

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. 30-043-21522	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	
16. No of acres in lease		17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file		21. Elevations (Show whether DF, KDB, RT, GL, etc.)	
22. Approximate date work will start*		23. Estimated duration	
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Date	
Office		Date	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

(Continued on page 2)

*(Instructions on page 2)



Additional Operator Remarks

Location of Well

0. SHL: SESE / 267 FSL / 91 FEL / TWSP: 23N / RANGE: 6W / SECTION: 26 / LAT: 36.189577 / LONG: -107.429205 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 360 FNL / 333 FEL / TWSP: 23N / RANGE: 6W / SECTION: 35 / LAT: 36.187862 / LONG: -107.430024 (TVD: 4985 feet, MD: 5302 feet)

PPP: NWNW / 693 FNL / 1 FWL / TWSP: 23N / RANGE: 6W / SECTION: 36 / LAT: 36.186937 / LONG: -107.428893 (TVD: 4987 feet, MD: 12002 feet)

BHL: SESE / 309 FSL / 901 FEL / TWSP: 23N / RANGE: 6W / SECTION: 36 / LAT: 36.174891 / LONG: -107.41416 (TVD: 4987 feet, MD: 12002 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 30-043-21522	Pool Code 13379	Pool Name COUNSELORS GALLUP-DAKOTA
Property Code 325207	Property Name GALLO CANYON UNIT	Well Number 422H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6869'
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
P	26	23N	6W		267' SOUTH	91' EAST	36.189577° N	107.429205° W	SANDOVAL

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
P	36	23N	6W		309' SOUTH	901' EAST	36.174891° N	107.414160° W	SANDOVAL

Dedicated Acres PENETRATED SPACING UNIT; SEC 36: NW/NW, SW/NW, SE/NW, NE/SW, NW/SE, SW/SE & SE/SE (280 AC.); SEC 35: NE/NE (40 AC.) = 320 ACRES	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
			N	UNIT
Order Numbers: R-13718A		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
A	35	23N	6W		360' NORTH	333' EAST	36.187862° N	107.430024° W	SANDOVAL

Fist Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
A	35	23N	6W		360' NORTH	333' EAST	36.187862° N	107.430024° W	SANDOVAL

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
P	36	23N	6W		309' SOUTH	901' EAST	36.174891° N	107.414160° 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.

Shaw-Marie Ford
Signature

12/31/2024
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
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

MAY 23, 2022

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.

BOTTOM HOLE LOCATION (BHL)
309' FSL 901' FEL
SEC. 36, T23N, R6W
LAT. 36.174891° N (NAD83)
LONG. 107.414160° W (NAD83)



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: _DJR Operating, LLC_ **OGRID:** _371838_ **Date:** _03 / _01 / _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
Lybrook P26A-2306 COM 325H	TBD	P-26-23N-8W	278 FSL x 73 FEL	595	1803	238
Gallo Canyon Unit 326H	TBD	P-26-23N-8W	294 FSL x 37 FEL	298	902	119
Lybrook P26A-2306 COM 404H	TBD	P-26-23N-8W	285 FSL x 55 FEL	510	1546	204
Gallo Canyon Unit 422H	TBD	P-26-23N-8W	267 FSL x 91 FEL	519	1571	208
				3-year Decline	3-year Decline	3-year Decline
Lybrook P26A-2306 COM 325H	TBD	P-26-23N-8W	278 FSL x 73 FEL	137	817	55
Gallo Canyon Unit 326H	TBD	P-26-23N-8W	294 FSL x 37 FEL	69	408	27
Lybrook P26A-2306 COM 404H	TBD	P-26-23N-8W	285 FSL x 55 FEL	118	700	47
Gallo Canyon Unit 422H	TBD	P-26-23N-8W	267 FSL x 91 FEL	120	712	48

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
Lybrook P26A-2306 COM 325H	TBD	7/1/2025	7/11/2025	8/1/2025	8/15/2025	8/17/2025
Gallo Canyon Unit 326H	TBD	7/2/2025	7/12/2025	8/1/2025	8/15/2025	8/17/2025
Lybrook P26A-2306 COM 404H	TBD	7/3/2025	7/13/2025	8/1/2025	8/20/2025	8/22/2025
Gallo Canyon Unit 422H	TBD	7/4/2025	7/14/2025	8/1/2025	8/20/2025	8/22/2025

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: 3/1/2025
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 P26A-2308 Pad
Nos. 325H, 326H, 404H and 422H Oil and Natural Gas Wells Project
SESE P-26-23N-08W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



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Nos. 325H, 326H, 404H and 422H Oil and Natural Gas Wells Project
SESE P-26-23N-08W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



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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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SESE P-26-23N-08W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

Rev 1



DRILLING PLAN

Gallo Canyon Unit #422H

Sandoval County, New Mexico

Surface Location

91-ft FEL & 267-ft FSL
 Sec 26 T23N R6W
 Graded Elevation 6869' MSL
 RKB Elevation 6883' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.1895770° N
 Longitude 107.4292050° W

Kick Off Point for Horizontal Build Curve

4454-ft MD
 4408-ft TVD

Local Coordinates (from SHL)

179-ft South
 568-ft West

Heel Location (Pay zone entry)

333-ft FEL & 360-ft FNL
 Sec 35 T23N R6W

Heel Geographical Coordinates (NAD-83)

Latitude 36.18786191° N
 Longitude 107.43002408° W

Bottom Hole Location (TD)

901-ft FEL & 309-ft FSL
 Sec 36 T23N R6W

BHL Geographical Coordinates (NAD-83)

Latitude 36.17489108° N
 Longitude 107.4141595° W

Well objectives

This well is planned as a 6650-ft lateral in the Mancos Silt sand.

Bottom Hole temperature and pressure

The temperature in the Mancos Silt horizontal objective is 137°F. Bottom hole pressure in the Mancos Silt is forecast to be 1985 psi.

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

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	1321	1314	Sd	W	8.3	8.4 – 8.8
Kirtland	1434	1425	Sh	-	8.3	8.4 – 8.8
Fruitland	1637	1626	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1872	1858	Sd	W	8.3	9.0 - 9.5
Lewis	1977	1962	Sh	-		9.0 - 9.5
Chacra	2744	2719	Sd	-	8.3	9.0 - 9.5
Menefee	3411	3378	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4125	4083	Sd	-	8.3	9.0 - 9.5
Mancos	4326	4282	Sh	-		9.0 - 9.5
Mancos Silt	4708	4654	Slt	O/G	6.6	9.0 - 9.5
Gallup A	NP	NP	Slt	O/G	6.6	9.0 - 9.5
Gallup B	NP	NP	Sd	O/G	6.6	8.8 -9.0
Gallup C	NP	NP	Sd	O/G	6.6	8.8 -9.0
Target	5352	4987	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	380	surf	380	surface
7"	8-3/4"	26	K-55	LTC	surf	5302	surf	4985	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5062	12002	4913	4966	5062

Note: all casing will be new

Rev 1

**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
	American	American
Type	I/II	Poz/G
Planned top	Surface	4326-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.32	1.51
Mix water (gal/sx)	13.22	7.13
Volume (sx)	483	103
Volume (bbls)	199	28
Volume (cu.ft.)	1119	156
Excess %	78	0



Rev 1

4-1/2" Production Liner

Type	American
Planned top	Poz/G
Density (ppg)	5062-ft
Yield (cf/sx)	13.3
Mix water (gal/sx)	1.52
Volume (sx)	7.52
Volume (bbls)	600
Volume (cu.ft)	162
Excess %	912
	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 – 380	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	380 – 5302	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5302 – 12002	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.

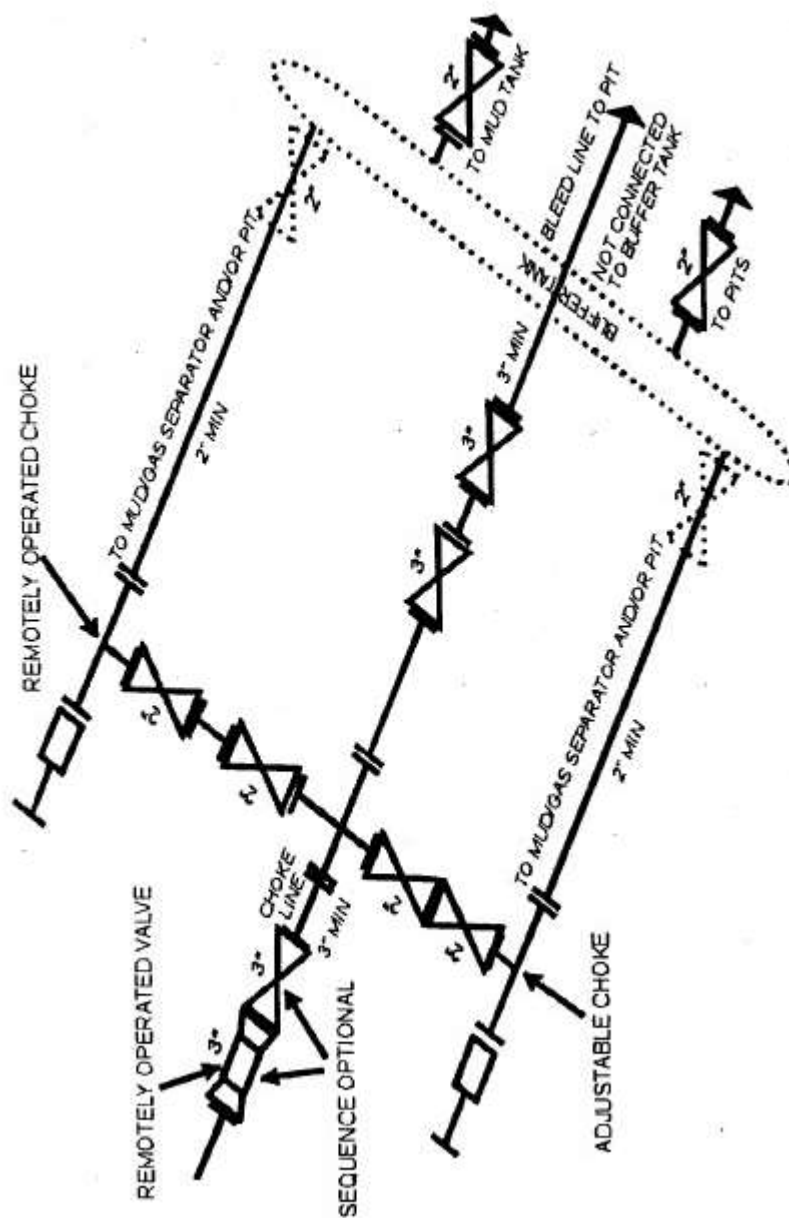
Completion

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.



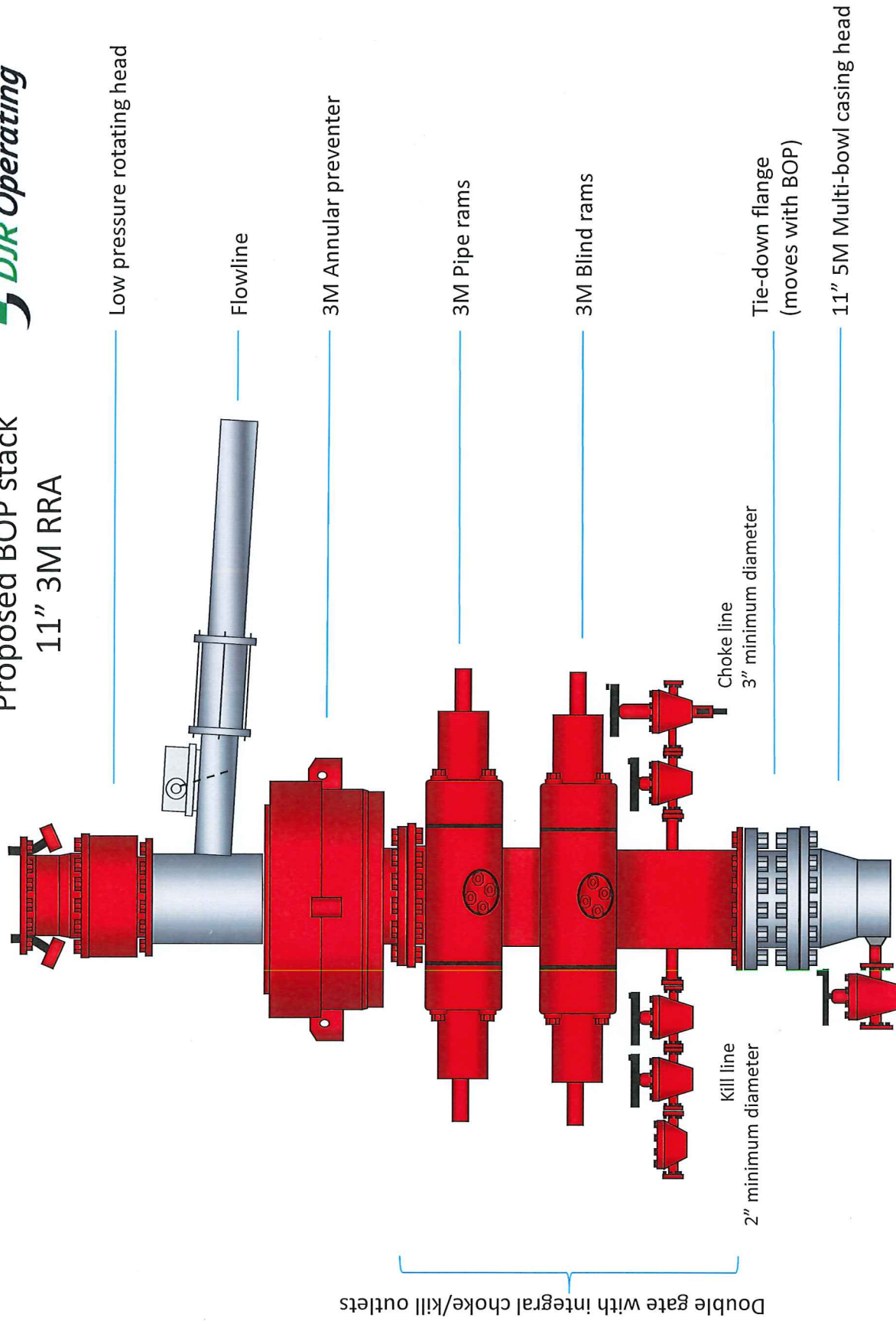
Choke Manifold

Actual system to conform with Onshore Order 2





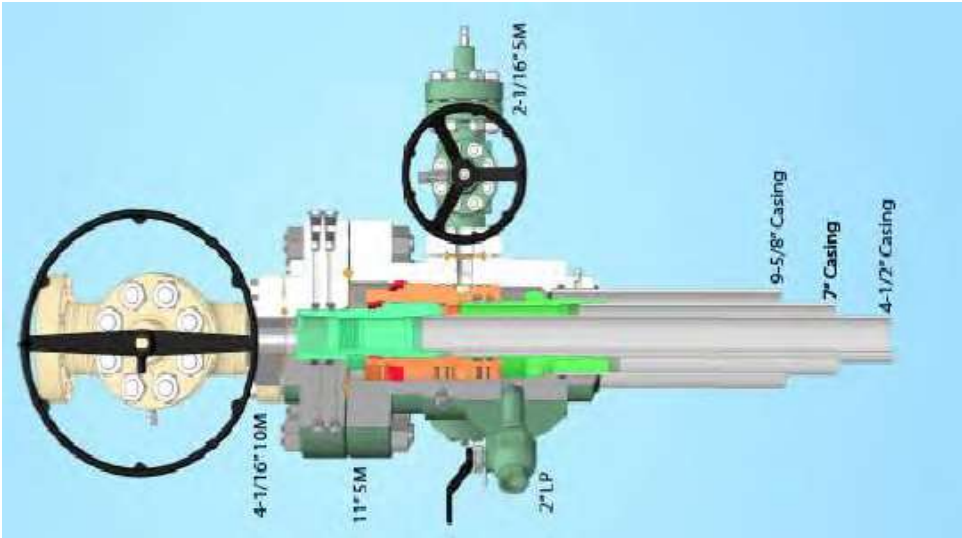
Proposed BOP stack 11" 3M RRA



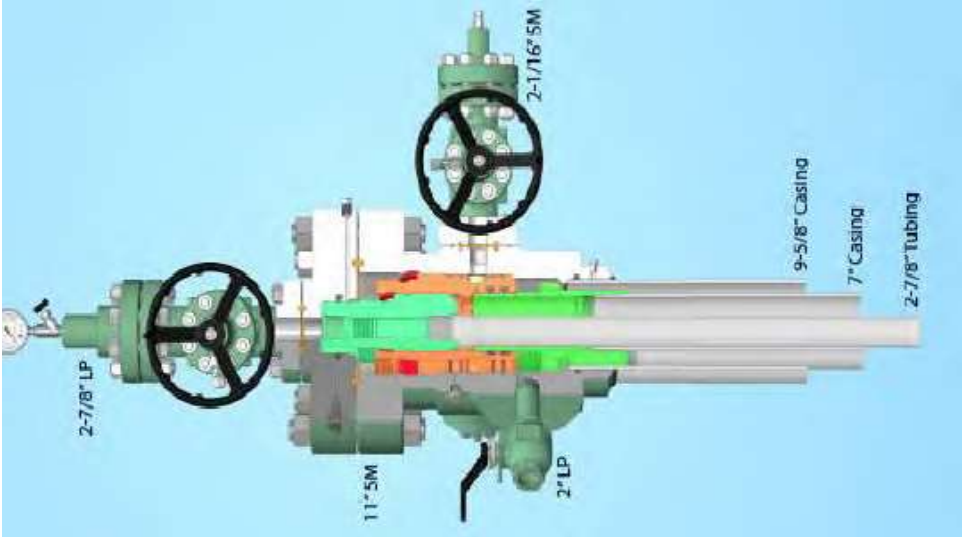


Proposed Wellhead
11" 5M Multi-bowl

Frac configuration with 4-1/2" tieback



Production configuration with 2-7/8" tubing



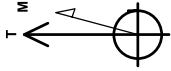
WELL DETAILS: Gallo Canyon Unit #422H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0	0	1888551.59	2842341.28	36.18957700	-107.42920500

GL 6869' & RKB 14' @ 6883ft
Plan: APD (Gallo Canyon Unit #422H/Original Drilling)
Created By: Janie Collins Date: 11:06, August 08 2022

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



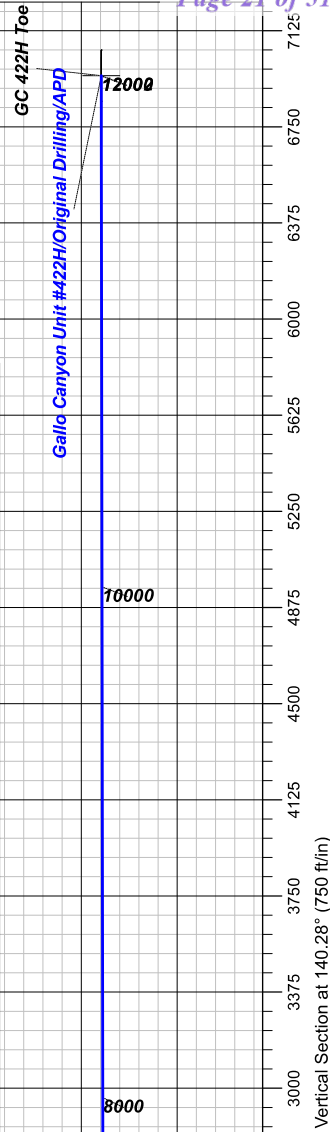
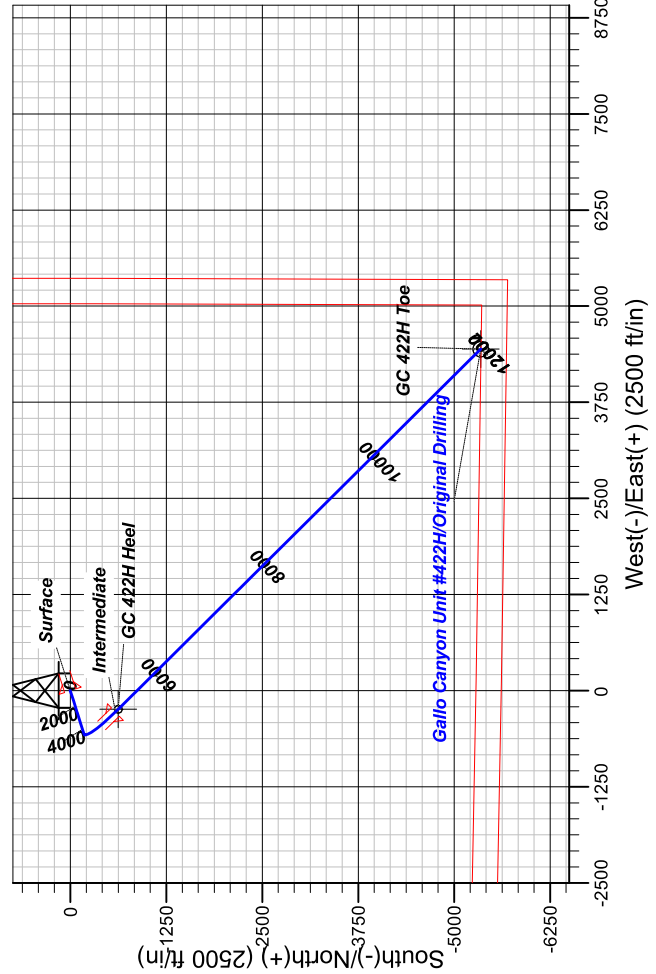
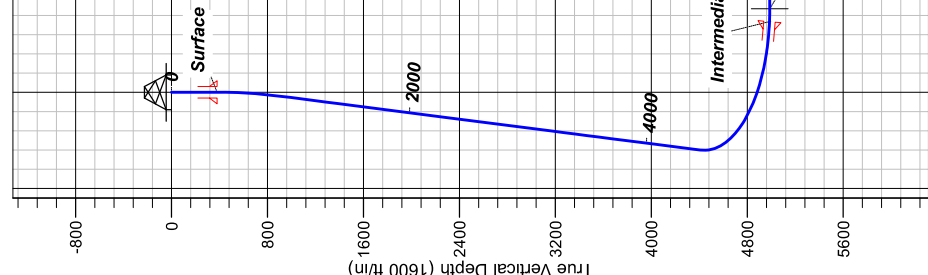
Azimuths to True North
Magnetic North: 10.18°
Magnetic Field
Strength: 51131.53 nT
Dip Angle: 63.32°
Date: 8/8/2022
Model: HDGM2.02.2

DESIGN TARGET DETAILS

Time	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
GC 422H Heel	0	0.00	0.00	0	0	0	0.00	0.00	0
GC 422H Toe	425	0.00	0.00	425	0	0	0.00	0.00	0
	875	9.01	252.51	873	-34	-34	0.00	252.51	-13
	435	17.01	406.18	433	-11	-11	0.00	406.18	-275
	535	90.18	135.24	4997	-624	-624	10.50	-116.06	325
	12002	90.18	135.24	4966	-5346	-5346	0.00	0.00	6949

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
425	0.00	0.00	425	0	0	0.00	0.00	0
875	9.01	252.51	873	-34	-34	0.00	252.51	-13
435	17.01	406.18	433	-11	-11	0.00	406.18	-275
535	90.18	135.24	4997	-624	-624	10.50	-116.06	325
12002	90.18	135.24	4966	-5346	-5346	0.00	0.00	6949



FORMATION DETAILS

TVDPath	MDPath	Formation
1314	1321	Ojo Alamo
1425	1434	Kirtland
1626	1637	Fruitland
1858	1872	Pictured Cliffs
1962	1977	Lewis
2719	2744	Chacra
3378	3411	Menefee
4083	4125	Point Lookout
4282	4326	Mancos
4654	4708	Mancos Silt



DJR Operating

Gallo Canyon Unit

P26A 2306 Pad

Gallo Canyon Unit #422H - Slot 1

Original Drilling

Plan: APD

Standard Planning Report

08 August, 2022





Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site:	P26A 2306 Pad	North Reference:	True
Well:	Gallo Canyon Unit #422H	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	P26A 2306 Pad				
Site Position:		Northing:	1,888,551.60 usft	Latitude:	36.18957700
From:	Lat/Long	Easting:	2,842,341.28 usft	Longitude:	-107.42920500
Position Uncertainty:	0 ft	Slot Radius:	13.20 in		

Well	Gallo Canyon Unit #422H - Slot 1					
Well Position	+N/-S	0 ft	Northing:	1,888,551.60 usft	Latitude:	36.18957700
	+E/-W	0 ft	Easting:	2,842,341.28 usft	Longitude:	-107.42920500
Position Uncertainty		0 ft	Wellhead Elevation:	ft	Ground Level:	6869 ft
Grid Convergence:		0.24 °				

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	8/8/2002	10.60	63.22	51,131.50000000

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	140.28

Plan Survey Tool Program	Date	8/8/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	12,002	APD (Original Drilling)	MWD+HDGM
				OWSG MWD + HDGM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
425	0.00	0.00	425	0	0	0.00	0.00	0.00	0.00	
875	9.01	252.51	873	-11	-34	2.00	2.00	0.00	252.51	
4454	9.01	252.51	4408	-179	-568	0.00	0.00	0.00	0.00	
5352	90.18	135.24	4987	-624	-242	10.50	9.04	-13.06	-116.96	GC 422H Heel
12,002	90.18	135.24	4966	-5346	4441	0.00	0.00	0.00	0.00	GC 422H Toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site:	P26A 2306 Pad	North Reference:	True
Well:	Gallo Canyon Unit #422H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
425	0.00	0.00	425	0	0	0	0.00	0.00	0.00
500	1.50	252.51	500	0	-1	0	2.00	2.00	0.00
600	3.50	252.51	600	-2	-5	-2	2.00	2.00	0.00
700	5.50	252.51	700	-4	-13	-5	2.00	2.00	0.00
800	7.50	252.51	799	-7	-23	-9	2.00	2.00	0.00
875	9.01	252.51	873	-11	-34	-13	2.00	2.00	0.00
900	9.01	252.51	898	-12	-37	-15	0.00	0.00	0.00
1000	9.01	252.51	997	-16	-52	-21	0.00	0.00	0.00
1100	9.01	252.51	1095	-21	-67	-27	0.00	0.00	0.00
1200	9.01	252.51	1194	-26	-82	-33	0.00	0.00	0.00
1300	9.01	252.51	1293	-31	-97	-39	0.00	0.00	0.00
1400	9.01	252.51	1392	-35	-112	-44	0.00	0.00	0.00
1500	9.01	252.51	1490	-40	-127	-50	0.00	0.00	0.00
1600	9.01	252.51	1589	-45	-142	-56	0.00	0.00	0.00
1700	9.01	252.51	1688	-49	-157	-62	0.00	0.00	0.00
1800	9.01	252.51	1787	-54	-172	-68	0.00	0.00	0.00
1900	9.01	252.51	1886	-59	-187	-74	0.00	0.00	0.00
2000	9.01	252.51	1984	-64	-202	-80	0.00	0.00	0.00
2100	9.01	252.51	2083	-68	-217	-86	0.00	0.00	0.00
2200	9.01	252.51	2182	-73	-231	-92	0.00	0.00	0.00
2300	9.01	252.51	2281	-78	-246	-98	0.00	0.00	0.00
2400	9.01	252.51	2379	-82	-261	-104	0.00	0.00	0.00
2500	9.01	252.51	2478	-87	-276	-110	0.00	0.00	0.00
2600	9.01	252.51	2577	-92	-291	-115	0.00	0.00	0.00
2700	9.01	252.51	2676	-96	-306	-121	0.00	0.00	0.00
2800	9.01	252.51	2774	-101	-321	-127	0.00	0.00	0.00
2900	9.01	252.51	2873	-106	-336	-133	0.00	0.00	0.00
3000	9.01	252.51	2972	-111	-351	-139	0.00	0.00	0.00
3100	9.01	252.51	3071	-115	-366	-145	0.00	0.00	0.00
3200	9.01	252.51	3169	-120	-381	-151	0.00	0.00	0.00
3300	9.01	252.51	3268	-125	-396	-157	0.00	0.00	0.00
3400	9.01	252.51	3367	-129	-411	-163	0.00	0.00	0.00
3500	9.01	252.51	3466	-134	-426	-169	0.00	0.00	0.00
3600	9.01	252.51	3565	-139	-441	-175	0.00	0.00	0.00
3700	9.01	252.51	3663	-144	-455	-181	0.00	0.00	0.00
3800	9.01	252.51	3762	-148	-470	-187	0.00	0.00	0.00
3900	9.01	252.51	3861	-153	-485	-192	0.00	0.00	0.00
4000	9.01	252.51	3960	-158	-500	-198	0.00	0.00	0.00
4100	9.01	252.51	4058	-162	-515	-204	0.00	0.00	0.00
4200	9.01	252.51	4157	-167	-530	-210	0.00	0.00	0.00
4300	9.01	252.51	4256	-172	-545	-216	0.00	0.00	0.00
4400	9.01	252.51	4355	-176	-560	-222	0.00	0.00	0.00
4454	9.01	252.51	4408	-179	-568	-225	0.00	0.00	0.00
4500	8.05	220.32	4454	-183	-574	-226	10.50	-2.09	-70.39
4600	13.74	170.46	4552	-200	-576	-215	10.50	5.69	-49.86
4700	23.06	154.60	4647	-229	-566	-185	10.50	9.32	-15.86
4800	33.07	147.76	4735	-270	-543	-139	10.50	10.01	-6.83
4900	43.30	143.87	4813	-321	-508	-78	10.50	10.22	-3.90
5000	53.61	141.23	4880	-380	-462	-3	10.50	10.31	-2.64



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site:	P26A 2306 Pad	North Reference:	True
Well:	Gallo Canyon Unit #422H	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	63.97	139.21	4931	-446	-408	82	10.50	10.36	-2.01
5200	74.35	137.53	4967	-515	-346	176	10.50	10.38	-1.68
5300	84.74	136.01	4985	-587	-278	274	10.50	10.39	-1.52
5352	90.18	135.24	4987	-624	-242	326	10.50	10.40	-1.47
5400	90.18	135.24	4987	-658	-208	373	0.00	0.00	0.00
5500	90.18	135.24	4987	-729	-138	473	0.00	0.00	0.00
5600	90.18	135.24	4987	-800	-67	573	0.00	0.00	0.00
5700	90.18	135.24	4986	-871	3	672	0.00	0.00	0.00
5800	90.18	135.24	4986	-942	74	772	0.00	0.00	0.00
5900	90.18	135.24	4986	-1013	144	871	0.00	0.00	0.00
6000	90.18	135.24	4985	-1084	214	971	0.00	0.00	0.00
6100	90.18	135.24	4985	-1155	285	1071	0.00	0.00	0.00
6200	90.18	135.24	4985	-1226	355	1170	0.00	0.00	0.00
6300	90.18	135.24	4984	-1297	426	1270	0.00	0.00	0.00
6400	90.18	135.24	4984	-1368	496	1369	0.00	0.00	0.00
6500	90.18	135.24	4984	-1439	566	1469	0.00	0.00	0.00
6600	90.18	135.24	4983	-1510	637	1569	0.00	0.00	0.00
6700	90.18	135.24	4983	-1581	707	1668	0.00	0.00	0.00
6800	90.18	135.24	4983	-1652	778	1768	0.00	0.00	0.00
6900	90.18	135.24	4982	-1723	848	1867	0.00	0.00	0.00
7000	90.18	135.24	4982	-1794	919	1967	0.00	0.00	0.00
7100	90.18	135.24	4982	-1865	989	2067	0.00	0.00	0.00
7200	90.18	135.24	4981	-1936	1059	2166	0.00	0.00	0.00
7300	90.18	135.24	4981	-2007	1130	2266	0.00	0.00	0.00
7400	90.18	135.24	4981	-2078	1200	2366	0.00	0.00	0.00
7500	90.18	135.24	4980	-2149	1271	2465	0.00	0.00	0.00
7600	90.18	135.24	4980	-2220	1341	2565	0.00	0.00	0.00
7700	90.18	135.24	4980	-2291	1411	2664	0.00	0.00	0.00
7800	90.18	135.24	4979	-2362	1482	2764	0.00	0.00	0.00
7900	90.18	135.24	4979	-2433	1552	2864	0.00	0.00	0.00
8000	90.18	135.24	4979	-2504	1623	2963	0.00	0.00	0.00
8100	90.18	135.24	4979	-2575	1693	3063	0.00	0.00	0.00
8200	90.18	135.24	4978	-2646	1763	3162	0.00	0.00	0.00
8300	90.18	135.24	4978	-2717	1834	3262	0.00	0.00	0.00
8400	90.18	135.24	4978	-2788	1904	3362	0.00	0.00	0.00
8500	90.18	135.24	4977	-2859	1975	3461	0.00	0.00	0.00
8600	90.18	135.24	4977	-2930	2045	3561	0.00	0.00	0.00
8700	90.18	135.24	4977	-3001	2116	3661	0.00	0.00	0.00
8800	90.18	135.24	4976	-3072	2186	3760	0.00	0.00	0.00
8900	90.18	135.24	4976	-3143	2256	3860	0.00	0.00	0.00
9000	90.18	135.24	4976	-3214	2327	3959	0.00	0.00	0.00
9100	90.18	135.24	4975	-3285	2397	4059	0.00	0.00	0.00
9200	90.18	135.24	4975	-3356	2468	4159	0.00	0.00	0.00
9300	90.18	135.24	4975	-3427	2538	4258	0.00	0.00	0.00
9400	90.18	135.24	4974	-3498	2608	4358	0.00	0.00	0.00
9500	90.18	135.24	4974	-3569	2679	4457	0.00	0.00	0.00
9600	90.18	135.24	4974	-3640	2749	4557	0.00	0.00	0.00
9700	90.18	135.24	4973	-3711	2820	4657	0.00	0.00	0.00
9800	90.18	135.24	4973	-3782	2890	4756	0.00	0.00	0.00
9900	90.18	135.24	4973	-3853	2961	4856	0.00	0.00	0.00
10,000	90.18	135.24	4972	-3924	3031	4955	0.00	0.00	0.00
10,100	90.18	135.24	4972	-3995	3101	5055	0.00	0.00	0.00
10,200	90.18	135.24	4972	-4066	3172	5155	0.00	0.00	0.00
10,300	90.18	135.24	4971	-4137	3242	5254	0.00	0.00	0.00



Database:	Grand Junction	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site:	P26A 2306 Pad	North Reference:	True
Well:	Gallo Canyon Unit #422H	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	90.18	135.24	4971	-4208	3313	5354	0.00	0.00	0.00	
10,500	90.18	135.24	4971	-4279	3383	5454	0.00	0.00	0.00	
10,600	90.18	135.24	4970	-4350	3453	5553	0.00	0.00	0.00	
10,700	90.18	135.24	4970	-4421	3524	5653	0.00	0.00	0.00	
10,800	90.18	135.24	4970	-4492	3594	5752	0.00	0.00	0.00	
10,900	90.18	135.24	4970	-4563	3665	5852	0.00	0.00	0.00	
11,000	90.18	135.24	4969	-4634	3735	5952	0.00	0.00	0.00	
11,100	90.18	135.24	4969	-4705	3806	6051	0.00	0.00	0.00	
11,200	90.18	135.24	4969	-4776	3876	6151	0.00	0.00	0.00	
11,300	90.18	135.24	4968	-4847	3946	6250	0.00	0.00	0.00	
11,400	90.18	135.24	4968	-4918	4017	6350	0.00	0.00	0.00	
11,500	90.18	135.24	4968	-4989	4087	6450	0.00	0.00	0.00	
11,600	90.18	135.24	4967	-5060	4158	6549	0.00	0.00	0.00	
11,700	90.18	135.24	4967	-5131	4228	6649	0.00	0.00	0.00	
11,800	90.18	135.24	4967	-5202	4298	6748	0.00	0.00	0.00	
11,900	90.18	135.24	4966	-5273	4369	6848	0.00	0.00	0.00	
12,000	90.18	135.24	4966	-5344	4439	6948	0.00	0.00	0.00	
12,002	90.18	135.24	4966	-5346	4441	6949	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
GC 422H Toe	0.00	0.00	4966	-5346	4441	1,883,224.44	2,846,804.01	36.17489108	-107.41415948	
- plan hits target center										
- Circle (radius 100)										
GC 422H Heel	0.00	0.00	4987	-624	-242	1,887,926.26	2,842,102.18	36.18786191	-107.43002408	
- plan hits target center										
- Circle (radius 50)										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
380	380	Surface	9.63	12.25	
5302	4985	Intermediate	7.00	8.75	



Database:	Grand Junction	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Company:	DJR Operating	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Project:	Gallo Canyon Unit	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site:	P26A 2306 Pad	North Reference:	True
Well:	Gallo Canyon Unit #422H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1321	1314	Ojo Alamo		0.00	0.00	
1434	1425	Kirtland		0.00	0.00	
1637	1626	Fruitland		0.00	0.00	
1872	1858	Pictured Cliffs		0.00	0.00	
1977	1962	Lewis		0.00	0.00	
2744	2719	Chacra		0.00	0.00	
3411	3378	Menefee		0.00	0.00	
4125	4083	Point Lookout		0.00	0.00	
4326	4282	Mancos		0.00	0.00	
4708	4654	Mancos Silt		0.00	0.00	



DJR Operating

**Gallo Canyon Unit
P26A 2306 Pad
Gallo Canyon Unit #422H**

**Original Drilling
APD**

Anticollision Report

08 August, 2022





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 8000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/8/2022		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	12,002	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM	

Summary						
Site Name	Reference	Offset	Distance		Separation	Warning
	Measured	Measured	Between	Between		
	Depth	Depth	Centres	Ellipses		
Offset Well - Wellbore - Design	(ft)	(ft)	(ft)	(ft)	Factor	
P26A 2306 Pad						
Gallo Canyon Unit #203H - OH - OH	3651	3555	493	472	23.474	CC, ES
Gallo Canyon Unit #203H - OH - OH	10,904	11,846	1187	889	3.976	SF
Gallo Canyon Unit #204H - OH - OH	4502	4455	332	306	12.433	CC
Gallo Canyon Unit #204H - OH - OH	12,002	12,733	569	305	2.157	ES, SF
Lybrook P26A 2306 COM #325H - Original Drilling - APD	425	425	20	17	6.790	CC, ES
Lybrook P26A 2306 COM #325H - Original Drilling - APD	500	500	21	18	6.175	SF
Lybrook P26A 2306 COM #404H - Original Drilling - APD	1421	1427	33	23	3.160	CC
Lybrook P26A 2306 COM #404H - Original Drilling - APD	1500	1507	33	22	2.977	ES
Lybrook P26A 2306 COM #404H - Original Drilling - APD	1800	1806	38	24	2.740	SF

Offset Design: P26A 2306 Pad - Gallo Canyon Unit #203H - OH - OH													Offset Site Error:		0 ft	
Survey Program:		147-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:		0 ft
Measured	Reference	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance						
Depth	Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Between	Between	Minimum	Separation		Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	Centres	Ellipses	Separation	Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
0	0		4	4	0	0	-90.45	-7	-876	876						
100	100		111	111	0	0	-90.45	-7	-875	875	875	0.42	2,080.156			
200	200		210	210	1	0	-90.44	-7	-875	875	874	0.94	927.856			
300	300		313	313	1	0	-90.46	-7	-873	874	872	1.52	576.305			
400	400		411	411	1	1	-90.49	-7	-873	873	871	2.08	419.881			
425	425		436	436	1	1	-90.50	-8	-872	872	870	2.22	393.273			
500	500		507	507	2	1	16.98	-8	-872	871	868	2.63	331.487			
600	600		604	604	2	1	17.01	-9	-872	867	864	3.17	273.031			
700	700		701	701	2	1	17.15	-10	-872	859	856	3.73	230.489			
800	799		797	797	3	2	17.37	-11	-873	849	845	4.29	197.986			
875	873		870	870	3	2	17.59	-12	-873	839	835	4.72	177.987			
900	898		893	893	3	2	17.66	-12	-873	836	831	4.86	172.127			
1000	997		991	991	4	2	17.93	-13	-874	822	817	5.43	151.539			
1100	1095		1089	1089	4	2	18.23	-13	-876	808	802	5.99	134.903			
1200	1194		1187	1187	4	2	18.70	-12	-877	795	788	6.56	121.096			
1300	1293		1294	1294	5	3	19.20	-10	-878	781	774	7.15	109.248			
1400	1392		1394	1394	5	3	19.63	-10	-878	767	759	7.73	99.205			
1500	1490		1492	1492	6	3	20.06	-9	-879	752	744	8.31	90.568			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #203H - OH - OH													Offset Site Error:	0 ft
Survey Program: 147-MWD													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		
1600	1589	1592	1592	6	3	20.53	-9	-879	738	729	8.89	83.017		
1700	1688	1686	1686	6	3	21.00	-8	-879	724	714	9.46	76.482		
1800	1787	1785	1784	7	4	21.49	-7	-880	710	700	10.05	70.657		
1900	1886	1882	1882	7	4	22.00	-7	-881	696	686	10.63	65.482		
2000	1984	1991	1991	8	4	22.59	-6	-882	682	671	11.24	60.747		
2100	2083	2088	2088	8	4	23.14	-5	-881	668	656	11.82	56.506		
2200	2182	2186	2186	9	4	23.72	-5	-881	653	641	12.41	52.661		
2300	2281	2286	2286	9	5	24.32	-5	-881	639	626	13.00	49.155		
2400	2379	2384	2384	9	5	24.91	-5	-881	625	611	13.59	45.952		
2500	2478	2481	2481	10	5	25.50	-5	-881	610	596	14.19	43.028		
2600	2577	2579	2579	10	5	26.14	-5	-881	597	582	14.78	40.351		
2700	2676	2686	2686	11	5	26.86	-5	-881	582	567	15.38	37.850		
2800	2774	2785	2785	11	6	27.62	-5	-880	567	551	15.98	35.480		
2900	2873	2882	2882	11	6	28.39	-5	-879	552	536	16.59	33.289		
3000	2972	2976	2976	12	6	29.15	-5	-878	538	521	17.19	31.280		
3100	3071	3065	3064	12	6	29.75	-6	-879	525	507	17.80	29.510		
3200	3169	3147	3147	13	6	30.17	-8	-882	515	496	18.39	27.991		
3300	3268	3237	3236	13	7	30.45	-11	-888	507	488	18.98	26.705		
3400	3367	3330	3329	14	7	30.57	-16	-897	501	482	19.57	25.612		
3500	3466	3425	3423	14	7	30.48	-22	-907	497	476	20.17	24.621		
3600	3565	3511	3508	14	7	30.04	-30	-918	494	473	20.74	23.811		
3651	3614	3555	3551	15	7	29.78	-35	-925	493	472	21.02	23.474 CC, ES		
3700	3663	3598	3593	15	8	29.53	-39	-932	494	472	21.29	23.191		
3800	3762	3682	3675	15	8	28.95	-47	-948	497	475	21.82	22.766		
3900	3861	3767	3757	16	8	28.12	-57	-967	503	481	22.34	22.515		
4000	3960	3854	3841	16	8	27.09	-69	-989	512	489	22.87	22.381		
4100	4058	3936	3919	17	9	26.04	-80	-1012	524	500	23.35	22.423		
4200	4157	4027	4005	17	9	24.81	-94	-1039	538	514	23.90	22.500		
4300	4256	4118	4090	17	9	23.48	-109	-1068	554	529	24.46	22.633		
4400	4355	4187	4153	18	10	22.39	-121	-1092	573	548	24.75	23.144		
4454	4408	4226	4188	18	10	21.74	-128	-1107	585	561	24.92	23.497		
4500	4454	4260	4219	18	10	52.14	-135	-1120	598	573	25.09	23.855		
4550	4503	4300	4255	18	11	81.80	-143	-1137	616	591	25.33	24.336		
4600	4552	4344	4294	19	11	97.64	-153	-1155	638	612	25.65	24.855		
4650	4600	4392	4336	19	11	105.26	-164	-1175	661	635	26.04	25.397		
4700	4647	4435	4374	19	11	108.92	-173	-1193	688	661	26.41	26.041		
4750	4692	4469	4404	19	12	110.25	-180	-1207	717	690	26.69	26.854		
4800	4735	4499	4431	19	12	110.09	-187	-1220	748	721	26.98	27.737		
4850	4776	4527	4455	19	12	108.76	-193	-1232	783	755	27.29	28.678		
4900	4813	4554	4479	19	12	106.50	-199	-1243	819	791	27.63	29.641		
4950	4848	4582	4502	19	12	103.45	-206	-1255	857	829	28.02	30.595		
5000	4880	4606	4524	19	13	99.50	-211	-1266	897	868	28.41	31.569		
5050	4907	4635	4549	19	13	95.17	-218	-1279	938	909	28.89	32.466		
5100	4931	4659	4570	19	13	89.83	-223	-1289	980	950	29.34	33.395		
5150	4951	4678	4587	19	13	83.42	-227	-1297	1022	993	29.76	34.358		
5200	4967	6159	5364	20	24	111.80	-1157	-1031	1018	981	36.25	28.074		
5250	4978	6226	5363	20	25	111.63	-1205	-985	1013	975	38.04	26.626		
5263	4980	6219	5363	20	25	111.81	-1200	-990	1012	974	38.22	26.479		
5300	4985	6247	5363	20	26	111.79	-1221	-971	1011	971	39.28	25.725		
5307	4986	6251	5363	21	26	111.78	-1223	-968	1011	971	39.46	25.609		
5352	4987	6282	5364	21	26	111.60	-1247	-948	1012	971	40.76	24.829		
5354	4987	6282	5364	21	26	111.60	-1247	-948	1012	971	40.80	24.805		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #203H - OH - OH													Offset Site Error:	0 ft
Survey Program:		147-MWD					Rule Assigned:				Offset Well Error:	0 ft		
Measured Depth	Reference Vertical	Offset Measured	Offset Vertical	Semi Major Axis Reference	Semi Major Axis Offset	Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	(ft)			
5400	4987	6314	5364	22	27	111.57	-1271	-927	1015	973	42.12	24.103		
5404	4987	6319	5364	22	27	111.57	-1275	-924	1016	973	42.27	24.026		
5500	4987	6448	5364	23	29	111.45	-1371	-838	1021	975	45.96	22.206		
5504	4987	6452	5364	23	29	111.45	-1374	-835	1021	975	46.12	22.131		
5600	4987	6558	5364	25	32	111.38	-1452	-763	1024	974	49.79	20.561		
5604	4987	6562	5364	25	32	111.37	-1455	-760	1024	974	49.95	20.496		
5700	4986	6642	5363	27	33	111.29	-1514	-706	1027	974	53.45	19.215		
5704	4986	6646	5363	27	33	111.29	-1517	-704	1027	974	53.62	19.160		
5800	4986	6744	5364	29	35	111.25	-1589	-638	1032	974	57.44	17.960		
5804	4986	6748	5364	29	36	111.24	-1592	-635	1032	974	57.62	17.906		
5900	4986	6858	5364	31	38	111.20	-1673	-561	1035	974	61.71	16.776		
5904	4986	6862	5364	31	38	111.20	-1676	-558	1035	973	61.90	16.726		
6000	4985	6981	5363	33	41	111.09	-1762	-476	1037	971	66.26	15.658		
6004	4985	6987	5363	33	41	111.08	-1767	-472	1037	971	66.47	15.608		
6100	4985	7054	5363	35	42	111.07	-1816	-426	1040	969	70.23	14.803		
6104	4985	7060	5363	35	43	111.07	-1820	-422	1040	969	70.45	14.761		
6200	4985	7149	5363	37	45	111.08	-1885	-360	1042	968	74.49	13.993		
6204	4985	7153	5363	37	45	111.08	-1887	-358	1042	968	74.66	13.962		
6300	4984	7270	5363	39	47	111.02	-1973	-279	1046	967	79.14	13.215		
6304	4984	7278	5363	40	48	111.02	-1979	-273	1046	967	79.38	13.176		
6400	4984	7375	5363	42	50	111.00	-2048	-206	1047	963	83.64	12.514		
6404	4984	7378	5363	42	50	111.00	-2051	-203	1047	963	83.83	12.486		
6500	4984	7473	5363	44	52	110.96	-2119	-138	1048	960	88.09	11.900		
6504	4984	7478	5363	44	52	110.96	-2123	-134	1048	960	88.30	11.873		
6600	4983	7562	5362	46	54	110.89	-2184	-76	1050	957	92.50	11.350		
6604	4983	7565	5362	47	54	110.89	-2186	-74	1050	957	92.68	11.328		
6700	4983	7639	5360	49	56	110.74	-2241	-25	1054	957	96.79	10.887		
6704	4983	7644	5360	49	56	110.73	-2245	-21	1054	957	97.01	10.865		
6800	4983	7739	5358	51	58	110.55	-2316	42	1058	957	101.44	10.431		
6804	4983	7744	5358	51	58	110.55	-2320	45	1058	957	101.66	10.411		
6900	4982	7846	5357	54	61	110.45	-2395	114	1062	956	106.16	10.006		
6904	4982	7850	5357	54	61	110.44	-2398	117	1062	956	106.36	9.988		
7000	4982	7945	5357	56	63	110.35	-2468	180	1066	955	110.80	9.619		
7004	4982	7948	5357	56	63	110.35	-2470	183	1066	955	110.98	9.604		
7100	4982	8053	5357	59	66	110.28	-2548	253	1070	955	115.55	9.261		
7104	4982	8057	5357	59	66	110.28	-2551	256	1070	955	115.75	9.246		
7200	4981	8176	5356	61	69	110.20	-2638	337	1073	952	120.50	8.901		
7204	4981	8179	5356	61	69	110.20	-2640	340	1073	952	120.70	8.887		
7300	4981	8257	5355	63	71	110.15	-2697	393	1075	950	124.96	8.603		
7304	4981	8262	5355	64	71	110.14	-2700	396	1075	950	125.17	8.589		
7400	4981	8343	5355	66	73	110.09	-2760	451	1078	949	129.45	8.331		
7404	4981	8343	5355	66	73	110.09	-2760	451	1079	949	129.59	8.324		
7500	4980	8443	5355	68	75	110.05	-2833	518	1082	948	134.12	8.071		
7504	4980	8446	5355	69	75	110.04	-2836	521	1083	948	134.31	8.061		
7600	4980	8551	5354	71	78	109.90	-2914	591	1087	948	139.01	7.816		
7604	4980	8556	5354	71	78	109.89	-2917	594	1087	947	139.23	7.805		
7700	4980	8670	5353	73	81	109.82	-3001	672	1089	945	144.02	7.563		
7704	4980	8676	5353	73	81	109.81	-3005	676	1089	945	144.24	7.552		
7800	4979	8752	5352	76	83	109.76	-3060	729	1091	943	148.53	7.346		
7804	4979	8755	5352	76	83	109.76	-3062	731	1091	943	148.72	7.338		
7900	4979	8857	5351	78	85	109.66	-3137	800	1094	941	153.38	7.135		
7904	4979	8861	5351	78	85	109.65	-3141	803	1095	941	153.59	7.126		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #203H - OH - OH												Offset Site Error:	0 ft
Survey Program: 147-MWD												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)			
8000	4979	8955	5350	81	88	109.57	-3209	866	1097	939	158.13	6.940	
8004	4979	8961	5350	81	88	109.57	-3214	870	1097	939	158.36	6.931	
8100	4979	9083	5350	83	91	109.54	-3302	955	1099	936	163.23	6.733	
8104	4979	9087	5350	84	91	109.54	-3304	958	1099	936	163.43	6.725	
8200	4978	9161	5350	86	93	109.51	-3358	1009	1100	932	167.72	6.560	
8204	4978	9164	5350	86	93	109.51	-3360	1011	1100	932	167.91	6.553	
8300	4978	9259	5349	88	95	109.43	-3430	1076	1103	931	172.48	6.398	
8304	4978	9268	5349	89	95	109.42	-3437	1082	1104	931	172.76	6.388	
8400	4978	9374	5349	91	98	109.42	-3512	1156	1104	927	177.43	6.224	
8404	4978	9374	5349	91	98	109.42	-3512	1156	1104	927	177.59	6.219	
8500	4977	9438	5349	94	99	109.39	-3559	1199	1107	926	181.66	6.095	
8504	4977	9442	5349	94	99	109.38	-3562	1202	1107	926	181.87	6.089	
8600	4977	9541	5348	96	102	109.26	-3636	1268	1112	925	186.56	5.960	
8604	4977	9546	5347	96	102	109.25	-3640	1272	1112	925	186.79	5.953	
8700	4977	9653	5345	99	105	109.10	-3718	1343	1115	923	191.66	5.817	
8704	4977	9656	5345	99	105	109.10	-3720	1346	1115	923	191.85	5.812	
8800	4976	9756	5345	101	107	109.01	-3795	1414	1118	922	196.55	5.690	
8804	4976	9763	5345	101	107	109.01	-3799	1418	1119	922	196.79	5.684	
8900	4976	9867	5344	104	110	108.96	-3875	1489	1121	919	201.51	5.561	
8904	4976	9872	5344	104	110	108.96	-3878	1493	1121	919	201.73	5.555	
9000	4976	9957	5344	106	112	108.96	-3940	1552	1122	916	206.15	5.445	
9004	4976	9960	5344	106	112	108.96	-3942	1554	1123	916	206.35	5.440	
9100	4975	10,025	5344	109	114	108.91	-3991	1598	1127	916	210.41	5.354	
9104	4975	10,028	5344	109	114	108.90	-3993	1600	1127	916	210.59	5.351	
9200	4975	10,144	5343	111	117	108.75	-4079	1677	1131	916	215.66	5.246	
9204	4975	10,148	5343	111	117	108.75	-4082	1680	1132	916	215.88	5.242	
9300	4975	10,224	5342	114	118	108.66	-4139	1730	1136	916	220.15	5.162	
9304	4975	10,224	5342	114	118	108.66	-4139	1730	1137	916	220.27	5.160	
9400	4974	10,352	5341	116	122	108.53	-4234	1815	1142	916	225.55	5.062	
9404	4974	10,359	5341	116	122	108.53	-4240	1820	1142	916	225.83	5.057	
9500	4974	10,425	5341	119	123	108.48	-4289	1864	1147	917	229.91	4.987	
9504	4974	10,431	5341	119	123	108.48	-4294	1868	1147	917	230.15	4.983	
9600	4974	10,547	5342	121	126	108.46	-4379	1945	1151	916	235.10	4.896	
9604	4974	10,554	5342	122	126	108.46	-4384	1950	1151	916	235.35	4.891	
9700	4973	10,656	5342	124	129	108.41	-4459	2020	1154	913	240.10	4.805	
9704	4973	10,660	5342	124	129	108.41	-4462	2023	1154	913	240.31	4.801	
9800	4973	10,777	5342	127	132	108.39	-4547	2103	1156	911	245.18	4.717	
9804	4973	10,786	5342	127	132	108.40	-4553	2109	1156	911	245.44	4.712	
9900	4973	10,870	5342	129	134	108.41	-4614	2168	1157	907	249.88	4.631	
9904	4973	10,873	5342	129	134	108.41	-4616	2170	1157	907	250.07	4.628	
10,000	4972	10,944	5342	132	136	108.36	-4668	2218	1160	906	254.32	4.563	
10,004	4972	10,949	5342	132	136	108.36	-4672	2222	1161	906	254.56	4.559	
10,100	4972	11,045	5341	134	139	108.26	-4742	2287	1164	905	259.26	4.490	
10,104	4972	11,051	5341	134	139	108.26	-4747	2290	1164	905	259.50	4.486	
10,200	4972	11,134	5340	137	141	108.17	-4809	2346	1168	904	263.97	4.426	
10,204	4972	11,139	5340	137	141	108.16	-4812	2349	1169	904	264.19	4.423	
10,300	4971	11,254	5340	139	144	108.09	-4897	2427	1172	903	269.21	4.355	
10,304	4971	11,258	5339	139	144	108.09	-4900	2430	1172	903	269.43	4.352	
10,400	4971	11,352	5338	142	146	107.99	-4970	2494	1176	901	274.13	4.288	
10,404	4971	11,357	5338	142	146	107.98	-4973	2497	1176	901	274.36	4.285	
10,500	4971	11,459	5339	144	149	107.99	-5047	2567	1178	899	279.04	4.222	
10,504	4971	11,463	5339	145	149	107.99	-5050	2569	1178	899	279.24	4.219	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #203H - OH - OH													Offset Site Error:	0 ft	
Survey Program:		147-MWD						Rule Assigned:						Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,600	4970	11,568	5339	147	151	107.96	-5126	2642	1181	896	284.02	4.156			
10,604	4970	11,572	5338	147	151	107.96	-5129	2644	1181	896	284.23	4.154			
10,700	4970	11,661	5337	150	154	107.88	-5194	2705	1183	894	288.84	4.095			
10,704	4970	11,666	5337	150	154	107.88	-5198	2708	1183	894	289.06	4.093			
10,800	4970	11,767	5337	152	156	107.83	-5271	2778	1185	891	293.82	4.034			
10,804	4970	11,773	5337	152	156	107.83	-5276	2782	1185	891	294.06	4.031			
10,900	4970	11,846	5335	155	158	107.76	-5328	2832	1187	889	298.42	3.978			
10,904	4970	11,846	5335	155	158	107.76	-5328	2832	1187	889	298.55	3.976 SF			
11,000	4969	11,846	5335	157	158	107.76	-5328	2832	1195	895	300.36	3.978			
11,004	4969	11,846	5335	157	158	107.76	-5328	2832	1195	895	300.40	3.980			
11,100	4969	11,846	5335	160	158	107.76	-5328	2832	1211	911	300.26	4.033			
11,104	4969	11,846	5335	160	158	107.76	-5328	2832	1212	912	300.21	4.037			
11,200	4969	11,846	5335	162	158	107.76	-5328	2832	1235	937	298.27	4.141			
11,204	4969	11,846	5335	163	158	107.76	-5328	2832	1236	938	298.14	4.147			
11,300	4968	11,846	5335	165	158	107.76	-5328	2832	1267	972	294.64	4.299			
11,400	4968	11,846	5335	168	158	107.76	-5328	2832	1305	1015	289.67	4.505			
11,500	4968	11,846	5335	170	158	107.76	-5328	2832	1350	1066	283.68	4.758			
11,600	4967	11,846	5335	173	158	107.76	-5328	2832	1400	1123	276.96	5.056			
11,700	4967	11,846	5335	175	158	107.76	-5328	2832	1456	1186	269.78	5.396			
11,800	4967	11,846	5335	178	158	107.76	-5328	2832	1516	1254	262.36	5.778			
11,900	4966	11,846	5335	180	158	107.76	-5328	2832	1580	1325	254.87	6.200			
12,002	4966	11,846	5335	183	158	107.76	-5328	2832	1649	1402	247.33	6.668			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #204H - OH - OH													Offset Site Error:	0 ft
Survey Program: 182-MWD													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0	0	4	4	0	0	-90.25	-4	-846	846					
100	100	107	107	0	0	-90.25	-4	-846	846	846	0.42	2,022.193		
200	200	207	207	1	0	-90.27	-4	-846	846	845	0.91	934.214		
277	277	281	281	1	0	-90.29	-4	-846	846	844	1.33	635.363		
300	300	304	304	1	0	-90.29	-4	-846	846	844	1.46	578.151		
400	400	405	405	1	1	-90.33	-5	-846	846	844	2.03	416.398		
425	425	431	431	1	1	-90.34	-5	-846	846	843	2.17	388.912		
500	500	505	505	2	1	17.16	-5	-845	845	842	2.59	326.094		
600	600	604	604	2	1	17.25	-6	-845	840	837	3.14	267.709		
700	700	703	703	2	1	17.44	-6	-845	833	829	3.70	225.330		
800	799	799	799	3	1	17.71	-6	-846	822	818	4.25	193.308		
875	873	874	874	3	2	17.98	-6	-846	812	808	4.68	173.435		
900	898	898	898	3	2	18.06	-7	-846	809	804	4.83	167.612		
1000	997	996	996	4	2	18.39	-7	-847	795	789	5.39	147.478		
1100	1095	1095	1095	4	2	18.73	-7	-847	780	774	5.96	130.948		
1200	1194	1192	1192	4	2	19.07	-7	-848	766	759	6.53	117.331		
1300	1293	1292	1292	5	3	19.41	-8	-849	752	745	7.11	105.809		
1400	1392	1391	1391	5	3	19.86	-8	-849	738	730	7.69	96.011		
1500	1490	1496	1496	6	3	20.36	-7	-850	724	715	8.28	87.426		
1600	1589	1592	1592	6	3	20.79	-7	-850	709	700	8.85	80.074		
1700	1688	1688	1688	6	3	21.20	-7	-850	695	685	9.43	73.633		
1800	1787	1794	1794	7	4	21.68	-7	-850	680	670	10.03	67.843		
1900	1886	1896	1896	7	4	22.28	-7	-849	665	654	10.61	62.649		
2000	1984	1992	1992	8	4	22.87	-6	-849	650	638	11.20	58.018		
2100	2083	2090	2090	8	4	23.49	-5	-848	635	623	11.78	53.867		
2200	2182	2188	2188	9	4	24.14	-4	-848	620	608	12.37	50.104		
2300	2281	2287	2287	9	5	24.83	-3	-847	605	592	12.97	46.686		
2400	2379	2384	2383	9	5	25.52	-3	-847	591	577	13.56	43.576		
2500	2478	2480	2480	10	5	26.21	-2	-847	577	563	14.16	40.760		
2600	2577	2582	2582	10	5	26.92	-2	-847	563	548	14.76	38.141		
2700	2676	2684	2684	11	5	27.66	-3	-846	548	533	15.36	35.713		
2800	2774	2784	2784	11	6	28.46	-3	-846	534	518	15.96	33.452		
2900	2873	2882	2882	11	6	29.24	-3	-845	519	502	16.56	31.345		
3000	2972	2979	2979	12	6	30.09	-3	-844	505	488	17.16	29.406		
3100	3071	3078	3078	12	6	30.93	-4	-843	490	473	17.77	27.596		
3200	3169	3176	3176	13	6	31.80	-5	-843	476	458	18.38	25.917		
3300	3268	3274	3274	13	7	32.70	-6	-843	463	444	18.99	24.360		
3400	3367	3372	3372	14	7	33.64	-7	-843	449	430	19.61	22.907		
3500	3466	3465	3465	14	7	34.64	-7	-843	437	416	20.23	21.586		
3600	3565	3564	3564	14	7	35.82	-7	-845	425	404	20.85	20.383		
3700	3663	3662	3662	15	7	37.07	-7	-846	414	392	21.48	19.250		
3800	3762	3763	3763	15	8	38.37	-7	-847	402	380	22.12	18.182		
3900	3861	3862	3862	16	8	39.76	-7	-848	391	368	22.75	17.176		
4000	3960	3959	3959	16	8	41.17	-7	-849	380	356	23.40	16.233		
4100	4058	4058	4058	17	8	42.65	-7	-850	369	345	24.04	15.363		
4200	4157	4157	4157	17	9	44.17	-7	-852	359	334	24.70	14.543		
4300	4256	4255	4255	17	9	45.77	-8	-853	349	324	25.35	13.781		
4400	4355	4355	4355	18	9	47.49	-8	-855	340	314	26.01	13.064		
4454	4408	4410	4410	18	9	48.75	-7	-855	335	308	26.38	12.686		
4500	4454	4453	4453	18	9	82.17	-4	-854	332	306	26.71	12.441		
4502	4456	4455	4455	18	9	83.91	-4	-854	332	306	26.72	12.433 CC		
4550	4503	4496	4495	18	9	115.61	2	-851	335	308	27.07	12.373		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #204H - OH - OH													Offset Site Error:	0 ft
Survey Program: 182-MWD													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)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4600	4552	4538	4536	19	9	135.70	9	-848	344	316	27.42	12.529		
4650	4600	4575	4572	19	9	147.59	18	-844	358	330	27.72	12.918		
4700	4647	4605	4601	19	9	155.26	27	-841	379	351	27.92	13.573		
4750	4692	4634	4628	19	10	160.92	36	-838	406	378	28.07	14.466		
4800	4735	4661	4654	19	10	165.61	45	-835	438	410	28.18	15.548		
4850	4776	4691	4680	19	10	170.05	56	-831	475	446	28.31	16.764		
4900	4813	4768	4751	19	10	178.45	85	-815	514	485	28.92	17.759		
4950	4848	4999	4957	19	11	-166.52	130	-726	546	517	29.48	18.536		
5000	4880	5180	5108	19	12	-158.61	121	-627	573	545	28.91	19.839		
5050	4907	5340	5227	19	13	-153.66	82	-528	594	565	28.18	21.060		
5100	4931	5841	5394	19	20	-139.85	-182	-158	585	558	26.80	21.834		
5150	4951	5900	5394	19	21	-138.74	-224	-116	571	543	28.32	20.179		
5200	4967	5951	5393	20	22	-138.00	-260	-80	561	531	29.85	18.780		
5250	4978	6003	5392	20	23	-137.38	-297	-42	553	521	31.39	17.602		
5300	4985	6055	5390	20	24	-137.00	-333	-6	547	514	32.86	16.651		
5312	4986	6066	5390	21	25	-136.96	-341	2	546	513	33.19	16.461		
5352	4987	6103	5389	21	25	-136.93	-368	28	545	511	34.23	15.918		
5363	4987	6110	5389	21	26	-136.93	-373	33	545	510	34.47	15.804		
5400	4987	6147	5389	22	26	-136.94	-399	58	544	509	35.40	15.380		
5429	4987	6173	5389	22	27	-136.95	-418	77	544	508	36.12	15.071		
5500	4987	6236	5389	23	28	-136.94	-462	121	545	507	37.99	14.346		
5504	4987	6239	5389	23	28	-136.93	-464	124	545	507	38.11	14.303		
5600	4987	6333	5389	25	30	-136.74	-529	191	547	506	40.90	13.368		
5604	4987	6337	5389	25	31	-136.73	-532	194	547	506	41.03	13.327		
5700	4986	6433	5390	27	33	-136.67	-599	263	549	505	43.87	12.517		
5704	4986	6438	5390	27	33	-136.68	-602	267	549	505	44.00	12.482		
5800	4986	6541	5392	29	35	-136.86	-676	339	550	504	46.84	11.751		
5821	4986	6565	5392	29	36	-136.88	-693	356	550	503	47.50	11.588		
5900	4986	6653	5391	31	38	-136.88	-756	418	550	500	50.03	10.987		
5922	4986	6675	5391	31	38	-136.91	-772	433	549	499	50.70	10.835		
6000	4985	6755	5390	33	40	-137.01	-830	488	548	495	53.11	10.314		
6022	4985	6775	5390	33	41	-137.04	-844	501	547	494	53.77	10.181		
6100	4985	6849	5390	35	42	-137.18	-898	553	547	490	56.15	9.735		
6121	4985	6870	5390	35	43	-137.21	-913	567	546	490	56.82	9.617		
6200	4985	6948	5389	37	45	-137.22	-968	622	546	486	59.38	9.192		
6221	4985	6967	5389	38	45	-137.22	-982	635	546	486	60.06	9.085		
6300	4984	7049	5389	39	47	-137.22	-1040	693	546	483	62.69	8.704		
6321	4984	7072	5389	40	48	-137.22	-1056	708	545	482	63.40	8.602		
6400	4984	7152	5388	42	50	-137.35	-1115	764	545	479	65.92	8.261		
6422	4984	7176	5388	42	50	-137.38	-1132	780	544	478	66.62	8.169		
6500	4984	7247	5388	44	52	-137.47	-1183	830	543	474	69.10	7.863		
6521	4984	7268	5388	45	52	-137.50	-1199	845	543	473	69.79	7.783		
6600	4983	7343	5388	46	54	-137.52	-1252	897	543	471	72.38	7.501		
6604	4983	7347	5388	47	54	-137.52	-1254	900	543	470	72.53	7.486		
6700	4983	7438	5388	49	56	-137.49	-1318	964	544	468	75.77	7.180		
6704	4983	7442	5388	49	57	-137.49	-1322	968	544	468	75.93	7.166		
6800	4983	7543	5388	51	59	-137.43	-1393	1039	545	465	79.32	6.868		
6804	4983	7548	5388	51	59	-137.43	-1396	1043	545	465	79.48	6.854		
6900	4982	7637	5387	54	61	-137.33	-1458	1106	545	463	82.82	6.586		
6904	4982	7641	5387	54	61	-137.33	-1461	1109	546	463	82.98	6.574		
7000	4982	7738	5387	56	64	-137.15	-1528	1179	547	460	86.54	6.320		
7004	4982	7742	5387	56	64	-137.13	-1531	1182	547	460	86.72	6.308		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #204H - OH - OH												Offset Site Error:	0 ft
Survey Program: 182-MWD												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis	Highside	Rule Assigned:									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7100	4982	7829	5386	59	66	-136.88	-1591	1245	549	459	90.29	6.081	
7104	4982	7834	5386	59	66	-136.87	-1594	1249	549	459	90.47	6.071	
7200	4981	7937	5387	61	69	-136.78	-1666	1323	551	457	94.05	5.859	
7204	4981	7942	5387	61	69	-136.77	-1669	1326	551	457	94.22	5.849	
7300	4981	8047	5386	63	71	-136.67	-1743	1401	552	454	97.83	5.639	
7321	4981	8070	5386	64	72	-136.68	-1760	1417	552	453	98.59	5.594	
7400	4981	8148	5385	66	74	-136.63	-1815	1472	551	450	101.43	5.432	
7454	4981	8198	5385	67	75	-136.59	-1851	1508	551	447	103.39	5.328	
7500	4980	8242	5385	68	76	-136.57	-1881	1538	551	446	105.03	5.246	
7504	4980	8246	5385	69	76	-136.57	-1884	1541	551	446	105.18	5.239	
7600	4980	8343	5385	71	79	-136.55	-1953	1610	552	443	108.62	5.077	
7604	4980	8347	5385	71	79	-136.55	-1956	1613	552	443	108.78	5.070	
7700	4980	8445	5385	73	81	-136.58	-2025	1682	552	440	112.17	4.920	
7721	4980	8470	5384	74	82	-136.56	-2043	1699	552	439	112.98	4.884	
7800	4979	8549	5384	76	84	-136.61	-2100	1755	551	435	115.72	4.760	
7821	4979	8568	5384	76	84	-136.63	-2114	1768	551	434	116.42	4.731	
7900	4979	8647	5384	78	86	-136.70	-2170	1823	550	431	119.10	4.621	
7929	4979	8674	5384	79	87	-136.71	-2189	1841	550	430	120.10	4.582	
8000	4979	8741	5384	81	88	-136.70	-2236	1889	551	428	122.60	4.491	
8004	4979	8745	5384	81	89	-136.70	-2240	1892	551	428	122.77	4.485	
8100	4979	8835	5383	83	91	-136.53	-2302	1957	552	425	126.45	4.363	
8104	4979	8839	5383	84	91	-136.52	-2305	1960	552	425	126.62	4.358	
8200	4978	8928	5383	86	93	-136.27	-2365	2024	554	424	130.44	4.250	
8204	4978	8932	5383	86	93	-136.26	-2368	2027	555	424	130.63	4.245	
8300	4978	9032	5383	88	96	-136.00	-2436	2100	557	423	134.69	4.138	
8304	4978	9037	5383	89	96	-135.99	-2440	2104	557	423	134.88	4.133	
8400	4978	9134	5383	91	98	-135.84	-2507	2174	559	421	138.68	4.033	
8404	4978	9139	5383	91	98	-135.84	-2511	2178	559	421	138.85	4.029	
8500	4977	9244	5383	94	101	-135.85	-2585	2252	560	418	142.42	3.934	
8521	4977	9267	5383	94	102	-135.86	-2601	2268	560	417	143.19	3.913	
8600	4977	9346	5383	96	104	-135.94	-2657	2323	560	414	145.86	3.839	
8604	4977	9349	5383	96	104	-135.95	-2660	2326	560	414	146.01	3.835	
8700	4977	9436	5384	99	106	-135.95	-2722	2387	561	411	149.38	3.754	
8704	4977	9441	5384	99	106	-135.94	-2725	2390	561	411	149.55	3.750	
8800	4976	9548	5383	101	109	-135.87	-2800	2467	562	408	153.34	3.663	
8821	4976	9573	5383	102	109	-135.92	-2818	2484	561	407	154.04	3.645	
8900	4976	9655	5384	104	111	-136.24	-2879	2539	560	404	156.14	3.587	
8922	4976	9676	5385	104	112	-136.34	-2894	2553	560	403	156.70	3.572	
9000	4976	9760	5385	106	114	-136.61	-2956	2610	558	399	158.90	3.512	
9022	4976	9781	5385	107	114	-136.65	-2971	2625	557	398	159.59	3.493	
9100	4975	9853	5384	109	116	-136.71	-3024	2674	556	394	162.21	3.427	
9122	4975	9873	5384	109	117	-136.70	-3038	2689	556	393	163.02	3.408	
9200	4975	9952	5382	111	118	-136.55	-3094	2744	555	389	166.22	3.338	
9222	4975	9976	5381	112	119	-136.53	-3110	2761	554	387	167.07	3.319	
9300	4975	10,049	5381	114	121	-136.57	-3163	2812	554	384	169.78	3.260	
9325	4975	10,070	5381	114	121	-136.58	-3178	2827	553	383	170.60	3.244	
9400	4974	10,138	5381	116	123	-136.56	-3226	2874	554	381	173.30	3.197	
9404	4974	10,142	5381	116	123	-136.55	-3228	2877	554	381	173.47	3.194	
9500	4974	10,227	5380	119	125	-136.30	-3287	2940	556	379	177.43	3.135	
9504	4974	10,232	5380	119	125	-136.29	-3290	2943	556	379	177.63	3.132	
9600	4974	10,333	5380	121	128	-136.12	-3360	3017	559	377	181.69	3.075	
9604	4974	10,338	5380	122	128	-136.12	-3363	3020	559	377	181.84	3.073	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Gallo Canyon Unit #204H - OH - OH												Offset Site Error:	0 ft
Survey Program: 182-MWD												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)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9700	4973	10,424	5383	124	130	-136.25	-3424	3081	562	377	184.79	3.040	
9704	4973	10,429	5383	124	130	-136.26	-3428	3085	562	377	184.96	3.038	
9800	4973	10,543	5385	127	133	-136.37	-3508	3166	564	376	188.41	2.993	
9821	4973	10,566	5385	127	134	-136.40	-3524	3182	564	375	189.11	2.982	
9900	4973	10,650	5386	129	136	-136.53	-3585	3240	564	372	191.65	2.941	
9922	4973	10,676	5386	130	136	-136.59	-3603	3258	563	371	192.29	2.930	
10,000	4972	10,764	5386	132	139	-136.84	-3668	3317	561	367	194.39	2.887	
10,022	4972	10,786	5385	132	139	-136.89	-3684	3332	561	365	195.04	2.874	
10,100	4972	10,860	5385	134	141	-137.08	-3739	3382	558	361	197.27	2.829	
10,122	4972	10,881	5385	135	141	-137.14	-3754	3396	558	360	197.84	2.819	
10,200	4972	10,954	5385	137	143	-137.43	-3808	3445	556	356	199.71	2.785	
10,221	4972	10,975	5386	137	144	-137.52	-3824	3460	556	356	200.22	2.776	
10,300	4971	11,061	5386	139	146	-137.79	-3887	3518	555	352	202.19	2.743	
10,322	4971	11,087	5386	140	147	-137.87	-3906	3536	554	351	202.69	2.733	
10,400	4971	11,160	5386	142	148	-138.15	-3960	3584	551	347	204.53	2.696	
10,422	4971	11,179	5386	142	149	-138.22	-3974	3597	551	346	205.08	2.687	
10,500	4971	11,244	5386	144	150	-138.40	-4022	3642	550	343	207.16	2.657	
10,504	4971	11,248	5386	145	150	-138.40	-4024	3645	550	343	207.28	2.655	
10,600	4970	11,338	5387	147	153	-138.44	-4088	3708	551	341	210.47	2.620	
10,604	4970	11,342	5387	147	153	-138.43	-4091	3712	552	341	210.65	2.618	
10,700	4970	11,437	5387	150	155	-138.31	-4157	3780	553	338	214.45	2.578	
10,704	4970	11,442	5387	150	155	-138.30	-4160	3783	553	338	214.63	2.576	
10,800	4970	11,536	5387	152	158	-138.10	-4225	3851	555	336	218.68	2.536	
10,804	4970	11,540	5387	152	158	-138.09	-4228	3854	555	336	218.87	2.534	
10,900	4970	11,642	5386	155	160	-137.87	-4299	3928	556	333	223.15	2.494	
10,922	4969	11,691	5385	155	162	-137.87	-4334	3962	556	332	224.03	2.482	
11,000	4969	11,758	5384	157	163	-138.01	-4383	4007	553	327	226.31	2.445	
11,022	4969	11,779	5384	158	164	-138.07	-4399	4021	553	326	226.88	2.436	
11,100	4969	11,861	5385	160	166	-138.30	-4459	4077	552	323	228.81	2.411	
11,122	4969	11,893	5384	160	166	-138.39	-4482	4099	551	322	229.23	2.403	
11,200	4969	11,965	5383	162	168	-138.52	-4535	4148	548	317	231.48	2.367	
11,222	4968	11,987	5383	163	169	-138.57	-4551	4162	547	315	232.12	2.358	
11,300	4968	12,052	5382	165	170	-138.74	-4599	4207	545	311	234.15	2.329	
11,328	4968	12,074	5383	166	171	-138.83	-4615	4222	545	311	234.73	2.323	
11,400	4968	12,137	5384	168	172	-139.04	-4661	4265	546	310	236.31	2.312	
11,404	4968	12,137	5384	168	172	-139.04	-4661	4265	546	310	236.38	2.311	
11,500	4968	12,222	5388	170	175	-139.21	-4720	4326	550	311	238.82	2.303	
11,504	4968	12,226	5388	170	175	-139.21	-4723	4329	550	311	238.95	2.303	
11,600	4967	12,321	5391	173	177	-139.27	-4789	4397	555	313	242.03	2.291	
11,604	4967	12,326	5391	173	177	-139.27	-4792	4400	555	313	242.21	2.290	
11,700	4967	12,422	5393	175	180	-139.08	-4857	4472	559	313	246.36	2.270	
11,704	4967	12,427	5393	175	180	-139.06	-4861	4475	559	313	246.59	2.269	
11,800	4967	12,529	5393	178	182	-138.70	-4929	4551	563	311	251.62	2.237	
11,804	4967	12,534	5393	178	182	-138.68	-4932	4554	563	311	251.85	2.236	
11,900	4966	12,630	5392	180	185	-138.19	-4997	4626	566	309	257.26	2.200	
11,905	4966	12,635	5392	181	185	-138.17	-5000	4629	566	309	257.54	2.198	
12,002	4966	12,733	5389	183	188	-137.49	-5065	4703	569	305	263.83	2.157 ES, SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #325H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				(ft)	(ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	0	0		0	64.11	9	18	20					
100	100	100	100	0	0	64.11	9	18	20	19	0.62	32.451		
200	200	200	200	1	1	64.11	9	18	20	19	1.33	15.004		
300	300	300	300	1	1	64.11	9	18	20	18	2.05	9.758		
400	400	400	400	1	1	64.11	9	18	20	17	2.77	7.230		
425	425	425	425	1	1	64.11	9	18	20	17	2.95	6.790 CC, ES		
500	500	500	500	2	2	174.37	8	19	21	18	3.47	6.175 SF		
600	600	599	599	2	2	-176.81	5	22	28	24	4.15	6.754		
700	700	697	697	2	2	-168.50	0	28	41	36	4.84	8.418		
800	799	795	794	3	3	-162.96	-7	36	60	54	5.54	10.762		
875	873	868	867	3	3	-160.90	-12	43	77	70	6.07	12.605		
900	898	892	890	3	3	-160.51	-14	45	82	76	6.25	13.188		
1000	997	989	987	4	3	-159.38	-21	53	106	99	6.95	15.276		
1100	1095	1086	1083	4	4	-158.66	-29	62	130	122	7.66	16.968		
1200	1194	1183	1180	4	4	-158.17	-36	71	154	145	8.38	18.360		
1300	1293	1280	1276	5	5	-157.80	-43	79	178	169	9.10	19.525		
1400	1392	1378	1373	5	5	-157.53	-51	88	202	192	9.83	20.512		
1500	1490	1475	1469	6	5	-157.31	-58	97	225	215	10.55	21.358		
1600	1589	1572	1565	6	6	-157.13	-65	105	249	238	11.28	22.091		
1700	1688	1669	1662	6	6	-156.98	-73	114	273	261	12.01	22.732		
1800	1787	1766	1758	7	6	-156.86	-80	123	297	284	12.75	23.297		
1900	1886	1863	1855	7	7	-156.76	-88	131	321	307	13.48	23.798		
2000	1984	1960	1951	8	7	-156.67	-95	140	345	330	14.21	24.245		
2100	2083	2057	2048	8	8	-156.59	-102	149	368	354	14.95	24.647		
2200	2182	2154	2144	9	8	-156.52	-110	157	392	377	15.69	25.011		
2300	2281	2252	2241	9	8	-156.46	-117	166	416	400	16.42	25.340		
2400	2379	2349	2337	9	9	-156.41	-124	175	440	423	17.16	25.640		
2500	2478	2446	2433	10	9	-156.36	-132	183	464	446	17.90	25.915		
2600	2577	2543	2530	10	10	-156.31	-139	192	488	469	18.64	26.167		
2700	2676	2640	2626	11	10	-156.28	-146	201	512	492	19.38	26.400		
2800	2774	2737	2723	11	10	-156.24	-154	209	535	515	20.12	26.615		
2900	2873	2834	2819	11	11	-156.21	-161	218	559	538	20.86	26.814		
3000	2972	2931	2916	12	11	-156.18	-168	227	583	562	21.60	26.999		
3100	3071	3028	3012	12	11	-156.15	-176	235	607	585	22.34	27.172		
3200	3169	3126	3109	13	12	-156.12	-183	244	631	608	23.08	27.333		
3300	3268	3223	3205	13	12	-156.10	-191	253	655	631	23.82	27.484		
3400	3367	3320	3301	14	13	-156.08	-198	261	679	654	24.56	27.626		
3500	3466	3417	3398	14	13	-156.05	-205	270	702	677	25.31	27.759		
3600	3565	3514	3494	14	13	-156.03	-213	279	726	700	26.05	27.884		
3700	3663	3611	3591	15	14	-156.02	-220	287	750	723	26.79	28.002		
3800	3762	3708	3687	15	14	-156.00	-227	296	774	746	27.53	28.113		
3900	3861	3805	3784	16	15	-155.98	-235	305	798	770	28.27	28.219		
4000	3960	3902	3880	16	15	-155.97	-242	313	822	793	29.02	28.319		
4100	4058	4000	3977	17	15	-155.95	-249	322	846	816	29.76	28.414		
4200	4157	4097	4073	17	16	-155.94	-257	331	869	839	30.50	28.504		
4300	4256	4194	4169	17	16	-155.93	-264	339	893	862	31.24	28.590		
4400	4355	4291	4266	18	16	-155.92	-271	348	917	885	31.99	28.671		
4454	4408	4344	4318	18	17	-155.91	-275	353	930	898	32.39	28.714		
4500	4454	4388	4363	18	17	-123.49	-279	357	940	907	32.73	28.705		
4550	4503	4411	4386	18	25	-149.12	234	-154	916	885	30.88	29.656		
4600	4552	4459	4434	19	25	-135.11	229	-148	884	852	31.96	27.664		
4650	4600	4507	4482	19	25	-128.46	221	-140	855	822	32.99	25.904		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #325H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4700	4647	5707	5196	19	25	-124.95	209	-129	828	794	33.96	24.373	
4750	4692	5686	5196	19	24	-122.72	195	-115	803	769	34.85	23.056	
4800	4735	5662	5196	19	24	-121.00	178	-97	782	747	35.64	21.947	
4850	4776	5634	5196	19	24	-119.43	158	-77	764	728	36.31	21.038	
4900	4813	5602	5195	19	23	-117.86	136	-54	749	712	36.85	20.313	
4950	4848	5567	5195	19	23	-116.25	111	-29	736	699	37.30	19.731	
5000	4880	5526	5195	19	22	-114.48	82	0	726	688	37.61	19.305	
5050	4907	5438	5187	19	21	-110.45	21	62	717	679	37.50	19.117	
5100	4931	5365	5169	19	20	-106.95	-29	112	708	670	37.72	18.765	
5150	4951	5302	5146	19	20	-103.89	-70	154	699	661	38.10	18.353	
5200	4967	5246	5121	20	20	-101.16	-105	189	692	653	38.58	17.929	
5250	4978	5196	5094	20	19	-98.68	-135	219	685	646	39.09	17.529	
5300	4985	5150	5066	20	19	-96.37	-160	245	680	640	39.62	17.162	
5352	4987	5106	5035	21	19	-94.10	-183	268	676	636	40.17	16.819	
5400	4987	5069	5009	22	19	-91.83	-201	286	673	633	40.69	16.545	
5441	4987	5042	4988	22	19	-90.04	-214	298	673	631	41.14	16.347	
5500	4987	5007	4960	23	19	-87.68	-228	313	674	632	41.77	16.141	
5600	4987	4960	4920	25	19	-84.33	-246	330	685	642	42.76	16.026	
5700	4986	4924	4888	27	19	-81.66	-258	342	707	664	43.59	16.229	
5800	4986	4900	4866	29	19	-79.85	-265	349	741	696	44.27	16.731	
5900	4986	4873	4841	31	18	-77.78	-272	356	784	739	44.67	17.552	
6000	4985	4850	4820	33	18	-76.04	-278	361	836	791	44.89	18.626	
6100	4985	4850	4820	35	18	-76.04	-278	361	896	851	45.17	19.838	
6200	4985	4825	4796	37	18	-74.16	-283	366	962	917	45.10	21.328	
6300	4984	4800	4772	39	18	-72.24	-288	371	1033	988	44.95	22.989	
6400	4984	4800	4772	42	18	-72.24	-288	371	1108	1063	44.97	24.651	
6500	4984	4800	4772	44	18	-72.24	-288	371	1187	1142	44.93	26.423	
6600	4983	4800	4772	46	18	-72.24	-288	371	1269	1224	44.87	28.283	
6700	4983	4782	4754	49	18	-70.88	-290	373	1353	1308	44.68	30.283	
6800	4983	4776	4748	51	18	-70.44	-291	374	1439	1394	44.56	32.292	
6900	4982	4771	4743	54	18	-70.05	-292	375	1527	1482	44.45	34.346	
7000	4982	4750	4722	56	18	-68.52	-294	377	1616	1572	44.25	36.520	
7100	4982	4750	4722	59	18	-68.52	-294	377	1706	1662	44.17	38.620	
7200	4981	4750	4722	61	18	-68.52	-294	377	1797	1753	44.10	40.750	
7300	4981	4750	4722	63	18	-68.52	-294	377	1889	1845	44.03	42.906	
7400	4981	4750	4722	66	18	-68.52	-294	377	1982	1938	43.96	45.083	
7500	4980	4750	4722	68	18	-68.52	-294	377	2075	2031	43.90	47.277	
7600	4980	4750	4722	71	18	-68.52	-294	377	2169	2126	43.84	49.488	
7700	4980	4750	4722	73	18	-68.52	-294	377	2264	2220	43.78	51.711	
7800	4979	4750	4722	76	18	-68.52	-294	377	2359	2315	43.73	53.945	
7900	4979	4750	4722	78	18	-68.52	-294	377	2454	2411	43.68	56.188	
8000	4979	4750	4722	81	18	-68.52	-294	377	2550	2506	43.64	58.439	
8100	4979	4750	4722	83	18	-68.52	-294	377	2646	2603	43.60	60.697	
8200	4978	4750	4722	86	18	-68.52	-294	377	2743	2699	43.56	62.960	
8300	4978	4750	4722	88	18	-68.52	-294	377	2839	2796	43.53	65.227	
8400	4978	4729	4701	91	18	-66.96	-296	378	2935	2892	43.42	67.599	
8500	4977	4727	4700	94	18	-66.85	-296	378	3032	2989	43.39	69.880	
8600	4977	4726	4698	96	18	-66.74	-296	378	3130	3086	43.37	72.163	
8700	4977	4724	4697	99	18	-66.64	-296	379	3227	3184	43.34	74.447	
8800	4976	4723	4695	101	18	-66.55	-296	379	3324	3281	43.32	76.731	
8900	4976	4722	4694	104	18	-66.46	-296	379	3422	3379	43.31	79.016	
9000	4976	4700	4673	106	18	-64.92	-298	379	3520	3477	43.23	81.434	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #325H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+HDGM						Rule Assigned:						Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Distance				Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
9100	4975	4700	4673	109	18	-64.92	-298	379	3618	3575	43.22	83.711			
9200	4975	4700	4673	111	18	-64.92	-298	379	3716	3673	43.21	85.987			
9300	4975	4700	4673	114	18	-64.92	-298	379	3814	3771	43.21	88.262			
9400	4974	4700	4673	116	18	-64.92	-298	379	3912	3869	43.21	90.535			
9500	4974	4700	4673	119	18	-64.92	-298	379	4010	3967	43.21	92.806			
9600	4974	4700	4673	121	18	-64.92	-298	379	4109	4065	43.22	95.074			
9700	4973	4700	4673	124	18	-64.92	-298	379	4207	4164	43.22	97.341			
9800	4973	4700	4673	127	18	-64.92	-298	379	4306	4262	43.23	99.604			
9900	4973	4700	4673	129	18	-64.92	-298	379	4404	4361	43.23	101.864			
10,000	4972	4700	4673	132	18	-64.92	-298	379	4503	4459	43.24	104.121			
10,100	4972	4700	4673	134	18	-64.92	-298	379	4601	4558	43.26	106.375			
10,200	4972	4700	4673	137	18	-64.92	-298	379	4700	4657	43.27	108.625			
10,300	4971	4700	4673	139	18	-64.92	-298	379	4799	4756	43.28	110.870			
10,400	4971	4700	4673	142	18	-64.92	-298	379	4898	4854	43.30	113.112			
10,500	4971	4700	4673	144	18	-64.92	-298	379	4997	4953	43.32	115.349			
10,600	4970	4700	4673	147	18	-64.92	-298	379	5095	5052	43.34	117.582			
10,700	4970	4700	4673	150	18	-64.92	-298	379	5194	5151	43.36	119.811			
10,800	4970	4700	4673	152	18	-64.92	-298	379	5293	5250	43.38	122.034			
10,900	4970	4700	4673	155	18	-64.92	-298	379	5392	5349	43.40	124.252			
11,000	4969	4700	4673	157	18	-64.92	-298	379	5492	5448	43.42	126.466			
11,100	4969	4700	4673	160	18	-64.92	-298	379	5591	5547	43.45	128.674			
11,200	4969	4700	4673	162	18	-64.92	-298	379	5690	5646	43.47	130.877			
11,300	4968	4700	4673	165	18	-64.92	-298	379	5789	5745	43.50	133.074			
11,400	4968	4700	4673	168	18	-64.92	-298	379	5888	5845	43.53	135.266			
11,500	4968	4700	4673	170	18	-64.92	-298	379	5987	5944	43.56	137.452			
11,600	4967	4700	4673	173	18	-64.92	-298	379	6087	6043	43.59	139.632			
11,700	4967	4700	4673	175	18	-64.92	-298	379	6186	6142	43.62	141.806			
11,800	4967	4700	4673	178	18	-64.92	-298	379	6285	6241	43.65	143.975			
11,900	4966	4700	4673	180	18	-64.92	-298	379	6384	6341	43.69	146.137			
12,002	4966	4700	4673	183	18	-64.92	-298	379	6486	6442	43.72	148.331			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #404H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	63.92	17	36	40					
100	100	100	100	0	0	63.92	17	36	40	39	0.62	64.471		
200	200	200	200	1	1	63.92	17	36	40	38	1.33	29.809		
300	300	300	300	1	1	63.92	17	36	40	38	2.05	19.387		
400	400	400	400	1	1	63.92	17	36	40	37	2.77	14.364		
425	425	425	425	1	1	63.92	17	36	40	37	2.95	13.490		
500	500	501	501	2	2	171.20	17	35	40	36	3.47	11.455		
600	600	602	602	2	2	170.26	17	30	40	36	4.16	9.584		
700	700	704	703	2	2	168.59	15	22	40	35	4.85	8.253		
800	799	805	804	3	3	166.20	14	11	40	35	5.55	7.274		
875	873	881	879	3	3	163.96	12	0	41	35	6.09	6.700		
900	898	906	904	3	3	163.10	11	-4	41	35	6.26	6.522		
1000	997	1007	1003	4	4	158.14	8	-23	39	32	6.99	5.615		
1100	1095	1107	1101	4	4	151.57	5	-42	37	29	7.77	4.743		
1200	1194	1207	1199	4	4	144.19	2	-62	35	26	8.58	4.077		
1300	1293	1307	1297	5	5	136.13	-1	-81	34	24	9.43	3.578		
1400	1392	1407	1395	5	5	127.64	-4	-101	33	23	10.32	3.219		
1421	1412	1427	1415	5	5	125.87	-5	-105	33	23	10.50	3.160 CC		
1500	1490	1507	1493	6	6	119.08	-7	-120	33	22	11.23	2.977 ES		
1600	1589	1607	1591	6	6	110.80	-10	-140	34	22	12.15	2.830		
1700	1688	1706	1689	6	7	103.12	-14	-160	36	23	13.06	2.757		
1800	1787	1806	1786	7	7	96.21	-17	-179	38	24	13.95	2.740 SF		
1900	1886	1906	1884	7	8	90.14	-20	-199	41	26	14.82	2.761		
2000	1984	2006	1982	8	8	84.86	-23	-218	44	28	15.66	2.810		
2100	2083	2106	2080	8	8	80.31	-26	-238	47	31	16.50	2.876		
2200	2182	2206	2178	9	9	76.40	-29	-257	51	34	17.32	2.952		
2300	2281	2306	2276	9	9	73.02	-32	-277	55	37	18.13	3.035		
2400	2379	2406	2374	9	10	70.10	-35	-297	59	40	18.93	3.120		
2500	2478	2505	2472	10	10	67.56	-38	-316	63	44	19.73	3.206		
2600	2577	2605	2570	10	11	65.34	-41	-336	68	47	20.53	3.291		
2700	2676	2705	2667	11	11	63.38	-45	-355	72	51	21.32	3.374		
2800	2774	2805	2765	11	12	61.65	-48	-375	76	54	22.11	3.455		
2900	2873	2905	2863	11	12	60.12	-51	-394	81	58	22.91	3.533		
3000	2972	3005	2961	12	13	58.74	-54	-414	85	62	23.70	3.607		
3100	3071	3105	3059	12	13	57.51	-57	-434	90	66	24.49	3.679		
3200	3169	3205	3157	13	14	56.40	-60	-453	95	69	25.28	3.748		
3300	3268	3304	3255	13	14	55.39	-63	-473	99	73	26.08	3.814		
3400	3367	3404	3353	14	14	54.48	-66	-492	104	77	26.87	3.877		
3500	3466	3504	3451	14	15	53.64	-69	-512	109	81	27.66	3.937		
3600	3565	3604	3548	14	15	52.87	-73	-531	114	85	28.45	3.995		
3700	3663	3704	3646	15	16	52.17	-76	-551	118	89	29.25	4.050		
3800	3762	3804	3744	15	16	51.52	-79	-571	123	93	30.04	4.103		
3900	3861	3904	3842	16	17	50.91	-82	-590	128	97	30.83	4.153		
4000	3960	4004	3940	16	17	50.36	-85	-610	133	101	31.63	4.201		
4100	4058	4103	4038	17	18	49.84	-88	-629	138	105	32.42	4.247		
4200	4157	4203	4136	17	18	49.35	-91	-649	143	109	33.22	4.292		
4300	4256	4303	4234	17	19	48.90	-94	-668	147	113	34.01	4.334		
4400	4355	4403	4332	18	19	48.48	-97	-688	152	117	34.81	4.375		
4454	4408	4457	4385	18	19	48.26	-99	-699	155	120	35.24	4.396		
4500	4454	4503	4429	18	20	80.00	-101	-708	159	123	35.62	4.464		
4550	4503	4552	4478	18	20	111.56	-102	-717	168	132	36.05	4.651		
4600	4552	4598	4523	19	20	129.61	-103	-726	181	144	36.47	4.955		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #404H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4650	4600	4633	4556	19	20	139.41	-103	-734	200	163	36.70	5.447	
4700	4647	4663	4586	19	20	145.26	-102	-742	226	189	36.83	6.129	
4750	4692	4690	4611	19	20	148.90	-100	-750	257	221	36.87	6.982	
4800	4735	4713	4632	19	21	151.06	-98	-758	294	257	36.85	7.979	
4850	4776	4731	4649	19	21	152.03	-95	-764	335	298	36.80	9.094	
4900	4813	4750	4667	19	21	152.18	-92	-771	379	342	36.91	10.258	
4950	4848	4750	4667	19	21	149.13	-92	-771	425	388	36.52	11.633	
5000	4880	4763	4678	19	21	144.82	-90	-776	473	436	36.68	12.891	
5050	4907	4767	4682	19	21	131.91	-89	-778	522	485	36.68	14.230	
5100	4931	4769	4684	19	21	93.05	-88	-779	572	535	36.71	15.572	
5150	4951	4768	4683	19	21	37.22	-88	-778	621	585	36.77	16.902	
5200	4967	4765	4681	20	21	15.24	-89	-777	671	634	36.85	18.207	
5250	4978	4750	4667	20	21	5.92	-92	-771	720	683	36.72	19.609	
5300	4985	4750	4667	20	21	2.44	-92	-771	768	731	36.98	20.760	
5352	4987	4750	4667	21	21	0.19	-92	-771	816	779	37.28	21.901	
5400	4987	4750	4667	22	21	0.19	-92	-771	860	823	37.54	22.921	
5500	4987	4726	4645	23	21	-0.42	-96	-762	953	915	37.64	25.324	
5600	4987	4700	4621	25	20	-1.02	-99	-753	1047	1009	37.66	27.803	
5700	4986	4700	4621	27	20	-1.02	-99	-753	1141	1103	37.99	30.043	
5800	4986	4700	4621	29	20	-1.02	-99	-753	1236	1198	38.24	32.329	
5900	4986	4700	4621	31	20	-1.02	-99	-753	1332	1294	38.44	34.651	
6000	4985	4677	4599	33	20	-1.49	-101	-746	1428	1389	38.40	37.179	
6100	4985	4670	4592	35	20	-1.62	-102	-744	1524	1486	38.49	39.594	
6200	4985	4650	4573	37	20	-1.98	-103	-739	1621	1582	38.47	42.139	
6300	4984	4650	4573	39	20	-1.98	-103	-739	1718	1679	38.59	44.516	
6400	4984	4650	4573	42	20	-1.98	-103	-739	1815	1776	38.69	46.909	
6500	4984	4650	4573	44	20	-1.98	-103	-739	1912	1874	38.78	49.313	
6600	4983	4650	4573	46	20	-1.98	-103	-739	2010	1971	38.86	51.727	
6700	4983	4650	4573	49	20	-1.98	-103	-739	2108	2069	38.93	54.149	
6800	4983	4650	4573	51	20	-1.98	-103	-739	2206	2167	38.99	56.577	
6900	4982	4650	4573	54	20	-1.98	-103	-739	2304	2265	39.05	59.009	
7000	4982	4627	4550	56	20	-2.36	-104	-733	2402	2363	38.98	61.621	
7100	4982	4623	4547	59	20	-2.41	-104	-732	2501	2462	39.02	64.083	
7200	4981	4600	4525	61	20	-2.75	-104	-727	2600	2561	38.96	66.728	
7300	4981	4600	4525	63	20	-2.75	-104	-727	2698	2659	39.01	69.164	
7400	4981	4600	4525	66	20	-2.75	-104	-727	2797	2757	39.06	71.601	
7500	4980	4600	4525	68	20	-2.75	-104	-727	2895	2856	39.10	74.038	
7600	4980	4600	4525	71	20	-2.75	-104	-727	2994	2955	39.15	76.475	
7700	4980	4600	4525	73	20	-2.75	-104	-727	3093	3054	39.19	78.912	
7800	4979	4600	4525	76	20	-2.75	-104	-727	3192	3152	39.23	81.347	
7900	4979	4600	4525	78	20	-2.75	-104	-727	3291	3251	39.28	83.781	
8000	4979	4600	4525	81	20	-2.75	-104	-727	3390	3350	39.32	86.212	
8100	4979	4600	4525	83	20	-2.75	-104	-727	3489	3449	39.36	88.642	
8200	4978	4600	4525	86	20	-2.75	-104	-727	3588	3548	39.40	91.068	
8300	4978	4596	4521	88	20	-2.81	-103	-726	3687	3648	39.42	93.527	
8400	4978	4592	4517	91	20	-2.86	-103	-725	3786	3747	39.45	95.985	
8500	4977	4592	4517	94	20	-2.86	-103	-725	3885	3846	39.49	98.401	
8600	4977	4588	4513	96	20	-2.92	-103	-724	3985	3945	39.51	100.851	
8700	4977	4576	4501	99	20	-3.07	-103	-722	4084	4044	39.51	103.374	
8800	4976	4564	4490	101	20	-3.22	-102	-720	4183	4144	39.50	105.894	
8900	4976	4552	4478	104	20	-3.36	-102	-717	4283	4243	39.50	108.411	
9000	4976	4540	4466	106	20	-3.49	-102	-715	4382	4342	39.50	110.925	

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Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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: P26A 2306 Pad - Lybrook P26A 2306 COM #404H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
9100	4975	4529	4455	109	20	-3.62	-101	-713	4481	4442	39.50	113.436	
9200	4975	4517	4443	111	20	-3.75	-101	-710	4580	4541	39.51	115.943	
9300	4975	4505	4431	114	20	-3.86	-101	-708	4680	4640	39.51	118.446	
9400	4974	4493	4420	116	19	-3.98	-100	-706	4779	4739	39.51	120.946	
9500	4974	4481	4408	119	19	-4.09	-100	-703	4878	4839	39.52	123.440	
9600	4974	4469	4396	121	19	-4.19	-99	-701	4978	4938	39.53	125.931	
9700	4973	4457	4385	124	19	-4.29	-99	-699	5077	5037	39.53	128.417	
9800	4973	4445	4373	127	19	-4.39	-99	-696	5176	5137	39.54	130.898	
9900	4973	4433	4361	129	19	-4.48	-98	-694	5275	5236	39.55	133.374	
10,000	4972	4421	4350	132	19	-4.57	-98	-692	5375	5335	39.56	135.845	
10,100	4972	4409	4338	134	19	-4.65	-98	-689	5474	5434	39.58	138.310	
10,200	4972	4398	4326	137	19	-4.74	-97	-687	5573	5534	39.59	140.770	
10,300	4971	4386	4315	139	19	-4.82	-97	-685	5673	5633	39.61	143.224	
10,400	4971	4374	4303	142	19	-4.90	-97	-682	5772	5732	39.62	145.673	
10,500	4971	4362	4291	144	19	-4.97	-96	-680	5871	5831	39.64	148.115	
10,600	4970	4350	4279	147	19	-5.04	-96	-678	5970	5931	39.66	150.551	
10,700	4970	4338	4268	150	19	-5.11	-95	-675	6070	6030	39.68	152.980	
10,800	4970	4326	4256	152	19	-5.18	-95	-673	6169	6129	39.70	155.403	
10,900	4970	4314	4244	155	19	-5.25	-95	-671	6268	6229	39.72	157.820	
11,000	4969	4302	4233	157	19	-5.31	-94	-668	6368	6328	39.74	160.229	
11,100	4969	4290	4221	160	19	-5.37	-94	-666	6467	6427	39.76	162.632	
11,200	4969	4279	4209	162	18	-5.43	-94	-664	6566	6526	39.79	165.027	
11,300	4968	4267	4198	165	18	-5.49	-93	-661	6665	6626	39.81	167.416	
11,400	4968	4255	4186	168	18	-5.54	-93	-659	6765	6725	39.84	169.797	
11,500	4968	4243	4174	170	18	-5.60	-92	-657	6864	6824	39.87	172.170	
11,600	4967	4231	4163	173	18	-5.65	-92	-654	6963	6923	39.90	174.536	
11,700	4967	4219	4151	175	18	-5.70	-92	-652	7063	7023	39.93	176.894	
11,800	4967	4207	4139	178	18	-5.75	-91	-650	7162	7122	39.96	179.244	
11,900	4966	4195	4128	180	18	-5.80	-91	-647	7261	7221	39.99	181.586	
12,002	4966	4183	4116	183	18	-5.85	-91	-645	7362	7322	40.02	183.961	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report

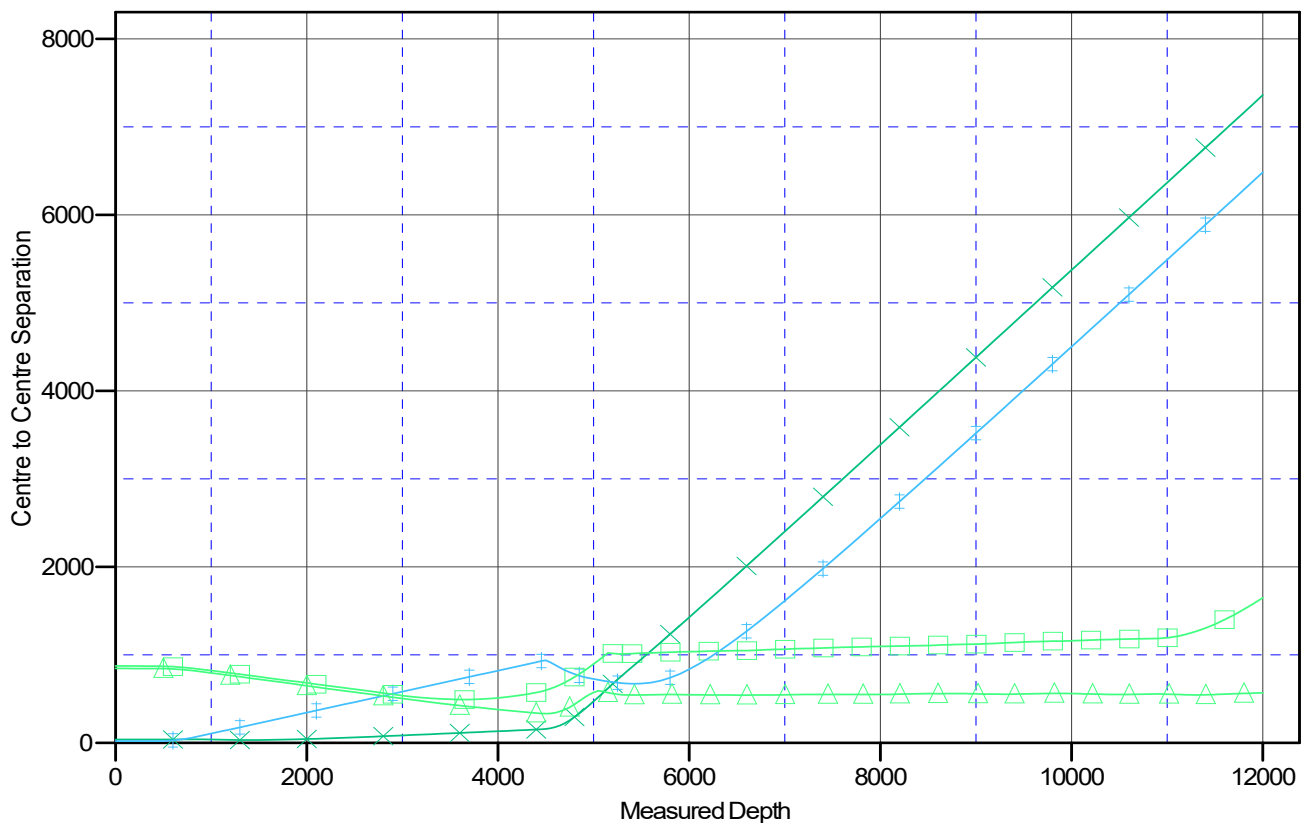


Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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 6869' & RKB 14' @ 6883ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333333

Coordinates are relative to: Gallo Canyon Unit #422H - Slot 1
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.24°

Ladder Plot



LEGEND

LjbrookF26A2306 CO M#404H Original Drilling APD V0
 LjbrookF26A2306 CO M#325H Original Drilling APD V0
 Gallo Canyon Unit#20 4HCHOHV0
 Gallo Canyon Unit#20 3HCHOHV0

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Lonestar Consulting, LLC

Anticollision Report

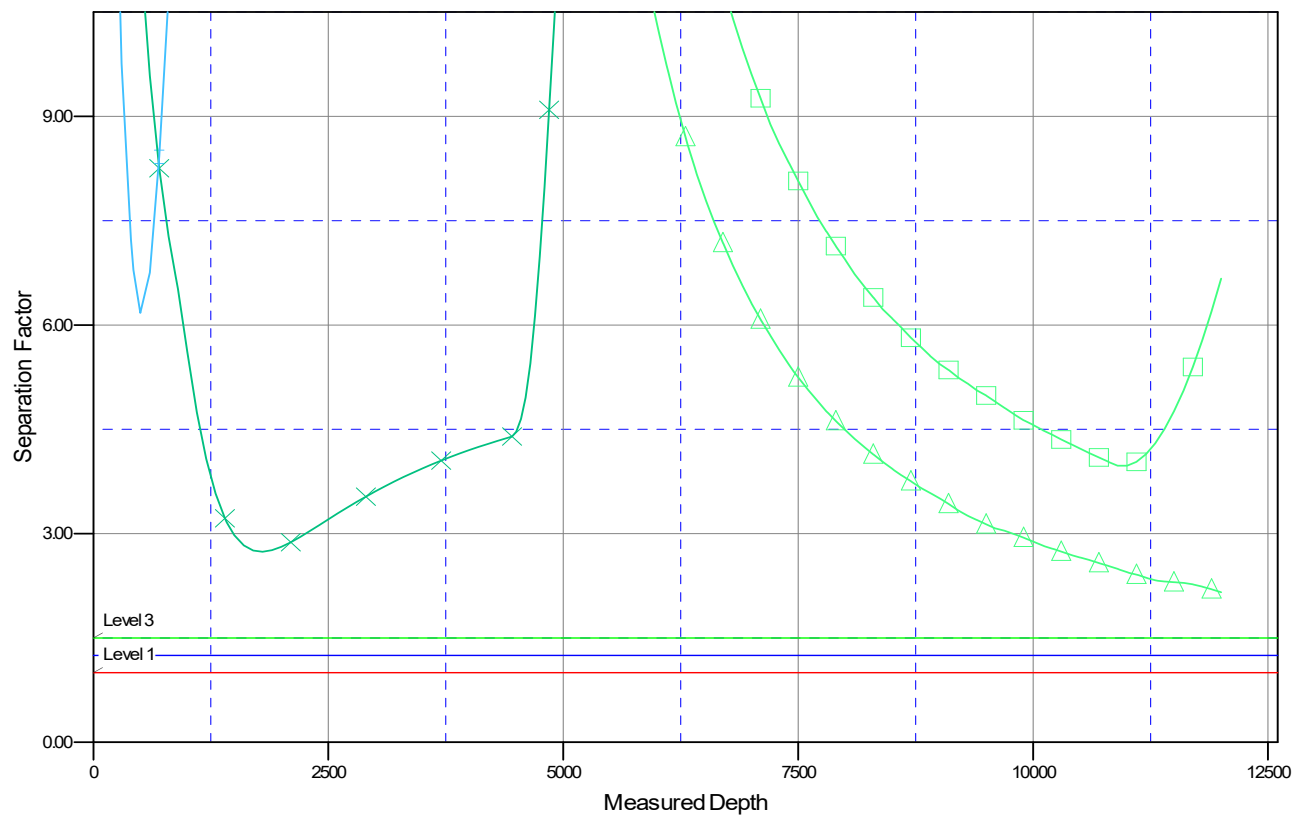


Company:	DJR Operating	Local Co-ordinate Reference:	Well Gallo Canyon Unit #422H - Slot 1
Project:	Gallo Canyon Unit	TVD Reference:	GL 6869' & RKB 14' @ 6883ft
Reference Site:	P26A 2306 Pad	MD Reference:	GL 6869' & RKB 14' @ 6883ft
Site Error:	0 ft	North Reference:	True
Reference Well:	Gallo Canyon Unit #422H	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 6869' & RKB 14' @ 6883ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333333

Coordinates are relative to: Gallo Canyon Unit #422H - Slot 1
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.24°

Separation Factor Plot



LEGEND

LybrookP26A2306/CO M#404H/OriginalD/ing/APD/V0
 LybrookP26A2306/CO M#325H/OriginalD/ing/APD/V0
 Gallo Canyon Unit#20 4H/CH/OH/V0
 Gallo Canyon Unit#20 3H/CH/OH/V0



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

#422H GALLO CANYON UNIT

Lease: NMNM118128 Unit: NMNM131017A
SH: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 26, T. 23 N., R. 6 W.
Sandoval County, New Mexico
BH: SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

VII. PHONE NUMBERS

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

Virgil Lucero (505) 793-1836
Kenneth Rennick (505) 564-7742
Matthew Kade (505) 564-7736

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 453961

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 453961
	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.	4/21/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	4/21/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	6/11/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	6/11/2025
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.	6/11/2025
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.	6/11/2025