

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-045-38461
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		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)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)



Additional Operator Remarks

Location of Well

0. SHL: NWSW / 2415 FSL / 91 FWL / TWSP: 24N / RANGE: 8W / SECTION: 16 / LAT: 36.313573 / LONG: -107.695721 (TVD: 0 feet, MD: 0 feet)

PPP: SENE / 1532 FNL / 888 FEL / TWSP: 24N / RANGE: 8W / SECTION: 17 / LAT: 36.317095 / LONG: -107.699012 (TVD: 5557 feet, MD: 5978 feet)

PPP: SWSE / 1 FSL / 2443 FEL / TWSP: 24N / RANGE: 8W / SECTION: 08 / LAT: 36.32136 / LONG: -107.704254 (TVD: 5559 feet, MD: 11759 feet)

BHL: NWSW / 2477 FSL / 332 FWL / TWSP: 24N / RANGE: 8W / SECTION: 8 / LAT: 36.328257 / LONG: -107.712731 (TVD: 5559 feet, MD: 11759 feet)

BLM Point of Contact

Name: JEFFREY J TAFOYA

Title: Assistant Field Manager

Phone: (505) 564-7672

Email: JTAFOYA@BLM.GOV

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 30-045-38461	Pool Code 98194	Pool Name CROW CANYON MANCOS OIL POOL
Property Code 325183	Property Name CROW CANYON UNIT	Well Number 134H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6794'
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
L	16	24N	8W		2415' SOUTH	91' WEST	36.313573° N	107.695721° W	SAN JUAN

Bottom Hole Location (BHL)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	8	24N	8W		2477' SOUTH	332' WEST	36.328257° N	107.712731° W	SAN JUAN

Dedicated Acres SEC 17: NE/4 & NE/NW (200 AC.); SEC 8: SW/SE, SW/4 & SW/NW (240 AC.) = 440 ACRES	PENETRATED SPACING UNIT;	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code UNIT
Order Numbers: R-14090 R-14090A			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
L	16	24N	8W		2415' SOUTH	91' WEST	36.313573° N	107.695721° W	SAN JUAN

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
H	17	24N	8W		1532' NORTH	888' EAST	36.317095° N	107.699012° W	SAN JUAN

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft from the N/S	Ft from the E/W	Latitude	Longitude	County
L	8	24N	8W		2477' SOUTH	332' WEST	36.328257° N	107.712731° W	SAN JUAN

Unitized Area or Area of Uniform Interest CROW CANYON	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
---	--	------------------------

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

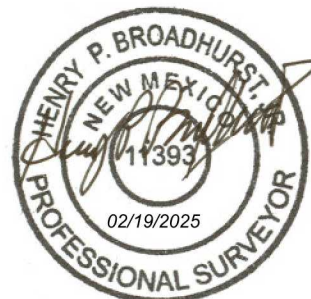
2/19/2025
Date

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

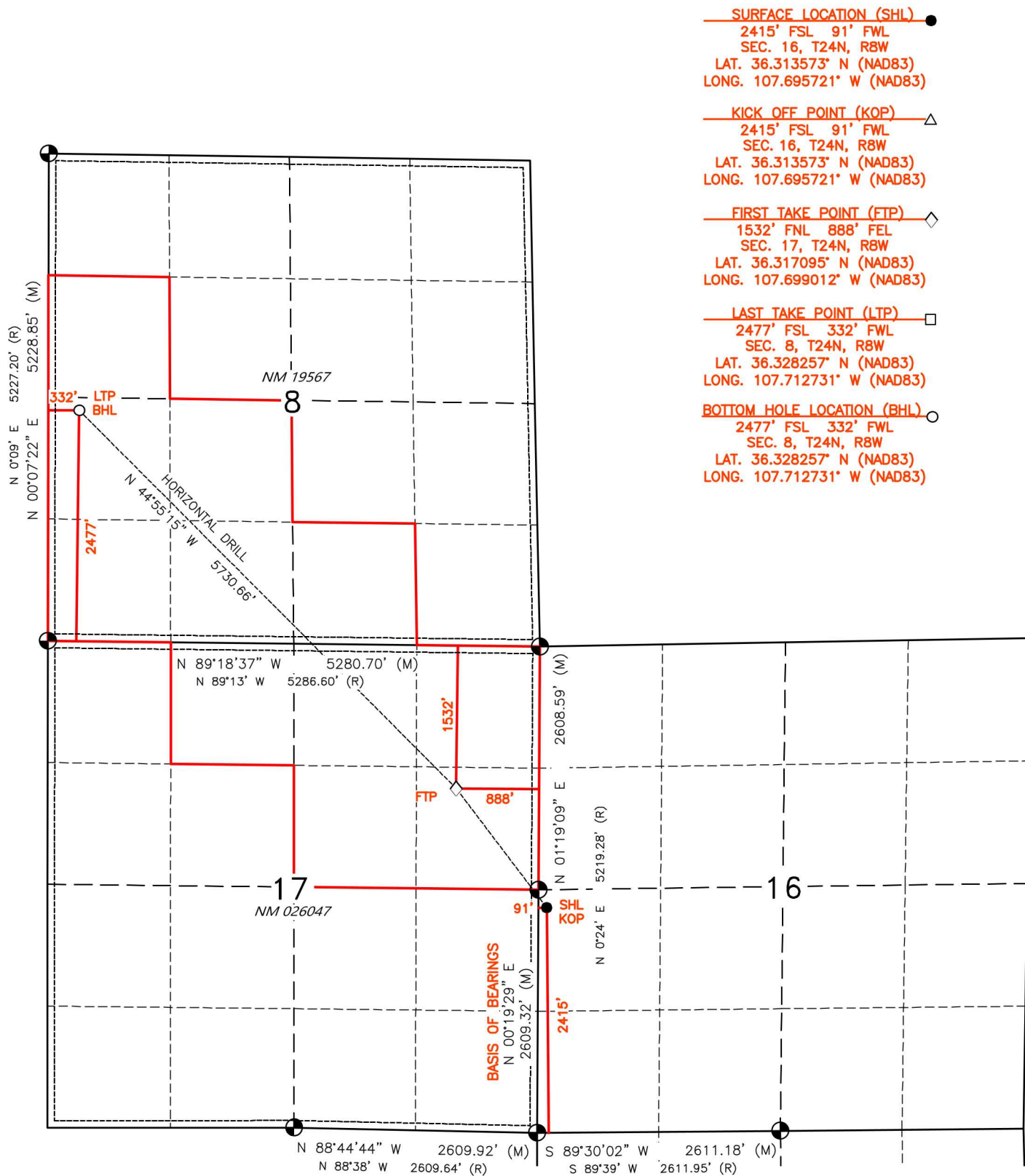
11393

Date of Survey

JUNE 18, 2021

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

FND 2 1/2" BC
 GLO 1947
 DP CALC



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:** 2/14/2025

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
Crow Canyon Unit 130H	TBD	L-16-24N-8W	2413 FSL x 51 FWL	561	1273	196
Crow Canyon Unit 131H	TBD	L-16-24N-8W	2416 FSL x 110 FWL	850	1929	298
Crow Canyon Unit 134H	TBD	L-16-24N-8W	2415 FSL x 91 FWL	489	1109	171
Crow Canyon Unit 135H	TBD	L-16-24N-8W	2417 FSL x 130 FWL	302	685	106
Crow Canyon Unit 136H	TBD	L-16-24N-8W	2412 FSL x 31 FWL	651	1476	228
Crow Canyon Unit 137H	TBD	L-16-24N-8W	2414 FSL x 70 FWL	549	1244	192
				3-year Decline	3-year Decline	3-year Decline
Crow Canyon Unit 130H	TBD	L-16-24N-8W	2413 FSL x 51 FWL	127	507	44
Crow Canyon Unit 131H	TBD	L-16-24N-8W	2416 FSL x 110 FWL	192	768	67
Crow Canyon Unit 134H	TBD	L-16-24N-8W	2415 FSL x 91 FWL	110	442	39
Crow Canyon Unit 135H	TBD	L-16-24N-8W	2417 FSL x 130 FWL	68	273	24
Crow Canyon Unit 136H	TBD	L-16-24N-8W	2412 FSL x 31 FWL	147	588	51
Crow Canyon Unit 137H	TBD	L-16-24N-8W	2414 FSL x 70 FWL	124	496	43

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
Crow Canyon Unit 130H	TBD	7/18/2026	7/26/2026	8/2/2026	8/9/2026	8/11/2026
Crow Canyon Unit 131H	TBD	7/19/2026	7/27/2026	8/3/2026	8/10/2026	8/12/2026
Crow Canyon Unit 134H	TBD	7/20/2026	7/28/2026	8/4/2026	8/11/2026	8/13/2026
Crow Canyon Unit 135H	TBD	7/21/2026	7/29/2026	8/5/2026	8/12/2026	8/14/2026
Crow Canyon Unit 136H	TBD	7/22/2026	7/30/2026	8/6/2026	8/13/2026	8/15/2026
Crow Canyon Unit 137H	TBD	7/23/2026	7/31/2026	8/7/2026	8/14/2026	8/16/2026

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: 2/14/2025
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
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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

19.15.27.8 B. Venting and flaring during drilling operations

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

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

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



19.15.27.8 D. Venting and flaring during production operations

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

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

19.15.27.8 E. Performance standards

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



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

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

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Crow Canyon Unit 130H, 131H, 134H, 135H, 136H and 137H

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

Rev 0



DRILLING PLAN

Crow Canyon Unit 134H

San Juan County, New Mexico

Surface Location

91-ft FWL & 2415-ft FSL
 Sec 16 T24N R08W
 Graded Elevation 6794' MSL
 RKB Elevation 6808' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.3135730° N
 Longitude 107.6957210° W

Kick Off Point for Horizontal Build Curve

5176-ft MD
 5064-ft TVD

Local Coordinates (from SHL)

830-ft North
 551-ft West

Heel Location (Pay zone entry)

888-ft FEL & 1532-ft FNL
 Sec 17 T24N R08W

Heel Geographical Coordinates (NAD-83)

Latitude 36.31709519° N
 Longitude 107.69901216° W

Bottom Hole Location (TD)

332-ft FWL & 2477-ft FSL
 Sec 8 T24N R08W

BHL Geographical Coordinates (NAD-83)

Latitude 36.3282567° N
 Longitude 107.7127309° W

Well objectives

This well is planned as a 5730-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 146°F. Bottom hole pressure in the Gallup C is forecast to be 1985 psi.

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

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	1189	1181	Sd	W	8.3	8.4 – 8.8
Kirtland	1321	1310	Sh	-	8.3	8.4 – 8.8
Fruitland	1721	1699	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1945	1918	Sd	W	8.3	9.0 - 9.5
Lewis	2022	1993	Sh	-		9.0 - 9.5
Chacra	2789	2740	Sd	-	8.3	9.0 - 9.5
Menefee	3472	3405	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4375	4284	Sd	-	8.3	9.0 - 9.5
Mancos	4590	4494	Sh	-		9.0 - 9.5
Mancos Silt	4965	4859	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5427	5292	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5478	5332	Sd	O/G	6.6	8.8 -9.0
Gallup C	5646	5445	Sd	O/G	6.6	8.8 -9.0
Target	6029	5559	Sd	O/G	6.6	8.8 -9.0

Casing Program

Casing OD	Hole Size	Weight (#/ft)	Grade	Coupling	MD Top	MD Bottom	TVD Top	TVD Bottom	Top of Cement
9-5/8"	12-1/4"	36	K-55	STC	surf	350	surf	350	surface
7"	8-3/4"	26	K-55	LTC	surf	5978	surf	5557	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5700	11759	5474	5601	5700

Note: all casing will be new

Rev 0

**Casing Design Load Cases**

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

Note #

- 1 Fluid level at shoe, air column to surface, pore pressure outside
- 2 Tested to 80% of minimum internal yield with freshwater inside, pore pressure outside
- 3 50 bbl kick at TD, 0.50 ppg intensity, 4" drill pipe, 9.0 ppg mud, fracture gradient at shoe
- 4 2060 psi BHP, 687 psi surface pressure, 12.5 ppg EMW shoe integrity
- 5 Surface stimulation pressure of 8000 psi on 8.3 ppg fluid column. Stimulation will be down frac string, so load does not apply to 7" intermediate casing.
- 6 Shock load from abrupt pipe deceleration, evaluated against coupling rating
- 7 Overpull values as follows: Surface casing 20,000 lbs, Intermediate & Production 100,000 lbs

Casing Design Factors

		Design Factors			
Casing string	Casing OD	Burst	Collapse	Axial	Triaxial
Surface	9-5/8"	1.25	13.38	8.16	1.56
Intermediate	7"	1.25	1.50	1.68	1.34
Production liner	4-1/2"	1.37	3.68	1.88	1.69

Cement Design9-5/8" Surface Casing

	<u>Lead</u>
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

	<u>Lead</u>	<u>Tail</u>
	BJ Services	BJ Services
Type	III	Poz/G
Planned top	Surface	4676-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	456	209
Volume (bbls)	190	56
Volume (cu.ft.)	1067	312
Excess %	55	55



Rev 0

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5700-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	509
Volume (bbls)	142
Volume (cu.ft)	795
Excess %	40

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. A 3M BOPE conforming to Onshore Order #2 will be installed on the surface casing. The BOP and accumulator will meet API 16D and 16E respectively.

A PVT mud monitoring system and a trip tank will be rigged up and operational for all hole intervals. An electronic geolograph will be employed to monitor and record drilling data (ROP, WOB, SPM, Pressure, RPM and torque).

Mud Program

Surface hole will be drilled with a fresh water, native mud system. In intermediate hole, a low weight 7% KCl LSND drilling fluid will be used, with KCl providing chemical stability for the young shales and clays present in the interval. In production hole a LSND system with polymer and lubricant additives is programmed. Sufficient drill water and mud additives will be on hand to maintain adequate pit volumes and maintain well control.

Hole Section	Fluid type	Interval (MD)	Density (ppg)	Funnel Viscosity	Yield Point	Fluid Loss (cc/30 min)
Surface	Fresh water spud mud	0 – 350	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	350 – 5978	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5978 – 11759	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.

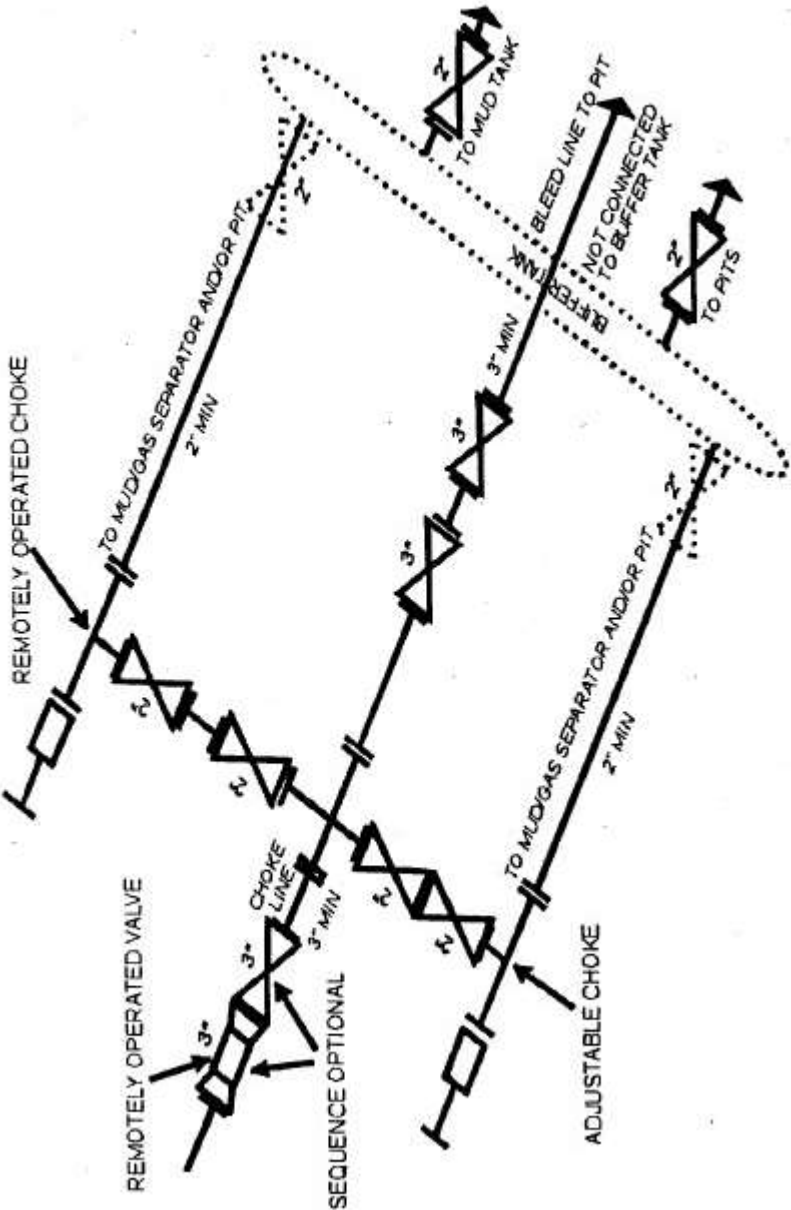
Completion

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.



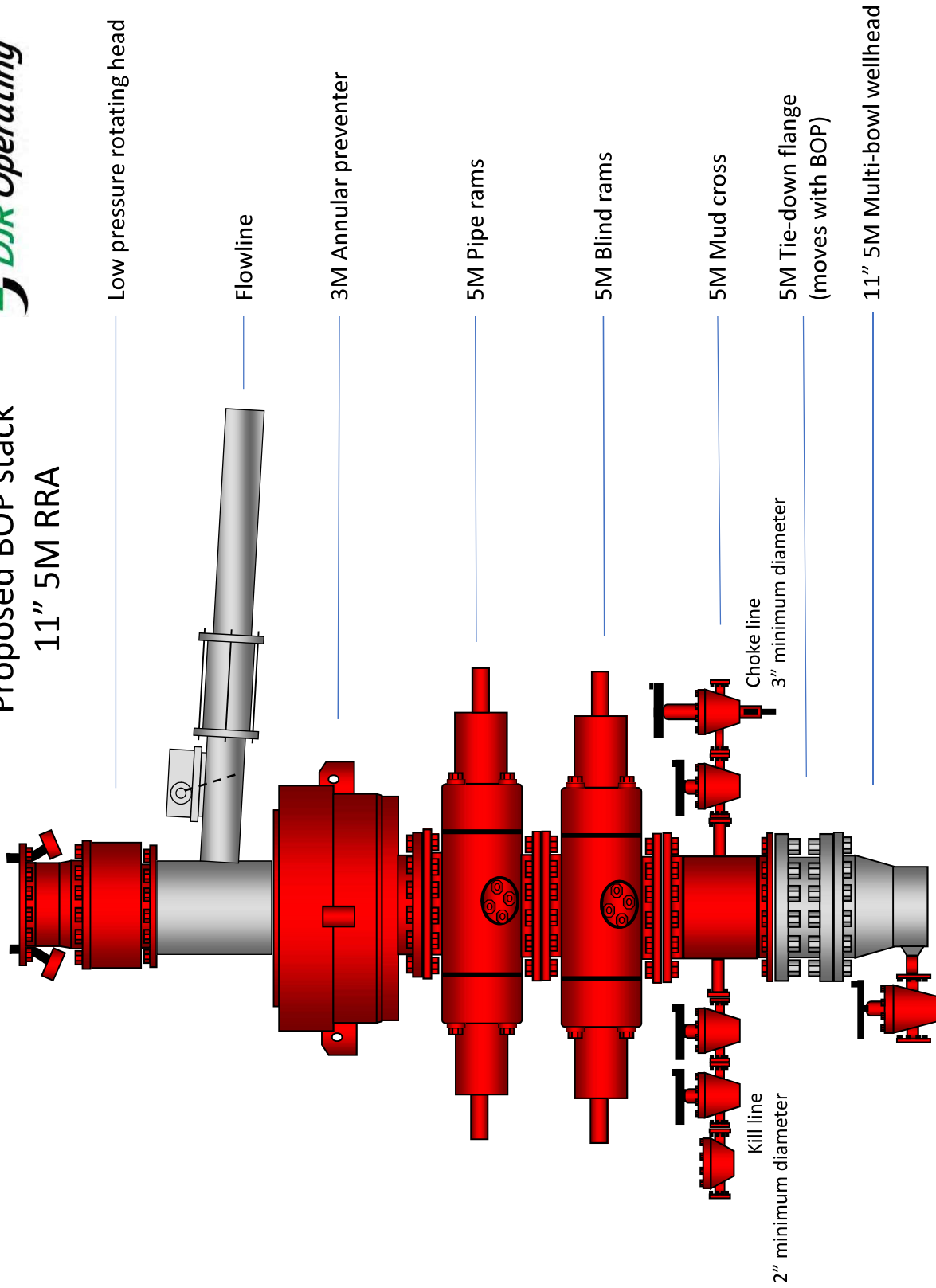
Choke Manifold

Actual system to conform with Onshore Order 2





Proposed BOP stack
11" 5M RRA





Company: DJR Operating
Project: Crow Canyon Unit
Site: L16 2408 Pad
Well: # 134H
Wellbore: Original Drilling
Design: APD

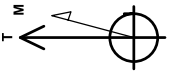
WELL DETAILS: # 134H

+N/-S		+E/-W	North	Latitude	Longitude
0	0	0	2763633.92	36.31357297	-107.69572100

GL 6794' & RKB 14 @ 6808ft

Plan: APD (# 134H/Original Drilling)
Created By: Janie Collins Date: 10:06, June 24 2021

PROJECT DETAILS: Crow 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



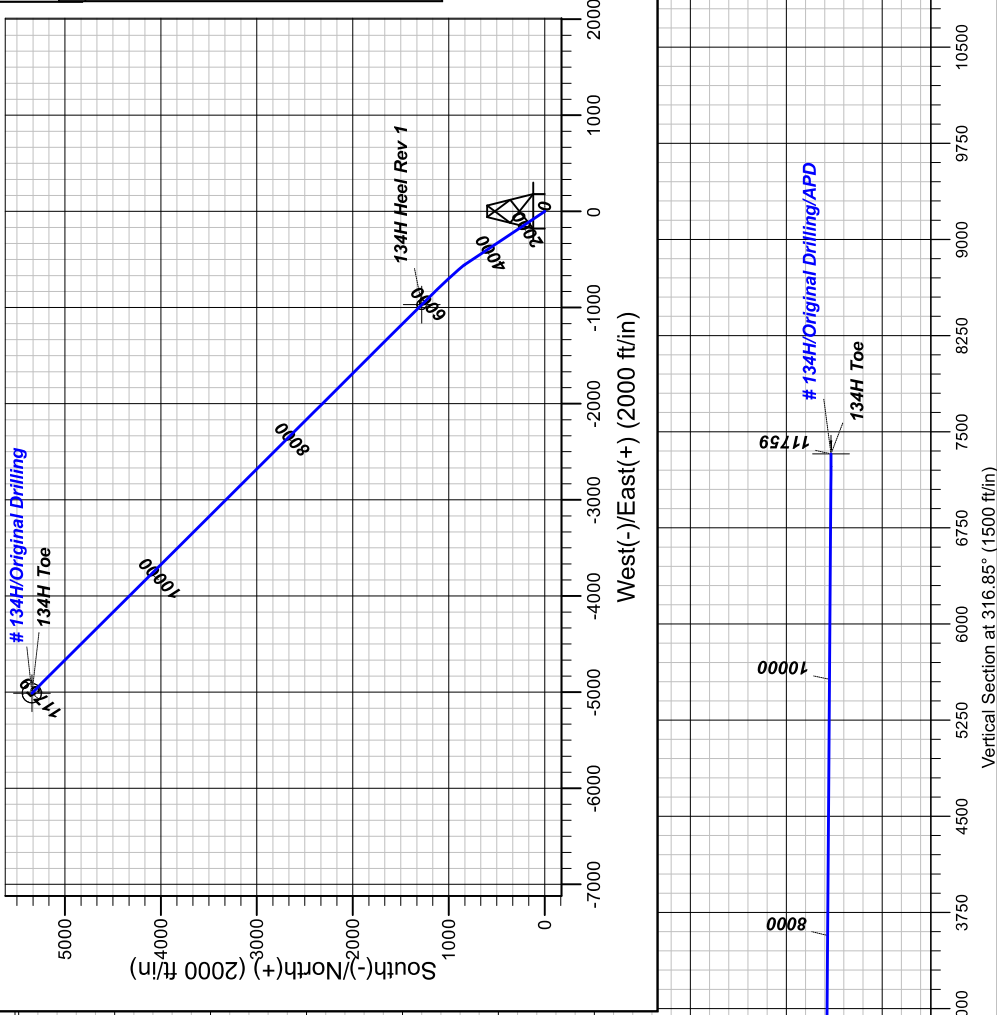
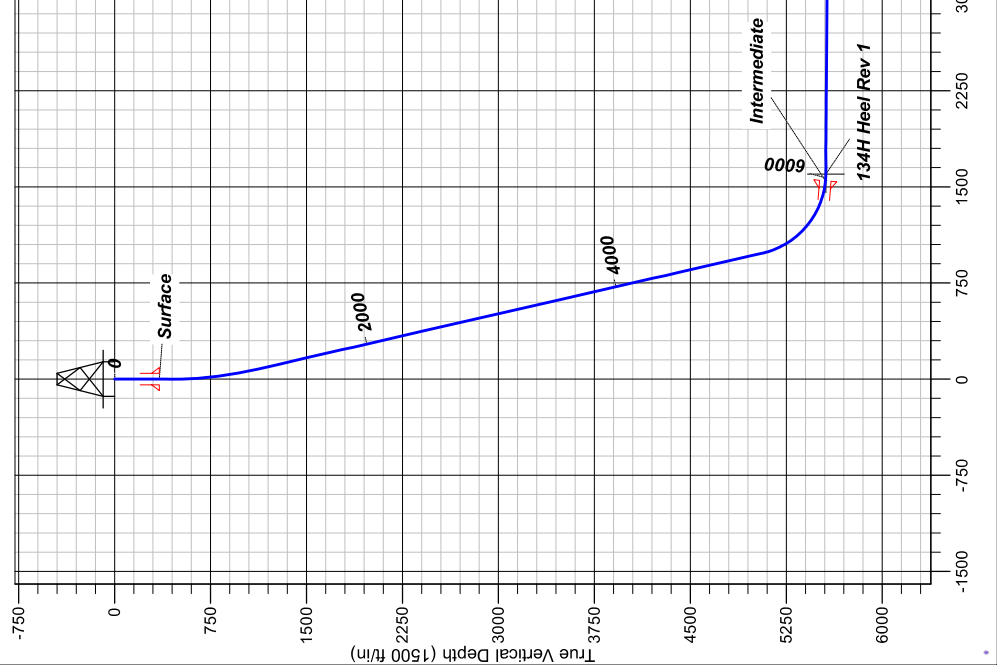
Azimuths to True North
Magnetic North: 8.8°
Magnetic Field
Strength: 49374.91
Dip Angle: 62.57°
Date: 6/11/2021
Model: IGRF2015

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	East	Latitude	Longitude
134H Heel Rev 1	5559	1282	-970	1934750.31	2762662.52	36.31709519	-107.69901216
134H Toe	5601	5346	-5010	1933808.08	2758615.93	36.32825670	-107.71273990

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	15
450	0.00	0.00	450	0	0	0.00	0.00	0	
1104	13.08	326.41	1098	62	-41	2.00	326.41	73	
5176	13.08	326.41	5064	830	-551	0.00	0.00	982	
6029	89.58	315.16	5559	1282	-970	9.00	-11.56	1599	134H Heel Rev 1
11759	89.58	315.16	5601	5346	-5010	0.00	0.00	7327	134H Toe



CASING DETAILS

TVD	MD	Name
350	350	Surface
5557	5978	Intermediate

FORMATION DETAILS

TVDPath	MDPath	Formation
1181	1189	Ojo Alamo
1310	1321	Kirtland
1699	1721	Fruitland
1918	1945	Pictured Cliffs
1993	2022	Lewis
2740	2789	Chacra
3405	3472	Menefee
4284	4375	Point Lookout
4494	4590	Mancos Silt
4859	4965	Mancos
5292	5427	Gallup A
5332	5478	Gallup B
5445	5646	Gallup C



DJR Operating

Crow Canyon Unit

L16 2408 Pad

134H - Slot 4

Original Drilling

Plan: APD

Standard Planning Report

24 June, 2021





Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 134H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 134H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

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

Site	L16 2408 Pad				
Site Position:		Northing:	1,933,466.49 usft	Latitude:	36.31356497
From:	Lat/Long	Easting:	2,763,573.83 usft	Longitude:	-107.69592500
Position Uncertainty:	0 ft	Slot Radius:	13.20 in	Grid Convergence:	0.08

Well	# 134H - Slot 4					
Well Position	+N/-S	3 ft	Northing:	1,933,469.49 usft	Latitude:	36.31357297
	+E/-W	60 ft	Easting:	2,763,633.92 usft	Longitude:	-107.69572100
Position Uncertainty		0 ft	Wellhead Elevation:		Ground Level:	6794 ft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/11/2021	8.78	62.94	49,374.64305362

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	316.85

Plan Survey Tool Program	Date	6/23/2021		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0	11,759	APD (Original Drilling)	MWD+IGRF
				OWSG MWD + IGRF or WMM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0	0.00	0.00	0	0	0	0.00	0.00	0.00	0.00	
450	0.00	0.00	450	0	0	0.00	0.00	0.00	0.00	
1104	13.08	326.41	1098	62	-41	2.00	2.00	0.00	326.41	
5176	13.08	326.41	5064	830	-551	0.00	0.00	0.00	0.00	
6029	89.58	315.16	5559	1282	-970	9.00	8.97	-1.32	-11.56	134H Heel Rev 1
11,759	89.58	315.16	5601	5346	-5010	0.00	0.00	0.00	0.00	134H Toe



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 134H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 134H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0	0.00	0.00	0	0	0	0	0.00	0.00	0.00
100	0.00	0.00	100	0	0	0	0.00	0.00	0.00
200	0.00	0.00	200	0	0	0	0.00	0.00	0.00
300	0.00	0.00	300	0	0	0	0.00	0.00	0.00
400	0.00	0.00	400	0	0	0	0.00	0.00	0.00
450	0.00	0.00	450	0	0	0	0.00	0.00	0.00
500	1.00	326.41	500	0	0	0	2.00	2.00	0.00
600	3.00	326.41	600	3	-2	4	2.00	2.00	0.00
700	5.00	326.41	700	9	-6	11	2.00	2.00	0.00
800	7.00	326.41	799	18	-12	21	2.00	2.00	0.00
900	9.00	326.41	898	29	-20	35	2.00	2.00	0.00
1000	11.00	326.41	997	44	-29	52	2.00	2.00	0.00
1100	13.00	326.41	1094	61	-41	72	2.00	2.00	0.00
1104	13.08	326.41	1098	62	-41	73	2.00	2.00	0.00
1200	13.08	326.41	1192	80	-53	95	0.00	0.00	0.00
1300	13.08	326.41	1289	99	-66	117	0.00	0.00	0.00
1400	13.08	326.41	1387	118	-78	139	0.00	0.00	0.00
1500	13.08	326.41	1484	137	-91	162	0.00	0.00	0.00
1600	13.08	326.41	1581	155	-103	184	0.00	0.00	0.00
1700	13.08	326.41	1679	174	-116	206	0.00	0.00	0.00
1800	13.08	326.41	1776	193	-128	229	0.00	0.00	0.00
1900	13.08	326.41	1874	212	-141	251	0.00	0.00	0.00
2000	13.08	326.41	1971	231	-153	273	0.00	0.00	0.00
2100	13.08	326.41	2068	250	-166	296	0.00	0.00	0.00
2200	13.08	326.41	2166	269	-178	318	0.00	0.00	0.00
2300	13.08	326.41	2263	287	-191	340	0.00	0.00	0.00
2400	13.08	326.41	2361	306	-203	363	0.00	0.00	0.00
2500	13.08	326.41	2458	325	-216	385	0.00	0.00	0.00
2600	13.08	326.41	2556	344	-228	407	0.00	0.00	0.00
2700	13.08	326.41	2653	363	-241	430	0.00	0.00	0.00
2800	13.08	326.41	2750	382	-253	452	0.00	0.00	0.00
2900	13.08	326.41	2848	401	-266	474	0.00	0.00	0.00
3000	13.08	326.41	2945	419	-279	496	0.00	0.00	0.00
3100	13.08	326.41	3043	438	-291	519	0.00	0.00	0.00
3200	13.08	326.41	3140	457	-304	541	0.00	0.00	0.00
3300	13.08	326.41	3237	476	-316	563	0.00	0.00	0.00
3400	13.08	326.41	3335	495	-329	586	0.00	0.00	0.00
3500	13.08	326.41	3432	514	-341	608	0.00	0.00	0.00
3600	13.08	326.41	3530	533	-354	630	0.00	0.00	0.00
3700	13.08	326.41	3627	551	-366	653	0.00	0.00	0.00
3800	13.08	326.41	3724	570	-379	675	0.00	0.00	0.00
3900	13.08	326.41	3822	589	-391	697	0.00	0.00	0.00
4000	13.08	326.41	3919	608	-404	720	0.00	0.00	0.00
4100	13.08	326.41	4017	627	-416	742	0.00	0.00	0.00
4200	13.08	326.41	4114	646	-429	764	0.00	0.00	0.00
4300	13.08	326.41	4211	665	-441	787	0.00	0.00	0.00
4400	13.08	326.41	4309	683	-454	809	0.00	0.00	0.00
4500	13.08	326.41	4406	702	-466	831	0.00	0.00	0.00
4600	13.08	326.41	4504	721	-479	854	0.00	0.00	0.00
4700	13.08	326.41	4601	740	-491	876	0.00	0.00	0.00
4800	13.08	326.41	4698	759	-504	898	0.00	0.00	0.00
4900	13.08	326.41	4796	778	-516	921	0.00	0.00	0.00
5000	13.08	326.41	4893	797	-529	943	0.00	0.00	0.00
5100	13.08	326.41	4991	815	-541	965	0.00	0.00	0.00



Lonestar Consulting, LLC

Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 134H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 134H	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)
5176	13.08	326.41	5064	830	-551	982	0.00	0.00	0.00
5200	15.23	324.75	5088	835	-554	988	9.00	8.84	-6.87
5300	24.14	320.96	5182	861	-575	1021	9.00	8.91	-3.79
5400	33.10	319.14	5270	898	-606	1069	9.00	8.96	-1.82
5500	42.07	318.03	5349	943	-646	1130	9.00	8.97	-1.11
5600	51.06	317.25	5418	997	-695	1203	9.00	8.98	-0.78
5700	60.04	316.64	5474	1057	-751	1285	9.00	8.99	-0.60
5800	69.03	316.14	5517	1122	-813	1375	9.00	8.99	-0.50
5900	78.02	315.69	5545	1191	-880	1471	9.00	8.99	-0.45
6000	87.01	315.28	5558	1262	-949	1570	9.00	8.99	-0.42
6029	89.58	315.16	5559	1282	-970	1599	9.00	8.99	-0.41
6100	89.58	315.16	5560	1333	-1020	1670	0.00	0.00	0.00
6200	89.58	315.16	5560	1404	-1090	1770	0.00	0.00	0.00
6300	89.58	315.16	5561	1475	-1161	1870	0.00	0.00	0.00
6400	89.58	315.16	5562	1546	-1231	1970	0.00	0.00	0.00
6500	89.58	315.16	5563	1616	-1302	2070	0.00	0.00	0.00
6600	89.58	315.16	5563	1687	-1372	2170	0.00	0.00	0.00
6700	89.58	315.16	5564	1758	-1443	2270	0.00	0.00	0.00
6800	89.58	315.16	5565	1829	-1514	2370	0.00	0.00	0.00
6900	89.58	315.16	5566	1900	-1584	2470	0.00	0.00	0.00
7000	89.58	315.16	5566	1971	-1655	2570	0.00	0.00	0.00
7100	89.58	315.16	5567	2042	-1725	2669	0.00	0.00	0.00
7200	89.58	315.16	5568	2113	-1796	2769	0.00	0.00	0.00
7300	89.58	315.16	5568	2184	-1866	2869	0.00	0.00	0.00
7400	89.58	315.16	5569	2255	-1937	2969	0.00	0.00	0.00
7500	89.58	315.16	5570	2326	-2007	3069	0.00	0.00	0.00
7600	89.58	315.16	5571	2396	-2078	3169	0.00	0.00	0.00
7700	89.58	315.16	5571	2467	-2148	3269	0.00	0.00	0.00
7800	89.58	315.16	5572	2538	-2219	3369	0.00	0.00	0.00
7900	89.58	315.16	5573	2609	-2289	3469	0.00	0.00	0.00
8000	89.58	315.16	5574	2680	-2360	3569	0.00	0.00	0.00
8100	89.58	315.16	5574	2751	-2430	3669	0.00	0.00	0.00
8200	89.58	315.16	5575	2822	-2501	3769	0.00	0.00	0.00
8300	89.58	315.16	5576	2893	-2571	3869	0.00	0.00	0.00
8400	89.58	315.16	5576	2964	-2642	3969	0.00	0.00	0.00
8500	89.58	315.16	5577	3035	-2712	4069	0.00	0.00	0.00
8600	89.58	315.16	5578	3106	-2783	4169	0.00	0.00	0.00
8700	89.58	315.16	5579	3176	-2853	4269	0.00	0.00	0.00
8800	89.58	315.16	5579	3247	-2924	4369	0.00	0.00	0.00
8900	89.58	315.16	5580	3318	-2994	4469	0.00	0.00	0.00
9000	89.58	315.16	5581	3389	-3065	4569	0.00	0.00	0.00
9100	89.58	315.16	5582	3460	-3135	4669	0.00	0.00	0.00
9200	89.58	315.16	5582	3531	-3206	4769	0.00	0.00	0.00
9300	89.58	315.16	5583	3602	-3276	4868	0.00	0.00	0.00
9400	89.58	315.16	5584	3673	-3347	4968	0.00	0.00	0.00
9500	89.58	315.16	5585	3744	-3417	5068	0.00	0.00	0.00
9600	89.58	315.16	5585	3815	-3488	5168	0.00	0.00	0.00
9700	89.58	315.16	5586	3885	-3558	5268	0.00	0.00	0.00
9800	89.58	315.16	5587	3956	-3629	5368	0.00	0.00	0.00
9900	89.58	315.16	5587	4027	-3699	5468	0.00	0.00	0.00
10,000	89.58	315.16	5588	4098	-3770	5568	0.00	0.00	0.00
10,100	89.58	315.16	5589	4169	-3840	5668	0.00	0.00	0.00
10,200	89.58	315.16	5590	4240	-3911	5768	0.00	0.00	0.00
10,300	89.58	315.16	5590	4311	-3981	5868	0.00	0.00	0.00



Lonestar Consulting, LLC
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 134H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 134H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,400	89.58	315.16	5591	4382	-4052	5968	0.00	0.00	0.00	
10,500	89.58	315.16	5592	4453	-4122	6068	0.00	0.00	0.00	
10,600	89.58	315.16	5593	4524	-4193	6168	0.00	0.00	0.00	
10,700	89.58	315.16	5593	4595	-4263	6268	0.00	0.00	0.00	
10,800	89.58	315.16	5594	4665	-4334	6368	0.00	0.00	0.00	
10,900	89.58	315.16	5595	4736	-4404	6468	0.00	0.00	0.00	
11,000	89.58	315.16	5595	4807	-4475	6568	0.00	0.00	0.00	
11,100	89.58	315.16	5596	4878	-4545	6668	0.00	0.00	0.00	
11,200	89.58	315.16	5597	4949	-4616	6768	0.00	0.00	0.00	
11,300	89.58	315.16	5598	5020	-4686	6868	0.00	0.00	0.00	
11,400	89.58	315.16	5598	5091	-4757	6968	0.00	0.00	0.00	
11,500	89.58	315.16	5599	5162	-4827	7067	0.00	0.00	0.00	
11,600	89.58	315.16	5600	5233	-4898	7167	0.00	0.00	0.00	
11,700	89.58	315.16	5601	5304	-4969	7267	0.00	0.00	0.00	
11,759	89.58	315.16	5601	5346	-5010	7327	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
134H Heel Rev 1	0.00	0.00	5559	1282	-970	1,934,750.31	2,762,662.52	36.31709519		-107.69901217
- plan hits target center										
- Circle (radius 50)										
134H Toe	0.00	0.00	5601	5346	-5010	1,938,808.08	2,758,615.93	36.32825670		-107.71273090
- plan hits target center										
- Circle (radius 100)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (ft)	Vertical Depth (ft)	Name						
350	350	Surface					9.63	12.25
5978	5557	Intermediate					7.00	8.75



Database:	Grand Junction	Local Co-ordinate Reference:	Well # 134H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Project:	Crow Canyon Unit	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site:	L16 2408 Pad	North Reference:	True
Well:	# 134H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1189	1181	Ojo Alamo		0.00	0.00	
1321	1310	Kirtland		0.00	0.00	
1721	1699	Fruitland		0.00	0.00	
1945	1918	Pictured Cliffs		0.00	0.00	
2022	1993	Lewis		0.00	0.00	
2789	2740	Chacra		0.00	0.00	
3472	3405	Menefee		0.00	0.00	
4375	4284	Point Lookout		0.00	0.00	
4590	4494	Mancos		0.00	0.00	
4965	4859	Mancos Silt		0.00	0.00	
5427	5292	Gallup A		0.00	0.00	
5478	5332	Gallup B		0.00	0.00	
5646	5445	Gallup C		0.00	0.00	



DJR Operating

Crow Canyon Unit

L16 2408 Pad

134H

Original Drilling

APD

Anticollision Report

24 June, 2021





Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	Survey Calculation Method:	Minimum Curvature
Well Error:	0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	Grand Junction
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 10,000ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	6/24/2021		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0	11,759	APD (Original Drilling)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
L16 2408 Pad						
# 130H - Original Drilling - APD	450	450	40	37	14.242	CC
# 130H - Original Drilling - APD	500	499	40	37	12.731	ES
# 130H - Original Drilling - APD	10,600	10,926	1322	1031	4.543	SF
# 131H - Original Drilling - APD	629	630	18	14	4.533	CC, ES
# 131H - Original Drilling - APD	700	701	20	15	4.288	SF
# 135H - Original Drilling - APD	1039	1043	39	32	5.404	CC
# 135H - Original Drilling - APD	1104	1108	40	32	5.067	ES
# 135H - Original Drilling - APD	4800	4803	117	80	3.189	SF
# 136H - Original Drilling - APD	450	450	60	57	21.356	CC
# 136H - Original Drilling - APD	500	499	60	57	19.060	ES
# 136H - Original Drilling - APD	1104	1092	99	92	12.878	SF
# 137H - Original Drilling - APD	450	450	20	17	7.121	CC
# 137H - Original Drilling - APD	500	500	20	17	6.393	ES
# 137H - Original Drilling - APD	11,100	11,260	696	391	2.279	SF
Mesa #4 SWD - OH - OH	349	360	4012	4000	334.683	CC
Mesa #4 SWD - OH - OH	600	611	4015	3995	195.884	ES
Mesa #4 SWD - OH - OH	4800	4650	4721	4560	29.284	SF

Offset Design: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF								Rule Assigned:					Offset Well Error: 0 ft	
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0	0	0	0	0	0	-93.12	-2	-40	40					
100	100	100	100	0	0	-93.12	-2	-40	40	40	0.31	130.161		
200	200	200	200	1	1	-93.12	-2	-40	40	39	1.03	39.139		
300	300	300	300	1	1	-93.12	-2	-40	40	38	1.74	23.033		
400	400	400	400	1	1	-93.12	-2	-40	40	38	2.46	16.318		
450	450	450	450	1	1	-93.12	-2	-40	40	37	2.82	14.242	CC	
500	500	499	499	2	2	-60.22	-2	-40	40	37	3.17	12.731	ES	
600	600	598	598	2	2	-65.44	-3	-44	42	38	3.86	10.910		
700	700	696	696	2	2	-74.45	-6	-50	47	42	4.56	10.221		
800	799	793	793	3	3	-84.71	-9	-60	55	50	5.27	10.439		
900	898	890	888	3	3	-93.94	-13	-72	68	62	6.01	11.352		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning	
Measured Depth (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		
1000	997	986	982	4	3	-101.18	-18	-87	86	79	6.77	12.730		
1104	1098	1083	1078	4	4	-106.68	-25	-106	110	102	7.61	14.448		
1200	1192	1173	1166	4	4	-110.22	-31	-126	136	127	8.42	16.095		
1300	1289	1269	1259	5	5	-112.60	-39	-148	163	154	9.31	17.529		
1400	1387	1365	1352	5	5	-114.28	-46	-170	191	181	10.23	18.692		
1500	1484	1461	1445	6	6	-115.53	-54	-192	219	208	11.15	19.652		
1600	1581	1557	1538	7	6	-116.50	-61	-214	247	235	12.09	20.453		
1700	1679	1653	1631	7	7	-117.28	-69	-236	275	262	13.03	21.129		
1800	1776	1749	1724	8	7	-117.91	-76	-259	304	290	13.98	21.706		
1900	1874	1845	1817	8	8	-118.43	-83	-281	332	317	14.94	22.202		
2000	1971	1940	1910	9	9	-118.87	-91	-303	360	344	15.90	22.634		
2100	2068	2036	2003	9	9	-119.25	-98	-325	388	371	16.87	23.012		
2200	2166	2132	2096	10	10	-119.57	-106	-347	416	399	17.84	23.346		
2300	2263	2228	2189	10	10	-119.86	-113	-369	445	426	18.81	23.642		
2400	2361	2324	2282	11	11	-120.11	-121	-391	473	453	19.78	23.907		
2500	2458	2420	2375	11	11	-120.33	-128	-413	501	480	20.76	24.145		
2600	2556	2516	2468	12	12	-120.53	-136	-435	530	508	21.74	24.360		
2700	2653	2612	2561	13	12	-120.71	-143	-457	558	535	22.72	24.556		
2800	2750	2708	2654	13	13	-120.87	-151	-479	586	562	23.70	24.733		
2900	2848	2804	2747	14	14	-121.01	-158	-501	614	590	24.68	24.896		
3000	2945	2899	2840	14	14	-121.15	-165	-523	643	617	25.66	25.045		
3100	3043	2995	2933	15	15	-121.27	-173	-545	671	644	26.65	25.183		
3200	3140	3091	3026	15	15	-121.38	-180	-568	699	672	27.63	25.310		
3300	3237	3187	3119	16	16	-121.49	-188	-590	728	699	28.62	25.428		
3400	3335	3283	3212	16	16	-121.58	-195	-612	756	726	29.60	25.537		
3500	3432	3379	3305	17	17	-121.67	-203	-634	784	754	30.59	25.639		
3600	3530	3475	3398	17	18	-121.75	-210	-656	813	781	31.58	25.734		
3700	3627	3571	3491	18	18	-121.83	-218	-678	841	808	32.56	25.823		
3800	3724	3667	3584	19	19	-121.90	-225	-700	869	836	33.55	25.906		
3900	3822	3763	3677	19	19	-121.97	-233	-722	897	863	34.54	25.984		
4000	3919	3859	3770	20	20	-122.03	-240	-744	926	890	35.53	26.058		
4100	4017	3954	3863	20	20	-122.09	-247	-766	954	918	36.52	26.127		
4200	4114	4050	3956	21	21	-122.15	-255	-788	982	945	37.51	26.193		
4300	4211	4146	4049	21	22	-122.20	-262	-810	1011	972	38.50	26.254		
4400	4309	4242	4143	22	22	-122.25	-270	-832	1039	1000	39.49	26.313		
4500	4406	4338	4236	22	23	-122.30	-277	-855	1067	1027	40.48	26.369		
4600	4504	4434	4329	23	23	-122.34	-285	-877	1096	1054	41.47	26.421		
4700	4601	4530	4422	24	24	-122.39	-292	-899	1124	1082	42.46	26.472		
4800	4698	4626	4515	24	24	-122.43	-300	-921	1152	1109	43.45	26.519		
4900	4796	4722	4608	25	25	-122.47	-307	-943	1181	1136	44.45	26.565		
5000	4893	4818	4701	25	26	-122.50	-315	-965	1209	1164	45.44	26.608		
5100	4991	4913	4794	26	26	-122.54	-322	-987	1237	1191	46.43	26.649		
5176	5064	4986	4864	26	27	-122.56	-328	-1004	1259	1212	47.18	26.680		
5200	5088	5009	4887	26	27	-120.36	-330	-1009	1266	1218	47.43	26.689		
5250	5136	5057	4933	27	27	-116.96	-333	-1020	1281	1233	47.97	26.709		
5300	5182	5103	4978	27	27	-114.43	-337	-1031	1298	1249	48.56	26.730		
5350	5227	5399	5248	28	29	-112.66	-311	-1142	1312	1260	51.54	25.450		
5400	5270	5693	5446	28	32	-107.51	-194	-1321	1317	1263	54.38	24.221		
5450	5310	5908	5522	29	35	-101.75	-64	-1473	1317	1260	57.01	23.094		
5500	5349	6038	5535	29	37	-97.65	25	-1566	1313	1254	59.14	22.208		
5550	5385	6073	5535	30	37	-96.52	50	-1591	1310	1250	60.64	21.609		
5600	5418	6111	5535	30	38	-95.37	77	-1618	1309	1246	62.22	21.031		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF					Rule Assigned:							Offset Well Error:	0 ft
Measured Depth	Vertical	Measured	Vertical	Semi Major Axis	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Reference (ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor			
5650	5447	6151	5535	31	38	-94.22	105	-1646	1308	1244	63.85	20.479			
5700	5474	6194	5536	32	39	-93.12	135	-1676	1307	1242	65.55	19.942			
5702	5475	6196	5536	32	39	-93.07	137	-1677	1307	1242	65.62	19.922			
5750	5497	6238	5536	33	40	-92.09	167	-1707	1307	1240	67.31	19.425			
5800	5517	6284	5537	34	41	-91.17	200	-1740	1308	1239	69.13	18.921			
5850	5533	6332	5537	35	41	-90.39	233	-1773	1309	1238	71.00	18.430			
5900	5545	6380	5537	35	42	-89.77	268	-1808	1309	1236	72.92	17.952			
5950	5554	6430	5538	36	43	-89.35	303	-1843	1310	1235	74.89	17.487			
6000	5558	6480	5538	37	44	-89.12	338	-1878	1310	1233	76.89	17.037			
6029	5559	6508	5538	38	44	-89.09	358	-1898	1310	1232	78.04	16.786			
6100	5560	6579	5539	39	46	-89.09	409	-1948	1310	1229	80.95	16.183			
6200	5560	6679	5540	41	48	-89.09	480	-2019	1310	1225	85.11	15.392			
6300	5561	6779	5540	43	50	-89.09	550	-2089	1310	1221	89.36	14.661			
6400	5562	6879	5541	45	52	-89.10	621	-2160	1310	1216	93.68	13.985			
6500	5563	6979	5542	48	54	-89.10	692	-2230	1310	1212	98.07	13.360			
6600	5563	7079	5543	50	56	-89.10	763	-2301	1310	1208	102.51	12.782			
6700	5564	7179	5544	52	58	-89.10	834	-2372	1310	1203	107.00	12.246			
6800	5565	7279	5544	54	60	-89.11	905	-2442	1310	1199	111.54	11.749			
6900	5566	7379	5545	56	62	-89.11	976	-2513	1310	1194	116.11	11.287			
7000	5566	7479	5546	59	65	-89.11	1047	-2583	1311	1190	120.71	10.857			
7100	5567	7579	5547	61	67	-89.11	1117	-2654	1311	1185	125.35	10.456			
7200	5568	7679	5547	63	69	-89.12	1188	-2724	1311	1181	130.01	10.081			
7300	5568	7779	5548	66	71	-89.12	1259	-2795	1311	1176	134.69	9.731			
7400	5569	7879	5549	68	74	-89.12	1330	-2865	1311	1171	139.40	9.403			
7500	5570	7979	5550	70	76	-89.12	1401	-2936	1311	1167	144.13	9.095			
7600	5571	8079	5551	73	78	-89.13	1472	-3007	1311	1162	148.87	8.806			
7700	5571	8179	5551	75	81	-89.13	1543	-3077	1311	1157	153.63	8.533			
7800	5572	8279	5552	77	83	-89.13	1613	-3148	1311	1153	158.40	8.277			
7900	5573	8379	5553	80	85	-89.13	1684	-3218	1311	1148	163.19	8.034			
8000	5574	8479	5554	82	88	-89.14	1755	-3289	1311	1143	167.99	7.805			
8100	5574	8579	5555	85	90	-89.14	1826	-3359	1311	1138	172.80	7.588			
8200	5575	8679	5555	87	92	-89.14	1897	-3430	1311	1134	177.62	7.383			
8300	5576	8779	5556	89	95	-89.14	1968	-3500	1311	1129	182.45	7.188			
8400	5576	8879	5557	92	97	-89.15	2039	-3571	1311	1124	187.29	7.002			
8500	5577	8979	5558	94	100	-89.15	2109	-3642	1312	1119	192.13	6.826			
8600	5578	9079	5558	97	102	-89.15	2180	-3712	1312	1115	196.99	6.658			
8700	5579	9179	5559	99	104	-89.15	2251	-3783	1312	1110	201.85	6.498			
8800	5579	9279	5560	102	107	-89.16	2322	-3853	1312	1105	206.71	6.345			
8900	5580	9379	5561	104	109	-89.16	2393	-3924	1312	1100	211.59	6.200			
9000	5581	9479	5562	106	112	-89.16	2464	-3994	1312	1095	216.46	6.060			
9100	5582	9579	5562	109	114	-89.16	2535	-4065	1312	1091	221.35	5.927			
9200	5582	9679	5563	111	116	-89.17	2605	-4135	1312	1086	226.24	5.799			
9300	5583	9779	5564	114	119	-89.17	2676	-4206	1312	1081	231.13	5.677			
9400	5584	9879	5565	116	121	-89.17	2747	-4277	1312	1076	236.02	5.559			
9500	5585	9979	5566	119	124	-89.17	2818	-4347	1312	1071	240.93	5.446			
9600	5585	10,079	5566	121	126	-89.18	2889	-4418	1312	1066	245.83	5.338			
9700	5586	10,179	5567	123	129	-89.18	2960	-4488	1312	1062	250.74	5.234			
9800	5587	10,279	5568	126	131	-89.18	3031	-4559	1312	1057	255.65	5.133			
9900	5587	10,379	5569	128	133	-89.18	3101	-4629	1312	1052	260.56	5.037			
10,000	5588	10,479	5569	131	136	-89.19	3172	-4700	1312	1047	265.48	4.944			
10,100	5589	10,579	5570	133	138	-89.19	3243	-4770	1313	1042	270.40	4.854			
10,200	5590	10,679	5571	136	141	-89.19	3314	-4841	1313	1037	275.32	4.767			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 130H - Original Drilling - APD													Offset Site Error:	0 ft	
Survey Program:		0-MWD+IGRF						Rule Assigned:						Offset Well Error:	0 ft
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
10,300	5590	10,779	5572	138	143	-89.19	3385	-4912	1313	1032	280.25	4.684			
10,400	5591	10,879	5573	141	146	-89.19	3456	-4982	1313	1028	285.18	4.603			
10,400	5591	10,880	5573	141	146	-89.19	3456	-4982	1313	1028	285.18	4.603			
10,500	5592	10,926	5573	143	147	-89.20	3489	-5015	1314	1025	289.11	4.544			
10,600	5593	10,926	5573	146	147	-89.20	3489	-5015	1322	1031	290.92	4.543 SF			
10,700	5593	10,926	5573	148	147	-89.20	3489	-5015	1337	1046	291.12	4.593			
10,800	5594	10,926	5573	150	147	-89.20	3489	-5015	1360	1070	289.82	4.691			
10,900	5595	10,926	5573	153	147	-89.20	3489	-5015	1389	1102	287.18	4.837			
11,000	5595	10,926	5573	155	147	-89.20	3489	-5015	1425	1141	283.40	5.028			
11,100	5596	10,926	5573	158	147	-89.20	3489	-5015	1467	1188	278.71	5.262			
11,200	5597	10,926	5573	160	147	-89.20	3489	-5015	1514	1241	273.32	5.539			
11,300	5598	10,926	5573	163	147	-89.20	3489	-5015	1566	1299	267.44	5.856			
11,400	5598	10,926	5573	165	147	-89.20	3489	-5015	1623	1362	261.25	6.212			
11,500	5599	10,926	5573	168	147	-89.20	3489	-5015	1684	1429	254.89	6.605			
11,600	5600	10,926	5573	170	147	-89.20	3489	-5015	1748	1499	248.49	7.034			
11,700	5601	10,926	5573	173	147	-89.20	3489	-5015	1815	1573	242.13	7.498			
11,759	5601	10,926	5573	174	147	-89.20	3489	-5015	1857	1619	238.41	7.789			



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 131H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	86.83	1	20	20	19	0.31	64.127		
100	100	100	100	0	0	86.83	1	20	20	19	1.03	19.283		
200	200	200	200	1	1	86.83	1	20	20	18	1.74	11.348		
300	300	300	300	1	1	86.83	1	20	20	17	2.46	8.039		
400	400	400	400	1	1	86.83	1	20	20	17	2.82	7.016		
450	450	450	450	1	1	86.83	1	20	20	16	3.17	6.176		
500	500	500	500	2	2	121.93	1	19	20	15	3.87	4.806		
600	600	601	601	2	2	134.88	0	16	19	14	4.07	4.533 CC, ES		
629	629	630	630	2	2	141.38	-1	14	18	15	4.58	4.288 SF		
700	700	701	701	2	2	161.21	-3	10	20	22	5.32	5.088		
800	799	800	799	3	3	-171.79	-7	0	27	35	6.09	6.826		
900	898	899	897	3	3	-155.15	-12	-13	42	55	6.88	8.973		
1000	997	996	992	4	3	-146.03	-18	-29	62	80	7.73	11.356		
1104	1098	1095	1090	4	4	-140.55	-25	-48	88	106	8.54	13.441		
1200	1192	1186	1178	4	4	-137.18	-33	-68	115	134	9.43	15.252		
1300	1289	1281	1270	5	5	-134.65	-42	-90	144	163	10.33	16.736		
1400	1387	1377	1363	5	5	-132.96	-50	-112	173	191	11.25	17.968		
1500	1484	1473	1456	6	6	-131.77	-59	-134	202	219	12.18	19.001		
1600	1581	1568	1548	7	6	-130.87	-67	-156	231	248	13.12	19.877		
1700	1679	1664	1641	7	7	-130.18	-76	-178	261	276	14.06	20.628		
1800	1776	1759	1733	8	8	-129.63	-85	-200	290	304	15.02	21.278		
1900	1874	1855	1826	8	8	-129.17	-93	-222	319	333	15.97	21.845		
2000	1971	1950	1918	9	9	-128.80	-102	-244	349	361	16.93	22.343		
2100	2068	2046	2011	9	9	-128.48	-110	-266	378	390	17.89	22.784		
2200	2166	2142	2104	10	10	-128.21	-119	-289	408	418	18.86	23.177		
2300	2263	2237	2196	10	10	-127.97	-128	-311	437	447	19.83	23.529		
2400	2361	2333	2289	11	11	-127.77	-136	-333	467	475	20.80	23.847		
2500	2458	2428	2381	11	12	-127.59	-145	-355	496	504	21.77	24.134		
2600	2556	2524	2474	12	12	-127.43	-153	-377	525	532	22.74	24.395		
2700	2653	2619	2567	13	13	-127.28	-162	-399	555	561	23.72	24.634		
2800	2750	2715	2659	13	13	-127.15	-171	-421	584	589	24.69	24.852		
2900	2848	2810	2752	14	14	-127.04	-179	-443	614	617	25.67	25.053		
3000	2945	2906	2844	14	14	-126.93	-188	-465	643	646	26.65	25.239		
3100	3043	3002	2937	15	15	-126.83	-196	-487	673	674	27.63	25.410		
3200	3140	3097	3029	15	15	-126.74	-205	-509	702	703	28.61	25.570		
3300	3237	3193	3122	16	16	-126.66	-214	-531	732	731	29.59	25.718		
3400	3335	3288	3215	16	17	-126.59	-222	-553	761	760	30.57	25.856		
3500	3432	3384	3307	17	17	-126.52	-231	-575	790	788	31.55	25.985		
3600	3530	3479	3400	17	18	-126.45	-239	-598	820	817	32.53	26.106		
3700	3627	3575	3492	18	18	-126.39	-248	-620	849	845	33.52	26.219		
3800	3724	3670	3585	19	19	-126.34	-257	-642	879	874	34.50	26.326		
3900	3822	3766	3677	19	19	-126.28	-265	-664	908	902	35.48	26.426		
4000	3919	3862	3770	20	20	-126.24	-274	-686	938	931	36.47	26.521		
4100	4017	3957	3863	20	21	-126.19	-282	-708	967	959	37.45	26.610		
4200	4114	4053	3955	21	21	-126.15	-291	-730	997	988	38.44	26.695		
4300	4211	4148	4048	21	22	-126.10	-300	-752	1026	1016	39.42	26.775		
4400	4309	4244	4140	22	22	-126.07	-308	-774	1056	1045	40.41	26.852		
4500	4406	4339	4233	22	23	-126.03	-317	-796	1085	1073	41.39	26.924		
4600	4504	4435	4325	23	24	-125.99	-325	-818	1114	1102	42.38	26.993		
4700	4601	4531	4418	24	24	-125.96	-334	-840	1144	1130	43.36	27.058		
4800	4698	4626	4511	24	25	-125.93	-343	-862	1173	1158	44.35	27.121		
4900	4796	4722	4603	25	25	-125.90	-351	-884	1203					



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 131H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5000	4893	4817	4696	25	26	-125.87	-360	-907	1232	1187	45.34	27.180	
5100	4991	4913	4788	26	26	-125.85	-368	-929	1262	1215	46.32	27.237	
5176	5064	4977	4851	26	27	-125.83	-374	-943	1284	1237	46.98	27.331	
5200	5088	4989	4862	26	27	-123.58	-375	-946	1292	1245	47.11	27.420	
5250	5136	5013	4886	27	27	-119.97	-379	-951	1309	1262	47.37	27.631	
5300	5182	5036	4908	27	27	-117.06	-382	-955	1328	1281	47.66	27.874	
5350	5227	5050	4922	28	27	-114.30	-384	-957	1350	1302	47.88	28.199	
5400	5270	5077	4948	28	27	-111.88	-390	-960	1374	1325	48.27	28.461	
5450	5310	5100	4970	29	27	-109.40	-395	-962	1399	1351	48.64	28.765	
5500	5349	5100	4970	29	27	-106.17	-395	-962	1426	1378	48.78	29.243	
5550	5385	5124	4993	30	28	-103.55	-401	-964	1455	1406	49.22	29.565	
5600	5418	5135	5004	30	28	-100.36	-404	-965	1485	1436	49.55	29.981	
5650	5447	5150	5018	31	28	-97.15	-408	-965	1517	1467	49.94	30.375	
5700	5474	5150	5018	32	28	-93.14	-408	-965	1549	1499	50.18	30.877	
5750	5497	5150	5018	33	28	-88.98	-408	-965	1583	1532	50.44	31.380	
5800	5517	5150	5018	34	28	-84.71	-408	-965	1617	1566	50.73	31.876	
5850	5533	5150	5018	35	28	-80.41	-408	-965	1651	1600	51.03	32.362	
5900	5545	5150	5018	35	28	-76.16	-408	-965	1686	1635	51.35	32.834	
5950	5554	5150	5018	36	28	-72.02	-408	-965	1721	1669	51.70	33.288	
6000	5558	5150	5018	37	28	-68.05	-408	-965	1755	1703	52.05	33.723	
6029	5559	5150	5018	38	28	-65.89	-408	-965	1775	1723	52.26	33.962	
6100	5560	5150	5018	39	28	-65.89	-408	-965	1824	1771	52.77	34.567	
6200	5560	5150	5018	41	28	-65.89	-408	-965	1895	1842	53.43	35.476	
6300	5561	5150	5018	43	28	-65.89	-408	-965	1969	1915	54.03	36.450	
6400	5562	5150	5018	45	28	-65.89	-408	-965	2045	1991	54.56	37.484	
6500	5563	5150	5018	48	28	-65.89	-408	-965	2123	2068	55.05	38.571	
6600	5563	5130	4999	50	28	-65.05	-403	-964	2203	2148	55.25	39.874	
6700	5564	5127	4996	52	28	-64.89	-402	-964	2284	2229	55.60	41.083	
6800	5565	5123	4993	54	28	-64.75	-401	-964	2367	2311	55.92	42.328	
6900	5566	5120	4989	56	27	-64.61	-400	-964	2451	2395	56.21	43.605	
7000	5566	5100	4970	59	27	-63.76	-395	-962	2536	2480	56.25	45.085	
7100	5567	5100	4970	61	27	-63.76	-395	-962	2622	2566	56.53	46.389	
7200	5568	5100	4970	63	27	-63.76	-395	-962	2709	2653	56.78	47.718	
7300	5568	5100	4970	66	27	-63.76	-395	-962	2797	2740	57.00	49.069	
7400	5569	5100	4970	68	27	-63.76	-395	-962	2886	2829	57.21	50.440	
7500	5570	5100	4970	70	27	-63.76	-395	-962	2975	2918	57.41	51.829	
7600	5571	5100	4970	73	27	-63.76	-395	-962	3065	3008	57.58	53.233	
7700	5571	5100	4970	75	27	-63.76	-395	-962	3156	3098	57.75	54.652	
7800	5572	5100	4970	77	27	-63.76	-395	-962	3247	3189	57.90	56.084	
7900	5573	5100	4970	80	27	-63.76	-395	-962	3339	3281	58.04	57.528	
8000	5574	5100	4970	82	27	-63.76	-395	-962	3431	3373	58.17	58.982	
8100	5574	5100	4970	85	27	-63.76	-395	-962	3524	3465	58.29	60.446	
8200	5575	5100	4970	87	27	-63.76	-395	-962	3617	3558	58.41	61.919	
8300	5576	5100	4970	89	27	-63.76	-395	-962	3710	3652	58.52	63.399	
8400	5576	5100	4970	92	27	-63.76	-395	-962	3804	3745	58.62	64.886	
8500	5577	5100	4970	94	27	-63.76	-395	-962	3898	3839	58.72	66.380	
8600	5578	5100	4970	97	27	-63.76	-395	-962	3992	3933	58.81	67.879	
8700	5579	5100	4970	99	27	-63.76	-395	-962	4087	4028	58.90	69.383	
8800	5579	5100	4970	102	27	-63.76	-395	-962	4181	4122	58.98	70.892	
8900	5580	5100	4970	104	27	-63.76	-395	-962	4277	4217	59.06	72.405	
9000	5581	5100	4970	106	27	-63.76	-395	-962	4372	4313	59.14	73.922	
9100	5582	5100	4970	109	27	-63.76	-395	-962	4467	4408	59.22	75.441	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 131H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
9200	5582	5100	4970	111	27	-63.76	-395	-962	4563	4504	59.29	76.964		
9300	5583	5100	4970	114	27	-63.76	-395	-962	4659	4599	59.36	78.489		
9400	5584	5100	4970	116	27	-63.76	-395	-962	4755	4695	59.42	80.016		
9500	5585	5100	4970	119	27	-63.76	-395	-962	4851	4792	59.49	81.545		
9600	5585	5100	4970	121	27	-63.76	-395	-962	4947	4888	59.55	83.076		
9700	5586	5077	4948	123	27	-62.80	-390	-960	5043	4984	59.35	84.976		
9800	5587	5076	4947	126	27	-62.77	-390	-960	5140	5081	59.40	86.527		
9900	5587	5076	4947	128	27	-62.74	-390	-960	5237	5177	59.46	88.077		
10,000	5588	5075	4946	131	27	-62.71	-389	-960	5334	5274	59.51	89.629		
10,100	5589	5074	4945	133	27	-62.69	-389	-960	5431	5371	59.56	91.181		
10,200	5590	5074	4945	136	27	-62.66	-389	-960	5528	5468	59.61	92.732		
10,300	5590	5073	4944	138	27	-62.63	-389	-960	5625	5565	59.66	94.284		
10,400	5591	5073	4944	141	27	-62.61	-389	-960	5722	5662	59.71	95.835		
10,500	5592	5050	4922	143	27	-61.66	-384	-957	5820	5760	59.50	97.808		
10,600	5593	5050	4922	146	27	-61.66	-384	-957	5917	5858	59.56	99.352		
10,700	5593	5050	4922	148	27	-61.66	-384	-957	6015	5955	59.61	100.896		
10,800	5594	5050	4922	150	27	-61.66	-384	-957	6112	6053	59.67	102.439		
10,900	5595	5050	4922	153	27	-61.66	-384	-957	6210	6150	59.72	103.981		
11,000	5595	5050	4922	155	27	-61.66	-384	-957	6308	6248	59.78	105.522		
11,100	5596	5050	4922	158	27	-61.66	-384	-957	6405	6346	59.83	107.061		
11,200	5597	5050	4922	160	27	-61.66	-384	-957	6503	6443	59.88	108.600		
11,300	5598	5050	4922	163	27	-61.66	-384	-957	6601	6541	59.94	110.137		
11,400	5598	5050	4922	165	27	-61.66	-384	-957	6699	6639	59.99	111.672		
11,500	5599	5050	4922	168	27	-61.66	-384	-957	6797	6737	60.04	113.206		
11,600	5600	5050	4922	170	27	-61.66	-384	-957	6895	6835	60.10	114.738		
11,700	5601	5050	4922	173	27	-61.66	-384	-957	6994	6933	60.15	116.268		
11,759	5601	5050	4922	174	27	-61.66	-384	-957	7052	6992	60.18	117.177		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 135H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0	0	0	0	0	0	87.38	2	40	40					
100	100	100	100	0	0	87.38	2	40	40	40	0.31	129.148		
200	200	200	200	1	1	87.38	2	40	40	39	1.03	38.835		
300	300	300	300	1	1	87.38	2	40	40	38	1.74	22.853		
400	400	400	400	1	1	87.38	2	40	40	37	2.46	16.191		
450	450	450	450	1	1	87.38	2	40	40	37	2.82	14.131		
500	500	500	500	2	2	120.97	2	40	40	37	3.18	12.536		
600	600	601	601	2	2	120.95	5	38	40	36	3.89	10.224		
700	700	702	701	2	2	120.92	11	34	40	35	4.61	8.609		
800	799	803	802	3	3	120.88	20	28	40	34	5.35	7.400		
900	898	903	901	3	3	120.82	32	20	39	33	6.12	6.448		
1000	997	1004	1001	4	4	120.75	46	10	39	32	6.94	5.671		
1039	1035	1043	1039	4	4	120.74	53	6	39	32	7.27	5.404 CC		
1104	1098	1108	1103	4	4	121.89	63	-2	40	32	7.83	5.067 ES		
1200	1192	1204	1197	4	4	124.84	80	-13	41	32	8.65	4.724		
1300	1289	1304	1295	5	5	127.71	96	-24	42	33	9.52	4.440		
1400	1387	1404	1392	5	5	130.40	113	-35	44	33	10.37	4.216		
1500	1484	1504	1490	6	6	132.91	130	-46	45	34	11.22	4.038		
1600	1581	1604	1588	7	6	135.25	147	-58	47	35	12.05	3.894		
1700	1679	1704	1686	7	7	137.43	163	-69	49	36	12.88	3.778		
1800	1776	1804	1784	8	7	139.46	180	-80	50	37	13.69	3.683		
1900	1874	1904	1882	8	8	141.34	197	-91	52	38	14.50	3.606		
2000	1971	2004	1980	9	8	143.10	214	-103	54	39	15.30	3.542		
2100	2068	2104	2078	9	9	144.73	230	-114	56	40	16.09	3.488		
2200	2166	2204	2176	10	9	146.25	247	-125	58	41	16.87	3.444		
2300	2263	2304	2274	10	10	147.68	264	-137	60	42	17.65	3.407		
2400	2361	2404	2372	11	10	149.01	280	-148	62	44	18.42	3.375		
2500	2458	2504	2469	11	11	150.25	297	-159	64	45	19.19	3.349		
2600	2556	2604	2567	12	12	151.41	314	-170	66	46	19.96	3.326		
2700	2653	2704	2665	13	12	152.51	331	-182	69	48	20.72	3.307		
2800	2750	2804	2763	13	13	153.53	347	-193	71	49	21.49	3.290		
2900	2848	2904	2861	14	13	154.50	364	-204	73	51	22.25	3.276		
3000	2945	3004	2959	14	14	155.41	381	-215	75	52	23.01	3.264		
3100	3043	3104	3057	15	14	156.26	398	-227	77	54	23.77	3.253		
3200	3140	3204	3155	15	15	157.07	414	-238	80	55	24.52	3.244		
3300	3237	3303	3253	16	15	157.83	431	-249	82	57	25.28	3.236		
3400	3335	3403	3351	16	16	158.56	448	-261	84	58	26.04	3.230		
3500	3432	3503	3448	17	16	159.24	465	-272	86	60	26.79	3.224		
3600	3530	3603	3546	17	17	159.89	481	-283	89	61	27.55	3.218		
3700	3627	3703	3644	18	17	160.50	498	-294	91	63	28.31	3.214		
3800	3724	3803	3742	19	18	161.09	515	-306	93	64	29.06	3.210		
3900	3822	3903	3840	19	18	161.65	532	-317	96	66	29.82	3.206		
4000	3919	4003	3938	20	19	162.18	548	-328	98	67	30.58	3.203		
4100	4017	4103	4036	20	19	162.68	565	-340	100	69	31.33	3.201		
4200	4114	4203	4134	21	20	163.17	582	-351	103	71	32.09	3.198		
4300	4211	4303	4232	21	20	163.63	599	-362	105	72	32.85	3.196		
4400	4309	4403	4330	22	21	164.07	615	-373	107	74	33.61	3.194		
4500	4406	4503	4428	22	21	164.49	632	-385	110	75	34.37	3.193		
4600	4504	4603	4525	23	22	164.90	649	-396	112	77	35.13	3.191		
4700	4601	4703	4623	24	22	165.28	666	-407	114	79	35.89	3.190		
4800	4698	4803	4721	24	23	165.65	682	-418	117	80	36.65	3.189 SF		
4900	4796	4900	4816	25	23	166.01	698	-429	120	83	37.39	3.208		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 135H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5000	4893	4981	4897	25	24	166.44	706	-432	133	95	37.63	3.537
5100	4991	5059	4975	26	24	166.90	706	-428	159	121	37.34	4.251
5176	5064	5115	5030	26	24	167.20	702	-421	186	149	36.82	5.044
5200	5088	5132	5047	26	24	168.88	700	-418	196	159	36.62	5.355
5250	5136	5164	5078	27	24	171.19	695	-412	222	185	36.18	6.127
5300	5182	5200	5112	27	24	172.69	689	-404	253	216	36.18	6.981
5350	5227	5218	5129	28	24	173.65	685	-399	288	252	35.32	8.148
5400	5270	5239	5149	28	24	174.34	681	-393	327	292	34.94	9.355
5450	5310	5250	5159	29	24	174.80	678	-390	369	335	34.30	10.766
5500	5349	5270	5177	29	24	175.16	673	-384	414	380	34.36	12.049
5550	5385	5280	5187	30	24	175.34	670	-380	461	427	34.15	13.489
5600	5418	5288	5194	30	24	175.32	668	-378	509	475	34.01	14.962
5650	5447	5300	5205	31	24	175.10	664	-374	558	524	34.21	16.315
5700	5474	5300	5205	32	24	173.19	664	-374	608	574	34.07	17.842
5750	5497	5300	5205	33	24	10.33	664	-374	658	624	34.06	19.315
5800	5517	5300	5205	34	24	-0.50	664	-374	708	674	34.15	20.722
5850	5533	5300	5205	35	24	-1.50	664	-374	757	723	34.33	22.058
5900	5545	5300	5205	35	24	-1.85	664	-374	806	772	34.58	23.320
5950	5554	5280	5187	36	24	-2.04	670	-380	854	820	34.35	24.866
6000	5558	5273	5181	37	24	-2.14	672	-383	901	867	34.54	26.094
6029	5559	5269	5176	38	24	-2.18	673	-384	927	893	34.65	26.767
6100	5560	5250	5159	39	24	-2.18	678	-390	993	958	34.78	28.557
6200	5560	5250	5159	41	24	-2.18	678	-390	1086	1050	35.46	30.613
6300	5561	5230	5141	43	24	-2.19	683	-396	1179	1143	35.64	33.081
6400	5562	5218	5130	45	24	-2.19	685	-399	1273	1237	35.92	35.436
6500	5563	5200	5112	48	24	-2.19	689	-404	1367	1331	36.04	37.939
6600	5563	5200	5112	50	24	-2.19	689	-404	1462	1426	36.43	40.148
6700	5564	5200	5112	52	24	-2.19	689	-404	1558	1521	36.76	42.391
6800	5565	5181	5095	54	24	-2.19	693	-408	1654	1617	36.79	44.959
6900	5566	5174	5088	56	24	-2.19	694	-410	1750	1713	36.96	47.358
7000	5566	5150	5064	59	24	-2.19	697	-415	1847	1810	36.90	50.055
7100	5567	5150	5064	61	24	-2.19	697	-415	1944	1906	37.13	52.349
7200	5568	5150	5064	63	24	-2.19	697	-415	2041	2003	37.33	54.658
7300	5568	5150	5064	66	24	-2.19	697	-415	2138	2100	37.52	56.977
7400	5569	5150	5064	68	24	-2.19	697	-415	2235	2198	37.69	59.305
7500	5570	5150	5064	70	24	-2.19	697	-415	2333	2295	37.85	61.641
7600	5571	5150	5064	73	24	-2.19	697	-415	2431	2393	37.99	63.981
7700	5571	5150	5064	75	24	-2.19	697	-415	2529	2491	38.13	66.325
7800	5572	5127	5042	77	24	-2.20	700	-419	2626	2588	38.04	69.043
7900	5573	5123	5038	80	24	-2.20	701	-419	2725	2686	38.13	71.450
8000	5574	5100	5015	82	24	-2.20	703	-423	2823	2785	38.04	74.208
8100	5574	5100	5015	85	24	-2.20	703	-423	2921	2883	38.16	76.551
8200	5575	5100	5015	87	24	-2.20	703	-423	3020	2982	38.28	78.894
8300	5576	5100	5015	89	24	-2.20	703	-423	3118	3080	38.38	81.237
8400	5576	5100	5015	92	24	-2.20	703	-423	3217	3178	38.49	83.579
8500	5577	5100	5015	94	24	-2.20	703	-423	3315	3277	38.59	85.919
8600	5578	5100	5015	97	24	-2.20	703	-423	3414	3375	38.68	88.256
8700	5579	5100	5015	99	24	-2.20	703	-423	3513	3474	38.78	90.590
8800	5579	5100	5015	102	24	-2.20	703	-423	3612	3573	38.87	92.922
8900	5580	5100	5015	104	24	-2.20	703	-423	3711	3672	38.96	95.249
9000	5581	5100	5015	106	24	-2.20	703	-423	3810	3771	39.04	97.572
9100	5582	5100	5015	109	24	-2.20	703	-423	3909	3870	39.13	99.891



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 135H - Original Drilling - APD													Offset Site Error: 0 ft	
Survey Program: 0-MWD+IGRF								Rule Assigned:					Offset Well Error: 0 ft	
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor		
9200	5582	5100	5015	111	24	-2.20	703	-423	4008	3969	39.21	102.205		
9300	5583	5100	5015	114	24	-2.20	703	-423	4107	4068	39.29	104.514		
9400	5584	5100	5015	116	24	-2.20	703	-423	4206	4167	39.38	106.817		
9500	5585	5100	5015	119	24	-2.20	703	-423	4305	4266	39.46	109.115		
9600	5585	5100	5015	121	24	-2.20	703	-423	4404	4365	39.53	111.407		
9700	5586	5100	5015	123	24	-2.20	703	-423	4504	4464	39.61	113.693		
9800	5587	5100	5015	126	24	-2.20	703	-423	4603	4563	39.69	115.973		
9900	5587	5100	5015	128	24	-2.20	703	-423	4702	4663	39.77	118.246		
10,000	5588	5077	4993	131	24	-2.20	705	-426	4801	4762	39.69	120.961		
10,100	5589	5076	4991	133	24	-2.20	705	-426	4901	4861	39.76	123.249		
10,200	5590	5074	4990	136	24	-2.20	705	-426	5000	4960	39.83	125.530		
10,300	5590	5073	4989	138	24	-2.20	705	-426	5099	5059	39.90	127.803		
10,400	5591	5050	4966	141	24	-2.20	706	-429	5199	5159	39.83	130.527		
10,500	5592	5050	4966	143	24	-2.20	706	-429	5298	5259	39.91	132.761		
10,600	5593	5050	4966	146	24	-2.20	706	-429	5398	5358	39.99	134.988		
10,700	5593	5050	4966	148	24	-2.20	706	-429	5497	5457	40.07	137.208		
10,800	5594	5050	4966	150	24	-2.20	706	-429	5597	5557	40.14	139.419		
10,900	5595	5050	4966	153	24	-2.20	706	-429	5696	5656	40.22	141.623		
11,000	5595	5050	4966	155	24	-2.20	706	-429	5796	5755	40.30	143.819		
11,100	5596	5050	4966	158	24	-2.20	706	-429	5895	5855	40.38	146.006		
11,200	5597	5050	4966	160	24	-2.20	706	-429	5995	5954	40.45	148.185		
11,300	5598	5050	4966	163	24	-2.20	706	-429	6094	6054	40.53	150.356		
11,400	5598	5050	4966	165	24	-2.20	706	-429	6194	6153	40.61	152.519		
11,500	5599	5050	4966	168	24	-2.20	706	-429	6293	6253	40.69	154.673		
11,600	5600	5050	4966	170	24	-2.20	706	-429	6393	6352	40.77	156.818		
11,700	5601	5050	4966	173	24	-2.20	706	-429	6492	6452	40.84	158.955		
11,759	5601	5050	4966	174	24	-2.20	706	-429	6552	6511	40.89	160.220		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 136H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis			Offset Wellbore Centre		Distance			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	-92.77	-3	-60	60					
100	100	100	100	0	0	-92.77	-3	-60	60	60	0.31	195.182		
200	200	200	200	1	1	-92.77	-3	-60	60	59	1.03	58.691		
300	300	300	300	1	1	-92.77	-3	-60	60	58	1.74	34.538		
400	400	400	400	1	1	-92.77	-3	-60	60	58	2.46	24.469		
450	450	450	450	1	1	-92.77	-3	-60	60	57	2.82	21.356 CC		
500	500	499	499	2	2	-59.49	-3	-61	60	57	3.17	19.060 ES		
600	600	597	597	2	2	-61.85	-3	-64	62	58	3.86	16.070		
700	700	695	694	2	2	-66.17	-2	-71	66	61	4.56	14.409		
800	799	792	791	3	3	-71.74	-2	-80	72	67	5.27	13.624		
900	898	891	889	3	3	-78.15	-1	-93	80	74	6.03	13.273		
1000	997	990	987	4	3	-85.50	-1	-105	89	82	6.83	12.997		
1104	1098	1092	1089	4	4	-93.69	0	-118	99	92	7.71	12.878 SF		
1200	1192	1187	1183	4	4	-100.79	1	-130	111	102	8.56	12.960		
1300	1289	1285	1280	5	5	-106.70	1	-143	125	115	9.45	13.176		
1400	1387	1383	1378	5	5	-111.43	2	-155	139	129	10.34	13.457		
1500	1484	1482	1475	6	5	-115.24	3	-168	155	143	11.23	13.764		
1600	1581	1580	1573	7	6	-118.36	3	-180	171	158	12.12	14.075		
1700	1679	1678	1670	7	6	-120.94	4	-192	187	174	13.00	14.378		
1800	1776	1776	1768	8	7	-123.11	5	-205	204	190	13.88	14.667		
1900	1874	1875	1865	8	7	-124.95	5	-217	220	206	14.76	14.940		
2000	1971	1973	1963	9	8	-126.52	6	-230	238	222	15.64	15.195		
2100	2068	2071	2060	9	8	-127.89	7	-242	255	238	16.51	15.434		
2200	2166	2170	2158	10	8	-129.08	7	-255	272	255	17.39	15.656		
2300	2263	2268	2255	10	9	-130.13	8	-267	290	271	18.26	15.863		
2400	2361	2366	2353	11	9	-131.05	9	-280	307	288	19.14	16.057		
2500	2458	2465	2451	11	10	-131.88	9	-292	325	305	20.01	16.237		
2600	2556	2563	2548	12	10	-132.63	10	-304	343	322	20.88	16.405		
2700	2653	2661	2646	13	11	-133.30	11	-317	360	339	21.76	16.562		
2800	2750	2760	2743	13	11	-133.90	11	-329	378	355	22.63	16.709		
2900	2848	2858	2841	14	11	-134.46	12	-342	396	372	23.50	16.847		
3000	2945	2956	2938	14	12	-134.96	13	-354	414	389	24.37	16.976		
3100	3043	3055	3036	15	12	-135.42	13	-367	432	406	25.25	17.098		
3200	3140	3153	3133	15	13	-135.85	14	-379	450	423	26.12	17.212		
3300	3237	3251	3231	16	13	-136.24	15	-392	467	440	26.99	17.320		
3400	3335	3350	3328	16	13	-136.61	15	-404	485	458	27.86	17.422		
3500	3432	3448	3426	17	14	-136.95	16	-416	503	475	28.73	17.519		
3600	3530	3546	3523	17	14	-137.26	17	-429	521	492	29.61	17.610		
3700	3627	3645	3621	18	15	-137.56	17	-441	539	509	30.48	17.697		
3800	3724	3743	3719	19	15	-137.83	18	-454	557	526	31.35	17.779		
3900	3822	3841	3816	19	16	-138.09	19	-466	575	543	32.22	17.857		
4000	3919	3940	3914	20	16	-138.33	19	-479	593	560	33.10	17.932		
4100	4017	4038	4011	20	16	-138.56	20	-491	611	578	33.97	18.002		
4200	4114	4136	4109	21	17	-138.78	21	-504	630	595	34.84	18.070		
4300	4211	4235	4206	21	17	-138.98	21	-516	648	612	35.71	18.134		
4400	4309	4333	4304	22	18	-139.17	22	-528	666	629	36.58	18.196		
4500	4406	4431	4401	22	18	-139.35	23	-541	684	646	37.46	18.255		
4600	4504	4530	4499	23	19	-139.53	23	-553	702	663	38.33	18.311		
4700	4601	4628	4596	24	19	-139.69	24	-566	720	681	39.20	18.365		
4800	4698	4700	4668	24	19	-139.84	24	-574	739	699	39.82	18.554		
4900	4796	4750	4718	25	19	-140.16	21	-578	763	723	40.08	19.030		
5000	4893	4800	4767	25	20	-140.70	16	-579	792	752	40.17	19.718		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 136H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5100	4991	4850	4817	26	20	-141.44	8	-576	827	787	40.12	20.605		
5176	5064	4900	4865	26	20	-142.35	-3	-572	856	816	40.18	21.312		
5200	5088	4900	4865	26	20	-139.94	-3	-572	867	827	39.97	21.683		
5250	5136	4928	4892	27	20	-136.53	-10	-568	891	851	39.93	22.304		
5300	5182	4950	4913	27	20	-133.57	-16	-564	918	878	39.83	23.045		
5350	5227	4950	4913	28	20	-129.83	-16	-564	948	909	39.43	24.054		
5400	5270	4977	4938	28	20	-127.06	-25	-559	981	942	39.46	24.871		
5450	5310	5000	4959	29	20	-123.90	-32	-554	1017	978	39.46	25.778		
5500	5349	5000	4959	29	20	-118.94	-32	-554	1055	1016	39.16	26.931		
5550	5385	5000	4959	30	20	-113.22	-32	-554	1094	1055	38.91	28.122		
5600	5418	5000	4959	30	20	-106.70	-32	-554	1136	1097	38.71	29.333		
5650	5447	5016	4974	31	20	-100.90	-38	-550	1178	1139	38.81	30.346		
5700	5474	5019	4976	32	20	-93.34	-39	-549	1221	1182	38.74	31.513		
5750	5497	5019	4976	33	20	-85.28	-39	-549	1264	1226	38.69	32.676		
5800	5517	5018	4975	34	20	-77.10	-39	-549	1308	1269	38.67	33.826		
5850	5533	5000	4959	35	20	-67.89	-32	-554	1352	1314	38.44	35.173		
5900	5545	5000	4959	35	20	-60.98	-32	-554	1395	1357	38.52	36.225		
5950	5554	5000	4959	36	20	-54.87	-32	-554	1438	1400	38.64	37.222		
6000	5558	5000	4959	37	20	-49.58	-32	-554	1480	1441	38.78	38.162		
6029	5559	5000	4959	38	20	-46.90	-32	-554	1504	1465	38.88	38.673		
6100	5560	5000	4959	39	20	-46.90	-32	-554	1563	1523	39.13	39.932		
6200	5560	4979	4940	41	20	-45.90	-25	-558	1646	1607	39.19	42.011		
6300	5561	4968	4930	43	20	-45.41	-22	-561	1732	1692	39.36	43.995		
6400	5562	4950	4913	45	20	-44.56	-16	-564	1818	1779	39.42	46.126		
6500	5563	4950	4913	48	20	-44.56	-16	-564	1906	1866	39.68	48.039		
6600	5563	4950	4913	50	20	-44.56	-16	-564	1995	1955	39.91	49.988		
6700	5564	4950	4913	52	20	-44.56	-16	-564	2085	2045	40.11	51.968		
6800	5565	4926	4890	54	20	-43.49	-10	-568	2175	2135	40.06	54.291		
6900	5566	4920	4884	56	20	-43.19	-8	-569	2266	2226	40.17	56.407		
7000	5566	4900	4865	59	20	-42.31	-3	-572	2358	2318	40.15	58.736		
7100	5567	4900	4865	61	20	-42.31	-3	-572	2450	2410	40.31	60.790		
7200	5568	4900	4865	63	20	-42.31	-3	-572	2543	2503	40.46	62.860		
7300	5568	4900	4865	66	20	-42.31	-3	-572	2637	2596	40.60	64.945		
7400	5569	4900	4865	68	20	-42.31	-3	-572	2730	2690	40.73	67.043		
7500	5570	4900	4865	70	20	-42.31	-3	-572	2825	2784	40.85	69.151		
7600	5571	4900	4865	73	20	-42.31	-3	-572	2919	2878	40.96	71.269		
7700	5571	4900	4865	75	20	-42.31	-3	-572	3014	2973	41.07	73.395		
7800	5572	4876	4842	77	20	-41.26	3	-574	3109	3068	40.96	75.897		
7900	5573	4872	4838	80	20	-41.10	4	-575	3204	3163	41.03	78.091		
8000	5574	4850	4817	82	20	-40.18	8	-576	3300	3259	40.95	80.593		
8100	5574	4850	4817	85	20	-40.18	8	-576	3396	3355	41.05	82.737		
8200	5575	4850	4817	87	20	-40.18	8	-576	3492	3451	41.14	84.884		
8300	5576	4850	4817	89	20	-40.18	8	-576	3589	3547	41.23	87.035		
8400	5576	4850	4817	92	20	-40.18	8	-576	3685	3644	41.32	89.187		
8500	5577	4850	4817	94	20	-40.18	8	-576	3782	3740	41.40	91.341		
8600	5578	4850	4817	97	20	-40.18	8	-576	3878	3837	41.48	93.496		
8700	5579	4850	4817	99	20	-40.18	8	-576	3975	3934	41.56	95.651		
8800	5579	4850	4817	102	20	-40.18	8	-576	4072	4031	41.64	97.805		
8900	5580	4850	4817	104	20	-40.18	8	-576	4170	4128	41.71	99.959		
9000	5581	4850	4817	106	20	-40.18	8	-576	4267	4225	41.79	102.112		
9100	5582	4850	4817	109	20	-40.18	8	-576	4365	4323	41.86	104.263		
9200	5582	4850	4817	111	20	-40.18	8	-576	4462	4420	41.93	106.412		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 136H - Original Drilling - APD											Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF											Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		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
9300	5583	4850	4817	114	20	-40.18	8	-576	4560	4518	42.00	108.559
9400	5584	4850	4817	116	20	-40.18	8	-576	4658	4616	42.07	110.703
9500	5585	4850	4817	119	20	-40.18	8	-576	4756	4713	42.14	112.844
9600	5585	4850	4817	121	20	-40.18	8	-576	4854	4811	42.21	114.982
9700	5586	4850	4817	123	20	-40.18	8	-576	4952	4909	42.28	117.117
9800	5587	4827	4794	126	20	-39.23	12	-578	5049	5007	42.19	119.691
9900	5587	4825	4792	128	20	-39.17	12	-578	5147	5105	42.24	121.848
10,000	5588	4824	4791	131	20	-39.11	13	-578	5246	5203	42.30	124.001
10,100	5589	4823	4790	133	20	-39.05	13	-578	5344	5302	42.36	126.149
10,200	5590	4800	4767	136	20	-38.16	16	-579	5443	5400	42.28	128.739
10,300	5590	4800	4767	138	20	-38.16	16	-579	5541	5499	42.35	130.853
10,400	5591	4800	4767	141	20	-38.16	16	-579	5639	5597	42.41	132.962
10,500	5592	4800	4767	143	20	-38.16	16	-579	5738	5695	42.48	135.065
10,600	5593	4800	4767	146	20	-38.16	16	-579	5836	5794	42.55	137.164
10,700	5593	4800	4767	148	20	-38.16	16	-579	5935	5892	42.62	139.257
10,800	5594	4800	4767	150	20	-38.16	16	-579	6033	5991	42.69	141.344
10,900	5595	4800	4767	153	20	-38.16	16	-579	6132	6089	42.75	143.426
11,000	5595	4800	4767	155	20	-38.16	16	-579	6231	6188	42.82	145.502
11,100	5596	4800	4767	158	20	-38.16	16	-579	6330	6287	42.89	147.571
11,200	5597	4800	4767	160	20	-38.16	16	-579	6428	6385	42.96	149.635
11,300	5598	4800	4767	163	20	-38.16	16	-579	6527	6484	43.03	151.692
11,400	5598	4800	4767	165	20	-38.16	16	-579	6626	6583	43.10	153.743
11,500	5599	4800	4767	168	20	-38.16	16	-579	6725	6682	43.17	155.788
11,600	5600	4800	4767	170	20	-38.16	16	-579	6824	6781	43.24	157.825
11,700	5601	4800	4767	173	20	-38.16	16	-579	6923	6879	43.31	159.857
11,759	5601	4800	4767	174	20	-38.16	16	-579	6982	6938	43.35	161.061



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 137H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis			Offset Wellbore Centre		Distance			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	-93.12	-1	-20	20					
100	100	100	100	0	0	-93.12	-1	-20	20	20	0.31	65.081		
200	200	200	200	1	1	-93.12	-1	-20	20	19	1.03	19.570		
300	300	300	300	1	1	-93.12	-1	-20	20	18	1.74	11.516		
400	400	400	400	1	1	-93.12	-1	-20	20	18	2.46	8.159		
450	450	450	450	1	1	-93.12	-1	-20	20	17	2.82	7.121 CC		
500	500	500	500	2	2	-60.34	-1	-20	20	17	3.17	6.393 ES		
600	600	599	599	2	2	-66.19	-1	-24	22	18	3.87	5.694		
700	700	698	698	2	2	-75.26	1	-31	26	22	4.58	5.706		
800	799	797	796	3	3	-84.28	2	-41	33	28	5.31	6.233		
900	898	895	893	3	3	-91.49	4	-54	43	37	6.07	7.102		
1000	997	994	991	4	3	-98.19	6	-69	55	48	6.90	7.992		
1104	1098	1097	1093	4	4	-105.50	9	-85	69	61	7.81	8.846		
1200	1192	1192	1186	4	4	-111.29	11	-99	83	75	8.67	9.602		
1300	1289	1290	1284	5	5	-115.53	13	-114	99	89	9.57	10.304		
1400	1387	1389	1381	5	5	-118.61	16	-129	114	104	10.47	10.918		
1500	1484	1487	1479	6	6	-120.95	18	-144	130	119	11.38	11.453		
1600	1581	1586	1576	7	6	-122.77	20	-159	147	134	12.29	11.919		
1700	1679	1685	1673	7	7	-124.23	22	-174	163	150	13.21	12.328		
1800	1776	1783	1771	8	7	-125.42	25	-189	179	165	14.12	12.688		
1900	1874	1882	1868	8	7	-126.41	27	-204	196	181	15.04	13.007		
2000	1971	1980	1966	9	8	-127.25	29	-219	212	196	15.96	13.291		
2100	2068	2079	2063	9	8	-127.97	32	-234	229	212	16.88	13.546		
2200	2166	2178	2160	10	9	-128.59	34	-249	245	227	17.80	13.775		
2300	2263	2276	2258	10	9	-129.14	36	-264	262	243	18.72	13.982		
2400	2361	2375	2355	11	10	-129.61	39	-279	278	259	19.65	14.171		
2500	2458	2473	2453	11	10	-130.04	41	-294	295	274	20.57	14.342		
2600	2556	2572	2550	12	11	-130.42	43	-309	312	290	21.49	14.500		
2700	2653	2670	2648	13	11	-130.76	45	-324	328	306	22.42	14.644		
2800	2750	2769	2745	13	11	-131.07	48	-340	345	322	23.34	14.777		
2900	2848	2868	2842	14	12	-131.35	50	-355	362	337	24.27	14.900		
3000	2945	2966	2940	14	12	-131.60	52	-370	378	353	25.19	15.014		
3100	3043	3065	3037	15	13	-131.83	55	-385	395	369	26.12	15.121		
3200	3140	3163	3135	15	13	-132.05	57	-400	412	385	27.05	15.219		
3300	3237	3262	3232	16	14	-132.25	59	-415	428	400	27.97	15.312		
3400	3335	3361	3329	16	14	-132.43	61	-430	445	416	28.90	15.398		
3500	3432	3459	3427	17	15	-132.60	64	-445	462	432	29.83	15.479		
3600	3530	3558	3524	17	15	-132.76	66	-460	478	448	30.75	15.556		
3700	3627	3656	3622	18	16	-132.90	68	-475	495	463	31.68	15.627		
3800	3724	3755	3719	19	16	-133.04	71	-490	512	479	32.61	15.695		
3900	3822	3854	3816	19	16	-133.17	73	-505	529	495	33.54	15.759		
4000	3919	3952	3914	20	17	-133.29	75	-520	545	511	34.47	15.819		
4100	4017	4051	4011	20	17	-133.40	78	-535	562	527	35.39	15.877		
4200	4114	4149	4109	21	18	-133.51	80	-550	579	542	36.32	15.931		
4300	4211	4248	4206	21	18	-133.61	82	-565	595	558	37.25	15.983		
4400	4309	4346	4303	22	19	-133.71	84	-580	612	574	38.18	16.032		
4500	4406	4445	4401	22	19	-133.80	87	-595	629	590	39.11	16.079		
4600	4504	4544	4498	23	20	-133.89	89	-610	646	605	40.04	16.123		
4700	4601	4642	4596	24	20	-133.97	91	-625	662	621	40.97	16.166		
4800	4698	4741	4693	24	21	-134.04	94	-640	679	637	41.89	16.207		
4900	4796	4839	4791	25	21	-134.12	96	-655	696	653	42.82	16.245		
5000	4893	5089	5025	25	23	-131.02	136	-725	702	657	45.00	15.594		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 137H - Original Drilling - APD												Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF												Offset Well Error:	0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5100	4991	5294	5184	26	25	-123.55	216	-826	691	643	47.22	14.626	
5176	5064	5407	5251	26	26	-117.44	276	-893	678	628	49.22	13.764	
5200	5088	5437	5266	26	26	-114.36	293	-913	673	624	49.91	13.492	
5250	5136	5494	5292	27	27	-109.26	327	-950	666	615	51.39	12.959	
5300	5182	5546	5311	27	28	-105.13	360	-985	660	607	52.92	12.476	
5350	5227	5594	5325	28	29	-101.51	392	-1019	656	602	54.46	12.052	
5400	5270	5638	5335	28	29	-98.21	422	-1050	654	598	55.96	11.689	
5437	5300	5670	5340	28	30	-95.87	444	-1072	654	597	57.05	11.458	
5450	5310	5681	5341	29	30	-95.10	451	-1080	654	596	57.40	11.389	
5500	5349	5721	5345	29	31	-92.12	479	-1108	655	596	58.76	11.147	
5550	5385	5759	5347	30	31	-89.25	506	-1135	658	598	60.01	10.960	
5600	5418	5797	5347	30	32	-86.50	533	-1162	662	601	61.20	10.816	
5650	5447	5837	5347	31	33	-83.80	562	-1190	667	605	62.39	10.692	
5700	5474	5880	5347	32	34	-81.25	592	-1220	673	609	63.60	10.577	
5750	5497	5924	5348	33	35	-78.93	623	-1252	678	614	64.87	10.458	
5800	5517	5970	5348	34	35	-76.91	656	-1284	684	618	66.22	10.326	
5850	5533	6018	5348	35	36	-75.23	690	-1318	689	621	67.66	10.176	
5900	5545	6066	5349	35	37	-73.93	724	-1352	692	623	69.22	10.002	
5950	5554	6116	5349	36	38	-73.04	759	-1387	695	624	70.90	9.803	
6000	5558	6165	5350	37	39	-72.58	795	-1422	696	624	72.71	9.579	
6029	5559	6194	5350	38	40	-72.51	815	-1442	697	623	73.79	9.441	
6100	5560	6265	5350	39	41	-72.51	865	-1492	697	620	76.60	9.095	
6200	5560	6365	5351	41	43	-72.51	936	-1563	697	616	80.60	8.643	
6300	5561	6465	5352	43	46	-72.51	1007	-1633	697	612	84.69	8.226	
6400	5562	6565	5353	45	48	-72.52	1078	-1704	697	608	88.84	7.841	
6500	5563	6665	5353	48	50	-72.52	1149	-1774	697	604	93.06	7.486	
6600	5563	6765	5354	50	52	-72.52	1220	-1845	697	599	97.32	7.158	
6700	5564	6865	5355	52	55	-72.52	1291	-1915	697	595	101.64	6.854	
6800	5565	6965	5356	54	57	-72.52	1362	-1986	697	591	105.99	6.572	
6900	5566	7065	5356	56	59	-72.53	1433	-2056	697	586	110.38	6.311	
7000	5566	7165	5357	59	62	-72.53	1504	-2127	697	582	114.81	6.068	
7100	5567	7265	5358	61	64	-72.53	1574	-2197	697	577	119.26	5.841	
7200	5568	7365	5359	63	66	-72.53	1645	-2268	697	573	123.73	5.630	
7300	5568	7465	5359	66	69	-72.53	1716	-2338	697	568	128.23	5.432	
7400	5569	7565	5360	68	71	-72.54	1787	-2409	697	564	132.75	5.247	
7500	5570	7665	5361	70	73	-72.54	1858	-2479	697	559	137.29	5.074	
7600	5571	7765	5362	73	76	-72.54	1929	-2550	697	555	141.84	4.911	
7700	5571	7865	5362	75	78	-72.54	2000	-2620	697	550	146.41	4.758	
7800	5572	7965	5363	77	80	-72.54	2071	-2691	697	546	150.99	4.613	
7900	5573	8065	5364	80	83	-72.55	2142	-2761	697	541	155.58	4.477	
8000	5574	8165	5365	82	85	-72.55	2213	-2832	697	536	160.19	4.348	
8100	5574	8265	5365	85	88	-72.55	2284	-2902	697	532	164.81	4.227	
8200	5575	8365	5366	87	90	-72.55	2354	-2973	697	527	169.43	4.111	
8300	5576	8465	5367	89	93	-72.55	2425	-3043	697	522	174.07	4.002	
8400	5576	8565	5368	92	95	-72.56	2496	-3114	697	518	178.71	3.898	
8500	5577	8665	5368	94	97	-72.56	2567	-3184	697	513	183.36	3.799	
8600	5578	8765	5369	97	100	-72.56	2638	-3255	697	509	188.01	3.705	
8700	5579	8865	5370	99	102	-72.56	2709	-3325	697	504	192.68	3.615	
8800	5579	8965	5371	102	105	-72.56	2780	-3396	697	499	197.35	3.529	
8900	5580	9065	5371	104	107	-72.57	2851	-3467	697	495	202.02	3.448	
9000	5581	9165	5372	106	110	-72.57	2922	-3537	697	490	206.70	3.370	
9100	5582	9265	5373	109	112	-72.57	2993	-3608	697	485	211.39	3.295	



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - # 137H - Original Drilling - APD													Offset Site Error:	0 ft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		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		
9200	5582	9365	5374	111	114	-72.57	3063	-3678	697	480	216.08	3.223		
9300	5583	9465	5374	114	117	-72.57	3134	-3749	697	476	220.77	3.155		
9400	5584	9565	5375	116	119	-72.58	3205	-3819	697	471	225.47	3.089		
9500	5585	9665	5376	119	122	-72.58	3276	-3890	696	466	230.17	3.026		
9600	5585	9765	5377	121	124	-72.58	3347	-3960	696	462	234.87	2.965		
9700	5586	9865	5377	123	127	-72.58	3418	-4031	696	457	239.58	2.907		
9800	5587	9965	5378	126	129	-72.58	3489	-4101	696	452	244.29	2.851		
9900	5587	10,065	5379	128	132	-72.59	3560	-4172	696	447	249.01	2.797		
10,000	5588	10,165	5380	131	134	-72.59	3631	-4242	696	443	253.72	2.745		
10,100	5589	10,265	5380	133	137	-72.59	3702	-4313	696	438	258.44	2.695		
10,200	5590	10,365	5381	136	139	-72.59	3773	-4383	696	433	263.17	2.646		
10,300	5590	10,465	5382	138	142	-72.59	3843	-4454	696	429	267.89	2.600		
10,400	5591	10,565	5383	141	144	-72.60	3914	-4524	696	424	272.62	2.555		
10,500	5592	10,665	5384	143	146	-72.60	3985	-4595	696	419	277.35	2.511		
10,600	5593	10,765	5384	146	149	-72.60	4056	-4665	696	414	282.08	2.469		
10,700	5593	10,865	5385	148	151	-72.60	4127	-4736	696	410	286.81	2.428		
10,800	5594	10,965	5386	150	154	-72.60	4198	-4806	696	405	291.55	2.389		
10,900	5595	11,065	5387	153	156	-72.60	4269	-4877	696	400	296.29	2.351		
11,000	5595	11,165	5387	155	159	-72.61	4340	-4947	696	395	301.02	2.314		
11,095	5596	11,260	5388	158	161	-72.61	4407	-5014	696	391	305.53	2.279		
11,100	5596	11,260	5388	158	161	-72.61	4407	-5014	696	391	305.66	2.279 SF		
11,200	5597	11,260	5388	160	161	-72.61	4407	-5014	704	399	304.95	2.309		
11,300	5598	11,260	5388	163	161	-72.61	4407	-5014	726	427	298.60	2.431		
11,400	5598	11,260	5388	165	161	-72.61	4407	-5014	760	472	287.88	2.641		
11,500	5599	11,260	5388	168	161	-72.61	4407	-5014	806	531	274.39	2.936		
11,600	5600	11,260	5388	170	161	-72.61	4407	-5014	860	601	259.62	3.313		
11,700	5601	11,260	5388	173	161	-72.61	4407	-5014	922	678	244.66	3.770		
11,759	5601	11,260	5388	174	161	-72.61	4407	-5014	962	726	236.00	4.078		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH													Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0	0	11	11	0	0	103.54	-939	3901	4012					
100	100	111	111	0	3	103.54	-939	3901	4012	4009	3.53	1,138.193		
200	200	211	211	1	6	103.54	-939	3901	4012	4005	6.92	579.766		
300	300	311	311	1	9	103.54	-939	3901	4012	4002	10.32	388.947		
349	349	360	360	1	11	103.53	-939	3901	4012	4000	11.99	334.683 CC		
400	400	409	409	1	12	103.53	-939	3901	4012	3999	13.66	293.780		
450	450	457	457	1	14	103.53	-939	3901	4012	3997	15.30	262.203		
500	500	506	506	2	15	137.12	-939	3901	4013	3996	16.95	236.787		
600	600	611	611	2	19	137.13	-939	3901	4015	3995	20.50	195.884 ES		
700	700	711	711	2	22	137.12	-939	3901	4020	3996	23.89	168.296		
800	799	810	810	3	25	137.12	-939	3901	4028	4001	27.28	147.675		
900	898	909	909	3	28	137.11	-939	3901	4038	4008	30.66	131.708		
1000	997	1008	1008	4	31	137.10	-939	3901	4051	4017	34.04	118.999		
1104	1098	1109	1109	4	34	137.09	-939	3901	4067	4030	37.56	108.289		
1200	1192	1203	1203	4	37	137.29	-939	3901	4083	4042	40.80	100.083		
1300	1289	1298	1298	5	39	137.49	-938	3901	4100	4056	44.12	92.917		
1400	1387	1392	1392	5	42	137.69	-939	3901	4117	4069	47.41	86.839		
1500	1484	1486	1486	6	45	137.90	-939	3901	4134	4083	50.69	81.550		
1600	1581	1593	1592	7	48	138.13	-939	3901	4151	4097	54.36	76.357		
1700	1679	1690	1690	7	51	138.34	-939	3901	4168	4110	57.76	72.160		
1800	1776	1786	1786	8	54	138.52	-938	3901	4185	4124	61.12	68.475		
1900	1874	1879	1879	8	57	138.72	-938	3901	4202	4138	64.40	65.249		
2000	1971	1973	1973	9	60	138.92	-939	3901	4220	4152	67.69	62.340		
2100	2068	2080	2079	9	63	139.14	-939	3901	4237	4166	71.37	59.365		
2200	2166	2177	2177	10	66	139.34	-939	3901	4254	4179	74.77	56.895		
2300	2263	2272	2272	10	69	139.52	-939	3901	4271	4193	78.11	54.685		
2400	2361	2366	2366	11	72	139.71	-939	3901	4289	4208	81.40	52.688		
2500	2458	2469	2469	11	75	139.92	-939	3901	4307	4222	84.98	50.676		
2600	2556	2567	2567	12	78	140.11	-939	3901	4324	4236	88.38	48.923		
2700	2653	2664	2664	13	81	140.30	-939	3901	4342	4250	91.79	47.302		
2800	2750	2758	2758	13	84	140.47	-938	3901	4359	4264	95.09	45.842		
2900	2848	2851	2851	14	87	140.65	-939	3901	4377	4278	98.35	44.499		
3000	2945	2956	2956	14	90	140.86	-939	3901	4395	4293	101.99	43.089		
3100	3043	3054	3054	15	93	141.04	-939	3901	4412	4307	105.39	41.868		
3200	3140	3151	3151	15	96	141.23	-939	3901	4430	4321	108.79	40.723		
3300	3237	3245	3244	16	99	141.39	-938	3901	4448	4336	112.06	39.690		
3400	3335	3337	3337	16	101	141.56	-939	3901	4466	4350	115.30	38.730		
3500	3432	3444	3443	17	105	141.76	-939	3901	4484	4365	118.98	37.685		
3600	3530	3541	3541	17	108	141.94	-939	3901	4502	4379	122.38	36.787		
3700	3627	3638	3638	18	110	142.12	-939	3901	4520	4394	125.77	35.937		
3800	3724	3731	3730	19	113	142.27	-938	3901	4538	4409	129.01	35.171		
3900	3822	3823	3823	19	116	142.44	-939	3901	4556	4424	132.25	34.449		
4000	3919	3931	3930	20	119	142.63	-939	3901	4574	4438	135.96	33.645		
4100	4017	4028	4028	20	122	142.80	-939	3901	4592	4453	139.35	32.956		
4200	4114	4125	4125	21	125	142.97	-939	3901	4611	4468	142.74	32.301		
4300	4211	4219	4219	21	128	143.12	-939	3901	4629	4483	146.01	31.700		
4400	4309	4312	4312	22	131	143.29	-939	3901	4647	4498	149.28	31.129		
4500	4406	4418	4417	22	134	143.47	-939	3901	4665	4513	152.91	30.511		
4600	4504	4515	4515	23	137	143.63	-939	3901	4684	4528	156.30	29.967		
4700	4601	4612	4612	24	140	143.80	-939	3901	4702	4543	159.69	29.446		
4800	4698	4650	4649	24	141	143.86	-939	3901	4721	4560	161.22	29.284 SF		
4900	4796	4650	4649	25	141	143.86	-939	3901	4742	4580	161.52	29.357		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH													Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER													Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5000	4893	4650	4649	25	141	143.86	-939	3901	4764	4603	161.76	29.454		
5100	4991	4650	4649	26	141	143.86	-939	3901	4789	4627	161.94	29.575		
5176	5064	4650	4649	26	141	143.86	-939	3901	4809	4647	162.02	29.682		
5200	5088	4650	4649	26	141	145.20	-939	3901	4816	4654	162.05	29.721		
5250	5136	4650	4649	27	141	146.69	-939	3901	4834	4672	162.10	29.818		
5300	5182	4650	4649	27	141	147.14	-939	3901	4855	4693	162.16	29.937		
5350	5227	4650	4649	28	141	146.92	-939	3901	4879	4717	162.23	30.077		
5400	5270	4650	4649	28	141	146.15	-939	3901	4907	4745	162.30	30.235		
5450	5310	4650	4649	29	141	144.87	-939	3901	4938	4776	162.38	30.411		
5500	5349	4650	4649	29	141	143.05	-939	3901	4972	4810	162.47	30.603		
5550	5385	4650	4649	30	141	140.64	-939	3901	5009	4846	162.57	30.810		
5600	5418	4650	4649	30	141	137.51	-939	3901	5047	4885	162.68	31.028		
5650	5447	4650	4649	31	141	133.51	-939	3901	5088	4925	162.79	31.256		
5700	5474	4650	4649	32	141	128.42	-939	3901	5131	4968	162.92	31.492		
5750	5497	4650	4649	33	141	122.02	-939	3901	5175	5012	163.07	31.734		
5800	5517	4650	4649	34	141	114.08	-939	3901	5220	5057	163.22	31.980		
5850	5533	4650	4649	35	141	104.53	-939	3901	5266	5102	163.39	32.228		
5900	5545	4650	4649	35	141	93.62	-939	3901	5312	5148	163.57	32.477		
5950	5554	4650	4649	36	141	82.07	-939	3901	5359	5195	163.76	32.724		
6000	5558	4650	4649	37	141	70.84	-939	3901	5405	5241	163.96	32.967		
6029	5559	4650	4649	38	141	64.90	-939	3901	5432	5268	164.08	33.104		
6100	5560	4650	4649	39	141	64.90	-939	3901	5498	5333	164.39	33.444		
6200	5560	4650	4649	41	141	64.90	-939	3901	5590	5426	164.82	33.919		
6300	5561	4650	4649	43	141	64.90	-939	3901	5683	5518	165.24	34.393		
6400	5562	4650	4649	45	141	64.90	-939	3901	5776	5611	165.67	34.867		
6500	5563	4650	4649	48	141	64.90	-939	3901	5870	5704	166.09	35.341		
6600	5563	4650	4649	50	141	64.90	-939	3901	5963	5797	166.51	35.815		
6700	5564	4650	4649	52	141	64.90	-939	3901	6057	5890	166.92	36.288		
6800	5565	4650	4649	54	141	64.90	-939	3901	6151	5984	167.33	36.762		
6900	5566	4650	4649	56	141	64.90	-939	3901	6245	6078	167.73	37.235		
7000	5566	4650	4649	59	141	64.90	-939	3901	6340	6172	168.12	37.709		
7100	5567	4650	4649	61	141	64.90	-939	3901	6434	6266	168.51	38.183		
7200	5568	4650	4649	63	141	64.90	-939	3901	6529	6360	168.89	38.658		
7300	5568	4650	4649	66	141	64.90	-939	3901	6624	6455	169.27	39.132		
7400	5569	4650	4649	68	141	64.90	-939	3901	6719	6549	169.64	39.607		
7500	5570	4650	4649	70	141	64.90	-939	3901	6814	6644	170.00	40.082		
7600	5571	4650	4649	73	141	64.90	-939	3901	6909	6739	170.36	40.558		
7700	5571	4650	4649	75	141	64.90	-939	3901	7005	6834	170.71	41.033		
7800	5572	4650	4649	77	141	64.90	-939	3901	7100	6929	171.05	41.509		
7900	5573	4650	4649	80	141	64.90	-939	3901	7196	7024	171.39	41.986		
8000	5574	4650	4649	82	141	64.90	-939	3901	7292	7120	171.72	42.463		
8100	5574	4650	4649	85	141	64.90	-939	3901	7387	7215	172.04	42.940		
8200	5575	4650	4649	87	141	64.90	-939	3901	7483	7311	172.36	43.417		
8300	5576	4650	4649	89	141	64.90	-939	3901	7580	7407	172.67	43.895		
8400	5576	4650	4649	92	141	64.90	-939	3901	7676	7503	172.98	44.373		
8500	5577	4650	4649	94	141	64.90	-939	3901	7772	7599	173.28	44.852		
8600	5578	4650	4649	97	141	64.90	-939	3901	7868	7695	173.58	45.330		
8700	5579	4650	4649	99	141	64.90	-939	3901	7965	7791	173.87	45.809		
8800	5579	4650	4649	102	141	64.90	-939	3901	8061	7887	174.16	46.289		
8900	5580	4650	4649	104	141	64.90	-939	3901	8158	7984	174.44	46.768		
9000	5581	4650	4649	106	141	64.90	-939	3901	8255	8080	174.71	47.248		
9100	5582	4650	4649	109	141	64.90	-939	3901	8352	8177	174.98	47.728		



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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: L16 2408 Pad - Mesa #4 SWD - OH - OH											Offset Site Error:	0 ft
Survey Program: 190-INCLINOMETER											Offset Well Error:	0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
9200	5582	4650	4649	111	141	64.90	-939	3901	8448	8273	175.25	48.208
9300	5583	4650	4649	114	141	64.90	-939	3901	8545	8370	175.51	48.689
9400	5584	4650	4649	116	141	64.90	-939	3901	8642	8467	175.77	49.170
9500	5585	4650	4649	119	141	64.90	-939	3901	8740	8563	176.02	49.651
9600	5585	4650	4649	121	141	64.90	-939	3901	8837	8660	176.27	50.132
9700	5586	4650	4649	123	141	64.90	-939	3901	8934	8757	176.51	50.613
9800	5587	4650	4649	126	141	64.90	-939	3901	9031	8854	176.75	51.095
9900	5587	4650	4649	128	141	64.90	-939	3901	9128	8951	176.99	51.577
10,000	5588	4650	4649	131	141	64.90	-939	3901	9226	9049	177.22	52.058
10,100	5589	4650	4649	133	141	64.90	-939	3901	9323	9146	177.45	52.540
10,200	5590	4650	4649	136	141	64.90	-939	3901	9421	9243	177.68	53.023
10,300	5590	4650	4649	138	141	64.90	-939	3901	9518	9340	177.90	53.505
10,400	5591	4650	4649	141	141	64.90	-939	3901	9616	9438	178.12	53.987
10,500	5592	4650	4649	143	141	64.90	-939	3901	9714	9535	178.33	54.470
10,600	5593	4650	4649	146	141	64.90	-939	3901	9811	9633	178.54	54.952
10,700	5593	4650	4649	148	141	64.90	-939	3901	9909	9730	178.75	55.435



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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 6794' & RKB 14 @ 6808ft

Offset Depths are relative to Offset Datum

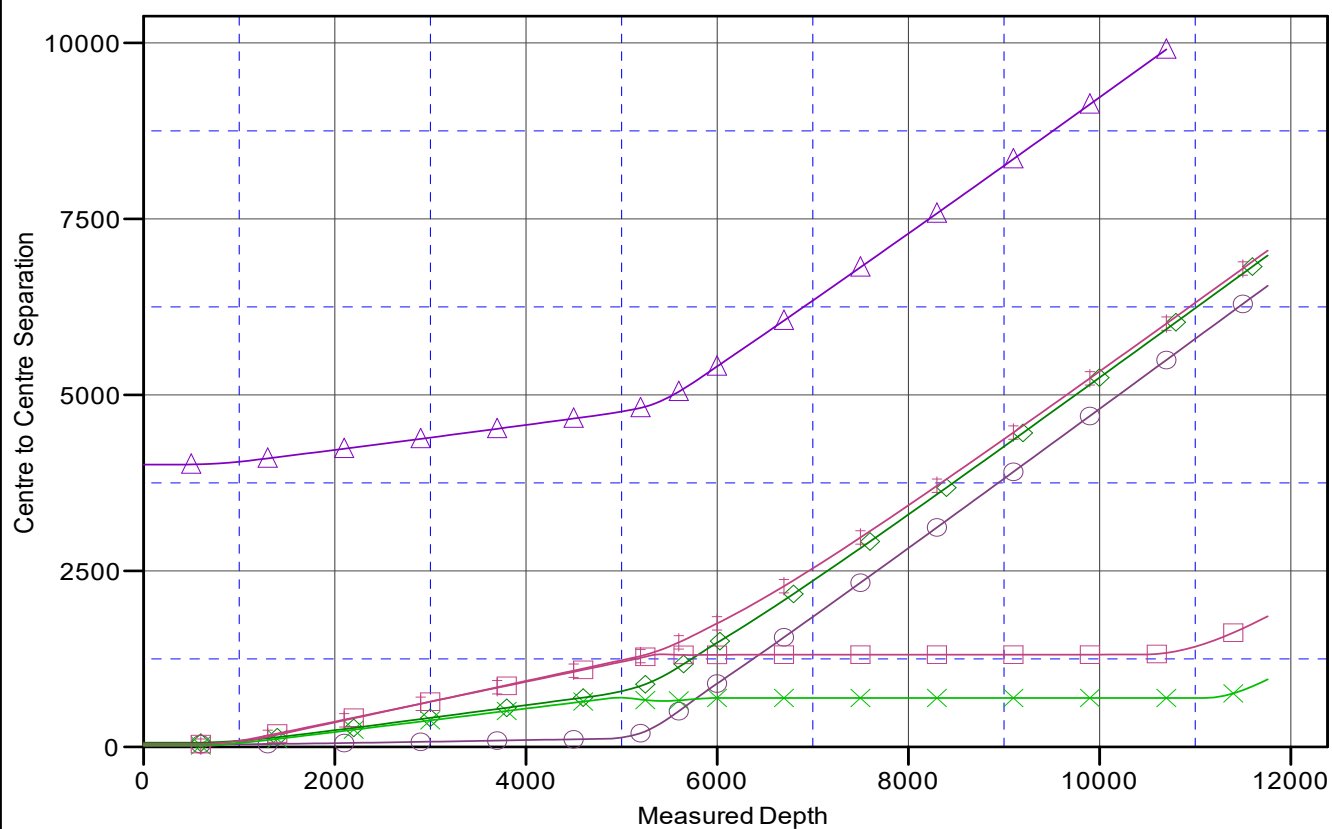
Central Meridian is -107.83333333

Coordinates are relative to: # 134H - Slot 4

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

Grid Convergence at Surface is: 0.08°

Ladder Plot



LEGEND

- # 135H, Original Drilling, APD V0
- ◆— # 136H, Original Drilling, APD V0
- # 130H, Original Drilling, APD V0
- # 137H, Original Drilling, APD V0
- ×— Mesa #4 SWD, OH, OH V0



Lonestar Consulting, LLC

Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 134H - Slot 4
Project:	Crow Canyon Unit	TVD Reference:	GL 6794' & RKB 14 @ 6808ft
Reference Site:	L16 2408 Pad	MD Reference:	GL 6794' & RKB 14 @ 6808ft
Site Error:	0 ft	North Reference:	True
Reference Well:	# 134H	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 6794' & RKB 14 @ 6808ft

Offset Depths are relative to Offset Datum

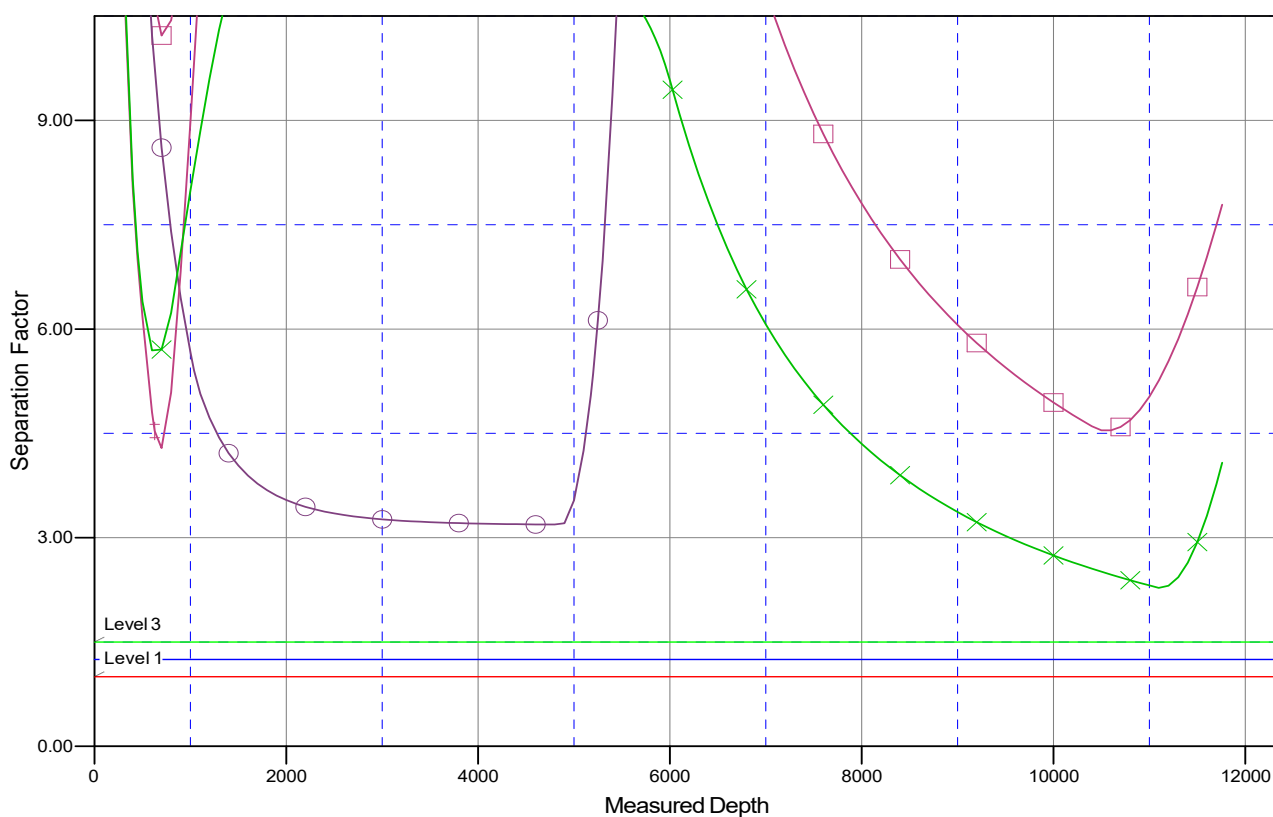
Central Meridian is -107.8333333

Coordinates are relative to: # 134H - Slot 4

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

Grid Convergence at Surface is: 0.08°

Separation Factor Plot



LEGEND

- # 135H, Original Drilling, APD V0
- # 136H, Original Drilling, APD V0
- # 131H, Original Drilling, APD V0
- # 137H, Original Drilling, APD V0
- # 130H, Original Drilling, APD V0
- Mesa #4 SWD, OH, 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

#135H CROW CANYON UNIT

Lease: NMNM093774 Unit: NMNM135203A
SH: NW¼SW¼ Section 16, T. 24 N., R. 8 W.
San Juan County, New Mexico
BH: SE¼NE¼ Section 21, T.24 N., R. 8 W.
San Juan County, New Mexico

***Above Data Required on Well Sign**

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

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

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☒ Test 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.

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 471669

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID:
	371838
	Action Number: 471669
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.	6/6/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	6/6/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	7/18/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	7/18/2025
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.	7/18/2025
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.	7/18/2025