

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;">30-045-38327</span>	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory  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.		19. Proposed Depth	
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)



Approval Date: 11/07/2023



**DISTRICT I**

1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**DISTRICT II**

811 S. First St., Artesia, N.M. 88210  
Phone: (505) 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) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-38327</b>	<sup>2</sup> Pool Code <b>98175</b>	<sup>3</sup> Pool Name <b>BETONNIE TSOSIE WASH UNIT MANCOS OIL POOL</b>
<sup>4</sup> Property Code <b>325179</b>	<sup>5</sup> Property Name <b>BETONNIE TSOSIE WASH UNIT</b>	<sup>6</sup> Well Number <b>305H</b>
<sup>7</sup> OGRID No. <b>371838</b>	<sup>8</sup> Operator Name <b>DJR OPERATING, LLC</b>	<sup>9</sup> Elevation <b>6837'</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
<b>B</b>	<b>21</b>	<b>23N</b>	<b>8W</b>		<b>406'</b>	<b>NORTH</b>	<b>2059'</b>	<b>EAST</b>	<b>SAN JUAN</b>

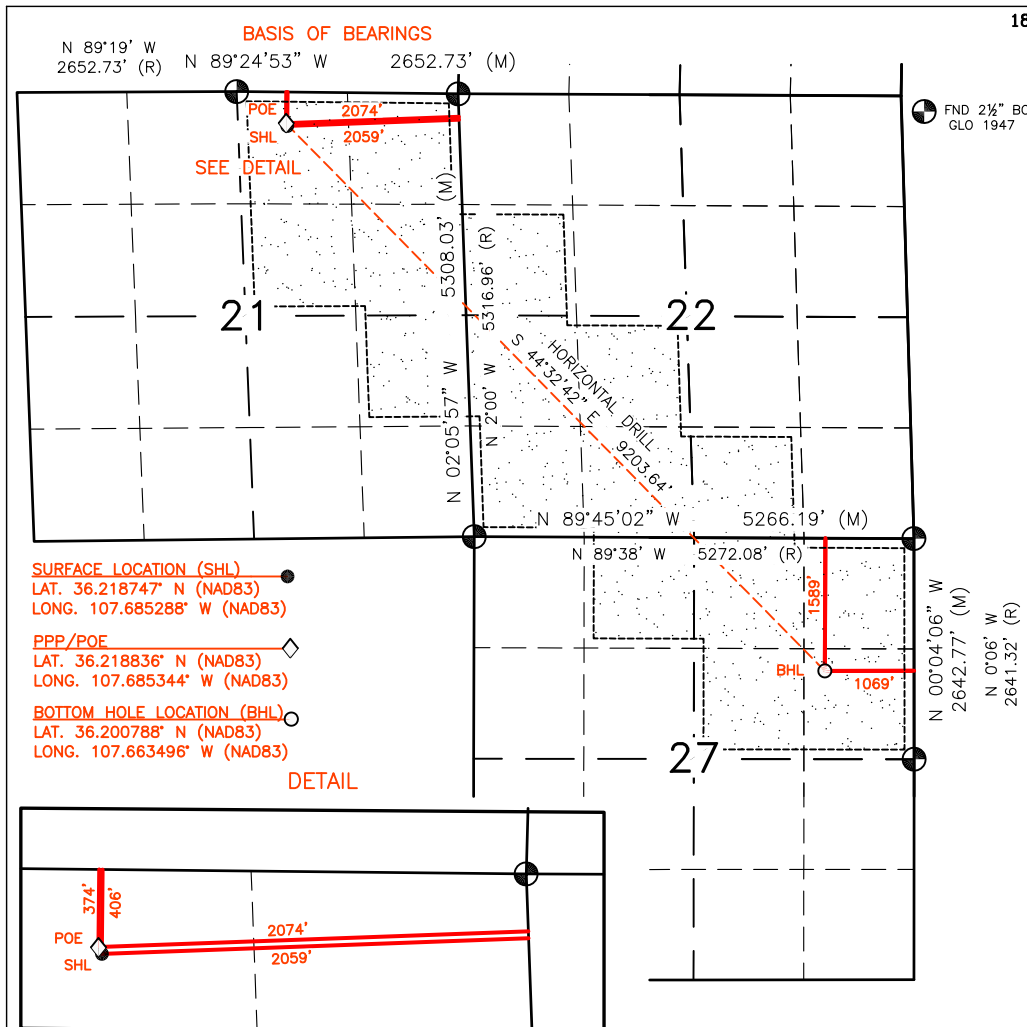
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>27</b>	<b>23N</b>	<b>8W</b>		<b>1589'</b>	<b>NORTH</b>	<b>1069'</b>	<b>EAST</b>	<b>SAN JUAN</b>

<sup>12</sup> Dedicated Acres SEC 21: NE/4 & NE/SE (200 AC.); SEC 22: SW/NW, SW/4, & SW/SE (240 AC.); SEC 27: NE/NW & NE/4 (200 AC.) = 640 ACRES	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>R-13930 R-13930A</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* 10/25/21  
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.

MARCH 15, 2021

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393



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State of New Mexico  
Energy, Minerals & Natural Resources Department

**OIL CONSERVATION DIVISION**

1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

DJR OPERATING, LLC  
BETONNIE TSOSIE WASH UNIT #305H

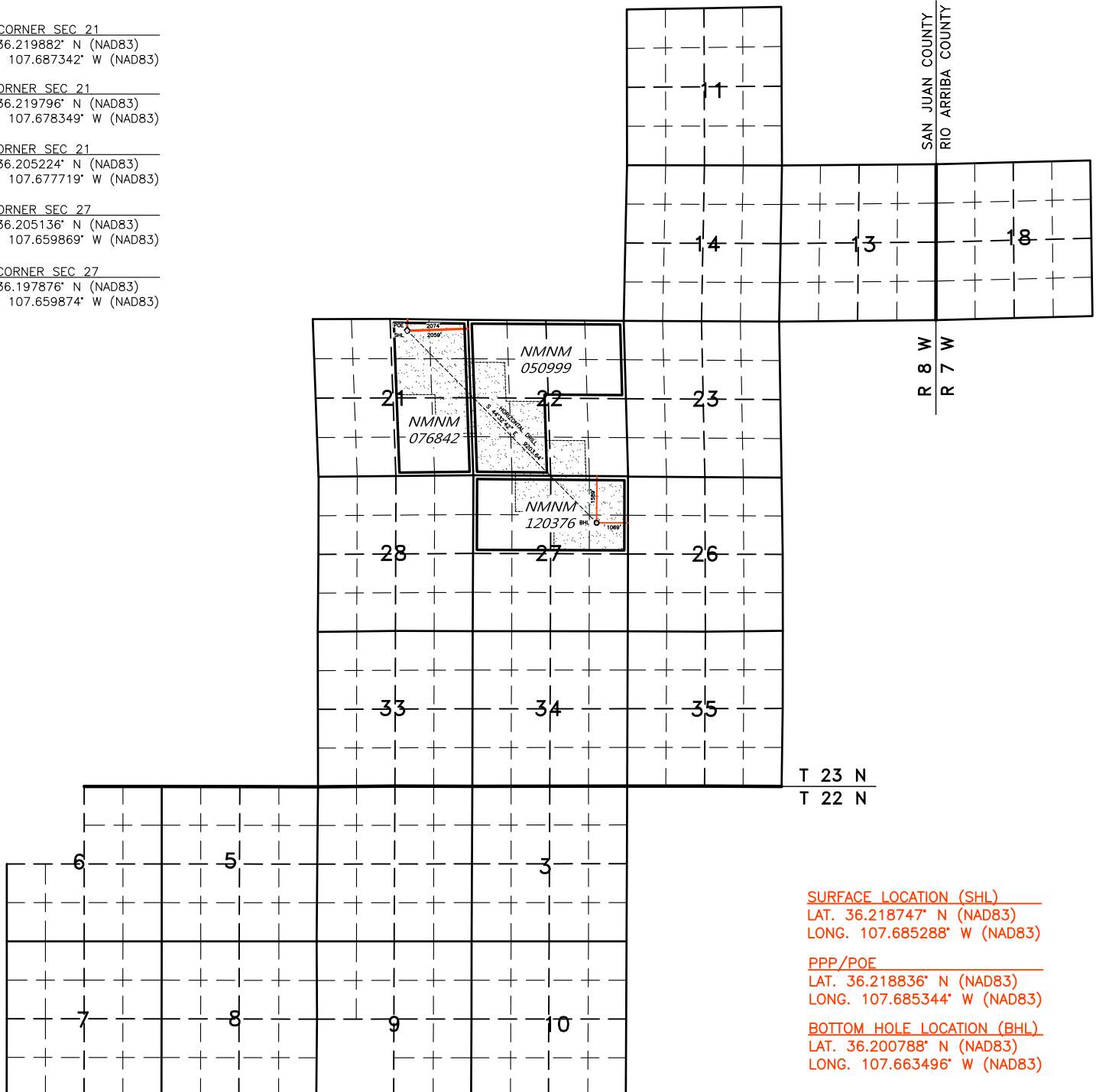
N/4 CORNER SEC 21  
LAT. 36.219882° N (NAD83)  
LONG. 107.687342° W (NAD83)

NE CORNER SEC 21  
LAT. 36.219796° N (NAD83)  
LONG. 107.678349° W (NAD83)

SF CORNER SEC 21  
LAT. 36.205224° N (NAD83)  
LONG. 107.677719° W (NAD83)

NE CORNER SEC 27  
LAT. 36.205136° N (NAD83)  
LONG. 107.659869° W (NAD83)

E/4 CORNER SEC 27  
LAT. 36.197876° N (NAD83)  
LONG. 107.659874° W (NAD83)



SURFACE LOCATION (SHL)  
LAT. 36.218747° N (NAD83)  
LONG. 107.685288° W (NAD83)

PPP/POE  
LAT. 36.218836° N (NAD83)  
LONG. 107.685344° W (NAD83)

BOTTOM HOLE LOCATION (BHL)  
LAT. 36.200788° N (NAD83)  
LONG. 107.663496° W (NAD83)

**PENETRATED SPACING UNIT;**  
SEC 21: NE/4 & NE/SE (200 AC.); SEC 22:  
SW/NW, SW/4, & SW/SE (240 AC.); SEC 27:  
NE/NW & NE/4 (200 AC.) = 640 ACRES  
13,137.00 ACRES - ALL SEC 18, T23N, R7W;  
ALL 11, 13, 14, 21-23, 26-28, 33-35, T23N, R8W; ALL 3-5,  
7, 8, 10, 6 (E/2 & SW/4), 9 (E/2 & NW/4), T22N R8W -  
UNDIVIDED UNIT



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil 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:** 12 / 11 / 2023

**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
Betonne Tsosie Wash Unit 305H	TBD	B-21-23N-08W	406 FNL x 2059 FEL	532	677	189
Betonne Tsosie Wash Unit 306H	TBD	B-21-23N-08W	425 FNL x 2054 FEL	305	388	108
Betonne Tsosie Wash Unit 721H	TBD	B-21-23N-08W	387 FNL x 2064 FEL	487	620	173

**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
Betonne Tsosie Wash Unit 305H	TBD	07/01/2024	07/11/2024	08/15/2024	08/25/2024	08/27/2024
Betonne Tsosie Wash Unit 306H	TBD	07/02/2024	07/12/2024	08/15/2024	08/27/2024	08/29/2024
Betonne Tsosie Wash Unit 721H	TBD	07/03/2024	07/13/2024	08/15/2024	08/29/2024	08/31/2024

**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: 12/11/2023
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  
Bettonie Tsosie Wash Unit 305H, 306H, 721H  
NWNE B-21-23N-08W

### 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  
Bettonie Tsosie Wash Unit 305H, 306H, 721H  
NWNE B-21-23N-08W

### **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:

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





DJR OPERATING, LLC.  
OGRID NO: 371838  
NATURAL GAS MANAGEMENT PLAN  
Bettonie Tsosie Wash Unit 305H, 306H, 721H  
NWNE B-21-23N-08W

## **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.





DJR OPERATING, LLC.  
OGRID NO: 371838  
NATURAL GAS MANAGEMENT PLAN  
Bettonie Tsosie Wash Unit 305H, 306H, 721H  
NWNE B-21-23N-08W

### **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

### Bettonnie Tsosie Wash Unit #305H

### San Juan County, New Mexico

**Surface Location**

2059-ft FEL & 406-ft FNL  
 Sec 21 T23N R08W  
 Graded Elevation 6837' MSL  
 RKB Elevation 6851' (14' KB)

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

Latitude 36.2187470° N  
 Longitude 107.6852880° W

**Kick Off Point for Horizontal Build Curve**

4315-ft MD  
 4255-ft TVD

**Local Coordinates (from SHL)**

481-ft North  
 460-ft West

**Heel Location (Pay zone entry)**

2074-ft FEL & 374-ft FNL  
 Sec 21 T23N R08W

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

Latitude 36.2188364° N  
 Longitude 107.68534410° W

**Bottom Hole Location (TD)**

1069-ft FEL & 1589-ft FNL  
 Sec 27 T23N R08W

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

Latitude 36.200788° N  
 Longitude 107.6634958° W

**Well objectives**

This well is planned as a 9200-ft lateral in the Gallup C sand.

**Bottom Hole temperature and pressure**

The temperature in the Gallup C horizontal objective is 137°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	770	769	Sd	W	8.3	8.4 – 8.8
Kirtland	887	885	Sh	-	8.3	8.4 – 8.8
Fruitland	1086	1081	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1373	1363	Sd	W	8.3	9.0 - 9.5
Lewis	1488	1476	Sh	-		9.0 - 9.5
Chacra	2133	2110	Sd	-	8.3	9.0 - 9.5
Menefee	2898	2862	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3845	3793	Sd	-	8.3	9.0 - 9.5
Mancos	4027	3972	Sh	-		9.0 - 9.5
Mancos Silt	4294	4234	Slt	O/G	6.6	9.0 - 9.5
Gallup A	4812	4729	Slt	O/G	6.6	9.0 - 9.5
Gallup B	4882	4785	Sd	O/G	6.6	8.8 - 9.0
Gallup C	5033	4887	Sd	O/G	6.6	8.8 - 9.0
Target	5437	5008	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	5377	surf	5006	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5099	14641	4923	4936	5099

Note: all casing will be new



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## 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	3815-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	370	250
Volume (bbls)	154	66
Volume (cu.ft.)	866	373
Excess %	55	55





Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5099-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	802
Volume (bbls)	223
Volume (cu.ft)	1254
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 – 5377	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5377 – 14641	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**

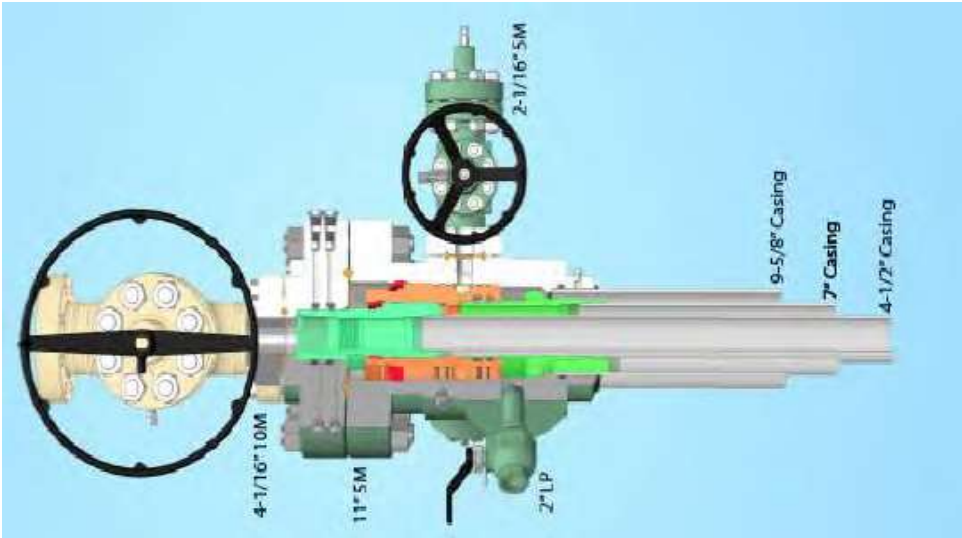
It is envisioned that this well will be completed with a multi-stage sand frac, using the plug and perf technique. After drilling out the plugs, the current plan is to install a 2-7/8" plunger-assisted gas lift tubing string. The stimulation and completion plan will be sundried at a later date.



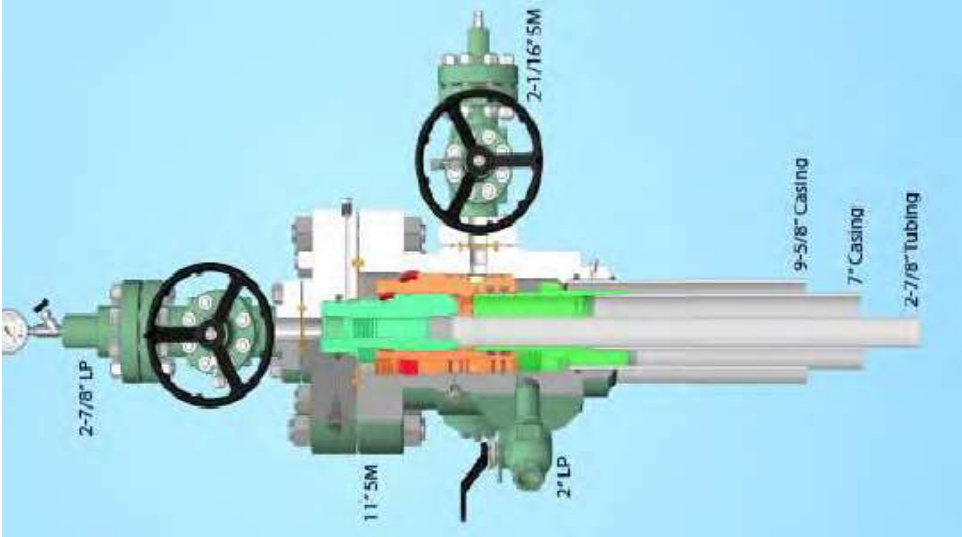


Proposed Wellhead  
11" 5M Multi-bowl

Frac configuration with 4-1/2" tieback



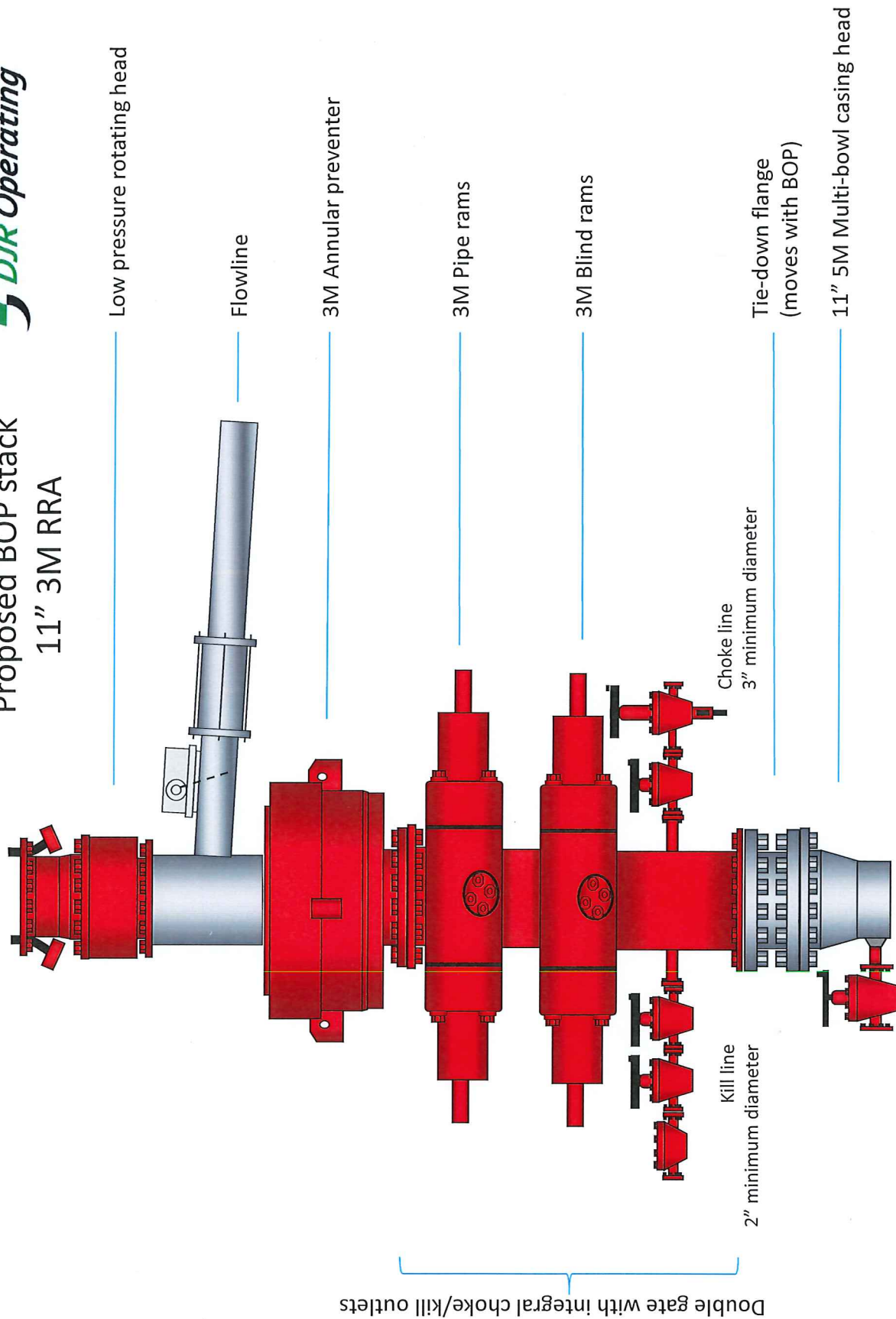
Production configuration with 2-7/8" tubing







# Proposed BOP stack 11" 3M RRA

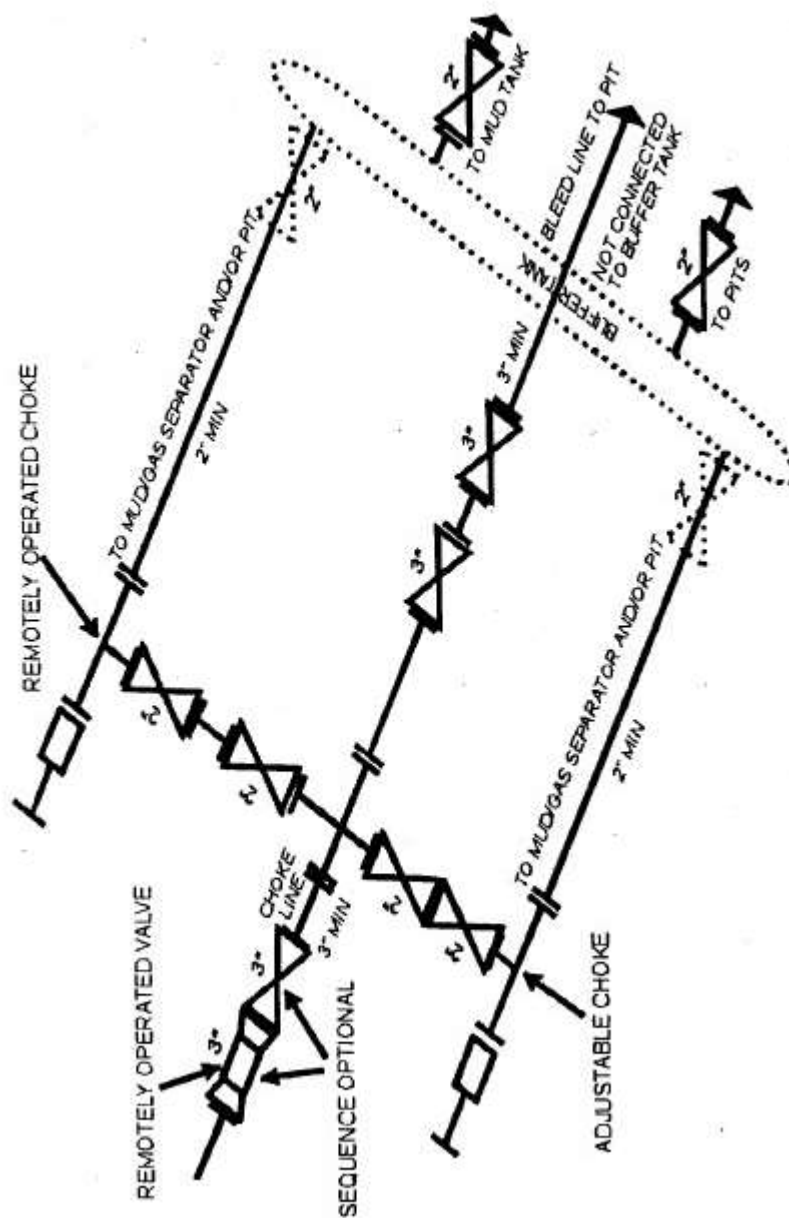






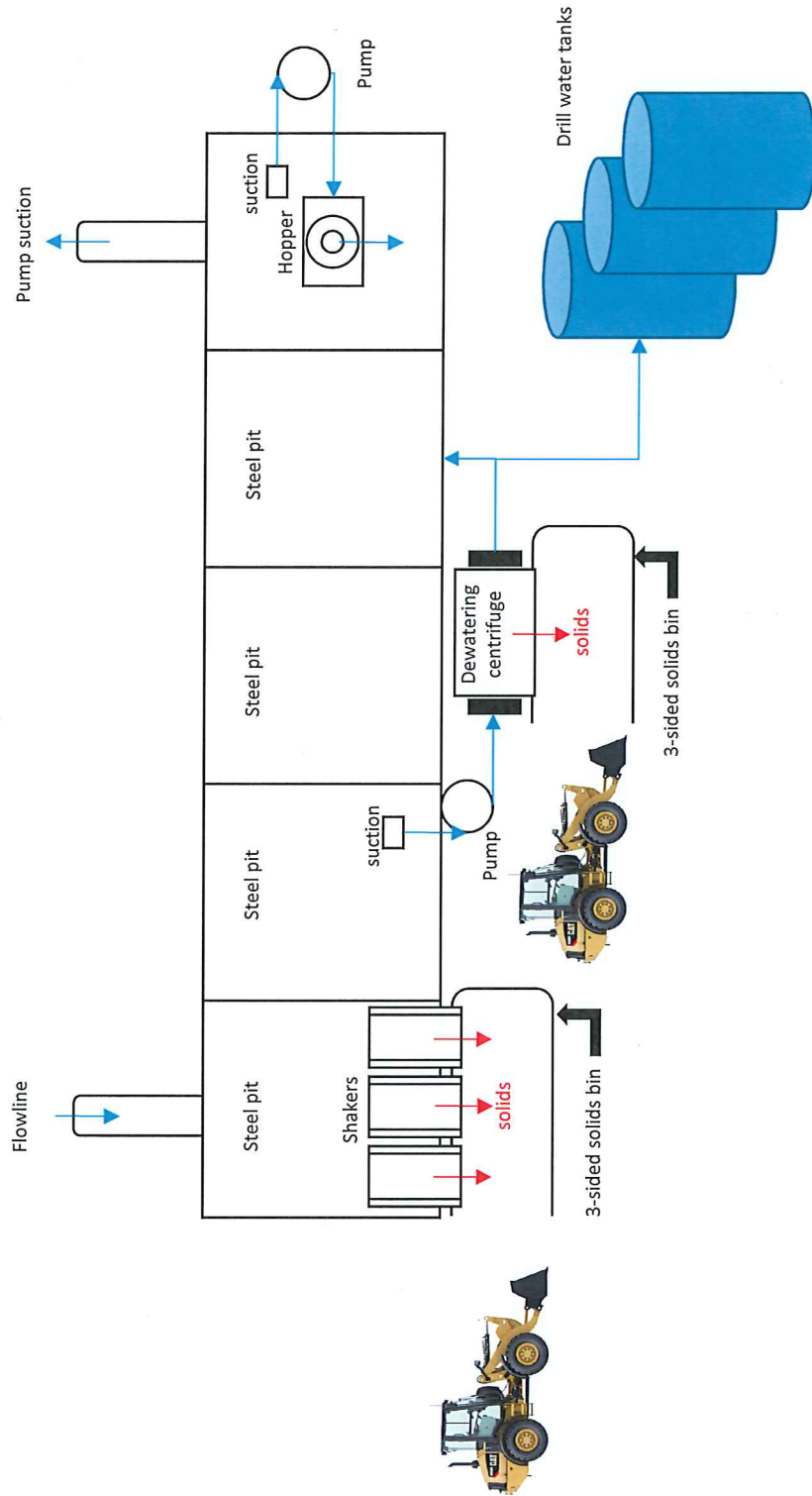
## Choke Manifold

Actual system to conform with Onshore Order 2





## Closed Loop Mud System







Company: DJR Operating  
Project: Betonnie Tsosie Unit  
Site: B21 2308 Pad  
Well: # 305H  
Wellbore: Original Drilling  
Design: APD

WELL DETAILS: # 305H

+N/-S    +E/-W    Northing    Easting    Longitude    Latitude  
0.00    0.00    1898955.07    2766760.37    -107.6852880    36.2187470

GL 6837' & RKB 14' @ 6851.00usft

Plan: APD (# 305H/Original Drilling)

Created By: Janie Collins    Date: 12:15, March 11 2021

PROJECT DETAILS: Betonnie Tsosie Unit

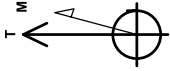
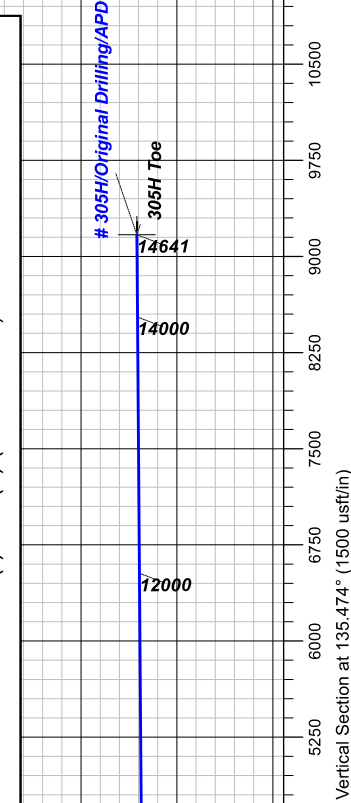
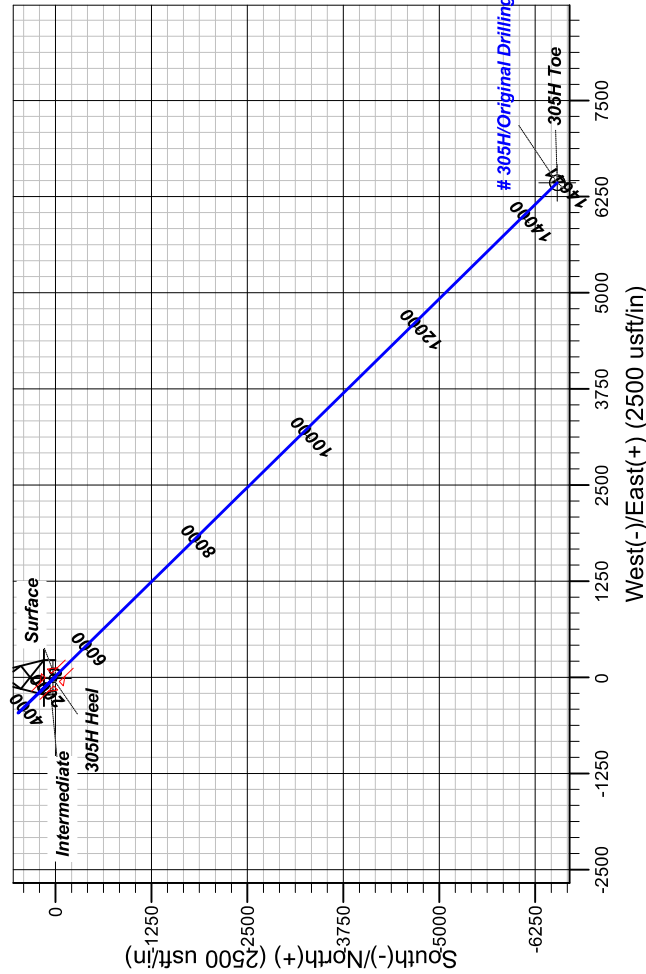
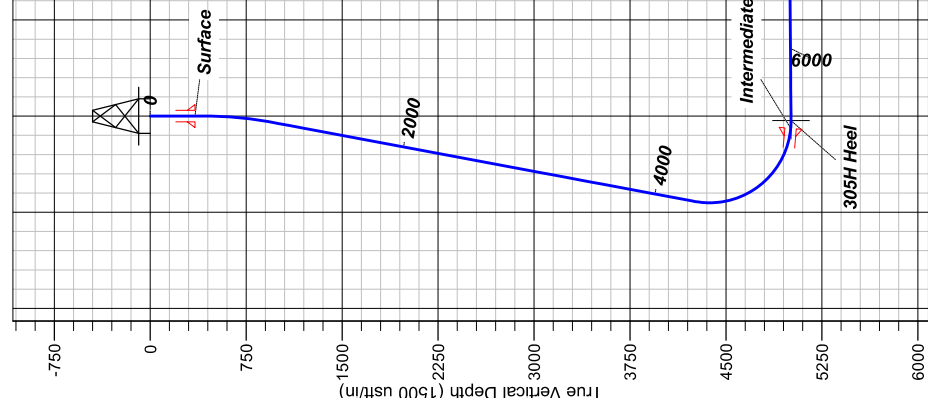
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Western Zone  
System Datum: Mean Sea Level  
Local North: True

DESIGN TARGET DETAILS

Time	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
305H Heel	5008.00	32.54	-16.55	1898987.59	2766743.77	36.2188364	-107.6853441
305H Toe	4936.00	-6536.74	6429.49	1892428.16	2773199.84	36.2007880	-107.6634968

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	
953.92	10.58	316.322	950.92	35.21	-33.62	2.00	316.32	-48.68	
4314.99	10.36	316.322	4308.54	431.17	-436.55	0.00	179.01	-93.89	305H Heel
5331.00	30.45	135.542	5008.00	32.54	-16.55	0.00	179.01	-93.89	305H Toe
14641.08	30.45	135.542	4936.00	-6536.74	6429.49	0.00	0.00	9168.82	



Azimuths to True North  
Magnetic North: 8.1°  
Magnetic Field  
Strength: 49475.5 nT  
Dip Angle: 62.2°  
Date: 12/31/2019  
Model: IGRF2015

CASING DETAILS

TVD	MD	Na	Surface
350.00	350.00		
5005.63	5377.00		Intermed

FORMATION DETAILS

MDPath	Formation
769.00	Ojo Alamo
885.00	Kirtland
1081.00	Fruitland
1363.00	Pictured Cliffs
1476.00	Lewis
2110.00	Chacra
2862.00	Menefee
3793.00	Point Lookout
3972.00	Mancos
4234.00	Mancos Silt
4729.00	Gallup A
4785.00	Gallup B
4887.00	Gallup C





## **DJR Operating**

**Bettonnie Tsosie Unit**

**B21 2308 Pad**

**# 305H - Slot 2**

**Original Drilling**

**Plan: APD**

## **Standard Planning Report**

**11 March, 2021**







**Lonestar Consulting, LLC**  
Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site:</b>	B21 2308 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 305H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

<b>Project</b>	Betonne Tsoie Unit		
<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		B21 2308 Pad			
Site Position:		Northing:	1,898,935.79 usft	Latitude:	36.2186940
From:	Lat/Long	Easting:	2,766,766.01 usft	Longitude:	-107.6852690
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.09

Well	# 305H - Slot 2					
Well Position	+N/-S	19.29 usft	Northing:	1,898,955.07 usft	Latitude:	36.2187470
	+E/-W	-5.60 usft	Easting:	2,766,760.37 usft	Longitude:	-107.6852880
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,837.00 usft

<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>
	IGRF2015	12/31/2019	8.91	62.88	49,475.85351826

<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	135.474

<b>Plan Survey Tool Program</b>	<b>Date</b>	3/11/2021		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	14,640.64	APD (Original Drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

<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 (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</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	
953.92	10.58	316.322	950.92	35.21	-33.62	2.00	2.00	0.00	316.32	
4,314.66	10.58	316.322	4,254.54	481.42	-459.71	0.00	0.00	0.00	0.00	
5,437.17	90.45	135.542	5,008.00	32.54	-16.55	9.00	7.12	15.97	179.21	305H Heel
14,641.08	90.45	135.542	4,936.00	-6,536.74	6,429.49	0.00	0.00	0.00	0.00	305H Toe





## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site:</b>	B21 2308 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 305H	<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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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	316.322	499.99	0.71	-0.68	-0.98	2.00	2.00	0.00
600.00	3.50	316.322	599.89	3.86	-3.69	-5.34	2.00	2.00	0.00
700.00	5.50	316.322	699.58	9.54	-9.11	-13.19	2.00	2.00	0.00
800.00	7.50	316.322	798.93	17.73	-16.93	-24.51	2.00	2.00	0.00
900.00	9.50	316.322	897.83	28.41	-27.13	-39.28	2.00	2.00	0.00
953.92	10.58	316.322	950.92	35.21	-33.62	-48.68	2.00	2.00	0.00
1,000.00	10.58	316.322	996.22	41.33	-39.47	-57.14	0.00	0.00	0.00
1,100.00	10.58	316.322	1,094.52	54.61	-52.15	-75.50	0.00	0.00	0.00
1,200.00	10.58	316.322	1,192.82	67.89	-64.82	-93.85	0.00	0.00	0.00
1,300.00	10.58	316.322	1,291.12	81.16	-77.50	-112.21	0.00	0.00	0.00
1,400.00	10.58	316.322	1,389.42	94.44	-90.18	-130.57	0.00	0.00	0.00
1,500.00	10.58	316.322	1,487.72	107.72	-102.86	-148.92	0.00	0.00	0.00
1,600.00	10.58	316.322	1,586.02	120.99	-115.54	-167.28	0.00	0.00	0.00
1,700.00	10.58	316.322	1,684.32	134.27	-128.22	-185.64	0.00	0.00	0.00
1,800.00	10.58	316.322	1,782.62	147.55	-140.89	-203.99	0.00	0.00	0.00
1,900.00	10.58	316.322	1,880.92	160.83	-153.57	-222.35	0.00	0.00	0.00
2,000.00	10.58	316.322	1,979.22	174.10	-166.25	-240.70	0.00	0.00	0.00
2,100.00	10.58	316.322	2,077.52	187.38	-178.93	-259.06	0.00	0.00	0.00
2,200.00	10.58	316.322	2,175.82	200.66	-191.61	-277.42	0.00	0.00	0.00
2,300.00	10.58	316.322	2,274.12	213.93	-204.29	-295.77	0.00	0.00	0.00
2,400.00	10.58	316.322	2,372.42	227.21	-216.96	-314.13	0.00	0.00	0.00
2,500.00	10.58	316.322	2,470.72	240.49	-229.64	-332.48	0.00	0.00	0.00
2,600.00	10.58	316.322	2,569.02	253.77	-242.32	-350.84	0.00	0.00	0.00
2,700.00	10.58	316.322	2,667.32	267.04	-255.00	-369.20	0.00	0.00	0.00
2,800.00	10.58	316.322	2,765.62	280.32	-267.68	-387.55	0.00	0.00	0.00
2,900.00	10.58	316.322	2,863.93	293.60	-280.36	-405.91	0.00	0.00	0.00
3,000.00	10.58	316.322	2,962.23	306.87	-293.03	-424.27	0.00	0.00	0.00
3,100.00	10.58	316.322	3,060.53	320.15	-305.71	-442.62	0.00	0.00	0.00
3,200.00	10.58	316.322	3,158.83	333.43	-318.39	-460.98	0.00	0.00	0.00
3,300.00	10.58	316.322	3,257.13	346.71	-331.07	-479.33	0.00	0.00	0.00
3,400.00	10.58	316.322	3,355.43	359.98	-343.75	-497.69	0.00	0.00	0.00
3,500.00	10.58	316.322	3,453.73	373.26	-356.43	-516.05	0.00	0.00	0.00
3,600.00	10.58	316.322	3,552.03	386.54	-369.10	-534.40	0.00	0.00	0.00
3,700.00	10.58	316.322	3,650.33	399.81	-381.78	-552.76	0.00	0.00	0.00
3,800.00	10.58	316.322	3,748.63	413.09	-394.46	-571.12	0.00	0.00	0.00
3,900.00	10.58	316.322	3,846.93	426.37	-407.14	-589.47	0.00	0.00	0.00
4,000.00	10.58	316.322	3,945.23	439.65	-419.82	-607.83	0.00	0.00	0.00
4,100.00	10.58	316.322	4,043.53	452.92	-432.50	-626.18	0.00	0.00	0.00
4,200.00	10.58	316.322	4,141.83	466.20	-445.17	-644.54	0.00	0.00	0.00
4,300.00	10.58	316.322	4,240.13	479.48	-457.85	-662.90	0.00	0.00	0.00
4,314.66	10.58	316.322	4,254.54	481.42	-459.71	-665.59	0.00	0.00	0.00
4,400.00	2.90	318.419	4,339.23	488.72	-466.56	-675.59	9.00	-9.00	2.46
4,500.00	6.10	134.179	4,439.09	486.90	-464.43	-672.80	9.00	3.20	175.76
4,600.00	15.10	135.001	4,537.28	473.95	-451.37	-654.41	9.00	9.00	0.82
4,700.00	24.10	135.216	4,631.38	450.20	-427.73	-620.90	9.00	9.00	0.21
4,800.00	33.10	135.318	4,719.09	416.22	-394.07	-573.07	9.00	9.00	0.10
4,900.00	42.10	135.380	4,798.23	372.85	-351.24	-512.12	9.00	9.00	0.06
5,000.00	51.10	135.424	4,866.87	321.17	-300.27	-439.53	9.00	9.00	0.04





## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Project:</b>	Betonne Tsoie Unit	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site:</b>	B21 2308 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 305H	<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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,100.00	60.10	135.457	4,923.30	262.43	-242.44	-357.10	9.00	9.00	0.03	
5,200.00	69.10	135.486	4,966.15	198.10	-179.15	-266.86	9.00	9.00	0.03	
5,300.00	78.10	135.511	4,994.35	129.75	-111.98	-171.02	9.00	9.00	0.02	
5,400.00	87.10	135.534	5,007.21	59.06	-42.57	-71.96	9.00	9.00	0.02	
5,437.17	90.45	135.542	5,008.00	32.54	-16.55	-34.81	9.00	9.00	0.02	
5,500.00	90.45	135.542	5,007.51	-12.30	27.46	28.03	0.00	0.00	0.00	
5,600.00	90.45	135.542	5,006.73	-83.68	97.49	128.02	0.00	0.00	0.00	
5,700.00	90.45	135.542	5,005.94	-155.05	167.53	228.02	0.00	0.00	0.00	
5,800.00	90.45	135.542	5,005.16	-226.43	237.57	328.02	0.00	0.00	0.00	
5,900.00	90.45	135.542	5,004.38	-297.80	307.60	428.01	0.00	0.00	0.00	
6,000.00	90.45	135.542	5,003.60	-369.18	377.64	528.01	0.00	0.00	0.00	
6,100.00	90.45	135.542	5,002.81	-440.55	447.67	628.01	0.00	0.00	0.00	
6,200.00	90.45	135.542	5,002.03	-511.93	517.71	728.01	0.00	0.00	0.00	
6,300.00	90.45	135.542	5,001.25	-583.30	587.75	828.00	0.00	0.00	0.00	
6,400.00	90.45	135.542	5,000.47	-654.68	657.78	928.00	0.00	0.00	0.00	
6,500.00	90.45	135.542	4,999.69	-726.05	727.82	1,028.00	0.00	0.00	0.00	
6,600.00	90.45	135.542	4,998.90	-797.43	797.85	1,127.99	0.00	0.00	0.00	
6,700.00	90.45	135.542	4,998.12	-868.80	867.89	1,227.99	0.00	0.00	0.00	
6,800.00	90.45	135.542	4,997.34	-940.18	937.93	1,327.99	0.00	0.00	0.00	
6,900.00	90.45	135.542	4,996.56	-1,011.55	1,007.96	1,427.98	0.00	0.00	0.00	
7,000.00	90.45	135.542	4,995.77	-1,082.92	1,078.00	1,527.98	0.00	0.00	0.00	
7,100.00	90.45	135.542	4,994.99	-1,154.30	1,148.03	1,627.98	0.00	0.00	0.00	
7,200.00	90.45	135.542	4,994.21	-1,225.67	1,218.07	1,727.97	0.00	0.00	0.00	
7,300.00	90.45	135.542	4,993.43	-1,297.05	1,288.11	1,827.97	0.00	0.00	0.00	
7,400.00	90.45	135.542	4,992.65	-1,368.42	1,358.14	1,927.97	0.00	0.00	0.00	
7,500.00	90.45	135.542	4,991.86	-1,439.80	1,428.18	2,027.96	0.00	0.00	0.00	
7,600.00	90.45	135.542	4,991.08	-1,511.17	1,498.21	2,127.96	0.00	0.00	0.00	
7,700.00	90.45	135.542	4,990.30	-1,582.55	1,568.25	2,227.96	0.00	0.00	0.00	
7,800.00	90.45	135.542	4,989.52	-1,653.92	1,638.29	2,327.95	0.00	0.00	0.00	
7,900.00	90.45	135.542	4,988.73	-1,725.30	1,708.32	2,427.95	0.00	0.00	0.00	
8,000.00	90.45	135.542	4,987.95	-1,796.67	1,778.36	2,527.95	0.00	0.00	0.00	
8,100.00	90.45	135.542	4,987.17	-1,868.05	1,848.39	2,627.95	0.00	0.00	0.00	
8,200.00	90.45	135.542	4,986.39	-1,939.42	1,918.43	2,727.94	0.00	0.00	0.00	
8,300.00	90.45	135.542	4,985.60	-2,010.80	1,988.47	2,827.94	0.00	0.00	0.00	
8,400.00	90.45	135.542	4,984.82	-2,082.17	2,058.50	2,927.94	0.00	0.00	0.00	
8,500.00	90.45	135.542	4,984.04	-2,153.55	2,128.54	3,027.93	0.00	0.00	0.00	
8,600.00	90.45	135.542	4,983.26	-2,224.92	2,198.57	3,127.93	0.00	0.00	0.00	
8,700.00	90.45	135.542	4,982.48	-2,296.30	2,268.61	3,227.93	0.00	0.00	0.00	
8,800.00	90.45	135.542	4,981.69	-2,367.67	2,338.65	3,327.92	0.00	0.00	0.00	
8,900.00	90.45	135.542	4,980.91	-2,439.04	2,408.68	3,427.92	0.00	0.00	0.00	
9,000.00	90.45	135.542	4,980.13	-2,510.42	2,478.72	3,527.92	0.00	0.00	0.00	
9,100.00	90.45	135.542	4,979.35	-2,581.79	2,548.75	3,627.91	0.00	0.00	0.00	
9,200.00	90.45	135.542	4,978.56	-2,653.17	2,618.79	3,727.91	0.00	0.00	0.00	
9,300.00	90.45	135.542	4,977.78	-2,724.54	2,688.83	3,827.91	0.00	0.00	0.00	
9,400.00	90.45	135.542	4,977.00	-2,795.92	2,758.86	3,927.90	0.00	0.00	0.00	
9,500.00	90.45	135.542	4,976.22	-2,867.29	2,828.90	4,027.90	0.00	0.00	0.00	
9,600.00	90.45	135.542	4,975.44	-2,938.67	2,898.93	4,127.90	0.00	0.00	0.00	
9,700.00	90.45	135.542	4,974.65	-3,010.04	2,968.97	4,227.90	0.00	0.00	0.00	
9,800.00	90.45	135.542	4,973.87	-3,081.42	3,039.01	4,327.89	0.00	0.00	0.00	
9,900.00	90.45	135.542	4,973.09	-3,152.79	3,109.04	4,427.89	0.00	0.00	0.00	
10,000.00	90.45	135.542	4,972.31	-3,224.17	3,179.08	4,527.89	0.00	0.00	0.00	
10,100.00	90.45	135.542	4,971.52	-3,295.54	3,249.11	4,627.88	0.00	0.00	0.00	
10,200.00	90.45	135.542	4,970.74	-3,366.92	3,319.15	4,727.88	0.00	0.00	0.00	
10,300.00	90.45	135.542	4,969.96	-3,438.29	3,389.19	4,827.88	0.00	0.00	0.00	





## Lonestar Consulting, LLC

## Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Project:</b>	Betonne Tsoosie Unit	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site:</b>	B21 2308 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 305H	<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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400.00	90.45	135.542	4,969.18	-3,509.67	3,459.22	4,927.87	0.00	0.00	0.00	
10,500.00	90.45	135.542	4,968.39	-3,581.04	3,529.26	5,027.87	0.00	0.00	0.00	
10,600.00	90.45	135.542	4,967.61	-3,652.41	3,599.29	5,127.87	0.00	0.00	0.00	
10,700.00	90.45	135.542	4,966.83	-3,723.79	3,669.33	5,227.86	0.00	0.00	0.00	
10,800.00	90.45	135.542	4,966.05	-3,795.16	3,739.37	5,327.86	0.00	0.00	0.00	
10,900.00	90.45	135.542	4,965.27	-3,866.54	3,809.40	5,427.86	0.00	0.00	0.00	
11,000.00	90.45	135.542	4,964.48	-3,937.91	3,879.44	5,527.85	0.00	0.00	0.00	
11,100.00	90.45	135.542	4,963.70	-4,009.29	3,949.47	5,627.85	0.00	0.00	0.00	
11,200.00	90.45	135.542	4,962.92	-4,080.66	4,019.51	5,727.85	0.00	0.00	0.00	
11,300.00	90.45	135.542	4,962.14	-4,152.04	4,089.55	5,827.85	0.00	0.00	0.00	
11,400.00	90.45	135.542	4,961.35	-4,223.41	4,159.58	5,927.84	0.00	0.00	0.00	
11,500.00	90.45	135.542	4,960.57	-4,294.79	4,229.62	6,027.84	0.00	0.00	0.00	
11,600.00	90.45	135.542	4,959.79	-4,366.16	4,299.65	6,127.84	0.00	0.00	0.00	
11,700.00	90.45	135.542	4,959.01	-4,437.54	4,369.69	6,227.83	0.00	0.00	0.00	
11,800.00	90.45	135.542	4,958.23	-4,508.91	4,439.72	6,327.83	0.00	0.00	0.00	
11,900.00	90.45	135.542	4,957.44	-4,580.29	4,509.76	6,427.83	0.00	0.00	0.00	
12,000.00	90.45	135.542	4,956.66	-4,651.66	4,579.80	6,527.82	0.00	0.00	0.00	
12,100.00	90.45	135.542	4,955.88	-4,723.04	4,649.83	6,627.82	0.00	0.00	0.00	
12,200.00	90.45	135.542	4,955.10	-4,794.41	4,719.87	6,727.82	0.00	0.00	0.00	
12,300.00	90.45	135.542	4,954.31	-4,865.79	4,789.90	6,827.81	0.00	0.00	0.00	
12,400.00	90.45	135.542	4,953.53	-4,937.16	4,859.94	6,927.81	0.00	0.00	0.00	
12,500.00	90.45	135.542	4,952.75	-5,008.53	4,929.98	7,027.81	0.00	0.00	0.00	
12,600.00	90.45	135.542	4,951.97	-5,079.91	5,000.01	7,127.80	0.00	0.00	0.00	
12,700.00	90.45	135.542	4,951.18	-5,151.28	5,070.05	7,227.80	0.00	0.00	0.00	
12,800.00	90.45	135.542	4,950.40	-5,222.66	5,140.08	7,327.80	0.00	0.00	0.00	
12,900.00	90.45	135.542	4,949.62	-5,294.03	5,210.12	7,427.80	0.00	0.00	0.00	
13,000.00	90.45	135.542	4,948.84	-5,365.41	5,280.16	7,527.79	0.00	0.00	0.00	
13,100.00	90.45	135.542	4,948.06	-5,436.78	5,350.19	7,627.79	0.00	0.00	0.00	
13,200.00	90.45	135.542	4,947.27	-5,508.16	5,420.23	7,727.79	0.00	0.00	0.00	
13,300.00	90.45	135.542	4,946.49	-5,579.53	5,490.26	7,827.78	0.00	0.00	0.00	
13,400.00	90.45	135.542	4,945.71	-5,650.91	5,560.30	7,927.78	0.00	0.00	0.00	
13,500.00	90.45	135.542	4,944.93	-5,722.28	5,630.34	8,027.78	0.00	0.00	0.00	
13,600.00	90.45	135.542	4,944.14	-5,793.66	5,700.37	8,127.77	0.00	0.00	0.00	
13,700.00	90.45	135.542	4,943.36	-5,865.03	5,770.41	8,227.77	0.00	0.00	0.00	
13,800.00	90.45	135.542	4,942.58	-5,936.41	5,840.44	8,327.77	0.00	0.00	0.00	
13,900.00	90.45	135.542	4,941.80	-6,007.78	5,910.48	8,427.76	0.00	0.00	0.00	
14,000.00	90.45	135.542	4,941.02	-6,079.16	5,980.52	8,527.76	0.00	0.00	0.00	
14,100.00	90.45	135.542	4,940.23	-6,150.53	6,050.55	8,627.76	0.00	0.00	0.00	
14,200.00	90.45	135.542	4,939.45	-6,221.90	6,120.59	8,727.75	0.00	0.00	0.00	
14,300.00	90.45	135.542	4,938.67	-6,293.28	6,190.62	8,827.75	0.00	0.00	0.00	
14,400.00	90.45	135.542	4,937.89	-6,364.65	6,260.66	8,927.75	0.00	0.00	0.00	
14,500.00	90.45	135.542	4,937.10	-6,436.03	6,330.70	9,027.75	0.00	0.00	0.00	
14,600.00	90.45	135.542	4,936.32	-6,507.40	6,400.73	9,127.74	0.00	0.00	0.00	
14,641.08	90.45	135.542	4,936.00	-6,536.74	6,429.49	9,168.82	0.00	0.00	0.00	





**Lonestar Consulting, LLC**  
Planning Report



<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Company:</b>	DJR Operating	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Project:</b>	Betonne Tsois Unit	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site:</b>	B21 2308 Pad	<b>North Reference:</b>	True
<b>Well:</b>	# 305H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
305H Toe	0.00	0.000	4,936.00	-6,536.74	6,429.49	1,892,428.16	2,773,199.84	36.2007880	-107.6634958
- plan hits target center									
- Circle (radius 100.00)									
305H Heel	0.00	0.000	5,008.00	32.54	-16.55	1,898,987.59	2,766,743.78	36.2188364	-107.6853441
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(usft)	(usft)	Name		(in)	(in)
350.00	350.00	Surface		9.63	12.25
5,377.00	5,005.63	Intermediate		7.00	8.75

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(usft)	(usft)	Name	Lithology		(°)	(°)
769.83	769.00	Ojo Alamo			0.00	0.000
887.00	885.00	Kirtland			0.00	0.000
1,086.25	1,081.00	Fruitland			0.00	0.000
1,373.12	1,363.00	Pictured Cliffs			0.00	0.000
1,488.08	1,476.00	Lewis			0.00	0.000
2,133.04	2,110.00	Chacra			0.00	0.000
2,898.04	2,862.00	Menefee			0.00	0.000
3,845.14	3,793.00	Point Lookout			0.00	0.000
4,027.23	3,972.00	Mancos			0.00	0.000
4,293.76	4,234.00	Mancos Silt			0.00	0.000
4,811.90	4,729.00	Gallup A			0.00	0.000
4,882.38	4,785.00	Gallup B			0.00	0.000
5,033.15	4,887.00	Gallup C			0.00	0.000





## **DJR Operating**

**Betonnies Tsosie Unit  
B21 2308 Pad  
# 305H**

**Original Drilling  
APD**

## **Anticollision Report**

**11 March, 2021**







# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<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 centre distance of 10,000.00usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	3/11/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	14,640.64	APD (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

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						
B21 2308 Pad						
# 306H - Original Drilling - APD	400.00	400.00	20.09	17.63	8.170	CC
# 306H - Original Drilling - APD	425.00	424.99	20.09	17.46	7.624	ES
# 306H - Original Drilling - APD	10,800.00	10,629.98	1,336.72	1,058.71	4.808	SF
# 721H - Original Drilling - APD	592.07	591.52	17.79	13.97	4.655	CC
# 721H - Original Drilling - APD	600.00	599.38	17.81	13.94	4.593	ES
# 721H - Original Drilling - APD	14,641.08	13,619.19	1,231.00	770.25	2.672	SF

Offset Design: B21 2308 Pad - # 306H - Original Drilling - APD													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Reference	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	163.80	-19.29	5.60	20.09					
100.00	100.00	100.00	100.00	0.15	0.15	163.80	-19.29	5.60	20.09	19.78	0.31	65.169		
200.00	200.00	200.00	200.00	0.51	0.51	163.80	-19.29	5.60	20.09	19.07	1.03	19.596		
300.00	300.00	300.00	300.00	0.87	0.87	163.80	-19.29	5.60	20.09	18.35	1.74	11.532		
400.00	400.00	400.00	400.00	1.23	1.23	163.80	-19.29	5.60	20.09	17.63	2.46	8.170 CC		
425.00	425.00	424.99	424.99	1.32	1.32	164.11	-19.33	5.50	20.09	17.46	2.64	7.624 ES		
500.00	499.99	499.94	499.92	1.59	1.58	-149.00	-19.84	3.95	21.06	17.89	3.16	6.655		
600.00	599.89	599.68	599.52	1.95	1.92	-142.29	-21.46	-1.01	25.46	21.59	3.87	6.578		
700.00	699.58	699.01	698.47	2.31	2.29	-135.88	-24.14	-9.21	33.70	29.10	4.60	7.330		
800.00	798.93	797.74	796.46	2.69	2.67	-131.17	-27.86	-20.60	45.80	40.45	5.35	8.566		
900.00	897.83	895.67	893.20	3.10	3.07	-127.98	-32.59	-35.05	61.69	55.56	6.13	10.067		
953.92	950.92	948.08	944.74	3.33	3.31	-126.71	-35.54	-44.07	71.79	65.22	6.57	10.927		
1,000.00	996.22	992.65	988.43	3.53	3.51	-125.76	-38.28	-52.45	81.04	74.09	6.95	11.665		
1,100.00	1,094.52	1,088.76	1,082.14	3.98	3.98	-123.11	-44.91	-72.71	102.37	94.58	7.79	13.140		
1,200.00	1,192.82	1,183.83	1,174.09	4.44	4.49	-120.12	-52.42	-95.68	125.60	116.95	8.66	14.509		
1,300.00	1,291.12	1,277.69	1,264.03	4.91	5.03	-117.08	-60.76	-121.19	150.95	141.41	9.54	15.827		
1,400.00	1,389.42	1,372.05	1,353.65	5.38	5.63	-114.19	-69.94	-149.25	178.30	167.85	10.44	17.072		
1,500.00	1,487.72	1,467.81	1,444.48	5.86	6.25	-111.96	-79.36	-178.05	206.21	194.82	11.38	18.113		
1,600.00	1,586.02	1,563.57	1,535.32	6.34	6.89	-110.26	-88.78	-206.85	234.34	222.00	12.33	19.002		
1,700.00	1,684.32	1,659.32	1,626.15	6.82	7.54	-108.92	-98.20	-235.65	262.62	249.33	13.29	19.765		
1,800.00	1,782.62	1,755.08	1,716.99	7.31	8.20	-107.84	-107.62	-264.45	291.00	276.75	14.25	20.426		





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> B21 2308 Pad - # 306H - Original Drilling - APD													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b> 0.00 usft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>			<b>Offset Wellbore Centre</b>		<b>Distance</b>				<b>Warning</b>
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>Minimum Separation (usft)</b>	<b>Separation Factor</b>	
1,900.00	1,880.92	1,850.83	1,807.83	7.80	8.86	-106.96	-117.04	-293.25	319.47	304.26	15.21	21.003	
2,000.00	1,979.22	1,946.59	1,898.66	8.28	9.52	-106.21	-126.45	-322.04	347.99	331.81	16.18	21.511	
2,100.00	2,077.52	2,042.35	1,989.50	8.77	10.19	-105.58	-135.87	-350.84	376.56	359.41	17.15	21.960	
2,200.00	2,175.82	2,138.10	2,080.34	9.26	10.87	-105.04	-145.29	-379.64	405.16	387.04	18.12	22.360	
2,300.00	2,274.12	2,233.86	2,171.17	9.76	11.54	-104.57	-154.71	-408.44	433.79	414.70	19.09	22.718	
2,400.00	2,372.42	2,329.62	2,262.01	10.25	12.22	-104.16	-164.13	-437.24	462.45	442.38	20.07	23.041	
2,500.00	2,470.72	2,425.37	2,352.85	10.74	12.90	-103.80	-173.55	-466.04	491.13	470.08	21.05	23.333	
2,600.00	2,569.02	2,521.13	2,443.68	11.23	13.58	-103.48	-182.97	-494.84	519.82	497.79	22.03	23.598	
2,700.00	2,667.32	2,616.89	2,534.52	11.73	14.26	-103.19	-192.39	-523.63	548.52	525.52	23.01	23.841	
2,800.00	2,765.62	2,712.64	2,625.35	12.22	14.94	-102.93	-201.81	-552.43	577.24	553.25	23.99	24.063	
2,900.00	2,863.93	2,808.40	2,716.19	12.71	15.63	-102.69	-211.22	-581.23	605.97	581.00	24.97	24.267	
3,000.00	2,962.23	2,904.16	2,807.03	13.21	16.31	-102.48	-220.64	-610.03	634.70	608.75	25.95	24.455	
3,100.00	3,060.53	2,999.91	2,897.86	13.70	17.00	-102.28	-230.06	-638.83	663.45	636.51	26.94	24.629	
3,200.00	3,158.83	3,095.67	2,988.70	14.20	17.68	-102.10	-239.48	-667.63	692.20	664.27	27.92	24.790	
3,300.00	3,257.13	3,191.43	3,079.54	14.69	18.37	-101.94	-248.90	-696.43	720.95	692.04	28.91	24.941	
3,400.00	3,355.43	3,287.18	3,170.37	15.19	19.06	-101.78	-258.32	-725.23	749.71	719.82	29.89	25.081	
3,500.00	3,453.73	3,382.94	3,261.21	15.69	19.74	-101.64	-267.74	-754.02	778.48	747.60	30.88	25.212	
3,600.00	3,552.03	3,478.70	3,352.04	16.18	20.43	-101.51	-277.16	-782.82	807.25	775.38	31.86	25.334	
3,700.00	3,650.33	3,574.45	3,442.88	16.68	21.12	-101.39	-286.58	-811.62	836.02	803.17	32.85	25.449	
3,800.00	3,748.63	3,670.21	3,533.72	17.17	21.81	-101.27	-295.99	-840.42	864.79	830.96	33.84	25.557	
3,900.00	3,846.93	3,765.97	3,624.55	17.67	22.50	-101.17	-305.41	-869.22	893.57	858.75	34.83	25.659	
4,000.00	3,945.23	3,861.72	3,715.39	18.17	23.19	-101.07	-314.83	-898.02	922.35	886.54	35.81	25.755	
4,100.00	4,043.53	3,957.48	3,806.23	18.66	23.88	-100.97	-324.25	-926.82	951.14	914.34	36.80	25.846	
4,200.00	4,141.83	4,053.24	3,897.06	19.16	24.57	-100.88	-333.67	-955.61	979.92	942.14	37.79	25.931	
4,300.00	4,240.13	4,148.99	3,987.90	19.66	25.26	-100.80	-343.09	-984.41	1,008.71	969.94	38.78	26.013	
4,314.66	4,254.54	4,163.03	4,001.22	19.73	25.36	-100.79	-344.47	-988.63	1,012.93	974.01	38.92	26.024	
4,350.00	4,289.44	4,196.89	4,033.33	19.89	25.60	-101.97	-347.80	-998.82	1,022.94	983.69	39.25	26.060	
4,400.00	4,339.23	4,244.71	4,078.70	20.08	25.95	-104.66	-352.50	-1,013.20	1,036.50	996.85	39.65	26.138	
4,450.00	4,389.21	4,292.17	4,123.72	20.22	26.29	82.76	-357.17	-1,027.47	1,049.34	1,009.37	39.97	26.251	
4,500.00	4,439.09	4,338.97	4,168.12	20.32	26.62	78.52	-361.78	-1,041.55	1,061.48	1,021.27	40.21	26.395	
4,550.00	4,488.54	4,384.83	4,211.62	20.37	26.96	77.75	-366.29	-1,055.34	1,072.97	1,032.59	40.38	26.569	
4,600.00	4,537.28	4,429.46	4,253.96	20.40	27.28	77.51	-370.68	-1,068.76	1,083.90	1,043.42	40.48	26.773	
4,650.00	4,584.99	4,470.79	4,293.17	20.40	27.57	77.49	-374.77	-1,081.17	1,094.39	1,053.90	40.49	27.026	
4,700.00	4,631.38	4,504.71	4,325.48	20.37	27.81	77.39	-379.05	-1,090.53	1,104.78	1,064.40	40.38	27.361	
4,750.00	4,676.18	4,539.21	4,358.48	20.32	28.03	77.35	-384.77	-1,098.81	1,115.17	1,074.94	40.23	27.723	
4,800.00	4,719.09	4,574.41	4,392.18	20.25	28.24	77.38	-392.01	-1,105.94	1,125.54	1,085.49	40.05	28.103	
4,850.00	4,759.86	4,610.43	4,426.59	20.18	28.44	77.46	-400.86	-1,111.83	1,135.90	1,096.03	39.87	28.491	
4,900.00	4,798.23	4,647.42	4,461.73	20.11	28.63	77.59	-411.43	-1,116.38	1,146.21	1,106.51	39.69	28.877	
4,950.00	4,833.98	4,685.54	4,497.63	20.05	28.80	77.78	-423.88	-1,119.47	1,156.46	1,116.92	39.53	29.254	
5,000.00	4,866.87	4,725.01	4,534.31	20.01	28.96	78.03	-438.37	-1,120.95	1,166.62	1,127.21	39.41	29.605	
5,050.00	4,896.70	4,766.08	4,571.80	20.00	29.11	78.35	-455.12	-1,120.61	1,176.68	1,137.35	39.33	29.919	
5,100.00	4,923.30	4,809.05	4,610.11	20.02	29.24	78.74	-474.40	-1,118.22	1,186.59	1,147.28	39.31	30.185	
5,150.00	4,946.50	4,854.28	4,649.26	20.08	29.37	79.22	-496.52	-1,113.47	1,196.33	1,156.97	39.36	30.392	
5,200.00	4,966.15	4,902.21	4,689.20	20.20	29.47	79.78	-521.91	-1,105.95	1,205.84	1,166.35	39.49	30.535	
5,250.00	4,982.13	4,953.40	4,729.85	20.37	29.56	80.45	-551.06	-1,095.15	1,215.06	1,175.36	39.70	30.604	
5,300.00	4,994.35	5,008.50	4,771.00	20.60	29.64	81.24	-584.58	-1,080.40	1,223.92	1,183.92	40.00	30.597	
5,350.00	5,002.72	5,068.34	4,812.28	20.89	29.70	82.15	-623.21	-1,060.84	1,232.30	1,191.90	40.40	30.502	
5,400.00	5,007.21	5,133.89	4,852.99	21.24	29.74	83.21	-667.80	-1,035.40	1,240.09	1,199.19	40.90	30.318	
5,437.17	5,008.00	5,186.98	4,882.22	21.53	29.76	84.09	-705.34	-1,011.89	1,245.39	1,204.03	41.35	30.116	
5,500.00	5,007.51	5,289.29	4,928.36	22.09	29.76	86.30	-780.25	-959.88	1,253.34	1,210.99	42.34	29.599	
5,600.00	5,006.73	5,485.37	4,975.82	23.18	29.71	88.58	-927.05	-840.13	1,261.50	1,216.71	44.79	28.167	
5,700.00	5,005.94	5,622.63	4,978.48	24.48	29.73	88.75	-1,027.04	-746.25	1,263.37	1,215.92	47.45	26.624	





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> B21 2308 Pad - # 306H - Original Drilling - APD													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b> 0.00 usft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>		<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre</b>		<b>Distance</b>		<b>Minimum Separation (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>		<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>			
5,800.00	5,005.16	5,722.62	4,977.69	25.95	29.88	88.75	-1,099.36	-677.21	1,264.74	1,214.60	50.15	25.220	
5,900.00	5,004.38	5,822.61	4,976.91	27.57	30.24	88.75	-1,171.69	-608.17	1,266.12	1,212.95	53.17	23.811	
6,000.00	5,003.60	5,922.60	4,976.12	29.31	30.89	88.75	-1,244.01	-539.13	1,267.50	1,211.01	56.48	22.441	
6,100.00	5,002.81	6,022.60	4,975.33	31.15	31.88	88.75	-1,316.34	-470.08	1,268.87	1,208.69	60.19	21.083	
6,200.00	5,002.03	6,122.59	4,974.55	33.08	33.24	88.75	-1,388.66	-401.04	1,270.25	1,206.64	63.60	19.971	
6,300.00	5,001.25	6,222.58	4,973.76	35.07	34.81	88.76	-1,460.99	-332.00	1,271.62	1,204.07	67.56	18.823	
6,400.00	5,000.47	6,322.57	4,972.98	37.13	36.55	88.76	-1,533.31	-262.96	1,273.00	1,201.42	71.58	17.784	
6,500.00	4,999.69	6,422.56	4,972.19	39.23	38.41	88.76	-1,605.64	-193.92	1,274.38	1,198.66	75.71	16.832	
6,600.00	4,998.90	6,522.55	4,971.41	41.38	40.36	88.76	-1,677.96	-124.88	1,275.75	1,195.81	79.94	15.960	
6,700.00	4,998.12	6,622.54	4,970.62	43.57	42.38	88.76	-1,750.29	-55.84	1,277.13	1,192.89	84.24	15.160	
6,800.00	4,997.34	6,722.53	4,969.84	45.78	44.46	88.76	-1,822.61	13.20	1,278.50	1,189.89	88.62	14.428	
6,900.00	4,996.56	6,822.52	4,969.05	48.02	46.57	88.76	-1,894.94	82.24	1,279.88	1,186.83	93.05	13.755	
7,000.00	4,995.77	6,922.51	4,968.27	50.29	48.73	88.76	-1,967.26	151.28	1,281.25	1,183.72	97.53	13.137	
7,100.00	4,994.99	7,022.50	4,967.48	52.57	50.91	88.76	-2,039.59	220.32	1,282.63	1,180.57	102.06	12.567	
7,200.00	4,994.21	7,122.49	4,966.69	54.87	53.12	88.77	-2,111.91	289.36	1,284.01	1,177.38	106.63	12.042	
7,300.00	4,993.43	7,222.48	4,965.91	57.19	55.36	88.77	-2,184.24	358.40	1,285.38	1,174.15	111.23	11.556	
7,400.00	4,992.65	7,322.47	4,965.12	59.52	57.61	88.77	-2,256.56	427.44	1,286.76	1,170.90	115.86	11.106	
7,500.00	4,991.86	7,422.46	4,964.34	61.87	59.88	88.77	-2,328.89	496.48	1,288.13	1,167.62	120.52	10.688	
7,600.00	4,991.08	7,522.45	4,963.55	64.22	62.17	88.77	-2,401.21	565.52	1,289.51	1,164.31	125.20	10.300	
7,700.00	4,990.30	7,622.44	4,962.77	66.59	64.47	88.77	-2,473.54	634.56	1,290.89	1,160.98	129.90	9.937	
7,800.00	4,989.52	7,722.43	4,961.98	68.96	66.79	88.77	-2,545.86	703.60	1,292.26	1,157.64	134.62	9.599	
7,900.00	4,988.73	7,822.42	4,961.20	71.34	69.11	88.77	-2,618.19	772.64	1,293.64	1,154.28	139.36	9.283	
8,000.00	4,987.95	7,922.42	4,960.41	73.73	71.45	88.78	-2,690.51	841.68	1,295.01	1,150.90	144.11	8.986	
8,100.00	4,987.17	8,022.41	4,959.63	76.12	73.79	88.78	-2,762.83	910.73	1,296.39	1,147.51	148.88	8.708	
8,200.00	4,986.39	8,122.40	4,958.84	78.52	76.15	88.78	-2,835.16	979.77	1,297.77	1,144.11	153.66	8.446	
8,300.00	4,985.60	8,222.39	4,958.05	80.93	78.51	88.78	-2,907.48	1,048.81	1,299.14	1,140.69	158.45	8.199	
8,400.00	4,984.82	8,322.38	4,957.27	83.34	80.87	88.78	-2,979.81	1,117.85	1,300.52	1,137.27	163.25	7.966	
8,500.00	4,984.04	8,422.37	4,956.48	85.75	83.25	88.78	-3,052.13	1,186.89	1,301.89	1,133.83	168.06	7.747	
8,600.00	4,983.26	8,522.36	4,955.70	88.17	85.62	88.78	-3,124.46	1,255.93	1,303.27	1,130.39	172.88	7.539	
8,700.00	4,982.48	8,622.35	4,954.91	90.59	88.01	88.78	-3,196.78	1,324.97	1,304.65	1,126.94	177.71	7.342	
8,800.00	4,981.69	8,722.34	4,954.13	93.02	90.40	88.78	-3,269.11	1,394.01	1,306.02	1,123.48	182.54	7.155	
8,900.00	4,980.91	8,822.33	4,953.34	95.45	92.79	88.79	-3,341.43	1,463.05	1,307.40	1,120.02	187.38	6.977	
9,000.00	4,980.13	8,922.32	4,952.56	97.88	95.19	88.79	-3,413.76	1,532.09	1,308.77	1,116.54	192.23	6.808	
9,100.00	4,979.35	9,022.31	4,951.77	100.31	97.59	88.79	-3,486.08	1,601.13	1,310.15	1,113.07	197.08	6.648	
9,200.00	4,978.56	9,122.30	4,950.99	102.75	100.00	88.79	-3,558.41	1,670.17	1,311.52	1,109.58	201.94	6.495	
9,300.00	4,977.78	9,222.29	4,950.20	105.19	102.41	88.79	-3,630.73	1,739.21	1,312.90	1,106.10	206.80	6.349	
9,400.00	4,977.00	9,322.28	4,949.41	107.63	104.82	88.79	-3,703.06	1,808.25	1,314.28	1,102.60	211.67	6.209	
9,500.00	4,976.22	9,422.27	4,948.63	110.08	107.23	88.79	-3,775.38	1,877.29	1,315.65	1,099.11	216.54	6.076	
9,600.00	4,975.44	9,522.26	4,947.84	112.52	109.65	88.79	-3,847.71	1,946.33	1,317.03	1,095.61	221.42	5.948	
9,700.00	4,974.65	9,622.25	4,947.06	114.97	112.07	88.79	-3,920.03	2,015.37	1,318.40	1,092.10	226.30	5.826	
9,800.00	4,973.87	9,722.25	4,946.27	117.42	114.49	88.80	-3,992.36	2,084.41	1,319.78	1,088.60	231.18	5.709	
9,900.00	4,973.09	9,822.24	4,945.49	119.87	116.92	88.80	-4,064.68	2,153.45	1,321.16	1,085.08	236.07	5.596	
10,000.00	4,972.31	9,922.23	4,944.70	122.32	119.34	88.80	-4,137.01	2,222.50	1,322.53	1,081.57	240.96	5.489	
10,100.00	4,971.52	10,022.22	4,943.92	124.77	121.77	88.80	-4,209.33	2,291.54	1,323.91	1,078.05	245.85	5.385	
10,200.00	4,970.74	10,122.21	4,943.13	127.23	124.20	88.80	-4,281.66	2,360.58	1,325.28	1,074.53	250.75	5.285	
10,300.00	4,969.96	10,222.20	4,942.35	129.68	126.64	88.80	-4,353.98	2,429.62	1,326.66	1,071.01	255.65	5.189	
10,400.00	4,969.18	10,322.19	4,941.56	132.14	129.07	88.80	-4,426.31	2,498.66	1,328.04	1,067.49	260.55	5.097	
10,500.00	4,968.39	10,422.18	4,940.77	134.60	131.50	88.80	-4,498.63	2,567.70	1,329.41	1,063.96	265.45	5.008	
10,600.00	4,967.61	10,522.17	4,939.99	137.06	133.94	88.80	-4,570.96	2,636.74	1,330.79	1,060.43	270.36	4.922	
10,700.00	4,966.83	10,622.03	4,939.10	139.52	136.38	88.80	-4,643.19	2,705.69	1,332.17	1,056.90	275.26	4.840	
10,800.00	4,966.05	10,629.98	4,939.00	141.98	136.57	88.80	-4,648.94	2,711.18	1,336.72	1,058.71	278.02	4.808 SF	
10,900.00	4,965.27	10,629.98	4,939.00	144.44	136.57	88.80	-4,648.94	2,711.18	1,348.68	1,069.55	279.12	4.832	





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: B21 2308 Pad - # 306H - Original Drilling - APD											Offset Site Error: 0.00 usft			
Survey Program: 0-MWD+IGRF		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
11,000.00	4,964.48	10,629.98	4,939.00	146.91	136.57	88.80	-4,648.94	2,711.18	1,367.86	1,089.08	278.78	4.907		
11,100.00	4,963.70	10,629.98	4,939.00	149.37	136.57	88.80	-4,648.94	2,711.18	1,393.97	1,116.87	277.10	5.031		
11,200.00	4,962.92	10,629.98	4,939.00	151.83	136.57	88.80	-4,648.94	2,711.18	1,426.62	1,152.37	274.25	5.202		
11,300.00	4,962.14	10,629.98	4,939.00	154.30	136.57	88.80	-4,648.94	2,711.18	1,465.38	1,194.94	270.44	5.418		
11,400.00	4,961.35	10,629.98	4,939.00	156.76	136.57	88.80	-4,648.94	2,711.18	1,509.78	1,243.92	265.87	5.679		
11,500.00	4,960.57	10,629.98	4,939.00	159.23	136.57	88.80	-4,648.94	2,711.18	1,559.34	1,298.62	260.72	5.981		
11,600.00	4,959.79	10,629.98	4,939.00	161.70	136.57	88.80	-4,648.94	2,711.18	1,613.58	1,358.41	255.18	6.323		
11,700.00	4,959.01	10,629.98	4,939.00	164.17	136.57	88.80	-4,648.94	2,711.18	1,672.05	1,422.66	249.39	6.704		
11,800.00	4,958.23	10,629.98	4,939.00	166.63	136.57	88.80	-4,648.94	2,711.18	1,734.32	1,490.82	243.50	7.123		
11,900.00	4,957.44	10,629.98	4,939.00	169.10	136.57	88.80	-4,648.94	2,711.18	1,799.99	1,562.41	237.58	7.576		
12,000.00	4,956.66	10,629.98	4,939.00	171.57	136.57	88.80	-4,648.94	2,711.18	1,868.71	1,636.98	231.73	8.064		
12,100.00	4,955.88	10,629.98	4,939.00	174.04	136.57	88.80	-4,648.94	2,711.18	1,940.15	1,714.15	225.99	8.585		
12,200.00	4,955.10	10,629.98	4,939.00	176.51	136.57	88.80	-4,648.94	2,711.18	2,014.02	1,793.60	220.42	9.137		
12,300.00	4,954.31	10,629.98	4,939.00	178.98	136.57	88.80	-4,648.94	2,711.18	2,090.07	1,875.02	215.04	9.719		
12,400.00	4,953.53	10,629.98	4,939.00	181.46	136.57	88.80	-4,648.94	2,711.18	2,168.06	1,958.19	209.87	10.330		
12,500.00	4,952.75	10,629.98	4,939.00	183.93	136.57	88.80	-4,648.94	2,711.18	2,247.79	2,042.88	204.92	10.969		
12,600.00	4,951.97	10,629.98	4,939.00	186.40	136.57	88.80	-4,648.94	2,711.18	2,329.10	2,128.91	200.18	11.635		
12,700.00	4,951.18	10,629.98	4,939.00	188.87	136.57	88.80	-4,648.94	2,711.18	2,411.80	2,216.13	195.67	12.326		
12,800.00	4,950.40	10,629.98	4,939.00	191.35	136.57	88.80	-4,648.94	2,711.18	2,495.77	2,304.40	191.38	13.041		
12,900.00	4,949.62	10,629.98	4,939.00	193.82	136.57	88.80	-4,648.94	2,711.18	2,580.89	2,393.60	187.29	13.780		
13,000.00	4,948.84	10,629.98	4,939.00	196.29	136.57	88.80	-4,648.94	2,711.18	2,667.04	2,483.63	183.41	14.541		
13,100.00	4,948.06	10,629.98	4,939.00	198.77	136.57	88.80	-4,648.94	2,711.18	2,754.12	2,574.40	179.72	15.324		
13,200.00	4,947.27	10,629.98	4,939.00	201.24	136.57	88.80	-4,648.94	2,711.18	2,842.06	2,665.84	176.22	16.128		
13,300.00	4,946.49	10,629.98	4,939.00	203.72	136.57	88.80	-4,648.94	2,711.18	2,930.77	2,757.87	172.89	16.951		
13,400.00	4,945.71	10,629.98	4,939.00	206.19	136.57	88.80	-4,648.94	2,711.18	3,020.18	2,850.45	169.73	17.794		
13,500.00	4,944.93	10,629.98	4,939.00	208.67	136.57	88.80	-4,648.94	2,711.18	3,110.24	2,943.51	166.73	18.654		
13,600.00	4,944.14	10,629.98	4,939.00	211.14	136.57	88.80	-4,648.94	2,711.18	3,200.89	3,037.01	163.88	19.532		
13,700.00	4,943.36	10,629.98	4,939.00	213.62	136.57	88.80	-4,648.94	2,711.18	3,292.08	3,130.92	161.17	20.427		
13,800.00	4,942.58	10,629.98	4,939.00	216.09	136.57	88.80	-4,648.94	2,711.18	3,383.77	3,225.19	158.58	21.337		
13,900.00	4,941.80	10,629.98	4,939.00	218.57	136.57	88.80	-4,648.94	2,711.18	3,475.92	3,319.79	156.13	22.264		
14,000.00	4,941.02	10,629.98	4,939.00	221.05	136.57	88.80	-4,648.94	2,711.18	3,568.49	3,414.71	153.79	23.204		
14,100.00	4,940.23	10,629.98	4,939.00	223.52	136.57	88.80	-4,648.94	2,711.18	3,661.45	3,509.90	151.55	24.159		
14,200.00	4,939.45	10,629.98	4,939.00	226.00	136.57	88.80	-4,648.94	2,711.18	3,754.77	3,605.35	149.43	25.128		
14,300.00	4,938.67	10,629.98	4,939.00	228.48	136.57	88.80	-4,648.94	2,711.18	3,848.43	3,701.03	147.40	26.109		
14,400.00	4,937.89	10,629.98	4,939.00	230.96	136.57	88.80	-4,648.94	2,711.18	3,942.40	3,796.94	145.46	27.103		
14,500.00	4,937.10	10,629.98	4,939.00	233.43	136.57	88.80	-4,648.94	2,711.18	4,036.66	3,893.05	143.61	28.109		
14,600.00	4,936.32	10,629.98	4,939.00	235.91	136.57	88.80	-4,648.94	2,711.18	4,131.19	3,989.35	141.84	29.126		
14,641.08	4,936.00	10,629.98	4,939.00	236.67	136.57	88.80	-4,648.94	2,711.18	4,170.10	4,027.90	142.20	29.326		





## Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> B21 2308 Pad - # 721H - Original Drilling - APD												<b>Offset Site Error:</b>	0.00 usft
<b>Survey Program:</b> 0-MWD+IGRF												<b>Offset Well Error:</b>	0.00 usft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Rule Assigned:</b>		<b>Warning</b>					
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>Minimum Separation (usft)</b>	<b>Separation Factor</b>	
0.00	0.00	0.00	0.00	0.00	0.00	-17.31	18.93	-5.90	19.83				
100.00	100.00	100.00	100.00	0.15	0.15	-17.31	18.93	-5.90	19.83	19.52	0.31	64.314	
200.00	200.00	200.00	200.00	0.51	0.51	-17.31	18.93	-5.90	19.83	18.80	1.03	19.339	
300.00	300.00	300.00	300.00	0.87	0.87	-17.31	18.93	-5.90	19.83	18.08	1.74	11.381	
400.00	400.00	400.00	400.00	1.23	1.23	-17.31	18.93	-5.90	19.83	17.37	2.46	8.063	
425.00	425.00	425.00	425.00	1.32	1.32	-16.99	18.96	-5.80	19.83	17.19	2.64	7.519	
500.00	499.99	499.92	499.90	1.59	1.58	32.92	19.48	-4.25	19.11	15.94	3.17	6.028	
592.07	591.97	591.52	591.38	1.92	1.91	55.10	20.95	0.17	17.79	13.97	3.82	4.655 CC	
600.00	599.89	599.38	599.22	1.95	1.94	57.83	21.12	0.68	17.81	13.94	3.88	4.593 ES	
700.00	699.58	697.87	697.34	2.31	2.30	94.51	23.82	8.78	23.00	18.41	4.59	5.010	
800.00	798.93	794.91	793.66	2.69	2.67	117.65	27.52	19.88	38.45	33.15	5.30	7.250	
900.00	897.83	890.03	887.64	3.10	3.06	128.54	32.15	33.76	61.86	55.84	6.02	10.276	
953.92	950.92	940.38	937.18	3.33	3.29	131.93	34.99	42.31	77.17	70.76	6.41	12.040	
1,000.00	996.22	982.93	978.91	3.53	3.48	134.09	37.61	50.17	91.37	84.63	6.74	13.562	
1,100.00	1,094.52	1,073.99	1,067.79	3.98	3.91	136.65	43.88	68.97	124.49	117.05	7.44	16.726	
1,200.00	1,192.82	1,163.20	1,154.21	4.44	4.38	137.69	50.88	89.98	160.45	152.31	8.14	19.706	
1,300.00	1,291.12	1,250.46	1,238.02	4.91	4.87	138.00	58.54	112.99	199.04	190.20	8.84	22.513	
1,400.00	1,389.42	1,339.42	1,322.83	5.38	5.41	137.97	67.04	138.48	239.73	230.16	9.58	25.036	
1,500.00	1,487.72	1,430.67	1,409.74	5.86	5.98	137.93	75.83	164.85	280.65	270.30	10.35	27.113	
1,600.00	1,586.02	1,521.92	1,496.66	6.34	6.56	137.90	84.61	191.21	321.56	310.43	11.13	28.881	
1,700.00	1,684.32	1,613.16	1,583.57	6.82	7.15	137.87	93.40	217.57	362.48	350.55	11.92	30.399	
1,800.00	1,782.62	1,704.41	1,670.48	7.31	7.75	137.86	102.18	243.93	403.39	390.67	12.72	31.715	
1,900.00	1,880.92	1,795.66	1,757.39	7.80	8.36	137.84	110.96	270.30	444.31	430.79	13.52	32.865	
2,000.00	1,979.22	1,886.90	1,844.31	8.28	8.96	137.83	119.75	296.66	485.22	470.90	14.32	33.878	
2,100.00	2,077.52	1,978.15	1,931.22	8.77	9.58	137.82	128.53	323.02	526.14	511.01	15.13	34.776	
2,200.00	2,175.82	2,069.40	2,018.13	9.26	10.19	137.81	137.32	349.38	567.05	551.11	15.94	35.577	
2,300.00	2,274.12	2,160.64	2,105.04	9.76	10.81	137.80	146.10	375.74	607.97	591.22	16.75	36.296	
2,400.00	2,372.42	2,251.89	2,191.96	10.25	11.43	137.79	154.89	402.11	648.88	631.32	17.56	36.944	
2,500.00	2,470.72	2,343.14	2,278.87	10.74	12.05	137.79	163.67	428.47	689.80	671.42	18.38	37.531	
2,600.00	2,569.02	2,434.39	2,365.78	11.23	12.67	137.78	172.46	454.83	730.71	711.52	19.20	38.066	
2,700.00	2,667.32	2,525.63	2,452.70	11.73	13.29	137.77	181.24	481.19	771.63	751.61	20.01	38.554	
2,800.00	2,765.62	2,616.88	2,539.61	12.22	13.92	137.77	190.03	507.56	812.54	791.71	20.83	39.001	
2,900.00	2,863.93	2,708.13	2,626.52	12.71	14.54	137.77	198.81	533.92	853.46	831.80	21.65	39.413	
3,000.00	2,962.23	2,799.37	2,713.43	13.21	15.17	137.76	207.60	560.28	894.37	871.90	22.48	39.793	
3,100.00	3,060.53	2,890.62	2,800.35	13.70	15.80	137.76	216.38	586.64	935.29	911.99	23.30	40.145	
3,200.00	3,158.83	2,981.87	2,887.26	14.20	16.43	137.76	225.16	613.00	976.20	952.08	24.12	40.471	
3,300.00	3,257.13	3,073.11	2,974.17	14.69	17.05	137.75	233.95	639.37	1,017.12	992.17	24.94	40.774	
3,400.00	3,355.43	3,164.36	3,061.08	15.19	17.68	137.75	242.73	665.73	1,058.03	1,032.26	25.77	41.057	
3,500.00	3,453.73	3,255.61	3,148.00	15.69	18.31	137.75	251.52	692.09	1,098.95	1,072.35	26.59	41.322	
3,600.00	3,552.03	3,346.85	3,234.91	16.18	18.94	137.75	260.30	718.45	1,139.86	1,112.44	27.42	41.570	
3,700.00	3,650.33	3,438.10	3,321.82	16.68	19.57	137.74	269.09	744.82	1,180.78	1,152.53	28.25	41.802	
3,800.00	3,748.63	3,529.35	3,408.74	17.17	20.20	137.74	277.87	771.18	1,221.69	1,192.62	29.07	42.021	
3,900.00	3,846.93	3,620.59	3,495.65	17.67	20.83	137.74	286.66	797.54	1,262.61	1,232.70	29.90	42.227	
4,000.00	3,945.23	3,711.84	3,582.56	18.17	21.46	137.74	295.44	823.90	1,303.52	1,272.79	30.73	42.421	
4,100.00	4,043.53	3,803.09	3,669.47	18.66	22.09	137.74	304.23	850.27	1,344.44	1,312.88	31.56	42.604	
4,200.00	4,141.83	3,894.33	3,756.39	19.16	22.72	137.74	313.01	876.63	1,385.35	1,352.97	32.39	42.777	
4,300.00	4,240.13	3,985.58	3,843.30	19.66	23.36	137.73	321.79	902.99	1,426.27	1,393.05	33.21	42.942	
4,314.66	4,254.54	3,998.96	3,856.04	19.73	23.45	137.73	323.08	906.85	1,432.26	1,398.93	33.34	42.965	
4,350.00	4,289.44	4,031.49	3,887.03	19.89	23.67	138.25	326.21	916.25	1,446.05	1,412.42	33.62	43.010	
4,400.00	4,339.23	4,078.34	3,931.66	20.08	24.00	137.43	330.73	929.79	1,463.18	1,429.17	34.00	43.031	
4,450.00	4,389.21	4,125.91	3,976.97	20.22	24.33	-33.87	335.31	943.53	1,477.45	1,443.10	34.35	43.006	
4,500.00	4,439.09	4,173.90	4,022.68	20.32	24.66	-37.35	339.93	957.40	1,488.82	1,454.14	34.68	42.935	





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> B21 2308 Pad - # 721H - Original Drilling - APD													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b> 0.00 usft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>			<b>Offset Wellbore Centre</b>		<b>Distance</b>				<b>Warning</b>
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>Minimum Separation (usft)</b>	<b>Separation Factor</b>	
4,550.00	4,488.54	4,222.01	4,068.50	20.37	24.99	-37.86	344.56	971.30	1,497.24	1,462.27	34.97	42.814	
4,600.00	4,537.28	4,269.95	4,114.17	20.40	25.32	-38.26	349.17	985.15	1,502.73	1,467.49	35.24	42.645	
4,650.00	4,584.99	4,317.42	4,159.38	20.40	25.65	-38.80	353.74	998.86	1,505.30	1,469.82	35.48	42.430	
4,700.00	4,631.38	4,364.13	4,203.87	20.37	25.98	-39.53	358.24	1,012.36	1,505.02	1,469.33	35.69	42.172	
4,750.00	4,676.18	4,409.80	4,247.37	20.32	26.29	-40.46	362.64	1,025.55	1,501.96	1,466.09	35.87	41.874	
4,800.00	4,719.09	4,454.13	4,289.59	20.25	26.60	-41.61	366.90	1,038.36	1,496.25	1,460.23	36.02	41.535	
4,850.00	4,759.86	4,496.85	4,330.29	20.18	26.90	-42.98	371.02	1,050.70	1,488.01	1,451.86	36.15	41.157	
4,900.00	4,798.23	4,537.71	4,369.21	20.11	27.18	-44.56	374.95	1,062.51	1,477.41	1,441.14	36.27	40.738	
4,950.00	4,833.98	4,576.45	4,406.11	20.05	27.45	-46.36	378.68	1,073.70	1,464.62	1,428.26	36.36	40.277	
5,000.00	4,866.87	4,612.83	4,440.76	20.01	27.70	-48.37	382.18	1,084.21	1,449.86	1,413.40	36.45	39.772	
5,050.00	4,896.70	4,646.63	4,472.96	20.00	27.94	-50.58	385.44	1,093.98	1,433.33	1,396.78	36.55	39.220	
5,100.00	4,923.30	4,664.31	4,489.79	20.02	28.06	-52.51	387.14	1,099.08	1,415.33	1,378.80	36.53	38.747	
5,150.00	4,946.50	4,682.31	4,506.90	20.08	28.19	-54.63	388.69	1,104.45	1,396.27	1,359.71	36.56	38.192	
5,200.00	4,966.15	4,700.00	4,523.64	20.20	28.31	-56.90	389.84	1,110.06	1,376.46	1,339.81	36.65	37.558	
5,250.00	4,982.13	4,700.00	4,523.64	20.37	28.31	-58.61	389.84	1,110.06	1,355.96	1,319.32	36.64	37.006	
5,300.00	4,994.35	4,714.98	4,537.74	20.60	28.43	-61.03	390.54	1,115.06	1,334.96	1,298.10	36.86	36.212	
5,350.00	5,002.72	4,724.05	4,546.24	20.89	28.50	-63.31	390.84	1,118.20	1,313.66	1,276.53	37.13	35.383	
5,400.00	5,007.21	4,731.99	4,553.67	21.24	28.56	-65.60	391.02	1,121.01	1,292.22	1,254.73	37.48	34.475	
5,437.17	5,008.00	4,737.06	4,558.40	21.53	28.60	-67.30	391.10	1,122.85	1,276.29	1,238.48	37.81	33.754	
5,500.00	5,007.51	4,750.00	4,570.42	22.09	28.69	-67.91	391.16	1,127.63	1,250.69	1,212.14	38.55	32.447	
5,600.00	5,006.73	4,760.72	4,580.33	23.18	28.78	-68.43	391.07	1,131.73	1,215.25	1,175.29	39.96	30.409	
5,700.00	5,005.94	4,779.12	4,597.22	24.48	28.93	-69.30	390.60	1,139.01	1,186.83	1,144.95	41.88	28.341	
5,800.00	5,005.16	4,800.00	4,616.19	25.95	29.10	-70.28	389.60	1,147.67	1,165.79	1,121.61	44.18	26.387	
5,900.00	5,004.38	4,829.70	4,642.79	27.57	29.36	-71.67	387.30	1,160.68	1,152.33	1,105.45	46.88	24.583	
6,000.00	5,003.60	4,865.55	4,674.19	29.31	29.68	-73.31	383.19	1,177.45	1,146.41	1,096.58	49.83	23.007	
6,031.62	5,003.35	4,878.99	4,685.76	29.89	29.80	-73.91	381.27	1,184.02	1,146.06	1,095.23	50.82	22.551	
6,100.00	5,002.81	4,912.53	4,714.07	31.15	30.12	-75.39	375.59	1,201.09	1,147.65	1,094.64	53.00	21.652	
6,200.00	5,002.03	4,975.97	4,765.21	33.08	30.74	-78.06	361.42	1,235.80	1,155.20	1,098.82	56.37	20.493	
6,300.00	5,001.25	5,064.11	4,830.27	35.07	31.67	-81.43	334.56	1,288.74	1,167.51	1,107.56	59.96	19.473	
6,400.00	5,000.47	5,188.58	4,908.08	37.13	33.11	-85.40	283.35	1,370.99	1,181.99	1,118.14	63.85	18.512	
6,500.00	4,999.69	5,360.19	4,983.57	39.23	35.32	-89.18	190.72	1,493.44	1,194.54	1,126.39	68.14	17.530	
6,600.00	4,998.90	5,572.50	5,019.00	41.38	38.33	-90.96	50.22	1,647.26	1,200.17	1,127.50	72.67	16.516	
6,700.00	4,998.12	5,678.17	5,018.30	43.57	39.90	-90.96	-24.91	1,721.58	1,200.56	1,123.83	76.73	15.646	
6,800.00	4,997.34	5,778.17	5,017.56	45.78	41.49	-90.96	-96.01	1,791.88	1,200.94	1,120.04	80.90	14.845	
6,900.00	4,996.56	5,878.17	5,016.82	48.02	43.16	-90.96	-167.12	1,862.19	1,201.33	1,116.17	85.15	14.108	
7,000.00	4,995.77	5,978.17	5,016.08	50.29	44.91	-90.97	-238.22	1,932.50	1,201.71	1,112.22	89.49	13.429	
7,100.00	4,994.99	6,078.17	5,015.35	52.57	46.72	-90.97	-309.33	2,002.81	1,202.09	1,108.21	93.88	12.804	
7,200.00	4,994.21	6,178.16	5,014.61	54.87	48.60	-90.97	-380.44	2,073.12	1,202.48	1,104.14	98.34	12.228	
7,300.00	4,993.43	6,278.16	5,013.87	57.19	50.54	-90.97	-451.54	2,143.42	1,202.86	1,100.02	102.84	11.696	
7,400.00	4,992.65	6,378.16	5,013.13	59.52	52.52	-90.97	-522.65	2,213.73	1,203.24	1,095.85	107.39	11.205	
7,500.00	4,991.86	6,478.16	5,012.40	61.87	54.55	-90.98	-593.76	2,284.04	1,203.62	1,091.65	111.97	10.749	
7,600.00	4,991.08	6,578.16	5,011.66	64.22	56.61	-90.98	-664.86	2,354.35	1,204.01	1,087.42	116.59	10.327	
7,700.00	4,990.30	6,678.16	5,010.92	66.59	58.71	-90.98	-735.97	2,424.66	1,204.39	1,083.15	121.24	9.934	
7,800.00	4,989.52	6,778.16	5,010.18	68.96	60.84	-90.98	-807.07	2,494.96	1,204.77	1,078.86	125.91	9.569	
7,900.00	4,988.73	6,878.16	5,009.45	71.34	63.00	-90.98	-878.18	2,565.27	1,205.16	1,074.55	130.60	9.228	
8,000.00	4,987.95	6,978.16	5,008.71	73.73	65.18	-90.98	-949.29	2,635.58	1,205.54	1,070.22	135.32	8.909	
8,100.00	4,987.17	7,078.16	5,007.97	76.12	67.39	-90.99	-1,020.39	2,705.89	1,205.92	1,065.87	140.06	8.610	
8,200.00	4,986.39	7,178.16	5,007.23	78.52	69.61	-90.99	-1,091.50	2,776.20	1,206.31	1,061.50	144.81	8.330	
8,300.00	4,985.60	7,278.16	5,006.50	80.93	71.86	-90.99	-1,162.60	2,846.51	1,206.69	1,057.11	149.57	8.067	
8,400.00	4,984.82	7,378.16	5,005.76	83.34	74.12	-90.99	-1,233.71	2,916.81	1,207.07	1,052.72	154.35	7.820	
8,500.00	4,984.04	7,478.15	5,005.02	85.75	76.39	-90.99	-1,304.82	2,987.12	1,207.45	1,048.31	159.15	7.587	
8,600.00	4,983.26	7,578.15	5,004.28	88.17	78.68	-91.00	-1,375.92	3,057.43	1,207.84	1,043.89	163.95	7.367	





# Lonestar Consulting, LLC

## Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsois Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: B21 2308 Pad - # 721H - Original Drilling - APD												Offset Site Error:	0.00 usft
Survey Program:		0-MWD+IGRF						Rule Assigned:				Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
8,700.00	4,982.48	7,678.15	5,003.55	90.59	80.98	-91.00	-1,447.03	3,127.74	1,208.22	1,039.46	168.76	7.159	
8,800.00	4,981.69	7,778.15	5,002.81	93.02	83.29	-91.00	-1,518.14	3,198.05	1,208.60	1,035.02	173.59	6.963	
8,900.00	4,980.91	7,878.15	5,002.07	95.45	85.62	-91.00	-1,589.24	3,268.35	1,208.99	1,030.57	178.42	6.776	
9,000.00	4,980.13	7,978.15	5,001.33	97.88	87.95	-91.00	-1,660.35	3,338.66	1,209.37	1,026.11	183.26	6.599	
9,100.00	4,979.35	8,078.15	5,000.59	100.31	90.29	-91.00	-1,731.45	3,408.97	1,209.75	1,021.65	188.11	6.431	
9,200.00	4,978.56	8,178.15	4,999.86	102.75	92.64	-91.01	-1,802.56	3,479.28	1,210.14	1,017.18	192.96	6.271	
9,300.00	4,977.78	8,278.15	4,999.12	105.19	94.99	-91.01	-1,873.67	3,549.59	1,210.52	1,012.70	197.82	6.119	
9,400.00	4,977.00	8,378.15	4,998.38	107.63	97.36	-91.01	-1,944.77	3,619.89	1,210.90	1,008.22	202.68	5.974	
9,500.00	4,976.22	8,478.15	4,997.64	110.08	99.73	-91.01	-2,015.88	3,690.20	1,211.29	1,003.73	207.55	5.836	
9,600.00	4,975.44	8,578.15	4,996.91	112.52	102.10	-91.01	-2,086.98	3,760.51	1,211.67	999.24	212.43	5.704	
9,700.00	4,974.65	8,678.15	4,996.17	114.97	104.48	-91.02	-2,158.09	3,830.82	1,212.05	994.74	217.31	5.578	
9,800.00	4,973.87	8,778.15	4,995.43	117.42	106.87	-91.02	-2,229.20	3,901.13	1,212.43	990.24	222.19	5.457	
9,900.00	4,973.09	8,878.14	4,994.69	119.87	109.26	-91.02	-2,300.30	3,971.43	1,212.82	985.73	227.08	5.341	
10,000.00	4,972.31	8,978.14	4,993.96	122.32	111.66	-91.02	-2,371.41	4,041.74	1,213.20	981.23	231.98	5.230	
10,100.00	4,971.52	9,078.14	4,993.22	124.77	114.06	-91.02	-2,442.51	4,112.05	1,213.58	976.71	236.87	5.123	
10,200.00	4,970.74	9,178.14	4,992.48	127.23	116.46	-91.02	-2,513.62	4,182.36	1,213.97	972.20	241.77	5.021	
10,300.00	4,969.96	9,278.14	4,991.74	129.68	118.87	-91.03	-2,584.73	4,252.67	1,214.35	967.68	246.67	4.923	
10,400.00	4,969.18	9,378.14	4,991.01	132.14	121.28	-91.03	-2,655.83	4,322.97	1,214.73	963.15	251.58	4.828	
10,500.00	4,968.39	9,478.14	4,990.27	134.60	123.69	-91.03	-2,726.94	4,393.28	1,215.12	958.63	256.49	4.738	
10,600.00	4,967.61	9,578.14	4,989.53	137.06	126.11	-91.03	-2,798.05	4,463.59	1,215.50	954.10	261.40	4.650	
10,700.00	4,966.83	9,678.14	4,988.79	139.52	128.53	-91.03	-2,869.15	4,533.90	1,215.88	949.57	266.31	4.566	
10,800.00	4,966.05	9,778.14	4,988.06	141.98	130.95	-91.04	-2,940.26	4,604.21	1,216.26	945.04	271.22	4.484	
10,900.00	4,965.27	9,878.14	4,987.32	144.44	133.38	-91.04	-3,011.36	4,674.51	1,216.65	940.51	276.14	4.406	
11,000.00	4,964.48	9,978.14	4,986.58	146.91	135.81	-91.04	-3,082.47	4,744.82	1,217.03	935.97	281.06	4.330	
11,100.00	4,963.70	10,078.14	4,985.84	149.37	138.24	-91.04	-3,153.58	4,815.13	1,217.41	931.43	285.98	4.257	
11,200.00	4,962.92	10,178.13	4,985.11	151.83	140.67	-91.04	-3,224.68	4,885.44	1,217.80	926.89	290.91	4.186	
11,300.00	4,962.14	10,278.13	4,984.37	154.30	143.10	-91.04	-3,295.79	4,955.75	1,218.18	922.35	295.83	4.118	
11,400.00	4,961.35	10,378.13	4,983.63	156.76	145.54	-91.05	-3,366.89	5,026.06	1,218.56	917.81	300.76	4.052	
11,500.00	4,960.57	10,478.13	4,982.89	159.23	147.98	-91.05	-3,438.00	5,096.36	1,218.95	913.26	305.69	3.988	
11,600.00	4,959.79	10,578.13	4,982.16	161.70	150.42	-91.05	-3,509.11	5,166.67	1,219.33	908.71	310.62	3.926	
11,700.00	4,959.01	10,678.13	4,981.42	164.17	152.86	-91.05	-3,580.21	5,236.98	1,219.71	904.16	315.55	3.865	
11,800.00	4,958.23	10,778.13	4,980.68	166.63	155.30	-91.05	-3,651.32	5,307.29	1,220.10	899.61	320.48	3.807	
11,900.00	4,957.44	10,878.13	4,979.94	169.10	157.74	-91.05	-3,722.43	5,377.60	1,220.48	895.06	325.41	3.751	
12,000.00	4,956.66	10,978.13	4,979.21	171.57	160.19	-91.06	-3,793.53	5,447.90	1,220.86	890.51	330.35	3.696	
12,100.00	4,955.88	11,078.13	4,978.47	174.04	162.64	-91.06	-3,864.64	5,518.21	1,221.24	885.96	335.29	3.642	
12,200.00	4,955.10	11,178.13	4,977.73	176.51	165.09	-91.06	-3,935.74	5,588.52	1,221.63	881.40	340.22	3.591	
12,300.00	4,954.31	11,278.13	4,976.99	178.98	167.53	-91.06	-4,006.85	5,658.83	1,222.01	876.85	345.16	3.540	
12,400.00	4,953.53	11,378.13	4,976.25	181.46	169.99	-91.06	-4,077.96	5,729.14	1,222.39	872.29	350.10	3.492	
12,500.00	4,952.75	11,478.13	4,975.52	183.93	172.44	-91.07	-4,149.06	5,799.44	1,222.78	867.73	355.04	3.444	
12,600.00	4,951.97	11,578.12	4,974.78	186.40	174.89	-91.07	-4,220.17	5,869.75	1,223.16	863.17	359.99	3.398	
12,700.00	4,951.18	11,678.12	4,974.04	188.87	177.35	-91.07	-4,291.27	5,940.06	1,223.54	858.61	364.93	3.353	
12,800.00	4,950.40	11,778.12	4,973.30	191.35	179.80	-91.07	-4,362.38	6,010.37	1,223.93	854.05	369.87	3.309	
12,900.00	4,949.62	11,878.12	4,972.57	193.82	182.26	-91.07	-4,433.49	6,080.68	1,224.31	849.49	374.82	3.266	
13,000.00	4,948.84	11,978.12	4,971.83	196.29	184.71	-91.07	-4,504.59	6,150.98	1,224.69	844.93	379.76	3.225	
13,100.00	4,948.06	12,078.12	4,971.09	198.77	187.17	-91.08	-4,575.70	6,221.29	1,225.08	840.37	384.71	3.184	
13,200.00	4,947.27	12,178.12	4,970.35	201.24	189.63	-91.08	-4,646.81	6,291.60	1,225.46	835.80	389.66	3.145	
13,300.00	4,946.49	12,278.12	4,969.62	203.72	192.09	-91.08	-4,717.91	6,361.91	1,225.84	831.24	394.60	3.107	
13,400.00	4,945.71	12,378.12	4,968.88	206.19	194.55	-91.08	-4,789.02	6,432.22	1,226.22	826.67	399.55	3.069	
13,500.00	4,944.93	12,478.12	4,968.14	208.67	197.01	-91.08	-4,860.12	6,502.52	1,226.61	822.11	404.50	3.032	
13,600.00	4,944.14	12,578.12	4,967.40	211.14	199.47	-91.08	-4,931.23	6,572.83	1,226.99	817.54	409.45	2.997	
13,700.00	4,943.36	12,678.12	4,966.67	213.62	201.94	-91.09	-5,002.34	6,643.14	1,227.37	812.97	414.40	2.962	
13,800.00	4,942.58	12,778.12	4,965.93	216.09	204.40	-91.09	-5,073.44	6,713.45	1,227.76	808.41	419.35	2.928	





**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonnies Tsoie Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> B21 2308 Pad - # 721H - Original Drilling - APD													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 0-MWD+IGRF													<b>Offset Well Error:</b> 0.00 usft
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>			<b>Offset Wellbore Centre</b>		<b>Distance</b>				<b>Warning</b>
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>Minimum Separation (usft)</b>	<b>Separation Factor</b>	
13,900.00	4,941.80	12,878.11	4,965.19	218.57	206.86	-91.09	-5,144.55	6,783.76	1,228.14	803.84	424.30	2.894	
14,000.00	4,941.02	12,978.11	4,964.45	221.05	209.33	-91.09	-5,215.65	6,854.06	1,228.52	799.27	429.25	2.862	
14,100.00	4,940.23	13,078.11	4,963.72	223.52	211.79	-91.09	-5,286.76	6,924.37	1,228.91	794.70	434.21	2.830	
14,200.00	4,939.45	13,178.11	4,962.98	226.00	214.26	-91.10	-5,357.87	6,994.68	1,229.29	790.13	439.16	2.799	
14,300.00	4,938.67	13,278.11	4,962.24	228.48	216.72	-91.10	-5,428.97	7,064.99	1,229.67	785.56	444.11	2.769	
14,400.00	4,937.89	13,378.11	4,961.50	230.96	219.19	-91.10	-5,500.08	7,135.30	1,230.06	780.99	449.07	2.739	
14,500.00	4,937.10	13,478.11	4,960.77	233.43	221.66	-91.10	-5,571.19	7,205.61	1,230.44	776.42	454.02	2.710	
14,600.00	4,936.32	13,578.11	4,960.03	235.91	224.13	-91.10	-5,642.29	7,275.91	1,230.82	771.84	458.98	2.682	
14,641.08	4,936.00	13,619.19	4,959.73	236.67	225.14	-91.10	-5,671.50	7,304.80	1,231.00	770.25	460.75	2.672 SF	





**Lonestar Consulting, LLC**  
Anticollision Report

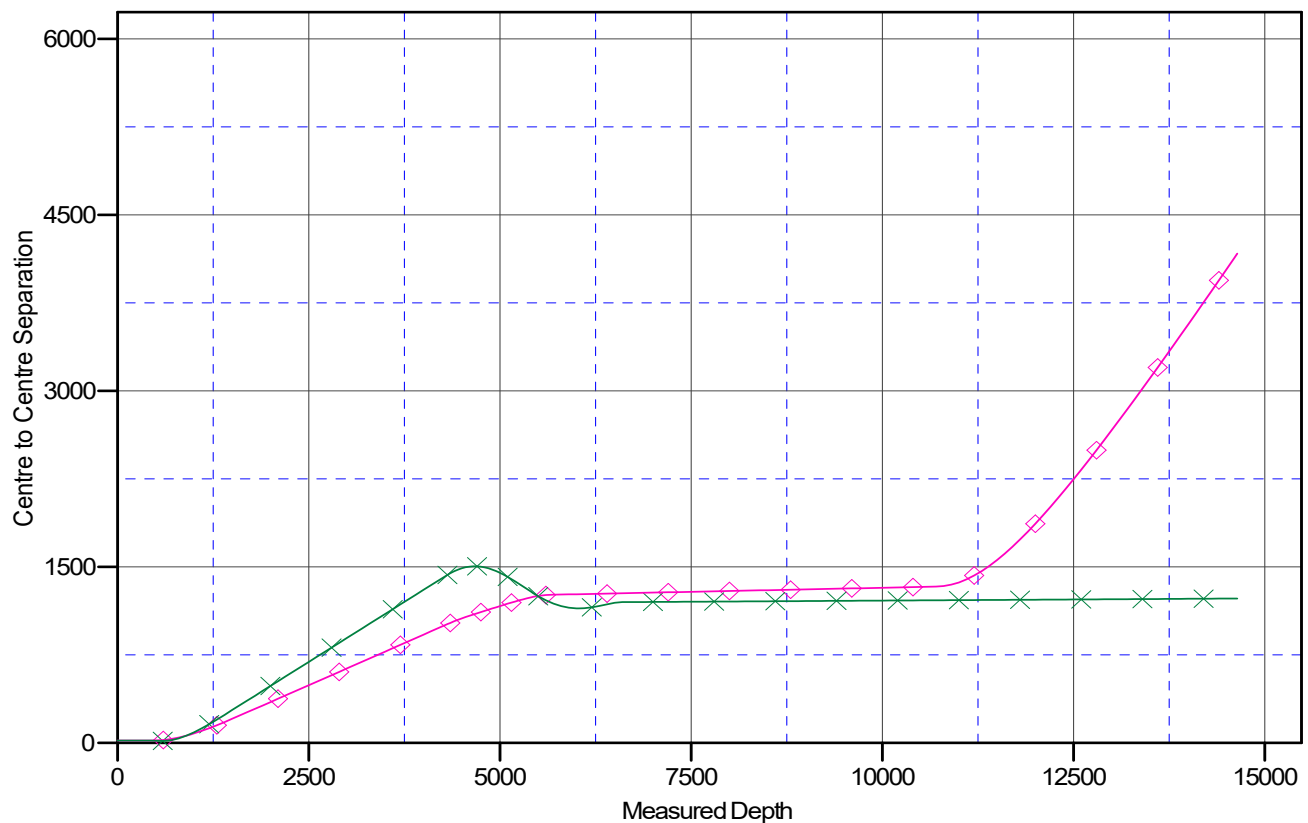


<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonne Tsoie Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 6837' & RKB 14' @ 6851.00usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -107.8333334

Coordinates are relative to: # 305H - Slot 2  
Coordinate System is US State Plane 1983, New Mexico Western Zone  
Grid Convergence at Surface is: 0.09°

## Ladder Plot



### LEGEND

◆ # 306H Original Drilling, APDVO    ✕ # 721H Original Drilling, APDVO





**Lonestar Consulting, LLC**  
Anticollision Report



<b>Company:</b>	DJR Operating	<b>Local Co-ordinate Reference:</b>	Well # 305H - Slot 2
<b>Project:</b>	Betonne Tsoie Unit	<b>TVD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Reference Site:</b>	B21 2308 Pad	<b>MD Reference:</b>	GL 6837' & RKB 14' @ 6851.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	# 305H	<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>	Grand Junction
<b>Reference Design:</b>	APD	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to GL 6837' &amp; RKB 14' @ 6851.00usft

Offset Depths are relative to Offset Datum

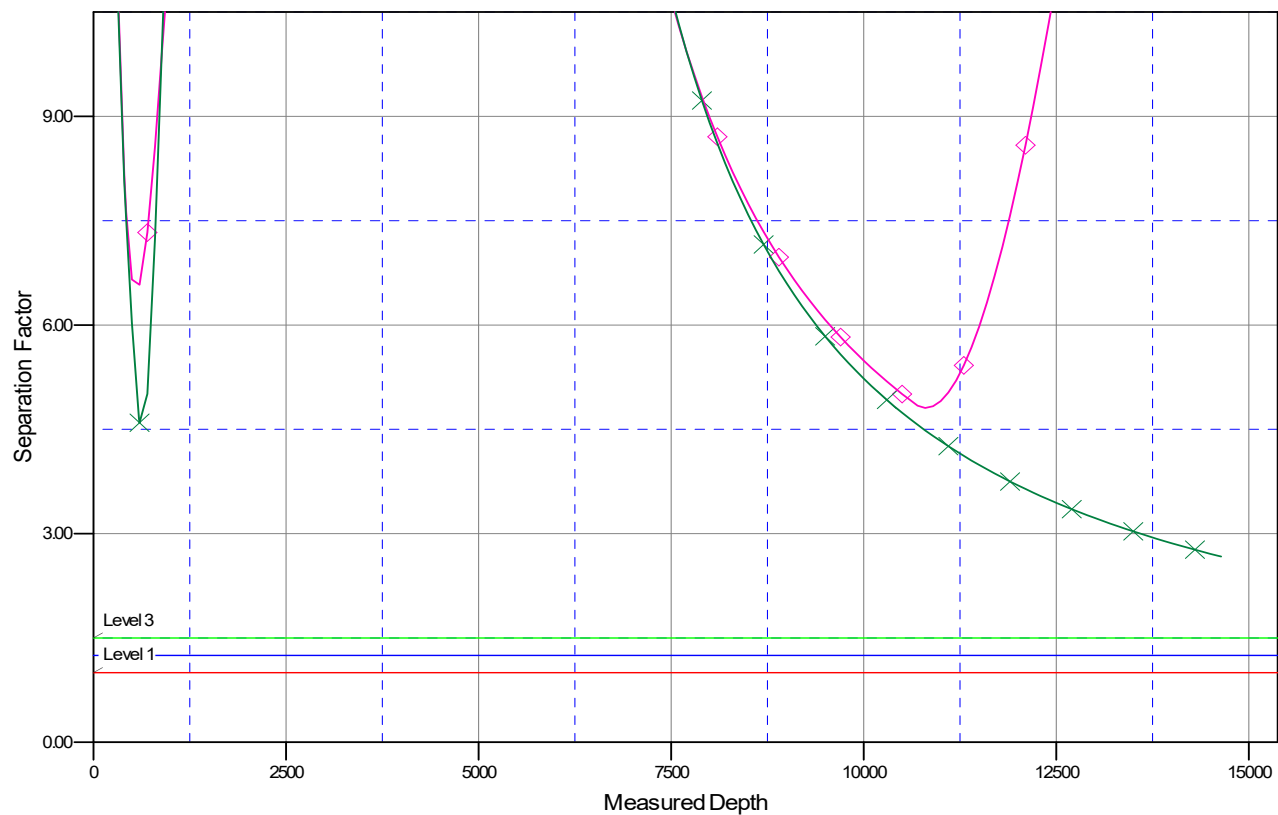
Central Meridian is -107.833334

Coordinates are relative to: # 305H - Slot 2

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

Grid Convergence at Surface is: 0.09°

## Separation Factor Plot



### LEGEND

◆ #305HOriginalDrilling.APDVD    ✕ #721HOriginalDrilling.APDVD



## Conditions of Approval

Operator: DJR Operating, LLC  
Well Names: Betonnie Tsosie Wash Unit B21-2308 & H28-2308 Cluster Oil & Natural Gas Wells Project (Betonnie Tsosie Wash Unit 401H, 402H, 732H, 305H, 306H and 721H)  
Legal Location: Sec 28, Twn 23N, R 8W, SWNE, San Juan County, NM  
NEPA Log Number: DOI-BLM-NM-F010-2022-0028-EA  
Inspection Date: 07/13/2021  
Lease Number: NMNM076842 & NMNM135219A

The following conditions of approval will apply to DJR's Betonnie Tsosie Wash Unit B21-2308 & H28-2308 Cluster Oil & Natural Gas Well Pads 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-F010-2022-0028-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 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. DJR 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.

**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.

**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.

**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.

### **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**

**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 is estimated to disturb more than four acres of vegetation, a survey will be required.

**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.

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

**Livestock Grazing:** If going thru existing fences, needs to be repaired after construction. If putting access road through fence, a cattleguard needs to be put in.

#### **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  
#305H Betonnie Tsosie Wash Unit  
Lease: NMNM76842 Unit:NMNM135219A  
SH: NW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 21, T.23 N., R.8 W.  
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 27, T.23 N., R.8 W.  
San Juan 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, Farmington District Office, Branch of Reservoir Management, 6251 College Blvd. Suite A, Farmington, New Mexico 87402. 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**  
**BLM 24 Hour Number (505) 564-7750**



**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 293090

CONDITIONS

Operator:  DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID:
	371838
	Action Number:
	293090
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	1/2/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	1/2/2024
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	1/2/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	1/2/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	1/2/2024
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	1/2/2024