

Form 3160-3
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM109385
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☒ Multiple Zone		7. If Unit or CA Agreement, Name and No. VENADO CANYON UNIT / NMNM 1353
2. Name of Operator DJR OPERATING LLC		8. Lease Name and Well No. VENADO CANYON UNIT 504H
3a. Address 1700 LINCOLN STREET, SUITE 2800, DENVER, CO 802	3b. Phone No. (include area code) (505) 632-3476	9. API Well No. 30-043-21401
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 1212 FSL / 1321 FEL / LAT 36.1481821 / LONG -107.4338273 At proposed prod. zone SENE / 1375 FNL / 88 FEL / LAT 36.15603 / LONG -107.447168		10. Field and Pool, or Exploratory BASIN MANCOS/LYBROOK GALLUP
14. Distance in miles and direction from nearest town or post office* 60 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 11/T22N/R6W/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1212 feet	16. No of acres in lease 400.0	12. County or Parish SANDOVAL
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20 feet	19. Proposed Depth 5382 feet / 10867 feet	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7075 feet	20. BLM/BIA Bond No. in file FED: NMB001464	17. Spacing Unit dedicated to this well
22. Approximate date work will start* 05/09/2021		23. Estimated duration 10 days
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 (Electronic Submission)	Name (Printed/Typed) SHAW-MARIE FORD / Ph: (505) 632-3476	Date 11/09/2020
Title Regulatory Specialist		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) DAVE J MANKIEWICZ / Ph: (505) 564-7761	Date 03/01/2022
Title AFM-Minerals Office Farmington Field Office		
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.		

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21401	² Pool Code 42289	³ Pool Name LYBROOK GALLUP
⁴ Property Code 325271	⁵ Property Name VENADO CANYON UNIT	⁶ Well Number 504H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 7075

¹⁰ Surface Location

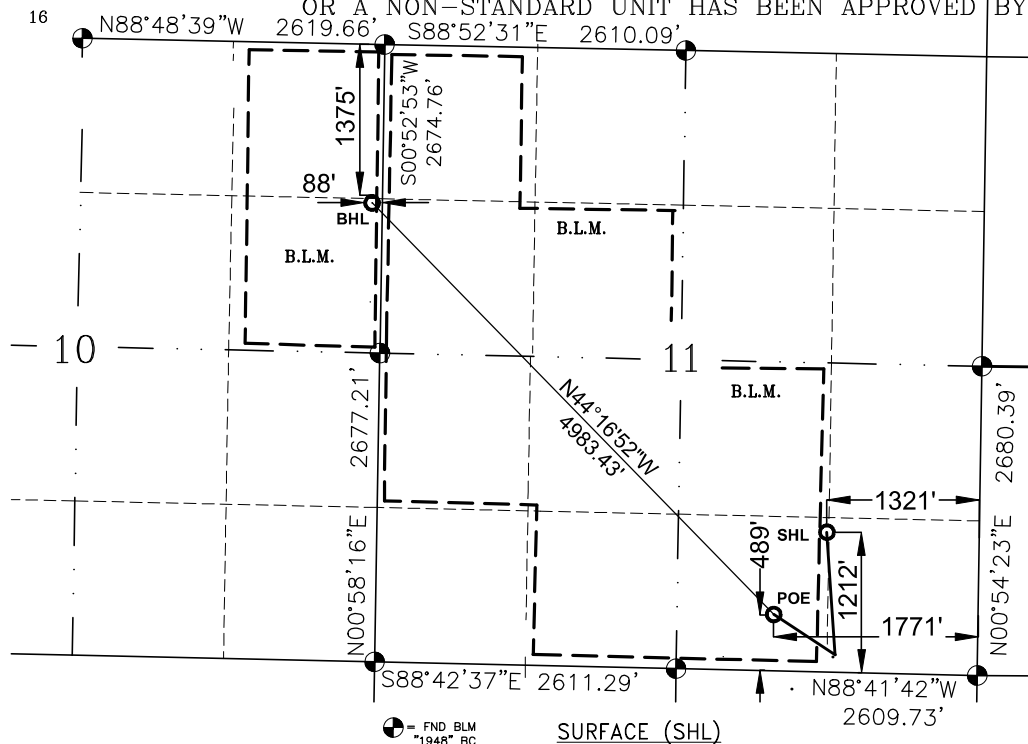
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	11	22-N	6-W		1212	SOUTH	1321	EAST	SANDOVAL

¹¹ 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
H	10	22-N	6-W		1375	NORTH	88	EAST	SANDOVAL

¹² Dedicated Acres SEE DETAIL BELOW	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14067 R-14067A
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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



• = FND BLM
"1948" BC

SURFACE (SHL)
1212' FSL, 1321' FEL SEC. 11
LAT: 36.1481821° N
LONG: 107.4338273° W NAD83
POINT OF ENTRY (POE)
489' FSL, 1771' FEL SEC. 11
LAT: 36.146225° N
LONG: 107.435390° W NAD83
BOTTOM HOLE (BHL)
1375' FNL, 88' FEL SEC. 10
LAT: 36.156030° N
LONG: 107.447168° W NAD83

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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Shaw-Marie Ford 6/1/21

Signature Date

Shaw-Marie Ford

Printed Name

sford@djrlc.com

E-mail Address

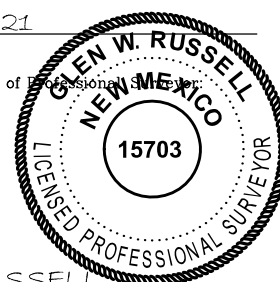
18 SURVEYOR CERTIFICATION

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.

MAY 18, 2021

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

DETAIL:
DEDICATED ACRES

SEC. 11: W2/SE, E2/SW, NW/SW,
S2/NW, NW/NW (320 ACRES)
SEC. 10: E2/NE, (80 ACRES)
TOTAL = 400 ACRES

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

Submit Electronically
Via E-permitting

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:** _02 / 23 / 2022_

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
Venado Canyon Unit 504H	TBD	O-11-22N-06W	1087 FSL x 1405 FEL	280	415	100
Venado Canyon Unit 505H	TBD	O-11-22N-06W	1070 FSL x 1416 FEL	445	660	160
Venado Canyon Unit 506H	TBD	O-11-22N-06W	1104 FSL x 1395 FEL	450	660	160
Venado Canyon Unit 507H	TBD	O-11-22N-06W	1054 FSL x 1427 FEL	280	420	100
Venado Canyon Unit 508H	TBD	O-11-22N-06W	1139 FSL x 1374 FEL	430	640	150
Venado Canyon Unit 509H	TBD	O-11-22N-06W	1121 FSL x 1383 FEL	340	500	120

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
Venado Canyon Unit 504H	TBD	06/03/2022	06/13/2022	10/07/2022	11/01/2022	11/01/2022
Venado Canyon Unit 505H	TBD	05/10/2022	05/20/2022	09/25/2022	11/01/2022	11/01/2022
Venado Canyon Unit 506H	TBD	05/26/2022	06/05/2022	10/03/2022	11/01/2022	11/01/2022
Venado Canyon Unit 507H	TBD	05/19/2022	05/29/2022	09/29/2022	11/01/2022	11/01/2022
Venado Canyon Unit 508H	TBD	06/12/2022	06/22/2022	10/11/2022	11/01/2022	11/01/2022
Venado Canyon Unit 509H	TBD	06/21/2022	07/01/2022	10/15/2022	11/01/2022	11/01/2022

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: 02/23/2022
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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 separators will be set for each individual well.
- The separators 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 separators will each 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 each 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 separators.
- Oil will be separated from the produced water and the 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
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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.
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NATURAL GAS MANAGEMENT PLAN
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SWSE O-11-22N-06W

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
VENADO CANYON UNIT 504H, 505H, 506H, 507H, 508H, 509H
SWSE O-11-22N-06W

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 1



DRILLING PLAN

Venado Canyon #504H

Sandoval County, New Mexico

Surface Location

1321-ft FEL & 1212-ft FSL
 Sec 11 T22N R06W
 Graded Elevation 7075' MSL
 RKB Elevation 7089' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1481821° N
 Longitude 107.4338273° W

Kick Off Point for Horizontal Build Curve

4753-ft MD
 4611-ft TVD

Local Coordinates (from SHL)

1061-ft South
 71-ft East

Heel Location (Pay zone entry)

1771-ft FEL & 489-ft FSL
 Sec 11 T22N R6W

Heel Geographical Coordinates (NAD-83)

Latitude 36.1462253° N
 Longitude 107.43538970° W

Bottom Hole Location (TD)

88-ft FEL & 1375-ft FNL
 Sec 10 T22N R6W

BHL Geographical Coordinates (NAD-83)

Latitude 36.1560301° N
 Longitude 107.4471684° W

Well objectives

This well is planned as a 4980-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 143°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	1301	1289	Sd	W	8.3	8.4 – 8.8
Kirtland	1456	1438	Sh	-	8.3	8.4 – 8.8
Fruitland	1686	1659	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1888	1854	Sd	W	8.3	9.0 - 9.5
Lewis	1985	1947	Sh	-		9.0 - 9.5
Chacra	2726	2660	Sd	-	8.3	9.0 - 9.5
Menefee	3429	3337	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4231	4108	Sd	-	8.3	9.0 - 9.5
Mancos	4380	4252	Sh	-		9.0 - 9.5
Mancos Silt	4754	4612	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5309	5127	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5366	5169	Sd	O/G	6.6	8.8 -9.0
Gallup C	5503	5257	Sd	O/G	6.6	8.8 -9.0
Target	5884	5367	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	5830	surf	5365	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5547	10867	5280	5382	5547

Note: all casing will be new

Rev 1



Casing Design Load Cases

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

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	4253-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	414	252
Volume (bbls)	172	67
Volume (cu.ft.)	968	377
Excess %	50	50



Rev 1

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5547-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	446
Volume (bbls)	124
Volume (cu.ft)	697
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 – 5830	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5830 – 10867	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

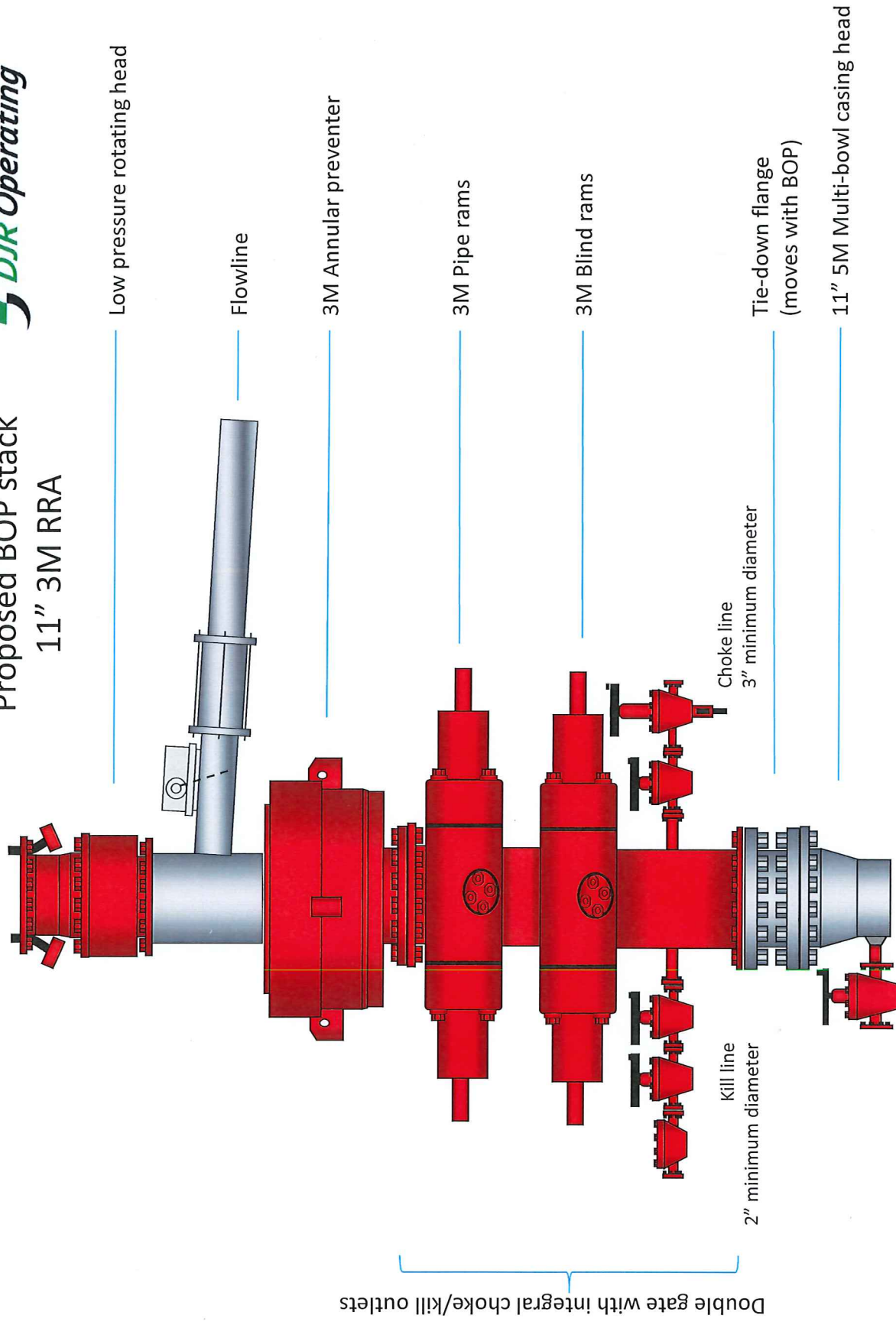
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided bins and will then be put into transports 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.



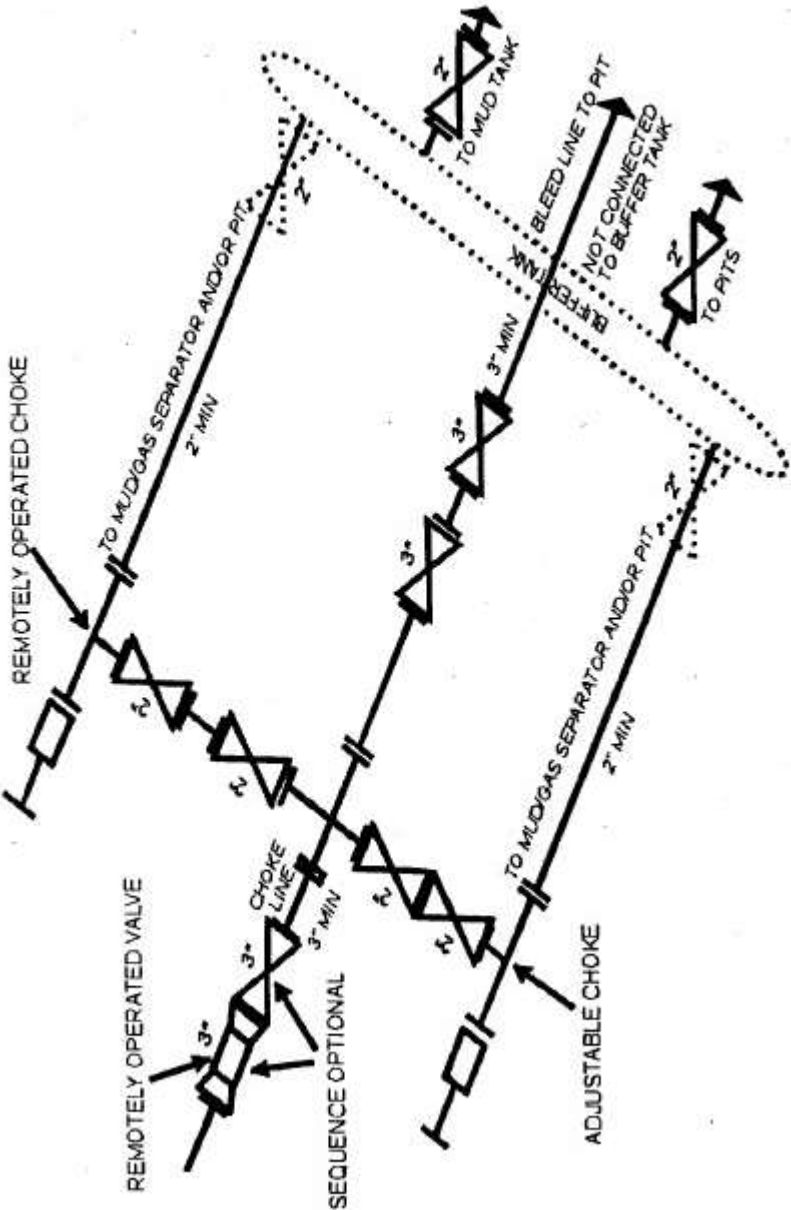
Proposed BOP stack 11" 3M RRA

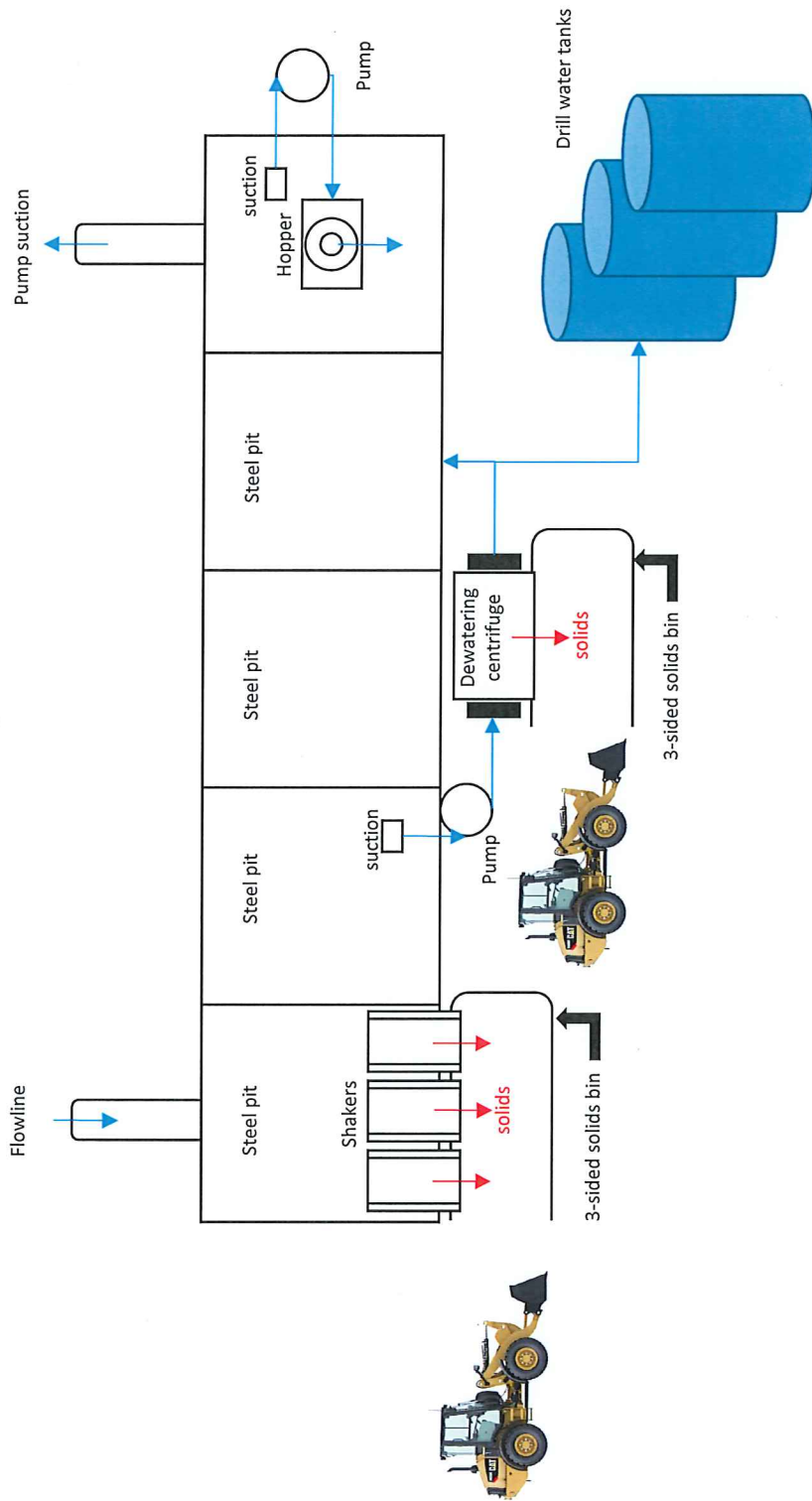




Choke Manifold

Actual system to conform with Onshore Order 2





Closed Loop Mud System



Company: DJR Operating
Project: Venado Canyon Unit
Site: O11 2206 Pad
Well: # 504H
Wellbore: Original Drilling
Design: APD

WELL DETAILS: # 504H

+N/-S		+E/-W	Northing	Easting	Latitude	Longitude
0		0	1873477.35	2841039.34	36.14818210	-107.43382730
			GL 7075' & RKB 14' @ 7089ft			

PROJECT DETAILS: Venado Canyon 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

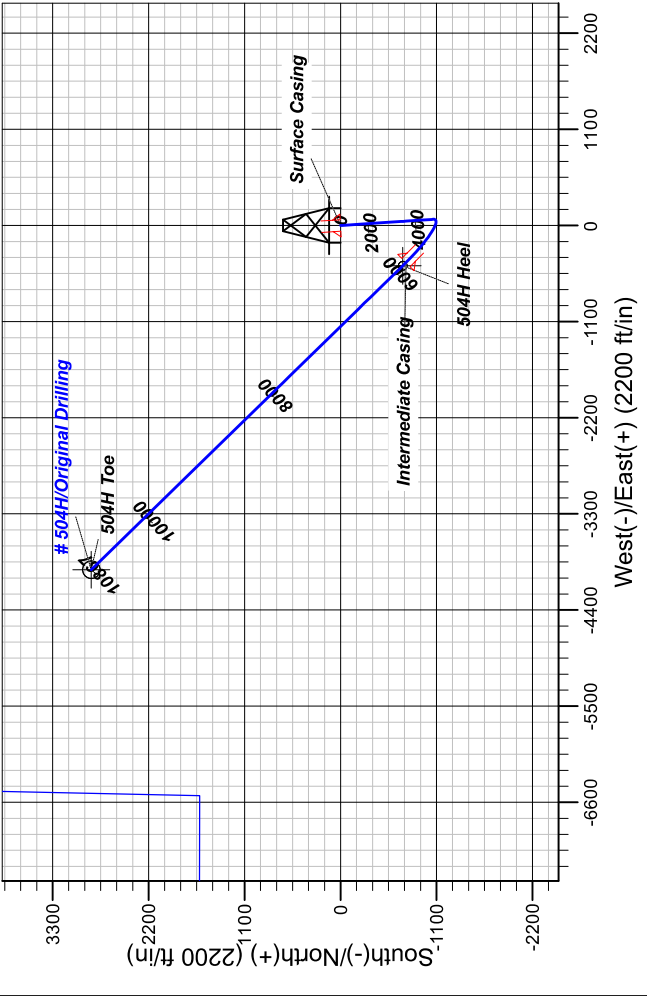
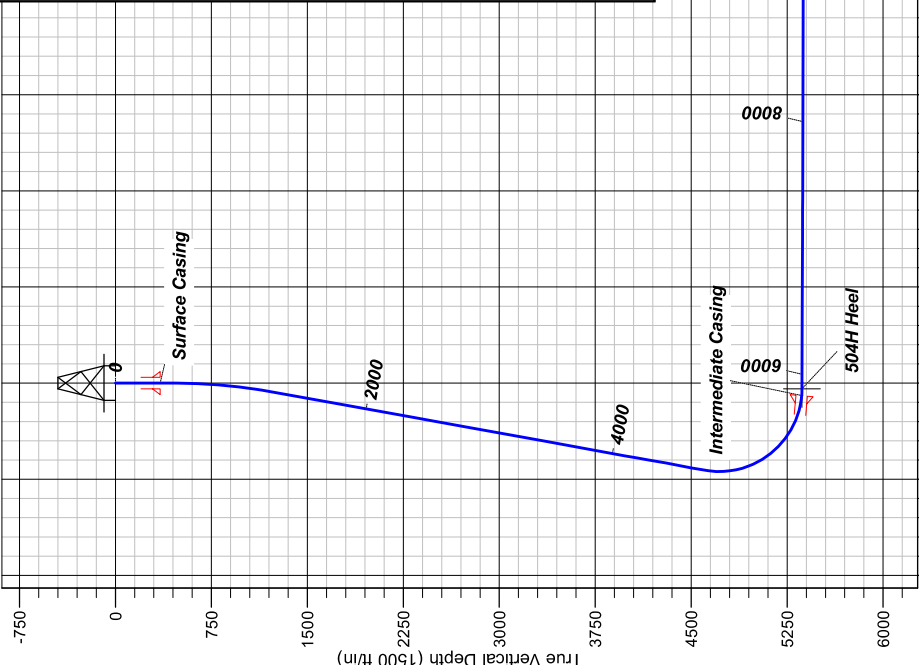
Plan: APD (# 504H/Original Drilling)
Created By: Janie Collins Date: 16:48, May 04 2021

DESIGN TARGET DETAILS

Time	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
504H Heel	5367	-712	-461	1872763.14	2840580.98	36.14622530	-107.43538970
504H Toe	5382	2857	-3938	1876318.24	2837089.22	36.15603010	-107.44716840

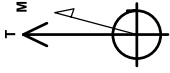
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
450	0.00	0.00	450	0	0	0.00	0.00	0	
1239	15.77	176.18	1229	-108	0	2.00	176.18	-89	
1581	18.77	176.18	1571	-109	71	2.00	176.18	-89	
5367	89.83	315.75	5367	-461	-3938	9.00	138.52	4866	504H Heel
5382	89.83	315.75	5382	2857	-3938	0.00	0.00	4866	504H Toe



504H/Original Drilling/APD
10867
10000
504H Toe

Vertical Section at 305.96° (1500 ft/in)



Azimuths to True North
Magnetic North: 8.83°
Magnetic Field
Strength: 49466 nT
Dip Angle: 62.88°
Date: 12/31/2019
Model: IGRF2015

CASING DETAILS

TVD	MD	Name
350	350	Surface Casing
5365	5830	Intermediate Casing

FORMATION DETAILS

TVDPath	MDPath	Formation
1289	1301	Ojo Alamo
1438	1456	Kirtland
1659	1686	Fruitland
1854	1888	Pictured Cliffs
1947	1985	Lewis
2660	2726	Chacra
3337	3429	Menefee
4108	4231	Point Lookout
4252	4380	Mancos
4612	4754	Mancos Silt
5127	5309	Gallup A
5169	5365	Gallup B
5257	5503	Gallup C



DJR Operating

Venado Canyon Unit

O11 2206 Pad

504H - Slot 3

Original Drilling

Plan: APD

Standard Planning Report

04 May, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 504H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Venado Canyon Unit		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	O11 2206 Pad				
Site Position:		Northing:	1,873,443.84 usft	Latitude:	36.14809030
From:	Lat/Long	Easting:	2,841,017.46 usft	Longitude:	-107.43390190
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.24 °

Well	# 504H - Slot 3					
Well Position	+N/-S	33 ft	Northing:	1,873,477.35 usft	Latitude:	36.14818210
	+E/-W	22 ft	Easting:	2,841,039.34 usft	Longitude:	-107.43382730
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	7075 ft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/31/2019	8.80	62.86	49,466.57449797

Design	APD			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0	0	0	305.96

Plan Survey Tool Program	Date	5/4/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	10,867	APD (Original Drilling)	MWD+HDGM
				OWSG MWD + HDGM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
450	0.00	0.00	450	0	0	0.00	0.00	0.00	0.00	
1239	15.77	176.18	1229	-108	7	2.00	2.00	0.00	176.18	
4753	15.77	176.18	4611	-1061	71	0.00	0.00	0.00	0.00	
5884	89.83	315.75	5367	-712	-461	9.00	6.55	12.34	138.52	504H Heel
10,867	89.83	315.75	5382	2857	-3938	0.00	0.00	0.00	0.00	504H Toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 504H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
450	0.00	0.00	450	0	0	0	0.00	0.00	0.00
500	1.00	176.18	500	0	0	0	2.00	2.00	0.00
600	3.00	176.18	600	-4	0	-3	2.00	2.00	0.00
700	5.00	176.18	700	-11	1	-7	2.00	2.00	0.00
800	7.00	176.18	799	-21	1	-14	2.00	2.00	0.00
900	9.00	176.18	898	-35	2	-23	2.00	2.00	0.00
1000	11.00	176.18	997	-53	4	-34	2.00	2.00	0.00
1100	13.00	176.18	1094	-73	5	-47	2.00	2.00	0.00
1200	15.00	176.18	1191	-97	7	-62	2.00	2.00	0.00
1239	15.77	176.18	1229	-108	7	-69	2.00	2.00	0.00
1300	15.77	176.18	1288	-124	8	-80	0.00	0.00	0.00
1400	15.77	176.18	1384	-151	10	-97	0.00	0.00	0.00
1500	15.77	176.18	1480	-179	12	-114	0.00	0.00	0.00
1600	15.77	176.18	1576	-206	14	-132	0.00	0.00	0.00
1700	15.77	176.18	1673	-233	16	-149	0.00	0.00	0.00
1800	15.77	176.18	1769	-260	17	-167	0.00	0.00	0.00
1900	15.77	176.18	1865	-287	19	-184	0.00	0.00	0.00
2000	15.77	176.18	1961	-314	21	-201	0.00	0.00	0.00
2100	15.77	176.18	2058	-341	23	-219	0.00	0.00	0.00
2200	15.77	176.18	2154	-368	25	-236	0.00	0.00	0.00
2300	15.77	176.18	2250	-395	26	-254	0.00	0.00	0.00
2400	15.77	176.18	2346	-423	28	-271	0.00	0.00	0.00
2500	15.77	176.18	2443	-450	30	-288	0.00	0.00	0.00
2600	15.77	176.18	2539	-477	32	-306	0.00	0.00	0.00
2700	15.77	176.18	2635	-504	34	-323	0.00	0.00	0.00
2800	15.77	176.18	2731	-531	35	-341	0.00	0.00	0.00
2900	15.77	176.18	2828	-558	37	-358	0.00	0.00	0.00
3000	15.77	176.18	2924	-585	39	-375	0.00	0.00	0.00
3100	15.77	176.18	3020	-612	41	-393	0.00	0.00	0.00
3200	15.77	176.18	3116	-640	43	-410	0.00	0.00	0.00
3300	15.77	176.18	3212	-667	45	-428	0.00	0.00	0.00
3400	15.77	176.18	3309	-694	46	-445	0.00	0.00	0.00
3500	15.77	176.18	3405	-721	48	-462	0.00	0.00	0.00
3600	15.77	176.18	3501	-748	50	-480	0.00	0.00	0.00
3700	15.77	176.18	3597	-775	52	-497	0.00	0.00	0.00
3800	15.77	176.18	3694	-802	54	-514	0.00	0.00	0.00
3900	15.77	176.18	3790	-829	55	-532	0.00	0.00	0.00
4000	15.77	176.18	3886	-857	57	-549	0.00	0.00	0.00
4100	15.77	176.18	3982	-884	59	-567	0.00	0.00	0.00
4200	15.77	176.18	4079	-911	61	-584	0.00	0.00	0.00
4300	15.77	176.18	4175	-938	63	-601	0.00	0.00	0.00
4400	15.77	176.18	4271	-965	64	-619	0.00	0.00	0.00
4500	15.77	176.18	4367	-992	66	-636	0.00	0.00	0.00
4600	15.77	176.18	4464	-1019	68	-654	0.00	0.00	0.00
4700	15.77	176.18	4560	-1046	70	-671	0.00	0.00	0.00
4753	15.77	176.18	4611	-1061	71	-680	0.00	0.00	0.00
4800	12.92	188.69	4656	-1072	70	-687	9.00	-6.11	26.84
4900	10.45	232.68	4754	-1089	62	-689	9.00	-2.48	43.99
5000	14.54	270.90	4852	-1094	42	-676	9.00	4.10	38.22



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 504H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5100	21.77	288.51	4947	-1088	12	-648	9.00	7.23	17.60
5200	29.94	297.26	5037	-1071	-28	-606	9.00	8.17	8.75
5300	38.46	302.46	5120	-1043	-77	-550	9.00	8.52	5.20
5400	47.14	306.00	5193	-1004	-133	-482	9.00	8.68	3.54
5500	55.90	308.66	5255	-957	-195	-404	9.00	8.76	2.66
5600	64.70	310.82	5305	-901	-262	-317	9.00	8.80	2.16
5700	73.53	312.68	5340	-839	-331	-225	9.00	8.83	1.86
5800	82.38	314.38	5361	-772	-402	-128	9.00	8.85	1.70
5884	89.83	315.75	5367	-712	-461	-45	9.00	8.85	1.63
5900	89.83	315.75	5367	-701	-472	-29	0.00	0.00	0.00
6000	89.83	315.75	5367	-629	-542	69	0.00	0.00	0.00
6100	89.83	315.75	5368	-558	-612	168	0.00	0.00	0.00
6200	89.83	315.75	5368	-486	-682	266	0.00	0.00	0.00
6300	89.83	315.75	5368	-414	-751	365	0.00	0.00	0.00
6400	89.83	315.75	5369	-343	-821	463	0.00	0.00	0.00
6500	89.83	315.75	5369	-271	-891	562	0.00	0.00	0.00
6600	89.83	315.75	5369	-200	-961	661	0.00	0.00	0.00
6700	89.83	315.75	5369	-128	-1031	759	0.00	0.00	0.00
6800	89.83	315.75	5370	-56	-1100	858	0.00	0.00	0.00
6900	89.83	315.75	5370	15	-1170	956	0.00	0.00	0.00
7000	89.83	315.75	5370	87	-1240	1055	0.00	0.00	0.00
7100	89.83	315.75	5371	159	-1310	1153	0.00	0.00	0.00
7200	89.83	315.75	5371	230	-1379	1252	0.00	0.00	0.00
7300	89.83	315.75	5371	302	-1449	1350	0.00	0.00	0.00
7400	89.83	315.75	5372	373	-1519	1449	0.00	0.00	0.00
7500	89.83	315.75	5372	445	-1589	1547	0.00	0.00	0.00
7600	89.83	315.75	5372	517	-1659	1646	0.00	0.00	0.00
7700	89.83	315.75	5372	588	-1728	1744	0.00	0.00	0.00
7800	89.83	315.75	5373	660	-1798	1843	0.00	0.00	0.00
7900	89.83	315.75	5373	732	-1868	1942	0.00	0.00	0.00
8000	89.83	315.75	5373	803	-1938	2040	0.00	0.00	0.00
8100	89.83	315.75	5374	875	-2007	2139	0.00	0.00	0.00
8200	89.83	315.75	5374	947	-2077	2237	0.00	0.00	0.00
8300	89.83	315.75	5374	1018	-2147	2336	0.00	0.00	0.00
8400	89.83	315.75	5375	1090	-2217	2434	0.00	0.00	0.00
8500	89.83	315.75	5375	1161	-2287	2533	0.00	0.00	0.00
8600	89.83	315.75	5375	1233	-2356	2631	0.00	0.00	0.00
8700	89.83	315.75	5375	1305	-2426	2730	0.00	0.00	0.00
8800	89.83	315.75	5376	1376	-2496	2828	0.00	0.00	0.00
8900	89.83	315.75	5376	1448	-2566	2927	0.00	0.00	0.00
9000	89.83	315.75	5376	1520	-2635	3026	0.00	0.00	0.00
9100	89.83	315.75	5377	1591	-2705	3124	0.00	0.00	0.00
9200	89.83	315.75	5377	1663	-2775	3223	0.00	0.00	0.00
9300	89.83	315.75	5377	1734	-2845	3321	0.00	0.00	0.00
9400	89.83	315.75	5378	1806	-2915	3420	0.00	0.00	0.00
9500	89.83	315.75	5378	1878	-2984	3518	0.00	0.00	0.00
9600	89.83	315.75	5378	1949	-3054	3617	0.00	0.00	0.00
9700	89.83	315.75	5378	2021	-3124	3715	0.00	0.00	0.00
9800	89.83	315.75	5379	2093	-3194	3814	0.00	0.00	0.00
9900	89.83	315.75	5379	2164	-3263	3912	0.00	0.00	0.00
10,000	89.83	315.75	5379	2236	-3333	4011	0.00	0.00	0.00
10,100	89.83	315.75	5380	2308	-3403	4110	0.00	0.00	0.00
10,200	89.83	315.75	5380	2379	-3473	4208	0.00	0.00	0.00
10,300	89.83	315.75	5380	2451	-3543	4307	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 504H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Project:	Venado Canyon Unit	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site:	O11 2206 Pad	North Reference:	True
Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	89.83	315.75	5381	2522	-3612	4405	0.00	0.00	0.00	
10,500	89.83	315.75	5381	2594	-3682	4504	0.00	0.00	0.00	
10,600	89.83	315.75	5381	2666	-3752	4602	0.00	0.00	0.00	
10,700	89.83	315.75	5381	2737	-3822	4701	0.00	0.00	0.00	
10,800	89.83	315.75	5382	2809	-3891	4799	0.00	0.00	0.00	
10,867	89.83	315.75	5382	2857	-3938	4866	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
504H Heel	0.00	0.00	5367	-712	-461	1,872,763.14	2,840,580.99	36.14622530	-107.43538970	
- plan hits target center										
- Circle (radius 50)										
504H Toe	0.00	0.00	5382	2857	-3938	1,876,318.24	2,837,089.22	36.15603010	-107.44716840	
- plan hits target center										
- Circle (radius 100)										

Casing Points										
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)						
350	350	Surface Casing	9.62	12.25						
5830	5365	Intermediate Casing	7.00	8.75						

Formations										
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)					
1301	1289	Ojo Alamo		0.00	0.00					
1456	1438	Kirtland		0.00	0.00					
1686	1659	Fruitland		0.00	0.00					
1888	1854	Pictured Cliffs		0.00	0.00					
1985	1947	Lewis		0.00	0.00					
2726	2660	Chacra		0.00	0.00					
3429	3337	Menefee		0.00	0.00					
4231	4108	Point Lookout		0.00	0.00					
4380	4252	Mancos		0.00	0.00					
4754	4612	Mancos Silt		0.00	0.00					
5309	5127	Gallup A		0.00	0.00					
5365	5169	Gallup B		0.00	0.00					
5503	5257	Gallup C		0.00	0.00					



DJR Operating

Venado Canyon Unit

O11 2206 Pad

504H

Original Drilling

APD

Anticollision Report

04 May, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	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 10,000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/4/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	10,867	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
O11 2206 Pad						
# 505H - Original Drilling - APD	402	402	20	17	8.034	CC
# 505H - Original Drilling - APD	1239	1233	24	16	2.931	ES
# 505H - Original Drilling - APD	1300	1294	25	17	2.881	SF
# 506H - Original Drilling - APD	923	926	20	14	3.268	CC, ES
# 506H - Original Drilling - APD	1000	1003	21	14	3.117	SF
# 507H - Original Drilling - APD	450	450	40	37	14.205	CC
# 507H - Original Drilling - APD	600	598	40	37	10.618	ES
# 507H - Original Drilling - APD	10,300	9919	756	543	3.542	SF
# 508H - Original Drilling - APD	450	450	60	57	21.313	CC
# 508H - Original Drilling - APD	500	500	60	57	19.095	ES
# 508H - Original Drilling - APD	900	899	86	80	14.337	SF
# 509H - Original Drilling - APD	450	450	40	37	14.232	CC
# 509H - Original Drilling - APD	500	500	40	37	12.725	ES
# 509H - Original Drilling - APD	10,867	9917	779	546	3.352	SF

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	0	0	0	0	-146.72	-17	-11	20					
100	100	100	100	0	0	-146.72	-17	-11	20	20	0.31	64.405		
200	200	200	200	1	1	-146.72	-17	-11	20	19	1.03	19.367		
300	300	300	300	1	1	-146.72	-17	-11	20	18	1.74	11.397		
400	400	400	400	1	1	-146.72	-17	-11	20	17	2.46	8.074		
402	402	402	402	1	1	-146.72	-17	-11	20	17	2.47	8.034 CC		
450	450	450	450	1	1	-146.91	-17	-11	20	17	2.81	7.089		
500	500	500	500	2	2	36.15	-18	-11	20	17	3.15	6.432		
600	600	599	599	2	2	34.65	-22	-10	21	17	3.81	5.488		
700	700	698	698	2	2	33.16	-30	-10	22	17	4.49	4.800		
800	799	798	797	3	3	31.68	-41	-9	22	17	5.18	4.276		
900	898	897	895	3	3	30.21	-55	-8	23	17	5.88	3.863		
1000	997	996	993	3	3	28.74	-73	-6	23	17	6.59	3.527		
1100	1094	1096	1090	4	4	27.26	-94	-5	24	16	7.31	3.249		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
1200	1191	1195	1186	4	4	25.77	-119	-3	24	16	8.04	3.013		
1239	1229	1233	1223	4	4	25.19	-129	-2	24	16	8.33	2.931 ES		
1300	1288	1294	1281	5	5	23.66	-147	0	25	17	8.78	2.881 SF		
1400	1384	1393	1375	5	5	19.34	-178	2	29	20	9.48	3.096		
1500	1480	1492	1467	6	6	14.56	-212	5	37	27	10.17	3.624		
1600	1576	1590	1558	6	6	10.56	-249	8	48	37	10.85	4.411		
1700	1673	1689	1649	7	7	7.74	-289	11	61	49	11.62	5.253		
1800	1769	1788	1739	7	8	5.92	-328	14	74	62	12.42	5.986		
1900	1865	1887	1830	8	8	4.65	-367	17	88	74	13.22	6.630		
2000	1961	1986	1921	8	9	3.72	-407	21	101	87	14.04	7.198		
2100	2058	2085	2012	9	9	3.00	-446	24	114	100	14.86	7.702		
2200	2154	2184	2103	9	10	2.44	-486	27	128	112	15.68	8.152		
2300	2250	2283	2194	10	11	1.98	-525	30	141	125	16.51	8.556		
2400	2346	2382	2285	10	11	1.60	-564	33	155	137	17.34	8.920		
2500	2443	2481	2376	11	12	1.28	-604	37	168	150	18.17	9.250		
2600	2539	2580	2466	11	13	1.01	-643	40	182	163	19.01	9.550		
2700	2635	2680	2557	12	13	0.78	-683	43	195	175	19.85	9.824		
2800	2731	2779	2648	12	14	0.57	-722	46	208	188	20.69	10.075		
2900	2828	2878	2739	13	15	0.39	-761	49	222	200	21.53	10.306		
3000	2924	2977	2830	13	15	0.24	-801	53	235	213	22.37	10.519		
3100	3020	3076	2921	14	16	0.09	-840	56	249	226	23.21	10.716		
3200	3116	3175	3012	14	17	-0.03	-879	59	262	238	24.06	10.899		
3300	3212	3274	3103	15	17	-0.15	-919	62	276	251	24.90	11.069		
3400	3309	3373	3193	15	18	-0.25	-958	65	289	263	25.75	11.227		
3500	3405	3472	3284	16	19	-0.35	-998	68	303	276	26.59	11.376		
3600	3501	3571	3375	17	19	-0.43	-1037	72	316	289	27.44	11.515		
3700	3597	3670	3466	17	20	-0.51	-1076	75	329	301	28.29	11.645		
3800	3694	3770	3557	18	21	-0.59	-1116	78	343	314	29.14	11.767		
3900	3790	3869	3648	18	21	-0.65	-1155	81	356	326	29.99	11.883		
4000	3886	3968	3739	19	22	-0.72	-1195	84	370	339	30.84	11.992		
4100	3982	4067	3830	19	23	-0.77	-1234	88	383	352	31.69	12.095		
4200	4079	4166	3920	20	23	-0.83	-1273	91	397	364	32.54	12.192		
4300	4175	4265	4011	20	24	-0.88	-1313	94	410	377	33.39	12.284		
4400	4271	4364	4102	21	25	-0.93	-1352	97	424	389	34.24	12.372		
4500	4367	4463	4193	21	25	-0.97	-1391	100	437	402	35.09	12.455		
4600	4464	4562	4284	22	26	-1.01	-1431	103	450	415	35.94	12.535		
4700	4560	4661	4375	22	27	-1.05	-1470	107	464	427	36.79	12.610		
4753	4611	4714	4423	23	27	-1.07	-1491	108	471	434	37.25	12.649		
4800	4656	4760	4465	23	27	-12.90	-1510	110	479	441	37.64	12.717		
4850	4705	4800	4502	23	28	-31.76	-1525	111	490	452	37.94	12.908		
4900	4754	4831	4530	23	28	-55.38	-1538	113	505	467	38.12	13.255		
4950	4803	4850	4547	23	28	-76.49	-1547	115	525	487	38.08	13.794		
5000	4852	4883	4576	24	28	-91.54	-1563	119	549	511	38.31	14.338		
5050	4900	4900	4590	24	28	-100.27	-1571	121	578	539	38.25	15.100		
5100	4947	4925	4612	24	29	-105.74	-1584	126	609	571	38.43	15.859		
5150	4993	4950	4632	24	29	-108.79	-1597	131	645	606	38.66	16.677		
5200	5037	4950	4632	24	29	-108.09	-1597	131	683	645	38.42	17.775		
5250	5080	4967	4646	24	29	-107.12	-1606	135	724	685	38.64	18.723		
5300	5120	4976	4653	24	29	-103.74	-1611	137	766	727	38.75	19.772		
5350	5158	4982	4658	24	29	-98.34	-1615	138	811	772	38.89	20.843		
5400	5193	4986	4661	24	29	-90.77	-1617	139	856	817	39.05	21.922		
5450	5226	5000	4671	24	29	-83.12	-1625	143	903	863	39.49	22.858		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)						
5500	5255	5000	4671	24	29	-71.91	-1625	143	949	910	39.69	23.922		
5550	5282	5000	4671	24	29	-60.42	-1625	143	996	956	39.94	24.946		
5600	5305	4985	4660	24	29	-47.71	-1616	139	1043	1003	39.95	26.108		
5650	5324	4981	4656	24	29	-38.58	-1614	138	1089	1049	40.23	27.080		
5700	5340	4975	4652	24	29	-31.16	-1611	137	1135	1094	40.52	28.010		
5750	5353	4969	4647	24	29	-25.27	-1607	135	1180	1139	40.83	28.896		
5800	5361	4950	4632	25	29	-20.02	-1597	131	1223	1182	40.94	29.882		
5850	5366	4950	4632	25	29	-16.71	-1597	131	1266	1224	41.41	30.565		
5884	5367	4950	4632	25	29	-14.78	-1597	131	1294	1252	41.73	31.003		
5900	5367	4950	4632	26	29	-14.78	-1597	131	1306	1265	41.87	31.202		
6000	5367	4928	4614	27	29	-14.08	-1585	126	1389	1346	42.42	32.736		
6100	5368	4900	4590	28	28	-13.21	-1571	121	1473	1430	42.81	34.397		
6200	5368	4900	4590	30	28	-13.21	-1571	121	1558	1514	43.48	35.825		
6300	5368	4900	4590	32	28	-13.21	-1571	121	1645	1601	44.05	37.331		
6400	5369	4872	4567	33	28	-12.39	-1557	118	1732	1688	44.27	39.123		
6500	5369	4850	4547	35	28	-11.73	-1547	115	1821	1776	44.50	40.916		
6600	5369	4850	4547	37	28	-11.73	-1547	115	1910	1865	44.90	42.543		
6700	5369	4850	4547	39	28	-11.73	-1547	115	2001	1955	45.25	44.213		
6800	5370	4850	4547	42	28	-11.73	-1547	115	2092	2046	45.56	45.920		
6900	5370	4824	4523	44	28	-10.98	-1535	113	2183	2138	45.63	47.845		
7000	5370	4800	4502	46	28	-10.34	-1525	111	2276	2230	45.71	49.783		
7100	5371	4800	4502	48	28	-10.34	-1525	111	2368	2322	45.95	51.548		
7200	5371	4800	4502	51	28	-10.34	-1525	111	2462	2415	46.15	53.337		
7300	5371	4795	4497	53	28	-10.20	-1523	111	2555	2509	46.31	55.182		
7400	5372	4788	4491	55	27	-10.02	-1521	111	2649	2603	46.44	57.054		
7500	5372	4760	4465	58	27	-9.29	-1509	110	2744	2697	46.43	59.094		
7600	5372	4730	4437	60	27	-8.55	-1497	109	2838	2792	46.40	61.158		
7700	5372	4699	4409	62	27	-7.85	-1485	108	2932	2886	46.38	63.230		
7800	5373	4669	4381	65	27	-7.18	-1473	107	3027	2981	46.35	65.309		
7900	5373	4638	4354	67	26	-6.55	-1461	106	3121	3075	46.32	67.394		
8000	5373	4608	4326	70	26	-5.96	-1449	105	3216	3170	46.28	69.485		
8100	5374	4577	4298	72	26	-5.39	-1437	104	3311	3264	46.25	71.581		
8200	5374	4547	4270	75	26	-4.85	-1425	103	3405	3359	46.21	73.682		
8300	5374	4516	4242	77	26	-4.34	-1413	102	3500	3454	46.18	75.786		
8400	5375	4486	4214	80	25	-3.85	-1401	101	3595	3548	46.15	77.895		
8500	5375	4456	4186	82	25	-3.38	-1388	100	3689	3643	46.11	80.006		
8600	5375	4425	4158	84	25	-2.94	-1376	99	3784	3738	46.08	82.120		
8700	5375	4395	4130	87	25	-2.51	-1364	98	3879	3833	46.05	84.236		
8800	5376	4364	4102	89	25	-2.11	-1352	97	3974	3928	46.02	86.353		
8900	5376	4334	4074	92	24	-1.72	-1340	96	4068	4022	45.99	88.471		
9000	5376	4303	4047	94	24	-1.35	-1328	95	4163	4117	45.96	90.589		
9100	5377	4273	4019	97	24	-0.99	-1316	94	4258	4212	45.93	92.708		
9200	5377	4243	3991	99	24	-0.65	-1304	93	4353	4307	45.91	94.826		
9300	5377	4212	3963	102	24	-0.32	-1292	92	4448	4402	45.88	96.943		
9400	5378	4182	3935	104	23	0.00	-1280	91	4543	4497	45.86	99.058		
9500	5378	4151	3907	107	23	0.30	-1267	90	4638	4592	45.84	101.172		
9600	5378	4121	3879	109	23	0.60	-1255	89	4733	4687	45.82	103.283		
9700	5378	4090	3851	112	23	0.88	-1243	88	4828	4782	45.81	105.392		
9800	5379	4060	3823	115	23	1.15	-1231	87	4923	4877	45.79	107.497		
9900	5379	4029	3795	117	22	1.41	-1219	86	5018	4972	45.78	109.599		
10,000	5379	3999	3767	120	22	1.67	-1207	85	5113	5067	45.77	111.697		
10,100	5380	3969	3739	122	22	1.91	-1195	84	5208	5162	45.76	113.791		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 505H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,200	5380	3938	3712	125	22	2.14	-1183	83	5303	5257	45.76	115.880	
10,300	5380	3908	3684	127	22	2.37	-1171	82	5398	5352	45.76	117.964	
10,400	5381	3877	3656	130	21	2.59	-1159	81	5493	5447	45.76	120.042	
10,500	5381	3847	3628	132	21	2.81	-1146	80	5588	5542	45.76	122.115	
10,600	5381	3816	3600	135	21	3.01	-1134	80	5683	5637	45.76	124.181	
10,700	5381	3786	3572	137	21	3.21	-1122	79	5778	5732	45.77	126.241	
10,800	5382	3756	3544	140	21	3.41	-1110	78	5873	5827	45.78	128.295	
10,867	5382	3735	3525	142	20	3.53	-1102	77	5937	5891	45.78	129.673	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	0	0	0	0	33.22	17	11	20					
100	100	100	100	0	0	33.22	17	11	20	20	0.31	65.208		
200	200	200	200	1	1	33.22	17	11	20	19	1.03	19.608		
300	300	300	300	1	1	33.22	17	11	20	18	1.74	11.539		
400	400	400	400	1	1	33.22	17	11	20	18	2.46	8.175		
450	450	450	450	1	1	33.22	17	11	20	17	2.82	7.135		
500	500	500	500	2	2	-142.96	16	11	20	17	3.16	6.362		
600	600	601	601	2	2	-142.95	13	11	20	16	3.82	5.251		
700	700	701	701	2	2	-142.93	6	12	20	16	4.50	4.448		
800	799	802	801	3	3	-142.90	-5	12	20	15	5.20	3.840		
900	898	903	901	3	3	-142.86	-19	13	20	14	5.91	3.364		
923	921	926	923	3	3	-142.86	-22	14	20	14	6.08	3.268 CC, ES		
1000	997	1003	999	3	3	-144.71	-35	14	21	14	6.64	3.117 SF		
1100	1094	1103	1098	4	4	-150.83	-51	15	24	17	7.37	3.318		
1200	1191	1202	1196	4	4	-157.89	-68	16	32	24	8.10	3.906		
1239	1229	1241	1234	4	4	-160.33	-74	17	35	27	8.38	4.220		
1300	1288	1302	1294	5	5	-163.50	-84	17	42	33	8.83	4.734		
1400	1384	1401	1392	5	5	-166.97	-100	18	52	43	9.56	5.484		
1500	1480	1500	1490	6	5	-169.27	-117	20	63	53	10.31	6.134		
1600	1576	1600	1588	6	6	-170.89	-133	21	74	63	11.06	6.700		
1700	1673	1699	1687	7	6	-172.10	-149	22	85	73	11.82	7.195		
1800	1769	1799	1785	7	7	-173.04	-165	23	96	83	12.57	7.630		
1900	1865	1898	1883	8	7	-173.78	-182	24	107	94	13.33	8.017		
2000	1961	1997	1981	8	7	-174.39	-198	25	118	104	14.10	8.361		
2100	2058	2097	2079	9	8	-174.89	-214	26	129	114	14.86	8.669		
2200	2154	2196	2177	9	8	-175.31	-230	27	140	124	15.63	8.947		
2300	2250	2296	2275	10	9	-175.67	-247	28	151	134	16.39	9.199		
2400	2346	2395	2373	10	9	-175.98	-263	29	162	145	17.16	9.428		
2500	2443	2494	2471	11	10	-176.26	-279	30	173	155	17.93	9.637		
2600	2539	2594	2569	11	10	-176.50	-295	31	184	165	18.70	9.828		
2700	2635	2693	2667	12	10	-176.71	-312	32	195	175	19.47	10.004		
2800	2731	2792	2765	12	11	-176.90	-328	33	206	186	20.25	10.167		
2900	2828	2892	2863	13	11	-177.07	-344	34	217	196	21.02	10.317		
3000	2924	2991	2961	13	12	-177.22	-361	35	228	206	21.79	10.457		
3100	3020	3091	3059	14	12	-177.36	-377	36	239	216	22.56	10.587		
3200	3116	3190	3157	14	13	-177.49	-393	37	250	227	23.34	10.708		
3300	3212	3289	3255	15	13	-177.61	-409	38	261	237	24.11	10.821		
3400	3309	3389	3353	15	13	-177.72	-426	39	272	247	24.89	10.927		
3500	3405	3488	3451	16	14	-177.81	-442	40	283	257	25.66	11.026		
3600	3501	3588	3549	17	14	-177.91	-458	41	294	268	26.44	11.120		
3700	3597	3687	3647	17	15	-177.99	-474	42	305	278	27.21	11.208		
3800	3694	3786	3745	18	15	-178.07	-491	43	316	288	27.99	11.291		
3900	3790	3886	3843	18	16	-178.14	-507	44	327	298	28.76	11.370		
4000	3886	3985	3942	19	16	-178.21	-523	45	338	309	29.54	11.444		
4100	3982	4085	4040	19	16	-178.28	-539	46	349	319	30.32	11.515		
4200	4079	4184	4138	20	17	-178.34	-556	48	360	329	31.09	11.582		
4300	4175	4283	4236	20	17	-178.40	-572	49	371	339	31.87	11.646		
4400	4271	4383	4334	21	18	-178.45	-588	50	382	350	32.65	11.706		
4500	4367	4482	4432	21	18	-178.50	-605	51	393	360	33.42	11.764		
4600	4464	4581	4530	22	19	-178.55	-621	52	404	370	34.20	11.819		
4700	4560	4681	4628	22	19	-178.59	-637	53	415	380	34.98	11.872		
4753	4611	4734	4680	23	19	-178.62	-646	53	421	386	35.39	11.899		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4800	4656	4780	4726	23	19	169.15	-653	54	425	389	35.75	11.888	
4850	4705	4830	4775	23	20	150.39	-662	54	426	390	36.13	11.803	
4900	4754	4889	4833	23	20	127.53	-671	55	425	388	36.54	11.628	
4950	4803	4979	4920	23	20	109.25	-692	62	417	381	36.96	11.296	
5000	4852	5057	4993	24	21	99.40	-717	76	404	367	37.21	10.853	
5050	4900	5121	5049	24	21	96.31	-742	92	386	349	37.56	10.285	
5100	4947	5170	5091	24	21	97.03	-764	107	367	329	38.20	9.619	
5150	4993	5207	5121	24	22	99.27	-782	120	349	310	39.17	8.922	
5200	5037	5234	5142	24	22	101.54	-795	130	335	294	40.41	8.284	
5250	5080	5253	5156	24	22	103.06	-805	137	325	283	41.71	7.792	
5297	5118	5264	5164	24	22	103.53	-811	142	322	279	42.81	7.518	
5300	5120	5265	5165	24	22	103.52	-811	142	322	279	42.87	7.509	
5350	5158	5271	5169	24	22	102.82	-814	145	326	282	43.66	7.465	
5400	5193	5273	5171	24	22	100.99	-816	146	337	293	44.02	7.660	
5450	5226	5272	5170	24	22	98.10	-815	145	355	311	44.01	8.066	
5500	5255	5267	5167	24	22	94.26	-812	143	378	335	43.76	8.645	
5550	5282	5261	5162	24	22	89.59	-809	141	406	362	43.39	9.354	
5600	5305	5250	5154	24	22	83.99	-803	136	437	394	42.93	10.171	
5650	5324	5250	5154	24	22	79.88	-803	136	470	427	42.97	10.930	
5700	5340	5230	5139	24	22	72.89	-793	128	504	461	42.40	11.884	
5750	5353	5217	5129	24	22	67.25	-786	123	539	497	42.22	12.768	
5800	5361	5200	5115	25	22	61.59	-778	117	574	532	41.99	13.680	
5850	5366	5200	5115	25	22	58.09	-778	117	610	567	42.38	14.388	
5884	5367	5179	5098	25	21	54.15	-768	110	633	591	42.08	15.054	
5900	5367	5174	5094	26	21	53.78	-765	108	645	602	42.09	15.313	
6000	5367	5150	5074	27	21	51.99	-755	100	717	675	42.29	16.956	
6100	5368	5121	5050	28	21	49.89	-742	92	794	752	42.32	18.760	
6200	5368	5100	5031	30	21	48.45	-733	86	874	832	42.45	20.588	
6300	5368	5080	5013	32	21	47.10	-726	81	957	914	42.55	22.489	
6400	5369	5050	4987	33	21	45.20	-715	74	1042	1000	42.49	24.530	
6500	5369	5050	4987	35	21	45.20	-715	74	1129	1086	42.76	26.405	
6600	5369	5034	4972	37	21	44.22	-709	71	1218	1175	42.81	28.444	
6700	5369	5021	4960	39	21	43.49	-705	69	1307	1265	42.87	30.499	
6800	5370	5000	4940	42	20	42.27	-698	65	1398	1356	42.84	32.641	
6900	5370	5000	4940	44	20	42.27	-698	65	1490	1447	42.96	34.688	
7000	5370	5000	4940	46	20	42.27	-698	65	1583	1540	43.05	36.772	
7100	5371	5000	4940	48	20	42.27	-698	65	1676	1633	43.11	38.886	
7200	5371	4974	4916	51	20	40.87	-691	62	1770	1727	43.05	41.115	
7300	5371	4950	4893	53	20	39.63	-685	59	1865	1822	43.00	43.366	
7400	5372	4950	4893	55	20	39.63	-685	59	1959	1916	43.05	45.515	
7500	5372	4950	4893	58	20	39.63	-685	59	2055	2011	43.09	47.681	
7600	5372	4950	4893	60	20	39.63	-685	59	2150	2107	43.12	49.862	
7700	5372	4950	4893	62	20	39.63	-685	59	2246	2203	43.15	52.056	
7800	5373	4950	4893	65	20	39.63	-685	59	2343	2299	43.17	54.260	
7900	5373	4950	4893	67	20	39.63	-685	59	2439	2396	43.19	56.473	
8000	5373	4929	4872	70	20	38.59	-679	57	2536	2492	43.17	58.743	
8100	5374	4924	4868	72	20	38.39	-679	57	2633	2589	43.18	60.973	
8200	5374	4921	4864	75	20	38.21	-678	57	2730	2687	43.19	63.207	
8300	5374	4900	4844	77	20	37.27	-673	55	2827	2784	43.17	65.494	
8400	5375	4900	4844	80	20	37.27	-673	55	2925	2881	43.19	67.720	
8500	5375	4900	4844	82	20	37.27	-673	55	3022	2979	43.21	69.949	
8600	5375	4900	4844	84	20	37.27	-673	55	3120	3077	43.22	72.182	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 506H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8700	5375	4900	4844	87	20	37.27	-673	55	3218	3174	43.24	74.416		
8800	5376	4900	4844	89	20	37.27	-673	55	3316	3272	43.26	76.652		
8900	5376	4900	4844	92	20	37.27	-673	55	3414	3370	43.27	78.888		
9000	5376	4900	4844	94	20	37.27	-673	55	3512	3469	43.29	81.125		
9100	5377	4900	4844	97	20	37.27	-673	55	3610	3567	43.31	83.362		
9200	5377	4900	4844	99	20	37.27	-673	55	3709	3665	43.33	85.598		
9300	5377	4900	4844	102	20	37.27	-673	55	3807	3764	43.34	87.833		
9400	5378	4887	4831	104	20	36.70	-671	55	3905	3862	43.35	90.085		
9500	5378	4885	4829	107	20	36.61	-671	55	4004	3961	43.37	92.319		
9600	5378	4870	4814	109	20	35.99	-668	55	4103	4059	43.38	94.573		
9700	5378	4870	4814	112	20	35.99	-668	55	4201	4158	43.40	96.798		
9800	5379	4870	4814	115	20	35.99	-668	55	4300	4257	43.43	99.020		
9900	5379	4870	4814	117	20	35.99	-668	55	4399	4355	43.45	101.240		
10,000	5379	4870	4814	120	20	35.99	-668	55	4498	4454	43.47	103.457		
10,100	5380	4870	4814	122	20	35.99	-668	55	4597	4553	43.50	105.671		
10,200	5380	4870	4814	125	20	35.99	-668	55	4696	4652	43.52	107.882		
10,300	5380	4870	4814	127	20	35.99	-668	55	4794	4751	43.55	110.089		
10,400	5381	4868	4813	130	20	35.90	-668	55	4893	4850	43.58	112.294		
10,500	5381	4856	4801	132	20	35.41	-666	55	4993	4949	43.60	114.508		
10,600	5381	4844	4789	135	20	34.93	-664	54	5092	5048	43.62	116.716		
10,700	5381	4832	4777	137	20	34.47	-662	54	5191	5147	43.65	118.918		
10,800	5382	4819	4765	140	20	34.01	-660	54	5290	5246	43.67	121.114		
10,867	5382	4811	4757	142	20	33.72	-658	54	5356	5313	43.69	122.590		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 507H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	-146.61	-33	-22	40					
100	100	100	100	0	0	-146.61	-33	-22	40	40	0.31	129.823		
200	200	200	200	1	1	-146.61	-33	-22	40	39	1.03	39.038		
300	300	300	300	1	1	-146.61	-33	-22	40	38	1.74	22.973		
400	400	400	400	1	1	-146.61	-33	-22	40	38	2.46	16.275		
450	450	450	450	1	1	-146.61	-33	-22	40	37	2.82	14.205 CC		
500	500	499	499	2	2	37.35	-34	-22	40	37	3.16	12.696		
600	600	598	598	2	2	38.48	-37	-23	40	37	3.81	10.618 ES		
700	700	697	696	2	2	40.68	-44	-24	41	37	4.49	9.224		
800	799	795	795	3	3	43.78	-54	-26	43	38	5.17	8.279		
900	898	894	892	3	3	47.57	-67	-29	45	39	5.88	7.644		
1000	997	993	989	3	3	51.81	-84	-32	48	41	6.61	7.233		
1100	1094	1091	1086	4	4	56.23	-103	-36	52	44	7.39	6.986		
1200	1191	1190	1181	4	4	60.58	-127	-41	56	48	8.21	6.859		
1239	1229	1228	1218	4	4	62.20	-136	-43	58	50	8.54	6.835		
1300	1288	1288	1276	5	5	64.21	-153	-46	62	53	9.09	6.858		
1400	1384	1386	1370	5	5	65.23	-182	-52	71	61	9.98	7.068		
1500	1480	1484	1462	6	6	64.17	-214	-58	81	70	10.87	7.448		
1600	1576	1581	1552	6	6	61.82	-250	-65	94	82	11.73	7.980		
1700	1673	1680	1643	7	7	59.23	-287	-73	108	95	12.63	8.540		
1800	1769	1779	1734	7	7	57.23	-325	-80	122	109	13.54	9.031		
1900	1865	1878	1825	8	8	55.66	-362	-88	137	122	14.46	9.462		
2000	1961	1977	1916	8	9	54.39	-400	-95	151	136	15.38	9.844		
2100	2058	2075	2008	9	9	53.34	-438	-103	166	150	16.31	10.183		
2200	2154	2174	2099	9	10	52.47	-475	-110	181	164	17.24	10.486		
2300	2250	2273	2190	10	10	51.72	-513	-118	195	177	18.17	10.757		
2400	2346	2372	2281	10	11	51.08	-550	-125	210	191	19.11	11.002		
2500	2443	2471	2372	11	12	50.52	-588	-133	225	205	20.05	11.223		
2600	2539	2570	2463	11	12	50.03	-626	-140	240	219	20.99	11.425		
2700	2635	2669	2554	12	13	49.60	-663	-148	255	233	21.94	11.608		
2800	2731	2768	2645	12	14	49.22	-701	-155	270	247	22.89	11.777		
2900	2828	2866	2737	13	14	48.88	-738	-163	284	261	23.83	11.931		
3000	2924	2965	2828	13	15	48.57	-776	-170	299	274	24.78	12.074		
3100	3020	3064	2919	14	16	48.29	-814	-178	314	288	25.73	12.206		
3200	3116	3163	3010	14	16	48.03	-851	-186	329	302	26.68	12.328		
3300	3212	3262	3101	15	17	47.80	-889	-193	344	316	27.64	12.441		
3400	3309	3361	3192	15	17	47.58	-926	-201	359	330	28.59	12.547		
3500	3405	3460	3283	16	18	47.39	-964	-208	374	344	29.54	12.646		
3600	3501	3559	3375	17	19	47.21	-1002	-216	388	358	30.50	12.739		
3700	3597	3657	3466	17	19	47.04	-1039	-223	403	372	31.45	12.826		
3800	3694	3756	3557	18	20	46.88	-1077	-231	418	386	32.41	12.907		
3900	3790	3855	3648	18	21	46.74	-1115	-238	433	400	33.36	12.984		
4000	3886	3954	3739	19	21	46.60	-1152	-246	448	414	34.32	13.056		
4100	3982	4053	3830	19	22	46.47	-1190	-253	463	428	35.28	13.125		
4200	4079	4152	3921	20	23	46.36	-1227	-261	478	442	36.23	13.189		
4300	4175	4251	4013	20	23	46.24	-1265	-268	493	456	37.19	13.251		
4400	4271	4350	4104	21	24	46.14	-1303	-276	508	470	38.15	13.309		
4500	4367	4448	4195	21	25	46.04	-1340	-283	523	484	39.11	13.364		
4600	4464	4547	4287	22	25	46.82	-1372	-297	538	497	40.16	13.385		
4700	4560	4641	4375	22	26	49.00	-1393	-320	553	512	41.32	13.387		
4753	4611	4688	4419	23	26	50.57	-1400	-335	562	520	41.94	13.407		
4800	4656	4728	4456	23	26	40.63	-1403	-349	571	528	42.42	13.456		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 507H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4850	4705	4769	4494	23	26	23.73	-1405	-366	580	538	42.82	13.554	
4900	4754	4810	4531	23	26	1.90	-1405	-385	591	547	43.12	13.696	
4950	4803	4850	4566	23	26	-17.93	-1403	-404	601	558	43.29	13.880	
5000	4852	4890	4600	24	26	-31.44	-1399	-424	611	568	43.39	14.088	
5050	4900	4929	4632	24	26	-39.68	-1393	-446	622	578	43.40	14.328	
5100	4947	4968	4663	24	27	-44.61	-1386	-468	632	589	43.33	14.589	
5150	4993	5006	4692	24	27	-47.59	-1377	-491	642	599	43.21	14.865	
5200	5037	5044	4720	24	27	-49.39	-1366	-515	652	609	43.05	15.149	
5250	5080	5082	4746	24	27	-50.47	-1354	-540	662	619	42.87	15.435	
5300	5120	5119	4770	24	27	-51.09	-1341	-565	671	628	42.68	15.714	
5350	5158	5156	4792	24	27	-51.43	-1326	-591	679	637	42.51	15.979	
5400	5193	5193	4813	24	27	-51.58	-1311	-617	687	645	42.37	16.219	
5450	5226	5230	4832	24	27	-51.63	-1294	-643	694	652	42.27	16.423	
5500	5255	5267	4850	24	27	-51.62	-1275	-669	701	659	42.25	16.585	
5550	5282	5300	4864	24	26	-51.60	-1258	-694	706	664	42.24	16.725	
5600	5305	5340	4879	24	26	-51.55	-1236	-723	711	669	42.48	16.747	
5650	5324	5376	4891	24	26	-51.53	-1214	-750	715	673	42.75	16.733	
5700	5340	5413	4901	24	26	-51.55	-1192	-777	719	675	43.15	16.654	
5750	5353	5450	4910	24	26	-51.61	-1168	-805	721	677	43.68	16.504	
5800	5361	5485	4916	25	26	-51.70	-1145	-831	722	678	44.32	16.300	
5850	5366	5522	4920	25	26	-51.86	-1121	-857	723	678	45.08	16.035	
5884	5367	5550	4922	25	26	-52.00	-1101	-878	723	677	45.70	15.816	
5900	5367	5558	4922	26	26	-52.03	-1095	-884	723	677	45.95	15.726	
5912	5367	5567	4923	26	26	-52.06	-1089	-890	723	676	46.17	15.652	
6000	5367	5650	4923	27	26	-52.11	-1030	-948	723	675	48.08	15.042	
6100	5368	5750	4923	28	27	-52.16	-960	-1019	724	674	50.33	14.384	
6200	5368	5850	4924	30	28	-52.20	-889	-1089	725	672	53.03	13.666	
6300	5368	5950	4924	32	30	-52.25	-818	-1159	725	670	55.85	12.988	
6400	5369	6050	4924	33	32	-52.29	-747	-1230	726	667	58.84	12.340	
6500	5369	6150	4925	35	34	-52.34	-676	-1300	727	665	61.98	11.729	
6600	5369	6250	4925	37	36	-52.39	-605	-1371	728	662	65.23	11.155	
6700	5369	6350	4925	39	38	-52.43	-534	-1441	728	660	68.60	10.619	
6800	5370	6450	4926	42	40	-52.48	-463	-1512	729	657	72.05	10.120	
6900	5370	6550	4926	44	43	-52.52	-392	-1582	730	654	75.59	9.656	
7000	5370	6650	4926	46	45	-52.57	-321	-1653	731	651	79.20	9.225	
7100	5371	6750	4927	48	47	-52.61	-250	-1723	731	649	82.87	8.826	
7200	5371	6850	4927	51	49	-52.66	-179	-1793	732	646	86.60	8.455	
7300	5371	6950	4927	53	52	-52.70	-108	-1864	733	643	90.38	8.110	
7400	5372	7050	4927	55	54	-52.75	-37	-1934	734	639	94.20	7.789	
7500	5372	7150	4928	58	56	-52.79	34	-2005	734	636	98.05	7.490	
7600	5372	7250	4928	60	59	-52.84	105	-2075	735	633	101.95	7.212	
7700	5372	7350	4928	62	61	-52.88	176	-2146	736	630	105.87	6.951	
7800	5373	7450	4929	65	64	-52.93	247	-2216	737	627	109.83	6.708	
7900	5373	7550	4929	67	66	-52.97	318	-2287	737	624	113.81	6.480	
8000	5373	7650	4929	70	68	-53.02	389	-2357	738	620	117.81	6.266	
8100	5374	7750	4930	72	71	-53.06	460	-2428	739	617	121.84	6.066	
8200	5374	7850	4930	75	73	-53.11	531	-2498	740	614	125.88	5.877	
8300	5374	7950	4930	77	76	-53.15	602	-2568	741	611	129.95	5.699	
8400	5375	8050	4930	80	78	-53.19	673	-2639	741	607	134.03	5.531	
8500	5375	8150	4931	82	81	-53.24	744	-2709	742	604	138.13	5.372	
8600	5375	8250	4931	84	83	-53.28	814	-2780	743	601	142.24	5.222	
8700	5375	8350	4931	87	86	-53.32	885	-2850	744	597	146.37	5.080	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 507H - Original Drilling - APD												Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM				Rule Assigned:								Offset Well Error: 0 ft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
8800	5376	8450	4932	89	88	-53.37	956	-2921	744	594	150.51	4.945	
8900	5376	8550	4932	92	91	-53.41	1027	-2991	745	590	154.67	4.817	
9000	5376	8650	4932	94	93	-53.45	1098	-3062	746	587	158.83	4.696	
9100	5377	8750	4933	97	96	-53.50	1169	-3132	747	584	163.01	4.580	
9200	5377	8850	4933	99	98	-53.54	1240	-3203	747	580	167.20	4.470	
9300	5377	8950	4933	102	101	-53.58	1311	-3273	748	577	171.40	4.365	
9400	5378	9050	4933	104	103	-53.63	1382	-3343	749	573	175.61	4.265	
9500	5378	9150	4934	107	106	-53.67	1453	-3414	750	570	179.82	4.169	
9600	5378	9250	4934	109	108	-53.71	1524	-3484	750	566	184.05	4.078	
9700	5378	9350	4934	112	111	-53.75	1595	-3555	751	563	188.29	3.990	
9800	5379	9450	4935	115	113	-53.80	1666	-3625	752	559	192.53	3.906	
9900	5379	9550	4935	117	116	-53.84	1737	-3696	753	556	196.78	3.825	
10,000	5379	9650	4935	120	119	-53.88	1808	-3766	754	553	201.04	3.748	
10,100	5380	9750	4935	122	121	-53.92	1879	-3837	754	549	205.31	3.674	
10,200	5380	9850	4936	125	124	-53.97	1950	-3907	755	546	209.58	3.603	
10,300	5380	9919	4936	127	125	-54.00	1999	-3956	756	543	213.60	3.542 SF	
10,400	5381	9919	4936	130	125	-54.00	1999	-3956	768	553	214.72	3.576	
10,500	5381	9919	4936	132	125	-54.00	1999	-3956	792	579	212.55	3.725	
10,600	5381	9919	4936	135	125	-54.00	1999	-3956	827	619	207.74	3.981	
10,700	5381	9919	4936	137	125	-54.00	1999	-3956	873	671	201.11	4.339	
10,800	5382	9919	4936	140	125	-54.00	1999	-3956	927	733	193.45	4.790	
10,867	5382	9919	4936	142	125	-54.00	1999	-3956	967	779	188.03	5.143	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	33.41	50	33	60					
100	100	100	100	0	0	33.41	50	33	60	60	0.31	194.788		
200	200	200	200	1	1	33.41	50	33	60	59	1.03	58.573		
300	300	300	300	1	1	33.41	50	33	60	58	1.74	34.469		
400	400	400	400	1	1	33.41	50	33	60	58	2.46	24.419		
450	450	450	450	1	1	33.41	50	33	60	57	2.82	21.313 CC		
500	500	500	500	2	2	-142.60	50	33	60	57	3.16	19.095 ES		
600	600	600	600	2	2	-141.33	48	36	63	59	3.83	16.391		
700	700	700	700	2	2	-139.06	43	42	68	63	4.52	14.980		
800	799	800	799	3	3	-136.21	37	50	75	70	5.23	14.390		
900	898	899	898	3	3	-133.86	28	60	86	80	5.97	14.337 SF		
1000	997	999	996	3	3	-133.41	20	70	98	92	6.72	14.623		
1100	1094	1097	1094	4	4	-134.27	12	79	113	106	7.49	15.141		
1200	1191	1196	1191	4	4	-135.94	4	89	131	123	8.27	15.841		
1239	1229	1233	1229	4	4	-136.72	1	93	138	130	8.58	16.150		
1300	1288	1294	1289	5	5	-138.04	-4	99	151	142	9.06	16.645		
1400	1384	1391	1386	5	5	-139.80	-12	109	171	161	9.85	17.355		
1500	1480	1489	1483	6	5	-141.18	-20	119	191	181	10.64	17.963		
1600	1576	1587	1580	6	6	-142.29	-28	129	212	200	11.44	18.488		
1700	1673	1685	1677	7	6	-143.21	-36	139	232	220	12.24	18.946		
1800	1769	1783	1774	7	6	-143.99	-44	149	252	239	13.04	19.347		
1900	1865	1881	1871	8	7	-144.64	-52	158	273	259	13.85	19.702		
2000	1961	1978	1968	8	7	-145.21	-60	168	293	279	14.66	20.017		
2100	2058	2076	2065	9	8	-145.70	-69	178	314	298	15.46	20.299		
2200	2154	2174	2162	9	8	-146.13	-77	188	334	318	16.27	20.553		
2300	2250	2272	2259	10	8	-146.51	-85	198	355	338	17.08	20.782		
2400	2346	2370	2356	10	9	-146.85	-93	208	376	358	17.90	20.991		
2500	2443	2468	2453	11	9	-147.15	-101	218	396	378	18.71	21.181		
2600	2539	2565	2550	11	10	-147.43	-109	227	417	397	19.52	21.355		
2700	2635	2663	2647	12	10	-147.67	-117	237	437	417	20.33	21.515		
2800	2731	2761	2744	12	10	-147.90	-125	247	458	437	21.15	21.662		
2900	2828	2859	2841	13	11	-148.11	-133	257	479	457	21.96	21.798		
3000	2924	2957	2938	13	11	-148.29	-141	267	499	477	22.78	21.924		
3100	3020	3055	3035	14	12	-148.47	-149	277	520	496	23.59	22.042		
3200	3116	3152	3132	14	12	-148.63	-157	287	541	516	24.41	22.151		
3300	3212	3250	3229	15	12	-148.78	-165	296	561	536	25.22	22.253		
3400	3309	3348	3326	15	13	-148.92	-173	306	582	556	26.04	22.349		
3500	3405	3446	3423	16	13	-149.05	-181	316	603	576	26.86	22.439		
3600	3501	3544	3520	17	14	-149.17	-189	326	623	596	27.67	22.523		
3700	3597	3642	3617	17	14	-149.28	-198	336	644	615	28.49	22.603		
3800	3694	3739	3714	18	14	-149.38	-206	346	665	635	29.31	22.677		
3900	3790	3837	3811	18	15	-149.48	-214	356	685	655	30.13	22.748		
4000	3886	3935	3908	19	15	-149.58	-222	365	706	675	30.94	22.815		
4100	3982	4033	4005	19	16	-149.66	-230	375	727	695	31.76	22.879		
4200	4079	4131	4102	20	16	-149.75	-238	385	747	715	32.58	22.939		
4300	4175	4229	4199	20	16	-149.83	-246	395	768	735	33.40	22.996		
4400	4271	4326	4296	21	17	-149.90	-254	405	789	754	34.22	23.050		
4500	4367	4426	4394	21	17	-149.97	-262	415	809	774	35.04	23.095		
4600	4464	4597	4558	22	18	-148.53	-293	448	825	789	36.54	22.589		
4700	4560	4752	4692	22	19	-144.77	-347	504	834	796	38.27	21.799		
4753	4611	4824	4747	23	20	-142.32	-379	538	837	798	39.29	21.314		
4800	4656	4878	4784	23	20	-152.42	-406	565	840	800	40.19	20.895		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
4850	4705	4925	4814	23	21	-169.50	-431	591	842	801	41.09	20.496	
4900	4754	4962	4836	23	21	168.22	-453	613	846	804	41.88	20.193	
4950	4803	4989	4851	23	21	147.53	-469	629	851	808	42.51	20.012	
5000	4852	5010	4861	24	22	132.65	-481	641	858	815	42.95	19.968	
5050	4900	5023	4868	24	22	122.60	-490	650	867	824	43.21	20.062	
5100	4947	5032	4872	24	22	115.40	-495	655	879	835	43.30	20.294	
5150	4993	5036	4874	24	22	109.77	-497	658	893	849	43.22	20.654	
5200	5037	5037	4874	24	22	104.96	-498	658	909	866	43.02	21.132	
5250	5080	5034	4873	24	22	100.60	-496	657	927	885	42.71	21.712	
5300	5120	5029	4871	24	22	96.46	-493	654	947	905	42.33	22.378	
5350	5158	5022	4867	24	22	92.45	-489	649	969	927	41.92	23.114	
5400	5193	5014	4863	24	22	88.53	-484	644	992	950	41.49	23.901	
5450	5226	5000	4856	24	21	84.49	-475	636	1015	974	40.99	24.766	
5500	5255	5000	4856	24	21	81.40	-475	636	1040	999	40.87	25.438	
5550	5282	4979	4846	24	21	77.35	-463	623	1064	1024	40.36	26.363	
5600	5305	4966	4838	24	21	73.91	-455	615	1089	1049	40.09	27.157	
5650	5324	4950	4829	24	21	70.57	-446	606	1113	1073	39.84	27.939	
5700	5340	4937	4822	24	21	67.62	-438	598	1137	1098	39.75	28.608	
5750	5353	4921	4812	24	21	64.81	-430	589	1161	1121	39.69	29.243	
5800	5361	4900	4799	25	20	62.07	-418	577	1183	1144	39.59	29.893	
5850	5366	4900	4799	25	20	60.30	-418	577	1205	1165	39.98	30.151	
5884	5367	4877	4784	25	20	58.52	-406	565	1219	1180	39.85	30.604	
5900	5367	4872	4781	26	20	58.36	-403	562	1226	1186	39.89	30.734	
6000	5367	4850	4766	27	20	57.69	-392	551	1270	1230	40.41	31.431	
6100	5368	4800	4729	28	19	56.13	-368	526	1319	1278	40.49	32.564	
6200	5368	4800	4729	30	19	56.13	-368	526	1371	1330	41.37	33.145	
6300	5368	4750	4691	32	19	54.52	-346	504	1428	1386	41.49	34.410	
6400	5369	4750	4691	33	19	54.52	-346	504	1488	1446	42.28	35.196	
6500	5369	4719	4666	35	19	53.51	-333	491	1552	1509	42.62	36.401	
6600	5369	4700	4650	37	19	52.87	-326	483	1618	1575	43.07	37.573	
6700	5369	4700	4650	39	19	52.87	-326	483	1688	1644	43.66	38.656	
6800	5370	4669	4623	42	18	51.84	-315	472	1759	1715	43.90	40.075	
6900	5370	4650	4606	44	18	51.22	-309	465	1833	1789	44.22	41.459	
7000	5370	4650	4606	46	18	51.22	-309	465	1910	1865	44.66	42.756	
7100	5371	4630	4588	48	18	50.54	-302	458	1987	1943	44.90	44.263	
7200	5371	4600	4561	51	18	49.57	-294	449	2067	2022	45.05	45.894	
7300	5371	4600	4561	53	18	49.57	-294	449	2148	2103	45.37	47.344	
7400	5372	4600	4561	55	18	49.57	-294	449	2231	2185	45.66	48.848	
7500	5372	4600	4561	58	18	49.57	-294	449	2314	2268	45.92	50.400	
7600	5372	4600	4561	60	18	49.57	-294	449	2399	2353	46.15	51.995	
7700	5372	4573	4536	62	18	48.68	-287	442	2485	2439	46.22	53.763	
7800	5373	4550	4515	65	18	47.94	-281	436	2572	2525	46.30	55.546	
7900	5373	4550	4515	67	18	47.94	-281	436	2659	2613	46.48	57.214	
8000	5373	4550	4515	70	18	47.94	-281	436	2747	2701	46.64	58.912	
8100	5374	4550	4515	72	18	47.94	-281	436	2836	2790	46.78	60.635	
8200	5374	4550	4515	75	18	47.94	-281	436	2926	2879	46.91	62.381	
8300	5374	4550	4515	77	18	47.94	-281	436	3017	2970	47.03	64.147	
8400	5375	4529	4495	80	18	47.27	-277	431	3107	3060	47.06	66.020	
8500	5375	4524	4490	82	18	47.11	-276	430	3198	3151	47.15	67.836	
8600	5375	4500	4467	84	17	46.36	-272	426	3291	3243	47.17	69.761	
8700	5375	4500	4467	87	17	46.36	-272	426	3383	3335	47.26	71.576	
8800	5376	4500	4467	89	17	46.36	-272	426	3475	3428	47.34	73.404	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 508H - Original Drilling - APD													Offset Site Error: 0 ft		
Survey Program: 0-MWD+HDGM													Offset Well Error: 0 ft		
Reference		Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned:				Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
8900	5376	4500	4467	92	17	46.36	-272	426	3568	3521	47.42	75.243			
9000	5376	4500	4467	94	17	46.36	-272	426	3661	3614	47.49	77.093			
9100	5377	4500	4467	97	17	46.36	-272	426	3755	3707	47.56	78.953			
9200	5377	4500	4467	99	17	46.36	-272	426	3849	3801	47.62	80.821			
9300	5377	4500	4467	102	17	46.36	-272	426	3943	3895	47.68	82.697			
9400	5378	4500	4467	104	17	46.36	-272	426	4038	3990	47.74	84.579			
9500	5378	4500	4467	107	17	46.36	-272	426	4132	4085	47.79	86.468			
9600	5378	4500	4467	109	17	46.36	-272	426	4227	4180	47.84	88.363			
9700	5378	4500	4467	112	17	46.36	-272	426	4323	4275	47.89	90.262			
9800	5379	4477	4444	115	17	45.63	-268	422	4418	4370	47.89	92.239			
9900	5379	4474	4442	117	17	45.55	-268	421	4513	4465	47.93	94.152			
10,000	5379	4450	4418	120	17	44.82	-265	418	4609	4561	47.93	96.158			
10,100	5380	4450	4418	122	17	44.82	-265	418	4705	4657	47.98	98.065			
10,200	5380	4450	4418	125	17	44.82	-265	418	4801	4753	48.02	99.974			
10,300	5380	4450	4418	127	17	44.82	-265	418	4897	4849	48.07	101.886			
10,400	5381	4450	4418	130	17	44.82	-265	418	4993	4945	48.11	103.799			
10,500	5381	4450	4418	132	17	44.82	-265	418	5090	5042	48.15	105.714			
10,600	5381	4450	4418	135	17	44.82	-265	418	5186	5138	48.19	107.630			
10,700	5381	4450	4418	137	17	44.82	-265	418	5283	5235	48.23	109.547			
10,800	5382	4450	4418	140	17	44.82	-265	418	5380	5332	48.27	111.465			
10,867	5382	4450	4418	142	17	44.82	-265	418	5445	5397	48.29	112.756			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S	+E/-W	Between Centres	Between Ellipses	(ft)			
0	0	0	0	0	0	33.37	33	22	40					
100	100	100	100	0	0	33.37	33	22	40	40	0.31	130.073		
200	200	200	200	1	1	33.37	33	22	40	39	1.03	39.113		
300	300	300	300	1	1	33.37	33	22	40	38	1.74	23.017		
400	400	400	400	1	1	33.37	33	22	40	38	2.46	16.307		
450	450	450	450	1	1	33.37	33	22	40	37	2.82	14.232 CC		
500	500	500	500	2	2	-142.65	33	22	40	37	3.16	12.725 ES		
600	600	601	601	2	2	-141.42	30	24	41	37	3.83	10.751		
700	700	702	701	2	2	-139.12	23	27	43	39	4.51	9.536		
800	799	802	802	3	3	-136.04	14	31	46	41	5.22	8.812		
900	898	902	901	3	3	-134.17	2	36	51	45	5.95	8.527		
1000	997	1002	1000	3	3	-135.12	-9	41	58	51	6.70	8.652		
1100	1094	1102	1098	4	4	-137.86	-20	47	68	60	7.45	9.083		
1200	1191	1201	1197	4	4	-141.45	-31	52	80	72	8.21	9.772		
1239	1229	1239	1234	4	4	-142.91	-36	54	86	77	8.51	10.098		
1300	1288	1299	1295	5	5	-145.11	-42	57	95	86	8.98	10.626		
1400	1384	1398	1392	5	5	-147.89	-54	62	111	101	9.74	11.400		
1500	1480	1497	1490	6	5	-149.98	-65	67	127	116	10.50	12.076		
1600	1576	1595	1588	6	6	-151.61	-76	72	143	131	11.27	12.669		
1700	1673	1694	1686	7	6	-152.91	-87	77	159	147	12.03	13.192		
1800	1769	1793	1784	7	6	-153.97	-98	82	175	162	12.80	13.654		
1900	1865	1891	1882	8	7	-154.86	-109	88	191	177	13.58	14.066		
2000	1961	1990	1980	8	7	-155.60	-121	93	207	193	14.35	14.435		
2100	2058	2089	2078	9	8	-156.24	-132	98	223	208	15.13	14.766		
2200	2154	2187	2176	9	8	-156.79	-143	103	240	224	15.90	15.066		
2300	2250	2286	2273	10	8	-157.27	-154	108	256	239	16.68	15.338		
2400	2346	2384	2371	10	9	-157.69	-165	113	272	255	17.46	15.586		
2500	2443	2483	2469	11	9	-158.07	-176	118	288	270	18.23	15.813		
2600	2539	2582	2567	11	10	-158.41	-188	123	305	286	19.01	16.021		
2700	2635	2680	2665	12	10	-158.71	-199	129	321	301	19.79	16.213		
2800	2731	2779	2763	12	10	-158.98	-210	134	337	317	20.57	16.390		
2900	2828	2878	2861	13	11	-159.23	-221	139	354	332	21.35	16.555		
3000	2924	2976	2959	13	11	-159.45	-232	144	370	348	22.14	16.707		
3100	3020	3075	3056	14	12	-159.66	-244	149	386	363	22.92	16.849		
3200	3116	3174	3154	14	12	-159.85	-255	154	402	379	23.70	16.982		
3300	3212	3272	3252	15	12	-160.02	-266	159	419	394	24.48	17.106		
3400	3309	3371	3350	15	13	-160.19	-277	164	435	410	25.26	17.223		
3500	3405	3470	3448	16	13	-160.34	-288	169	451	425	26.05	17.332		
3600	3501	3568	3546	17	14	-160.48	-299	175	468	441	26.83	17.435		
3700	3597	3667	3644	17	14	-160.61	-311	180	484	457	27.61	17.532		
3800	3694	3766	3742	18	14	-160.73	-322	185	500	472	28.40	17.624		
3900	3790	3864	3840	18	15	-160.84	-333	190	517	488	29.18	17.711		
4000	3886	3963	3937	19	15	-160.95	-344	195	533	503	29.96	17.793		
4100	3982	4062	4035	19	16	-161.05	-355	200	549	519	30.75	17.871		
4200	4079	4160	4133	20	16	-161.14	-366	205	566	534	31.53	17.945		
4300	4175	4257	4230	20	16	-161.23	-377	210	582	550	32.31	18.021		
4400	4271	4325	4297	21	17	-161.59	-382	211	601	568	32.80	18.330		
4500	4367	4388	4360	21	17	-162.44	-383	208	626	593	33.13	18.886		
4600	4464	4450	4421	22	17	-163.69	-379	200	655	622	33.31	19.678		
4700	4560	4500	4470	22	17	-164.96	-372	191	691	658	33.25	20.778		
4753	4611	4532	4500	23	17	-165.87	-366	183	712	679	33.25	21.416		
4800	4656	4550	4518	23	17	179.98	-363	179	731	698	33.09	22.090		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program:		0-MWD+HDGM						Rule Assigned:					Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Distance				Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)		Minimum Separation (ft)	Separation Factor	
4850	4705	4581	4547	23	17	158.56	-356	170	750	717	33.05	22.701		
4900	4754	4600	4564	23	17	132.79	-351	164	769	736	32.81	23.433		
4950	4803	4632	4593	23	17	109.10	-342	154	786	754	32.75	24.013		
5000	4852	4650	4609	24	17	92.21	-337	147	803	770	32.44	24.744		
5050	4900	4683	4637	24	17	80.75	-326	135	818	785	32.36	25.273		
5100	4947	4700	4651	24	17	73.02	-320	128	832	800	32.01	25.981		
5150	4993	4734	4679	24	18	67.43	-307	114	844	812	31.93	26.433		
5200	5037	4750	4692	24	18	63.37	-300	106	855	823	31.56	27.089		
5250	5080	4785	4719	24	18	60.27	-285	90	864	833	31.51	27.425		
5300	5120	4800	4731	24	18	57.91	-279	83	872	841	31.16	27.986		
5350	5158	4836	4756	24	18	56.11	-262	65	878	847	31.19	28.158		
5400	5193	4850	4766	24	18	54.71	-255	57	883	852	30.92	28.563		
5450	5226	4887	4791	24	18	53.74	-236	37	886	855	31.08	28.513		
5500	5255	4900	4799	24	18	52.97	-229	30	888	857	30.94	28.698		
5550	5282	4938	4822	24	18	52.63	-208	8	888	856	31.28	28.377		
5600	5305	4963	4836	24	18	52.46	-194	-8	886	854	31.53	28.098		
5650	5324	5000	4855	24	19	52.63	-172	-30	883	851	32.05	27.540		
5700	5340	5014	4863	24	19	52.80	-163	-39	878	845	32.38	27.110		
5750	5353	5050	4879	24	19	53.43	-141	-62	871	838	33.12	26.313		
5800	5361	5066	4885	25	19	54.01	-131	-72	864	830	33.73	25.605		
5850	5366	5100	4898	25	19	55.08	-109	-95	854	820	34.70	24.626		
5884	5367	5100	4898	25	19	55.52	-109	-95	847	812	35.13	24.120		
5900	5367	5117	4904	26	20	55.85	-98	-106	844	808	35.57	23.724		
6000	5367	5171	4920	27	20	56.70	-62	-143	826	788	37.73	21.888		
6100	5368	5226	4931	28	21	57.34	-23	-181	813	773	40.06	20.301		
6200	5368	5284	4938	30	21	57.72	17	-222	806	763	42.47	18.976		
6300	5368	5350	4940	32	22	57.80	64	-268	804	759	44.96	17.875		
6400	5369	5450	4940	33	24	57.78	135	-339	803	755	47.95	16.749		
6500	5369	5550	4941	35	26	57.75	207	-409	803	751	51.15	15.691		
6600	5369	5650	4941	37	28	57.73	278	-479	802	747	54.53	14.709		
6700	5369	5750	4941	39	30	57.70	349	-549	801	743	58.05	13.807		
6800	5370	5850	4941	42	32	57.67	420	-620	801	739	61.69	12.983		
6900	5370	5950	4942	44	34	57.65	491	-690	800	735	65.43	12.233		
7000	5370	6050	4942	46	36	57.62	562	-760	800	731	69.25	11.550		
7100	5371	6150	4942	48	38	57.59	634	-830	799	726	73.14	10.928		
7200	5371	6250	4943	51	41	57.57	705	-901	799	722	77.08	10.362		
7300	5371	6350	4943	53	43	57.54	776	-971	798	717	81.08	9.845		
7400	5372	6450	4943	55	45	57.52	847	-1041	798	713	85.11	9.372		
7500	5372	6550	4943	58	48	57.49	918	-1111	797	708	89.18	8.938		
7600	5372	6650	4944	60	50	57.46	989	-1182	797	703	93.28	8.539		
7700	5372	6750	4944	62	52	57.44	1061	-1252	796	699	97.40	8.172		
7800	5373	6850	4944	65	55	57.41	1132	-1322	795	694	101.54	7.833		
7900	5373	6950	4945	67	57	57.38	1203	-1392	795	689	105.71	7.519		
8000	5373	7050	4945	70	60	57.36	1274	-1463	794	684	109.89	7.228		
8100	5374	7150	4945	72	62	57.33	1345	-1533	794	680	114.09	6.958		
8200	5374	7250	4945	75	65	57.30	1416	-1603	793	675	118.29	6.705		
8300	5374	7350	4946	77	67	57.28	1488	-1673	793	670	122.51	6.470		
8400	5375	7450	4946	80	70	57.25	1559	-1743	792	665	126.74	6.250		
8500	5375	7550	4946	82	72	57.22	1630	-1814	792	661	130.98	6.043		
8600	5375	7650	4947	84	75	57.20	1701	-1884	791	656	135.23	5.850		
8700	5375	7750	4947	87	77	57.17	1772	-1954	790	651	139.48	5.667		
8800	5376	7850	4947	89	80	57.14	1843	-2024	790	646	143.74	5.496		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design: O11 2206 Pad - # 509H - Original Drilling - APD												Offset Site Error: 0 ft			
Survey Program: 0-MWD+HDGM												Offset Well Error: 0 ft			
Offset				Semi Major Axis		Offset Wellbore Centre				Rule Assigned: Distance				Warning	
Measured	Reference	Vertical	Offset	Measured	Offset	Highside				Between	Between	Minimum	Separation		
Depth		Depth	Depth	Depth		Toolface	+N/-S	+E/-W		Centres	Ellipses	Separation	Factor		
(ft)		(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)		(ft)	(ft)	(ft)			
8900		5376		7950		4948	92	82	57.12	1914	-2095	789	641	148.00	5.334
9000		5376		8050		4948	94	85	57.09	1986	-2165	789	637	152.27	5.181
9100		5377		8150		4948	97	87	57.06	2057	-2235	788	632	156.54	5.036
9200		5377		8250		4948	99	90	57.04	2128	-2305	788	627	160.81	4.899
9300		5377		8350		4949	102	92	57.01	2199	-2376	787	622	165.09	4.768
9400		5378		8450		4949	104	95	56.98	2270	-2446	787	617	169.37	4.645
9500		5378		8550		4949	107	97	56.96	2341	-2516	786	612	173.65	4.527
9600		5378		8650		4950	109	100	56.93	2413	-2586	786	608	177.93	4.415
9700		5378		8750		4950	112	102	56.90	2484	-2657	785	603	182.22	4.308
9800		5379		8850		4950	115	105	56.87	2555	-2727	784	598	186.51	4.206
9900		5379		8950		4950	117	108	56.85	2626	-2797	784	593	190.79	4.109
10,000		5379		9050		4951	120	110	56.82	2697	-2867	783	588	195.08	4.016
10,100		5380		9150		4951	122	113	56.79	2768	-2938	783	583	199.37	3.927
10,200		5380		9250		4951	125	115	56.76	2840	-3008	782	579	203.66	3.841
10,300		5380		9350		4952	127	118	56.74	2911	-3078	782	574	207.94	3.759
10,400		5381		9450		4952	130	120	56.71	2982	-3148	781	569	212.23	3.681
10,500		5381		9550		4952	132	123	56.68	3053	-3219	781	564	216.52	3.605
10,600		5381		9650		4952	135	125	56.65	3124	-3289	780	559	220.81	3.533
10,700		5381		9750		4953	137	128	56.63	3195	-3359	780	554	225.10	3.463
10,800		5382		9850		4953	140	131	56.60	3267	-3429	779	550	229.38	3.396
10,867		5382		9917		4953	142	132	56.58	3315	-3477	779	546	232.27	3.352 SF



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 7075' & RKB 14' @ 7089ft

Offset Depths are relative to Offset Datum

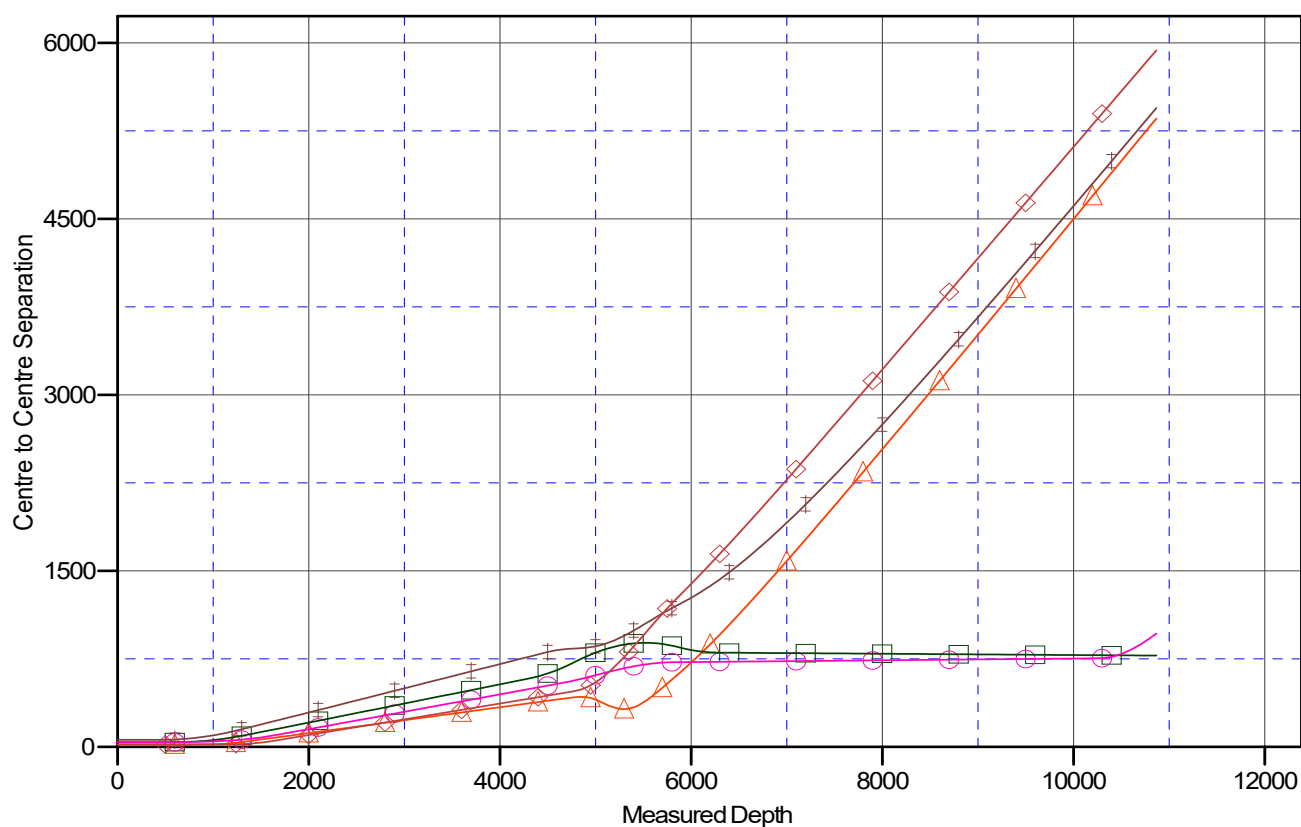
Central Meridian is -107.8333333

Coordinates are relative to: # 504H - Slot 3

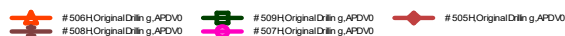
Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.24°

Ladder Plot



LEGEND





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 504H - Slot 3
Project:	Venado Canyon Unit	TVD Reference:	GL 7075' & RKB 14' @ 7089ft
Reference Site:	O11 2206 Pad	MD Reference:	GL 7075' & RKB 14' @ 7089ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 7075' & RKB 14' @ 7089ft

Offset Depths are relative to Offset Datum

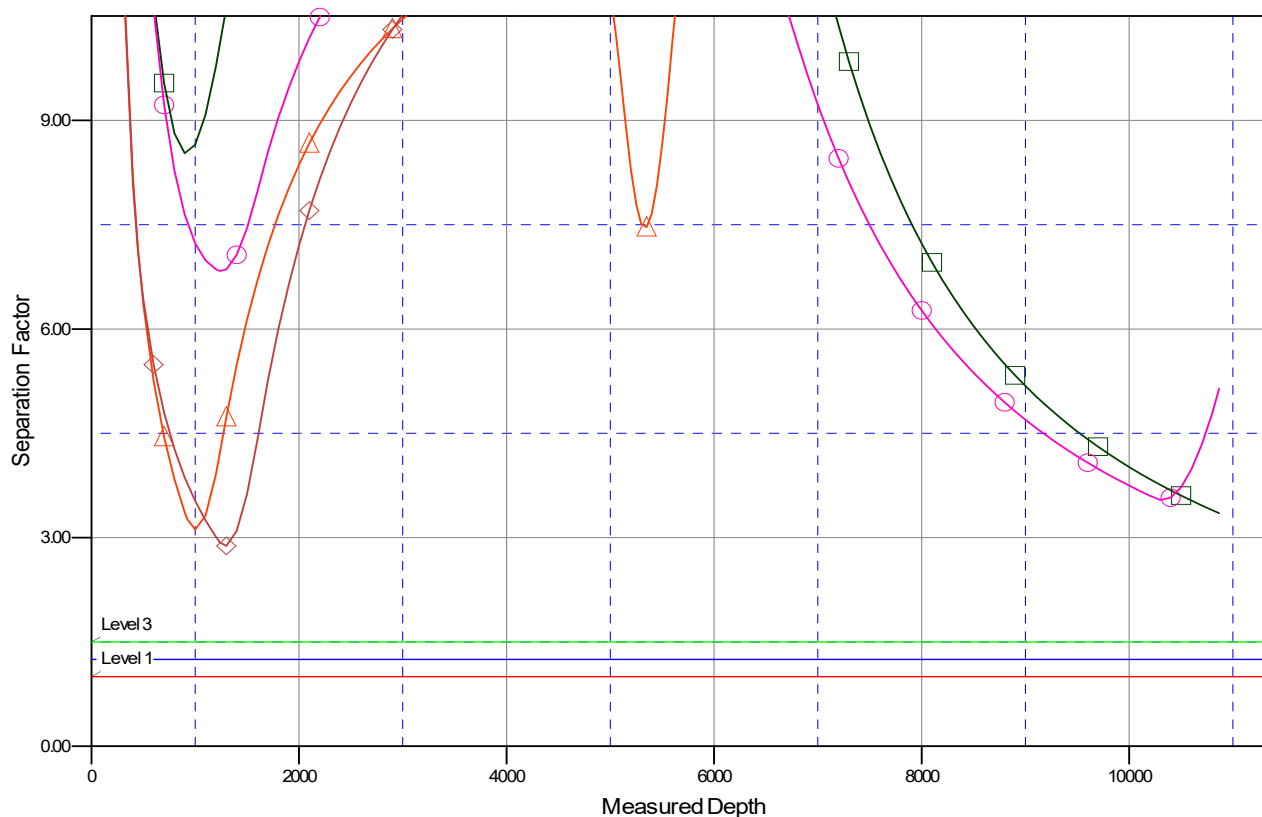
Central Meridian is -107.8333333

Coordinates are relative to: # 504H - Slot 3

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

Grid Convergence at Surface is: 0.24°

Separation Factor Plot



LEGEND

506H Original Drilling, APDVO
 # 507H Original Drilling, APDVO
 # 505H Original Drilling, APDVO

Conditions Of Approval

Air Resources

- Areas not required for facilities would be revegetated during interim reclamation.
- Dirt roads would be watered during periods of high use (magnesium chloride, organic-based compounds, and/or polymer compounds could also be used on dirt roads upon approval of the BLM).
- BMPs provided in The Gold Book would be implemented for proposed and existing roads (BLM and U.S. Forest Service 2007).
- Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NO_x at 2 grams per horsepower hour or less to comply with the NMED Air Quality Bureau's guidance.

Water Resources

- To prevent erosion, certain areas surrounding the proposed site would be recontoured during interim reclamation.
- Culverts and silt traps would be installed as appropriate, and placement will be determined during the BLM onsite and facility onsite.

Wildlife, Migratory Birds, and Special-Status Species

- Any wildlife encountered within the proposed project area would be avoided and allowed to move out of the proposed project area. No wildlife would be intentionally harmed or harassed.
- Wildlife hazards, such as storage tanks, associated with the proposed project would be fenced or covered, as necessary.
- Because the proposed project would disturb more than 4.0 acres of vegetation, migratory breeding bird nesting surveys would be required if construction activities are scheduled to occur during the migratory bird nesting season (May 15 – July 31). If an active nest is encountered, it would be avoided (avoidance buffer to be determined by BLM FFO) and left undisturbed until the nest has failed, or nestlings have fledged. If present, an inactive nest could be cleared by a BLM FFO-approved wildlife biologist.
- DJR would notify the BLM and U.S. Fish and Wildlife Service (USFWS) upon discovery of a dead or injured migratory bird, bald eagle, or golden eagle within or adjacent to the proposed project area. If the BLM becomes aware of such mortality or injury, the BLM will inform DJR. If DJR fails to notify the USFWS of the mortality or injury, the BLM would notify the USFWS. The BLM and the USFWS would then attempt to determine the cause of mortality and identify appropriate mitigation measures to avoid future occurrences.
- Should other special-status species be observed within the proposed project area prior to or during the proposed project, construction would cease, and the BLM FFO would be immediately contacted. The BLM FFO would then evaluate the resource. Should a discovery be evaluated as significant (protected under the Endangered Species Act, etc.), it would be protected in place until mitigation could be developed and implemented according to guidelines set by the BLM FFO.
- Per BLM FFO Instruction Memorandum No. NM-200-2008-001 (BLM 2008b), an updated pre-construction biological survey could be required for the proposed project if vegetation removal would occur more than 1 year following the previous biological survey.

Soil, Upland Vegetation, and Noxious Weeds and Invasive Species

- Reclamation would follow the guidance provided in the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013). These procedures are referenced in DJR's Surface Reclamation Plan.
- During the pre-disturbance onsite meeting with the BLM, a suitable vegetation community from the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013) will be selected by the BLM. Plant species will be chosen from the BLM FFO's seed pick list for the selected community.
- A noxious weed inventory utilizing the New Mexico Noxious Weed List (New Mexico Department of Agriculture 2009) and the U.S. Department of Agriculture's (USDA's) Federal Noxious Weed List (Natural Resources Conservation Service 2017 USDA 2010, 2012) will be conducted during the pre-disturbance onsite meeting.
- Identified noxious weeds would be treated prior to new surface disturbance as determined by the BLM FFO Noxious Weed Specialist (505-564-7600). A Pesticide Use Proposal (PUP) would be submitted to and approved by the BLM FFO Noxious Weed Specialist prior to application of any pesticide.
- See the above water resources section for erosion-control features.

Cultural Resources

- All cultural resources stipulations would be followed as indicated in the BLM Cultural Resource Records of Review and the Conditions of Approvals. These stipulations may include, but are not limited to, temporary or permanent fencing or other physical barriers, monitoring of earth-disturbing construction, project area reduction and/or specific construction avoidance zones, and employee education.
- All employees, contractors, and subcontractors would be informed by the project proponent that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment, that it is illegal to collect, damage, or disturb cultural resources, and that such activities on federal and tribal lands are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (ARPA) (16 USC 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on State land.
- In the event of a cultural resource's discovery during construction, construction activities would immediately cease in the immediate vicinity of the discovery, and DJR would immediately notify the archaeological monitor, if present, or the BLM. The BLM would then ensure that the site is evaluated. Should a discovery be evaluated as significant (e.g., National Register of Historic Places, Native American Graves Protection and Repatriation Act of 1990, ARPA), it would be protected in place until mitigating measures can be developed and implemented according to guidelines set by the BLM.
- Known sites and sites identified during the pre-construction cultural resources inventory surveys would be avoided.
- Please see the attached Culture Resources Record of Review for additional site-specific cultural resource requirements.

Paleontological Resources

If any paleontological resources are discovered during activities associated with the proposed project:

- DJR would immediately inform the BLM Authorized Officer.

- Activities in the vicinity of the discovery would be immediately suspended until written authorization to proceed is issued by the BLM Authorized Officer.
- The discovery would be protected from damage or looting.
- The Authorized Officer would ensure evaluation of the discovery as soon as possible.
- Appropriate measures to mitigate adverse effects to significant paleontological resources would be determined by the Authorized Officer after consulting with the operator.

Visual Resources and Dark Skies

- Equipment not subject to safety requirements would be painted a BLM Standard Environmental Color (Covert Green) to minimize contrast with the surrounding landscape.
- If applicable, during reclamation, stockpiled rocks, if available, would be placed within the reclaimed area for erosion control and/or to discourage off-highway vehicle traffic (if requested by the BLM FFO). Rocks would be placed in a manner that visually blends with the adjacent, undisturbed landscape.
- Lights would be limited to those needed for safety during construction and operations.
- Lighting would be downward-facing or shielded where possible.

Livestock Grazing and Rangeland Health Standards

- Livestock grazing operators in the vicinity of the proposed project area would be contacted prior to construction.
- Safety meetings would be conducted prior to construction to increase awareness of livestock, such as the presence of open range and driving speed to avoid livestock collisions.
- To the extent feasible, construction activities would not be conducted when livestock are present within the proposed project area.
- If livestock are present during construction, barriers would be placed to ensure that livestock do not come in contact with potential hazards. Barrier examples could include fencing of exposed ditch-type holes, covering of holes when personnel are not present onsite, and containing contaminants, fluid leaks, or hazards that could cause injury to livestock.

Public Health and Safety

- The hauling of equipment and materials on public roads would comply with New Mexico Department of Transportation regulations. Any accidents involving persons or property would be reported to the BLM FFO. DJR would notify the public of potential hazards by posting signage, having flaggers, or using lighted signs, as necessary.
- Worker safety incidents would be reported to the BLM FFO as required under NTL-3A (U.S. Geological Survey 1979). DJR would adhere to company safety policies and Occupational Safety and Health Administration regulations.
- Vehicles would be restricted to proposed and existing disturbance areas.
- The proposed site would have an informational sign, delineating Operator, Legal Description, etc.
- DJR traffic is expected to adhere to all posted speed limits and signs. Drivers would be appropriately licensed and inspected.

Lay-Flat Water Pipeline BMPs

- Time construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., buried pipelines, culverts) to avoid high-flow conditions. When construction disturbs a flowing stream, utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.
- Design and construct surface pipelines at drainage crossings at an adequate height above possible flood levels. Bore/bury pipeline crossings below the surface deep enough to remain undisturbed by scour and fill processes typically associated with peak flows. Complete a hydraulic analysis during the pipeline design phase to avoid repeated maintenance of such a crossing and eliminate costly repairs and potential environmental degradation associated with pipeline breaks at stream crossings. Utilize horizontal directional boring techniques below perennial water bodies and/or wetland complexes when environmental circumstances allow.
- X-ray pipeline welds within 100 feet of a perennial stream to prevent leakage into the stream. Where pipelines cross streams that support federally listed or state-listed threatened or endangered species or BLM-listed sensitive species, utilize additional safeguards (such as double-walled pipe and remotely actuated block or check valves) on both sides of the stream.
- Avoid water courses when locating pipelines and flowlines; utilize road corridors wherever possible to minimize surface disturbance and provide better leak detection and access for installation and repair activities.
- Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an un-reclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.
- To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Cleared trees and rocks may be salvaged for redistribution over reshaped cut-and-fill slopes or along linear features.

Sundry Design Features submitted 1/22/22

Emissions

- Equip internal combustion engines for production operations with ignition controls to reduce emissions.
- Leak detection and repair (LDAR) will be conducted quarterly during production operation.
- Weekly audio, visual and olfactory (AVO) inspections will be conducted at each pad during production operations consistent with the requirements of the New Mexico Oil Conservation Division.
- Install instrumentation to reduce emissions from pneumatic controllers and pumps during production operations.

Noise

- Sound reduction walls will be installed for internal combustion engines used for gas lift compression.
- Hospital grade mufflers will be installed in association with gas lift compression.
- Sound readings will be conducted to confirm sound mitigation measures are below the standard of 48.6 dB(A) at a receptor designated by the Authorized Officer of the BLM.

Roads

- In coordination with Sandoval County, DJR will maintain the condition of Indian Service Road 474 in the same or better condition for that portion of the road which accesses the Venda Canyon Unit well pads.

Additional Site-Specific Cultural Mitigation Measures

A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that a site protection barrier is located as indicated on the attached map in the vicinity of LA199269.
- Observe all surface disturbing activities within 100' of LA199268, & LA199269.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

SITE PROTECTION BARRIER:

- The temporary site protection barrier will be erected prior to construction. The barrier will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barrier will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barrier will be placed as indicated on the attached map.
- There will be no surface-disturbing activities or vehicle traffic past the barrier.



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
#504H VENADO CANYON UNIT
Lease: NMNM109385
SH: SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 11, T.22 N., R.6W.
Sandoval County, New Mexico
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 10, T.22 N., R6 W.
Sandoval 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.
- 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.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

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.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- 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
Joe Killins (505) 564-7736

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 85314

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 85314
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	3/7/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/7/2022
kpickford	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	3/7/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2022
kpickford	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	3/7/2022