

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. 30-043-21525	
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		Office	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

(Continued on page 2)

*(Instructions on page 2)



Additional Operator Remarks

Location of Well

0. SHL: NWNE / 908 FNL / 1473 FEL / TWSP: 23N / RANGE: 6W / SECTION: 26 / LAT: 36.200912 / LONG: -107.433867 (TVD: 0 feet, MD: 0 feet)
PPP: SWNE / 1598 FNL / 1485 FEL / TWSP: 23N / RANGE: 6W / SECTION: 26 / LAT: 36.199016 / LONG: -107.433913 (TVD: 5293 feet, MD: 5632 feet)
PPP: NENW / 1 FNL / 2265 FWL / TWSP: 23N / RANGE: 6W / SECTION: 36 / LAT: 36.188767 / LONG: -107.421226 (TVD: 5297 feet, MD: 14730 feet)
PPP: NWSW / 226 FSL / 1 FWL / TWSP: 23N / RANGE: 6W / SECTION: 25 / LAT: 36.194956 / LONG: -107.428887 (TVD: 5297 feet, MD: 14730 feet)
BHL: SENE / 2618 FNL / 330 FEL / TWSP: 23N / RANGE: 6W / SECTION: 36 / LAT: 36.181487 / LONG: -107.412217 (TVD: 5297 feet, MD: 14730 feet)

BLM Point of Contact

Name: JEFFREY J TAFOYA
Title: Assistant Field Manager
Phone: (505) 564-7672
Email: JTAFOYA@BLM.GOV

CONFIDENTIAL

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number 30-043-21525	Pool Code 13379	Pool Name COUNSELORS GALLUP - DAKOTA POOL
Property Code 325207	Property Name GALLO CANYON UNIT	Well Number 315H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6930'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location (SHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
B	26	23N	6W		908' NORTH	1473' EAST	36.200912° N	107.433867° W	SANDOVAL

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
H	36	23N	6W		2618' NORTH	330' EAST	36.181487° N	107.412217° W	SANDOVAL

Dedicated Acres SEC 26: SW/NE, SE/NE, NE/NE & NE/SE (160 AC.); SEC 25: SW/NW, SW/4 & SW/SE (240 AC.); SEC 36: NE/NW, NE/4 & NE/SE (240 AC.) = 640 ACRES	PENETRATED SPACING UNIT:	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
				N	
Order Numbers:			Well Setbacks are under Common Ownership: ☐ Yes ☐ No		

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
G	26	23N	6W		1598' NORTH	1485' EAST	36.199016° N	107.433913° W	SANDOVAL

Fist Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
G	26	23N	6W		1598' NORTH	1485' EAST	36.199016° N	107.433913° W	SANDOVAL

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
H	36	23N	6W		2618' NORTH	330' EAST	36.181487° N	107.412217° W	SANDOVAL

Unitized Area or Area of Uniform Interest GALLO CANYON	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
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OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, **and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Signature

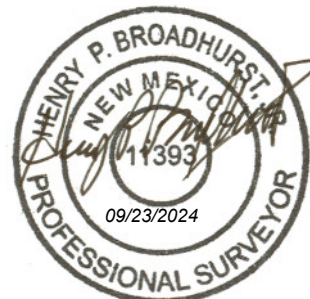
Date

Printed Name

E-mail Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor:

Certificate Number

11393

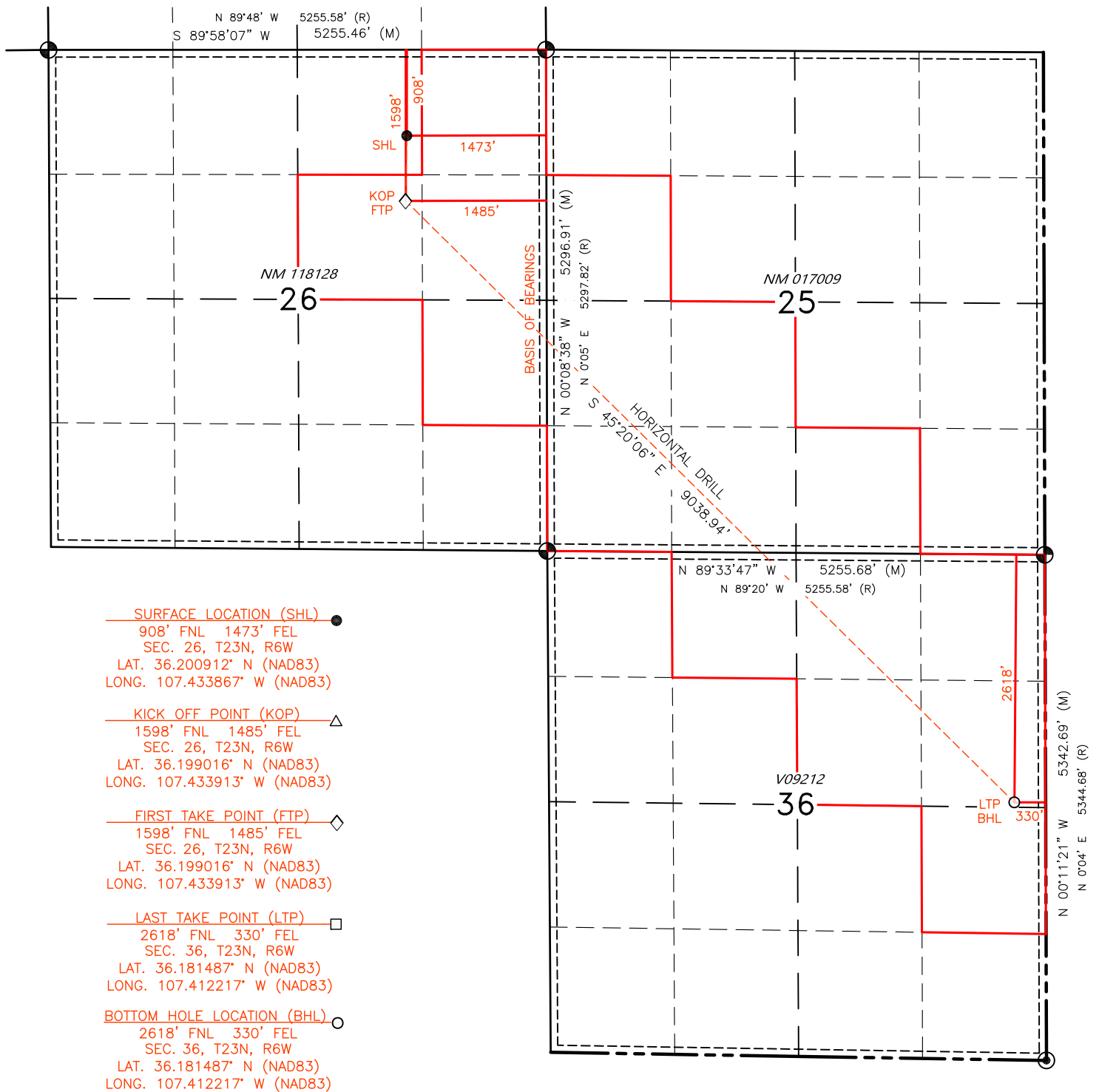
Date of Survey

JULY 6, 2021

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

FND 3 1/4" BC
BLM 1964

FND 2.5" BC
GLO 1948



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:** _04 / 25 / 2025_

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
Gallo Canyon Unit 310H	TBD	B-26-23N-6W	914 FNL x 1454 FEL	313	947	125
Gallo Canyon Unit 311H	TBD	B-26-23N-6W	921 FNL x 1435 FEL	349	1056	139
Gallo Canyon Unit 315H	TBD	B-26-23N-6W	908 FNL x 1473 FEL	255	773	102
Gallo Canyon Unit 316H	TBD	B-26-23N-6W	901 FNL x 1492 FEL	234	708	94
Gallo Canyon Unit 401H	TBD	B-26-23N-6W	934 FNL x 1397 FEL	302	915	121
Gallo Canyon Unit 402H	TBD	B-26-23N-6W	927 FNL x 1416 FEL	272	824	109
				3-year Decline	3-year Decline	3-year Decline
Gallo Canyon Unit 310H	TBD	B-26-23N-6W	914 FNL x 1454 FEL	72	429	29
Gallo Canyon Unit 311H	TBD	B-26-23N-6W	921 FNL x 1435 FEL	80	478	32
Gallo Canyon Unit 315H	TBD	B-26-23N-6W	908 FNL x 1473 FEL	59	350	24
Gallo Canyon Unit 316H	TBD	B-26-23N-6W	901 FNL x 1492 FEL	54	321	22
Gallo Canyon Unit 401H	TBD	B-26-23N-6W	934 FNL x 1397 FEL	70	414	28
Gallo Canyon Unit 402H	TBD	B-26-23N-6W	927 FNL x 1416 FEL	63	373	25

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
Gallo Canyon Unit 310H	TBD	7/5/2025	8/15/2025	9/1/2025	9/15/2025	9/17/2025
Gallo Canyon Unit 311H	TBD	7/6/2025	8/16/2025	9/1/2025	9/15/2025	9/17/2025
Gallo Canyon Unit 315H	TBD	7/7/2025	8/17/2025	9/1/2025	9/15/2025	9/17/2025
Gallo Canyon Unit 316H	TBD	7/8/2025	8/18/2025	9/1/2025	9/20/2025	9/22/2025
Gallo Canyon Unit 401H	TBD	7/9/2025	8/19/2025	9/1/2025	9/20/2025	9/22/2025
Gallo Canyon Unit 402H	TBD	7/10/2025	8/20/2025	9/1/2025	9/20/2025	9/22/2025

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@enduringresources.com
Date: 4/25/2025
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
Gallo Canyon Unit B26-2306 Pad
Nos. 310H, 311H, 315H, 316H, 401H and 402H Oil and Natural Gas Wells Project
NWNE B-26-23N-06W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

- Individual 3-phase 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.



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NWNE B-26-23N-06W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



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OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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

19.15.27.8 B. Venting and flaring during drilling operations

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

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

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



19.15.27.8 D. Venting and flaring during production operations

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

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

19.15.27.8 E. Performance standards

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



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

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

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



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NWNE B-26-23N-06W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

Rev 0



DRILLING PLAN

Gallo Canyon Unit 315H

Sandoval County, New Mexico

Surface Location

1473-ft FEL & 908-ft FNL
 Sec 26 T23N R06W
 Graded Elevation 6930' MSL
 RKB Elevation 6944' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2009120° N
 Longitude 107.4338670° W

Kick Off Point for Horizontal Build Curve

4663-ft MD
 4638-ft TVD

Local Coordinates (from SHL)

190-ft South
 417-ft West

Heel Location (Pay zone entry)

1485-ft FEL & 1598-ft FNL
 Sec 26 T23N R06W

Heel Geographical Coordinates (NAD-83)

Latitude 36.19901621° N
 Longitude 107.43391262° W

Bottom Hole Location (TD)

330-ft FEL & 2618-ft FNL
 Sec 36 T23N R06W

BHL Geographical Coordinates (NAD-83)

Latitude 36.181487° N
 Longitude 107.4122170° W

Well objectives

This well is planned as a 9040-ft lateral in the Gallup B sand.

Bottom Hole temperature and pressure

The temperature in the Gallup B horizontal objective is 141°F. Bottom hole pressure in the Gallup B 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	1444	1439	Sd	W	8.3	8.4 – 8.8
Kirtland	1554	1548	Sh	-	8.3	8.4 – 8.8
Fruitland	1749	1742	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1957	1948	Sd	W	8.3	9.0 - 9.5
Lewis	2073	2064	Sh	-		9.0 - 9.5
Chacra	2813	2799	Sd	-	8.3	9.0 - 9.5
Menefee	3524	3506	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4203	4181	Sd	-	8.3	9.0 - 9.5
Mancos	4396	4373	Sh	-		9.0 - 9.5
Mancos Silt	4794	4768	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5464	5257	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5582	5287	Sd	O/G	6.6	8.8 -9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 -9.0
Target	5690	5297	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	5632	surf	5293	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5352	14730	5210	5257	5352

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 Design9-5/8" 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	4163-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	405	235
Volume (bbls)	169	63
Volume (cu.ft.)	947	351
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5352-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	789
Volume (bbls)	220
Volume (cu.ft)	1232
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 – 5632	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5632 – 14730	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.

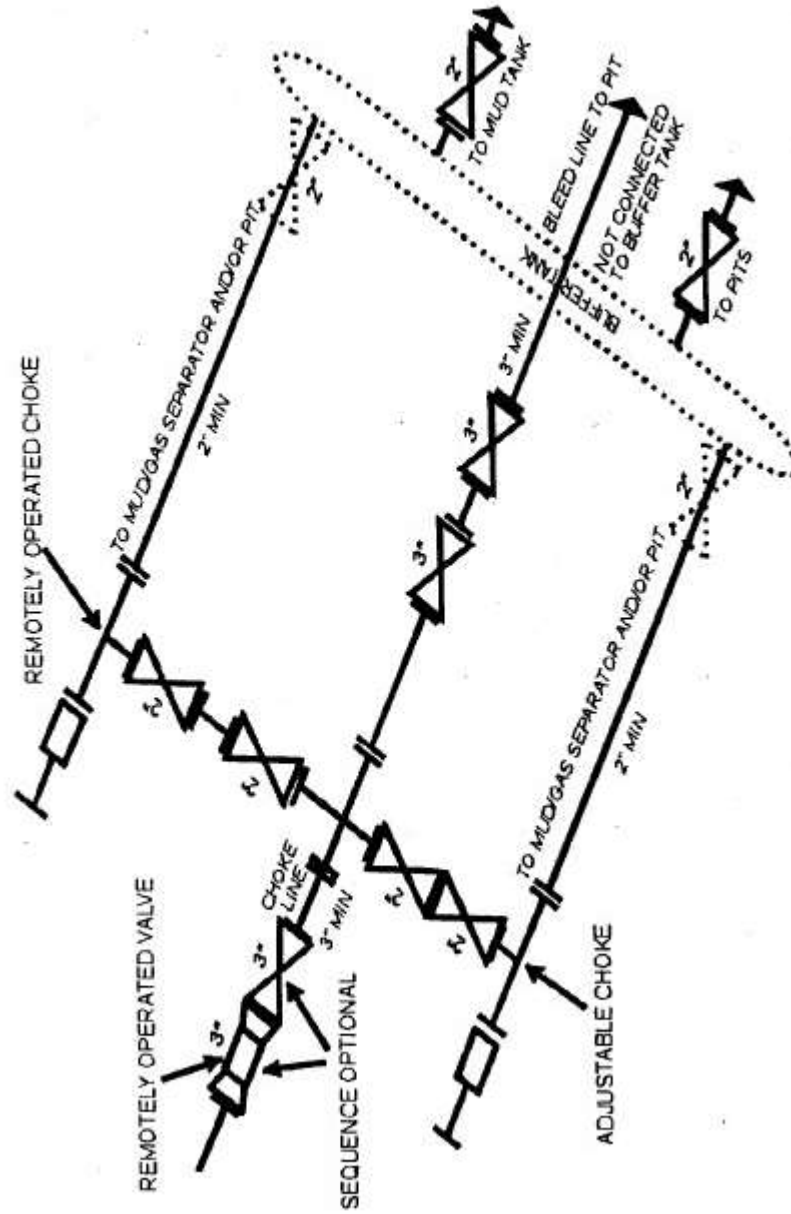
Completion

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.



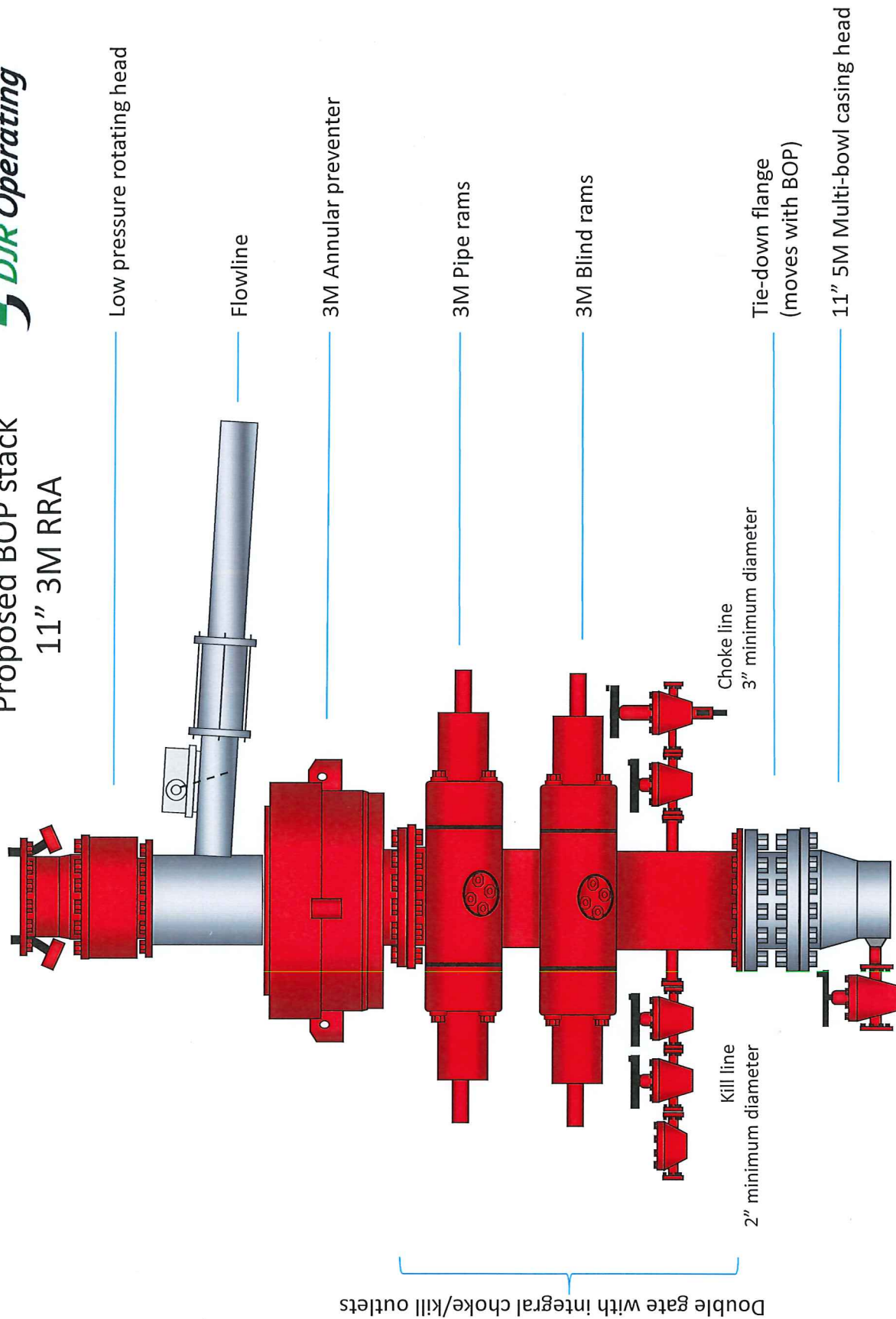
Choke Manifold

Actual system to conform with Onshore Order 2





Proposed BOP stack 11" 3M RRA





Company: DJR Operating
Project: Gallo Canyon Unit
Site: B26 2306 Pad
Well: # 315H
Wellbore: Original Drilling
Design: APD

WELL DETAILS: # 315H

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
GL 6930' & RKB 14' @ 6944ft	0	0	1892672.09	2840948.63	36.20091200	-107.43386700

5

PROJECT DETAILS: Gallo Canyon Unit

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

Plan: APD (# 315H/Original Drilling)

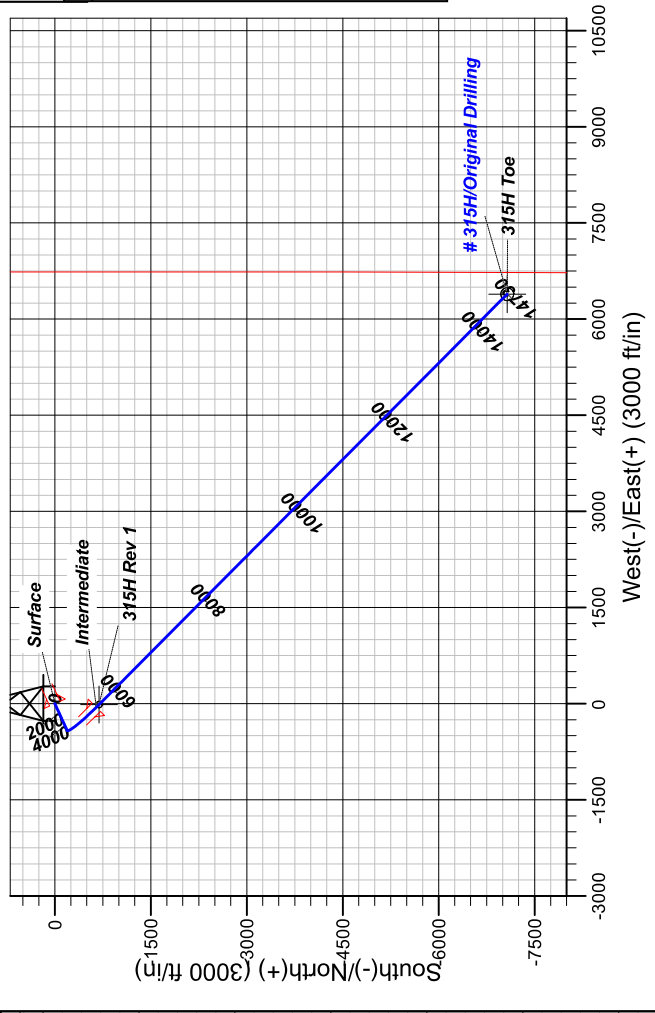
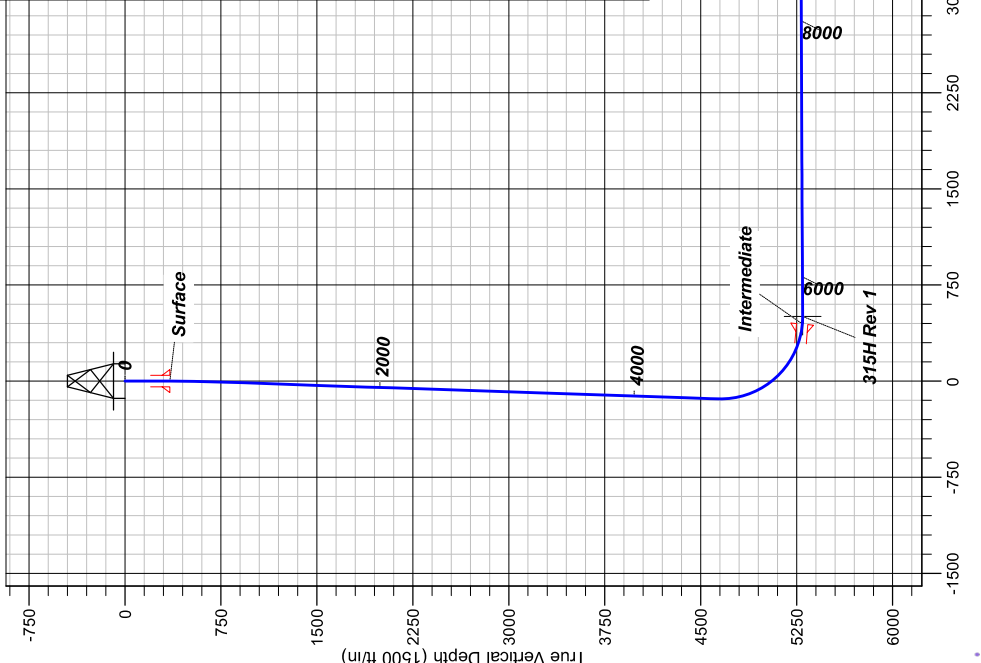
Created By: Janie Collins Date: 11:42, July 23 2021

DESIGN TARGET DETAILS

Point	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
315H Rev 1	5296	-690	-13	1891981.92	2840938.01	36.19901621	-107.43397262
315H Toe	5257	-7071	6389	1885627.97	2847366.88	36.18148700	-107.41221700

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0	0.00	0.00	0	0	0	0.00	0.00	0
350	0.00	0.00	350	0	0	0.00	0.00	0
667	6.34	245.47	666	-7	-16	2.00	245.47	-5
4663	13.4	243.17	4652	-10	-47	0.00	0.00	-10
5663	90.25	134.90	5296	-690	-11	0.00	0.00	503
14730	90.25	134.90	5257	-7071	6389	0.00	0.00	9530



315H/Original Drilling/APD



DJR Operating

Gallo Canyon Unit

B26 2306 Pad

315H - Slot 5

Original Drilling

Plan: APD

Standard Planning Report

23 July, 2021





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 315H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site:	B26 2306 Pad	North Reference:	True
Well:	# 315H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Gallo Canyon Unit, Sandoval County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	B26 2306 Pad				
Site Position:		Northing:	1,892,645.83 usft	Latitude:	36.20083900
From:	Lat/Long	Easting:	2,841,024.27 usft	Longitude:	-107.43361100
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.24

Well	# 315H - Slot 5					
Well Position	+N/-S	27 ft	Northing:	1,892,672.09 usft	Latitude:	36.20091200
	+E/-W	-76 ft	Easting:	2,840,948.63 usft	Longitude:	-107.43386700
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6930 ft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	10.72	63.27	51,255.12953459

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	137.90

Plan Survey Tool Program	Date	7/15/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	14,730	APD (Original Drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

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	
350	0.00	0.00	350	0	0	0.00	0.00	0.00	0.00	
667	6.34	245.47	666	-7	-16	2.00	2.00	0.00	245.47	
4663	6.34	245.47	4638	-190	-417	0.00	0.00	0.00	0.00	
5690	90.25	134.90	5296	-690	-13	9.00	8.17	-10.76	-110.43	315H Rev 1
14,730	90.25	134.90	5257	-7071	6389	0.00	0.00	0.00	0.00	315H Toe



Lonestar Consulting, LLC
Planning Report



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Company:	DJR Operating	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site:	B26 2306 Pad	North Reference:	True
Well:	# 315H	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
350	0.00	0.00	350	0	0	0	0.00	0.00	0.00
400	1.00	245.47	400	0	0	0	2.00	2.00	0.00
500	3.00	245.47	500	-2	-4	-1	2.00	2.00	0.00
600	5.00	245.47	600	-5	-10	-3	2.00	2.00	0.00
667	6.34	245.47	666	-7	-16	-5	2.00	2.00	0.00
700	6.34	245.47	699	-9	-19	-6	0.00	0.00	0.00
800	6.34	245.47	799	-13	-29	-10	0.00	0.00	0.00
900	6.34	245.47	898	-18	-39	-13	0.00	0.00	0.00
1000	6.34	245.47	997	-23	-49	-16	0.00	0.00	0.00
1100	6.34	245.47	1097	-27	-59	-20	0.00	0.00	0.00
1200	6.34	245.47	1196	-32	-69	-23	0.00	0.00	0.00
1300	6.34	245.47	1295	-36	-80	-26	0.00	0.00	0.00
1400	6.34	245.47	1395	-41	-90	-30	0.00	0.00	0.00
1500	6.34	245.47	1494	-45	-100	-33	0.00	0.00	0.00
1600	6.34	245.47	1594	-50	-110	-36	0.00	0.00	0.00
1700	6.34	245.47	1693	-55	-120	-40	0.00	0.00	0.00
1800	6.34	245.47	1792	-59	-130	-43	0.00	0.00	0.00
1900	6.34	245.47	1892	-64	-140	-46	0.00	0.00	0.00
2000	6.34	245.47	1991	-68	-150	-50	0.00	0.00	0.00
2100	6.34	245.47	2091	-73	-160	-53	0.00	0.00	0.00
2200	6.34	245.47	2190	-78	-170	-56	0.00	0.00	0.00
2300	6.34	245.47	2289	-82	-180	-60	0.00	0.00	0.00
2400	6.34	245.47	2389	-87	-190	-63	0.00	0.00	0.00
2500	6.34	245.47	2488	-91	-200	-66	0.00	0.00	0.00
2600	6.34	245.47	2588	-96	-210	-70	0.00	0.00	0.00
2700	6.34	245.47	2687	-100	-220	-73	0.00	0.00	0.00
2800	6.34	245.47	2786	-105	-230	-76	0.00	0.00	0.00
2900	6.34	245.47	2886	-110	-240	-80	0.00	0.00	0.00
3000	6.34	245.47	2985	-114	-250	-83	0.00	0.00	0.00
3100	6.34	245.47	3084	-119	-260	-86	0.00	0.00	0.00
3200	6.34	245.47	3184	-123	-270	-90	0.00	0.00	0.00
3300	6.34	245.47	3283	-128	-281	-93	0.00	0.00	0.00
3400	6.34	245.47	3383	-133	-291	-96	0.00	0.00	0.00
3500	6.34	245.47	3482	-137	-301	-100	0.00	0.00	0.00
3600	6.34	245.47	3581	-142	-311	-103	0.00	0.00	0.00
3700	6.34	245.47	3681	-146	-321	-106	0.00	0.00	0.00
3800	6.34	245.47	3780	-151	-331	-110	0.00	0.00	0.00
3900	6.34	245.47	3880	-156	-341	-113	0.00	0.00	0.00
4000	6.34	245.47	3979	-160	-351	-116	0.00	0.00	0.00
4100	6.34	245.47	4078	-165	-361	-120	0.00	0.00	0.00
4200	6.34	245.47	4178	-169	-371	-123	0.00	0.00	0.00
4300	6.34	245.47	4277	-174	-381	-126	0.00	0.00	0.00
4400	6.34	245.47	4377	-178	-391	-130	0.00	0.00	0.00
4500	6.34	245.47	4476	-183	-401	-133	0.00	0.00	0.00
4600	6.34	245.47	4575	-188	-411	-136	0.00	0.00	0.00
4663	6.34	245.47	4638	-190	-417	-139	0.00	0.00	0.00
4700	6.04	214.39	4675	-193	-420	-139	9.00	-0.81	-84.15
4800	11.70	165.08	4774	-207	-421	-128	9.00	5.66	-49.31
4900	19.97	151.56	4870	-232	-410	-103	9.00	8.27	-13.51
5000	28.67	145.89	4961	-267	-388	-62	9.00	8.70	-5.67



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 315H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site:	B26 2306 Pad	North Reference:	True
Well:	# 315H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5100	37.51	142.72	5044	-311	-356	-8	9.00	8.83	-3.18
5200	46.40	140.61	5119	-363	-315	59	9.00	8.89	-2.10
5300	55.32	139.05	5182	-423	-265	136	9.00	8.92	-1.56
5400	64.25	137.80	5232	-487	-208	222	9.00	8.93	-1.25
5500	73.20	136.73	5268	-555	-144	315	9.00	8.94	-1.08
5600	82.15	135.75	5290	-626	-77	413	9.00	8.95	-0.98
5690	90.25	134.90	5296	-690	-13	503	9.00	8.95	-0.94
5700	90.25	134.90	5296	-697	-7	513	0.00	0.00	0.00
5800	90.25	134.90	5295	-767	64	612	0.00	0.00	0.00
5900	90.25	134.90	5295	-838	135	712	0.00	0.00	0.00
6000	90.25	134.90	5294	-909	206	812	0.00	0.00	0.00
6100	90.25	134.90	5294	-979	277	912	0.00	0.00	0.00
6200	90.25	134.90	5294	-1050	347	1012	0.00	0.00	0.00
6300	90.25	134.90	5293	-1120	418	1112	0.00	0.00	0.00
6400	90.25	134.90	5293	-1191	489	1212	0.00	0.00	0.00
6500	90.25	134.90	5292	-1262	560	1311	0.00	0.00	0.00
6600	90.25	134.90	5292	-1332	631	1411	0.00	0.00	0.00
6700	90.25	134.90	5291	-1403	702	1511	0.00	0.00	0.00
6800	90.25	134.90	5291	-1473	772	1611	0.00	0.00	0.00
6900	90.25	134.90	5291	-1544	843	1711	0.00	0.00	0.00
7000	90.25	134.90	5290	-1614	914	1811	0.00	0.00	0.00
7100	90.25	134.90	5290	-1685	985	1911	0.00	0.00	0.00
7200	90.25	134.90	5289	-1756	1056	2010	0.00	0.00	0.00
7300	90.25	134.90	5289	-1826	1127	2110	0.00	0.00	0.00
7400	90.25	134.90	5288	-1897	1197	2210	0.00	0.00	0.00
7500	90.25	134.90	5288	-1967	1268	2310	0.00	0.00	0.00
7600	90.25	134.90	5288	-2038	1339	2410	0.00	0.00	0.00
7700	90.25	134.90	5287	-2109	1410	2510	0.00	0.00	0.00
7800	90.25	134.90	5287	-2179	1481	2610	0.00	0.00	0.00
7900	90.25	134.90	5286	-2250	1552	2709	0.00	0.00	0.00
8000	90.25	134.90	5286	-2320	1622	2809	0.00	0.00	0.00
8100	90.25	134.90	5285	-2391	1693	2909	0.00	0.00	0.00
8200	90.25	134.90	5285	-2461	1764	3009	0.00	0.00	0.00
8300	90.25	134.90	5285	-2532	1835	3109	0.00	0.00	0.00
8400	90.25	134.90	5284	-2603	1906	3209	0.00	0.00	0.00
8500	90.25	134.90	5284	-2673	1977	3309	0.00	0.00	0.00
8600	90.25	134.90	5283	-2744	2047	3409	0.00	0.00	0.00
8700	90.25	134.90	5283	-2814	2118	3508	0.00	0.00	0.00
8800	90.25	134.90	5282	-2885	2189	3608	0.00	0.00	0.00
8900	90.25	134.90	5282	-2956	2260	3708	0.00	0.00	0.00
9000	90.25	134.90	5282	-3026	2331	3808	0.00	0.00	0.00
9100	90.25	134.90	5281	-3097	2402	3908	0.00	0.00	0.00
9200	90.25	134.90	5281	-3167	2472	4008	0.00	0.00	0.00
9300	90.25	134.90	5280	-3238	2543	4108	0.00	0.00	0.00
9400	90.25	134.90	5280	-3309	2614	4207	0.00	0.00	0.00
9500	90.25	134.90	5279	-3379	2685	4307	0.00	0.00	0.00
9600	90.25	134.90	5279	-3450	2756	4407	0.00	0.00	0.00
9700	90.25	134.90	5279	-3520	2827	4507	0.00	0.00	0.00
9800	90.25	134.90	5278	-3591	2897	4607	0.00	0.00	0.00
9900	90.25	134.90	5278	-3661	2968	4707	0.00	0.00	0.00
10,000	90.25	134.90	5277	-3732	3039	4807	0.00	0.00	0.00
10,100	90.25	134.90	5277	-3803	3110	4906	0.00	0.00	0.00
10,200	90.25	134.90	5276	-3873	3181	5006	0.00	0.00	0.00
10,300	90.25	134.90	5276	-3944	3252	5106	0.00	0.00	0.00



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 315H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site:	B26 2306 Pad	North Reference:	True
Well:	# 315H	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	90.25	134.90	5276	-4014	3322	5206	0.00	0.00	0.00
10,500	90.25	134.90	5275	-4085	3393	5306	0.00	0.00	0.00
10,600	90.25	134.90	5275	-4156	3464	5406	0.00	0.00	0.00
10,700	90.25	134.90	5274	-4226	3535	5506	0.00	0.00	0.00
10,800	90.25	134.90	5274	-4297	3606	5605	0.00	0.00	0.00
10,900	90.25	134.90	5273	-4367	3677	5705	0.00	0.00	0.00
11,000	90.25	134.90	5273	-4438	3747	5805	0.00	0.00	0.00
11,100	90.25	134.90	5273	-4509	3818	5905	0.00	0.00	0.00
11,200	90.25	134.90	5272	-4579	3889	6005	0.00	0.00	0.00
11,300	90.25	134.90	5272	-4650	3960	6105	0.00	0.00	0.00
11,400	90.25	134.90	5271	-4720	4031	6205	0.00	0.00	0.00
11,500	90.25	134.90	5271	-4791	4102	6305	0.00	0.00	0.00
11,600	90.25	134.90	5270	-4861	4172	6404	0.00	0.00	0.00
11,700	90.25	134.90	5270	-4932	4243	6504	0.00	0.00	0.00
11,800	90.25	134.90	5270	-5003	4314	6604	0.00	0.00	0.00
11,900	90.25	134.90	5269	-5073	4385	6704	0.00	0.00	0.00
12,000	90.25	134.90	5269	-5144	4456	6804	0.00	0.00	0.00
12,100	90.25	134.90	5268	-5214	4527	6904	0.00	0.00	0.00
12,200	90.25	134.90	5268	-5285	4597	7004	0.00	0.00	0.00
12,300	90.25	134.90	5267	-5356	4668	7103	0.00	0.00	0.00
12,400	90.25	134.90	5267	-5426	4739	7203	0.00	0.00	0.00
12,500	90.25	134.90	5267	-5497	4810	7303	0.00	0.00	0.00
12,600	90.25	134.90	5266	-5567	4881	7403	0.00	0.00	0.00
12,700	90.25	134.90	5266	-5638	4952	7503	0.00	0.00	0.00
12,800	90.25	134.90	5265	-5708	5022	7603	0.00	0.00	0.00
12,900	90.25	134.90	5265	-5779	5093	7703	0.00	0.00	0.00
13,000	90.25	134.90	5264	-5850	5164	7802	0.00	0.00	0.00
13,100	90.25	134.90	5264	-5920	5235	7902	0.00	0.00	0.00
13,200	90.25	134.90	5264	-5991	5306	8002	0.00	0.00	0.00
13,300	90.25	134.90	5263	-6061	5377	8102	0.00	0.00	0.00
13,400	90.25	134.90	5263	-6132	5447	8202	0.00	0.00	0.00
13,500	90.25	134.90	5262	-6203	5518	8302	0.00	0.00	0.00
13,600	90.25	134.90	5262	-6273	5589	8402	0.00	0.00	0.00
13,700	90.25	134.90	5261	-6344	5660	8501	0.00	0.00	0.00
13,800	90.25	134.90	5261	-6414	5731	8601	0.00	0.00	0.00
13,900	90.25	134.90	5261	-6485	5802	8701	0.00	0.00	0.00
14,000	90.25	134.90	5260	-6556	5872	8801	0.00	0.00	0.00
14,100	90.25	134.90	5260	-6626	5943	8901	0.00	0.00	0.00
14,200	90.25	134.90	5259	-6697	6014	9001	0.00	0.00	0.00
14,300	90.25	134.90	5259	-6767	6085	9101	0.00	0.00	0.00
14,400	90.25	134.90	5258	-6838	6156	9201	0.00	0.00	0.00
14,500	90.25	134.90	5258	-6908	6227	9300	0.00	0.00	0.00
14,600	90.25	134.90	5258	-6979	6297	9400	0.00	0.00	0.00
14,700	90.25	134.90	5257	-7050	6368	9500	0.00	0.00	0.00
14,730	90.25	134.90	5257	-7071	6389	9530	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 315H - Slot 5
Company:	DJR Operating	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site:	B26 2306 Pad	North Reference:	True
Well:	# 315H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
315H Toe - hit/miss target - Shape	0.00	0.00	5257	-7071	6389	1,885,627.97	2,847,366.88	36.18148700	-107.41221700
315H Rev 1 - plan hits target center - Circle (radius 100)	0.00	0.00	5296	-690	-13	1,891,981.93	2,840,938.01	36.19901621	-107.43391262

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350	350	Surface	9.63	12.25	
5632	5293	Intermediate	7.00	8.75	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1444	1439	Ojo Alamo		0.00	0.00
1554	1548	Kirtland		0.00	0.00
1749	1742	Fruitland		0.00	0.00
1957	1948	Pictured Cliffs		0.00	0.00
2073	2064	Lewis		0.00	0.00
2813	2799	Chacra		0.00	0.00
3524	3506	Menefee		0.00	0.00
4203	4181	Point Lookout		0.00	0.00
4396	4373	Mancos		0.00	0.00
4794	4768	Mancos Silt		0.00	0.00
5464	5257	Gallup A		0.00	0.00
5582	5287	Gallup B		0.00	0.00



DJR Operating

Gallo Canyon Unit

B26 2306 Pad

315H

Original Drilling

APD

Anticollision Report

23 July, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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:	MD Interval 100ft	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	7/15/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	14,730	APD (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

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						
B26 2306 Pad						
# 310H - Original Drilling - APD	300	300	20	18	11.473	CC
# 310H - Original Drilling - APD	400	400	20	18	8.277	ES
# 310H - Original Drilling - APD	1100	1103	28	21	3.638	SF
# 311H - Original Drilling - APD	300	300	40	38	22.945	CC
# 311H - Original Drilling - APD	400	400	40	38	16.424	ES
# 311H - Original Drilling - APD	9700	9771	802	585	3.698	SF
# 316H - Original Drilling - APD	655	654	16	12	3.754	CC
# 316H - Original Drilling - APD	700	699	16	11	3.494	ES
# 316H - Original Drilling - APD	4600	4598	77	40	2.107	SF
# 401H - Original Drilling - APD	300	300	80	78	45.959	CC
# 401H - Original Drilling - APD	400	400	80	78	32.768	ES
# 401H - Original Drilling - APD	14,730	14,108	567	126	1.286	Level 3, SF
# 402H - Original Drilling - APD	300	300	60	58	34.418	CC
# 402H - Original Drilling - APD	400	400	60	58	24.572	ES
# 402H - Original Drilling - APD	1400	1399	116	106	11.112	SF

Offset Design: B26 2306 Pad - # 310H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0 ft
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance						
Measured	Depth	Depth	Depth	Measured	Offset	Toolface	+N/-S	+E/-W	Between	Between	Minimum	Separation		Warning	
Depth	(ft)	(ft)	(ft)	Depth	(ft)	(°)	(ft)	(ft)	Centres	Ellipses	Separation	Factor			
(ft)									(ft)	(ft)	(ft)				
0	0	0	0	0	0	109.14	-7	19	20						
100	100	100	100	0	0	109.14	-7	19	20	20	0.31	64.833			
200	200	200	200	1	1	109.14	-7	19	20	19	1.03	19.495			
300	300	300	300	1	1	109.14	-7	19	20	18	1.74	11.473	CC		
300	300	300	300	1	1	109.14	-7	19	20	18	1.74	11.461			
400	400	400	400	1	1	-137.18	-7	19	20	18	2.45	8.277	ES		
500	500	500	500	2	2	-142.27	-7	19	23	20	3.15	7.210			
600	600	601	601	2	2	-145.90	-9	16	26	22	3.84	6.759			
700	699	701	701	2	2	-147.48	-13	10	29	25	4.55	6.487			
800	799	802	801	3	3	-145.14	-19	1	31	26	5.27	5.911			
900	898	903	901	3	3	-138.16	-27	-10	31	25	6.04	5.072			
1000	997	1003	1000	3	3	-125.05	-37	-25	29	22	6.89	4.202			
1070	1067	1073	1068	4	4	-111.30	-45	-36	28	21	7.54	3.749			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 310H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
1100	1097	1103	1097	4	4	-104.35	-49	-42	28	21	7.82	3.638 SF		
1200	1196	1202	1193	4	4	-79.75	-63	-61	33	24	8.67	3.766		
1300	1295	1300	1288	5	5	-60.60	-78	-83	43	33	9.34	4.566		
1400	1395	1399	1383	5	6	-49.35	-93	-104	56	46	9.99	5.560		
1500	1494	1498	1479	6	6	-42.48	-108	-125	70	59	10.67	6.537		
1600	1594	1596	1574	6	7	-37.97	-123	-147	85	73	11.37	7.440		
1700	1693	1695	1669	6	7	-34.82	-139	-168	100	88	12.09	8.256		
1800	1792	1794	1764	7	8	-32.50	-154	-189	115	102	12.82	8.990		
1900	1892	1893	1859	7	8	-30.73	-169	-211	131	117	13.56	9.650		
2000	1991	1991	1954	8	9	-29.34	-184	-232	147	132	14.31	10.245		
2100	2091	2090	2050	8	10	-28.22	-199	-254	162	147	15.05	10.782		
2200	2190	2189	2145	8	10	-27.30	-214	-275	178	162	15.81	11.269		
2300	2289	2287	2240	9	11	-26.53	-229	-296	194	177	16.56	11.713		
2400	2389	2386	2335	9	11	-25.87	-244	-318	210	193	17.31	12.118		
2500	2488	2485	2430	10	12	-25.31	-259	-339	226	208	18.07	12.490		
2600	2588	2583	2525	10	13	-24.82	-275	-361	242	223	18.83	12.832		
2700	2687	2682	2621	10	13	-24.39	-290	-382	258	238	19.59	13.147		
2800	2786	2781	2716	11	14	-24.01	-305	-403	273	253	20.35	13.438		
2900	2886	2880	2811	11	14	-23.67	-320	-425	289	268	21.11	13.709		
3000	2985	2978	2906	12	15	-23.37	-335	-446	305	284	21.87	13.961		
3100	3084	3077	3001	12	16	-23.10	-350	-467	321	299	22.64	14.195		
3200	3184	3176	3096	13	16	-22.85	-365	-489	337	314	23.40	14.414		
3300	3283	3274	3192	13	17	-22.63	-380	-510	353	329	24.17	14.620		
3400	3383	3373	3287	13	18	-22.42	-395	-532	369	344	24.93	14.812		
3500	3482	3472	3382	14	18	-22.24	-411	-553	385	360	25.69	14.993		
3600	3581	3571	3477	14	19	-22.06	-426	-574	401	375	26.46	15.164		
3700	3681	3669	3572	15	19	-21.90	-441	-596	417	390	27.23	15.325		
3800	3780	3768	3667	15	20	-21.76	-456	-617	433	405	27.99	15.477		
3900	3880	3867	3763	15	21	-21.62	-471	-638	449	420	28.76	15.621		
4000	3979	3965	3858	16	21	-21.49	-486	-660	465	436	29.52	15.757		
4100	4078	4064	3953	16	22	-21.37	-501	-681	481	451	30.29	15.886		
4200	4178	4163	4048	17	22	-21.26	-516	-703	497	466	31.06	16.009		
4300	4277	4261	4143	17	23	-21.16	-531	-724	513	481	31.83	16.126		
4400	4377	4360	4238	18	24	-21.06	-546	-745	529	497	32.59	16.238		
4500	4476	4459	4334	18	24	-20.97	-562	-767	545	512	33.36	16.344		
4600	4575	4558	4429	18	25	-20.88	-577	-788	561	527	34.13	16.445		
4700	4675	4656	4524	19	26	9.69	-592	-810	577	542	34.88	16.548		
4800	4774	4754	4618	19	26	58.46	-607	-831	593	558	35.50	16.709		
4900	4870	4848	4709	19	27	72.64	-621	-851	610	574	36.01	16.935		
5000	4961	4937	4794	20	27	79.70	-635	-870	629	592	36.53	17.209		
5100	5044	5017	4872	20	28	84.36	-647	-888	652	615	37.23	17.510		
5200	5119	5079	4931	20	28	86.86	-656	-901	682	644	38.17	17.863		
5300	5182	5117	4968	20	28	86.73	-660	-912	721	682	39.37	18.322		
5400	5232	5140	4989	21	29	84.04	-661	-918	771	730	40.84	18.883		
5500	5268	5150	4999	21	29	78.85	-662	-922	829	787	42.42	19.552		
5600	5290	5150	4999	22	29	71.52	-662	-922	894	850	44.00	20.319		
5700	5296	5150	4999	24	29	64.27	-662	-922	962	917	45.59	21.111		
5800	5295	5135	4985	25	29	63.09	-661	-917	1035	988	46.86	22.076		
5900	5295	5128	4978	26	28	62.48	-661	-915	1111	1063	48.04	23.124		
6000	5294	5121	4972	28	28	61.95	-660	-913	1190	1141	49.05	24.273		
6100	5294	5100	4952	30	28	60.30	-658	-907	1273	1223	49.73	25.601		
6200	5294	5100	4952	32	28	60.30	-658	-907	1358	1307	50.54	26.868		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 310H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Rule Assigned:	
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)		Warning	
6300	5293	5100	4952	34	28	60.30	-658	-907	1444	1393	51.23	28.197	
6400	5293	5100	4952	36	28	60.30	-658	-907	1533	1481	51.82	29.578	
6500	5292	5100	4952	38	28	60.30	-658	-907	1622	1570	52.33	31.000	
6600	5292	5100	4952	40	28	60.30	-658	-907	1713	1660	52.78	32.457	
6700	5291	5100	4952	42	28	60.30	-658	-907	1805	1752	53.17	33.944	
6800	5291	5100	4952	44	28	60.30	-658	-907	1897	1844	53.51	35.456	
6900	5291	5100	4952	47	28	60.30	-658	-907	1991	1937	53.82	36.989	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 311H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Rule Assigned:												
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)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	109.14	-13	38	40					
100	100	100	100	0	0	109.14	-13	38	40	40	0.31	129.666		
200	200	200	200	1	1	109.14	-13	38	40	39	1.03	38.991		
300	300	300	300	1	1	109.14	-13	38	40	38	1.74	22.945 CC		
300	300	300	300	1	1	109.14	-13	38	40	38	1.74	22.944		
400	400	400	400	1	1	-136.76	-13	38	40	38	2.45	16.424 ES		
500	500	500	500	2	2	-139.43	-13	37	43	40	3.15	13.558		
600	600	601	601	2	2	-141.26	-16	35	46	42	3.84	12.044		
700	699	702	702	2	2	-141.77	-21	30	51	46	4.55	11.100		
800	799	803	802	3	3	-139.56	-28	22	54	48	5.29	10.131		
900	898	904	902	3	3	-134.35	-38	12	55	49	6.06	9.086		
1000	997	1004	1000	3	3	-126.11	-50	-1	56	49	6.90	8.108		
1100	1097	1104	1098	4	4	-114.89	-64	-16	57	50	7.80	7.364		
1200	1196	1203	1194	4	4	-101.49	-81	-33	61	53	8.72	7.032		
1300	1295	1301	1289	5	5	-88.64	-99	-52	69	59	9.59	7.175		
1400	1395	1400	1384	5	6	-78.65	-117	-71	79	69	10.40	7.605		
1500	1494	1498	1479	6	6	-71.09	-135	-89	91	80	11.18	8.164		
1600	1594	1597	1575	6	7	-65.37	-153	-108	105	93	11.94	8.763		
1700	1693	1696	1670	6	7	-60.97	-171	-127	119	106	12.69	9.357		
1800	1792	1794	1765	7	8	-57.51	-189	-146	133	120	13.44	9.926		
1900	1892	1893	1860	7	8	-54.74	-207	-164	148	134	14.19	10.460		
2000	1991	1992	1955	8	9	-52.48	-225	-183	164	149	14.95	10.957		
2100	2091	2090	2050	8	10	-50.62	-243	-202	179	164	15.71	11.417		
2200	2190	2189	2145	8	10	-49.05	-261	-221	195	179	16.47	11.842		
2300	2289	2287	2241	9	11	-47.71	-279	-239	211	194	17.24	12.235		
2400	2389	2386	2336	9	11	-46.56	-296	-258	227	209	18.00	12.598		
2500	2488	2485	2431	10	12	-45.56	-314	-277	243	224	18.77	12.935		
2600	2588	2583	2526	10	13	-44.69	-332	-296	259	239	19.54	13.247		
2700	2687	2682	2621	10	13	-43.92	-350	-314	275	255	20.31	13.538		
2800	2786	2781	2716	11	14	-43.23	-368	-333	291	270	21.08	13.808		
2900	2886	2879	2812	11	14	-42.61	-386	-352	307	285	21.86	14.060		
3000	2985	2978	2907	12	15	-42.06	-404	-371	324	301	22.63	14.296		
3100	3084	3077	3002	12	16	-41.56	-422	-389	340	316	23.41	14.516		
3200	3184	3175	3097	13	16	-41.11	-440	-408	356	332	24.18	14.723		
3300	3283	3274	3192	13	17	-40.69	-458	-427	372	347	24.96	14.918		
3400	3383	3372	3287	13	17	-40.31	-476	-446	389	363	25.74	15.101		
3500	3482	3471	3382	14	18	-39.96	-494	-464	405	378	26.52	15.273		
3600	3581	3570	3478	14	19	-39.64	-512	-483	421	394	27.29	15.436		
3700	3681	3668	3573	15	19	-39.34	-530	-502	438	410	28.07	15.590		
3800	3780	3767	3668	15	20	-39.06	-548	-521	454	425	28.85	15.736		
3900	3880	3866	3763	15	20	-38.80	-566	-539	470	441	29.63	15.874		
4000	3979	3964	3858	16	21	-38.56	-584	-558	487	456	30.41	16.006		
4100	4078	4063	3953	16	22	-38.34	-602	-577	503	472	31.19	16.131		
4200	4178	4161	4049	17	22	-38.13	-620	-596	520	488	31.97	16.249		
4300	4277	4260	4144	17	23	-37.93	-638	-614	536	503	32.76	16.363		
4400	4377	4359	4239	18	24	-37.75	-655	-633	552	519	33.54	16.470		
4500	4476	4457	4334	18	24	-37.57	-673	-652	569	534	34.32	16.574		
4600	4575	4556	4429	18	25	-37.41	-691	-671	585	550	35.10	16.672		
4700	4675	4655	4524	19	25	-6.74	-709	-689	601	565	35.87	16.766		
4800	4774	4753	4619	19	26	42.37	-727	-708	614	577	36.42	16.855		
4900	4870	4848	4711	19	27	57.19	-745	-726	623	586	36.76	16.939		
5000	4961	4938	4798	20	27	65.29	-761	-743	630	593	36.99	17.024		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 311H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												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)			
5100	5044	5020	4877	20	28	71.42	-776	-759	637	600	37.25	17.105	
5200	5119	5096	4950	20	28	76.23	-794	-769	648	610	37.81	17.139	
5300	5182	5178	5028	20	29	80.46	-820	-773	663	624	38.91	17.043	
5400	5232	5269	5111	21	29	84.40	-857	-768	682	642	40.50	16.849	
5500	5268	5373	5199	21	30	88.28	-909	-751	705	663	42.37	16.649	
5600	5290	5496	5293	22	30	92.36	-981	-716	731	687	44.13	16.559	
5700	5296	5650	5387	24	31	97.07	-1083	-651	756	711	45.41	16.656	
5800	5295	5856	5465	25	32	102.70	-1232	-533	775	729	46.29	16.752	
5900	5295	6050	5483	26	33	103.96	-1372	-401	780	732	48.34	16.136	
6000	5294	6150	5482	28	34	103.93	-1443	-331	780	729	51.49	15.158	
6100	5294	6250	5482	30	35	103.91	-1514	-261	781	726	54.89	14.228	
6200	5294	6350	5481	32	36	103.89	-1585	-190	781	723	58.71	13.309	
6300	5293	6450	5480	34	38	103.86	-1656	-120	782	720	62.06	12.599	
6400	5293	6550	5480	36	39	103.84	-1727	-49	782	716	66.06	11.844	
6500	5292	6650	5479	38	41	103.82	-1798	21	783	713	70.10	11.169	
6600	5292	6750	5479	40	42	103.79	-1869	92	783	709	74.22	10.555	
6700	5291	6850	5478	42	44	103.77	-1940	162	784	705	78.43	9.995	
6800	5291	6950	5477	44	46	103.75	-2011	233	784	702	82.71	9.484	
6900	5291	7050	5477	47	48	103.73	-2082	303	785	698	87.04	9.017	
7000	5290	7150	5476	49	50	103.70	-2153	373	785	694	91.43	8.589	
7100	5290	7250	5476	51	52	103.68	-2224	444	786	690	95.87	8.197	
7200	5289	7350	5475	53	54	103.66	-2295	514	786	686	100.34	7.837	
7300	5289	7450	5474	56	56	103.63	-2366	585	787	682	104.85	7.504	
7400	5288	7550	5474	58	58	103.61	-2437	655	787	678	109.38	7.197	
7500	5288	7650	5473	60	61	103.59	-2508	726	788	674	113.95	6.913	
7600	5288	7750	5472	63	63	103.57	-2579	796	788	670	118.54	6.650	
7700	5287	7850	5472	65	65	103.54	-2650	867	789	666	123.14	6.405	
7800	5287	7950	5471	68	67	103.52	-2721	937	789	661	127.77	6.177	
7900	5286	8050	5471	70	69	103.50	-2792	1007	790	657	132.42	5.964	
8000	5286	8150	5470	72	72	103.48	-2862	1078	790	653	137.08	5.765	
8100	5285	8250	5469	75	74	103.45	-2933	1148	791	649	141.75	5.578	
8200	5285	8350	5469	77	76	103.43	-3004	1219	791	645	146.44	5.403	
8300	5285	8450	5468	79	79	103.41	-3075	1289	792	641	151.14	5.238	
8400	5284	8550	5468	82	81	103.39	-3146	1360	792	636	155.85	5.083	
8500	5284	8650	5467	84	83	103.36	-3217	1430	793	632	160.56	4.937	
8600	5283	8750	5466	87	86	103.34	-3288	1500	793	628	165.29	4.799	
8700	5283	8850	5466	89	88	103.32	-3359	1571	794	624	170.03	4.668	
8800	5282	8950	5465	92	90	103.30	-3430	1641	794	619	174.77	4.544	
8900	5282	9050	5464	94	93	103.27	-3501	1712	795	615	179.52	4.426	
9000	5282	9150	5464	96	95	103.25	-3572	1782	795	611	184.28	4.315	
9100	5281	9250	5463	99	98	103.23	-3643	1853	796	607	189.04	4.209	
9200	5281	9350	5463	101	100	103.21	-3714	1923	796	602	193.81	4.108	
9300	5280	9450	5462	104	102	103.19	-3785	1994	797	598	198.59	4.011	
9400	5280	9550	5461	106	105	103.16	-3856	2064	797	594	203.37	3.919	
9500	5279	9650	5461	109	107	103.14	-3927	2134	798	589	208.15	3.832	
9600	5279	9750	5460	111	110	103.12	-3998	2205	798	585	212.94	3.748	
9700	5279	9771	5460	113	110	103.11	-4013	2219	802	585	217.00	3.698 SF	
9800	5278	9771	5460	116	110	103.11	-4013	2219	819	601	218.01	3.756	
9900	5278	9771	5460	118	110	103.11	-4013	2219	847	631	216.13	3.919	
10,000	5277	9771	5460	121	110	103.11	-4013	2219	885	673	211.97	4.177	
10,100	5277	9771	5460	123	110	103.11	-4013	2219	933	727	206.23	4.525	
10,200	5276	9771	5460	126	110	103.11	-4013	2219	989	789	199.55	4.954	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 311H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												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)			
10,300	5276	9771	5460	128	110	103.11	-4013	2219	1051	858	192.46	5.459	
10,400	5276	9771	5460	131	110	103.11	-4013	2219	1118	933	185.32	6.035	
10,500	5275	9771	5460	133	110	103.11	-4013	2219	1191	1012	178.38	6.674	
10,600	5275	9771	5460	136	110	103.11	-4013	2219	1266	1095	171.77	7.373	
10,700	5274	9771	5460	138	110	103.11	-4013	2219	1346	1180	165.59	8.126	
10,800	5274	9771	5460	140	110	103.11	-4013	2219	1427	1268	159.84	8.930	
10,900	5273	9771	5460	143	110	103.11	-4013	2219	1511	1357	154.54	9.780	
11,000	5273	9771	5460	145	110	103.11	-4013	2219	1597	1447	149.65	10.672	
11,100	5273	9771	5460	148	110	103.11	-4013	2219	1684	1539	145.17	11.603	
11,200	5272	9771	5460	150	110	103.11	-4013	2219	1773	1632	141.05	12.571	
11,300	5272	9771	5460	153	110	103.11	-4013	2219	1863	1726	137.27	13.571	
11,400	5271	9771	5460	155	110	103.11	-4013	2219	1954	1820	133.80	14.603	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 316H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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		
0	0	0	0	0	0	-69.59	7	-19	20					
100	100	100	100	0	0	-69.59	7	-19	20	20	0.31	64.332		
200	200	200	200	1	1	-69.59	7	-19	20	19	1.03	19.345		
300	300	300	300	1	1	-69.59	7	-19	20	18	1.74	11.384		
400	400	400	400	1	1	45.85	7	-19	20	17	2.45	7.960		
500	500	500	500	2	2	53.17	7	-19	18	14	3.15	5.586		
600	600	599	599	2	2	64.34	6	-22	16	12	3.84	4.205		
655	654	654	654	2	2	70.91	5	-26	16	12	4.24	3.754 CC		
700	699	699	699	2	2	76.96	4	-29	16	11	4.57	3.494 ES		
800	799	799	798	3	3	81.28	1	-39	17	12	5.33	3.230		
900	898	899	897	3	3	83.03	-2	-49	19	13	6.11	3.064		
1000	997	999	997	3	3	84.52	-5	-59	20	13	6.90	2.932		
1100	1097	1099	1096	4	4	85.80	-8	-70	22	14	7.70	2.825		
1200	1196	1199	1196	4	4	86.91	-11	-80	23	15	8.51	2.738		
1300	1295	1299	1295	5	5	87.89	-14	-91	25	16	9.32	2.665		
1400	1395	1399	1394	5	5	88.75	-17	-101	26	16	10.13	2.604		
1500	1494	1499	1494	6	5	89.52	-20	-111	28	17	10.95	2.552		
1600	1594	1599	1593	6	6	90.20	-23	-122	30	18	11.77	2.507		
1700	1693	1699	1693	6	6	90.82	-26	-132	31	18	12.59	2.468		
1800	1792	1799	1792	7	7	91.37	-29	-143	33	19	13.41	2.434		
1900	1892	1899	1891	7	7	91.88	-32	-153	34	20	14.23	2.403		
2000	1991	1999	1991	8	7	92.34	-35	-163	36	21	15.05	2.376		
2100	2091	2099	2090	8	8	92.76	-38	-174	37	21	15.88	2.352		
2200	2190	2199	2190	8	8	93.15	-41	-184	39	22	16.70	2.330		
2300	2289	2299	2289	9	9	93.51	-44	-194	40	23	17.52	2.311		
2400	2389	2399	2388	9	9	93.84	-47	-205	42	24	18.35	2.293		
2500	2488	2499	2488	10	10	94.15	-50	-215	44	24	19.17	2.277		
2600	2588	2599	2587	10	10	94.43	-53	-226	45	25	20.00	2.262		
2700	2687	2699	2687	10	10	94.70	-56	-236	47	26	20.82	2.248		
2800	2786	2799	2786	11	11	94.95	-59	-246	48	27	21.65	2.235		
2900	2886	2899	2885	11	11	95.18	-62	-257	50	27	22.47	2.224		
3000	2985	2999	2985	12	12	95.40	-66	-267	52	28	23.30	2.213		
3100	3084	3099	3084	12	12	95.61	-69	-278	53	29	24.13	2.203		
3200	3184	3199	3184	13	12	95.80	-72	-288	55	30	24.95	2.193		
3300	3283	3299	3283	13	13	95.99	-75	-298	56	31	25.78	2.184		
3400	3383	3398	3382	13	13	96.16	-78	-309	58	31	26.60	2.176		
3500	3482	3498	3482	14	14	96.32	-81	-319	59	32	27.43	2.168		
3600	3581	3598	3581	14	14	96.48	-84	-330	61	33	28.26	2.161		
3700	3681	3698	3681	15	14	96.63	-87	-340	63	34	29.08	2.154		
3800	3780	3798	3780	15	15	96.77	-90	-350	64	34	29.91	2.148		
3900	3880	3898	3879	15	15	96.90	-93	-361	66	35	30.74	2.142		
4000	3979	3998	3979	16	16	97.03	-96	-371	67	36	31.56	2.136		
4100	4078	4098	4078	16	16	97.15	-99	-381	69	37	32.39	2.131		
4200	4178	4198	4178	17	17	97.26	-102	-392	71	37	33.22	2.125		
4300	4277	4298	4277	17	17	97.38	-105	-402	72	38	34.04	2.121		
4400	4377	4398	4376	18	17	97.48	-108	-413	74	39	34.87	2.116		
4500	4476	4498	4476	18	18	97.58	-111	-423	75	40	35.70	2.111		
4600	4575	4598	4575	18	18	97.68	-114	-433	77	40	36.52	2.107 SF		
4700	4675	4698	4675	19	19	128.39	-117	-444	79	42	37.35	2.128		
4800	4774	4789	4764	19	19	173.65	-118	-455	96	58	37.96	2.539		
4900	4870	4865	4838	19	19	-178.25	-111	-471	139	101	37.94	3.659		
5000	4961	4924	4894	20	20	-175.84	-102	-488	204	166	37.50	5.429		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 316H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
5100	5044	4965	4932	20	20	-173.33	-94	-502	285	248	37.00	7.691	
5200	5119	5000	4963	20	20	-169.62	-85	-514	376	339	36.99	10.172	
5300	5182	5000	4963	20	20	-150.70	-85	-514	473	437	36.26	13.052	
5400	5232	5000	4963	21	20	-61.68	-85	-514	573	537	36.15	15.848	
5500	5268	5000	4963	21	20	-23.97	-85	-514	672	635	36.40	18.456	
5600	5290	5000	4963	22	20	-15.68	-85	-514	769	732	36.86	20.849	
5700	5296	4972	4938	24	20	-12.11	-92	-504	861	824	36.86	23.350	
5800	5295	4950	4918	25	20	-11.76	-97	-496	952	915	37.05	25.683	
5900	5295	4950	4918	26	20	-11.76	-97	-496	1044	1006	37.54	27.804	
6000	5294	4926	4896	28	20	-11.42	-102	-489	1136	1099	37.58	30.244	
6100	5294	4900	4872	30	20	-11.08	-106	-481	1230	1193	37.57	32.744	
6200	5294	4900	4872	32	20	-11.08	-106	-481	1324	1286	37.87	34.971	
6300	5293	4900	4872	34	20	-11.08	-106	-481	1419	1381	38.11	37.239	
6400	5293	4900	4872	36	20	-11.08	-106	-481	1515	1476	38.31	39.538	
6500	5292	4875	4848	38	19	-10.78	-110	-474	1610	1572	38.24	42.098	
6600	5292	4850	4824	40	19	-10.51	-113	-468	1706	1668	38.18	44.686	
6700	5291	4850	4824	42	19	-10.51	-113	-468	1802	1764	38.33	47.020	
6800	5291	4850	4824	44	19	-10.51	-113	-468	1899	1860	38.46	49.371	
6900	5291	4850	4824	47	19	-10.51	-113	-468	1996	1957	38.58	51.736	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 401H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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		
0	0	0	0	0	0	109.38	-27	76	80					
100	100	100	100	0	0	109.38	-27	76	80	80	0.31	259.722		
200	200	200	200	1	1	109.38	-27	76	80	79	1.03	78.098		
300	300	300	300	1	1	109.38	-27	76	80	78	1.74	45.959 CC		
300	300	300	300	1	1	109.38	-27	76	80	78	1.74	45.959		
400	400	400	400	1	1	-136.30	-27	76	80	78	2.45	32.768 ES		
500	500	500	500	2	2	-137.64	-27	75	83	80	3.15	26.334		
600	600	601	601	2	2	-138.40	-30	74	87	84	3.84	22.796		
700	699	701	701	2	2	-138.30	-36	70	94	89	4.55	20.623		
800	799	801	800	3	3	-136.59	-46	66	100	95	5.29	18.952		
900	898	901	899	3	3	-133.22	-58	59	106	100	6.07	17.535		
1000	997	1001	998	3	3	-128.47	-73	51	113	106	6.88	16.376		
1100	1097	1100	1094	4	4	-122.64	-92	42	120	112	7.74	15.501		
1200	1196	1198	1190	4	4	-116.33	-112	31	129	120	8.63	14.943		
1300	1295	1297	1286	5	5	-110.75	-133	20	139	130	9.52	14.632		
1400	1395	1395	1381	5	5	-105.97	-154	9	151	140	10.41	14.492		
1500	1494	1494	1477	6	6	-101.88	-175	-2	163	152	11.29	14.465		
1600	1594	1593	1573	6	6	-98.38	-196	-12	176	164	12.16	14.510		
1700	1693	1691	1669	6	7	-95.37	-217	-23	190	177	13.02	14.601		
1800	1792	1790	1764	7	8	-92.77	-238	-34	204	190	13.88	14.721		
1900	1892	1888	1860	7	8	-90.51	-258	-45	219	204	14.73	14.856		
2000	1991	1987	1956	8	9	-88.53	-279	-56	234	218	15.57	15.001		
2100	2091	2086	2052	8	9	-86.78	-300	-67	249	232	16.42	15.148		
2200	2190	2184	2147	8	10	-85.24	-321	-78	264	247	17.26	15.296		
2300	2289	2283	2243	9	10	-83.86	-342	-88	279	261	18.09	15.441		
2400	2389	2381	2339	9	11	-82.63	-363	-99	295	276	18.93	15.583		
2500	2488	2480	2435	10	11	-81.52	-384	-110	311	291	19.76	15.720		
2600	2588	2579	2530	10	12	-80.52	-405	-121	326	306	20.59	15.851		
2700	2687	2677	2626	10	13	-79.61	-426	-132	342	321	21.42	15.978		
2800	2786	2776	2722	11	13	-78.78	-446	-143	358	336	22.25	16.099		
2900	2886	2874	2818	11	14	-78.02	-467	-154	374	351	23.08	16.215		
3000	2985	2973	2913	12	14	-77.33	-488	-164	390	366	23.91	16.326		
3100	3084	3072	3009	12	15	-76.69	-509	-175	406	382	24.73	16.432		
3200	3184	3170	3105	13	15	-76.09	-530	-186	423	397	25.56	16.533		
3300	3283	3269	3200	13	16	-75.55	-551	-197	439	412	26.39	16.630		
3400	3383	3367	3296	13	17	-75.04	-572	-208	455	428	27.22	16.722		
3500	3482	3466	3392	14	17	-74.56	-593	-219	471	443	28.04	16.810		
3600	3581	3564	3488	14	18	-74.12	-613	-230	488	459	28.87	16.894		
3700	3681	3663	3583	15	18	-73.71	-634	-240	504	474	29.69	16.974		
3800	3780	3762	3679	15	19	-73.32	-655	-251	520	490	30.52	17.051		
3900	3880	3860	3775	15	19	-72.95	-676	-262	537	505	31.34	17.125		
4000	3979	3959	3871	16	20	-72.61	-697	-273	553	521	32.17	17.196		
4100	4078	4057	3966	16	21	-72.29	-718	-284	570	537	33.00	17.263		
4200	4178	4156	4062	17	21	-71.98	-739	-295	586	552	33.82	17.328		
4300	4277	4255	4158	17	22	-71.70	-760	-306	603	568	34.65	17.391		
4400	4377	4353	4254	18	22	-71.42	-780	-316	619	584	35.47	17.450		
4500	4476	4452	4349	18	23	-71.16	-801	-327	635	599	36.30	17.508		
4600	4575	4550	4445	18	23	-70.92	-822	-338	652	615	37.12	17.563		
4700	4675	4637	4529	19	24	-40.09	-841	-348	668	630	37.82	17.662		
4800	4774	4700	4590	19	24	8.50	-857	-351	679	641	38.07	17.841		
4900	4870	4750	4637	19	25	21.72	-873	-351	685	647	37.86	18.088		
5000	4961	4800	4684	20	25	27.56	-892	-348	685	648	37.36	18.333		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 401H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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		
5100	5044	4850	4729	20	25	31.35	-913	-342	680	643	36.65	18.550		
5200	5119	4911	4782	20	26	34.79	-942	-331	670	634	36.11	18.543		
5300	5182	4967	4827	20	26	38.12	-971	-317	655	619	35.52	18.436		
5400	5232	5023	4870	21	26	41.72	-1002	-300	636	601	35.23	18.059		
5500	5268	5080	4910	21	27	45.75	-1036	-280	614	579	35.49	17.310		
5600	5290	5137	4948	22	27	50.30	-1072	-256	590	554	36.56	16.143		
5700	5296	5200	4985	24	28	55.45	-1114	-227	565	527	38.70	14.608		
5800	5295	5258	5014	25	28	58.49	-1155	-196	545	503	41.57	13.111		
5900	5295	5329	5044	26	29	61.67	-1205	-156	532	487	45.02	11.811		
6000	5294	5408	5068	28	30	64.36	-1262	-108	524	475	48.68	10.765		
6100	5294	5492	5084	30	31	66.19	-1323	-53	521	468	52.36	9.941		
6176	5294	5558	5089	31	32	66.81	-1371	-7	520	465	55.12	9.430		
6200	5294	5579	5089	32	32	66.85	-1386	7	520	464	55.91	9.298		
6300	5293	5679	5089	34	33	66.88	-1457	78	520	461	59.30	8.776		
6400	5293	5779	5088	36	35	66.91	-1528	148	521	458	62.90	8.282		
6500	5292	5879	5088	38	36	66.93	-1599	219	521	455	66.61	7.829		
6600	5292	5979	5088	40	38	66.96	-1670	289	522	452	70.43	7.412		
6700	5291	6079	5087	42	40	66.99	-1741	359	523	448	74.34	7.030		
6800	5291	6179	5087	44	41	67.02	-1812	430	523	445	78.33	6.679		
6900	5291	6279	5086	47	43	67.04	-1883	500	524	441	82.38	6.357		
7000	5290	6379	5086	49	45	67.07	-1954	571	524	438	86.50	6.061		
7100	5290	6479	5085	51	47	67.10	-2025	641	525	434	90.66	5.788		
7200	5289	6579	5085	53	49	67.13	-2096	711	525	430	94.87	5.537		
7300	5289	6679	5085	56	51	67.15	-2167	782	526	427	99.12	5.305		
7400	5288	6779	5084	58	54	67.18	-2238	852	526	423	103.40	5.091		
7500	5288	6879	5084	60	56	67.21	-2309	923	527	419	107.72	4.892		
7600	5288	6979	5083	63	58	67.24	-2380	993	528	415	112.06	4.708		
7700	5287	7079	5083	65	60	67.26	-2451	1064	528	412	116.42	4.536		
7800	5287	7179	5083	68	62	67.29	-2522	1134	529	408	120.81	4.376		
7900	5286	7279	5082	70	65	67.32	-2593	1204	529	404	125.21	4.226		
8000	5286	7379	5082	72	67	67.34	-2664	1275	530	400	129.63	4.086		
8100	5285	7479	5081	75	69	67.37	-2735	1345	530	396	134.07	3.955		
8200	5285	7579	5081	77	72	67.40	-2806	1416	531	392	138.53	3.832		
8300	5285	7679	5081	79	74	67.42	-2877	1486	531	388	142.99	3.716		
8400	5284	7779	5080	82	76	67.45	-2948	1556	532	384	147.47	3.607		
8500	5284	7879	5080	84	79	67.48	-3019	1627	532	380	151.96	3.504		
8600	5283	7979	5079	87	81	67.50	-3090	1697	533	377	156.46	3.407		
8700	5283	8079	5079	89	83	67.53	-3161	1768	534	373	160.97	3.315		
8800	5282	8179	5079	92	86	67.56	-3232	1838	534	369	165.49	3.227		
8900	5282	8279	5078	94	88	67.58	-3303	1908	535	365	170.02	3.145		
9000	5282	8379	5078	96	90	67.61	-3374	1979	535	361	174.56	3.066		
9100	5281	8479	5077	99	93	67.64	-3445	2049	536	357	179.10	2.991		
9200	5281	8579	5077	101	95	67.66	-3516	2120	536	353	183.65	2.920		
9300	5280	8679	5076	104	98	67.69	-3587	2190	537	349	188.21	2.852		
9400	5280	8779	5076	106	100	67.71	-3658	2260	537	345	192.77	2.788		
9500	5279	8879	5076	109	102	67.74	-3729	2331	538	341	197.34	2.726		
9600	5279	8979	5075	111	105	67.77	-3800	2401	539	337	201.92	2.667		
9700	5279	9079	5075	113	107	67.79	-3871	2472	539	333	206.50	2.611		
9800	5278	9179	5074	116	110	67.82	-3942	2542	540	329	211.08	2.556		
9900	5278	9279	5074	118	112	67.85	-4013	2612	540	324	215.67	2.505		
10,000	5277	9379	5074	121	114	67.87	-4084	2683	541	320	220.26	2.455		
10,100	5277	9479	5073	123	117	67.90	-4155	2753	541	316	224.86	2.407		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 401H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												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)			
10,200	5276	9579	5073	126	119	67.92	-4226	2824	542	312	229.47	2.361	
10,300	5276	9679	5072	128	122	67.95	-4297	2894	542	308	234.07	2.317	
10,400	5276	9779	5072	131	124	67.97	-4368	2964	543	304	238.68	2.275	
10,500	5275	9879	5072	133	127	68.00	-4439	3035	543	300	243.30	2.234	
10,600	5275	9979	5071	136	129	68.02	-4510	3105	544	296	247.91	2.194	
10,700	5274	10,079	5071	138	131	68.05	-4581	3176	545	292	252.54	2.156	
10,800	5274	10,179	5070	140	134	68.08	-4652	3246	545	288	257.16	2.120	
10,900	5273	10,279	5070	143	136	68.10	-4723	3316	546	284	261.79	2.084	
11,000	5273	10,379	5069	145	139	68.13	-4794	3387	546	280	266.42	2.050	
11,100	5273	10,479	5069	148	141	68.15	-4865	3457	547	276	271.05	2.017	
11,200	5272	10,579	5069	150	144	68.18	-4936	3528	547	272	275.69	1.985	
11,300	5272	10,679	5068	153	146	68.20	-5007	3598	548	268	280.33	1.954	
11,400	5271	10,779	5068	155	149	68.23	-5078	3669	548	263	284.97	1.925	
11,500	5271	10,879	5067	158	151	68.25	-5149	3739	549	259	289.62	1.896	
11,600	5270	10,979	5067	160	153	68.28	-5220	3809	550	255	294.27	1.868	
11,700	5270	11,079	5067	163	156	68.30	-5291	3880	550	251	298.92	1.840	
11,800	5270	11,179	5066	165	158	68.33	-5362	3950	551	247	303.57	1.814	
11,900	5269	11,279	5066	168	161	68.35	-5433	4021	551	243	308.22	1.788	
12,000	5269	11,379	5065	170	163	68.38	-5504	4091	552	239	312.88	1.763	
12,100	5268	11,479	5065	172	166	68.40	-5575	4161	552	235	317.54	1.739	
12,200	5268	11,579	5065	175	168	68.43	-5646	4232	553	231	322.20	1.716	
12,300	5267	11,679	5064	177	171	68.45	-5717	4302	553	227	326.87	1.693	
12,400	5267	11,779	5064	180	173	68.48	-5788	4373	554	222	331.53	1.671	
12,500	5267	11,879	5063	182	175	68.50	-5859	4443	555	218	336.20	1.649	
12,600	5266	11,979	5063	185	178	68.53	-5930	4513	555	214	340.87	1.628	
12,700	5266	12,079	5063	187	180	68.55	-6001	4584	556	210	345.55	1.608	
12,800	5265	12,179	5062	190	183	68.57	-6072	4654	556	206	350.22	1.588	
12,900	5265	12,279	5062	192	185	68.60	-6143	4725	557	202	354.90	1.569	
13,000	5264	12,379	5061	195	188	68.62	-6214	4795	557	198	359.58	1.550	
13,100	5264	12,479	5061	197	190	68.65	-6285	4865	558	194	364.26	1.531	
13,200	5264	12,579	5060	200	193	68.67	-6356	4936	558	189	368.94	1.514	
13,300	5263	12,679	5060	202	195	68.70	-6427	5006	559	185	373.62	1.496 Level 3	
13,400	5263	12,779	5060	205	198	68.72	-6498	5077	560	181	378.31	1.479 Level 3	
13,500	5262	12,879	5059	207	200	68.74	-6570	5147	560	177	383.00	1.462 Level 3	
13,600	5262	12,979	5059	210	203	68.77	-6641	5217	561	173	387.69	1.446 Level 3	
13,700	5261	13,079	5058	212	205	68.79	-6712	5288	561	169	392.38	1.430 Level 3	
13,800	5261	13,179	5058	214	207	68.82	-6783	5358	562	165	397.07	1.415 Level 3	
13,900	5261	13,279	5058	217	210	68.84	-6854	5429	562	161	401.77	1.400 Level 3	
14,000	5260	13,379	5057	219	212	68.86	-6925	5499	563	156	406.46	1.385 Level 3	
14,100	5260	13,479	5057	222	215	68.89	-6996	5569	563	152	411.16	1.370 Level 3	
14,200	5259	13,579	5056	224	217	68.91	-7067	5640	564	148	415.86	1.356 Level 3	
14,300	5259	13,679	5056	227	220	68.93	-7138	5710	565	144	420.56	1.342 Level 3	
14,400	5258	13,779	5056	229	222	68.96	-7209	5781	565	140	425.27	1.329 Level 3	
14,500	5258	13,879	5055	232	225	68.98	-7280	5851	566	136	429.97	1.315 Level 3	
14,600	5258	13,979	5055	234	227	69.01	-7351	5921	566	132	434.68	1.303 Level 3	
14,700	5257	14,079	5054	237	230	69.03	-7422	5992	567	127	439.39	1.290 Level 3	
14,730	5257	14,108	5054	237	230	69.04	-7443	6013	567	126	440.78	1.286 Level 3, SF	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 402H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													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 +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	0	0	0	0	109.14	-20	57	60					
100	100	100	100	0	0	109.14	-20	57	60	60	0.31	194.500		
200	200	200	200	1	1	109.14	-20	57	60	59	1.03	58.486		
300	300	300	300	1	1	109.14	-20	57	60	58	1.74	34.418 CC		
300	300	300	300	1	1	109.14	-20	57	60	58	1.74	34.412		
400	400	400	400	1	1	-136.62	-20	57	60	58	2.45	24.572 ES		
500	500	500	500	2	2	-138.40	-20	56	63	60	3.15	19.931		
600	600	601	601	2	2	-139.45	-23	54	67	63	3.84	17.433		
700	699	702	701	2	2	-139.43	-29	50	72	68	4.55	15.916		
800	799	802	801	3	3	-137.36	-37	44	78	72	5.29	14.649		
900	898	903	901	3	3	-133.16	-49	36	82	76	6.07	13.485		
1000	997	1003	999	3	3	-127.12	-63	26	86	79	6.90	12.490		
1100	1097	1102	1096	4	4	-119.58	-80	15	91	83	7.77	11.745		
1200	1196	1201	1193	4	4	-111.88	-99	2	98	89	8.66	11.316		
1300	1295	1300	1289	5	5	-105.26	-117	-11	106	97	9.55	11.134		
1400	1395	1399	1385	5	5	-99.66	-136	-24	116	106	10.43	11.112 SF		
1500	1494	1498	1482	6	6	-94.94	-154	-37	126	115	11.30	11.189		
1600	1594	1597	1578	6	6	-90.96	-173	-49	138	125	12.15	11.327		
1700	1693	1696	1674	6	7	-87.58	-191	-62	149	136	13.00	11.497		
1800	1792	1795	1771	7	8	-84.71	-210	-75	162	148	13.83	11.686		
1900	1892	1894	1867	7	8	-82.24	-228	-88	174	160	14.66	11.881		
2000	1991	1992	1964	8	9	-80.11	-247	-100	187	172	15.49	12.077		
2100	2091	2091	2060	8	9	-78.25	-265	-113	200	184	16.31	12.269		
2200	2190	2190	2156	8	10	-76.62	-284	-126	213	196	17.13	12.455		
2300	2289	2289	2253	9	10	-75.18	-302	-139	227	209	17.95	12.634		
2400	2389	2388	2349	9	11	-73.90	-321	-152	240	222	18.76	12.806		
2500	2488	2487	2445	10	11	-72.76	-339	-164	254	234	19.58	12.969		
2600	2588	2586	2542	10	12	-71.74	-357	-177	268	247	20.39	13.124		
2700	2687	2685	2638	10	12	-70.81	-376	-190	281	260	21.20	13.271		
2800	2786	2784	2734	11	13	-69.97	-394	-203	295	273	22.02	13.410		
2900	2886	2883	2831	11	14	-69.21	-413	-215	309	286	22.83	13.543		
3000	2985	2982	2927	12	14	-68.51	-431	-228	323	299	23.64	13.668		
3100	3084	3081	3024	12	15	-67.87	-450	-241	337	313	24.45	13.787		
3200	3184	3180	3120	13	15	-67.28	-468	-254	351	326	25.26	13.900		
3300	3283	3279	3216	13	16	-66.74	-487	-267	365	339	26.07	14.008		
3400	3383	3378	3313	13	16	-66.23	-505	-279	379	352	26.89	14.110		
3500	3482	3477	3409	14	17	-65.77	-524	-292	393	366	27.70	14.207		
3600	3581	3576	3505	14	17	-65.33	-542	-305	408	379	28.51	14.299		
3700	3681	3675	3602	15	18	-64.93	-561	-318	422	393	29.32	14.387		
3800	3780	3773	3698	15	19	-64.55	-579	-330	436	406	30.13	14.471		
3900	3880	3872	3794	15	19	-64.19	-598	-343	450	419	30.94	14.551		
4000	3979	3971	3891	16	20	-63.86	-616	-356	464	433	31.75	14.628		
4100	4078	4070	3987	16	20	-63.54	-635	-369	479	446	32.56	14.701		
4200	4178	4169	4084	17	21	-63.25	-653	-382	493	460	33.37	14.771		
4300	4277	4268	4180	17	21	-62.97	-672	-394	507	473	34.19	14.838		
4400	4377	4367	4276	18	22	-62.71	-690	-407	522	487	35.00	14.902		
4500	4476	4466	4373	18	22	-62.46	-708	-420	536	500	35.81	14.964		
4600	4575	4568	4491	18	23	-62.07	-730	-437	550	513	36.80	14.941		
4700	4675	4791	4685	19	24	-26.84	-736	-494	548	511	37.48	14.623		
4800	4774	4975	4843	19	25	34.26	-701	-580	524	487	36.86	14.218		
4900	4870	5069	4913	19	25	58.72	-670	-635	494	457	36.89	13.396		
5000	4961	5114	4943	20	25	70.91	-652	-663	473	436	37.23	12.706		



Lonestar Consulting, LLC
Anticollision Report



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Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 315H	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: B26 2306 Pad - # 402H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												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)			
5071	5021	5127	4951	20	25	74.95	-646	-671	468	431	37.33	12.541	
5100	5044	5129	4953	20	25	75.78	-645	-672	469	432	37.31	12.572	
5200	5119	5126	4951	20	25	75.59	-647	-671	485	448	37.04	13.085	
5300	5182	5112	4942	20	25	71.77	-653	-662	518	481	36.75	14.082	
5400	5232	5090	4928	21	25	65.50	-662	-648	563	526	36.80	15.299	
5500	5268	5063	4909	21	25	57.94	-672	-631	616	579	37.32	16.514	
5600	5290	5033	4887	22	25	50.18	-683	-613	673	635	38.23	17.602	
5700	5296	5000	4863	24	25	43.49	-694	-594	730	690	39.42	18.511	
5800	5295	4968	4837	25	25	41.48	-704	-576	790	749	40.64	19.435	
5900	5295	4950	4823	26	25	40.40	-708	-567	855	813	42.03	20.352	
6000	5294	4915	4794	28	25	38.29	-717	-549	925	883	42.77	21.636	
6100	5294	4900	4782	30	25	37.39	-720	-541	999	956	43.78	22.828	
6200	5294	4874	4759	32	24	35.86	-725	-529	1077	1032	44.37	24.266	
6300	5293	4850	4738	34	24	34.49	-729	-518	1157	1112	44.87	25.779	
6400	5293	4850	4738	36	24	34.49	-729	-518	1239	1193	45.68	27.125	
6500	5292	4827	4718	38	24	33.21	-732	-508	1323	1277	45.97	28.787	
6600	5292	4800	4693	40	24	31.75	-735	-497	1410	1364	46.13	30.560	
6700	5291	4800	4693	42	24	31.75	-735	-497	1497	1450	46.64	32.094	
6800	5291	4800	4693	44	24	31.75	-735	-497	1586	1539	47.07	33.687	
6900	5291	4800	4693	47	24	31.75	-735	-497	1676	1628	47.43	35.327	
7000	5290	4774	4669	49	24	30.37	-737	-487	1766	1719	47.40	37.256	
7100	5290	4750	4647	51	24	29.18	-739	-479	1858	1810	47.39	39.201	
7200	5289	4750	4647	53	24	29.18	-739	-479	1950	1902	47.65	40.921	



Lonestar Consulting, LLC

Anticollision Report



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Reference Well:	# 315H	Survey Calculation Method:	Minimum Curvature
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Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6930' & RKB 14' @ 6944ft

Offset Depths are relative to Offset Datum

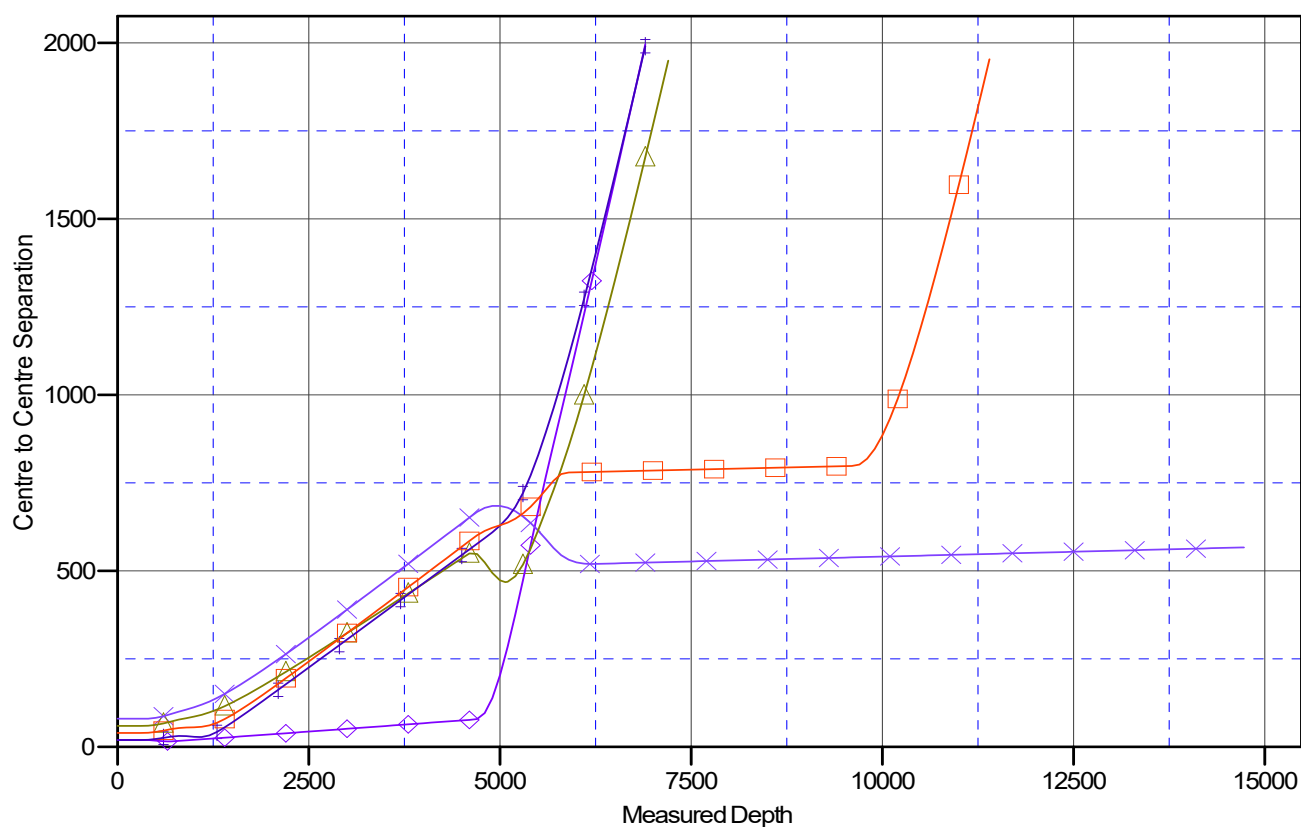
Central Meridian is -107.8333333

Coordinates are relative to: # 315H - Slot 5

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

Grid Convergence at Surface is: 0.24°

Ladder Plot



LEGEND

#316H Original Drilling, APDVO
 #401H Original Drilling, APDVO
 #402H Original Drilling, APDVO
 #311H Original Drilling, APDVO



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 315H - Slot 5
Project:	Gallo Canyon Unit	TVD Reference:	GL 6930' & RKB 14' @ 6944ft
Reference Site:	B26 2306 Pad	MD Reference:	GL 6930' & RKB 14' @ 6944ft
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Reference Well:	# 315H	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 6930' & RKB 14' @ 6944ft

Offset Depths are relative to Offset Datum

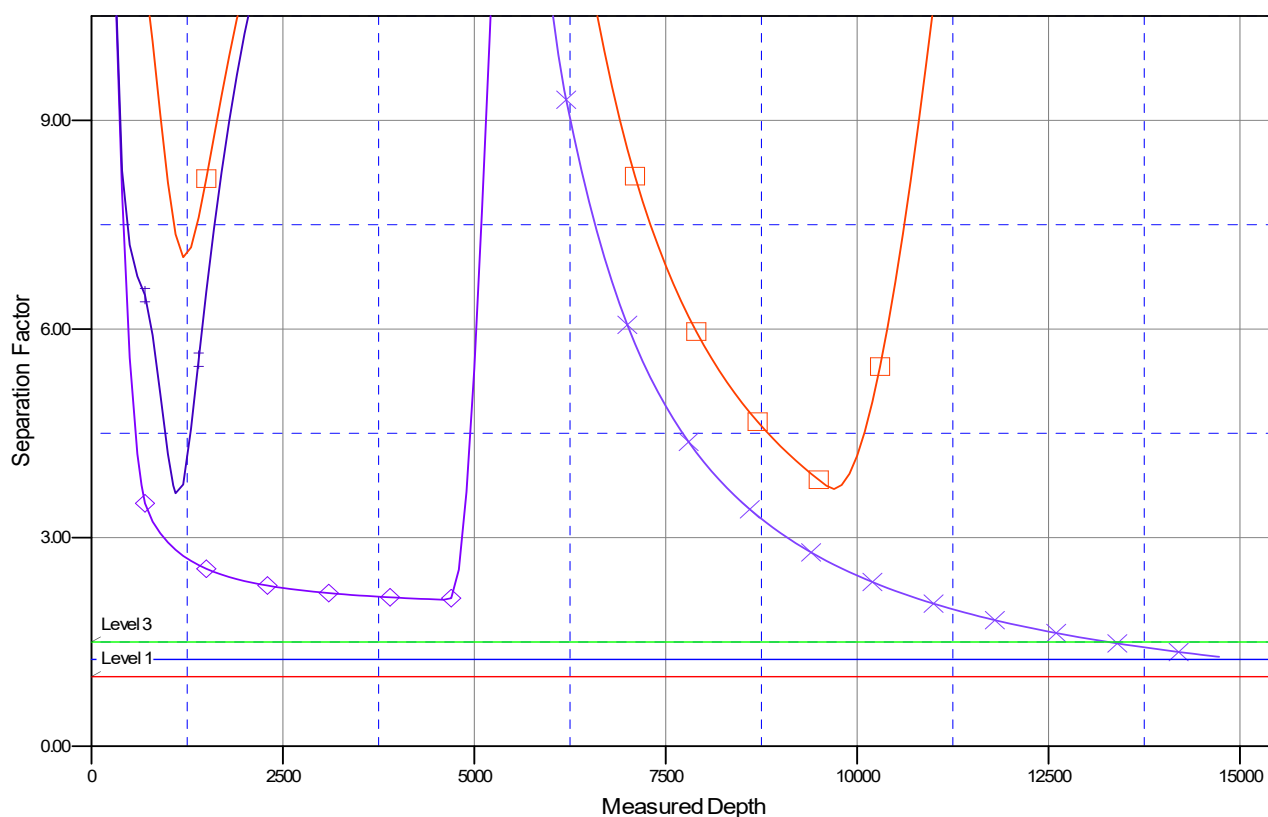
Central Meridian is -107.8333333

Coordinates are relative to: # 315H - Slot 5

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

Grid Convergence at Surface is: 0.24°

Separation Factor Plot



LEGEND

#316H Original Drilling, APOVO
 #402H Original Drilling, APOVO
 #311H Original Drilling, APOVO



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
#315H GALLO CANYON UNIT
Lease: NMNM118128 Agreement: NMNM131017A
SH: NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 26, T. 23 N., R. 6 W.
Sandoval County, New Mexico
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 36, T.23 N., R. 6 W.
Sandoval County, New Mexico
***Above Data Required on Well Sign**

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

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

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☒ Test all casing strings below the conductor 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. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- D. ☐ 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.
- E. ☐ 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 and regulations, 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 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. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).
- G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).
- H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).
- I. 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 sundry within three business days. **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 Virgil Lucero at 505-793-1836.**
- J. **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.**
- K. Unless drilling operations are commenced within three years according to 43 CFR 3171.14, approval of the Application for Permit to Drill will expire. No extensions will be granted.

- L. 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 times, unless the well is secured with blowout preventers or cement plugs.
- M. 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.
- N. **Commingling:** No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office. (See 43 CFR 3173.14)

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 online through AFMSS 2 within 30 days after the work is completed.
 - 1. Provide complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of 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 way 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 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.
- C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

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, 20 MMCF following its (completion)(recompletion), or flowback has been routed to the production separator, whichever first occurs, without the prior, written approval of the authorized officer in accordance with 43 CFR 3179.81. 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 beginning of flowback following completion or recompletion.

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 to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.I.
- 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.I. 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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 456438

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 456438
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
scrues76	Cement is required to circulate on both surface and intermediate1 strings of casing.	4/28/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	4/28/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	6/12/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	6/12/2025
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.	6/12/2025
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.	6/12/2025