

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. 30-045-38320	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	
16. No of acres in lease		17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file		21. Elevations (Show whether DF, KDB, RT, GL, etc.)	
22. Approximate date work will start*		23. Estimated duration	
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Date	
Office		Date	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 08/18/2023

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

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-38320	² Pool Code 5860	³ Pool Name BISTI, S-GALLUP (O)
⁴ Property Code 334695	⁵ Property Name PONDEROSA	⁶ Well Number 120H
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC	⁹ Elevation 6801

¹⁰ Surface Location

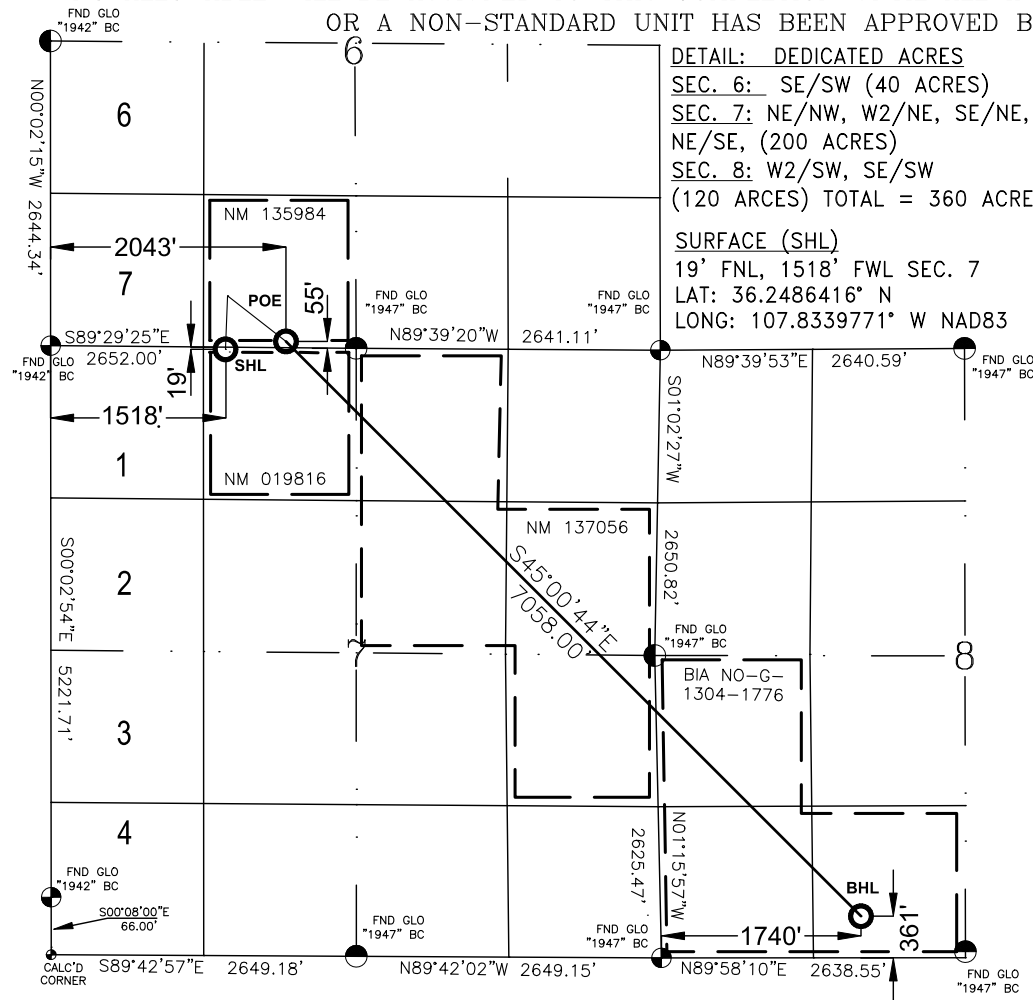
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	7	23-N	9-W		19	NORTH	1518	WEST	SAN JUAN

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
N	8	23-N	9-W		361	SOUTH	1740	WEST	SAN JUAN

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



DETAIL: DEDICATED ACRES

SEC. 6: SE/SW (40 ACRES)

SEC. 7: NE/NW, W2/NE, SE/NE,
NE/SE, (200 ACRES)

SEC. 8: W2/SW, SE/SW

(120 ACRES) TOTAL = 360 ACRES

SURFACE (SHL)

19' FNL, 1518' FWL SEC. 7

LAT: 36.2486416° N

LONG: 107.8339771° 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 03/18/22

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.

NOVEMBER 10, 2021

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

POINT OF ENTRY (POE)

55' FSL, 2043' FWL SEC. 6

LAT: 36.2488325° N

LONG: 107.8321976° W NAD83

BOTTOM HOLE (BHL)

361' FSL, 1740' FWL SEC. 8

LAT: 36.2351506° N

LONG: 107.8152523° W NAD83

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: DJR Operating, LLC **OGRID:** 371838 **Date:** 09 / 06 / 2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Ponderosa 114H	TBD	C-07-23N-09W	30 FNL x 1534 FWL	383	488	136
Ponderosa 115H	TBD	N-06-23N-09W	4 FSL x 1485 FWL	407	519	145
Ponderosa 116H	TBD	C-07-23N-09W	7 FNL x 1502 FWL	420	535	149
Ponderosa 120H	TBD	C-07-23N-09W	19 FNL x 1518 FWL	371	472	132
Ponderosa 136H	TBD	C-07-23N-09W	41 FNL x 1550 FWL	337	430	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
Ponderosa 114H	TBD	07/01/2024	07/08/2024	08/15/2024	08/25/2024	08/27/2024
Ponderosa 115H	TBD	07/08/2024	07/15/2024	08/15/2024	08/27/2024	08/29/2024
Ponderosa 116H	TBD	07/15/2024	07/22/2024	08/15/2024	08/28/2024	08/30/2024
Ponderosa 120H	TBD	07/22/2024	07/29/2024	08/15/2024	08/29/2024	09/01/2024
Ponderosa 136H	TBD	07/29/2024	08/06/2024	08/15/2024	08/30/2024	09/02/2024

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrlc.com
Date: 09/06/2023
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
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

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
Ponderosa 114H, 115H, 116H, 120H and 136H
NENW C-07-23N-09W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

Rev 0



DRILLING PLAN

Ponderosa #120H

San Juan County, New Mexico

Surface Location

1518-ft FWL & 19-ft FNL
 Sec 7 T23 R9
 Graded Elevation 6801' MSL
 RKB Elevation 6815' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2486416° N
 Longitude 107.8339771° W

Kick Off Point for Horizontal Build Curve

3764-ft MD
 3730-ft TVD

Local Coordinates (from SHL)

464-ft North
 18-ft East

Heel Location (Pay zone entry)

2043-ft FWL & 55-ft FSL
 Sec 6 T23 R9

Heel Geographical Coordinates (NAD-83)

Latitude 36.2488325° N
 Longitude 107.83219760° W

Bottom Hole Location (TD)

1740-ft FWL & 361-ft FSL
 Sec 8 T23 R9

BHL Geographical Coordinates (NAD-83)

Latitude 36.2351506° N
 Longitude 107.8152523° W

Well objectives

This well is planned as a 7050-ft lateral in the Mancos Silt sand.

Bottom Hole temperature and pressure

The temperature in the Mancos Silt horizontal objective is 129°F. Bottom hole pressure in the Mancos Silt 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	422	422	Sd	W	8.3	8.4 – 8.8
Kirtland	530	530	Sh	-	8.3	8.4 – 8.8
Fruitland	917	915	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1172	1167	Sd	W	8.3	9.0 - 9.5
Lewis	1338	1331	Sh	-		9.0 - 9.5
Chacra	1975	1961	Sd	-	8.3	9.0 - 9.5
Menefee	2605	2584	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3624	3591	Sd	-	8.3	9.0 - 9.5
Mancos	3779	3745	Sh	-		9.0 - 9.5
Mancos Silt	4094	4050	Slt	O/G	6.6	9.0 - 9.5
Gallup A	NP	NP	Slt	O/G	6.6	9.0 - 9.5
Gallup B	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 - 9.0
Target	4833	4427	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	4773	surf	4425	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	4493	11888	4341	4381	4493

Note: all casing will be new

Rev 0



Casing Design Load Cases

		Casing String		
Description		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

		Design Factors			
Casing string	Casing OD	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	3264-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	315	241
Volume (bbls)	131	64
Volume (cu.ft.)	737	361
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	4493-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	621
Volume (bbls)	173
Volume (cu.ft)	971
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 – 4773	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	4773 – 11888	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

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

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

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

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

Cuttings and drilling fluids management

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

Completion

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



DJR Operating

Ponderosa Unit

C07 2309

120H - Slot 3

Original Drilling

Plan: APD

Standard Planning Report

30 August, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 120H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 120H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Ponderosa 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	C07 2309				
Site Position:		Northing:	1,909,781.02 usft	Latitude:	36.24857840
From:	Lat/Long	Easting:	2,722,934.49 usft	Longitude:	-107.83386640
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.00

Well	# 120H - Slot 3					
Well Position	+N/-S	23 ft	Northing:	1,909,804.03 usft	Latitude:	36.2486416
	+E/-W	-33 ft	Easting:	2,722,901.85 usft	Longitude:	-107.8339771
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6801

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.02	63.07	50.613.71728657

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	131.65

Plan Survey Tool Program			Date	7/26/2021	
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0	11,888	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	
881	8.62	2.22	879	32	1	2.00	2.00	0.00	2.22	
3764	8.62	2.22	3730	464	18	0.00	0.00	0.00	0.00	
4833	90.37	134.90	4427	69	525	9.00	7.65	12.41	132.31	Ponderosa 120H Hee
11,888	90.37	134.90	4381	-4911	5522	0.00	0.00	0.00	0.00	Ponderosa 120H Toe



Lonestar Consulting, LLC

Planning Report



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Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 120H	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	2.22	500	0	0	0	2.00	2.00	0.00
600	3.00	2.22	600	4	0	-2	2.00	2.00	0.00
700	5.00	2.22	700	11	0	-7	2.00	2.00	0.00
800	7.00	2.22	799	21	1	-14	2.00	2.00	0.00
881	8.62	2.22	879	32	1	-21	2.00	2.00	0.00
900	8.62	2.22	898	35	1	-22	0.00	0.00	0.00
1000	8.62	2.22	997	50	2	-32	0.00	0.00	0.00
1100	8.62	2.22	1096	65	3	-41	0.00	0.00	0.00
1200	8.62	2.22	1195	80	3	-51	0.00	0.00	0.00
1300	8.62	2.22	1294	95	4	-60	0.00	0.00	0.00
1400	8.62	2.22	1393	110	4	-70	0.00	0.00	0.00
1500	8.62	2.22	1491	125	5	-79	0.00	0.00	0.00
1600	8.62	2.22	1590	140	5	-89	0.00	0.00	0.00
1700	8.62	2.22	1689	155	6	-98	0.00	0.00	0.00
1800	8.62	2.22	1788	170	7	-108	0.00	0.00	0.00
1900	8.62	2.22	1887	185	7	-118	0.00	0.00	0.00
2000	8.62	2.22	1986	200	8	-127	0.00	0.00	0.00
2100	8.62	2.22	2085	215	8	-137	0.00	0.00	0.00
2200	8.62	2.22	2183	230	9	-146	0.00	0.00	0.00
2300	8.62	2.22	2282	245	9	-156	0.00	0.00	0.00
2400	8.62	2.22	2381	260	10	-165	0.00	0.00	0.00
2500	8.62	2.22	2480	275	11	-175	0.00	0.00	0.00
2600	8.62	2.22	2579	290	11	-184	0.00	0.00	0.00
2700	8.62	2.22	2678	305	12	-194	0.00	0.00	0.00
2800	8.62	2.22	2777	320	12	-203	0.00	0.00	0.00
2900	8.62	2.22	2876	335	13	-213	0.00	0.00	0.00
3000	8.62	2.22	2974	350	14	-222	0.00	0.00	0.00
3100	8.62	2.22	3073	365	14	-232	0.00	0.00	0.00
3200	8.62	2.22	3172	380	15	-241	0.00	0.00	0.00
3300	8.62	2.22	3271	395	15	-251	0.00	0.00	0.00
3400	8.62	2.22	3370	410	16	-260	0.00	0.00	0.00
3500	8.62	2.22	3469	425	16	-270	0.00	0.00	0.00
3600	8.62	2.22	3568	439	17	-279	0.00	0.00	0.00
3700	8.62	2.22	3667	454	18	-289	0.00	0.00	0.00
3764	8.62	2.22	3730	464	18	-295	0.00	0.00	0.00
3800	6.88	22.49	3765	469	19	-297	9.00	-4.88	56.74
3900	9.01	90.16	3865	474	29	-293	9.00	2.13	67.67
4000	16.62	112.93	3962	469	50	-274	9.00	7.62	22.77
4100	25.16	121.12	4056	452	82	-239	9.00	8.53	8.20
4200	33.92	125.31	4143	425	123	-191	9.00	8.76	4.19
4300	42.77	127.94	4221	388	172	-129	9.00	8.85	2.62
4400	51.67	129.80	4289	342	229	-56	9.00	8.90	1.86
4500	60.59	131.25	4344	288	292	27	9.00	8.92	1.45
4600	69.52	132.47	4387	227	360	118	9.00	8.93	1.22
4700	78.46	133.55	4414	162	430	214	9.00	8.94	1.08
4800	87.40	134.57	4426	93	501	313	9.00	8.94	1.01
4833	90.37	134.90	4427	69	525	346	9.00	8.94	1.00
4900	90.37	134.90	4427	22	572	413	0.00	0.00	0.00



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Planning Report



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Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 120H	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)
5000	90.37	134.90	4426	-48	643	512	0.00	0.00	0.00
5100	90.37	134.90	4425	-119	714	612	0.00	0.00	0.00
5200	90.37	134.90	4425	-189	785	712	0.00	0.00	0.00
5300	90.37	134.90	4424	-260	855	812	0.00	0.00	0.00
5400	90.37	134.90	4423	-331	926	912	0.00	0.00	0.00
5500	90.37	134.90	4423	-401	997	1012	0.00	0.00	0.00
5600	90.37	134.90	4422	-472	1068	1111	0.00	0.00	0.00
5700	90.37	134.90	4421	-542	1139	1211	0.00	0.00	0.00
5800	90.37	134.90	4421	-613	1210	1311	0.00	0.00	0.00
5900	90.37	134.90	4420	-684	1280	1411	0.00	0.00	0.00
6000	90.37	134.90	4419	-754	1351	1511	0.00	0.00	0.00
6100	90.37	134.90	4419	-825	1422	1611	0.00	0.00	0.00
6200	90.37	134.90	4418	-895	1493	1710	0.00	0.00	0.00
6300	90.37	134.90	4417	-966	1564	1810	0.00	0.00	0.00
6400	90.37	134.90	4417	-1036	1635	1910	0.00	0.00	0.00
6500	90.37	134.90	4416	-1107	1705	2010	0.00	0.00	0.00
6600	90.37	134.90	4415	-1178	1776	2110	0.00	0.00	0.00
6700	90.37	134.90	4415	-1248	1847	2210	0.00	0.00	0.00
6800	90.37	134.90	4414	-1319	1918	2310	0.00	0.00	0.00
6900	90.37	134.90	4414	-1389	1989	2409	0.00	0.00	0.00
7000	90.37	134.90	4413	-1460	2059	2509	0.00	0.00	0.00
7100	90.37	134.90	4412	-1531	2130	2609	0.00	0.00	0.00
7200	90.37	134.90	4412	-1601	2201	2709	0.00	0.00	0.00
7300	90.37	134.90	4411	-1672	2272	2809	0.00	0.00	0.00
7400	90.37	134.90	4410	-1742	2343	2909	0.00	0.00	0.00
7500	90.37	134.90	4410	-1813	2414	3008	0.00	0.00	0.00
7600	90.37	134.90	4409	-1883	2484	3108	0.00	0.00	0.00
7700	90.37	134.90	4408	-1954	2555	3208	0.00	0.00	0.00
7800	90.37	134.90	4408	-2025	2626	3308	0.00	0.00	0.00
7900	90.37	134.90	4407	-2095	2697	3408	0.00	0.00	0.00
8000	90.37	134.90	4406	-2166	2768	3508	0.00	0.00	0.00
8100	90.37	134.90	4406	-2236	2839	3607	0.00	0.00	0.00
8200	90.37	134.90	4405	-2307	2909	3707	0.00	0.00	0.00
8300	90.37	134.90	4404	-2378	2980	3807	0.00	0.00	0.00
8400	90.37	134.90	4404	-2448	3051	3907	0.00	0.00	0.00
8500	90.37	134.90	4403	-2519	3122	4007	0.00	0.00	0.00
8600	90.37	134.90	4402	-2589	3193	4107	0.00	0.00	0.00
8700	90.37	134.90	4402	-2660	3264	4206	0.00	0.00	0.00
8800	90.37	134.90	4401	-2731	3334	4306	0.00	0.00	0.00
8900	90.37	134.90	4400	-2801	3405	4406	0.00	0.00	0.00
9000	90.37	134.90	4400	-2872	3476	4506	0.00	0.00	0.00
9100	90.37	134.90	4399	-2942	3547	4606	0.00	0.00	0.00
9200	90.37	134.90	4399	-3013	3618	4706	0.00	0.00	0.00
9300	90.37	134.90	4398	-3083	3689	4805	0.00	0.00	0.00
9400	90.37	134.90	4397	-3154	3759	4905	0.00	0.00	0.00
9500	90.37	134.90	4397	-3225	3830	5005	0.00	0.00	0.00
9600	90.37	134.90	4396	-3295	3901	5105	0.00	0.00	0.00
9700	90.37	134.90	4395	-3366	3972	5205	0.00	0.00	0.00
9800	90.37	134.90	4395	-3436	4043	5305	0.00	0.00	0.00
9900	90.37	134.90	4394	-3507	4114	5404	0.00	0.00	0.00
10,000	90.37	134.90	4393	-3578	4184	5504	0.00	0.00	0.00
10,100	90.37	134.90	4393	-3648	4255	5604	0.00	0.00	0.00
10,200	90.37	134.90	4392	-3719	4326	5704	0.00	0.00	0.00
10,300	90.37	134.90	4391	-3789	4397	5804	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 120H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 120H	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	90.37	134.90	4391	-3860	4468	5904	0.00	0.00	0.00	
10,500	90.37	134.90	4390	-3930	4539	6003	0.00	0.00	0.00	
10,600	90.37	134.90	4389	-4001	4609	6103	0.00	0.00	0.00	
10,700	90.37	134.90	4389	-4072	4680	6203	0.00	0.00	0.00	
10,800	90.37	134.90	4388	-4142	4751	6303	0.00	0.00	0.00	
10,900	90.37	134.90	4387	-4213	4822	6403	0.00	0.00	0.00	
11,000	90.37	134.90	4387	-4283	4893	6503	0.00	0.00	0.00	
11,100	90.37	134.90	4386	-4354	4964	6602	0.00	0.00	0.00	
11,200	90.37	134.90	4385	-4425	5034	6702	0.00	0.00	0.00	
11,300	90.37	134.90	4385	-4495	5105	6802	0.00	0.00	0.00	
11,400	90.37	134.90	4384	-4566	5176	6902	0.00	0.00	0.00	
11,500	90.37	134.90	4384	-4636	5247	7002	0.00	0.00	0.00	
11,600	90.37	134.90	4383	-4707	5318	7102	0.00	0.00	0.00	
11,700	90.37	134.90	4382	-4777	5389	7201	0.00	0.00	0.00	
11,800	90.37	134.90	4382	-4848	5459	7301	0.00	0.00	0.00	
11,888	90.37	134.90	4381	-4911	5522	7390	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		
- hit/miss target										
- Shape								Longitude		
Ponderosa 120H Toe	0.00	0.00	4381	-4911	5522	1,904,893.50	2,728,423.89	36.23515060		
- plan hits target center										
- Circle (radius 100)										
Ponderosa 120H Heel	0.00	0.00	4427	69	525	1,909,873.52	2,723,426.54	36.24883250		
- plan hits target center										
- Circle (radius 50)										

Casing Points						Casing Diameter (in)	Hole Diameter (in)
Measured Depth (ft)	Vertical Depth (ft)	Name					
350	350	Surface				9.63	12.25
4773	4425	Intermediate				7.00	8.75



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Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 120H - Slot 3
Company:	DJR Operating	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Project:	Ponderosa Unit	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site:	C07 2309	North Reference:	True
Well:	# 120H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
422	422	Ojo Alamo		0.00	0.00	
530	530	Kirtland		0.00	0.00	
917	915	Fruitland		0.00	0.00	
1172	1167	Pictured Cliffs		0.00	0.00	
1338	1331	Lewis		0.00	0.00	
1975	1961	Chacra		0.00	0.00	
2605	2584	Menefee		0.00	0.00	
3624	3591	Point Lookout		0.00	0.00	
3779	3745	Mancos		0.00	0.00	
4094	4050	Mancos Silt		0.00	0.00	



DJR Operating

Ponderosa Unit

C07 2309

120H

Original Drilling

APD

Anticollision Report

30 August, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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 2000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program			Date	7/26/2021	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	11,888	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						
C07 2309						
# 114H - Original Drilling - APD	569	569	20	16	5.389	CC
# 114H - Original Drilling - APD	600	601	20	16	5.113	ES
# 114H - Original Drilling - APD	10,600	11,460	1418	1095	4.385	SF
# 115H - Original Drilling - APD	450	450	40	37	14.153	CC
# 115H - Original Drilling - APD	500	499	40	37	12.633	ES
# 115H - Original Drilling - APD	11,200	11,629	683	338	1.981	SF
# 116H - Original Drilling - APD	450	450	20	17	7.058	CC
# 116H - Original Drilling - APD	1100	1098	23	16	3.051	ES
# 116H - Original Drilling - APD	1600	1598	31	20	2.716	SF
# 136H - Original Drilling - APD	604	605	39	36	10.100	CC, ES
# 136H - Original Drilling - APD	10,600	10,941	1304	972	3.930	SF

Offset Design: C07 2309 - # 114H - Original Drilling - APD													Offset Site Error: 0 ft		
Survey Program: 0-MWD+HDGM							Rule Assigned:							Offset Well Error: 0 ft	
Reference	Vertical	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	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	125.54	-12	16	20						
100	100	100	100	0	0	125.54	-12	16	20	20	0.31	65.002			
200	200	200	200	1	1	125.54	-12	16	20	19	1.03	19.546			
300	300	300	300	1	1	125.54	-12	16	20	18	1.74	11.502			
400	400	400	400	1	1	125.54	-12	16	20	18	2.46	8.149			
450	450	450	450	1	1	125.54	-12	16	20	17	2.82	7.112			
500	500	500	500	2	2	125.13	-12	16	20	17	3.17	6.283			
569	569	569	569	2	2	133.65	-12	14	20	16	3.66	5.389 CC			
600	600	601	601	2	2	139.82	-12	12	20	16	3.88	5.113 ES			
700	700	700	700	2	2	165.44	-12	5	23	19	4.60	5.050			
800	799	799	798	3	3	-172.27	-12	-5	34	28	5.32	6.337			
881	879	878	877	3	3	-161.00	-12	-16	48	42	5.92	8.034			
900	898	897	895	3	3	-159.04	-12	-18	51	45	6.06	8.475			
1000	997	993	990	3	3	-150.89	-12	-35	73	66	6.77	10.761			
1100	1096	1088	1083	4	4	-144.95	-12	-54	97	90	7.49	12.972			
1200	1195	1182	1174	4	4	-140.30	-13	-77	124	116	8.20	15.134			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 114H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		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		
1300	1294	1274	1262	5	5	-136.51	-13	-101	154	145	8.91	17.264		
1400	1393	1364	1348	5	5	-133.33	-13	-128	186	177	9.62	19.375		
1500	1491	1455	1435	5	6	-130.64	-14	-158	221	211	10.35	21.345		
1600	1590	1549	1523	6	6	-128.61	-14	-188	256	245	11.12	23.032		
1700	1689	1642	1612	6	7	-127.07	-14	-218	291	280	11.89	24.505		
1800	1788	1735	1700	7	7	-125.86	-15	-248	327	314	12.67	25.798		
1900	1887	1829	1788	7	8	-124.89	-15	-279	362	349	13.45	26.940		
2000	1986	1922	1877	7	8	-124.09	-15	-309	398	384	14.24	27.955		
2100	2085	2015	1965	8	9	-123.43	-16	-339	434	419	15.03	28.862		
2200	2183	2109	2053	8	9	-122.86	-16	-369	470	454	15.82	29.676		
2300	2282	2202	2141	9	10	-122.38	-16	-399	505	489	16.62	30.410		
2400	2381	2295	2230	9	11	-121.95	-17	-430	541	524	17.41	31.076		
2500	2480	2388	2318	9	11	-121.58	-17	-460	577	559	18.21	31.682		
2600	2579	2482	2406	10	12	-121.26	-18	-490	613	594	19.01	32.235		
2700	2678	2575	2494	10	12	-120.97	-18	-520	649	629	19.81	32.743		
2800	2777	2668	2583	11	13	-120.71	-18	-551	685	664	20.61	33.210		
2900	2876	2762	2671	11	14	-120.47	-19	-581	720	699	21.42	33.641		
3000	2974	2855	2759	11	14	-120.26	-19	-611	756	734	22.22	34.040		
3100	3073	2948	2847	12	15	-120.07	-19	-641	792	769	23.03	34.411		
3200	3172	3042	2936	12	15	-119.89	-20	-671	828	804	23.83	34.755		
3300	3271	3135	3024	13	16	-119.73	-20	-702	864	840	24.64	35.077		
3400	3370	3228	3112	13	16	-119.58	-20	-732	900	875	25.44	35.377		
3500	3469	3321	3201	14	17	-119.45	-21	-762	936	910	26.25	35.659		
3600	3568	3415	3289	14	18	-119.32	-21	-792	972	945	27.06	35.923		
3700	3667	3508	3377	14	18	-119.20	-21	-822	1008	980	27.86	36.171		
3764	3730	3568	3434	15	19	-119.13	-22	-842	1031	1003	28.38	36.323		
3800	3765	3601	3465	15	19	-140.33	-22	-853	1044	1015	28.67	36.425		
3850	3815	3647	3509	15	19	-179.48	-22	-867	1063	1034	29.03	36.636		
3900	3865	3692	3551	15	19	-149.58	-22	-882	1084	1054	29.35	36.923		
3950	3914	3735	3592	15	20	-133.69	-22	-896	1105	1076	29.64	37.283		
4000	3962	3777	3632	15	20	-124.57	-22	-910	1128	1098	29.90	37.710		
4050	4010	3817	3670	15	20	-118.55	-23	-923	1151	1121	30.13	38.202		
4100	4056	3855	3706	16	20	-114.10	-23	-935	1175	1145	30.32	38.756		
4150	4100	3891	3740	16	21	-110.50	-23	-947	1200	1170	30.49	39.368		
4200	4143	3924	3771	16	21	-107.35	-23	-957	1227	1196	30.64	40.033		
4250	4183	3955	3800	16	21	-104.43	-23	-967	1254	1223	30.77	40.742		
4300	4221	3983	3826	16	21	-101.59	-23	-976	1282	1251	30.90	41.489		
4350	4256	4007	3849	16	21	-98.74	-23	-984	1311	1280	31.02	42.263		
4400	4289	4029	3870	16	22	-95.79	-23	-991	1341	1310	31.14	43.053		
4450	4318	4047	3887	16	22	-92.71	-23	-997	1372	1340	31.28	43.851		
4500	4344	4061	3900	17	22	-89.47	-23	-1002	1403	1371	31.42	44.645		
4550	4367	5511	4798	17	28	-107.19	-705	-631	1424	1382	41.99	33.905		
4600	4387	5557	4797	18	29	-106.58	-737	-598	1420	1377	43.39	32.724		
4650	4402	5605	4797	18	29	-106.05	-770	-565	1417	1372	44.87	31.584		
4700	4414	5653	4797	19	30	-105.63	-805	-530	1415	1369	46.44	30.472		
4750	4422	5702	4796	20	31	-105.33	-839	-496	1414	1366	48.07	29.414		
4800	4426	5752	4796	20	32	-105.17	-875	-460	1413	1363	49.76	28.402		
4831	4427	5783	4796	21	32	-105.14	-897	-438	1413	1362	50.83	27.800		
4833	4427	5785	4796	21	32	-105.14	-898	-437	1413	1362	50.89	27.768		
4900	4427	5852	4796	22	34	-105.14	-945	-390	1413	1360	53.25	26.539		
5000	4426	5952	4795	24	36	-105.14	-1016	-319	1413	1356	56.97	24.805		
5100	4425	6052	4795	26	38	-105.15	-1086	-248	1413	1352	60.89	23.209		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 114H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+HDGM									Rule Assigned:				Offset Well Error: 0 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5200	4425	6152	4794	28	40	105.15	-1157	-177	1413	1348	64.97	21.753		
5300	4424	6252	4793	30	42	105.15	-1228	-106	1413	1344	69.17	20.431		
5400	4423	6352	4793	32	44	105.16	-1298	-35	1413	1340	73.48	19.233		
5500	4423	6452	4792	34	47	105.16	-1369	35	1413	1335	77.88	18.147		
5600	4422	6552	4792	36	49	105.16	-1439	106	1413	1331	82.35	17.162		
5700	4421	6652	4791	39	51	105.17	-1510	177	1413	1327	86.89	16.268		
5800	4421	6752	4791	41	54	105.17	-1581	248	1413	1322	91.47	15.453		
5900	4420	6852	4790	44	56	105.17	-1651	319	1413	1317	96.10	14.709		
6000	4419	6952	4789	46	58	105.18	-1722	389	1414	1313	100.76	14.029		
6100	4419	7052	4789	48	61	105.18	-1792	460	1414	1308	105.46	13.404		
6200	4418	7152	4788	51	63	105.18	-1863	531	1414	1303	110.18	12.830		
6300	4417	7252	4788	53	66	105.19	-1934	602	1414	1299	114.93	12.300		
6400	4417	7352	4787	56	68	105.19	-2004	673	1414	1294	119.70	11.810		
6500	4416	7452	4787	58	71	105.19	-2075	744	1414	1289	124.49	11.356		
6600	4415	7552	4786	61	73	105.20	-2145	814	1414	1284	129.30	10.934		
6700	4415	7652	4785	63	76	105.20	-2216	885	1414	1280	134.12	10.541		
6800	4414	7752	4785	66	78	105.20	-2287	956	1414	1275	138.96	10.175		
6900	4414	7852	4784	68	81	105.21	-2357	1027	1414	1270	143.80	9.832		
7000	4413	7952	4784	71	83	105.21	-2428	1098	1414	1265	148.66	9.511		
7100	4412	8052	4783	73	86	105.21	-2498	1168	1414	1260	153.53	9.210		
7200	4412	8152	4783	76	88	105.21	-2569	1239	1414	1256	158.41	8.927		
7300	4411	8252	4782	78	91	105.22	-2640	1310	1414	1251	163.29	8.660		
7400	4410	8352	4782	81	93	105.22	-2710	1381	1414	1246	168.18	8.408		
7500	4410	8452	4781	83	96	105.22	-2781	1452	1414	1241	173.08	8.170		
7600	4409	8552	4780	86	98	105.23	-2851	1523	1414	1236	177.99	7.946		
7700	4408	8652	4780	88	101	105.23	-2922	1593	1414	1231	182.90	7.732		
7800	4408	8752	4779	91	103	105.23	-2993	1664	1414	1226	187.81	7.530		
7900	4407	8852	4779	94	106	105.24	-3063	1735	1414	1222	192.73	7.338		
8000	4406	8952	4778	96	108	105.24	-3134	1806	1414	1217	197.66	7.156		
8100	4406	9052	4778	99	111	105.24	-3204	1877	1414	1212	202.59	6.982		
8200	4405	9152	4777	101	113	105.25	-3275	1948	1414	1207	207.52	6.816		
8300	4404	9252	4776	104	116	105.25	-3346	2018	1414	1202	212.46	6.658		
8400	4404	9352	4776	106	119	105.25	-3416	2089	1415	1197	217.39	6.507		
8500	4403	9452	4775	109	121	105.26	-3487	2160	1415	1192	222.34	6.362		
8600	4402	9552	4775	111	124	105.26	-3557	2231	1415	1187	227.28	6.224		
8700	4402	9652	4774	114	126	105.26	-3628	2302	1415	1182	232.23	6.092		
8800	4401	9752	4774	116	129	105.27	-3699	2372	1415	1178	237.18	5.965		
8900	4400	9852	4773	119	131	105.27	-3769	2443	1415	1173	242.13	5.843		
9000	4400	9952	4773	122	134	105.27	-3840	2514	1415	1168	247.09	5.726		
9100	4399	10,052	4772	124	136	105.28	-3910	2585	1415	1163	252.04	5.613		
9200	4399	10,152	4771	127	139	105.28	-3981	2656	1415	1158	257.00	5.505		
9300	4398	10,252	4771	129	142	105.28	-4052	2727	1415	1153	261.96	5.401		
9400	4397	10,352	4770	132	144	105.29	-4122	2797	1415	1148	266.92	5.301		
9500	4397	10,452	4770	134	147	105.29	-4193	2868	1415	1143	271.89	5.204		
9600	4396	10,552	4769	137	149	105.29	-4263	2939	1415	1138	276.85	5.111		
9700	4395	10,652	4769	140	152	105.30	-4334	3010	1415	1133	281.82	5.021		
9800	4395	10,752	4768	142	154	105.30	-4405	3081	1415	1128	286.79	4.934		
9900	4394	10,852	4767	145	157	105.30	-4475	3151	1415	1123	291.76	4.850		
10,000	4393	10,952	4767	147	159	105.31	-4546	3222	1415	1118	296.73	4.769		
10,100	4393	11,052	4766	150	162	105.31	-4616	3293	1415	1114	301.70	4.691		
10,200	4392	11,152	4766	152	165	105.31	-4687	3364	1415	1109	306.67	4.615		
10,300	4391	11,252	4765	155	167	105.32	-4758	3435	1415	1104	311.64	4.541		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 114H - 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)				
10,400	4391	11,352	4765	158	170	105.32	-4828	3506	1415	1099	316.62	4.470		
10,500	4390	11,452	4764	160	172	105.32	-4899	3576	1415	1094	321.59	4.401		
10,600	4389	11,460	4764	163	172	105.32	-4904	3582	1418	1095	323.45	4.385 SF		
10,700	4389	11,460	4764	165	172	105.32	-4904	3582	1428	1105	323.52	4.415		
10,800	4388	11,460	4764	168	172	105.32	-4904	3582	1445	1123	322.08	4.487		
10,900	4387	11,460	4764	170	172	105.32	-4904	3582	1469	1150	319.25	4.601		
11,000	4387	11,460	4764	173	172	105.32	-4904	3582	1499	1183	315.20	4.755		
11,100	4386	11,460	4764	176	172	105.32	-4904	3582	1534	1224	310.13	4.948		
11,200	4385	11,460	4764	178	172	105.32	-4904	3582	1576	1271	304.23	5.179		
11,300	4385	11,460	4764	181	172	105.32	-4904	3582	1622	1324	297.72	5.449		
11,400	4384	11,460	4764	183	172	105.32	-4904	3582	1673	1383	290.77	5.755		
11,500	4384	11,460	4764	186	172	105.32	-4904	3582	1729	1445	283.55	6.097		
11,600	4383	11,460	4764	189	172	105.32	-4904	3582	1788	1512	276.20	6.474		
11,700	4382	11,460	4764	191	172	105.32	-4904	3582	1851	1582	268.82	6.885		
11,800	4382	11,460	4764	194	172	105.32	-4904	3582	1917	1655	261.52	7.329		
11,888	4381	11,460	4764	196	172	105.32	-4904	3582	1977	1722	255.17	7.750		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 115H - 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		
0	0	0	0	0	0	-54.57	23	-32	40					
100	100	100	100	0	0	-54.57	23	-32	40	40	0.31	129.349		
200	200	200	200	1	1	-54.57	23	-32	40	39	1.03	38.895		
300	300	300	300	1	1	-54.57	23	-32	40	38	1.74	22.889		
400	400	400	400	1	1	-54.57	23	-32	40	37	2.46	16.216		
450	450	450	450	1	1	-54.57	23	-32	40	37	2.82	14.153 CC		
500	500	499	499	2	2	-57.29	23	-33	40	37	3.17	12.633 ES		
600	600	598	598	2	2	-61.07	25	-36	42	38	3.88	10.761		
700	700	696	696	2	2	-67.72	29	-41	46	41	4.58	9.934		
800	799	794	793	3	3	-75.66	36	-49	52	47	5.29	9.860		
881	879	873	871	3	3	-81.96	42	-57	60	54	5.87	10.217		
900	898	892	890	3	3	-83.34	44	-60	62	56	6.00	10.349		
1000	997	991	988	3	3	-89.15	53	-72	74	68	6.75	11.018		
1100	1096	1090	1085	4	4	-93.30	62	-84	87	80	7.52	11.608		
1200	1195	1189	1183	4	4	-96.37	71	-96	100	92	8.28	12.121		
1300	1294	1288	1281	5	5	-98.73	80	-108	114	105	9.06	12.561		
1400	1393	1387	1379	5	5	-100.59	89	-121	127	117	9.84	12.941		
1500	1491	1486	1477	5	5	-102.10	99	-133	141	130	10.62	13.271		
1600	1590	1585	1575	6	6	-103.33	108	-145	155	143	11.40	13.559		
1700	1689	1684	1672	6	6	-104.37	117	-157	168	156	12.19	13.813		
1800	1788	1783	1770	7	7	-105.25	126	-169	182	169	12.98	14.037		
1900	1887	1882	1868	7	7	-106.00	135	-182	196	182	13.77	14.237		
2000	1986	1981	1966	7	7	-106.66	144	-194	210	195	14.56	14.416		
2100	2085	2080	2064	8	8	-107.23	154	-206	224	209	15.36	14.577		
2200	2183	2179	2161	8	8	-107.74	163	-218	238	222	16.15	14.722		
2300	2282	2278	2259	9	9	-108.19	172	-230	252	235	16.95	14.854		
2400	2381	2377	2357	9	9	-108.59	181	-243	266	248	17.74	14.975		
2500	2480	2476	2455	9	9	-108.96	190	-255	280	261	18.54	15.085		
2600	2579	2575	2553	10	10	-109.28	199	-267	294	274	19.33	15.186		
2700	2678	2674	2651	10	10	-109.58	209	-279	308	287	20.13	15.280		
2800	2777	2773	2748	11	11	-109.86	218	-291	322	301	20.93	15.366		
2900	2876	2872	2846	11	11	-110.11	227	-303	336	314	21.73	15.446		
3000	2974	2971	2944	11	12	-110.34	236	-316	350	327	22.53	15.520		
3100	3073	3070	3042	12	12	-110.55	245	-328	364	340	23.32	15.590		
3200	3172	3169	3140	12	12	-110.74	254	-340	378	353	24.12	15.654		
3300	3271	3268	3238	13	13	-110.93	264	-352	392	367	24.92	15.715		
3400	3370	3367	3335	13	13	-111.10	273	-364	406	380	25.72	15.772		
3500	3469	3466	3433	14	14	-111.25	282	-377	420	393	26.52	15.825		
3600	3568	3565	3531	14	14	-111.40	291	-389	434	406	27.32	15.876		
3700	3667	3664	3629	14	14	-111.54	300	-401	448	420	28.12	15.923		
3764	3730	3727	3692	15	15	-111.63	306	-409	457	428	28.63	15.952		
3800	3765	3763	3727	15	15	-132.09	309	-413	462	433	28.91	15.986		
3850	3815	3812	3775	15	15	-171.07	314	-419	471	442	29.28	16.094		
3900	3865	3860	3823	15	15	160.42	318	-425	482	452	29.62	16.272		
3950	3914	3907	3869	15	15	146.07	323	-431	495	465	29.94	16.521		
4000	3962	3960	3922	15	16	138.83	327	-437	509	479	30.28	16.814		
4050	4010	4035	3997	15	16	135.27	330	-442	524	493	30.69	17.064		
4100	4056	4116	4077	16	16	133.09	325	-440	537	507	30.96	17.360		
4150	4100	4201	4161	16	16	131.55	312	-431	550	519	31.08	17.698		
4200	4143	4290	4245	16	17	130.27	290	-412	561	530	31.05	18.073		
4250	4183	4384	4328	16	17	129.02	259	-385	570	540	30.91	18.455		
4300	4221	4479	4407	16	17	127.65	218	-348	578	547	30.75	18.788		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 115H - 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		
4350	4256	4577	4476	16	17	126.09	168	-302	583	552	30.70	18.981		
4400	4289	4673	4535	16	18	124.31	112	-250	586	555	30.93	18.933		
4450	4318	4768	4580	16	18	122.31	51	-193	586	555	31.56	18.576		
4500	4344	4859	4612	17	19	120.14	-11	-134	585	553	32.65	17.925		
4550	4367	4946	4630	17	20	117.83	-73	-75	582	548	34.17	17.043		
4600	4387	5029	4637	18	21	115.43	-132	-18	578	542	36.02	16.054		
4650	4402	5082	4637	18	22	113.96	-170	19	574	536	37.63	15.254		
4700	4414	5131	4636	19	23	112.90	-205	53	571	532	39.20	14.572		
4750	4422	5180	4636	20	24	112.10	-240	87	570	529	40.79	13.967		
4791	4426	5221	4636	20	24	111.68	-269	115	569	527	42.11	13.522		
4800	4426	5230	4636	20	24	111.62	-276	121	569	527	42.40	13.428		
4833	4427	5263	4636	21	25	111.47	-300	144	570	526	43.47	13.107		
4900	4427	5330	4635	22	26	111.42	-348	191	571	525	45.67	12.501		
5000	4426	5430	4635	24	28	111.36	-420	260	573	524	49.19	11.643		
5100	4425	5530	4634	26	30	111.29	-492	330	574	522	52.92	10.855		
5200	4425	5630	4633	28	32	111.22	-564	399	576	519	56.83	10.140		
5300	4424	5730	4633	30	35	111.15	-636	469	578	517	60.88	9.494		
5400	4423	5830	4632	32	37	111.09	-707	538	580	515	65.04	8.914		
5500	4423	5930	4631	34	39	111.02	-779	608	582	512	69.30	8.391		
5600	4422	6030	4631	36	41	110.95	-851	677	583	510	73.64	7.921		
5700	4421	6129	4630	39	44	110.89	-923	747	585	507	78.04	7.496		
5800	4421	6229	4629	41	46	110.82	-995	816	587	504	82.50	7.113		
5900	4420	6329	4629	44	48	110.76	-1067	886	589	502	87.01	6.764		
6000	4419	6429	4628	46	51	110.69	-1139	955	590	499	91.56	6.447		
6100	4419	6529	4627	48	53	110.63	-1211	1024	592	496	96.15	6.158		
6200	4418	6629	4627	51	56	110.56	-1283	1094	594	493	100.77	5.894		
6300	4417	6729	4626	53	58	110.50	-1355	1163	596	490	105.41	5.651		
6400	4417	6829	4625	56	61	110.44	-1426	1233	597	487	110.08	5.427		
6500	4416	6929	4625	58	63	110.37	-1498	1302	599	484	114.78	5.220		
6600	4415	7029	4624	61	66	110.31	-1570	1372	601	481	119.49	5.029		
6700	4415	7129	4623	63	68	110.25	-1642	1441	603	479	124.22	4.852		
6800	4414	7229	4623	66	70	110.19	-1714	1511	604	476	128.96	4.687		
6900	4414	7329	4622	68	73	110.13	-1786	1580	606	473	133.73	4.534		
7000	4413	7429	4622	71	75	110.07	-1858	1650	608	470	138.50	4.390		
7100	4412	7529	4621	73	78	110.00	-1930	1719	610	467	143.29	4.256		
7200	4412	7629	4620	76	80	109.94	-2002	1789	612	464	148.09	4.130		
7300	4411	7729	4620	78	83	109.88	-2073	1858	613	460	152.90	4.012		
7400	4410	7829	4619	81	85	109.82	-2145	1928	615	457	157.71	3.900		
7500	4410	7929	4618	83	88	109.77	-2217	1997	617	454	162.54	3.795		
7600	4409	8029	4618	86	90	109.71	-2289	2067	619	451	167.38	3.696		
7700	4408	8129	4617	88	93	109.65	-2361	2136	620	448	172.23	3.603		
7800	4408	8229	4616	91	96	109.59	-2433	2206	622	445	177.08	3.514		
7900	4407	8329	4616	94	98	109.53	-2505	2275	624	442	181.94	3.430		
8000	4406	8429	4615	96	101	109.47	-2577	2344	626	439	186.81	3.350		
8100	4406	8529	4614	99	103	109.42	-2649	2414	628	436	191.68	3.274		
8200	4405	8629	4614	101	106	109.36	-2721	2483	629	433	196.56	3.202		
8300	4404	8729	4613	104	108	109.30	-2792	2553	631	430	201.44	3.133		
8400	4404	8829	4612	106	111	109.25	-2864	2622	633	427	206.33	3.068		
8500	4403	8929	4612	109	113	109.19	-2936	2692	635	424	211.23	3.005		
8600	4402	9029	4611	111	116	109.14	-3008	2761	637	420	216.13	2.945		
8700	4402	9129	4610	114	118	109.08	-3080	2831	638	417	221.04	2.888		
8800	4401	9229	4610	116	121	109.03	-3152	2900	640	414	225.95	2.833		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 115H - 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	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8900	4400	9329	4609	119	123	108.97	-3224	2970	642	411	230.87	2.780	
9000	4400	9429	4609	122	126	108.92	-3296	3039	644	408	235.79	2.730	
9100	4399	9529	4608	124	128	108.86	-3368	3109	645	405	240.71	2.681	
9200	4399	9629	4607	127	131	108.81	-3440	3178	647	402	245.64	2.635	
9300	4398	9729	4607	129	134	108.76	-3511	3248	649	398	250.57	2.590	
9400	4397	9829	4606	132	136	108.70	-3583	3317	651	395	255.51	2.547	
9500	4397	9929	4605	134	139	108.65	-3655	3387	653	392	260.45	2.506	
9600	4396	10,029	4605	137	141	108.60	-3727	3456	654	389	265.39	2.466	
9700	4395	10,129	4604	140	144	108.54	-3799	3526	656	386	270.34	2.427	
9800	4395	10,229	4603	142	146	108.49	-3871	3595	658	383	275.29	2.390	
9900	4394	10,329	4603	145	149	108.44	-3943	3664	660	380	280.24	2.354	
10,000	4393	10,429	4602	147	151	108.39	-4015	3734	662	376	285.20	2.320	
10,100	4393	10,529	4601	150	154	108.34	-4087	3803	663	373	290.16	2.286	
10,200	4392	10,629	4601	152	156	108.29	-4159	3873	665	370	295.12	2.254	
10,300	4391	10,729	4600	155	159	108.24	-4230	3942	667	367	300.09	2.222	
10,400	4391	10,829	4599	158	162	108.19	-4302	4012	669	364	305.06	2.192	
10,500	4390	10,929	4599	160	164	108.14	-4374	4081	671	361	310.03	2.163	
10,600	4389	11,029	4598	163	167	108.09	-4446	4151	672	357	315.01	2.134	
10,700	4389	11,129	4598	165	169	108.04	-4518	4220	674	354	319.98	2.107	
10,800	4388	11,229	4597	168	172	107.99	-4590	4290	676	351	324.96	2.080	
10,900	4387	11,329	4596	170	174	107.94	-4662	4359	678	348	329.94	2.054	
11,000	4387	11,429	4596	173	177	107.89	-4734	4429	680	345	334.93	2.029	
11,100	4386	11,529	4595	176	179	107.84	-4806	4498	681	341	339.92	2.004	
11,200	4385	11,629	4594	178	182	107.79	-4878	4568	683	338	344.91	1.981 SF	
11,300	4385	11,669	4594	181	183	107.77	-4907	4596	687	341	346.63	1.983	
11,400	4384	11,669	4594	183	183	107.77	-4907	4596	705	364	340.62	2.070	
11,500	4384	11,669	4594	186	183	107.77	-4907	4596	736	407	328.91	2.237	
11,600	4383	11,669	4594	189	183	107.77	-4907	4596	778	465	313.43	2.483	
11,700	4382	11,669	4594	191	183	107.77	-4907	4596	831	535	296.03	2.806	
11,800	4382	11,669	4594	194	183	107.77	-4907	4596	891	613	278.18	3.204	
11,888	4381	11,669	4594	196	183	107.77	-4907	4596	950	688	262.79	3.616	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 116H - 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	-54.79	11	-16	20					
100	100	100	100	0	0	-54.79	11	-16	20	20	0.31	64.504		
200	200	200	200	1	1	-54.79	11	-16	20	19	1.03	19.396		
300	300	300	300	1	1	-54.79	11	-16	20	18	1.74	11.414		
400	400	400	400	1	1	-54.79	11	-16	20	17	2.46	8.087		
450	450	450	450	1	1	-54.79	11	-16	20	17	2.82	7.058 CC		
500	500	500	500	2	2	-57.09	12	-16	20	17	3.18	6.275		
600	600	599	599	2	2	-57.74	15	-17	20	16	3.89	5.199		
700	700	699	699	2	2	-58.98	22	-17	21	16	4.60	4.521		
800	799	798	798	3	3	-60.71	33	-18	22	16	5.32	4.080		
881	879	879	878	3	3	-64.49	43	-18	22	16	5.92	3.744		
900	898	898	897	3	3	-65.98	45	-19	22	16	6.07	3.657		
1000	997	998	996	3	3	-73.75	57	-19	22	16	6.83	3.294		
1100	1096	1098	1095	4	4	-81.18	69	-20	23	16	7.60	3.051 ES		
1200	1195	1198	1194	4	4	-88.06	82	-21	24	16	8.38	2.894		
1300	1294	1298	1294	5	5	-94.29	94	-22	26	16	9.16	2.798		
1400	1393	1398	1393	5	5	-99.83	106	-23	27	17	9.94	2.744		
1500	1491	1498	1492	5	5	-104.69	119	-24	29	18	10.72	2.720		
1600	1590	1598	1591	6	6	-108.94	131	-24	31	20	11.49	2.716 SF		
1700	1689	1698	1690	6	6	-112.64	143	-25	33	21	12.27	2.725		
1800	1788	1798	1789	7	6	-115.88	156	-26	36	23	13.03	2.743		
1900	1887	1898	1889	7	7	-118.71	168	-27	38	24	13.80	2.767		
2000	1986	1998	1988	7	7	-121.20	180	-28	41	26	14.57	2.794		
2100	2085	2098	2087	8	8	-123.39	193	-29	43	28	15.33	2.824		
2200	2183	2198	2186	8	8	-125.34	205	-30	46	30	16.09	2.854		
2300	2282	2298	2285	9	8	-127.07	217	-30	49	32	16.85	2.884		
2400	2381	2398	2385	9	9	-128.62	229	-31	51	34	17.61	2.915		
2500	2480	2498	2484	9	9	-130.01	242	-32	54	36	18.37	2.944		
2600	2579	2598	2583	10	10	-131.27	254	-33	57	38	19.13	2.973		
2700	2678	2698	2682	10	10	-132.41	266	-34	60	40	19.89	3.001		
2800	2777	2798	2781	11	10	-133.44	279	-35	63	42	20.64	3.028		
2900	2876	2897	2881	11	11	-134.39	291	-35	65	44	21.40	3.054		
3000	2974	2997	2980	11	11	-135.25	303	-36	68	46	22.16	3.079		
3100	3073	3097	3079	12	12	-136.05	316	-37	71	48	22.92	3.103		
3200	3172	3197	3178	12	12	-136.78	328	-38	74	50	23.67	3.126		
3300	3271	3297	3277	13	12	-137.46	340	-39	77	52	24.43	3.148		
3400	3370	3397	3377	13	13	-138.09	353	-40	80	55	25.19	3.170		
3500	3469	3497	3476	14	13	-138.68	365	-41	83	57	25.95	3.190		
3600	3568	3597	3575	14	14	-139.22	377	-41	86	59	26.70	3.209		
3700	3667	3697	3674	14	14	-139.73	390	-42	89	61	27.46	3.228		
3764	3730	3761	3738	15	14	-140.04	397	-43	91	63	27.95	3.240		
3800	3765	3797	3773	15	14	-159.76	402	-43	92	63	28.23	3.243		
3850	3815	3847	3823	15	15	164.11	408	-43	93	64	28.67	3.242		
3900	3865	3896	3872	15	15	140.36	414	-44	95	66	29.15	3.254		
3950	3914	3945	3920	15	15	132.31	420	-44	98	69	29.66	3.311		
4000	3962	3992	3967	15	15	132.07	426	-45	104	74	30.16	3.453		
4050	4010	4038	4012	15	15	135.19	431	-45	114	83	30.61	3.717		
4100	4056	4082	4056	16	15	139.39	437	-45	128	97	30.97	4.129		
4150	4100	4125	4098	16	16	143.52	442	-46	147	115	31.26	4.695		
4200	4143	4169	4143	16	16	147.72	447	-46	170	139	31.50	5.398		
4250	4183	4222	4195	16	16	151.89	451	-44	195	164	31.64	6.172		
4300	4221	4278	4251	16	16	155.27	452	-38	221	190	31.60	7.008		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 116H - 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)			
4350	4256	4339	4311	16	16	158.06	448	-27	248	217	31.33	7.913	
4400	4289	4405	4374	16	16	160.39	440	-12	274	243	30.78	8.906	
4450	4318	4477	4441	16	17	162.37	426	10	299	270	29.87	10.025	
4500	4344	4557	4512	17	17	164.06	403	41	323	295	28.54	11.331	
4550	4367	4645	4583	17	17	165.49	372	81	345	319	26.74	12.911	
4600	4387	4743	4654	18	17	166.65	328	133	364	340	24.49	14.879	
4650	4402	4850	4718	18	18	167.54	271	197	380	358	21.94	17.314	
4700	4414	4966	4770	19	19	168.14	201	274	391	371	19.56	19.983	
4750	4422	5088	4804	20	20	168.40	120	358	397	378	18.18	21.817	
4800	4426	5213	4815	20	22	168.30	34	447	397	378	18.62	21.318	
4833	4427	5245	4815	21	22	168.28	11	470	396	377	18.99	20.850	
4833	4427	5245	4815	21	22	168.28	11	470	396	377	19.00	20.849	
4900	4427	5312	4814	22	23	168.27	-36	517	396	376	19.77	20.029	
5000	4426	5412	4814	24	25	168.25	-107	588	396	375	21.03	18.836	
5100	4425	5512	4813	26	27	168.24	-178	658	396	374	22.37	17.708	
5200	4425	5612	4812	28	29	168.22	-248	729	396	372	23.78	16.656	
5300	4424	5712	4812	30	31	168.21	-319	800	396	371	25.26	15.684	
5400	4423	5812	4811	32	33	168.20	-390	871	396	369	26.78	14.790	
5500	4423	5912	4810	34	35	168.18	-460	941	396	368	28.35	13.972	
5600	4422	6012	4810	36	38	168.17	-531	1012	396	366	29.96	13.224	
5700	4421	6112	4809	39	40	168.15	-602	1083	396	365	31.60	12.539	
5800	4421	6212	4808	41	42	168.14	-672	1154	396	363	33.26	11.912	
5900	4420	6312	4808	44	45	168.12	-743	1225	396	361	34.95	11.337	
6000	4419	6412	4807	46	47	168.11	-814	1295	396	360	36.66	10.809	
6100	4419	6512	4806	48	49	168.09	-884	1366	396	358	38.38	10.323	
6200	4418	6612	4806	51	52	168.08	-955	1437	396	356	40.13	9.875	
6300	4417	6712	4805	53	54	168.06	-1026	1508	396	354	41.88	9.462	
6400	4417	6812	4804	56	57	168.05	-1096	1578	396	353	43.65	9.079	
6500	4416	6912	4804	58	59	168.03	-1167	1649	396	351	45.43	8.724	
6600	4415	7012	4803	61	62	168.02	-1238	1720	396	349	47.22	8.393	
6700	4415	7112	4803	63	64	168.00	-1308	1791	396	347	49.02	8.086	
6800	4414	7212	4802	66	67	167.99	-1379	1861	396	346	50.82	7.799	
6900	4414	7312	4801	68	69	167.97	-1450	1932	396	344	52.64	7.530	
7000	4413	7412	4801	71	72	167.96	-1520	2003	396	342	54.46	7.278	
7100	4412	7512	4800	73	74	167.95	-1591	2074	396	340	56.29	7.042	
7200	4412	7612	4799	76	77	167.93	-1662	2144	396	338	58.12	6.820	
7300	4411	7712	4799	78	79	167.92	-1732	2215	396	336	59.96	6.611	
7400	4410	7812	4798	81	82	167.90	-1803	2286	396	335	61.81	6.414	
7500	4410	7912	4797	83	84	167.89	-1874	2357	396	333	63.66	6.228	
7600	4409	8012	4797	86	87	167.87	-1944	2427	396	331	65.51	6.052	
7700	4408	8112	4796	88	89	167.86	-2015	2498	397	329	67.37	5.886	
7800	4408	8212	4795	91	92	167.84	-2086	2569	397	327	69.23	5.727	
7900	4407	8312	4795	94	94	167.83	-2156	2640	397	325	71.10	5.577	
8000	4406	8412	4794	96	97	167.81	-2227	2710	397	324	72.97	5.435	
8100	4406	8512	4793	99	99	167.80	-2298	2781	397	322	74.84	5.299	
8200	4405	8612	4793	101	102	167.78	-2368	2852	397	320	76.72	5.169	
8300	4404	8712	4792	104	105	167.77	-2439	2923	397	318	78.60	5.046	
8400	4404	8812	4791	106	107	167.75	-2509	2994	397	316	80.48	4.928	
8500	4403	8912	4791	109	110	167.74	-2580	3064	397	314	82.37	4.815	
8600	4402	9012	4790	111	112	167.73	-2651	3135	397	312	84.26	4.708	
8700	4402	9112	4789	114	115	167.71	-2721	3206	397	311	86.15	4.604	
8800	4401	9212	4789	116	117	167.70	-2792	3277	397	309	88.04	4.506	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 116H - 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	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8900	4400	9312	4788	119	120	167.68	-2863	3347	397	307	89.94	4.411	
9000	4400	9412	4787	122	122	167.67	-2933	3418	397	305	91.84	4.320	
9100	4399	9512	4787	124	125	167.65	-3004	3489	397	303	93.74	4.232	
9200	4399	9612	4786	127	128	167.64	-3075	3560	397	301	95.65	4.148	
9300	4398	9712	4785	129	130	167.62	-3145	3630	397	299	97.56	4.067	
9400	4397	9812	4785	132	133	167.61	-3216	3701	397	297	99.46	3.989	
9500	4397	9912	4784	134	135	167.59	-3287	3772	397	295	101.38	3.914	
9600	4396	10,012	4783	137	138	167.58	-3357	3843	397	294	103.29	3.842	
9700	4395	10,112	4783	140	140	167.56	-3428	3913	397	292	105.21	3.772	
9800	4395	10,212	4782	142	143	167.55	-3499	3984	397	290	107.12	3.705	
9900	4394	10,312	4781	145	146	167.53	-3569	4055	397	288	109.04	3.639	
10,000	4393	10,412	4781	147	148	167.52	-3640	4126	397	286	110.97	3.577	
10,100	4393	10,512	4780	150	151	167.51	-3711	4196	397	284	112.89	3.516	
10,200	4392	10,612	4780	152	153	167.49	-3781	4267	397	282	114.82	3.457	
10,300	4391	10,712	4779	155	156	167.48	-3852	4338	397	280	116.75	3.400	
10,400	4391	10,812	4778	158	158	167.46	-3923	4409	397	278	118.68	3.345	
10,500	4390	10,912	4778	160	161	167.45	-3993	4479	397	276	120.61	3.291	
10,600	4389	11,012	4777	163	164	167.43	-4064	4550	397	274	122.54	3.240	
10,700	4389	11,112	4776	165	166	167.42	-4135	4621	397	273	124.48	3.189	
10,800	4388	11,212	4776	168	169	167.40	-4205	4692	397	271	126.42	3.141	
10,900	4387	11,312	4775	170	171	167.39	-4276	4762	397	269	128.36	3.093	
11,000	4387	11,412	4774	173	174	167.37	-4347	4833	397	267	130.30	3.047	
11,100	4386	11,512	4774	176	176	167.36	-4417	4904	397	265	132.24	3.003	
11,200	4385	11,612	4773	178	179	167.34	-4488	4975	397	263	134.19	2.959	
11,300	4385	11,712	4772	181	182	167.33	-4559	5046	397	261	136.13	2.917	
11,400	4384	11,812	4772	183	184	167.31	-4629	5116	397	259	138.08	2.876	
11,500	4384	11,912	4771	186	187	167.30	-4700	5187	397	257	140.03	2.836	
11,600	4383	12,012	4770	189	189	167.29	-4771	5258	397	255	141.99	2.797	
11,700	4382	12,112	4770	191	192	167.27	-4841	5329	397	253	143.94	2.759	
11,709	4382	12,121	4770	191	192	167.27	-4848	5335	397	253	144.11	2.756	
11,800	4382	12,208	4769	194	194	167.26	-4909	5397	397	251	145.81	2.724	
11,888	4381	12,208	4769	196	194	167.26	-4909	5397	408	266	142.15	2.868	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 136H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+HDGM		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0 ft
Measured Depth	Reference	Vertical	Measured	Vertical	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Distance Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0		0	0	0	0	0	125.18	-23	33	40					
100		100	100	100	0	0	125.18	-23	33	40	40	0.31	129.535		
200		200	200	200	1	1	125.18	-23	33	40	39	1.03	38.951		
300		300	300	300	1	1	125.18	-23	33	40	38	1.74	22.922		
400		400	400	400	1	1	125.18	-23	33	40	37	2.46	16.239		
450		450	450	450	1	1	125.18	-23	33	40	37	2.82	14.173		
500		500	501	501	2	2	123.90	-23	32	40	37	3.17	12.554		
600		600	601	601	2	2	131.52	-23	29	39	36	3.88	10.171		
604		604	605	605	2	2	131.96	-23	28	39	36	3.91	10.100	CC, ES	
700		700	702	701	2	2	146.39	-24	22	41	36	4.59	8.871		
800		799	801	800	3	3	164.94	-25	11	47	42	5.32	8.861		
881		879	880	879	3	3	178.50	-25	1	58	52	5.92	9.761		
900		898	899	897	3	3	-178.74	-26	-2	61	55	6.07	10.057		
1000		997	995	992	3	3	-166.81	-27	-19	80	73	6.79	11.786		
1100		1096	1090	1085	4	4	-158.03	-28	-38	103	95	7.52	13.667		
1200		1195	1184	1176	4	4	-151.33	-30	-61	129	121	8.24	15.630		
1300		1294	1276	1264	5	5	-146.05	-32	-85	158	149	8.95	17.642		
1400		1393	1366	1350	5	5	-141.79	-34	-112	190	180	9.65	19.690		
1500		1491	1459	1438	5	6	-138.31	-36	-141	224	214	10.40	21.568		
1600		1590	1552	1527	6	6	-135.73	-39	-171	259	248	11.16	23.214		
1700		1689	1645	1615	6	7	-133.76	-41	-201	294	282	11.93	24.667		
1800		1788	1738	1703	7	7	-132.20	-43	-230	330	317	12.70	25.952		
1900		1887	1831	1792	7	8	-130.95	-46	-260	365	352	13.48	27.095		
2000		1986	1925	1880	7	8	-129.92	-48	-289	401	387	14.26	28.114		
2100		2085	2018	1968	8	9	-129.05	-50	-319	437	422	15.04	29.029		
2200		2183	2111	2057	8	9	-128.32	-52	-348	473	457	15.83	29.853		
2300		2282	2204	2145	9	10	-127.69	-55	-378	508	492	16.62	30.599		
2400		2381	2297	2233	9	11	-127.14	-57	-407	544	527	17.41	31.277		
2500		2480	2390	2322	9	11	-126.66	-59	-437	580	562	18.20	31.896		
2600		2579	2484	2410	10	12	-126.24	-61	-467	617	598	18.99	32.462		
2700		2678	2577	2498	10	12	-125.86	-64	-496	653	633	19.79	32.982		
2800		2777	2670	2587	11	13	-125.53	-66	-526	689	668	20.58	33.462		
2900		2876	2763	2675	11	13	-125.22	-68	-555	725	703	21.38	33.905		
3000		2974	2856	2764	11	14	-124.95	-71	-585	761	739	22.17	34.316		
3100		3073	2950	2852	12	15	-124.70	-73	-614	797	774	22.97	34.698		
3200		3172	3043	2940	12	15	-124.47	-75	-644	833	809	23.77	35.053		
3300		3271	3136	3029	13	16	-124.26	-77	-673	869	845	24.57	35.385		
3400		3370	3229	3117	13	16	-124.07	-80	-703	906	880	25.37	35.696		
3500		3469	3322	3205	14	17	-123.89	-82	-732	942	916	26.17	35.987		
3600		3568	3416	3294	14	17	-123.73	-84	-762	978	951	26.97	36.261		
3700		3667	3509	3382	14	18	-123.57	-86	-792	1014	986	27.77	36.519		
3764		3730	3569	3439	15	18	-123.48	-88	-811	1037	1009	28.28	36.676		
3800		3765	3602	3470	15	19	-144.70	-89	-821	1051	1022	28.56	36.779		
3850		3815	3648	3514	15	19	175.12	-90	-836	1070	1041	28.92	36.982		
3900		3865	3693	3556	15	19	145.25	-91	-850	1090	1060	29.25	37.253		
3950		3914	3736	3598	15	19	129.43	-92	-864	1110	1081	29.54	37.586		
4000		3962	3778	3638	15	20	120.41	-93	-877	1132	1102	29.80	37.979		
4050		4010	3828	3684	15	20	114.75	-94	-893	1154	1124	30.10	38.328		
4100		4056	3905	3759	16	20	111.29	-101	-912	1176	1145	30.61	38.409		
4150		4100	3990	3841	16	21	108.78	-117	-927	1197	1166	31.10	38.487		
4200		4143	4085	3932	16	21	106.81	-143	-933	1217	1185	31.56	38.554		
4250		4183	4189	4028	16	21	105.13	-183	-928	1235	1203	32.02	38.590		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 136H - 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		
4300	4221	4303	4126	16	21	103.54	-238	-908	1252	1220	32.49	38.543		
4350	4256	4424	4218	16	22	101.85	-307	-872	1266	1233	33.08	38.282		
4400	4289	4550	4298	16	22	99.98	-389	-819	1278	1244	33.94	37.649		
4450	4318	4675	4357	16	22	97.89	-476	-753	1287	1251	35.26	36.489		
4500	4344	4795	4394	17	22	95.65	-563	-679	1293	1256	36.99	34.942		
4550	4367	4907	4410	17	23	93.37	-644	-604	1296	1257	39.08	33.167		
4600	4387	4974	4410	18	24	91.83	-692	-556	1298	1257	40.67	31.920		
4650	4402	5022	4410	18	24	90.85	-725	-523	1300	1258	42.00	30.941		
4700	4414	5070	4410	19	25	90.08	-760	-489	1301	1258	43.45	29.939		
4750	4422	5119	4409	20	26	89.55	-794	-454	1302	1257	45.01	28.928		
4800	4426	5169	4409	20	27	89.26	-829	-418	1303	1256	46.65	27.919		
4833	4427	5202	4409	21	27	89.21	-853	-395	1303	1255	47.78	27.263		
4900	4427	5269	4409	22	28	89.21	-900	-348	1303	1253	50.17	25.967		
5000	4426	5369	4408	24	30	89.21	-971	-277	1303	1249	53.95	24.146		
5100	4425	5469	4407	26	32	89.21	-1041	-206	1303	1245	57.96	22.477		
5200	4425	5569	4407	28	35	89.22	-1112	-135	1303	1241	62.14	20.964		
5300	4424	5669	4406	30	37	89.22	-1182	-64	1303	1236	66.47	19.600		
5400	4423	5769	4406	32	39	89.22	-1253	6	1303	1232	70.91	18.372		
5500	4423	5869	4405	34	41	89.22	-1324	77	1303	1227	75.45	17.267		
5600	4422	5969	4404	36	44	89.23	-1394	148	1303	1223	80.06	16.272		
5700	4421	6069	4404	39	46	89.23	-1465	219	1303	1218	84.74	15.373		
5800	4421	6169	4403	41	48	89.23	-1535	290	1303	1213	89.48	14.560		
5900	4420	6269	4403	44	51	89.23	-1606	361	1303	1209	94.26	13.821		
6000	4419	6369	4402	46	53	89.24	-1677	431	1303	1204	99.09	13.149		
6100	4419	6469	4401	48	56	89.24	-1747	502	1303	1199	103.94	12.534		
6200	4418	6569	4401	51	58	89.24	-1818	573	1303	1194	108.83	11.972		
6300	4417	6669	4400	53	61	89.24	-1888	644	1303	1189	113.74	11.455		
6400	4417	6769	4400	56	63	89.25	-1959	715	1303	1184	118.68	10.979		
6500	4416	6869	4399	58	65	89.25	-2030	785	1303	1179	123.63	10.539		
6600	4415	6969	4398	61	68	89.25	-2100	856	1303	1174	128.60	10.131		
6700	4415	7069	4398	63	70	89.26	-2171	927	1303	1169	133.59	9.753		
6800	4414	7169	4397	66	73	89.26	-2241	998	1303	1164	138.59	9.401		
6900	4414	7269	4397	68	75	89.26	-2312	1069	1303	1159	143.61	9.073		
7000	4413	7369	4396	71	78	89.26	-2383	1140	1303	1154	148.63	8.767		
7100	4412	7469	4396	73	81	89.27	-2453	1210	1303	1149	153.67	8.480		
7200	4412	7569	4395	76	83	89.27	-2524	1281	1303	1144	158.71	8.210		
7300	4411	7669	4394	78	86	89.27	-2594	1352	1303	1139	163.76	7.957		
7400	4410	7769	4394	81	88	89.27	-2665	1423	1303	1134	168.82	7.719		
7500	4410	7869	4393	83	91	89.28	-2736	1494	1303	1129	173.89	7.494		
7600	4409	7969	4393	86	93	89.28	-2806	1565	1303	1124	178.96	7.282		
7700	4408	8069	4392	88	96	89.28	-2877	1635	1303	1119	184.04	7.081		
7800	4408	8169	4391	91	98	89.28	-2947	1706	1303	1114	189.12	6.890		
7900	4407	8269	4391	94	101	89.29	-3018	1777	1303	1109	194.21	6.710		
8000	4406	8369	4390	96	103	89.29	-3089	1848	1303	1104	199.30	6.539		
8100	4406	8469	4390	99	106	89.29	-3159	1919	1303	1099	204.40	6.376		
8200	4405	8569	4389	101	108	89.30	-3230	1989	1303	1094	209.50	6.220		
8300	4404	8669	4388	104	111	89.30	-3300	2060	1303	1089	214.61	6.073		
8400	4404	8769	4388	106	114	89.30	-3371	2131	1303	1084	219.71	5.931		
8500	4403	8869	4387	109	116	89.30	-3442	2202	1303	1078	224.83	5.797		
8600	4402	8969	4387	111	119	89.31	-3512	2273	1303	1073	229.94	5.668		
8700	4402	9069	4386	114	121	89.31	-3583	2344	1303	1068	235.06	5.545		
8800	4401	9169	4385	116	124	89.31	-3653	2414	1303	1063	240.18	5.426		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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: C07 2309 - # 136H - Original Drilling - APD												Offset Site Error: 0 ft		
Survey Program: 0-MWD+HDGM		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0 ft	
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	Warning	
8900	4400	9269	4385	119	126	89.31	-3724	2485	1303	1058	245.30	5.313		
9000	4400	9369	4384	122	129	89.32	-3795	2556	1303	1053	250.42	5.205		
9100	4399	9469	4384	124	131	89.32	-3865	2627	1303	1048	255.55	5.100		
9200	4399	9569	4383	127	134	89.32	-3936	2698	1303	1043	260.67	5.000		
9300	4398	9669	4383	129	137	89.32	-4006	2768	1303	1038	265.80	4.904		
9400	4397	9769	4382	132	139	89.33	-4077	2839	1303	1032	270.94	4.811		
9500	4397	9869	4381	134	142	89.33	-4148	2910	1303	1027	276.07	4.721		
9600	4396	9969	4381	137	144	89.33	-4218	2981	1303	1022	281.20	4.635		
9700	4395	10,069	4380	140	147	89.34	-4289	3052	1303	1017	286.34	4.552		
9800	4395	10,169	4380	142	149	89.34	-4359	3123	1303	1012	291.48	4.472		
9900	4394	10,269	4379	145	152	89.34	-4430	3193	1303	1007	296.62	4.395		
10,000	4393	10,369	4378	147	154	89.34	-4501	3264	1303	1002	301.76	4.320		
10,100	4393	10,469	4378	150	157	89.35	-4571	3335	1304	997	306.90	4.247		
10,200	4392	10,569	4377	152	160	89.35	-4642	3406	1304	991	312.04	4.177		
10,300	4391	10,669	4377	155	162	89.35	-4712	3477	1304	986	317.18	4.110		
10,400	4391	10,769	4376	158	165	89.35	-4783	3547	1304	981	322.33	4.044		
10,500	4390	10,869	4375	160	167	89.36	-4854	3618	1304	976	327.47	3.981		
10,500	4390	10,870	4375	160	167	89.36	-4854	3619	1304	976	327.49	3.981		
10,600	4389	10,941	4375	163	169	89.36	-4904	3669	1304	972	331.79	3.930 SF		
10,700	4389	10,941	4375	165	169	89.36	-4904	3669	1310	977	332.76	3.936		
10,800	4388	10,941	4375	168	169	89.36	-4904	3669	1323	992	331.84	3.988		
10,900	4387	10,941	4375	170	169	89.36	-4904	3669	1344	1015	329.16	4.084		
11,000	4387	10,941	4375	173	169	89.36	-4904	3669	1372	1047	324.92	4.223		
11,100	4386	10,941	4375	176	169	89.36	-4904	3669	1407	1087	319.38	4.404		
11,200	4385	10,941	4375	178	169	89.36	-4904	3669	1447	1134	312.80	4.626		
11,300	4385	10,941	4375	181	169	89.36	-4904	3669	1493	1188	305.45	4.888		
11,400	4384	10,941	4375	183	169	89.36	-4904	3669	1544	1247	297.58	5.190		
11,500	4384	10,941	4375	186	169	89.36	-4904	3669	1600	1311	289.40	5.530		
11,600	4383	10,941	4375	189	169	89.36	-4904	3669	1660	1379	281.08	5.907		
11,700	4382	10,941	4375	191	169	89.36	-4904	3669	1724	1451	272.78	6.320		
11,800	4382	10,941	4375	194	169	89.36	-4904	3669	1791	1526	264.59	6.769		
11,888	4381	10,941	4375	196	169	89.36	-4904	3669	1853	1595	257.51	7.195		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
Reference Site:	C07 2309	MD Reference:	GL 6801' & RKB 14' @ 6815ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 120H	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 6801' & RKB 14' @ 6815ft

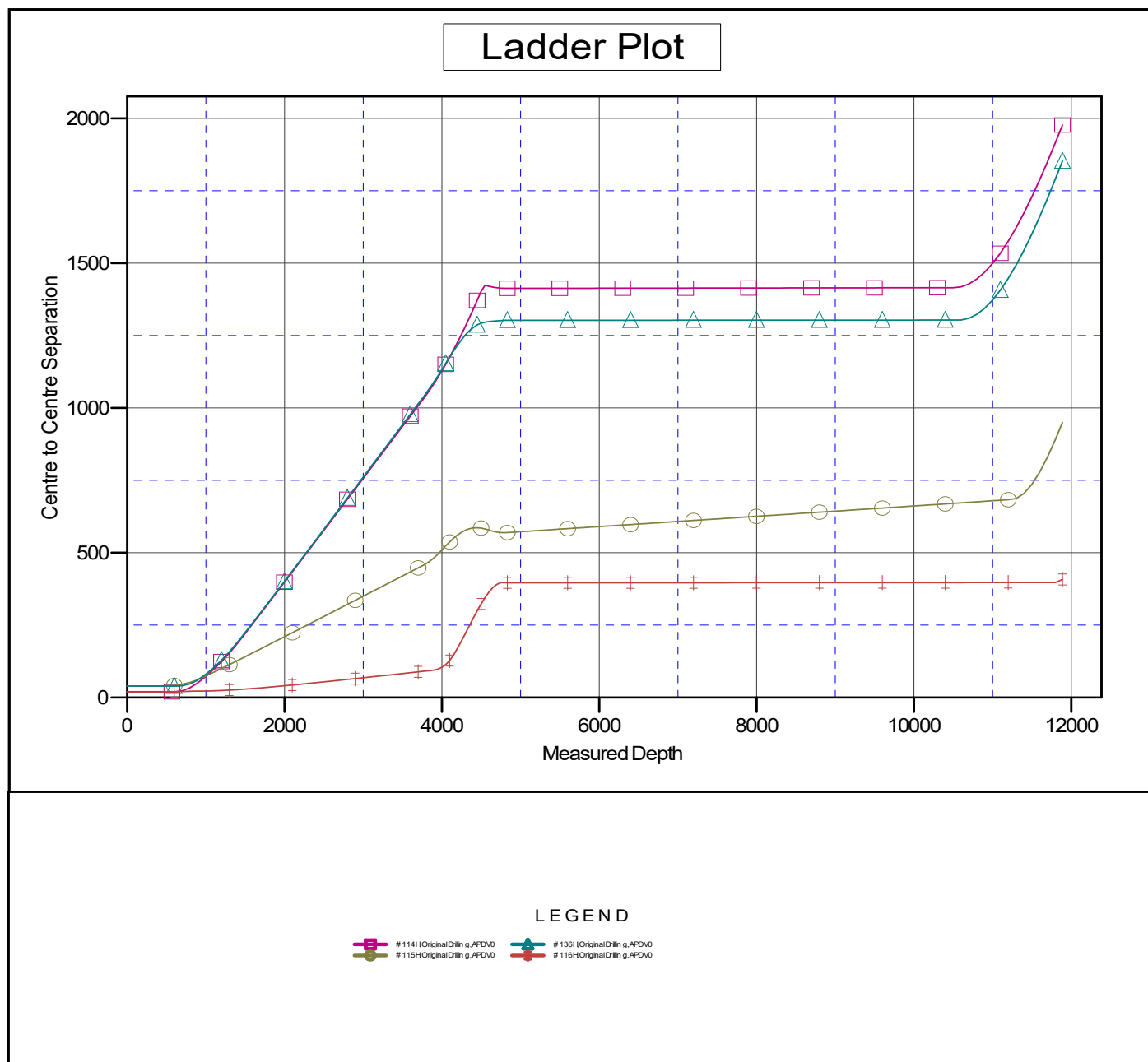
Offset Depths are relative to Offset Datum

Central Meridian is -107.8333333

Coordinates are relative to: # 120H - Slot 3

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

Grid Convergence at Surface is: 0.00°





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 120H - Slot 3
Project:	Ponderosa Unit	TVD Reference:	GL 6801' & RKB 14' @ 6815ft
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Offset Depths are relative to Offset Datum

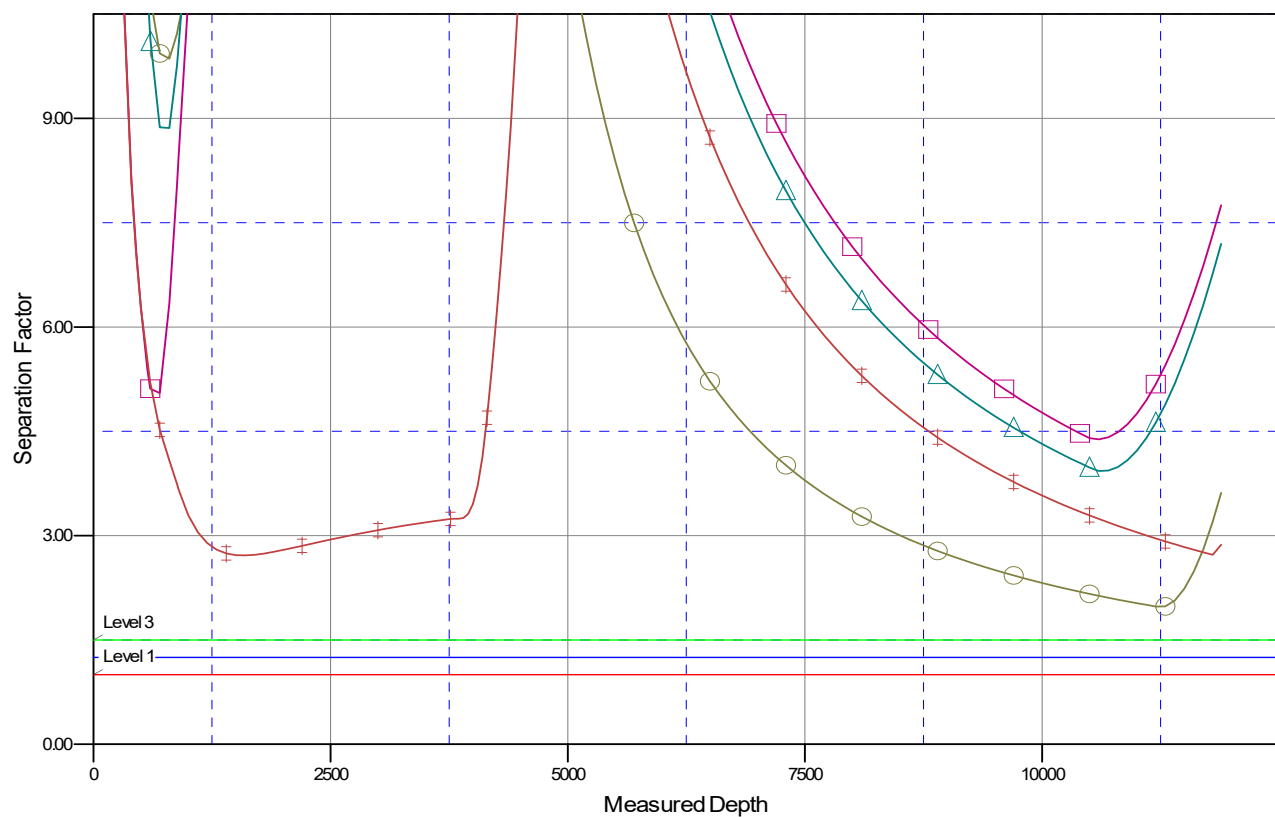
Central Meridian is -107.8333333

Coordinates are relative to: # 120H - Slot 3

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

Grid Convergence at Surface is: 0.00°

Separation Factor Plot



LEGEND

#114H Original Drilling, APOV0
 #115H Original Drilling, APOV0
 #116H Original Drilling, APOV0



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

PONDEROSA #120H

Lease: NMNM19816

SH: NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 7, T.23 N., R.9 W.
San Juan County, New Mexico

BH: SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 8, T.23 N., R.9 W.
San Juan County, New Mexico

***Above Data Required on Well Sign**

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

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

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☐ Test the surface casing to a minimum of _____ psi for 30 minutes.
- D. ☒ Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.
- E. ☒ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.
- 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. Provide complete information (submit in AFMSS 2) 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 (submit in AFMSS 2) 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.

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 262411

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 262411
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/14/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/14/2023
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/14/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/14/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/14/2023