46	11.183		
1,700.00	1,690.68	1,685.82	1,657.89	6.19	6.60	58.83	247.76	-4.45	144.06	131.82	12.24	11.769		
1,800.00	1,789.77	1,784.46	1,752.77	6.59	7.09	57.49	274.64	-6.80	160.11	147.09	13.03	12.291		
1,900.00	1,888.85	1,883.11	1,847.65	6.98	7.58	56.40	301.52	-9.15	176.23	162.42	13.82	12.756		
2,000.00	1,987.93	1,981.75	1,942.53	7.38	8.07	55.49	328.40	-11.50	192.40	177.80	14.61	13.174		
2,100.00	2,087.02	2,080.39	2,037.41	7.78	8.56	54.72	355.28	-13.85	208.61	193.21	15.40	13.549		
2,200.00	2,186.10	2,179.03	2,132.29	8.18	9.06	54.06	382.16	-16.21	224.85	208.66	16.19	13.890		
2,300.00	2,285.18	2,277.67	2,227.17	8.58	9.56	53.49	409.03	-18.56	241.12	224.14	16.98	14.199		
2,400.00	2,384.27	2,376.31	2,322.05	8.98	10.05	52.99	435.91	-20.91	257.41	239.63	17.78	14.480		
2,500.00	2,483.35	2,474.96	2,416.93	9.38	10.55	52.55	462.79	-23.26	273.71	255.14	18.57	14.739		
2,600.00	2,582.43	2,573.60	2,511.81	9.78	11.05	52.16	489.67	-25.61	290.03	270.66	19.37	14.976		
2,700.00	2,681.52	2,672.24	2,606.69	10.18	11.56	51.82	516.55	-27.96	306.36	286.19	20.16	15.194		
2,800.00	2,780.60	2,770.88	2,701.57	10.58	12.06	51.50	543.43	-30.31	322.70	301.74	20.96	15.397		
2,900.00	2,879.68	2,869.52	2,796.45	10.98	12.56	51.22	570.30	-32.66	339.04	317.29	21.76	15.584		
3,000.00	2,978.77	2,968.16	2,891.33	11.39	13.06	50.96	597.18	-35.01	355.40	332.84	22.55	15.758		
3,100.00	3,077.85	3,066.81	2,986.21	11.79	13.57	50.73	624.06	-37.36	371.76	348.41	23.35	15.920		
3,200.00	3,176.93	3,165.45	3,081.09	12.19	14.07	50.52	650.94	-39.72	388.13	363.98	24.15	16.072		
3,300.00	3,276.02	3,264.09	3,175.97	12.59	14.58	50.32	677.82	-42.07	404.50	379.55	24.95	16.214		
3,400.00	3,375.10	3,362.73	3,270.85	12.99	15.08	50.14	704.70	-44.42	420.87	395.13	25.75	16.347		
3,500.00	3,474.18	3,461.37	3,365.73	13.39	15.59	49.97	731.57	-46.77	437.25	410.71	26.55	16.472		
3,600.00	3,573.27	3,560.01	3,460.61	13.79	16.09	49.81	758.45	-49.12	453.64	426.29	27.34	16.590		
3,700.00	3,672.35	3,658.65	3,555.49	14.20	16.60	49.67	785.33	-51.47	470.02	441.88	28.14	16.701		
3,800.00	3,771.43	3,757.30	3,650.37	14.60	17.11	49.53	812.21	-53.82	486.41	457.47	28.94	16.806		
3,900.00	3,870.52	3,855.94	3,745.25	15.00	17.61	49.41	839.09	-56.17	502.80	473.06	29.74	16.905		
4,000.00	3,969.60	3,954.58	3,840.13	15.40	18.12	49.29	865.97	-58.52	519.20	488.65	30.54	16.999		
4,100.00	4,068.68	4,053.22	3,935.01	15.80	18.63	49.18	892.84	-60.87	535.59	504.25	31.34	17.088		
4,200.00	4,167.77	4,151.86	4,029.89	16.20	19.13	49.07	919.72	-63.23	551.99	519.85	32.14	17.173		
4,300.00	4,266.85	4,250.50	4,124.77	16.61	19.64	48.97	946.60	-65.58	568.39	535.44	32.94	17.254		
4,400.00	4,365.93	4,349.15	4,219.65	17.01	20.15	48.88	973.48	-67.93	584.79	551.04	33.74	17.331		
4,500.00	4,465.02	4,447.79	4,314.53	17.41	20.66	48.79	1,000.36	-70.28	601.19	566.65	34.54	17.404		
4,600.00	4,564.10	4,546.43	4,409.41	17.81	21.16	48.71	1,027.24	-72.63	617.59	582.25	35.34	17.474		
4,700.00	4,663.18	4,645.07	4,504.29	18.21	21.67	48.63	1,054.11	-74.98	634.00	597.85	36.14	17.540		
4,800.00	4,762.27	4,743.71	4,599.17	18.62	22.18	48.56	1,080.99	-77.33	650.40	613.46	36.95	17.604		
4,900.00	4,861.35	4,842.35	4,694.05	19.02	22.69	48.49	1,107.87	-79.68	666.81	629.06	37.75	17.665		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 4H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,960.43	4,941.00	4,788.93	19.42	23.20	48.42	1,134.75	-82.03	683.22	644.67	38.55	17.724		
5,100.00	5,059.52	5,039.64	4,883.81	19.82	23.70	48.35	1,161.63	-84.38	699.63	660.28	39.35	17.780		
5,200.00	5,158.60	5,138.28	4,978.69	20.22	24.21	48.29	1,188.51	-86.74	716.04	675.89	40.15	17.834		
5,300.00	5,257.68	5,236.92	5,073.57	20.63	24.72	48.23	1,215.39	-89.09	732.45	691.49	40.95	17.886		
5,400.00	5,356.77	5,335.56	5,168.45	21.03	25.23	48.18	1,242.26	-91.44	748.86	707.10	41.75	17.935		
5,495.35	5,451.24	5,429.62	5,258.92	21.41	25.71	48.12	1,267.89	-93.68	764.50	721.99	42.52	17.981		
5,500.00	5,455.85	5,434.20	5,263.33	21.43	25.74	47.41	1,269.14	-93.79	765.28	722.72	42.55	17.984		
5,550.00	5,505.63	5,497.69	5,324.50	21.62	26.06	27.40	1,286.07	-94.91	774.44	731.39	43.05	17.988		
5,600.00	5,555.59	5,606.94	5,431.49	21.78	26.51	-72.42	1,306.23	-87.65	782.72	738.95	43.77	17.884		
5,650.00	5,605.42	5,717.16	5,539.42	21.92	26.83	-99.64	1,313.02	-67.09	788.93	744.68	44.24	17.831		
5,700.00	5,654.82	5,825.65	5,642.52	22.04	27.02	-104.52	1,306.20	-34.45	793.11	748.57	44.55	17.804		
5,750.00	5,703.48	5,930.05	5,736.00	22.15	27.13	-105.32	1,287.18	7.68	795.47	750.70	44.77	17.769		
5,800.00	5,751.09	6,028.67	5,816.84	22.25	27.16	-104.61	1,258.45	56.12	796.30	751.28	45.02	17.688		
5,850.00	5,797.38	6,120.63	5,883.94	22.33	27.16	-103.20	1,222.84	107.81	795.97	750.59	45.38	17.540		
5,900.00	5,842.04	6,205.70	5,937.65	22.42	27.16	-101.41	1,182.98	160.28	794.85	748.96	45.89	17.321		
5,950.00	5,884.81	6,284.17	5,979.20	22.50	27.17	-99.45	1,140.95	211.81	793.26	746.70	46.56	17.038		
6,000.00	5,925.42	6,356.57	6,010.19	22.59	27.22	-97.41	1,098.25	261.34	791.51	744.17	47.34	16.720		
6,050.00	5,963.62	6,423.58	6,032.22	22.68	27.34	-95.36	1,055.86	308.29	789.80	741.60	48.20	16.386		
6,100.00	5,999.18	6,485.87	6,046.73	22.80	27.52	-93.31	1,014.42	352.43	788.31	739.22	49.09	16.057		
6,150.00	6,031.88	6,544.07	6,054.97	22.93	27.79	-91.29	974.27	393.72	787.17	737.17	50.00	15.745		
6,200.00	6,061.51	6,598.75	6,057.97	23.11	28.12	-89.30	935.61	432.25	786.45	735.56	50.88	15.456		
6,232.42	6,079.00	6,628.84	6,057.86	23.24	28.35	-88.20	914.07	453.26	786.26	734.85	51.41	15.293		
6,250.00	6,087.89	6,643.92	6,057.73	23.32	28.47	-87.66	903.27	463.78	786.31	734.63	51.68	15.214		
6,300.00	6,110.86	6,688.11	6,057.34	23.57	28.87	-86.19	871.61	494.61	786.95	734.47	52.48	14.996		
6,350.00	6,130.29	6,734.00	6,056.95	23.88	29.34	-84.83	838.74	526.63	788.06	734.71	53.35	14.772		
6,400.00	6,146.04	6,781.30	6,056.53	24.25	29.88	-83.66	804.85	559.63	789.36	735.07	54.29	14.540		
6,450.00	6,158.02	6,829.72	6,056.11	24.66	30.49	-82.72	770.16	593.41	790.63	735.30	55.33	14.290		
6,500.00	6,166.16	6,878.97	6,055.69	25.13	31.16	-82.04	734.88	627.76	791.66	735.21	56.46	14.023		
6,550.00	6,170.40	6,928.74	6,055.25	25.65	31.88	-81.66	699.23	662.48	792.34	734.66	57.68	13.737		
6,588.60	6,171.00	6,967.32	6,054.92	26.08	32.47	-81.57	671.59	689.40	792.57	733.88	58.68	13.506		
6,600.00	6,170.83	6,978.72	6,054.82	26.21	32.64	-81.58	663.42	697.35	792.60	733.61	58.99	13.437		
6,700.00	6,169.35	7,078.72	6,053.95	27.47	34.27	-81.63	591.78	767.12	792.85	731.00	61.85	12.819		
6,800.00	6,167.87	7,178.72	6,053.08	28.90	36.02	-81.67	520.14	836.88	793.10	728.11	64.99	12.203		
6,900.00	6,166.39	7,278.71	6,052.21	30.48	37.87	-81.72	448.51	906.64	793.35	724.98	68.37	11.603		
7,000.00	6,164.91	7,378.71	6,051.34	32.19	39.79	-81.77	376.87	976.41	793.60	721.64	71.96	11.028		
7,100.00	6,163.43	7,478.71	6,050.47	34.01	41.79	-81.82	305.23	1,046.17	793.85	718.12	75.73	10.483		
7,200.00	6,161.95	7,578.71	6,049.61	35.92	43.85	-81.86	233.59	1,115.93	794.10	714.45	79.65	9.970		
7,300.00	6,160.47	7,678.70	6,048.74	37.91	45.96	-81.91	161.96	1,185.69	794.36	710.65	83.70	9.490		
7,400.00	6,158.99	7,778.70	6,047.87	39.97	48.11	-81.96	90.32	1,255.46	794.61	706.74	87.87	9.043		
7,500.00	6,157.51	7,878.70	6,047.00	42.08	50.31	-82.00	18.68	1,325.22	794.86	702.74	92.13	8.628		
7,600.00	6,156.03	7,978.70	6,046.13	44.24	52.54	-82.05	-52.96	1,394.98	795.12	698.65	96.47	8.242		
7,700.00	6,154.56	8,078.69	6,045.26	46.44	54.79	-82.10	-124.59	1,464.74	795.37	694.49	100.89	7.884		
7,800.00	6,153.08	8,178.69	6,044.39	48.68	57.08	-82.15	-196.23	1,534.51	795.63	690.26	105.37	7.551		
7,900.00	6,151.60	8,278.69	6,043.52	50.95	59.38	-82.19	-267.87	1,604.27	795.89	685.98	109.91	7.241		
8,000.00	6,150.12	8,378.69	6,042.65	53.24	61.71	-82.24	-339.51	1,674.03	796.14	681.65	114.49	6.954		
8,100.00	6,148.64	8,478.68	6,041.79	55.56	64.06	-82.29	-411.14	1,743.79	796.40	677.28	119.12	6.685		
8,200.00	6,147.16	8,578.68	6,040.92	57.90	66.42	-82.33	-482.78	1,813.56	796.66	672.86	123.79	6.435		
8,300.00	6,145.68	8,678.68	6,040.05	60.27	68.80	-82.38	-554.42	1,883.32	796.92	668.42	128.50	6.202		
8,400.00	6,144.20	8,778.68	6,039.18	62.64	71.19	-82.43	-626.06	1,953.08	797.18	663.94	133.24	5.983		
8,500.00	6,142.72	8,878.67	6,038.31	65.03	73.60	-82.47	-697.69	2,022.84	797.43	659.44	138.00	5.779		
8,600.00	6,141.24	8,978.67	6,037.44	67.44	76.01	-82.52	-769.33	2,092.61	797.69	654.91	142.79	5.587		
8,700.00	6,139.76	9,078.67	6,036.57	69.85	78.44	-82.57	-840.97	2,162.37	797.95	650.36	147.60	5.406		



## Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 4H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	6,138.28	9,178.67	6,035.70	72.28	80.87	-82.61	-912.61	2,232.13	798.22	645.78	152.43	5.237		
8,900.00	6,136.80	9,278.66	6,034.83	74.72	83.31	-82.66	-984.24	2,301.89	798.48	641.19	157.28	5.077		
9,000.00	6,135.32	9,378.66	6,033.97	77.16	85.76	-82.71	-1,055.88	2,371.66	798.74	636.59	162.15	4.926		
9,100.00	6,133.84	9,478.66	6,033.10	79.62	88.22	-82.75	-1,127.52	2,441.42	799.00	631.96	167.04	4.783		
9,200.00	6,132.36	9,578.66	6,032.23	82.08	90.68	-82.80	-1,199.16	2,511.18	799.27	627.33	171.94	4.649		
9,300.00	6,130.88	9,678.65	6,031.36	84.54	93.15	-82.85	-1,270.79	2,580.94	799.53	622.68	176.85	4.521		
9,400.00	6,129.40	9,778.65	6,030.49	87.02	95.63	-82.89	-1,342.43	2,650.71	799.79	618.02	181.77	4.400		
9,500.00	6,127.92	9,878.65	6,029.62	89.49	98.11	-82.94	-1,414.07	2,720.47	800.06	613.35	186.71	4.285		
9,600.00	6,126.44	9,978.65	6,028.75	91.98	100.59	-82.99	-1,485.71	2,790.23	800.32	608.67	191.66	4.176		
9,700.00	6,124.96	10,078.64	6,027.88	94.46	103.08	-83.03	-1,557.34	2,859.99	800.59	603.97	196.61	4.072		
9,800.00	6,123.48	10,178.64	6,027.02	96.96	105.57	-83.08	-1,628.98	2,929.76	800.85	599.27	201.58	3.973		
9,900.00	6,122.00	10,278.64	6,026.15	99.45	108.07	-83.12	-1,700.62	2,999.52	801.12	594.57	206.55	3.878		
10,000.00	6,120.52	10,378.64	6,025.28	101.95	110.57	-83.17	-1,772.26	3,069.28	801.39	589.85	211.54	3.788		
10,100.00	6,119.04	10,478.63	6,024.41	104.46	113.07	-83.22	-1,843.89	3,139.05	801.66	585.13	216.53	3.702		
10,200.00	6,117.56	10,578.63	6,023.54	106.96	115.58	-83.26	-1,915.53	3,208.81	801.93	580.40	221.52	3.620		
10,300.00	6,116.08	10,678.63	6,022.67	109.47	118.09	-83.31	-1,987.17	3,278.57	802.19	575.67	226.53	3.541		
10,400.00	6,114.61	10,778.63	6,021.80	111.98	120.60	-83.36	-2,058.81	3,348.33	802.46	570.93	231.54	3.466		
10,500.00	6,113.13	10,878.62	6,020.93	114.50	123.12	-83.40	-2,130.44	3,418.10	802.73	566.18	236.55	3.393		
10,600.00	6,111.65	10,978.62	6,020.06	117.02	125.63	-83.45	-2,202.08	3,487.86	803.00	561.43	241.58	3.324		
10,700.00	6,110.17	11,078.66	6,019.20	119.54	128.15	-83.49	-2,273.75	3,557.65	803.27	556.67	246.60	3.257		
10,778.80	6,109.00	11,101.11	6,019.00	121.52	128.72	-83.50	-2,289.83	3,573.30	805.45	556.51	248.94	3.236 SF		
10,779.13	6,109.00	11,101.11	6,019.00	121.53	128.72	-83.50	-2,289.83	3,573.30	805.48	556.53	248.94	3.236		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 5H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	54.29	23.30	32.41	39.91					
100.00	100.00	100.00	100.00	0.15	0.15	54.29	23.30	32.41	39.91	39.60	0.31	129.462		
200.00	200.00	200.00	200.00	0.51	0.51	54.29	23.30	32.41	39.91	38.89	1.03	38.929		
300.00	300.00	300.00	300.00	0.87	0.87	54.29	23.30	32.41	39.91	38.17	1.74	22.909		
400.00	400.00	400.00	400.00	1.23	1.23	54.29	23.30	32.41	39.91	37.45	2.46	16.230		
425.00	425.00	425.00	425.00	1.32	1.32	54.29	23.30	32.41	39.91	37.27	2.64	15.127 CC		
500.00	499.99	499.42	499.41	1.59	1.59	84.95	24.26	32.37	40.36	37.19	3.17	12.721 ES		
600.00	599.89	598.62	598.51	1.95	1.95	85.90	28.55	32.23	42.38	38.49	3.89	10.907		
700.00	699.58	697.74	697.33	2.31	2.31	87.40	36.26	31.97	46.03	41.43	4.60	10.001		
800.00	798.93	796.74	795.70	2.68	2.67	89.17	47.37	31.60	51.35	46.02	5.33	9.631		
813.20	812.01	809.80	808.64	2.73	2.72	89.41	49.09	31.55	52.17	46.74	5.43	9.610		
900.00	898.02	895.59	893.48	3.05	3.04	89.82	61.84	31.12	58.34	52.26	6.08	9.601 SF		
1,000.00	997.10	994.98	991.39	3.44	3.42	88.45	78.87	30.55	66.55	59.71	6.84	9.732		
1,100.00	1,096.18	1,094.62	1,089.54	3.82	3.82	87.30	96.07	29.98	74.86	67.25	7.61	9.833		
1,200.00	1,195.27	1,194.27	1,187.68	4.21	4.22	86.38	113.27	29.40	83.19	74.80	8.39	9.911		
1,300.00	1,294.35	1,293.91	1,285.83	4.61	4.63	85.63	130.47	28.83	91.54	82.36	9.18	9.972		
1,400.00	1,393.43	1,393.55	1,383.98	5.00	5.04	85.00	147.67	28.26	99.90	89.93	9.97	10.021		
1,500.00	1,492.52	1,493.20	1,482.13	5.40	5.45	84.47	164.87	27.68	108.27	97.51	10.76	10.061		
1,600.00	1,591.60	1,592.84	1,580.27	5.79	5.86	84.01	182.07	27.11	116.65	105.10	11.56	10.095		
1,700.00	1,690.68	1,692.49	1,678.42	6.19	6.28	83.62	199.27	26.54	125.04	112.69	12.35	10.123		
1,800.00	1,789.77	1,792.13	1,776.57	6.59	6.70	83.28	216.47	25.96	133.43	120.28	13.15	10.147		
1,900.00	1,888.85	1,891.78	1,874.71	6.98	7.11	82.97	233.67	25.39	141.82	127.88	13.95	10.168		
2,000.00	1,987.93	1,991.42	1,972.86	7.38	7.53	82.70	250.87	24.81	150.22	135.47	14.75	10.186		
2,100.00	2,087.02	2,091.06	2,071.01	7.78	7.95	82.46	268.07	24.24	158.62	143.08	15.55	10.202		
2,200.00	2,186.10	2,190.71	2,169.16	8.18	8.37	82.25	285.26	23.67	167.03	150.68	16.35	10.216		
2,300.00	2,285.18	2,290.35	2,267.30	8.58	8.79	82.05	302.46	23.09	175.44	158.28	17.15	10.229		
2,400.00	2,384.27	2,390.00	2,365.45	8.98	9.21	81.87	319.66	22.52	183.84	165.89	17.95	10.240		
2,500.00	2,483.35	2,489.64	2,463.60	9.38	9.63	81.71	336.86	21.94	192.25	173.50	18.76	10.250		
2,600.00	2,582.43	2,589.29	2,561.74	9.78	10.05	81.56	354.06	21.37	200.66	181.11	19.56	10.259		
2,700.00	2,681.52	2,688.93	2,659.89	10.18	10.47	81.42	371.26	20.80	209.08	188.72	20.36	10.268		
2,800.00	2,780.60	2,788.52	2,758.04	10.58	10.90	81.30	388.46	20.22	217.49	196.33	21.17	10.276		
2,900.00	2,879.68	2,888.22	2,856.19	10.98	11.32	81.18	405.66	19.65	225.91	203.94	21.97	10.283		
3,000.00	2,978.77	2,987.86	2,954.33	11.39	11.74	81.07	422.86	19.08	234.32	211.55	22.77	10.289		
3,100.00	3,077.85	3,087.51	3,052.48	11.79	12.16	80.97	440.06	18.50	242.74	219.16	23.58	10.295		
3,200.00	3,176.93	3,187.15	3,150.63	12.19	12.58	80.88	457.26	17.93	251.15	226.77	24.38	10.300		
3,300.00	3,276.02	3,286.80	3,248.77	12.59	13.01	80.79	474.46	17.35	259.57	234.38	25.19	10.306		
3,400.00	3,375.10	3,386.44	3,346.92	12.99	13.43	80.71	491.66	16.78	267.99	242.00	25.99	10.310		
3,500.00	3,474.18	3,486.08	3,445.07	13.39	13.85	80.63	508.85	16.21	276.41	249.61	26.80	10.315		
3,600.00	3,573.27	3,585.73	3,543.21	13.79	14.28	80.56	526.05	15.63	284.83	257.23	27.60	10.319		
3,700.00	3,672.35	3,685.37	3,641.36	14.20	14.70	80.49	543.25	15.06	293.25	264.84	28.41	10.323		
3,800.00	3,771.43	3,785.02	3,739.51	14.60	15.12	80.42	560.45	14.49	301.67	272.45	29.21	10.327		
3,900.00	3,870.52	3,884.66	3,837.66	15.00	15.54	80.36	577.65	13.91	310.09	280.07	30.02	10.330		
4,000.00	3,969.60	3,984.31	3,935.80	15.40	15.97	80.30	594.85	13.34	318.51	287.68	30.82	10.333		
4,100.00	4,068.68	4,083.95	4,033.95	15.80	16.39	80.25	612.05	12.76	326.93	295.30	31.63	10.336		
4,200.00	4,167.77	4,183.60	4,132.10	16.20	16.81	80.20	629.25	12.19	335.35	302.92	32.43	10.339		
4,300.00	4,266.85	4,283.24	4,230.24	16.61	17.24	80.15	646.45	11.62	343.77	310.53	33.24	10.342		
4,400.00	4,365.93	4,382.88	4,328.39	17.01	17.66	80.10	663.65	11.04	352.19	318.15	34.05	10.345		
4,500.00	4,465.02	4,482.53	4,426.54	17.41	18.09	80.05	680.85	10.47	360.62	325.76	34.85	10.347		
4,600.00	4,564.10	4,582.17	4,524.69	17.81	18.51	80.01	698.05	9.90	369.04	333.38	35.66	10.349		
4,700.00	4,663.18	4,681.82	4,622.83	18.21	18.93	79.97	715.25	9.32	377.46	341.00	36.46	10.352		
4,800.00	4,762.27	4,781.46	4,720.98	18.62	19.36	79.93	732.45	8.75	385.88	348.61	37.27	10.354		
4,900.00	4,861.35	4,881.11	4,819.13	19.02	19.78	79.89	749.64	8.17	394.31	356.23	38.08	10.356		



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design C17 2407 Pad - # 5H - Original Drilling - APD													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,960.43	4,980.75	4,917.27	19.42	20.20	79.86	766.84	7.60	402.73	363.85	38.88	10.358	
5,100.00	5,059.52	5,080.39	5,015.42	19.82	20.63	79.82	784.04	7.03	411.15	371.46	39.69	10.359	
5,200.00	5,158.60	5,180.04	5,113.57	20.22	21.05	79.79	801.24	6.45	419.58	379.08	40.49	10.361	
5,300.00	5,257.68	5,279.68	5,211.71	20.63	21.48	79.76	818.44	5.88	428.00	386.70	41.30	10.363	
5,400.00	5,356.77	5,379.33	5,309.86	21.03	21.90	79.73	835.64	5.30	436.42	394.31	42.11	10.364	
5,495.35	5,451.24	5,474.34	5,403.45	21.41	22.30	79.70	852.04	4.76	444.45	401.58	42.88	10.366	
5,500.00	5,455.85	5,478.97	5,408.01	21.43	22.32	78.96	852.84	4.73	444.84	401.93	42.91	10.366	
5,550.00	5,505.63	5,528.73	5,457.02	21.62	22.54	58.49	861.43	4.44	448.92	405.63	43.29	10.370	
5,600.00	5,555.59	5,578.17	5,505.72	21.78	22.75	-42.41	869.96	4.16	452.80	409.18	43.62	10.381	
5,650.00	5,605.42	5,627.62	5,554.17	21.92	22.97	-71.88	879.66	2.73	456.59	412.69	43.91	10.399	
5,700.00	5,654.82	5,673.66	5,598.61	22.04	23.19	-80.17	891.08	-0.99	460.73	416.61	44.12	10.442	
5,750.00	5,703.48	5,715.00	5,637.75	22.15	23.40	-85.05	903.25	-6.28	466.00	421.74	44.26	10.529	
5,800.00	5,751.09	5,750.00	5,670.21	22.25	23.58	-88.55	914.93	-12.19	473.28	429.00	44.29	10.687	
5,850.00	5,797.38	5,781.43	5,698.73	22.33	23.76	-91.30	926.47	-18.59	483.36	439.13	44.23	10.928	
5,900.00	5,842.04	5,806.46	5,720.98	22.42	23.91	-93.07	936.34	-24.41	496.85	452.79	44.06	11.277	
5,950.00	5,884.81	5,826.44	5,738.41	22.50	24.03	-93.93	944.66	-29.53	514.09	470.29	43.80	11.737	
6,000.00	5,925.42	5,841.83	5,751.63	22.59	24.12	-93.86	951.31	-33.74	535.13	491.65	43.48	12.308	
6,050.00	5,963.62	5,850.00	5,758.58	22.68	24.17	-92.49	954.93	-36.07	559.83	516.76	43.07	12.999	
6,100.00	5,999.18	5,860.79	5,767.66	22.80	24.24	-90.91	959.81	-39.26	587.81	545.03	42.78	13.740	
6,150.00	6,031.88	5,865.31	5,771.44	22.93	24.26	-88.08	961.88	-40.62	618.67	576.20	42.47	14.567	
6,200.00	6,061.51	5,867.08	5,772.91	23.11	24.28	-84.42	962.70	-41.16	651.90	609.69	42.22	15.442	
6,250.00	6,087.89	5,866.45	5,772.39	23.32	24.27	-80.04	962.41	-40.97	687.00	644.98	42.03	16.347	
6,300.00	6,110.86	5,863.74	5,770.12	23.57	24.25	-75.08	961.16	-40.14	723.49	681.58	41.91	17.264	
6,350.00	6,130.29	5,850.00	5,758.58	23.88	24.17	-68.74	954.93	-36.07	761.03	719.36	41.67	18.263	
6,400.00	6,146.04	5,850.00	5,758.58	24.25	24.17	-63.94	954.93	-36.07	798.90	757.08	41.81	19.106	
6,450.00	6,158.02	5,850.00	5,758.58	24.66	24.17	-59.23	954.93	-36.07	837.04	795.01	42.03	19.914	
6,500.00	6,166.16	5,850.00	5,758.58	25.13	24.17	-54.71	954.93	-36.07	875.22	832.90	42.31	20.685	
6,550.00	6,170.40	5,827.12	5,739.00	25.65	24.03	-48.85	944.95	-29.71	912.55	870.31	42.25	21.600	
6,588.60	6,171.00	5,818.94	5,731.90	26.08	23.98	-45.44	941.49	-27.56	941.08	898.68	42.40	22.194	
6,600.00	6,170.83	5,816.46	5,729.74	26.21	23.97	-45.29	940.46	-26.92	949.46	907.01	42.45	22.367	
6,700.00	6,169.35	5,800.00	5,715.28	27.47	23.87	-44.28	933.74	-22.85	1,024.92	981.98	42.94	23.867	
6,800.00	6,167.87	5,777.98	5,695.63	28.90	23.74	-42.96	925.15	-17.83	1,103.45	1,060.14	43.31	25.481	
6,900.00	6,166.39	5,750.00	5,670.21	30.48	23.58	-41.32	914.93	-12.19	1,184.76	1,141.20	43.55	27.203	
7,000.00	6,164.91	5,750.00	5,670.21	32.19	23.58	-41.32	914.93	-12.19	1,267.95	1,223.87	44.09	28.761	
7,100.00	6,163.43	5,750.00	5,670.21	34.01	23.58	-41.32	914.93	-12.19	1,353.43	1,308.89	44.53	30.391	
7,200.00	6,161.95	5,722.07	5,644.36	35.92	23.44	-39.73	905.51	-7.37	1,439.92	1,395.26	44.67	32.238	
7,300.00	6,160.47	5,700.00	5,623.64	37.91	23.32	-38.52	898.63	-4.15	1,528.19	1,483.36	44.83	34.090	
7,400.00	6,158.99	5,700.00	5,623.64	39.97	23.32	-38.52	898.63	-4.15	1,617.35	1,572.20	45.14	35.826	
7,500.00	6,157.51	5,700.00	5,623.64	42.08	23.32	-38.52	898.63	-4.15	1,707.71	1,662.29	45.42	37.601	
7,600.00	6,156.03	5,700.00	5,623.64	44.24	23.32	-38.52	898.63	-4.15	1,799.09	1,753.44	45.65	39.408	
7,700.00	6,154.56	5,676.07	5,600.91	46.44	23.20	-37.25	891.74	-1.25	1,890.76	1,845.05	45.71	41.363	
7,800.00	6,153.08	5,668.92	5,594.07	48.68	23.16	-36.87	889.80	-0.51	1,983.37	1,937.51	45.86	43.248	
7,900.00	6,151.60	5,650.00	5,575.87	50.95	23.07	-35.91	884.93	1.20	2,076.73	2,030.81	45.93	45.220	
8,000.00	6,150.12	5,650.00	5,575.87	53.24	23.07	-35.91	884.93	1.20	2,170.35	2,124.26	46.09	47.094	
8,100.00	6,148.64	5,650.00	5,575.87	55.56	23.07	-35.91	884.93	1.20	2,264.51	2,218.28	46.23	48.985	
8,200.00	6,147.16	5,650.00	5,575.87	57.90	23.07	-35.91	884.93	1.20	2,359.16	2,312.80	46.36	50.891	
8,300.00	6,145.68	5,650.00	5,575.87	60.27	23.07	-35.91	884.93	1.20	2,454.23	2,407.75	46.47	52.808	
8,400.00	6,144.20	5,650.00	5,575.87	62.64	23.07	-35.91	884.93	1.20	2,549.67	2,503.09	46.58	54.737	
8,500.00	6,142.72	5,650.00	5,575.87	65.03	23.07	-35.91	884.93	1.20	2,645.45	2,598.78	46.68	56.674	
8,600.00	6,141.24	5,626.67	5,553.25	67.44	22.96	-34.75	879.45	2.78	2,741.02	2,694.34	46.67	58.727	
8,700.00	6,139.76	5,622.74	5,549.42	69.85	22.95	-34.56	878.59	2.98	2,837.19	2,790.44	46.74	60.695	
8,800.00	6,138.28	5,600.00	5,527.18	72.28	22.84	-33.48	873.92	3.85	2,933.93	2,887.19	46.74	62.775	



# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		C17 2407 Pad - # 5H - Original Drilling - APD										Offset Site Error:		0.00 usft
Survey Program:		0-MWD+HDGM										Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	6,136.80	5,600.00	5,527.18	74.72	22.84	-33.48	873.92	3.85	3,030.42	2,983.60	46.82	64.729		
9,000.00	6,135.32	5,600.00	5,527.18	77.16	22.84	-33.48	873.92	3.85	3,127.13	3,080.24	46.89	66.689		
9,100.00	6,133.84	5,600.00	5,527.18	79.62	22.84	-33.48	873.92	3.85	3,224.04	3,177.08	46.96	68.652		
9,200.00	6,132.36	5,600.00	5,527.18	82.08	22.84	-33.48	873.92	3.85	3,321.14	3,274.11	47.03	70.619		
9,300.00	6,130.88	5,600.00	5,527.18	84.54	22.84	-33.48	873.92	3.85	3,418.40	3,371.31	47.09	72.589		
9,400.00	6,129.40	5,600.00	5,527.18	87.02	22.84	-33.48	873.92	3.85	3,515.82	3,468.66	47.15	74.561		
9,500.00	6,127.92	5,600.00	5,527.18	89.49	22.84	-33.48	873.92	3.85	3,613.37	3,566.16	47.21	76.534		
9,600.00	6,126.44	5,600.00	5,527.18	91.98	22.84	-33.48	873.92	3.85	3,711.06	3,663.79	47.27	78.509		
9,700.00	6,124.96	5,600.00	5,527.18	94.46	22.84	-33.48	873.92	3.85	3,808.87	3,761.55	47.32	80.484		
9,800.00	6,123.48	5,590.76	5,518.11	96.96	22.80	-33.05	872.18	4.04	3,906.71	3,859.36	47.35	82.509		
9,900.00	6,122.00	5,581.71	5,509.20	99.45	22.76	-32.64	870.57	4.14	4,004.74	3,957.36	47.37	84.534		
10,000.00	6,120.52	5,581.71	5,509.20	101.95	22.76	-32.64	870.57	4.14	4,102.78	4,055.36	47.43	86.509		
10,100.00	6,119.04	5,581.71	5,509.20	104.46	22.76	-32.64	870.57	4.14	4,200.93	4,153.45	47.48	88.484		
10,200.00	6,117.56	5,581.71	5,509.20	106.96	22.76	-32.64	870.57	4.14	4,299.15	4,251.62	47.53	90.457		
10,300.00	6,116.08	5,574.59	5,502.19	109.47	22.73	-32.32	869.34	4.18	4,397.45	4,349.90	47.56	92.470		
10,400.00	6,114.61	5,560.33	5,488.14	111.98	22.67	-31.70	866.88	4.26	4,495.79	4,448.22	47.56	94.521		
10,500.00	6,113.13	5,546.06	5,474.09	114.50	22.61	-31.09	864.42	4.34	4,594.15	4,546.58	47.57	96.572		
10,600.00	6,111.65	5,531.80	5,460.04	117.02	22.55	-30.49	861.96	4.43	4,692.54	4,644.96	47.58	98.621		
10,700.00	6,110.17	5,517.54	5,445.99	119.54	22.49	-29.92	859.50	4.51	4,790.96	4,743.36	47.59	100.669		
10,778.80	6,109.00	5,506.30	5,434.92	121.52	22.44	-29.47	857.56	4.57	4,868.52	4,820.92	47.60	102.282		
10,779.13	6,109.00	5,506.25	5,434.88	121.53	22.44	-29.47	857.55	4.57	4,868.84	4,818.55	50.30	96.799		



## Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 7284' &amp; RKB 14' @ 7298.00usft

Offset Depths are relative to Offset Datum

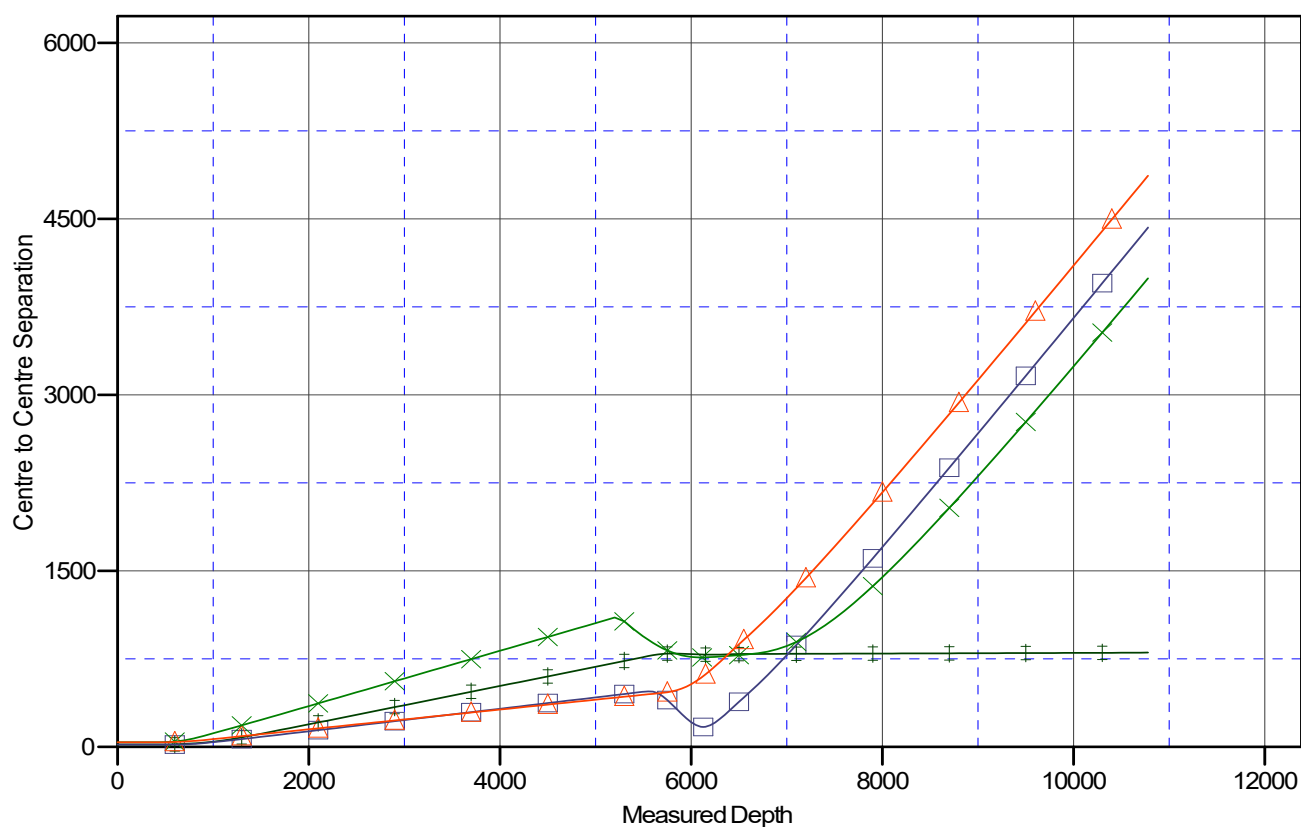
Central Meridian is -107.8333333

Coordinates are relative to: # 2H - Slot 3

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.14°

## Ladder Plot



## LEGEND

#4HOriginalDrilling.APDVO  
 #3HOriginalDrilling.APDVO  
 #1HOriginalDrilling.APDVO  
 #5HOriginalDrilling.APDVO



## Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Project:</b>	Escrito Area	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Reference Site:</b>	C17 2407 Pad	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	DJR
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 7284' &amp; RKB 14' @ 7298.00usft

Coordinates are relative to: # 2H - Slot 3

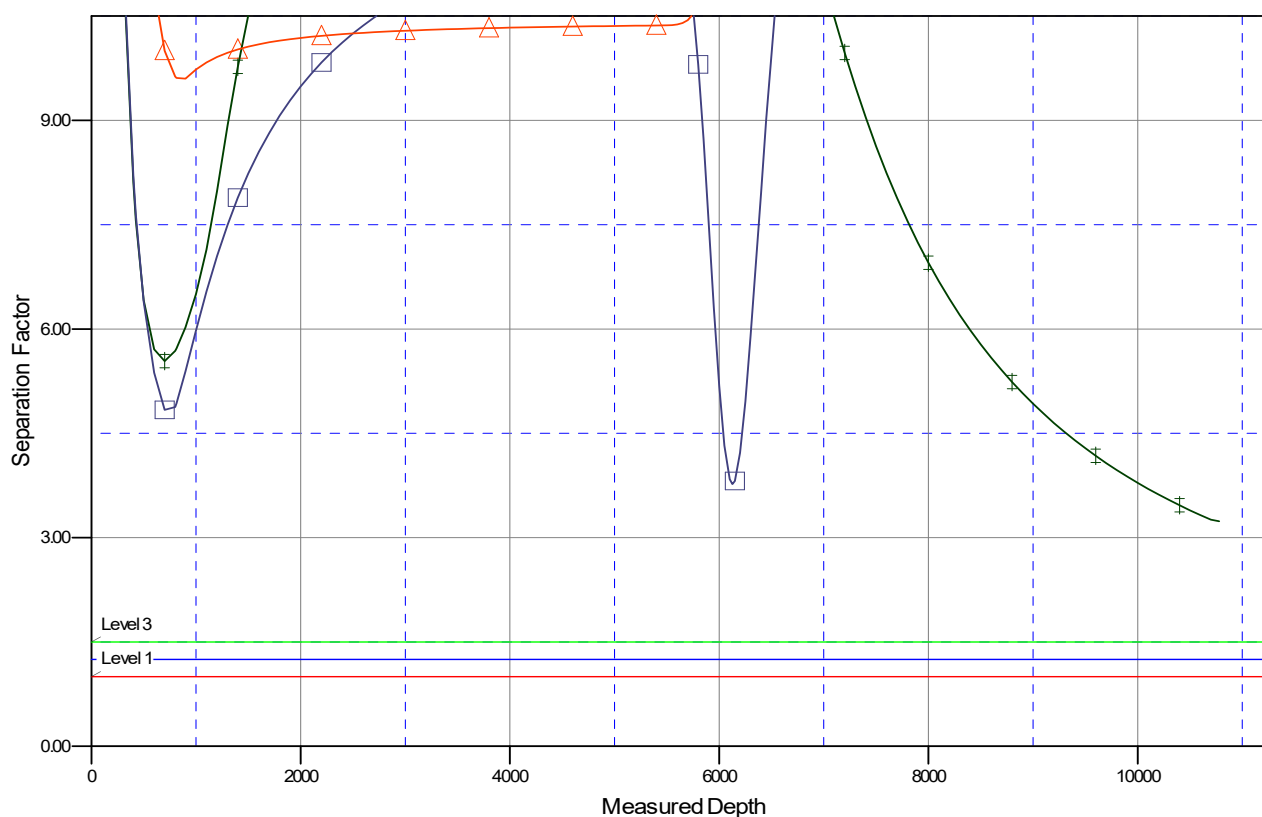
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Western Zone

Central Meridian is -107.83333333

Grid Convergence at Surface is: 0.14°

## Separation Factor Plot



## LEGEND

#4HOriginalDrilling.APDV0  
 #3HOriginalDrilling.APDV0  
 #5HOriginalDrilling.APDV0



Company: DJR Operating  
Project: Escrito Area  
Site: C17 2407 Pad  
Well: # 2H  
Wellbore: Original Drilling  
Design: APD

PROJECT DETAILS: Escrito Area

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Western Zone  
System Datum: Mean Sea Level  
Local North: True



WELL DETAILS: # 2H

GL 7284' & RKB 14' @ 7298.00usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1935142.37	2791367.51	36.31802300	-107.60157200	3

Plan: APD (# 2H/Original Drilling)

Created By: Janie Collins Date: 14:00, September 24 2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
C17 #002H heel	6171.00	123.88	128.41	1935266.55	2791495.62	36.31836330	-107.60113610
C17 #002H toe	6109.00	-2887.73	3041.17	1932261.93	2794415.59	36.31008985	-107.59124988

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	
813.20	7.76	329.563	812.01	22.64	-13.30	2.00	329.56	-25.24	
5495.35	7.76	329.563	5451.24	568.00	-333.73	0.00	0.00	-633.12	
6588.80	90.85	135.956	6171.00	123.88	128.41	9.00	166.24	7.82	C17 #002H heel
10778.80	90.85	135.956	6109.00	-2887.73	3041.17	0.00	0.00	4193.77	C17 #002H toe



Azimuths to True North  
Magnetic North: 8.58°

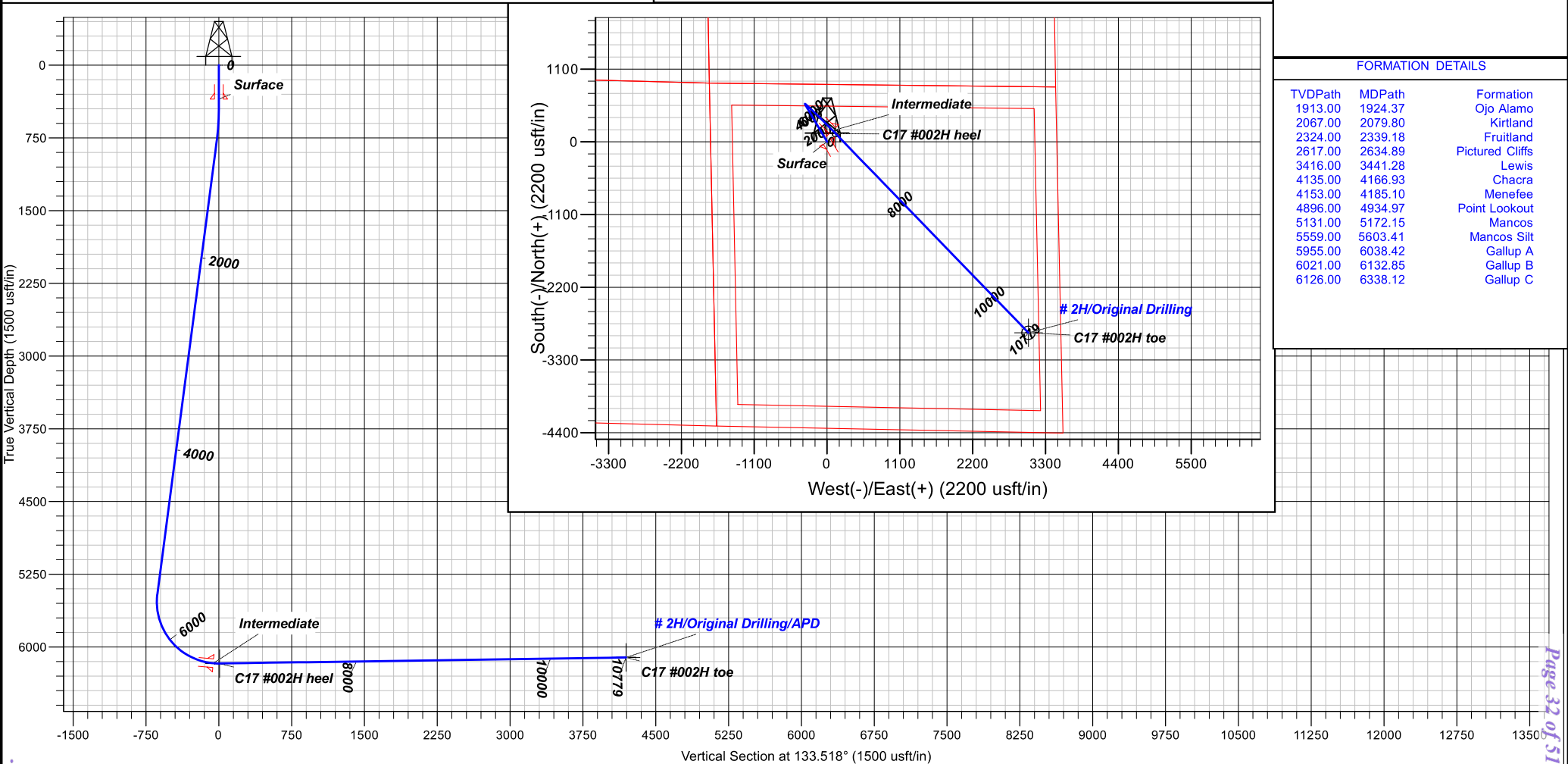
Magnetic Field  
Strength: 49364 nT  
Dip Angle: 62.87°  
Date: 8/12/2020  
Model: HDGM\_FIT

CASING DETAILS

TVD	MD	Name
350.00	350.00	Surface
6168.65	6523.59	Intermediate

FORMATION DETAILS

TVDPATH	MDPATH	FORMATION
1913.00	1924.37	Ojo Alamo
2067.00	2079.80	Kirtland
2324.00	2339.18	Fruitland
2617.00	2634.89	Pictured Cliffs
3416.00	3441.28	Lewis
4135.00	4166.93	Chacra
4153.00	4185.10	Menefee
4896.00	4934.97	Point Lookout
5131.00	5172.15	Mancos
5559.00	5603.41	Mancos Silt
5955.00	6038.42	Gallup A
6021.00	6132.85	Gallup B
6126.00	6338.12	Gallup C





## **DJR Operating**

**Escrito Area  
C17 2407 Pad  
# 2H - Slot 3**

**Original Drilling**

**Plan: APD**

## **Standard Planning Report**

**24 September, 2020**





<b>Database:</b>	DJR	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Project:</b>	Escrito Area	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site:</b>	C17 2407 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

<b>Project</b>	Escrito Area		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Western Zone		

Site	C17 2407 Pad				
Site Position:		Northing:	1,935,165.75 usft	Latitude:	36.3180870
From:	Lat/Long	Easting:	2,791,399.86 usft	Longitude:	-107.6014620
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.14

Well	# 2H - Slot 3					
Well Position	+N/-S	-23.30 usft	Northing:	1,935,142.37 usft	Latitude:	36.3180230
	+E/-W	-32.41 usft	Easting:	2,791,367.51 usft	Longitude:	-107.6015720
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	7,284.00 us

<b>Wellbore</b>	Original Drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	8/12/2020	8.58	62.87	49,364.70000000

<b>Design</b>	APD			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	133.518

<b>Plan Survey Tool Program</b>	<b>Date</b>	9/21/2020		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	10,778.58	APD (Original Drilling)	MWD+HDGM
				OWSG MWD + HDGM

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	0.00	
813.20	7.76	329.563	812.01	22.64	-13.30	2.00	2.00	0.00	329.56	
5,495.35	7.76	329.563	5,451.24	568.00	-333.73	0.00	0.00	0.00	0.00	
6,588.60	90.85	135.956	6,171.00	123.88	128.41	9.00	7.60	15.22	166.24	C17 #002H heel
10,778.80	90.85	135.956	6,109.00	-2,887.73	3,041.17	0.00	0.00	0.00	0.00	C17 #002H toe



## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	DJR	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Project:</b>	Escrito Area	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site:</b>	C17 2407 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	1.50	329.563	499.99	0.85	-0.50	-0.94	2.00	2.00	0.00
600.00	3.50	329.563	599.89	4.61	-2.71	-5.14	2.00	2.00	0.00
700.00	5.50	329.563	699.58	11.37	-6.68	-12.68	2.00	2.00	0.00
800.00	7.50	329.563	798.93	21.13	-12.42	-23.55	2.00	2.00	0.00
813.20	7.76	329.563	812.01	22.64	-13.30	-25.24	2.00	2.00	0.00
900.00	7.76	329.563	898.02	32.75	-19.24	-36.51	0.00	0.00	0.00
1,000.00	7.76	329.563	997.10	44.40	-26.09	-49.49	0.00	0.00	0.00
1,100.00	7.76	329.563	1,096.18	56.05	-32.93	-62.47	0.00	0.00	0.00
1,200.00	7.76	329.563	1,195.26	67.69	-39.77	-75.46	0.00	0.00	0.00
1,300.00	7.76	329.563	1,294.35	79.34	-46.62	-88.44	0.00	0.00	0.00
1,400.00	7.76	329.563	1,393.43	90.99	-53.46	-101.42	0.00	0.00	0.00
1,500.00	7.76	329.563	1,492.51	102.64	-60.31	-114.40	0.00	0.00	0.00
1,600.00	7.76	329.563	1,591.60	114.28	-67.15	-127.39	0.00	0.00	0.00
1,700.00	7.76	329.563	1,690.68	125.93	-73.99	-140.37	0.00	0.00	0.00
1,800.00	7.76	329.563	1,789.76	137.58	-80.84	-153.35	0.00	0.00	0.00
1,900.00	7.76	329.563	1,888.85	149.23	-87.68	-166.34	0.00	0.00	0.00
2,000.00	7.76	329.563	1,987.93	160.87	-94.52	-179.32	0.00	0.00	0.00
2,100.00	7.76	329.563	2,087.01	172.52	-101.37	-192.30	0.00	0.00	0.00
2,200.00	7.76	329.563	2,186.10	184.17	-108.21	-205.29	0.00	0.00	0.00
2,300.00	7.76	329.563	2,285.18	195.82	-115.05	-218.27	0.00	0.00	0.00
2,400.00	7.76	329.563	2,384.26	207.46	-121.90	-231.25	0.00	0.00	0.00
2,500.00	7.76	329.563	2,483.35	219.11	-128.74	-244.23	0.00	0.00	0.00
2,599.99	7.76	329.563	2,582.43	230.76	-135.58	-257.22	0.00	0.00	0.00
2,699.99	7.76	329.563	2,681.51	242.41	-142.43	-270.20	0.00	0.00	0.00
2,799.99	7.76	329.563	2,780.59	254.05	-149.27	-283.18	0.00	0.00	0.00
2,899.99	7.76	329.563	2,879.68	265.70	-156.12	-296.17	0.00	0.00	0.00
2,999.99	7.76	329.563	2,978.76	277.35	-162.96	-309.15	0.00	0.00	0.00
3,099.99	7.76	329.563	3,077.84	289.00	-169.80	-322.13	0.00	0.00	0.00
3,199.99	7.76	329.563	3,176.93	300.64	-176.65	-335.11	0.00	0.00	0.00
3,299.99	7.76	329.563	3,276.01	312.29	-183.49	-348.10	0.00	0.00	0.00
3,399.99	7.76	329.563	3,375.09	323.94	-190.33	-361.08	0.00	0.00	0.00
3,499.99	7.76	329.563	3,474.18	335.59	-197.18	-374.06	0.00	0.00	0.00
3,599.99	7.76	329.563	3,573.26	347.23	-204.02	-387.05	0.00	0.00	0.00
3,699.99	7.76	329.563	3,672.34	358.88	-210.86	-400.03	0.00	0.00	0.00
3,799.99	7.76	329.563	3,771.43	370.53	-217.71	-413.01	0.00	0.00	0.00
3,899.99	7.76	329.563	3,870.51	382.18	-224.55	-425.99	0.00	0.00	0.00
3,999.99	7.76	329.563	3,969.59	393.82	-231.39	-438.98	0.00	0.00	0.00
4,099.99	7.76	329.563	4,068.68	405.47	-238.24	-451.96	0.00	0.00	0.00
4,199.99	7.76	329.563	4,167.76	417.12	-245.08	-464.94	0.00	0.00	0.00
4,299.99	7.76	329.563	4,266.84	428.77	-251.92	-477.93	0.00	0.00	0.00
4,399.99	7.76	329.563	4,365.92	440.41	-258.77	-490.91	0.00	0.00	0.00
4,499.99	7.76	329.563	4,465.01	452.06	-265.61	-503.89	0.00	0.00	0.00
4,599.99	7.76	329.563	4,564.09	463.71	-272.46	-516.87	0.00	0.00	0.00
4,699.99	7.76	329.563	4,663.17	475.36	-279.30	-529.86	0.00	0.00	0.00
4,799.99	7.76	329.563	4,762.26	487.00	-286.14	-542.84	0.00	0.00	0.00
4,899.99	7.76	329.563	4,861.34	498.65	-292.99	-555.82	0.00	0.00	0.00
4,999.99	7.76	329.563	4,960.42	510.30	-299.83	-568.81	0.00	0.00	0.00
5,099.99	7.76	329.563	5,059.51	521.95	-306.67	-581.79	0.00	0.00	0.00



## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	DJR	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Project:</b>	Escrito Area	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site:</b>	C17 2407 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,199.99	7.76	329.563	5,158.59	533.59	-313.52	-594.77	0.00	0.00	0.00
5,299.99	7.76	329.563	5,257.67	545.24	-320.36	-607.75	0.00	0.00	0.00
5,399.99	7.76	329.563	5,356.76	556.89	-327.20	-620.74	0.00	0.00	0.00
5,495.35	7.76	329.563	5,451.24	568.00	-333.73	-633.12	0.00	0.00	0.00
5,499.99	7.36	330.338	5,455.84	568.52	-334.04	-633.70	9.00	-8.73	16.71
5,599.99	2.63	91.447	5,555.58	574.04	-334.92	-638.14	9.00	-4.73	121.11
5,699.99	11.03	126.435	5,654.81	568.29	-324.91	-626.93	9.00	8.40	34.99
5,799.99	19.96	130.850	5,751.08	551.42	-304.27	-600.34	9.00	8.93	4.42
5,899.99	28.93	132.595	5,842.03	523.83	-273.49	-559.03	9.00	8.97	1.74
5,999.99	37.91	133.564	5,925.41	486.21	-233.35	-504.01	9.00	8.98	0.97
6,099.99	46.90	134.205	5,999.17	439.49	-184.81	-436.64	9.00	8.99	0.64
6,199.99	55.89	134.682	6,061.50	384.81	-129.09	-358.59	9.00	8.99	0.48
6,299.99	64.89	135.066	6,110.86	323.52	-67.55	-271.76	9.00	8.99	0.38
6,399.99	73.88	135.397	6,146.03	257.14	-1.71	-178.30	9.00	8.99	0.33
6,499.99	82.88	135.699	6,166.15	187.29	66.81	-80.51	9.00	9.00	0.30
6,588.60	90.85	135.956	6,171.00	123.88	128.41	7.82	9.00	9.00	0.29
6,599.99	90.85	135.956	6,170.83	115.69	136.33	19.20	0.00	0.00	0.00
6,699.99	90.85	135.956	6,169.35	43.82	205.85	119.10	0.00	0.00	0.00
6,799.99	90.85	135.956	6,167.87	-28.05	275.36	219.00	0.00	0.00	0.00
6,899.99	90.85	135.956	6,166.39	-99.93	344.87	318.89	0.00	0.00	0.00
6,999.99	90.85	135.956	6,164.91	-171.80	414.39	418.79	0.00	0.00	0.00
7,099.99	90.85	135.956	6,163.43	-243.67	483.90	518.69	0.00	0.00	0.00
7,199.99	90.85	135.956	6,161.95	-315.54	553.41	618.59	0.00	0.00	0.00
7,299.99	90.85	135.956	6,160.47	-387.42	622.93	718.49	0.00	0.00	0.00
7,399.99	90.85	135.956	6,158.99	-459.29	692.44	818.39	0.00	0.00	0.00
7,499.99	90.85	135.956	6,157.51	-531.16	761.95	918.28	0.00	0.00	0.00
7,599.98	90.85	135.956	6,156.04	-603.03	831.47	1,018.18	0.00	0.00	0.00
7,699.98	90.85	135.956	6,154.56	-674.91	900.98	1,118.08	0.00	0.00	0.00
7,799.98	90.85	135.956	6,153.08	-746.78	970.49	1,217.98	0.00	0.00	0.00
7,899.98	90.85	135.956	6,151.60	-818.65	1,040.01	1,317.88	0.00	0.00	0.00
7,999.98	90.85	135.956	6,150.12	-890.52	1,109.52	1,417.78	0.00	0.00	0.00
8,099.98	90.85	135.956	6,148.64	-962.40	1,179.03	1,517.67	0.00	0.00	0.00
8,199.98	90.85	135.956	6,147.16	-1,034.27	1,248.55	1,617.57	0.00	0.00	0.00
8,299.98	90.85	135.956	6,145.68	-1,106.14	1,318.06	1,717.47	0.00	0.00	0.00
8,399.98	90.85	135.956	6,144.20	-1,178.01	1,387.57	1,817.37	0.00	0.00	0.00
8,499.98	90.85	135.956	6,142.72	-1,249.89	1,457.09	1,917.27	0.00	0.00	0.00
8,599.98	90.85	135.956	6,141.24	-1,321.76	1,526.60	2,017.17	0.00	0.00	0.00
8,699.98	90.85	135.956	6,139.76	-1,393.63	1,596.11	2,117.06	0.00	0.00	0.00
8,799.98	90.85	135.956	6,138.28	-1,465.50	1,665.63	2,216.96	0.00	0.00	0.00
8,899.98	90.85	135.956	6,136.80	-1,537.38	1,735.14	2,316.86	0.00	0.00	0.00
8,999.98	90.85	135.956	6,135.32	-1,609.25	1,804.65	2,416.76	0.00	0.00	0.00
9,099.98	90.85	135.956	6,133.84	-1,681.12	1,874.17	2,516.66	0.00	0.00	0.00
9,199.98	90.85	135.956	6,132.36	-1,753.00	1,943.68	2,616.56	0.00	0.00	0.00
9,299.98	90.85	135.956	6,130.88	-1,824.87	2,013.19	2,716.45	0.00	0.00	0.00
9,399.98	90.85	135.956	6,129.40	-1,896.74	2,082.70	2,816.35	0.00	0.00	0.00
9,499.98	90.85	135.956	6,127.92	-1,968.61	2,152.22	2,916.25	0.00	0.00	0.00
9,599.98	90.85	135.956	6,126.44	-2,040.49	2,221.73	3,016.15	0.00	0.00	0.00
9,699.98	90.85	135.956	6,124.96	-2,112.36	2,291.24	3,116.05	0.00	0.00	0.00
9,799.98	90.85	135.956	6,123.48	-2,184.23	2,360.76	3,215.95	0.00	0.00	0.00
9,899.98	90.85	135.956	6,122.00	-2,256.10	2,430.27	3,315.84	0.00	0.00	0.00
9,999.98	90.85	135.956	6,120.52	-2,327.98	2,499.78	3,415.74	0.00	0.00	0.00
10,099.98	90.85	135.956	6,119.04	-2,399.85	2,569.30	3,515.64	0.00	0.00	0.00
10,199.98	90.85	135.956	6,117.56	-2,471.72	2,638.81	3,615.54	0.00	0.00	0.00
10,299.98	90.85	135.956	6,116.08	-2,543.59	2,708.32	3,715.44	0.00	0.00	0.00



**Lonestar Consulting, LLC**  
Planning Report



<b>Database:</b>	DJR	<b>Local Co-ordinate Reference:</b>	Well # 2H - Slot 3
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Project:</b>	Escrito Area	<b>MD Reference:</b>	GL 7284' & RKB 14' @ 7298.00usft
<b>Site:</b>	C17 2407 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,399.98	90.85	135.956	6,114.61	-2,615.47	2,777.84	3,815.34	0.00	0.00	0.00	
10,499.98	90.85	135.956	6,113.13	-2,687.34	2,847.35	3,915.23	0.00	0.00	0.00	
10,599.98	90.85	135.956	6,111.65	-2,759.21	2,916.86	4,015.13	0.00	0.00	0.00	
10,699.98	90.85	135.956	6,110.17	-2,831.08	2,986.38	4,115.03	0.00	0.00	0.00	
10,778.80	90.85	135.956	6,109.00	-2,887.73	3,041.17	4,193.77	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
C17 #002H toe - hit/miss target - Shape	0.00	0.000	6,109.00	-2,887.73	3,041.17	1,932,261.93	2,794,415.59	36.31008985	-107.59124988	
C17 #002H heel - plan hits target center - Circle (radius 100.00)	0.00	0.000	6,171.00	123.88	128.41	1,935,266.56	2,791,495.63	36.31836330	-107.60113610	

Casing Points									
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)					
350.00	350.00	Surface	9.62	12.25					
6,523.59	6,168.65	Intermediate	7.00	8.75					

Formations									
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)				
1,924.37	1,913.00	Ojo Alamo		0.00	0.000				
2,079.80	2,067.00	Kirtland		0.00	0.000				
2,339.18	2,324.00	Fruitland		0.00	0.000				
2,634.89	2,617.00	Pictured Cliffs		0.00	0.000				
3,441.28	3,416.00	Lewis		0.00	0.000				
4,166.93	4,135.00	Chacra		0.00	0.000				
4,185.10	4,153.00	Menefee		0.00	0.000				
4,934.97	4,896.00	Point Lookout		0.00	0.000				
5,172.15	5,131.00	Mancos		0.00	0.000				
5,603.41	5,559.00	Mancos Silt		0.00	0.000				
6,038.42	5,955.00	Gallup A		0.00	0.000				
6,132.85	6,021.00	Gallup B		0.00	0.000				
6,338.12	6,126.00	Gallup C		0.00	0.000				

### Conditions of Approval

Operator: DJR Operating, LLC  
Well Names: Escrito A12 2408 01H, 02H, 03H, 04H and 05H  
Escrito C17 2407 01H, 03H, 05H and Escrito Gallup Unit 02H, 04H  
Legal Location: Sec 12, T24N, R08W, San Juan County, NM and Sec 17, T24N R07W, Rio Arriba County, NM  
NEPA Log Number: DOI-BLM-NM-F010-2022-0061-EA  
Inspection Date: April 20, 2021  
Lease Numbers: NMNM-03595 and NMNM-0557389

The following conditions of approval will apply to DJR Operating's Escrito A12-2408 and C17-2407 Cluster Oil and Natural Gas Wells Project, and other associated facilities, unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in an assessment or civil penalties pursuant to 43 CFR 3163.1 or 3163.2.

**Disclaimers:** BLM's approval of the APD does not relieve the lessee and operator from obtaining any other authorizations that may be required by the BIA, Navajo Tribe, State, or other jurisdictional entities.

**Copy of Plans:** A complete copy of the APD package, including Surface Use Plan of Operations, Bare Soil Reclamation Plan, Plan of Development (if required), Conditions of Approval, Cultural Resource Record of Review, Cultural Resources Compliance Form (if required), and Project Stipulations (if required) shall be at the project area at all times and available to all persons.

**Review of NEPA documents:** It is the responsibility of the operator to follow all the design features, best management practices, and mitigation measures as contained in the Environmental Assessment DOI-BLM-NM-F010-2022-0061-EA, which contains additional design features and best management practices that must be followed. Copies of the EA, Decision Record, and Finding of No Significant Impact may be obtained from the BLM FFO public room, or online at: [EplanningUi \(blm.gov\)](https://eplanningui.blm.gov).

**Best Management Practices (BMPs):** Farmington Field Office established environmental Best Management Practices (BMP's) will be followed during construction and reclamation of well site pads, access roads, pipeline ties, facility placement or any other surface disturbing activity associated with this project. Bureau wide standard BMP's are found in the Gold Book, Fourth Edition-Revised 2007 and at

[http://www.blm.gov/wo/st/en/prog/energy/oil\\_and\\_gas/best\\_management\\_practices.html](http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html).

Farmington Field Office BMPs are integrated into the Environmental Assessment, Surface Use Plan of Operations, Bare Soil Reclamation Plan, and COAs.

### **Construction, Production, Facilities, Reclamation & Maintenance**

**Construction & Reclamation Notification:** The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Surface and Environmental Protection Staff (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project.

**Production Facilities:** design and layout of facilities will be deferred until an onsite with BLM-FFO surface protection staff is conducted to determine the best location. The Operator or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface and Environmental Protection Staff (505) 564-7600 to schedule a facility layout onsite.

**Staking:** The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the authorized officer to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

**Weather:** No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts more than 6 inches deep, the soil shall be deemed too wet.

**Stockpile of Soil:** The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks, and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the reserve pit, cut and fill slopes] prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

**Painting of Equipment:** Within 90 days of installation, all above ground structures not subject to safety requirements shall be painted by the Holder to blend with the natural color of the landscape. A reflective material may be used to reduce hazards that may occur when such structures are near roads. Otherwise, the paint use shall be a non-glare, non-reflective, non-chalking color of: Federal 595a-34127 (Juniper Green).

**Storage Tanks:** All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted, or otherwise covered to protect migratory birds and other wildlife from access.

**Compressors:** Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a 12-inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the Authorized Officer (AO). Noise mitigation may be required at the time of compressor installation.

**Culverts:** Silt Traps/Bell Holes will be built upstream of all culvert locations.

**Driving Surface Area:** All activities associated within the construction, operation, maintenance, and abandonment of the well location is limited to areas approved in the APD or ROW permit. During the production of the well, vehicular traffic is limited to the daily driving surface area established during interim reclamation construction operations. This area typically forms a keyhole or teardrop driving surface from which all production facilities may be serviced or inspected. A v-type ditch will be constructed on the outside of the driving surface to further define the driving surface and to deter vehicular traffic from entering onto the interim reclamation areas.

**Contouring of Cut and Fill Slopes:** The interim cut and fill slope grade shall be as close to the original contour as possible. To obtain this ratio, pits and slopes shall be back sloped into the pad

during interim reclamation. Only subsurface soil and material shall be utilized in the contouring of the cut and fill slopes. Under no circumstances shall topsoil be utilized as substrate material for contouring of cut and fill slopes.

**Maintenance:** In order to perform subsequent well operations, right-of-way (ROW) operations, or install new/additional equipment, it may be necessary to drive, park, and operate on restored, interim vegetation within the previously disturbed area. This is generally acceptable provided damage is promptly repaired and reclaimed following use. Where vehicular travel has occurred as a “convenience” and interim reclamation/vegetation has been compromised, immediate remediation of the affected areas is required. Additionally, where erosion has occurred and compromised the reclamation of the well location, the affected area must be promptly remediated so that future erosion is prevented, and the landform is stabilized.

**Layflat Lines:** Layflat lines used for development of the wells may be on the ground for a maximum of 6 months and shall be retrieved immediately following completion operations. If the layflat lines are needed for longer than 6 months a Sundry NOI shall be submitted to the BLM FFO for review and decision that includes a rationale for the time extension.

The holder or its contractors will notify the BLM of any fires and comply with all rules and regulations administered by the BLM concerning the use, prevention and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The holder or its contractors may be held liable for the cost of fire suppression, stabilization and rehabilitation. In the event of a fire, personal safety will be the first priority of the holder or its contractors.

**“Hotwork” and Construction Affecting Fire Safety:** The holder or its contractors shall:

1. Operate all internal and external combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with a qualified spark arrester. Qualified spark arresters are maintained and not modified, and meet the Society of Automotive Engineers (SAE) Recommended Practices J335 or J350. Refer to 43 CFR §8343.1.
  - a. *Refueling of any combustible engine equipment must be minimum of 3 meters away from any ignition source (open flame, smoking, etc.).*
2. Maintain and clean all equipment regularly to remove flammable debris buildup and prevent fluid leaks that can lead to ignitions.
3. Carry at least one shovel or wildland fire hand tool (combi, Pulaski, McLeod) per person working, minimum 5 gallons of water, and a fire extinguisher rated at a minimum as ABC - 10 pound on each piece of equipment and each vehicle.
4. When conducting “hotwork” such as, but not limited to welding, grinding, cutting, spark-producing work with metal, work that creates hot material or slag; choose an area large enough to contain all hot material that is naturally free of all flammable vegetation or remove the flammable vegetation in a manner compliant with the permitted activity. If adequate clearance cannot be made, wet an area large enough to contain all hot material prior to the activity and periodically throughout the activity to reduce the risk of wildfire ignition. Regardless of clearance, maintain readiness to respond to an ignition at all times. In addition, keep one hand tool per person and at least one fire extinguisher ready, minimum, as specified earlier (#3) during this activity.
5. Keep apprised of current and forecasted weather at <https://www.weather.gov/abq/forecasts-fireweather-links> and fire conditions at [www.wfas.net](http://www.wfas.net) and take additional fire precautions when fire danger is rated High or greater. Red Flag Warnings are issued by the National Weather Service when fire conditions are most dangerous, and ignitions escape control

quickly. Extra precautions are required during these warnings such as additional water, designate a fire watch/patrol and tools. If work is being conducted in an area that is not clear of vegetation within 50 feet of work area; then, when fire danger is rated High or greater and 1. There is a predicted Red Flag warning for your area or 2. If winds are predicted to be greater than 10 mph, stop all hotwork activities for the day at 10 am.

6. In the event of an ignition, initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If a fire spreads beyond the capability of workers with the stipulated tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.
7. Call **911** or the **Taos Interagency Fire Dispatch Center (575-758-6208)** immediately of the location and status of any fire.

## AND

Notify the respective BLM field office for which the permit or contract was issued immediately of the incident.

**Farmington Field Office at 505-564-7600**

**Taos Field Office at 575-758-8851**

## Noxious Weeds

Inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly check for any changes. Invasive species may or may not be listed as a noxious weed but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO). There are numerous invasive species on the FFO such as Russian thistle (*Salsola spp.*) and field bindweed (*Convolvulus arvensis*).

Russian Knapweed ( <i>Centaurea repens</i> )	Musk Thistle ( <i>Carduus nutans</i> )
Bull Thistle ( <i>Cirsium vulgare</i> )	Canada Thistle ( <i>Cirsium arvense</i> )
Scotch Thistle ( <i>Onopordum acanthium</i> )	Hoary Cress ( <i>Cardaria draba</i> )
Perennial Pepperweed ( <i>Lepidium latifolium</i> )	Halogeton ( <i>Halogeton glomeratus</i> )
Spotted Knapweed ( <i>Centaurea maculosa</i> )	Dalmation Toadflax ( <i>Linaria genistifolia</i> )
Yellow Toadflax ( <i>Linaria vulgaris</i> )	Camelthorn ( <i>Alhagi pseudalhagi</i> )
African Rue ( <i>Peganum harmala</i> )	Salt Cedar ( <i>Tamarix spp.</i> )
Diffuse Knapweed ( <i>Centaurea diffusa</i> )	Leafy Spurge ( <i>Euphorbia esula</i> )

- a. Identified weeds will be treated prior to new surface disturbance if determined by the FFO Noxious Weed Coordinator. A Pesticide Use Proposal (PUP) must be submitted to and approved by the FFO Noxious Weed Coordinator prior to application of pesticide. The FFO Noxious Weeds Coordinator (505-564-7600) can provide assistance in the development of the PUP.

- b. Vehicles and equipment should be inspected and cleaned prior to coming onto the work site. This is especially important on vehicles from out of state or if coming from a weed-infested site.
- c. Fill dirt or gravel may be needed for excavation, road construction/repair, or for spill remediation. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the FFO Noxious Weed Coordinator.
- d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found the FFO Coordinator shall be notified at (505) 564-7600 and provided with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP). The FFO Coordinator can provide assistance developing the Weed Management Plan and/or the Pesticide Use Proposal.
- e. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. DJR's weed-control contractor would contact the BLM-FFO prior to using these chemicals.
- f. Noxious/invasive weed treatments must be reported to the FFO Noxious Weed Coordinator. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological, or cultural treatments used to eradicate, and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

**Bare ground vegetation trim-out:** If bare ground vegetation treatment (trim-out) is desired around facility structures, the operator will submit a bare ground/trim-out design included in their Surface Use Plan of Operations (SUPO). The design will address vegetation safety concerns of the operator and BLM while minimizing impacts to interim reclamation efforts. The design must include what structures to be treated and buffer distances of trim-out. Pesticide use for vegetation control around anchor structures is not approved. If pesticides are used for bare ground trim-out, the trim-out will not exceed three feet from the edge of any eligible permanent structure (i.e., well heads, fences, tanks). Additional distance/areas may be requested and must be approved by the FFO authorized officer. The additional information below must also be provided to the FFO:

- a. Pesticide use for trim out will require a Pesticide Use Proposal (PUP). A PUP is required *prior* to any treatment and must be approved by the FFO Noxious Weed Coordinator. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. Enduring's

weed-control contractor would contact the BLM-FFO prior to using these chemicals and provide Pesticide Use Reports (PURs) post treatment.

- b. A Pesticide Use Report (PUR) or a Biological Use Report (BUR) is required to report any chemical, or biological treatments used to eradicate, or control vegetation on site. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

### **Paleontology**

Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

### **Visual Resources**

Dark Sky COAs need to be applied to existing lighting, which is not dark sky friendly and to any additional lights added as part of pad expansion. All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source). All permanent lighting will be pointed straight down at the ground in order to prevent light spill to the sides. All permanent lighting will be 4000° Kelvin or less with 3000° Kelvin preferred. Warmer light colors are less noticeable by humans and cause less impact to wildlife. All permanent lighting will be controlled by a switch and/or timer which allows the lights to be turned on when workers are on location during dark periods but will keep the lights off the majority of the time.

### **Wildlife Resources**

**Crow Mesa Wildlife SDA:** F-4 Timing Limitation Stipulation - Important Seasonal Wildlife Habitat. No surface use for is allowed during the following time period: December 1 - March 31.

**Wildlife Improvements:** Two stock ponds will be constructed to BLM specifications as mitigation for the removal of the HSP project North Crow Mesa Harrow #1 (mule deer and elk habitat) by the construction of the Escrito C17-2407 well pad as stated in the EA.

**Hazards:** Wildlife hazards associated with the proposed project would be fenced, covered, and/or contained in storage tanks, as necessary.

**Migratory Bird:** The BLM FFO migratory bird policy requires a bird nest survey between May 15-July 31 for any projects that would remove 4.0 or more acres of vegetation. The proposed project will disturb more than 4.0 acres of vegetation and a survey is required if construction occurs within the specified time frame. Once drilling and completion activities are complete, any open water that could be harmful to birds and wildlife. must be covered, screened, or netted to prevent entry.

**Threatened, Endangered or Sensitive Species:** If, in operations the operator/holder discovers any Threatened, Endangered, or Sensitive species, work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM-FFO T&E specialist at (505) 564-7600. The BLM-FFO will then specify what action is to be taken. Failure to notify the BLM-FFO about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

**Nesting:** If a bird nest containing eggs or young is encountered in the path of construction the operator will cease construction and consult with BLM to determine appropriate actions.

**Livestock Grazing:** Livestock grazing operators in the vicinity of the proposed project area would be contacted by the Operator at least 10 business days prior to construction. The operator is not obligated to cease or delay construction unless directed by the AO. Any range improvement (fences, pipelines, ponds, etc.) disturbed by construction activities will be repaired immediately following construction and will be repaired to the condition the improvement was in prior to disturbance. Cattle guards will be installed to replace any livestock fencing or gates removed for road construction. No holes would be left open overnight. Open holes would be barricaded to ensure the safety of livestock. If livestock are present, providing monitors or barriers to ensure livestock do not come into contact with hazards (i.e., fencing of exposed ditch-type holes and covering smaller holes is required during each active bore hole construction during periods when personnel are not present on the site). Safety meetings or briefs to employees to increase awareness about livestock (i.e., open range and driving speeds to avoid livestock collisions). Containment of any contaminants, fluid leaks, or hazards that could cause injury to livestock (i.e antifreeze for compressors, drilling pits, equipment, pump jacks).

### **Soil, Air, Water**

**Land Farming:** No excavation, remediation or closure activities will be authorized without prior approval, on any federal or Indian mineral estate, federal surface, or federal ROW. A Sundry Notice (DOI, BLM Form 3160-5) must be submitted with an explanation of the remediation or closure plan for on-lease actions.

**Emission Control Standard:** Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NOx at 2 grams per horsepower hour or less to comply with the New Mexico Environmental Department, Air Quality Bureau's guidance.

**Waste Disposal:** All fluids (i.e., scrubber cleaners) used during washing of production equipment, including compressors, will be properly disposed of to avoid ground contamination, or hazard to livestock or wildlife.

## **Cultural Resources**

**Non-Permitted Disturbance:** Construction, construction maintenance or any other activity outside the areas permitted by the APD will require additional approval and may require a new cultural survey and clearance.

**Employee Education:** All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

**Discovery of Cultural Resources in the Absence of Monitoring:** Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, **or in accordance with an approved program alternative.** Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive **archaeological or alternative mitigation**, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any **mitigations determined appropriate through the agency's Section 106 consultation are completed.** Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, **the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws.**

**Discovery of Cultural Resources during Monitoring:** If monitoring confirms the presence of previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. **If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative.** Minor recordation, stabilization, or data recovery may be performed by BLM

or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed.

**Damage to Sites:** If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare a BLM approved damage assessment and/or data recovery plan. The operator/holder agrees at his/her expense to implement a **mitigation** that the agency finds appropriate given the significance of the site, which the agency determines in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property. **This mitigation may entail execution of the data recovery plan by a permitted cultural resources consultant and/or alternative mitigations.** Damage to cultural resources may result in **civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws.**

See below additional cultural stipulations.



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Farmington District Office  
6251 College Blvd, Suite A  
Farmington, New Mexico 87402



In Reply Refer To:  
3162.3-1(NMF0110)

DJR Operating LLC  
#02H Escrito Gallup Unit  
Lease: NMNM3595A Agreement: TBD  
SH: NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 17, T.24 N., R.7 W.  
BH: NE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 17, T.24 N., R.7 W.  
Rio Arriba County, New Mexico

**\*Above Data Required on Well Sign**

## GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☐ Test the surface casing to a minimum of \_\_\_\_\_ psi for 30 minutes.
- D. ☐ Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.
- E. ☐ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.  
The effective date of the agreement must be **prior** to any sales.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

- F. ☐ The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
  2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
  3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

**I. GENERAL**

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to at Virgil Lucero at 505-793-1836.**
- G. **The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.**
- H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two years extension may be granted if submitted prior to expiration.
- I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.

- J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

## **II. REPORTING REQUIREMENTS**

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.
1. Original and three copies on Federal and an Original and five copies on Indian leases of Sundry Notice (Form 3150-5), giving complete information concerning.
    - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
    - b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
    - c. Subsequent Report of Abandonment, show the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
  2. Well Completion Report (Form 3160-4) will be submitted with 30 days after well has been completed.
    - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
  3. Submit a cement evaluation log, if cement is not circulated to surface.

## **III. DRILLER'S LOG**

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

#### **IV. GAS FLARING**

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of \* Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

\*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the first gas to surface.

#### **V. SAFETY**

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

#### **VI. CHANGE OF PLANS OR ABANDONMENT**

- A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

#### **VII. PHONE NUMBERS**

- A. For BOPE tests, cementing, and plugging operations the phone number is 505-564-7750 and must be called 24 hours in advance in order that a BLM representative may witness the operations.
- B. Emergency program changes after hours contact:

**Virgil Lucero (505) 793-1836**

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 300416

CONDITIONS

Operator:  DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID:
	371838
	Action Number:
	300416
Action Type:	
[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	1/29/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	1/29/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	1/29/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	1/29/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	1/29/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	1/29/2024