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

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

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

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-045-38253

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 12/16/2022

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-38253	98194	CROW CANYON MANCOS OIL POOL

[4] Property Code	[5] Property Name	[6] Well Number
325183	CROW CANYON UNIT	115H

[7] OGRID No.	[8] Operator Name	[9] Elevation
371838	DJR OPERATING, LLC	6700'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	24N	8W		951'	NORTH	2473'	WEST	SAN JUAN

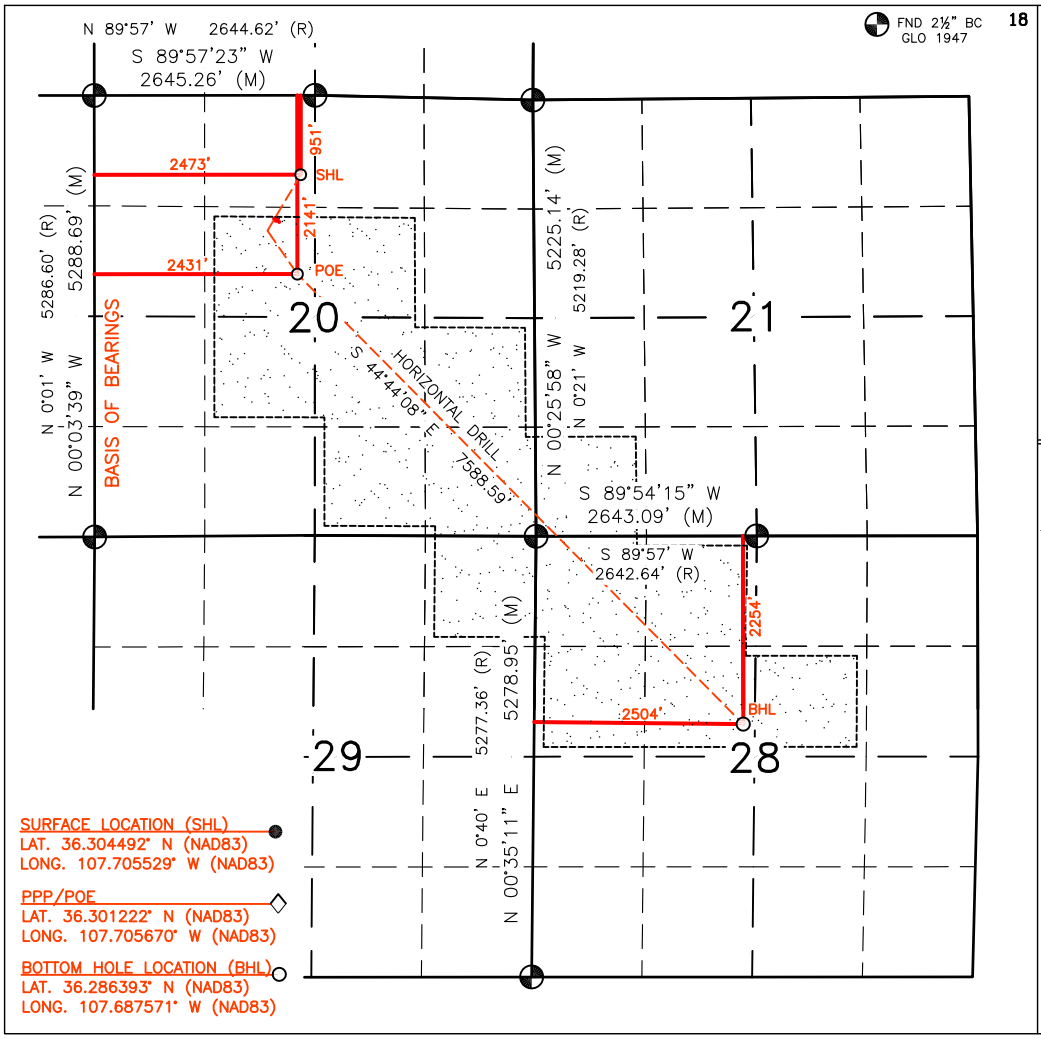
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	28	24N	8W		2254'	NORTH	2504'	WEST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
PENETRATED SPACING UNIT; SEC 20: SE/NW, SW/NE, NE/SW, SE/4 (280 AC.); SEC 21: SW/SW (40 AC.); SEC 29: NE/NE (40 AC.); SEC 28: NW/4, SW/NE (200 AC.) = 560 ACRES			R-14090 R-14090A

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

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Shaw-Marie Ford — Signature
03/15/21 — Date

Shaw-Marie Ford — Printed Name

sford@djrllc.com — E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

SEPTEMBER 16, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

HENRY P. BROADHURST JR. NEW MEXICO 11393 PROFESSIONAL SURVEYOR
07/22/2020

Certificate Number 11393

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Form C-102
Revised August 1, 2011

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☐ AMENDED REPORT

DJR OPERATING, LLC
CROW CANYON UNIT #115H

PENETRATED SPACING UNIT;
SEC 20: SE/NW, SW/NE, NE/SW, SE/4 (280 AC.); SEC 21: SW/SW (40 AC.); SEC 29: NE/NE (40 AC.); SEC 28: NW/4, SW/NE (200 AC.) = 560 ACRES

13,604.06 ACRES - ALL SEC 25, 26, 32-36, T25N, R8W; ALL 3-5, 8-10, 16, 17, 20, 21, 28-30, N/2 SEC 15, S/2 SEC 27 & NE/4 SEC 34, T24N, R8W - UNDIVIDED CROW CANYON UNIT

NW CORNER SEC 20
LAT. 36.307107° N (NAD83)
LONG. 107.713920° W (NAD83)

SW CORNER SEC 20
LAT. 36.292579° N (NAD83)
LONG. 107.713924° W (NAD83)

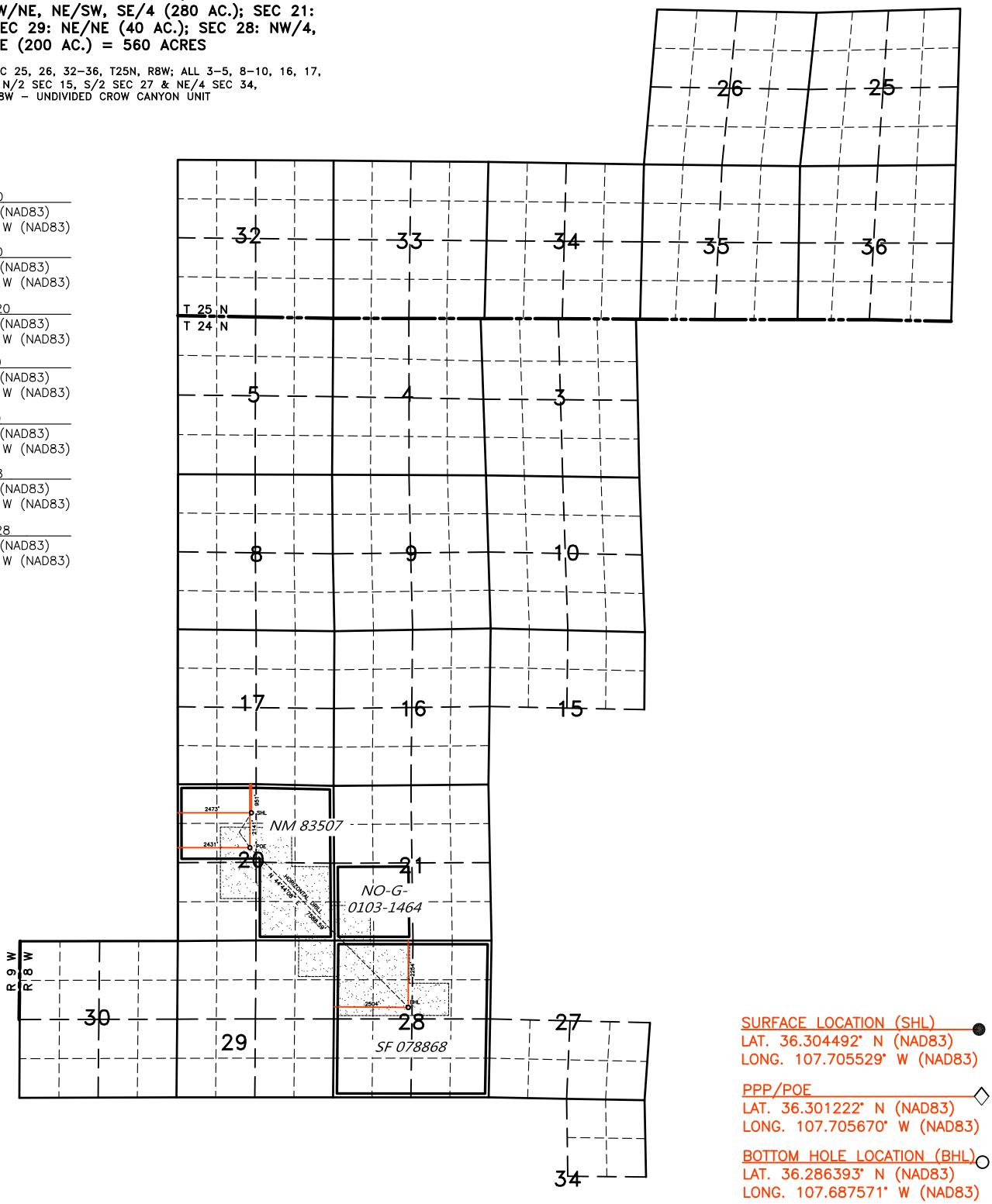
N/4 CORNER SEC 20
LAT. 36.307104° N (NAD83)
LONG. 107.704942° W (NAD83)

NE CORNER SEC 20
LAT. 36.306937° N (NAD83)
LONG. 107.696086° W (NAD83)

SE CORNER SEC 20
LAT. 36.292583° N (NAD83)
LONG. 107.695978° W (NAD83)

SW CORNER SEC 28
LAT. 36.278083° N (NAD83)
LONG. 107.696187° W (NAD83)

N/4 CORNER SEC 28
LAT. 36.292585° N (NAD83)
LONG. 107.687009° W (NAD83)



SURFACE LOCATION (SHL)
LAT. 36.304492° N (NAD83)
LONG. 107.705529° W (NAD83)

PPP/POE
LAT. 36.301222° N (NAD83)
LONG. 107.705670° W (NAD83)

BOTTOM HOLE LOCATION (BHL)
LAT. 36.286393° N (NAD83)
LONG. 107.687571° W (NAD83)

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: __DJR Operating, LLC_____ **OGRID:** __371838_____ **Date:** _12_/_29_/_2022_

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
White Crow 105H	TBD	C-20-24N-08W	966 FNL x 2486 FWL	438	655	157
White Crow 106H	TBD	C-20-24N-08W	920 FNL x 2447 FWL	439	655	157
White Crow 108H	TBD	C-20-24N-08W	905 FNL x 2434 FWL	437	655	156
Crow Canyon Unit 115H	TBD	C-20-24N-08W	951 FNL x 2473 FWL	370	550	132
Crow Canyon Unit 117H	TBD	C-20-24N-08W	935 FNL x 2460 FWL	413	620	147
Crow Canyon Unit 118H	TBD	C-20-24N-08W	890 FNL x 2421 FWL	438	655	156

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
White Crow 105H	TBD	04/25/2023	05/05/2023	07/23/2023	08/02/2023	09/06/2023
White Crow 106H	TBD	04/26/2023	05/15/2023	07/23/2023	08/12/2023	09/10/2023
White Crow 108H	TBD	04/27/2023	05/25/2023	07/23/2023	08/22/2023	09/14/2023
Crow Canyon Unit 115H	TBD	04/28/2023	06/04/2023	07/23/2023	09/01/2023	09/18/2023
Crow Canyon Unit 117H	TBD	04/29/2023	06/14/2023	07/23/2023	09/11/2023	09/22/2022
Crow Canyon Unit 118H	TBD	04/30/2023	06/24/2023	07/23/2023	09/21/2023	09/26/2022

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrllc.com
Date: 12/29/2022
Phone: 505-716-3297

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
White Crow 105H, 106H, 108H and Crow Canyon Unit 115H, 117H, 118H
NENW C-20-24N-08W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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

1 Road 3263
Aztec, NM 87410

Phone (505) 632-3476
Fax (505) 632-8151

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
White Crow 105H, 106H, 108H and Crow Canyon Unit 115H, 117H, 118H
NENW C-20-24N-08W

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:
- Scheduled maintenance for gas capturing equipment including:
  - Vapor Recovery Tower
  - Vapor Recovery Unit
  - Storage tanks
  - Pipelines
  - Emergency flaring

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White Crow 105H, 106H, 108H and Crow Canyon Unit 115H, 117H, 118H
NENW C-20-24N-08W

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.

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DJR Operating, LLC

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 tall 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 its designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.

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a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.
b. Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts DJR of flare malfunction within 18 months after May 25, 2021.
c. Flare stacks replaced after May 25, 2021, will be equipped with an automatic ignitor or continuous pilot if located at a well or facility with average daily production of 60,000 cubic feet of natural gas or less.
d. Flare stacks will be located at least 100 feet from the well and storage tanks and securely anchored.

4. DJR will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
5. DJR will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
6. DJR may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. DJR will resolve emergencies as promptly as possible.

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

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

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NATURAL GAS MANAGEMENT PLAN
White Crow 105H, 106H, 108H and Crow Canyon Unit 115H, 117H, 118H
NENW C-20-24N-08W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

DJRs 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.

1 Road 3263
Aztec, NM 87410

Phone (505) 632-3476
Fax (505) 632-8151

Rev 1

DJR Operating

DRILLING PLAN
Crow Canyon Unit #115H
San Juan County, New Mexico

Surface Location
2473-ft FWL & 951-ft FNL
Sec 20 T24N R08W
Graded Elevation 6700' MSL
RKB Elevation 6714' (14' KB)

SHL Geographical Coordinates (NAD-83)
Latitude 36.3044920° N
Longitude 107.7055290° W

Kick Off Point for Horizontal Build Curve
4840-ft MD
4769-ft TVD

Local Coordinates (from SHL)
656-ft South
413-ft West

Heel Location (Pay zone entry)
2431-ft FWL & 2141-ft FNL
Sec 20 T24N R08W

Heel Geographical Coordinates (NAD-83)
Latitude 36.3012216° N
Longitude 107.70566980° W

Bottom Hole Location (TD)
2504-ft FWL & 2254-ft FNL
Sec 28 T24N R08W

BHL Geographical Coordinates (NAD-83)
Latitude 36.2863925° N
Longitude 107.6875709° W

Well objectives
This well is planned as a 7590-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure
The temperature in the Gallup C horizontal objective is 142°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	968	965	Sd	W	8.3	8.4 – 8.8
Kirtland	1088	1083	Sh	-	8.3	8.4 – 8.8
Fruitland	1514	1501	C	G	8.3	9.0 - 9.5
Pictured Cliffs	1722	1705	Sd	W	8.3	9.0 - 9.5
Lewis	1816	1798	Sh	-		9.0 - 9.5
Chacra	2577	2545	Sd	-	8.3	9.0 - 9.5
Menefee	3249	3206	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4149	4090	Sd	-	8.3	9.0 - 9.5
Mancos	4373	4310	Sh	-		9.0 - 9.5
Mancos Silt	4716	4647	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5199	5099	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5250	5139	Sd	O/G	6.6	8.8 -9.0
Gallup C	5423	5254	Sd	O/G	6.6	8.8 -9.0
Target	5818	5368	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	5757	surf	5366	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5473	13407	5281	5306	5473

Note: all casing will be new

Rev 1

DJR Operating

Casing Design Load Cases

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

Note #

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

Casing Design Factors

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

Cement Design

9-5/8" Surface Casing	Lead
Name	Redi-Mix
Type	I-II
Planned top	Surface
Density (ppg)	14.50
Yield (cf/sx)	1.61
Mix water (gal/sx)	7.41
Volume (sx)	114
Volume (bbls)	33
Volume (cu. ft.)	185
Excess %	50

7" Intermediate Casing	Lead	Tail
	BJ Services	BJ Services
Type	III	Poz/G
Planned top	Surface	4340-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	2.34	1.50
Mix water (gal/sx)	13.26	7.20
Volume (sx)	422	227
Volume (bbls)	176	60
Volume (cu.ft.)	988	339
Excess %	55	55

4-1/2" Production Liner

	BJ Services
Type	Poz/G
Planned top	5473-ft
Density (ppg)	13.3
Yield (cf/sx)	1.56
Mix water (gal/sx)	7.71
Volume (sx)	667
Volume (bbls)	186
Volume (cu.ft)	1042
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 – 5757	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5757 – 13407	8.8 – 9.2	34 – 38	6 – 8	6 – 8

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

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

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

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

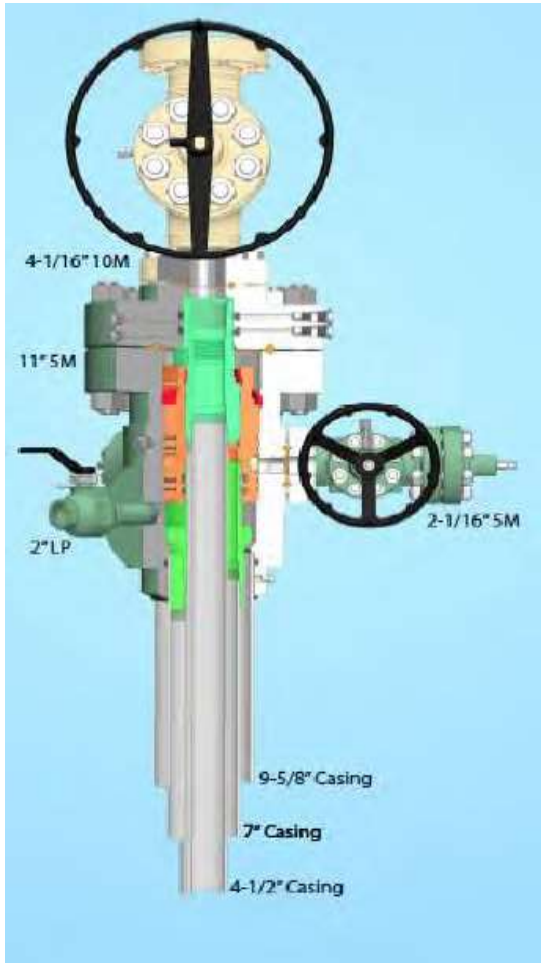
Cuttings and drilling fluids management
A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids will be collected in 3-sided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

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

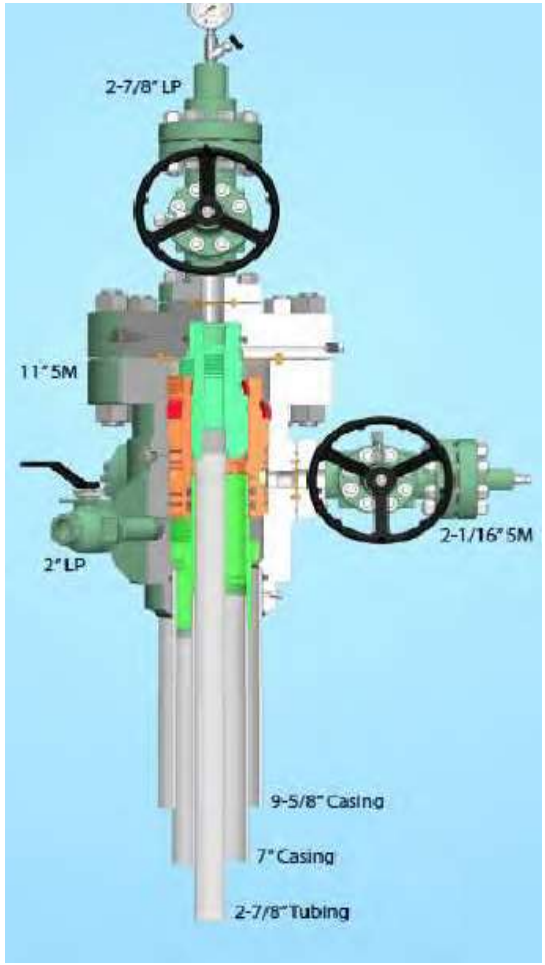
Proposed Wellhead
11” 5M Multi-bowl

DJR Operating

Frac configuration with 4-1/2” tieback

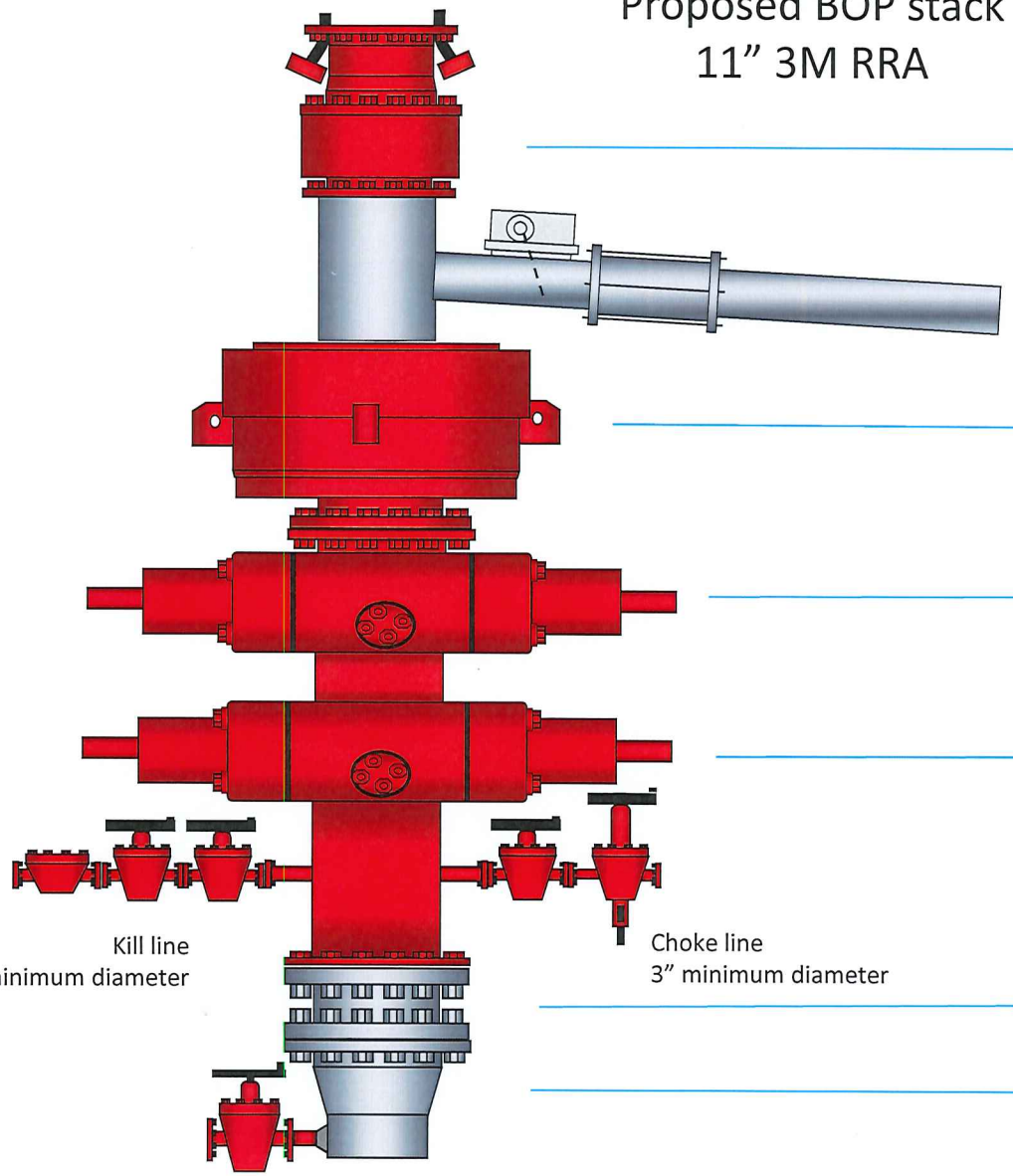


Production configuration with 2-7/8” tubing



Proposed BOP stack
11" 3M RRA

DJR Operating



Low pressure rotating head

Flowline

3M Annular preventer

3M Pipe rams

3M Blind rams

Double gate with integral choke/kill outlets

Kill line
2" minimum diameter

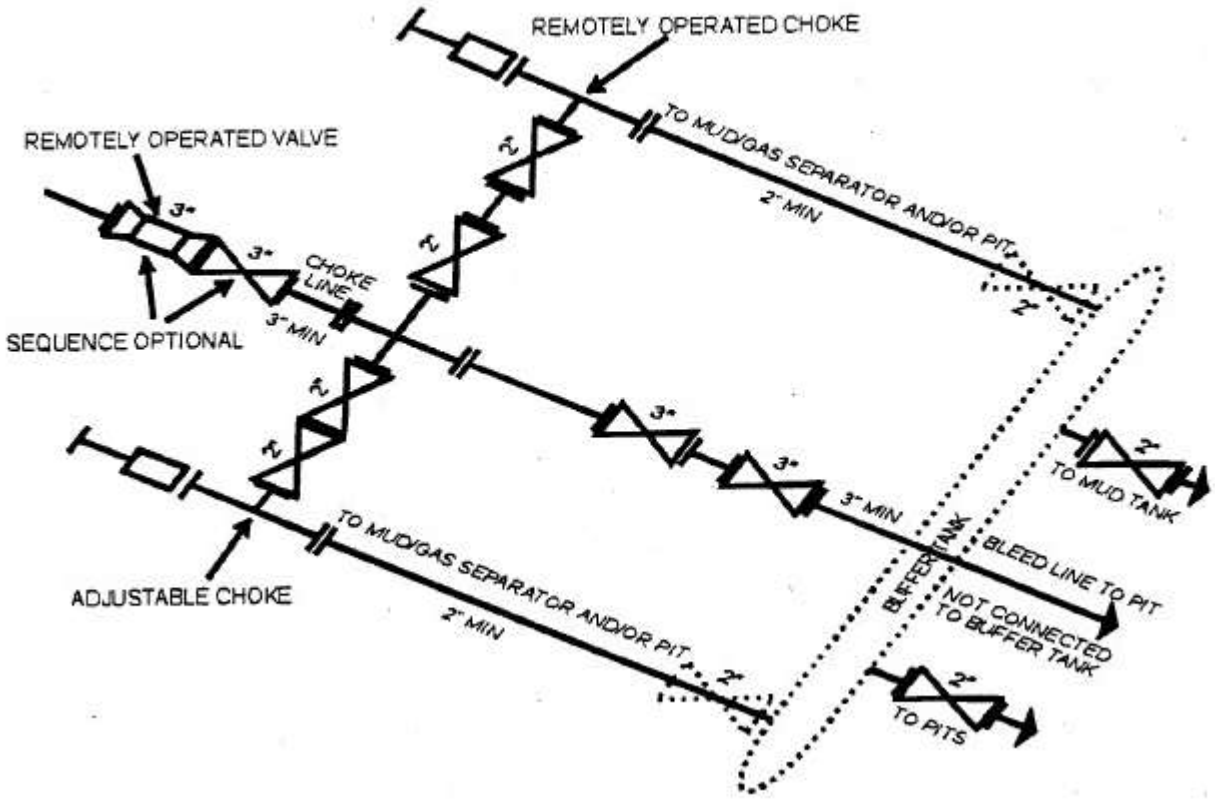
Choke line
3" minimum diameter

Tie-down flange
(moves with BOP)

11" 5M Multi-bowl casing head

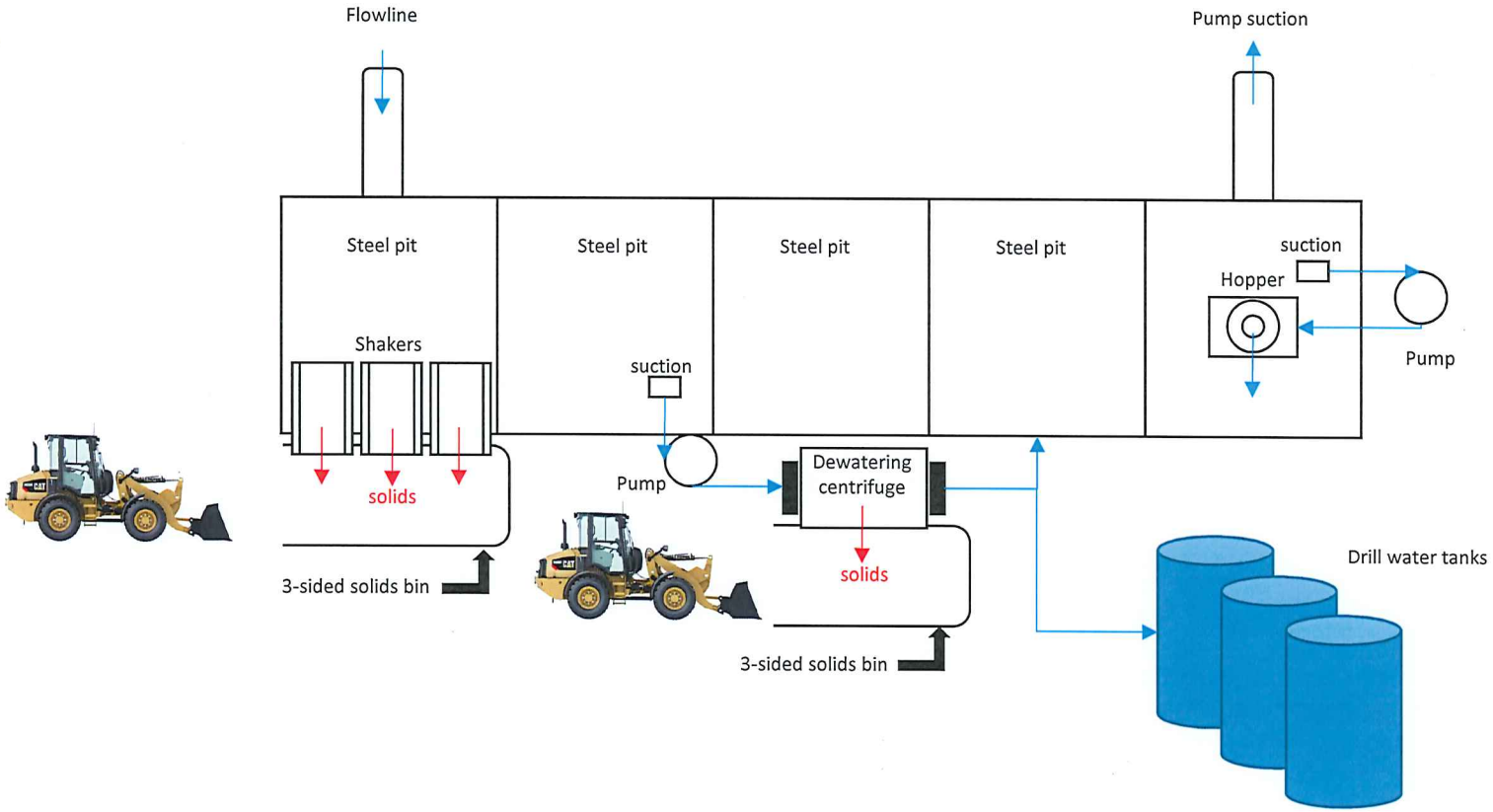
Choke Manifold

Actual system to conform with Onshore Order 2



Closed Loop Mud System

DJR Operating



DJR Operating

Company: DJR Operating
Project: Crow Canyon Unit
Site: C20 2408 Pad
Well: # 115H
Wellbore: Original Drilling
Design: APD

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

Scientific Drilling

WELL DETAILS: # 115H

GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1930159.80	2760748.73	36.3044920	-107.7055290	2

Plan: APD (# 115H/Original Drilling)

Created By: Janie Collins Date: 14:29, February 07 2020

Azimuths to True North
Magnetic North: 8.
Magnetic Field
Strength: 49436.
Dip Angle: 62.
Date: 2/5/2
Model: HDGM_F

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
115H Heel	5354.00	-1190.51	-41.49	1928969.24	2760708.81	36.3012216	-107.7056698
115H Toe	5292.00	-6588.21	5292.51	1923578.60	2766049.94	36.2863925	-107.6875709

SECTION DETAILS

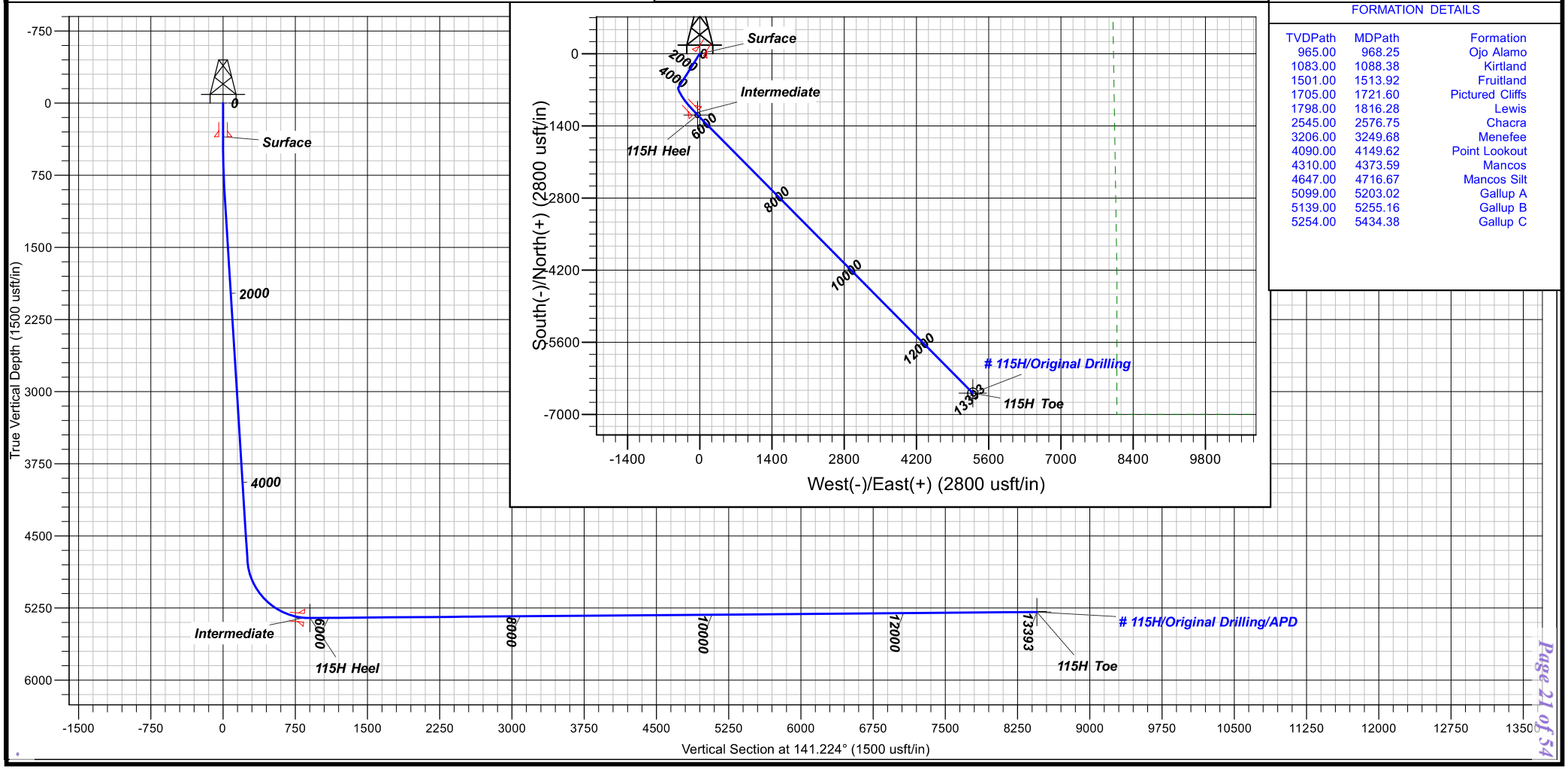
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	
965.11	10.80	212.168	961.91	-42.97	-27.03	2.00	212.17	16.57	
4826.63	10.80	212.168	4755.01	-655.59	-412.34	0.00	0.00	252.86	
5804.54	90.47	135.340	5354.00	-1190.51	-41.49	9.00	-76.97	902.14	115H Heel
13393.39	90.47	135.340	5292.00	-6588.21	5292.51	0.00	0.00	8450.75	115H Toe

CASING DETAILS

TVD	MD	Name
350.00	350.00	Surface
5351.56	5742.75	Intermediate

FORMATION DETAILS

TVDPath	MDPath	Formation
965.00	968.25	Ojo Alamo
1083.00	1088.38	Kirtland
1501.00	1513.92	Fruitland
1705.00	1721.60	Pictured Cliffs
1798.00	1816.28	Lewis
2545.00	2576.75	Chacra
3206.00	3249.68	Menefee
4090.00	4149.62	Point Lookout
4310.00	4373.59	Mancos
4647.00	4716.67	Mancos Silt
5099.00	5203.02	Gallup A
5139.00	5255.16	Gallup B
5254.00	5434.38	Gallup C



DJR Operating

DJR Operating

Crow Canyon Unit
C20 2408 Pad
 # 115H - Slot 2

Original Drilling

Plan: APD

Standard Planning Report

07 February, 2020

Scientific Drilling

www.scientificdrilling.com

DJR Operating

Scientific Drilling, Intl

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Company:	DJR Operating	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Project:	Crow Canyon Unit	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site:	C20 2408 Pad	**North Reference:**	True
Well:	# 115H	**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	C20 2408 Pad				
Site Position:		**Northing:**	1,930,159.81 usft	**Latitude:**	36.3044920
From:	Lat/Long	**Easting:**	2,760,748.73 usft	**Longitude:**	-107.7055290
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.08 °

Well	# 115H - Slot 2					
Well Position	**+N/-S**	0.00 usft	**Northing:**	1,930,159.81 usft	**Latitude:**	36.3044920
	+E/-W	0.00 usft	**Easting:**	2,760,748.73 usft	**Longitude:**	-107.7055290
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	6,700.00 usft

Wellbore	Original Drilling			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM_FILE	2/5/2020	8.70	62.85	49,436.00000000

Design	APD			
Audit Notes:				
Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.00	0.00	0.00	141.224

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	0.00	
965.11	10.80	212.168	961.91	-42.97	-27.03	2.00	2.00	0.00	212.17	
4,826.63	10.80	212.168	4,755.01	-655.59	-412.34	0.00	0.00	0.00	0.00	
5,804.54	90.47	135.340	5,354.00	-1,190.51	-41.49	9.00	8.15	-7.86	-76.97	115H Heel
13,393.39	90.47	135.340	5,292.00	-6,588.21	5,292.51	0.00	0.00	0.00	0.00	115H Toe

DJR Operating

Scientific Drilling, Intl
Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Company:	DJR Operating	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Project:	Crow Canyon Unit	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site:	C20 2408 Pad	**North Reference:**	True
Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
425.00	0.00	0.000	425.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	1.50	212.168	499.99	-0.83	-0.52	0.32	2.00	2.00	0.00
600.00	3.50	212.168	599.89	-4.52	-2.84	1.74	2.00	2.00	0.00
700.00	5.50	212.168	699.58	-11.16	-7.02	4.31	2.00	2.00	0.00
800.00	7.50	212.168	798.93	-20.75	-13.05	8.00	2.00	2.00	0.00
900.00	9.50	212.168	897.83	-33.26	-20.92	12.83	2.00	2.00	0.00
965.11	10.80	212.168	961.91	-42.97	-27.03	16.57	2.00	2.00	0.00
1,000.00	10.80	212.168	996.19	-48.51	-30.51	18.71	0.00	0.00	0.00
1,100.00	10.80	212.168	1,094.42	-64.37	-40.49	24.83	0.00	0.00	0.00
1,200.00	10.80	212.168	1,192.64	-80.24	-50.46	30.95	0.00	0.00	0.00
1,300.00	10.80	212.168	1,290.87	-96.10	-60.44	37.07	0.00	0.00	0.00
1,400.00	10.80	212.168	1,389.10	-111.97	-70.42	43.19	0.00	0.00	0.00
1,500.00	10.80	212.168	1,487.33	-127.83	-80.40	49.30	0.00	0.00	0.00
1,600.00	10.80	212.168	1,585.56	-143.70	-90.38	55.42	0.00	0.00	0.00
1,700.00	10.80	212.168	1,683.78	-159.56	-100.36	61.54	0.00	0.00	0.00
1,800.00	10.80	212.168	1,782.01	-175.43	-110.33	67.66	0.00	0.00	0.00
1,900.00	10.80	212.168	1,880.24	-191.29	-120.31	73.78	0.00	0.00	0.00
2,000.00	10.80	212.168	1,978.47	-207.15	-130.29	79.90	0.00	0.00	0.00
2,100.00	10.80	212.168	2,076.70	-223.02	-140.27	86.02	0.00	0.00	0.00
2,200.00	10.80	212.168	2,174.92	-238.88	-150.25	92.14	0.00	0.00	0.00
2,300.00	10.80	212.168	2,273.15	-254.75	-160.22	98.26	0.00	0.00	0.00
2,400.00	10.80	212.168	2,371.38	-270.61	-170.20	104.38	0.00	0.00	0.00
2,500.00	10.80	212.168	2,469.61	-286.48	-180.18	110.50	0.00	0.00	0.00
2,600.00	10.80	212.168	2,567.84	-302.34	-190.16	116.61	0.00	0.00	0.00
2,700.00	10.80	212.168	2,666.06	-318.21	-200.14	122.73	0.00	0.00	0.00
2,800.00	10.80	212.168	2,764.29	-334.07	-210.11	128.85	0.00	0.00	0.00
2,900.00	10.80	212.168	2,862.52	-349.94	-220.09	134.97	0.00	0.00	0.00
3,000.00	10.80	212.168	2,960.75	-365.80	-230.07	141.09	0.00	0.00	0.00
3,100.00	10.80	212.168	3,058.98	-381.67	-240.05	147.21	0.00	0.00	0.00
3,200.00	10.80	212.168	3,157.20	-397.53	-250.03	153.33	0.00	0.00	0.00
3,300.00	10.80	212.168	3,255.43	-413.40	-260.01	159.45	0.00	0.00	0.00
3,400.00	10.80	212.168	3,353.66	-429.26	-269.98	165.57	0.00	0.00	0.00
3,500.00	10.80	212.168	3,451.89	-445.13	-279.96	171.69	0.00	0.00	0.00
3,600.00	10.80	212.168	3,550.12	-460.99	-289.94	177.81	0.00	0.00	0.00
3,700.00	10.80	212.168	3,648.34	-476.86	-299.92	183.93	0.00	0.00	0.00
3,800.00	10.80	212.168	3,746.57	-492.72	-309.90	190.04	0.00	0.00	0.00
3,900.00	10.80	212.168	3,844.80	-508.59	-319.87	196.16	0.00	0.00	0.00
4,000.00	10.80	212.168	3,943.03	-524.45	-329.85	202.28	0.00	0.00	0.00
4,100.00	10.80	212.168	4,041.26	-540.32	-339.83	208.40	0.00	0.00	0.00
4,200.00	10.80	212.168	4,139.48	-556.18	-349.81	214.52	0.00	0.00	0.00
4,300.00	10.80	212.168	4,237.71	-572.05	-359.79	220.64	0.00	0.00	0.00
4,400.00	10.80	212.168	4,335.94	-587.91	-369.77	226.76	0.00	0.00	0.00
4,500.00	10.80	212.168	4,434.17	-603.77	-379.74	232.88	0.00	0.00	0.00
4,600.00	10.80	212.168	4,532.40	-619.64	-389.72	239.00	0.00	0.00	0.00
4,700.00	10.80	212.168	4,630.62	-635.50	-399.70	245.12	0.00	0.00	0.00
4,800.00	10.80	212.168	4,728.85	-651.37	-409.68	251.24	0.00	0.00	0.00
4,826.63	10.80	212.168	4,755.01	-655.59	-412.34	252.86	0.00	0.00	0.00

DJR Operating

Scientific Drilling, Intl

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Company:	DJR Operating	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Project:	Crow Canyon Unit	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site:	C20 2408 Pad	**North Reference:**	True
Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	13.86	184.274	4,826.74	-670.19	-416.66	261.54	9.00	4.16	-38.02
5,000.00	20.82	164.664	4,922.22	-699.33	-412.84	286.64	9.00	6.96	-19.61
5,100.00	28.90	155.090	5,012.92	-738.46	-397.93	326.49	9.00	8.08	-9.57
5,200.00	37.37	149.501	5,096.60	-786.62	-372.30	380.08	9.00	8.47	-5.59
5,300.00	46.02	145.751	5,171.21	-842.62	-336.58	446.12	9.00	8.65	-3.75
5,400.00	54.76	142.965	5,234.91	-905.09	-291.64	522.96	9.00	8.74	-2.79
5,500.00	63.56	140.727	5,286.13	-972.49	-238.59	608.73	9.00	8.79	-2.24
5,600.00	72.38	138.809	5,323.61	-1,043.15	-178.75	701.29	9.00	8.82	-1.92
5,700.00	81.22	137.071	5,346.43	-1,115.34	-113.58	798.39	9.00	8.84	-1.74
5,800.00	90.07	135.415	5,354.02	-1,187.28	-44.68	897.62	9.00	8.85	-1.66
5,804.54	90.47	135.340	5,354.00	-1,190.51	-41.49	902.14	9.00	8.85	-1.64
5,900.00	90.47	135.340	5,353.22	-1,258.41	25.61	997.09	0.00	0.00	0.00
6,000.00	90.47	135.340	5,352.40	-1,329.53	95.89	1,096.56	0.00	0.00	0.00
6,100.00	90.47	135.340	5,351.59	-1,400.66	166.18	1,196.03	0.00	0.00	0.00
6,200.00	90.47	135.340	5,350.77	-1,471.79	236.47	1,295.50	0.00	0.00	0.00
6,300.00	90.47	135.340	5,349.95	-1,542.91	306.75	1,394.97	0.00	0.00	0.00
6,400.00	90.47	135.340	5,349.14	-1,614.04	377.04	1,494.44	0.00	0.00	0.00
6,500.00	90.47	135.340	5,348.32	-1,685.17	447.33	1,593.91	0.00	0.00	0.00
6,600.00	90.47	135.340	5,347.50	-1,756.29	517.62	1,693.38	0.00	0.00	0.00
6,700.00	90.47	135.340	5,346.68	-1,827.42	587.90	1,792.85	0.00	0.00	0.00
6,800.00	90.47	135.340	5,345.87	-1,898.55	658.19	1,892.32	0.00	0.00	0.00
6,900.00	90.47	135.340	5,345.05	-1,969.67	728.48	1,991.79	0.00	0.00	0.00
7,000.00	90.47	135.340	5,344.23	-2,040.80	798.77	2,091.26	0.00	0.00	0.00
7,100.00	90.47	135.340	5,343.42	-2,111.93	869.05	2,190.73	0.00	0.00	0.00
7,200.00	90.47	135.340	5,342.60	-2,183.06	939.34	2,290.20	0.00	0.00	0.00
7,300.00	90.47	135.340	5,341.78	-2,254.18	1,009.63	2,389.67	0.00	0.00	0.00
7,400.00	90.47	135.340	5,340.97	-2,325.31	1,079.92	2,489.14	0.00	0.00	0.00
7,500.00	90.47	135.340	5,340.15	-2,396.44	1,150.20	2,588.61	0.00	0.00	0.00
7,600.00	90.47	135.340	5,339.33	-2,467.56	1,220.49	2,688.08	0.00	0.00	0.00
7,700.00	90.47	135.340	5,338.51	-2,538.69	1,290.78	2,787.55	0.00	0.00	0.00
7,800.00	90.47	135.340	5,337.70	-2,609.82	1,361.07	2,887.02	0.00	0.00	0.00
7,900.00	90.47	135.340	5,336.88	-2,680.94	1,431.35	2,986.49	0.00	0.00	0.00
8,000.00	90.47	135.340	5,336.06	-2,752.07	1,501.64	3,085.96	0.00	0.00	0.00
8,100.00	90.47	135.340	5,335.25	-2,823.20	1,571.93	3,185.43	0.00	0.00	0.00
8,200.00	90.47	135.340	5,334.43	-2,894.32	1,642.22	3,284.90	0.00	0.00	0.00
8,300.00	90.47	135.340	5,333.61	-2,965.45	1,712.50	3,384.37	0.00	0.00	0.00
8,400.00	90.47	135.340	5,332.80	-3,036.58	1,782.79	3,483.84	0.00	0.00	0.00
8,500.00	90.47	135.340	5,331.98	-3,107.70	1,853.08	3,583.31	0.00	0.00	0.00
8,600.00	90.47	135.340	5,331.16	-3,178.83	1,923.37	3,682.78	0.00	0.00	0.00
8,700.00	90.47	135.340	5,330.34	-3,249.96	1,993.65	3,782.25	0.00	0.00	0.00
8,800.00	90.47	135.340	5,329.53	-3,321.08	2,063.94	3,881.72	0.00	0.00	0.00
8,900.00	90.47	135.340	5,328.71	-3,392.21	2,134.23	3,981.19	0.00	0.00	0.00
9,000.00	90.47	135.340	5,327.89	-3,463.34	2,204.52	4,080.66	0.00	0.00	0.00
9,100.00	90.47	135.340	5,327.08	-3,534.46	2,274.80	4,180.13	0.00	0.00	0.00
9,200.00	90.47	135.340	5,326.26	-3,605.59	2,345.09	4,279.60	0.00	0.00	0.00
9,300.00	90.47	135.340	5,325.44	-3,676.72	2,415.38	4,379.07	0.00	0.00	0.00
9,400.00	90.47	135.340	5,324.63	-3,747.84	2,485.66	4,478.54	0.00	0.00	0.00
9,500.00	90.47	135.340	5,323.81	-3,818.97	2,555.95	4,578.01	0.00	0.00	0.00
9,600.00	90.47	135.340	5,322.99	-3,890.10	2,626.24	4,677.47	0.00	0.00	0.00
9,700.00	90.47	135.340	5,322.17	-3,961.22	2,696.53	4,776.94	0.00	0.00	0.00
9,800.00	90.47	135.340	5,321.36	-4,032.35	2,766.81	4,876.41	0.00	0.00	0.00
9,900.00	90.47	135.340	5,320.54	-4,103.48	2,837.10	4,975.88	0.00	0.00	0.00

DJR Operating

Scientific Drilling, Intl
Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Company:	DJR Operating	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Project:	Crow Canyon Unit	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site:	C20 2408 Pad	**North Reference:**	True
Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	90.47	135.340	5,319.72	-4,174.60	2,907.39	5,075.35	0.00	0.00	0.00
10,100.00	90.47	135.340	5,318.91	-4,245.73	2,977.68	5,174.82	0.00	0.00	0.00
10,200.00	90.47	135.340	5,318.09	-4,316.86	3,047.96	5,274.29	0.00	0.00	0.00
10,300.00	90.47	135.340	5,317.27	-4,387.98	3,118.25	5,373.76	0.00	0.00	0.00
10,400.00	90.47	135.340	5,316.46	-4,459.11	3,188.54	5,473.23	0.00	0.00	0.00
10,500.00	90.47	135.340	5,315.64	-4,530.24	3,258.83	5,572.70	0.00	0.00	0.00
10,600.00	90.47	135.340	5,314.82	-4,601.36	3,329.11	5,672.17	0.00	0.00	0.00
10,700.00	90.47	135.340	5,314.00	-4,672.49	3,399.40	5,771.64	0.00	0.00	0.00
10,800.00	90.47	135.340	5,313.19	-4,743.62	3,469.69	5,871.11	0.00	0.00	0.00
10,900.00	90.47	135.340	5,312.37	-4,814.74	3,539.98	5,970.58	0.00	0.00	0.00
11,000.00	90.47	135.340	5,311.55	-4,885.87	3,610.26	6,070.05	0.00	0.00	0.00
11,100.00	90.47	135.340	5,310.74	-4,957.00	3,680.55	6,169.52	0.00	0.00	0.00
11,200.00	90.47	135.340	5,309.92	-5,028.12	3,750.84	6,268.99	0.00	0.00	0.00
11,300.00	90.47	135.340	5,309.10	-5,099.25	3,821.13	6,368.46	0.00	0.00	0.00
11,400.00	90.47	135.340	5,308.29	-5,170.38	3,891.41	6,467.93	0.00	0.00	0.00
11,500.00	90.47	135.340	5,307.47	-5,241.50	3,961.70	6,567.40	0.00	0.00	0.00
11,600.00	90.47	135.340	5,306.65	-5,312.63	4,031.99	6,666.87	0.00	0.00	0.00
11,700.00	90.47	135.340	5,305.83	-5,383.76	4,102.28	6,766.34	0.00	0.00	0.00
11,800.00	90.47	135.340	5,305.02	-5,454.88	4,172.56	6,865.81	0.00	0.00	0.00
11,900.00	90.47	135.340	5,304.20	-5,526.01	4,242.85	6,965.28	0.00	0.00	0.00
12,000.00	90.47	135.340	5,303.38	-5,597.14	4,313.14	7,064.75	0.00	0.00	0.00
12,100.00	90.47	135.340	5,302.57	-5,668.27	4,383.42	7,164.22	0.00	0.00	0.00
12,200.00	90.47	135.340	5,301.75	-5,739.39	4,453.71	7,263.69	0.00	0.00	0.00
12,300.00	90.47	135.340	5,300.93	-5,810.52	4,524.00	7,363.16	0.00	0.00	0.00
12,400.00	90.47	135.340	5,300.12	-5,881.65	4,594.29	7,462.63	0.00	0.00	0.00
12,500.00	90.47	135.340	5,299.30	-5,952.77	4,664.57	7,562.10	0.00	0.00	0.00
12,600.00	90.47	135.340	5,298.48	-6,023.90	4,734.86	7,661.57	0.00	0.00	0.00
12,700.00	90.47	135.340	5,297.67	-6,095.03	4,805.15	7,761.04	0.00	0.00	0.00
12,800.00	90.47	135.340	5,296.85	-6,166.15	4,875.44	7,860.51	0.00	0.00	0.00
12,900.00	90.47	135.340	5,296.03	-6,237.28	4,945.72	7,959.98	0.00	0.00	0.00
13,000.00	90.47	135.340	5,295.21	-6,308.41	5,016.01	8,059.45	0.00	0.00	0.00
13,100.00	90.47	135.340	5,294.40	-6,379.53	5,086.30	8,158.92	0.00	0.00	0.00
13,200.00	90.47	135.340	5,293.58	-6,450.66	5,156.59	8,258.39	0.00	0.00	0.00
13,300.00	90.47	135.340	5,292.76	-6,521.79	5,226.87	8,357.86	0.00	0.00	0.00
13,393.39	90.47	135.340	5,292.00	-6,588.21	5,292.51	8,450.75	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
115H Toe - plan hits target center - Circle (radius 100.00)	0.00	0.000	5,292.00	-6,588.21	5,292.51	1,923,578.60	2,766,049.94	36.2863925	-107.6875709
115H Heel - plan hits target center - Circle (radius 50.00)	0.00	0.000	5,354.00	-1,190.51	-41.49	1,928,969.24	2,760,708.82	36.3012216	-107.7056698

DJR Operating

Scientific Drilling, Intl
Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Company:	DJR Operating	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Project:	Crow Canyon Unit	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site:	C20 2408 Pad	**North Reference:**	True
Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
350.00	350.00	Surface	9.62	12.25
5,742.75	5,351.56	Intermediate	7.00	8.75

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
968.25	965.00	Ojo Alamo		0.00	0.000
1,088.38	1,083.00	Kirtland		0.00	0.000
1,513.92	1,501.00	Fruitland		0.00	0.000
1,721.60	1,705.00	Pictured Cliffs		0.00	0.000
1,816.28	1,798.00	Lewis		0.00	0.000
2,576.75	2,545.00	Chacra		0.00	0.000
3,249.68	3,206.00	Menefee		0.00	0.000
4,149.62	4,090.00	Point Lookout		0.00	0.000
4,373.59	4,310.00	Mancos		0.00	0.000
4,716.67	4,647.00	Mancos Silt		0.00	0.000
5,203.02	5,099.00	Gallup A		0.00	0.000
5,255.16	5,139.00	Gallup B		0.00	0.000
5,434.38	5,254.00	Gallup C		0.00	0.000

DJR Operating

Crow Canyon Unit
C20 2408 Pad
 # 115H

Original Drilling
APD

Anticollision Report

07 February, 2020

Scientific Drilling

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DJR Operating

Scientific Drilling, Intl
Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**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 ellipse separation of 1,000.00 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 2/7/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,392.95	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
C20 2408 Pad						
# 105H - Original Drilling - APD	400.00	400.00	19.77	17.31	8.039	CC
# 105H - Original Drilling - APD	425.00	424.86	19.86	17.22	7.539	ES
# 105H - Original Drilling - APD	5,325.89	5,386.63	245.18	204.33	6.002	SF
# 106H - Original Drilling - APD	686.60	688.40	35.24	30.81	7.959	CC
# 106H - Original Drilling - APD	700.00	701.74	35.28	30.76	7.805	ES
# 106H - Original Drilling - APD	800.00	801.13	38.56	33.33	7.381	SF
# 108H - Original Drilling - APD	400.00	400.00	60.14	57.68	24.456	CC
# 108H - Original Drilling - APD	425.00	424.76	60.19	57.55	22.821	ES
# 108H - Original Drilling - APD	700.00	694.39	75.80	71.24	16.647	SF
# 117H - Original Drilling - APD	400.00	400.00	20.05	17.59	8.152	CC
# 117H - Original Drilling - APD	425.00	424.89	20.12	17.48	7.631	ES
# 117H - Original Drilling - APD	13,393.39	13,492.31	658.75	247.29	1.601	SF
# 118H - Original Drilling - APD	425.00	425.00	80.00	77.36	30.320	CC, ES
# 118H - Original Drilling - APD	700.00	691.51	96.83	92.29	21.329	SF

Offset Design C20 2408 Pad - # 105H - Original Drilling - APD

Survey Program: 0-MWD+HDGM

Offset Site Error: 0.00 usft
Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	139.02	-14.93	12.96	19.77				
100.00	100.00	100.00	100.00	0.15	0.15	139.02	-14.93	12.96	19.77	19.46	0.31	64.127	
200.00	200.00	200.00	200.00	0.51	0.51	139.02	-14.93	12.96	19.77	18.74	1.03	19.283	
300.00	300.00	300.00	300.00	0.87	0.87	139.02	-14.93	12.96	19.77	18.03	1.74	11.348	
400.00	400.00	400.00	400.00	1.23	1.23	139.02	-14.93	12.96	19.77	17.31	2.46	8.039	CC
425.00	425.00	424.86	424.86	1.32	1.31	139.21	-15.03	12.97	19.86	17.22	2.63	7.539	ES
500.00	499.99	499.43	499.41	1.58	1.57	-72.86	-16.65	13.09	20.88	17.73	3.15	6.636	
600.00	599.89	598.77	598.61	1.91	1.91	-75.39	-21.80	13.48	23.80	19.99	3.81	6.241	
700.00	699.58	697.95	697.42	2.26	2.25	-79.56	-30.36	14.12	28.64	24.14	4.50	6.362	
800.00	798.93	796.91	795.64	2.62	2.61	-83.99	-42.30	15.01	35.53	30.32	5.21	6.817	
900.00	897.83	895.58	893.11	3.00	2.98	-87.92	-57.56	16.15	44.58	38.62	5.95	7.488	
965.11	961.91	959.63	956.08	3.25	3.24	-90.09	-69.26	17.03	51.63	45.18	6.45	8.000	

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 105H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,000.00	996.19	994.20	989.98	3.40	3.38	-91.12	-76.02	17.53	55.71	48.98	6.73	8.277	
1,100.00	1,094.42	1,093.48	1,087.32	3.81	3.79	-93.35	-95.46	18.98	67.48	59.94	7.54	8.948	
1,200.00	1,192.64	1,192.75	1,184.66	4.22	4.21	-94.92	-114.90	20.44	79.32	70.96	8.37	9.480	
1,300.00	1,290.87	1,292.03	1,282.01	4.65	4.64	-96.08	-134.34	21.89	91.21	82.00	9.21	9.907	
1,400.00	1,389.10	1,391.30	1,379.35	5.08	5.07	-96.98	-153.78	23.34	103.13	93.07	10.05	10.258	
1,500.00	1,487.33	1,490.58	1,476.69	5.51	5.51	-97.69	-173.22	24.80	115.06	104.15	10.91	10.549	
1,600.00	1,585.56	1,589.86	1,574.04	5.95	5.95	-98.26	-192.66	26.25	127.01	115.24	11.77	10.794	
1,700.00	1,683.78	1,689.13	1,671.38	6.38	6.39	-98.74	-212.10	27.70	138.97	126.34	12.63	11.003	
1,800.00	1,782.01	1,788.41	1,768.72	6.82	6.83	-99.14	-231.54	29.15	150.94	137.44	13.50	11.183	
1,900.00	1,880.24	1,887.69	1,866.07	7.26	7.28	-99.48	-250.98	30.61	162.91	148.54	14.37	11.339	
2,000.00	1,978.47	1,986.96	1,963.41	7.70	7.72	-99.77	-270.42	32.06	174.89	159.65	15.24	11.476	
2,100.00	2,076.70	2,086.24	2,060.75	8.15	8.17	-100.03	-289.86	33.51	186.87	170.76	16.11	11.597	
2,200.00	2,174.92	2,185.51	2,158.10	8.59	8.61	-100.26	-309.30	34.97	198.86	181.87	16.99	11.705	
2,300.00	2,273.15	2,284.79	2,255.44	9.03	9.06	-100.46	-328.74	36.42	210.85	192.98	17.87	11.801	
2,400.00	2,371.38	2,384.07	2,352.79	9.48	9.51	-100.64	-348.18	37.87	222.84	204.09	18.74	11.888	
2,500.00	2,469.61	2,483.34	2,450.13	9.93	9.96	-100.80	-367.62	39.32	234.83	215.21	19.62	11.967	
2,600.00	2,567.84	2,582.62	2,547.47	10.37	10.41	-100.94	-387.05	40.78	246.82	226.32	20.50	12.038	
2,700.00	2,666.06	2,681.90	2,644.82	10.82	10.86	-101.07	-406.49	42.23	258.82	237.43	21.39	12.103	
2,800.00	2,764.29	2,781.17	2,742.16	11.26	11.31	-101.19	-425.93	43.68	270.82	248.55	22.27	12.162	
2,900.00	2,862.52	2,880.45	2,839.50	11.71	11.76	-101.30	-445.37	45.14	282.81	259.66	23.15	12.217	
3,000.00	2,960.75	2,979.72	2,936.85	12.16	12.21	-101.41	-464.81	46.59	294.81	270.78	24.03	12.267	
3,100.00	3,058.98	3,079.00	3,034.19	12.61	12.66	-101.50	-484.25	48.04	306.81	281.90	24.92	12.314	
3,200.00	3,157.20	3,178.28	3,131.53	13.05	13.11	-101.58	-503.69	49.49	318.81	293.01	25.80	12.357	
3,300.00	3,255.43	3,277.55	3,228.88	13.50	13.56	-101.66	-523.13	50.95	330.81	304.13	26.68	12.397	
3,400.00	3,353.66	3,376.83	3,326.22	13.95	14.02	-101.74	-542.57	52.40	342.82	315.25	27.57	12.435	
3,500.00	3,451.89	3,476.11	3,423.56	14.40	14.47	-101.81	-562.01	53.85	354.82	326.36	28.45	12.470	
3,600.00	3,550.12	3,575.38	3,520.91	14.84	14.92	-101.87	-581.45	55.31	366.82	337.48	29.34	12.503	
3,700.00	3,648.34	3,674.66	3,618.25	15.29	15.37	-101.93	-600.89	56.76	378.82	348.60	30.23	12.533	
3,800.00	3,746.57	3,773.93	3,715.60	15.74	15.82	-101.99	-620.33	58.21	390.83	359.72	31.11	12.562	
3,900.00	3,844.80	3,873.21	3,812.94	16.19	16.28	-102.04	-639.77	59.66	402.83	370.83	32.00	12.590	
4,000.00	3,943.03	3,972.49	3,910.28	16.64	16.73	-102.09	-659.21	61.12	414.84	381.95	32.88	12.615	
4,100.00	4,041.26	4,071.76	4,007.63	17.09	17.18	-102.14	-678.65	62.57	426.84	393.07	33.77	12.640	
4,200.00	4,139.48	4,171.04	4,104.97	17.54	17.63	-102.19	-698.09	64.02	438.85	404.19	34.66	12.663	
4,300.00	4,237.71	4,270.32	4,202.31	17.99	18.09	-102.23	-717.53	65.48	450.85	415.31	35.54	12.684	
4,400.00	4,335.94	4,369.59	4,299.66	18.44	18.54	-102.27	-736.96	66.93	462.86	426.42	36.43	12.705	
4,500.00	4,434.17	4,468.87	4,397.00	18.88	18.99	-102.31	-756.40	68.38	474.86	437.54	37.32	12.725	
4,600.00	4,532.40	4,568.14	4,494.34	19.33	19.45	-102.34	-775.84	69.83	486.87	448.66	38.21	12.743	
4,700.00	4,630.62	4,667.42	4,591.69	19.78	19.90	-102.38	-795.28	71.29	498.87	459.78	39.09	12.761	
4,800.00	4,728.85	4,899.22	4,820.37	20.23	20.77	-103.76	-821.94	55.67	504.00	464.19	39.81	12.659	
4,826.63	4,755.01	4,987.61	4,906.01	20.35	20.97	-105.41	-816.85	34.71	498.65	459.60	39.05	12.770	
4,850.00	4,777.94	5,058.51	4,972.37	20.46	21.10	-97.61	-806.51	12.08	491.16	453.07	38.09	12.896	
4,900.00	4,826.74	5,181.81	5,080.19	20.69	21.26	-87.90	-775.71	-38.71	467.13	431.25	35.88	13.018	
4,950.00	4,874.93	5,267.54	5,147.71	20.91	21.34	-86.50	-745.22	-81.73	435.95	401.60	34.35	12.690	
5,000.00	4,922.22	5,324.02	5,188.14	21.14	21.38	-90.11	-721.37	-113.10	401.30	367.52	33.79	11.877	
5,050.00	4,968.31	5,359.80	5,211.92	21.37	21.42	-95.49	-704.81	-134.08	365.87	331.77	34.10	10.729	
5,100.00	5,012.92	5,381.23	5,225.44	21.59	21.44	-100.40	-694.38	-147.03	331.76	296.63	35.12	9.445	
5,150.00	5,055.77	5,392.59	5,232.38	21.82	21.45	-103.80	-688.70	-154.00	300.85	264.21	36.64	8.211	
5,200.00	5,096.60	5,396.74	5,234.88	22.04	21.45	-105.45	-686.60	-156.57	275.07	236.71	38.37	7.169	
5,250.00	5,135.16	5,395.61	5,234.20	22.26	21.45	-105.44	-687.17	-155.87	256.39	216.49	39.90	6.425	
5,300.00	5,171.21	5,390.51	5,231.13	22.49	21.45	-103.92	-689.75	-152.72	246.50	205.73	40.77	6.046	
5,325.89	5,188.82	5,386.63	5,228.76	22.61	21.44	-102.61	-691.69	-150.34	245.18	204.33	40.85	6.002	SF

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 105H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,350.00	5,204.53	5,382.38	5,226.15	22.73	21.44	-101.08	-693.81	-147.73	246.32	205.64	40.67	6.056	
5,400.00	5,234.91	5,371.88	5,219.61	22.97	21.43	-97.05	-698.98	-141.35	255.55	215.87	39.68	6.440	
5,450.00	5,262.17	5,359.50	5,211.73	23.23	21.42	-92.03	-704.96	-133.90	272.85	234.66	38.19	7.145	
5,500.00	5,286.13	5,350.00	5,205.56	23.52	21.41	-87.14	-709.45	-128.25	296.40	259.65	36.76	8.064	
5,550.00	5,306.66	5,330.48	5,192.55	23.84	21.39	-79.98	-718.46	-116.83	324.27	288.98	35.29	9.189	
5,600.00	5,323.61	5,314.34	5,181.46	24.20	21.37	-73.59	-725.66	-107.57	355.07	320.79	34.28	10.359	
5,650.00	5,336.90	5,300.00	5,171.37	24.62	21.36	-67.76	-731.87	-99.49	387.62	353.92	33.70	11.502	
5,700.00	5,346.43	5,279.66	5,156.67	25.09	21.35	-61.58	-740.35	-88.27	421.03	387.82	33.21	12.677	
5,750.00	5,352.15	5,261.36	5,143.08	25.62	21.33	-56.36	-747.65	-78.44	454.71	421.64	33.07	13.751	
5,804.54	5,354.00	5,250.00	5,134.47	26.26	21.32	-52.17	-752.03	-72.46	491.34	457.87	33.47	14.680	
5,900.00	5,353.22	5,200.00	5,095.09	27.54	21.28	-48.12	-769.84	-47.35	557.36	524.10	33.26	16.757	
6,000.00	5,352.40	5,175.82	5,075.22	29.07	21.25	-46.30	-777.57	-35.93	631.56	597.52	34.05	18.549	
6,100.00	5,351.59	5,150.00	5,053.47	30.77	21.22	-44.46	-785.17	-24.29	709.92	675.25	34.67	20.477	
6,200.00	5,350.77	5,125.16	5,032.03	32.60	21.19	-42.79	-791.83	-13.65	791.51	756.30	35.21	22.480	
6,300.00	5,349.95	5,100.00	5,009.86	34.54	21.16	-41.19	-797.93	-3.45	875.73	840.08	35.65	24.567	
6,400.00	5,349.14	5,100.00	5,009.86	36.57	21.16	-41.19	-797.93	-3.45	962.25	925.75	36.50	26.367	

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 106H - Original Drilling - APD — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.29	30.58	-25.92	40.09				
100.00	100.00	100.00	100.00	0.15	0.15	-40.29	30.58	-25.92	40.09	39.78	0.31	130.040	
200.00	200.00	200.00	200.00	0.51	0.51	-40.29	30.58	-25.92	40.09	39.06	1.03	39.103	
300.00	300.00	300.00	300.00	0.87	0.87	-40.29	30.58	-25.92	40.09	38.35	1.74	23.011	
400.00	400.00	400.00	400.00	1.23	1.23	-40.29	30.58	-25.92	40.09	37.63	2.46	16.302	
425.00	425.00	425.00	425.00	1.32	1.32	-40.29	30.58	-25.92	40.09	37.45	2.64	15.195	
500.00	499.99	501.05	501.04	1.58	1.58	108.94	29.81	-25.27	39.40	36.24	3.16	12.481	
600.00	599.89	602.09	601.98	1.91	1.93	115.69	26.43	-22.40	36.67	32.84	3.83	9.572	
686.60	686.23	688.40	688.15	2.22	2.22	126.54	22.65	-19.19	35.24	30.81	4.43	7.959	CC
700.00	699.58	701.74	701.47	2.26	2.27	128.58	22.07	-18.70	35.28	30.76	4.52	7.805	ES
800.00	798.93	801.13	800.69	2.62	2.62	144.89	17.72	-15.01	38.56	33.33	5.22	7.381	SF
900.00	897.83	900.12	899.51	3.00	2.97	159.31	13.39	-11.33	47.66	41.72	5.94	8.026	
965.11	961.91	964.29	963.59	3.25	3.20	166.33	10.58	-8.94	56.55	50.14	6.41	8.828	
1,000.00	996.19	998.63	997.86	3.40	3.33	169.33	9.08	-7.67	61.98	55.32	6.66	9.311	
1,100.00	1,094.42	1,097.02	1,096.09	3.81	3.68	175.58	4.78	-4.01	78.20	70.83	7.37	10.612	
1,200.00	1,192.64	1,195.40	1,194.32	4.22	4.04	179.66	0.47	-0.36	95.02	86.93	8.09	11.750	
1,300.00	1,290.87	1,293.79	1,292.54	4.65	4.39	-177.49	-3.83	3.30	112.16	103.35	8.81	12.734	
1,400.00	1,389.10	1,392.18	1,390.77	5.08	4.75	-175.40	-8.13	6.95	129.50	119.97	9.53	13.584	
1,500.00	1,487.33	1,490.57	1,489.00	5.51	5.11	-173.81	-12.44	10.61	146.97	136.71	10.26	14.323	
1,600.00	1,585.56	1,588.96	1,587.22	5.95	5.47	-172.55	-16.74	14.27	164.53	153.54	10.99	14.968	
1,700.00	1,683.78	1,687.35	1,685.45	6.38	5.83	-171.54	-21.05	17.92	182.15	170.42	11.73	15.535	
1,800.00	1,782.01	1,785.74	1,783.68	6.82	6.19	-170.71	-25.35	21.58	199.81	187.35	12.46	16.037	
1,900.00	1,880.24	1,884.13	1,881.91	7.26	6.55	-170.01	-29.65	25.23	217.51	204.32	13.20	16.483	
2,000.00	1,978.47	1,982.52	1,980.13	7.70	6.91	-169.41	-33.96	28.89	235.24	221.31	13.93	16.883	
2,100.00	2,076.70	2,080.91	2,078.36	8.15	7.27	-168.90	-38.26	32.54	252.99	238.31	14.67	17.243	
2,200.00	2,174.92	2,179.30	2,176.59	8.59	7.64	-168.46	-42.57	36.20	270.75	255.34	15.41	17.569	
2,300.00	2,273.15	2,277.69	2,274.81	9.03	8.00	-168.07	-46.87	39.85	288.53	272.38	16.15	17.865	
2,400.00	2,371.38	2,376.08	2,373.04	9.48	8.36	-167.73	-51.17	43.51	306.32	289.42	16.89	18.135	
2,500.00	2,469.61	2,474.47	2,471.27	9.93	8.72	-167.42	-55.48	47.16	324.11	306.48	17.63	18.382	
2,600.00	2,567.84	2,572.86	2,569.50	10.37	9.08	-167.15	-59.78	50.82	341.92	323.55	18.37	18.609	
2,700.00	2,666.06	2,671.25	2,667.72	10.82	9.44	-166.90	-64.09	54.48	359.73	340.62	19.12	18.819	
2,800.00	2,764.29	2,769.64	2,765.95	11.26	9.81	-166.68	-68.39	58.13	377.55	357.69	19.86	19.012	
2,900.00	2,862.52	2,868.02	2,864.18	11.71	10.17	-166.47	-72.69	61.79	395.38	374.78	20.60	19.192	
3,000.00	2,960.75	2,966.41	2,962.41	12.16	10.53	-166.29	-77.00	65.44	413.21	391.86	21.34	19.359	
3,100.00	3,058.98	3,064.80	3,060.63	12.61	10.89	-166.12	-81.30	69.10	431.04	408.95	22.09	19.515	
3,200.00	3,157.20	3,163.19	3,158.86	13.05	11.25	-165.96	-85.61	72.75	448.87	426.04	22.83	19.660	
3,300.00	3,255.43	3,261.58	3,257.09	13.50	11.62	-165.81	-89.91	76.41	466.71	443.14	23.58	19.796	
3,400.00	3,353.66	3,359.97	3,355.31	13.95	11.98	-165.68	-94.21	80.06	484.55	460.23	24.32	19.924	
3,500.00	3,451.89	3,458.36	3,453.54	14.40	12.34	-165.55	-98.52	83.72	502.40	477.33	25.06	20.044	
3,600.00	3,550.12	3,556.75	3,551.77	14.84	12.70	-165.44	-102.82	87.37	520.24	494.44	25.81	20.158	
3,700.00	3,648.34	3,655.14	3,650.00	15.29	13.06	-165.33	-107.13	91.03	538.09	511.54	26.55	20.264	
3,800.00	3,746.57	3,753.53	3,748.22	15.74	13.43	-165.23	-111.43	94.69	555.94	528.64	27.30	20.365	
3,900.00	3,844.80	3,851.92	3,846.45	16.19	13.79	-165.13	-115.73	98.34	573.79	545.75	28.04	20.461	
4,000.00	3,943.03	3,950.31	3,944.68	16.64	14.15	-165.04	-120.04	102.00	591.65	562.86	28.79	20.551	
4,100.00	4,041.26	4,048.70	4,042.90	17.09	14.51	-164.96	-124.34	105.65	609.50	579.97	29.53	20.637	
4,200.00	4,139.48	4,147.09	4,141.13	17.54	14.88	-164.88	-128.65	109.31	627.36	597.08	30.28	20.719	
4,300.00	4,237.71	4,245.48	4,239.36	17.99	15.24	-164.80	-132.95	112.96	645.21	614.19	31.03	20.796	
4,400.00	4,335.94	4,343.87	4,337.59	18.44	15.60	-164.73	-137.25	116.62	663.07	631.30	31.77	20.870	
4,500.00	4,434.17	4,442.25	4,435.81	18.88	15.96	-164.67	-141.56	120.27	680.93	648.41	32.52	20.941	
4,600.00	4,532.40	4,541.82	4,535.26	19.33	16.32	-164.69	-145.13	123.21	698.76	665.50	33.26	21.009	
4,700.00	4,630.62	4,641.71	4,634.72	19.78	16.63	-165.74	-139.73	117.36	716.35	682.42	33.92	21.116	

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 106H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,728.85	4,735.59	4,726.01	20.23	16.89	-167.78	-124.58	102.01	734.39	699.89	34.50	21.288	
4,826.63	4,755.01	4,759.15	4,748.33	20.35	16.96	-168.44	-119.29	96.69	739.45	704.81	34.63	21.350	
4,850.00	4,777.94	4,779.08	4,767.00	20.46	17.01	-158.48	-114.34	91.75	744.03	709.28	34.75	21.412	
4,900.00	4,826.74	4,818.50	4,803.22	20.69	17.12	-141.92	-103.35	80.78	754.52	719.56	34.96	21.582	
4,950.00	4,874.93	4,850.00	4,831.44	20.91	17.21	-130.97	-93.43	70.90	766.32	731.22	35.10	21.830	
5,000.00	4,922.22	4,882.42	4,859.72	21.14	17.30	-123.99	-82.18	59.73	779.81	744.57	35.23	22.132	
5,050.00	4,968.31	4,906.78	4,880.42	21.37	17.37	-118.87	-73.06	50.68	795.32	760.04	35.28	22.541	
5,100.00	5,012.92	4,926.38	4,896.70	21.59	17.43	-114.80	-65.31	43.01	813.06	777.79	35.27	23.052	
5,150.00	5,055.77	4,941.61	4,909.12	21.82	17.48	-111.19	-59.05	36.81	833.09	797.89	35.20	23.670	
5,200.00	5,096.60	4,950.00	4,915.87	22.04	17.51	-107.51	-55.51	33.30	855.40	820.36	35.04	24.412	
5,250.00	5,135.16	4,960.72	4,924.39	22.26	17.54	-104.20	-50.89	28.73	879.82	844.90	34.92	25.198	
5,300.00	5,171.21	4,965.45	4,928.12	22.49	17.56	-100.52	-48.82	26.69	906.19	871.45	34.74	26.087	
5,350.00	5,204.53	4,967.48	4,929.72	22.73	17.56	-96.65	-47.93	25.80	934.23	899.68	34.55	27.039	
5,400.00	5,234.91	4,967.16	4,929.46	22.97	17.56	-92.59	-48.07	25.94	963.66	929.29	34.37	28.035	
5,450.00	5,262.17	4,964.77	4,927.59	23.23	17.56	-88.39	-49.12	26.98	994.19	959.97	34.22	29.054	

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 108H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.30	45.87	-38.89	60.14				
100.00	100.00	100.00	100.00	0.15	0.15	-40.30	45.87	-38.89	60.14	59.83	0.31	195.077	
200.00	200.00	200.00	200.00	0.51	0.51	-40.30	45.87	-38.89	60.14	59.11	1.03	58.660	
300.00	300.00	300.00	300.00	0.87	0.87	-40.30	45.87	-38.89	60.14	58.40	1.74	34.520	
400.00	400.00	400.00	400.00	1.23	1.23	-40.30	45.87	-38.89	60.14	57.68	2.46	24.456	CC
425.00	425.00	424.76	424.76	1.32	1.32	-40.21	45.97	-38.85	60.19	57.55	2.64	22.821	ES
500.00	499.99	498.98	498.96	1.58	1.58	109.81	47.45	-38.23	61.27	58.11	3.16	19.386	
600.00	599.89	597.34	597.18	1.91	1.94	117.13	52.13	-36.26	65.83	61.98	3.85	17.093	
700.00	699.58	694.39	693.87	2.26	2.29	127.24	59.80	-33.04	75.80	71.24	4.55	16.647	SF
800.00	798.93	789.48	788.28	2.62	2.64	137.27	70.24	-28.65	92.92	87.67	5.26	17.683	
900.00	897.83	884.59	882.42	3.00	3.00	145.53	82.76	-23.38	117.06	111.10	5.96	19.645	
965.11	961.91	946.39	943.57	3.25	3.24	149.67	90.95	-19.94	135.36	128.94	6.42	21.083	
1,000.00	996.19	979.38	976.22	3.40	3.36	151.63	95.32	-18.10	145.74	139.08	6.66	21.867	
1,100.00	1,094.42	1,073.92	1,069.78	3.81	3.73	155.96	107.86	-12.82	176.17	168.82	7.35	23.958	
1,200.00	1,192.64	1,168.47	1,163.34	4.22	4.10	159.01	120.40	-7.55	207.25	199.21	8.05	25.758	
1,300.00	1,290.87	1,263.02	1,256.91	4.65	4.48	161.28	132.93	-2.28	238.73	229.99	8.74	27.310	
1,400.00	1,389.10	1,357.56	1,350.47	5.08	4.85	163.01	145.47	2.99	270.47	261.03	9.44	28.653	
1,500.00	1,487.33	1,452.11	1,444.03	5.51	5.23	164.38	158.01	8.26	302.39	292.25	10.14	29.823	
1,600.00	1,585.56	1,546.66	1,537.60	5.95	5.60	165.49	170.54	13.54	334.43	323.59	10.84	30.848	
1,700.00	1,683.78	1,641.20	1,631.16	6.38	5.98	166.41	183.08	18.81	366.56	355.02	11.54	31.751	
1,800.00	1,782.01	1,735.75	1,724.72	6.82	6.36	167.18	195.61	24.08	398.77	386.52	12.25	32.553	
1,900.00	1,880.24	1,830.30	1,818.29	7.26	6.74	167.83	208.15	29.35	431.03	418.08	12.96	33.269	
2,000.00	1,978.47	1,924.84	1,911.85	7.70	7.12	168.40	220.69	34.62	463.34	449.68	13.66	33.911	
2,100.00	2,076.70	2,019.39	2,005.41	8.15	7.50	168.89	233.22	39.90	495.68	481.31	14.37	34.490	
2,200.00	2,174.92	2,113.94	2,098.98	8.59	7.88	169.32	245.76	45.17	528.05	512.97	15.08	35.015	
2,300.00	2,273.15	2,208.48	2,192.54	9.03	8.26	169.70	258.30	50.44	560.44	544.65	15.79	35.493	
2,400.00	2,371.38	2,303.03	2,286.10	9.48	8.64	170.04	270.83	55.71	592.85	576.35	16.50	35.929	
2,500.00	2,469.61	2,397.57	2,379.67	9.93	9.03	170.34	283.37	60.98	625.28	608.07	17.21	36.329	
2,600.00	2,567.84	2,492.12	2,473.23	10.37	9.41	170.61	295.90	66.26	657.72	639.80	17.92	36.698	
2,700.00	2,666.06	2,586.67	2,566.79	10.82	9.79	170.86	308.44	71.53	690.18	671.54	18.63	37.037	
2,800.00	2,764.29	2,681.21	2,660.36	11.26	10.17	171.09	320.98	76.80	722.64	703.30	19.35	37.352	
2,900.00	2,862.52	2,775.76	2,753.92	11.71	10.55	171.30	333.51	82.07	755.12	735.06	20.06	37.644	
3,000.00	2,960.75	2,870.31	2,847.48	12.16	10.93	171.48	346.05	87.34	787.60	766.83	20.77	37.915	
3,100.00	3,058.98	2,964.85	2,941.05	12.61	11.32	171.66	358.59	92.62	820.09	798.60	21.49	38.169	
3,200.00	3,157.20	3,059.40	3,034.61	13.05	11.70	171.82	371.12	97.89	852.59	830.39	22.20	38.406	
3,300.00	3,255.43	3,153.95	3,128.17	13.50	12.08	171.97	383.66	103.16	885.09	862.17	22.91	38.627	
3,400.00	3,353.66	3,248.49	3,221.74	13.95	12.46	172.11	396.19	108.43	917.59	893.97	23.63	38.836	
3,500.00	3,451.89	3,343.04	3,315.30	14.40	12.85	172.24	408.73	113.70	950.11	925.76	24.34	39.032	
3,600.00	3,550.12	3,437.59	3,408.86	14.84	13.23	172.36	421.27	118.98	982.62	957.56	25.06	39.216	

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 117H - Original Drilling - APD — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.30	15.29	-12.96	20.05				
100.00	100.00	100.00	100.00	0.15	0.15	-40.30	15.29	-12.96	20.05	19.74	0.31	65.023	
200.00	200.00	200.00	200.00	0.51	0.51	-40.30	15.29	-12.96	20.05	19.02	1.03	19.553	
300.00	300.00	300.00	300.00	0.87	0.87	-40.30	15.29	-12.96	20.05	18.30	1.74	11.506	
400.00	400.00	400.00	400.00	1.23	1.23	-40.30	15.29	-12.96	20.05	17.59	2.46	8.152	CC
425.00	425.00	424.89	424.89	1.32	1.32	-40.53	15.29	-13.07	20.12	17.48	2.64	7.631	ES
500.00	499.99	499.52	499.50	1.58	1.58	106.46	15.28	-14.69	21.46	18.30	3.16	6.801	
600.00	599.89	599.04	598.88	1.91	1.93	107.14	15.24	-19.75	26.03	22.19	3.84	6.779	
700.00	699.58	698.80	698.46	2.26	2.28	112.21	15.20	-25.73	32.35	27.81	4.54	7.123	
800.00	798.93	798.33	797.82	2.62	2.64	119.99	15.16	-31.70	40.48	35.22	5.26	7.697	
900.00	897.83	897.53	896.84	3.00	3.00	128.22	15.12	-37.65	51.20	45.22	5.99	8.551	
965.11	961.91	961.87	961.07	3.25	3.23	133.20	15.10	-41.51	59.85	53.39	6.47	9.255	
1,000.00	996.19	996.30	995.43	3.40	3.36	135.62	15.08	-43.58	64.92	58.20	6.72	9.656	
1,100.00	1,094.42	1,094.95	1,093.91	3.81	3.72	140.82	15.05	-49.49	79.93	72.47	7.45	10.723	
1,200.00	1,192.64	1,193.61	1,192.38	4.22	4.08	144.36	15.01	-55.41	95.37	87.18	8.19	11.651	
1,300.00	1,290.87	1,292.26	1,290.86	4.65	4.44	146.91	14.97	-61.33	111.07	102.15	8.92	12.453	
1,400.00	1,389.10	1,390.92	1,389.34	5.08	4.80	148.82	14.93	-67.24	126.93	117.28	9.65	13.148	
1,500.00	1,487.33	1,489.58	1,487.82	5.51	5.16	150.31	14.89	-73.16	142.90	132.51	10.39	13.753	
1,600.00	1,585.56	1,588.23	1,586.30	5.95	5.52	151.50	14.85	-79.08	158.95	147.82	11.13	14.283	
1,700.00	1,683.78	1,686.89	1,684.78	6.38	5.88	152.48	14.81	-85.00	175.05	163.18	11.87	14.751	
1,800.00	1,782.01	1,785.54	1,783.26	6.82	6.24	153.28	14.77	-90.91	191.19	178.58	12.61	15.166	
1,900.00	1,880.24	1,884.20	1,881.73	7.26	6.61	153.97	14.73	-96.83	207.36	194.01	13.35	15.536	
2,000.00	1,978.47	1,982.86	1,980.21	7.70	6.97	154.55	14.69	-102.75	223.55	209.47	14.09	15.869	
2,100.00	2,076.70	2,081.51	2,078.69	8.15	7.33	155.05	14.65	-108.67	239.77	224.94	14.83	16.169	
2,200.00	2,174.92	2,180.17	2,177.17	8.59	7.69	155.50	14.61	-114.58	256.00	240.43	15.57	16.441	
2,300.00	2,273.15	2,278.82	2,275.65	9.03	8.06	155.88	14.57	-120.50	272.24	255.93	16.31	16.689	
2,400.00	2,371.38	2,377.48	2,374.13	9.48	8.42	156.23	14.53	-126.42	288.50	271.44	17.06	16.915	
2,500.00	2,469.61	2,476.14	2,472.60	9.93	8.78	156.54	14.49	-132.34	304.76	286.97	17.80	17.123	
2,600.00	2,567.84	2,574.79	2,571.08	10.37	9.15	156.81	14.45	-138.25	321.04	302.49	18.54	17.314	
2,700.00	2,666.06	2,673.45	2,669.56	10.82	9.51	157.06	14.41	-144.17	337.31	318.03	19.29	17.490	
2,800.00	2,764.29	2,772.10	2,768.04	11.26	9.87	157.29	14.37	-150.09	353.60	333.57	20.03	17.654	
2,900.00	2,862.52	2,870.76	2,866.52	11.71	10.24	157.49	14.33	-156.01	369.89	349.11	20.77	17.806	
3,000.00	2,960.75	2,969.42	2,965.00	12.16	10.60	157.68	14.29	-161.92	386.18	364.66	21.52	17.947	
3,100.00	3,058.98	3,068.07	3,063.47	12.61	10.96	157.86	14.25	-167.84	402.48	380.22	22.26	18.079	
3,200.00	3,157.20	3,166.73	3,161.95	13.05	11.33	158.02	14.21	-173.76	418.78	395.77	23.01	18.203	
3,300.00	3,255.43	3,265.38	3,260.43	13.50	11.69	158.17	14.18	-179.67	435.08	411.33	23.75	18.318	
3,400.00	3,353.66	3,364.04	3,358.91	13.95	12.05	158.31	14.14	-185.59	451.39	426.89	24.50	18.427	
3,500.00	3,451.89	3,462.70	3,457.39	14.40	12.42	158.43	14.10	-191.51	467.70	442.46	25.24	18.529	
3,600.00	3,550.12	3,561.35	3,555.87	14.84	12.78	158.55	14.06	-197.43	484.01	458.02	25.99	18.626	
3,700.00	3,648.34	3,660.01	3,654.34	15.29	13.14	158.66	14.02	-203.34	500.32	473.59	26.73	18.717	
3,800.00	3,746.57	3,758.66	3,752.82	15.74	13.51	158.77	13.98	-209.26	516.63	489.16	27.48	18.803	
3,900.00	3,844.80	3,857.32	3,851.30	16.19	13.87	158.87	13.94	-215.18	532.95	504.73	28.22	18.884	
4,000.00	3,943.03	3,955.98	3,949.78	16.64	14.23	158.96	13.90	-221.10	549.27	520.30	28.97	18.962	
4,100.00	4,041.26	4,054.63	4,048.26	17.09	14.60	159.05	13.86	-227.01	565.58	535.87	29.71	19.035	
4,200.00	4,139.48	4,153.29	4,146.74	17.54	14.96	159.13	13.82	-232.93	581.90	551.45	30.46	19.105	
4,300.00	4,237.71	4,251.94	4,245.21	17.99	15.32	159.21	13.78	-238.85	598.23	567.02	31.20	19.171	
4,400.00	4,335.94	4,350.60	4,343.69	18.44	15.69	159.28	13.74	-244.77	614.55	582.60	31.95	19.235	
4,500.00	4,434.17	4,449.26	4,442.17	18.88	16.05	159.35	13.70	-250.68	630.87	598.17	32.70	19.295	
4,600.00	4,532.40	4,602.02	4,594.60	19.33	16.58	159.99	8.44	-254.75	645.42	611.75	33.67	19.172	
4,700.00	4,630.62	4,813.33	4,796.81	19.78	17.19	164.99	-38.58	-220.94	644.90	610.82	34.08	18.921	
4,800.00	4,728.85	4,979.61	4,936.08	20.23	17.58	172.61	-106.93	-162.43	632.84	598.46	34.38	18.405	

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 117H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,826.63	4,755.01	5,015.48	4,962.76	20.35	17.66	174.69	-124.85	-146.50	628.90	594.35	34.56	18.199	
4,850.00	4,777.94	5,044.80	4,983.53	20.46	17.75	-173.64	-140.24	-132.68	625.58	590.82	34.76	17.997	
4,900.00	4,826.74	5,103.21	5,021.99	20.69	18.00	-153.43	-172.77	-103.15	619.54	584.24	35.30	17.550	
4,950.00	4,874.93	5,156.76	5,053.58	20.91	18.30	-139.12	-204.59	-73.90	615.11	579.15	35.96	17.108	
5,000.00	4,922.22	5,206.42	5,079.54	21.14	18.63	-128.75	-235.60	-45.10	612.39	575.69	36.69	16.689	
5,050.00	4,968.31	5,252.95	5,100.80	21.37	19.00	-120.78	-265.80	-16.82	611.41	573.94	37.47	16.319	
5,053.50	4,971.49	5,256.11	5,102.13	21.38	19.02	-120.29	-267.89	-14.86	611.40	573.88	37.52	16.294	
5,100.00	5,012.92	5,296.94	5,118.08	21.59	19.39	-114.32	-295.21	10.94	612.13	573.89	38.24	16.007	
5,150.00	5,055.77	5,338.83	5,131.90	21.82	19.81	-108.84	-323.88	38.17	614.47	575.48	38.99	15.759	
5,200.00	5,096.60	5,378.98	5,142.68	22.04	20.25	-104.04	-351.83	64.89	618.31	578.61	39.69	15.578	
5,250.00	5,135.16	5,417.68	5,150.75	22.26	20.72	-99.72	-379.11	91.12	623.48	583.15	40.33	15.458	
5,300.00	5,171.21	5,455.15	5,156.37	22.49	21.19	-95.78	-405.75	116.86	629.83	588.92	40.92	15.393	
5,350.00	5,204.53	5,491.58	5,159.72	22.73	21.69	-92.15	-431.77	142.14	637.16	595.71	41.45	15.373	
5,400.00	5,234.91	5,527.12	5,161.00	22.97	22.20	-88.79	-457.17	166.94	645.28	603.35	41.93	15.389	
5,450.00	5,262.17	5,566.92	5,160.77	23.23	22.80	-85.48	-485.60	194.79	653.89	611.38	42.51	15.383	
5,500.00	5,286.13	5,610.39	5,160.44	23.52	23.48	-82.42	-516.65	225.22	662.35	619.15	43.20	15.331	
5,550.00	5,306.66	5,655.66	5,160.09	23.84	24.24	-79.77	-548.98	256.90	670.22	626.19	44.03	15.221	
5,600.00	5,323.61	5,702.45	5,159.73	24.20	25.03	-77.57	-582.41	289.65	677.16	632.18	44.98	15.055	
5,650.00	5,336.90	5,750.48	5,159.36	24.62	25.90	-75.83	-616.71	323.26	682.85	636.75	46.10	14.813	
5,700.00	5,346.43	5,799.45	5,158.98	25.09	26.80	-74.57	-651.68	357.53	687.06	639.71	47.35	14.510	
5,750.00	5,352.15	5,849.06	5,158.60	25.62	27.76	-73.80	-687.11	392.25	689.64	640.86	48.78	14.137	
5,804.54	5,354.00	5,903.54	5,158.18	26.26	28.82	-73.53	-726.03	430.38	690.47	639.97	50.51	13.671	
5,900.00	5,353.22	5,998.99	5,157.45	27.54	30.75	-73.52	-794.20	497.18	690.07	636.26	53.81	12.824	
6,000.00	5,352.40	6,098.99	5,156.68	29.07	32.86	-73.51	-865.62	567.17	689.66	632.16	57.49	11.996	
6,100.00	5,351.59	6,198.99	5,155.91	30.77	35.03	-73.51	-937.05	637.16	689.24	627.88	61.36	11.233	
6,200.00	5,350.77	6,298.99	5,155.14	32.60	37.25	-73.50	-1,008.47	707.14	688.82	623.44	65.38	10.536	
6,300.00	5,349.95	6,398.99	5,154.37	34.54	39.51	-73.50	-1,079.89	777.13	688.40	618.88	69.52	9.902	
6,400.00	5,349.14	6,498.99	5,153.60	36.57	41.81	-73.49	-1,151.31	847.12	687.98	614.21	73.77	9.326	
6,500.00	5,348.32	6,598.99	5,152.83	38.66	44.14	-73.48	-1,222.74	917.10	687.56	609.46	78.10	8.803	
6,600.00	5,347.50	6,698.98	5,152.06	40.82	46.50	-73.48	-1,294.16	987.09	687.15	604.64	82.51	8.328	
6,700.00	5,346.68	6,798.98	5,151.29	43.02	48.88	-73.47	-1,365.58	1,057.07	686.73	599.75	86.98	7.895	
6,800.00	5,345.87	6,898.98	5,150.52	45.27	51.28	-73.46	-1,437.00	1,127.06	686.31	594.81	91.50	7.501	
6,900.00	5,345.05	6,998.98	5,149.75	47.55	53.69	-73.46	-1,508.43	1,197.05	685.89	589.83	96.06	7.140	
7,000.00	5,344.23	7,098.98	5,148.98	49.86	56.12	-73.45	-1,579.85	1,267.03	685.47	584.81	100.67	6.809	
7,100.00	5,343.42	7,198.98	5,148.21	52.20	58.56	-73.45	-1,651.27	1,337.02	685.05	579.75	105.30	6.506	
7,200.00	5,342.60	7,298.98	5,147.44	54.57	61.01	-73.44	-1,722.69	1,407.00	684.64	574.67	109.97	6.226	
7,300.00	5,341.78	7,398.98	5,146.67	56.95	63.48	-73.43	-1,794.12	1,476.99	684.22	569.56	114.66	5.967	
7,400.00	5,340.97	7,498.98	5,145.90	59.35	65.95	-73.43	-1,865.54	1,546.98	683.80	564.43	119.37	5.728	
7,500.00	5,340.15	7,598.98	5,145.13	61.76	68.43	-73.42	-1,936.96	1,616.96	683.38	559.28	124.10	5.506	
7,600.00	5,339.33	7,698.98	5,144.36	64.19	70.91	-73.41	-2,008.38	1,686.95	682.96	554.11	128.85	5.300	
7,700.00	5,338.51	7,798.97	5,143.59	66.63	73.41	-73.41	-2,079.81	1,756.93	682.55	548.93	133.62	5.108	
7,800.00	5,337.70	7,898.97	5,142.82	69.08	75.90	-73.40	-2,151.23	1,826.92	682.13	543.73	138.40	4.929	
7,900.00	5,336.88	7,998.97	5,142.05	71.54	78.41	-73.40	-2,222.65	1,896.91	681.71	538.52	143.19	4.761	
8,000.00	5,336.06	8,098.97	5,141.28	74.00	80.91	-73.39	-2,294.07	1,966.89	681.29	533.30	147.99	4.604	
8,100.00	5,335.25	8,198.97	5,140.51	76.48	83.43	-73.38	-2,365.50	2,036.88	680.87	528.07	152.81	4.456	
8,200.00	5,334.43	8,298.97	5,139.74	78.96	85.94	-73.38	-2,436.92	2,106.87	680.45	522.83	157.63	4.317	
8,300.00	5,333.61	8,398.97	5,138.97	81.45	88.46	-73.37	-2,508.34	2,176.85	680.04	517.58	162.46	4.186	
8,400.00	5,332.80	8,498.97	5,138.21	83.95	90.98	-73.36	-2,579.76	2,246.84	679.62	512.32	167.30	4.062	
8,500.00	5,331.98	8,598.97	5,137.44	86.45	93.51	-73.36	-2,651.19	2,316.82	679.20	507.06	172.14	3.946	
8,600.00	5,331.16	8,698.97	5,136.67	88.95	96.04	-73.35	-2,722.61	2,386.81	678.78	501.79	176.99	3.835	

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

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 117H - Original Drilling - APD

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+HDGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.00	5,330.34	8,798.97	5,135.90	91.46	98.57	-73.34	-2,794.03	2,456.80	678.36	496.52	181.85	3.730	
8,800.00	5,329.53	8,898.96	5,135.13	93.97	101.10	-73.34	-2,865.45	2,526.78	677.95	491.24	186.71	3.631	
8,900.00	5,328.71	8,998.96	5,134.36	96.49	103.64	-73.33	-2,936.88	2,596.77	677.53	485.95	191.57	3.537	
9,000.00	5,327.89	9,098.96	5,133.59	99.01	106.18	-73.33	-3,008.30	2,666.75	677.11	480.66	196.45	3.447	
9,100.00	5,327.08	9,198.96	5,132.82	101.53	108.71	-73.32	-3,079.72	2,736.74	676.69	475.37	201.32	3.361	
9,200.00	5,326.26	9,298.96	5,132.05	104.06	111.26	-73.31	-3,151.14	2,806.73	676.27	470.07	206.20	3.280	
9,300.00	5,325.44	9,398.96	5,131.28	106.59	113.80	-73.31	-3,222.57	2,876.71	675.86	464.77	211.08	3.202	
9,400.00	5,324.63	9,498.96	5,130.51	109.12	116.34	-73.30	-3,293.99	2,946.70	675.44	459.47	215.97	3.128	
9,500.00	5,323.81	9,598.96	5,129.74	111.65	118.89	-73.29	-3,365.41	3,016.68	675.02	454.17	220.85	3.056	
9,600.00	5,322.99	9,698.96	5,128.97	114.19	121.43	-73.29	-3,436.83	3,086.67	674.60	448.86	225.74	2.988	
9,700.00	5,322.17	9,798.96	5,128.20	116.73	123.98	-73.28	-3,508.26	3,156.66	674.18	443.55	230.64	2.923	
9,800.00	5,321.36	9,898.96	5,127.43	119.27	126.53	-73.27	-3,579.68	3,226.64	673.77	438.23	235.53	2.861	
9,900.00	5,320.54	9,998.95	5,126.66	121.81	129.08	-73.27	-3,651.10	3,296.63	673.35	432.92	240.43	2.801	
10,000.00	5,319.72	10,098.95	5,125.89	124.35	131.63	-73.26	-3,722.52	3,366.62	672.93	427.60	245.33	2.743	
10,100.00	5,318.91	10,198.95	5,125.12	126.90	134.19	-73.25	-3,793.95	3,436.60	672.51	422.28	250.23	2.688	
10,200.00	5,318.09	10,298.95	5,124.35	129.45	136.74	-73.25	-3,865.37	3,506.59	672.09	416.96	255.14	2.634	
10,300.00	5,317.27	10,398.95	5,123.58	131.99	139.29	-73.24	-3,936.79	3,576.57	671.68	411.63	260.04	2.583	
10,400.00	5,316.46	10,498.95	5,122.81	134.54	141.85	-73.23	-4,008.21	3,646.56	671.26	406.31	264.95	2.534	
10,500.00	5,315.64	10,598.95	5,122.04	137.10	144.40	-73.23	-4,079.64	3,716.55	670.84	400.98	269.86	2.486	
10,600.00	5,314.82	10,698.95	5,121.27	139.65	146.96	-73.22	-4,151.06	3,786.53	670.42	395.65	274.77	2.440	
10,700.00	5,314.00	10,798.95	5,120.50	142.20	149.52	-73.21	-4,222.48	3,856.52	670.00	390.32	279.68	2.396	
10,800.00	5,313.19	10,898.95	5,119.73	144.75	152.08	-73.21	-4,293.90	3,926.50	669.59	384.99	284.59	2.353	
10,900.00	5,312.37	10,998.95	5,118.97	147.31	154.63	-73.20	-4,365.33	3,996.49	669.17	379.66	289.51	2.311	
11,000.00	5,311.55	11,098.95	5,118.20	149.87	157.19	-73.20	-4,436.75	4,066.48	668.75	374.33	294.42	2.271	
11,100.00	5,310.74	11,198.94	5,117.43	152.42	159.75	-73.19	-4,508.17	4,136.46	668.33	369.00	299.34	2.233	
11,200.00	5,309.92	11,298.94	5,116.66	154.98	162.31	-73.18	-4,579.59	4,206.45	667.91	363.66	304.25	2.195	
11,300.00	5,309.10	11,398.94	5,115.89	157.54	164.87	-73.18	-4,651.02	4,276.43	667.50	358.33	309.17	2.159	
11,400.00	5,308.29	11,498.94	5,115.12	160.10	167.44	-73.17	-4,722.44	4,346.42	667.08	352.99	314.09	2.124	
11,500.00	5,307.47	11,598.94	5,114.35	162.66	170.00	-73.16	-4,793.86	4,416.41	666.66	347.66	319.01	2.090	
11,600.00	5,306.65	11,698.94	5,113.58	165.22	172.56	-73.16	-4,865.28	4,486.39	666.24	342.32	323.92	2.057	
11,700.00	5,305.83	11,798.94	5,112.81	167.78	175.12	-73.15	-4,936.71	4,556.38	665.83	336.98	328.84	2.025	
11,800.00	5,305.02	11,898.94	5,112.04	170.34	177.69	-73.14	-5,008.13	4,626.36	665.41	331.64	333.77	1.994	
11,900.00	5,304.20	11,998.94	5,111.27	172.90	180.25	-73.14	-5,079.55	4,696.35	664.99	326.30	338.69	1.963	
12,000.00	5,303.38	12,098.94	5,110.50	175.47	182.81	-73.13	-5,150.97	4,766.34	664.57	320.96	343.61	1.934	
12,100.00	5,302.57	12,198.94	5,109.73	178.03	185.38	-73.12	-5,222.40	4,836.32	664.15	315.62	348.53	1.906	
12,200.00	5,301.75	12,298.93	5,108.96	180.60	187.94	-73.12	-5,293.82	4,906.31	663.74	310.28	353.45	1.878	
12,300.00	5,300.93	12,398.93	5,108.19	183.16	190.51	-73.11	-5,365.24	4,976.30	663.32	304.94	358.38	1.851	
12,400.00	5,300.12	12,498.93	5,107.42	185.73	193.07	-73.10	-5,436.66	5,046.28	662.90	299.60	363.30	1.825	
12,500.00	5,299.30	12,598.93	5,106.65	188.29	195.64	-73.10	-5,508.09	5,116.27	662.48	294.26	368.22	1.799	
12,600.00	5,298.48	12,698.93	5,105.88	190.86	198.20	-73.09	-5,579.51	5,186.25	662.07	288.92	373.15	1.774	
12,700.00	5,297.67	12,798.93	5,105.11	193.43	200.77	-73.08	-5,650.93	5,256.24	661.65	283.58	378.07	1.750	
12,800.00	5,296.85	12,898.93	5,104.34	195.99	203.34	-73.08	-5,722.35	5,326.23	661.23	278.23	383.00	1.726	
12,900.00	5,296.03	12,998.93	5,103.57	198.56	205.90	-73.07	-5,793.78	5,396.21	660.81	272.89	387.92	1.703	
13,000.00	5,295.21	13,098.93	5,102.80	201.13	208.47	-73.06	-5,865.20	5,466.20	660.39	267.55	392.84	1.681	
13,100.00	5,294.40	13,198.93	5,102.03	203.70	211.04	-73.06	-5,936.62	5,536.18	659.98	262.21	397.77	1.659	
13,200.00	5,293.58	13,298.93	5,101.26	206.27	213.60	-73.05	-6,008.04	5,606.17	659.56	256.86	402.70	1.638	
13,300.00	5,292.76	13,398.92	5,100.49	208.83	216.17	-73.04	-6,079.47	5,676.16	659.14	251.52	407.62	1.617	
13,393.39	5,292.00	13,492.31	5,099.78	210.44	218.57	-73.04	-6,146.17	5,741.51	658.75	247.29	411.46	1.601 SF	

DJR Operating

Scientific Drilling, Intl

Anticollision Report

Scientific Drilling

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well # 115H - Slot 2
Project:	Crow Canyon Unit	**TVD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Reference Site:	C20 2408 Pad	**MD Reference:**	GL 6700' & RKB 14' @ 6714.00usft (Aztec 920)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	# 115H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Offset Design C20 2408 Pad - # 118H - Original Drilling - APD — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.13	61.16	-51.56	80.00				
100.00	100.00	100.00	100.00	0.15	0.15	-40.13	61.16	-51.56	80.00	79.69	0.31	259.486	
200.00	200.00	200.00	200.00	0.51	0.51	-40.13	61.16	-51.56	80.00	78.97	1.03	78.027	
300.00	300.00	300.00	300.00	0.87	0.87	-40.13	61.16	-51.56	80.00	78.25	1.74	45.917	
400.00	400.00	400.00	400.00	1.23	1.23	-40.13	61.16	-51.56	80.00	77.54	2.46	32.530	
425.00	425.00	425.00	425.00	1.32	1.32	-40.13	61.16	-51.56	80.00	77.36	2.64	30.320	CC, ES
500.00	499.99	498.21	498.21	1.58	1.58	108.67	62.08	-51.70	81.12	77.97	3.16	25.684	
600.00	599.89	595.39	595.29	1.91	1.93	112.63	66.17	-52.32	86.41	82.56	3.85	22.471	
700.00	699.58	691.51	691.13	2.26	2.28	118.55	73.41	-53.41	96.83	92.29	4.54	21.329	SF
800.00	798.93	786.02	785.06	2.62	2.63	124.97	83.62	-54.95	113.32	108.08	5.24	21.643	
900.00	897.83	879.21	877.31	3.00	2.97	130.85	96.63	-56.91	136.34	130.41	5.93	22.989	
965.11	961.91	941.23	938.63	3.25	3.21	134.27	105.93	-58.31	153.92	147.52	6.40	24.058	
1,000.00	996.19	974.36	971.37	3.40	3.34	136.01	110.89	-59.06	163.82	157.18	6.65	24.647	
1,100.00	1,094.42	1,069.30	1,065.22	3.81	3.71	140.02	125.12	-61.21	192.84	185.49	7.35	26.226	
1,200.00	1,192.64	1,164.25	1,159.06	4.22	4.08	142.99	139.34	-63.35	222.51	214.45	8.06	27.605	
1,300.00	1,290.87	1,259.19	1,252.91	4.65	4.46	145.26	153.57	-65.50	252.59	243.82	8.77	28.793	
1,400.00	1,389.10	1,354.13	1,346.75	5.08	4.84	147.05	167.80	-67.64	282.96	273.47	9.49	29.827	
1,500.00	1,487.33	1,449.07	1,440.60	5.51	5.22	148.49	182.02	-69.78	313.54	303.33	10.20	30.729	
1,600.00	1,585.56	1,544.01	1,534.44	5.95	5.60	149.68	196.25	-71.93	344.26	333.34	10.92	31.521	
1,700.00	1,683.78	1,638.95	1,628.29	6.38	5.99	150.67	210.47	-74.07	375.09	363.45	11.64	32.221	
1,800.00	1,782.01	1,733.90	1,722.13	6.82	6.37	151.51	224.70	-76.22	406.02	393.65	12.36	32.842	
1,900.00	1,880.24	1,828.84	1,815.98	7.26	6.76	152.23	238.93	-78.36	437.01	423.92	13.08	33.398	
2,000.00	1,978.47	1,923.78	1,909.83	7.70	7.14	152.86	253.15	-80.51	468.05	454.24	13.81	33.896	
2,100.00	2,076.70	2,018.72	2,003.67	8.15	7.53	153.41	267.38	-82.65	499.14	484.61	14.53	34.346	
2,200.00	2,174.92	2,113.66	2,097.52	8.59	7.91	153.90	281.61	-84.80	530.27	515.01	15.26	34.754	
2,300.00	2,273.15	2,208.61	2,191.36	9.03	8.30	154.33	295.83	-86.94	561.43	545.44	15.98	35.125	
2,400.00	2,371.38	2,303.55	2,285.21	9.48	8.69	154.71	310.06	-89.09	592.61	575.90	16.71	35.464	
2,500.00	2,469.61	2,398.49	2,379.05	9.93	9.08	155.06	324.29	-91.23	623.82	606.38	17.44	35.775	
2,600.00	2,567.84	2,493.43	2,472.90	10.37	9.46	155.38	338.51	-93.38	655.04	636.87	18.16	36.061	
2,700.00	2,666.06	2,588.37	2,566.74	10.82	9.85	155.66	352.74	-95.52	686.28	667.39	18.89	36.326	
2,800.00	2,764.29	2,683.31	2,660.59	11.26	10.24	155.92	366.97	-97.67	717.53	697.91	19.62	36.570	
2,900.00	2,862.52	2,778.26	2,754.43	11.71	10.63	156.16	381.19	-99.81	748.80	728.45	20.35	36.797	
3,000.00	2,960.75	2,873.20	2,848.28	12.16	11.02	156.38	395.42	-101.96	780.08	759.00	21.08	37.008	
3,100.00	3,058.98	2,968.14	2,942.12	12.61	11.41	156.59	409.64	-104.10	811.36	789.56	21.81	37.205	
3,200.00	3,157.20	3,063.08	3,035.97	13.05	11.79	156.77	423.87	-106.24	842.66	820.12	22.54	37.389	
3,300.00	3,255.43	3,158.02	3,129.82	13.50	12.18	156.95	438.10	-108.39	873.96	850.69	23.27	37.561	
3,400.00	3,353.66	3,252.97	3,223.66	13.95	12.57	157.11	452.32	-110.53	905.27	881.27	24.00	37.723	
3,500.00	3,451.89	3,347.91	3,317.51	14.40	12.96	157.26	466.55	-112.68	936.59	911.86	24.73	37.875	
3,600.00	3,550.12	3,442.85	3,411.35	14.84	13.35	157.41	480.78	-114.82	967.91	942.45	25.46	38.018	
3,700.00	3,648.34	3,537.79	3,505.20	15.29	13.74	157.54	495.00	-116.97	999.24	973.05	26.19	38.154	

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

DJR Operating

Scientific Drilling, Intl
Anticollision Report

Scientific Drilling

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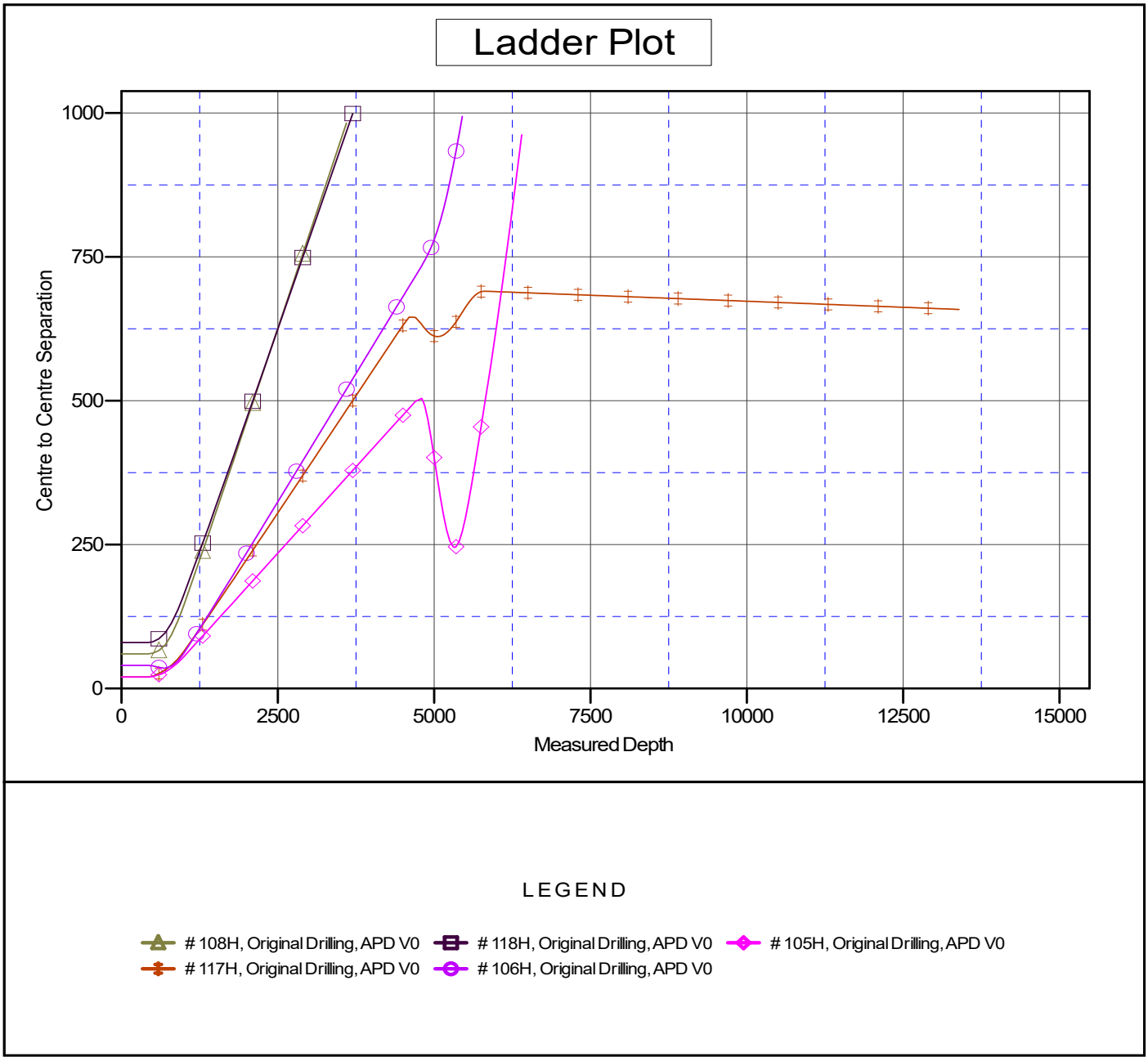
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Drilling	**Database:**	Grand Junction
Reference Design:	APD	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL 6700' & RKB 14' @ 6714.00usft (A
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333334

Coordinates are relative to: # 115H - Slot 2
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.08°



DJR Operating

Scientific Drilling, Intl
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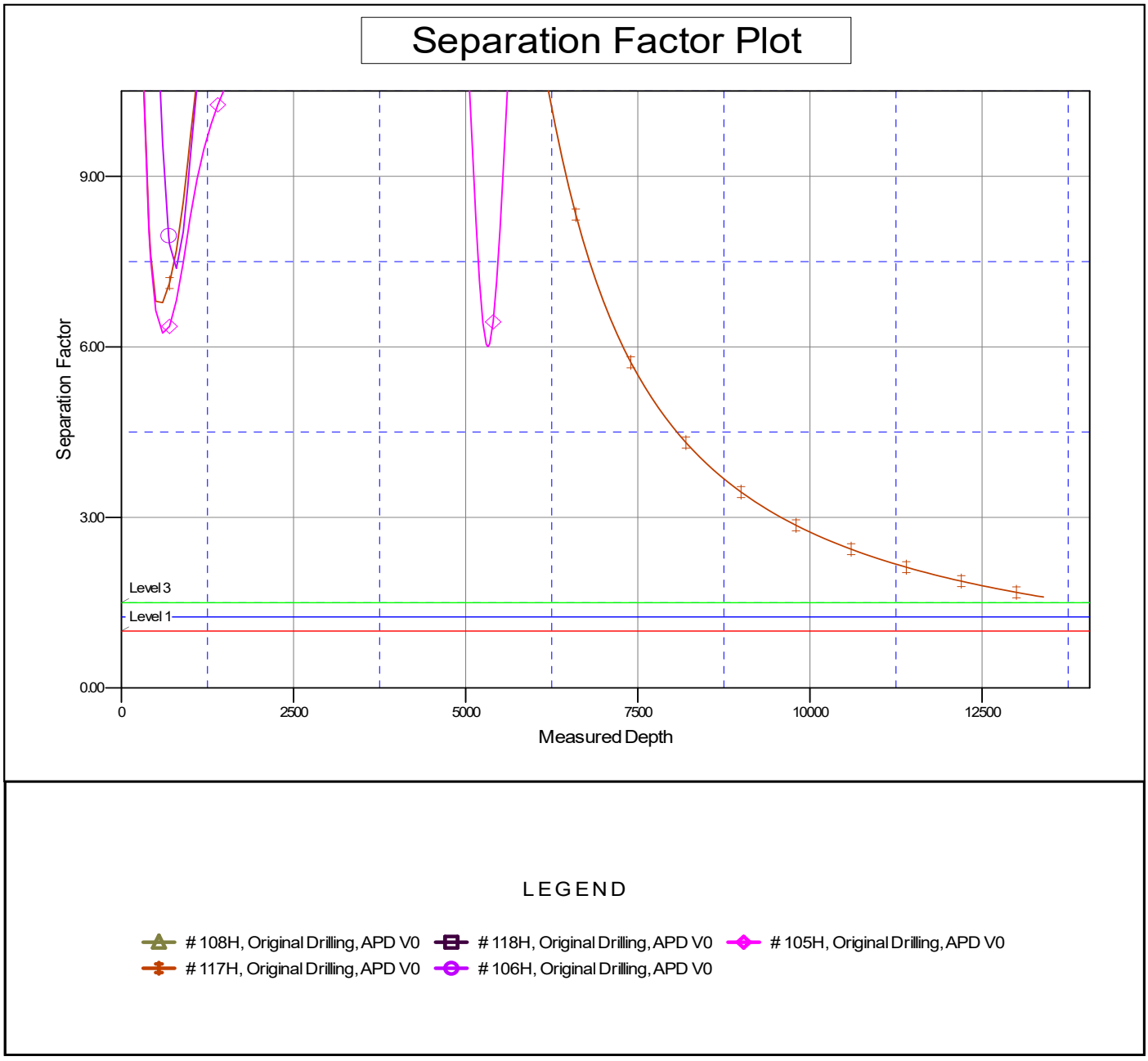

United States Department of the Interior

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

#115H CROW CANYON UNIT

Lease: NMNM83507 Unit: NMNM135203A
SH: NE¼NW¼ Section 20, T.24 N., R.8 W.
San Juan County, New Mexico
BH: SE¼NW¼ Section 28, 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 the surface casing to a minimum of _____ psi for 30 minutes.

D. ☐ Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.

E. ☒ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.

F. ☐ The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

I. GENERAL

A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.

B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).

C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.

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

E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to at Virgil Lucero at 505-793-1836.**

G. The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.

H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two years extension may be granted if submitted prior to expiration.

I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.

J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

II. REPORTING REQUIREMENTS

A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.

B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.

1 .Original and three copies on Federal and an Original and five copies on Indian leases of Sundry Notice (Form 3150-5), giving complete information concerning.

a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.

b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.

c. Subsequent Report of Abandonment, show the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.

2. Well Completion Report (Form 3160-4) will be submitted with 30 days after well has been completed.

a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.

3. Submit a cement evaluation log, if cement is not circulated to surface.

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the first gas to surface.

V. SAFETY

A. All rig heating stoves are to be of the explosion-proof type.

B. Rig safety lines are to be installed.

C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.

B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.

C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

VII. PHONE NUMBERS

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

CONDITIONS OF APPROVAL

Operator: DJR Operating LLC
Well Name: White Crow C20-2408, White Crow E20-2408, White Crow I19-2408, White Crow P19-2408, CCU CLF and WDW, CCU WSW, and CCU CLF
EA Number: DOI-BLM-NM-F010-2021-0005-EA
Lease Number: NMNM-026047, NMNM-83507, and NMNM-041650

The following conditions of approval will apply to the WC C20, E20, I19, P19, CCU CLF/WDW, CCU WSW, and CCU CLF well pads, access roads and pipeline and other associated facilities, unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2.

Special Stipulations

Copy of COA's: A copy of these stipulations, including exhibits and the Plan(s) of Operation (if required), shall be on the project area and available to person directing equipment.

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff at (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project. The operator or their contractor will contact the grazing permittee to give notice at least 10 days prior to start of construction operations.

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad (construction zones may be restricted or deleted to provide resource avoidance). The stockpiled soil will be free of brush and tree limbs, trunks and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad (including the cut and fill slopes) prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

Grazing Permittee Notification and Concerns: The operator will notify the grazing lease operator(s) at least ten business days prior to beginning any construction activity to ensure there will be no conflicts between construction activities and livestock grazing operations. The operator is not obligated to cease or delay construction unless directed by the Authorized Officer (AO). Any range improvement (fences, pipelines, ponds, etc.) disturbed by construction activities will be repaired immediately following construction and will be repaired to the condition the improvement was in prior to disturbance. Cattle guards will be installed to replace any livestock fencing or gates removed for road construction.

Paleontology: Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the AO after consulting with the Holder.

Wildlife: Blanco Wash Pipe Boring in Section 20, T42N R8W: If, for any reason ground disturbance, new construction or emergency repairs is needed within the 122 feet corridor consultation with NNDFW will be required (per NNDFW-BRCF dated 1/25/22).

Migratory Bird Nest Survey: For any construction activities that exceed 4.0 acres of ground disturbance from 5/15 to 7/31 within the same lease, a migratory bird nest survey is required prior to any new ground disturbance.
Nest surveys will be conducted within 48 hours of scheduled construction by BLM FFO personnel or approved biologist. Any active nests will require a disturbance buffer to eliminate impacts to nesting birds. Active nests will not be disturbed.
Applicant will adhere to timing limitations and management measures if any new raptor nests are discovered within the project area. These timing limitations are species specific depending on the raptor that is discovered. The following timing limitations may apply:

Raptor Species of Nest Discovered	**Timing Limitation**
Bald Eagle	March 1-June 30
Burrowing Owl	April 1-August 15
Golden Eagle	February 1-June 30
Other Raptors	March 1- June 30

Storage Tanks: All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted, or otherwise covered to protect migratory birds and other wildlife from access.
Timing Restriction: That portion of the CLF to Whiptail Tie-in Pipeline in Section 15 T24N R8W is in the Crow Mesa SDA. No construction activities are allowed from December 1 through March 31.
Special Status Plant Species and Animal Species:
A preconstruction Clover's cactus survey is required for the E20-2408 well pad areas. The bio-surveys can only occur from 4/1-9/30 (flowering and growing seasons) by an BLM FFO-approved biologist/botanist. Any cacti within proposed project area (including 30 feet) will be transplanted by an BLM FFO-approved biologist/botanist (blm 2020k).

Cultural Resources:
Site Protection and Employee Education:
All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

Cultural Resources Stipulations:

1. **For the construction of the main gas pipeline serving the C20-2408, E20-2408, II19-2408, and P19-2408 well pads. See BLM Report: 2020(IV)002.1F:**

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

- Observe all surface disturbing activities within 100'of LA197655.
- Ensure that a site protection barrier is located as indicated on the attached map in the vicinity of LA197655.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

SITE PROTECTION BARRIER:

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

2. **Crow Canyon Unit WDW #1 and Central Liquid Facility Pad and Access Road. See BLM Report 2020(I)009F:**

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

- Ensure that a site protection barrier is located as indicated on the attached map in the vicinity of LA195119.
- Observe all surface disturbing activities within 100' of LA195119.
- Submit a report of the monitoring activities within 30 days of completion of monitoring. These stipulations must be attached to the report.

SITE PROTECTION BARRIER:

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

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

ADDITIONAL:
CULTURAL RESOURCE STIPULATIONS

1. Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property**, or in accordance with an approved program alternative**. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive **archaeological or alternative mitigation**, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any miti**gations determined appropriate through the agency's Section 106 consultation are completed**. Failure to notify the BLM about

a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, **the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws**.

2. Discovery of Cultural Resources during Monitoring: If monitoring confirms the presence of previously unidentified **historic or prehistoric** cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. **If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed.**

3. Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare a BLM approved damage assessment and/or data recovery plan. The operator/holder agrees at his/her expense to implement a **mitigation** that the agency finds appropriate given the significance of the site, which the agency determines in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property. **This mitigation may** entail execution of the data recovery plan by a permitted cultural resources consultant and/or alternative **mitigations**. Damage to cultural resources may result in **civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws**.

4. EMPLOYEE EDUCATION: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed **and educated** that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. This includes personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. They will also be notified that it is illegal to collect, damage, or disturb **historic or prehistoric** cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the **ARPA (16 U.S.C. 470aa-mm), NAGPRA (25 U.S.C. 3001-3013), and other laws, as applicable (for example, NM Stat. § 18-6-9 through § 18-6-11.2, as amended, and NM Stat. § 30-12-12, as amended).**

Design Features

DJR would adhere to any conditions required by the BLM FFO. Additional project-specific design features will be included as determined during the BLM on-site meetings. DJR has also committed to the following design features and BMPs to lessen impacts to resources. Where applicable, additional details related to the design features may be found in the APDs, Sundry Notice, and ROW grants on file at the BLM FFO.

Air Resources

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

Water Resources

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

Wildlife, Migratory Birds, and Special-Status Species

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

Soil, Upland Vegetation, and Noxious Weeds and Invasive Species

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

Cultural Resources

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

Paleontological Resources

- If any paleontological resources are discovered during activities associated with the proposed project:
  - DJR would immediately inform the BLM Authorized Officer.
  - Activities in the vicinity of the discovery would be immediately suspended until written authorization to proceed is issued by the BLM Authorized Officer.
  - The discovery would be protected from damage or looting.
  - The Authorized Officer would ensure evaluation of the discovery as soon as possible.

- Appropriate measures to mitigate adverse effects to significant paleontological resources would be determined by the Authorized Officer after consulting with the operator.

Visual Resources and Dark Skies

- Equipment not subject to safety requirements would be painted a BLM Standard Environmental Color (Covert Green) to minimize contrast with the surrounding landscape.
- If applicable, during reclamation, stockpiled rocks, if available, would be placed within the reclaimed area for erosion control and/or to discourage off-highway vehicle traffic (if requested by the BLM FFO). Rocks would be placed in a manner that visually blends with the adjacent, undisturbed landscape.
- Lights would be limited to those needed for safety during construction, drilling and operation.
- Permanent lighting at the CCU CLF/WDW will be aimed directly down at the ground, properly shielded, less than 3,000 degrees kelvin color temperature and operated by a switch when personnel are on site.

Livestock Grazing and Rangeland Health Standards

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

Public Health and Safety

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

Lay-Flat Pipeline BMPs

- Time construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., buried pipelines, culverts) to avoid high-flow conditions. When

construction disturbs a flowing stream, utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.

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

Weeds

Farmington Field Office Standard Noxious/Invasive Weeds Design Features and Best Management Practices

Noxious/Invasive Weeds: DJR will inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly checked for any changes. Invasive species may or may not be listed as noxious weeds but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on land within the boundaries of the FFO. Numerous invasive species occur in the BLM FFO area, such as Russian thistle (*Salsola* spp.) and field bindweed (*Convolvulus arvensis*).

Russian knapweed (*Centaurea repens*)	Musk thistle (*Carduus nutans*)
Bull thistle (*Cirsium vulgare*)	Canada thistle (*Cirsium arvense*)
Scotch thistle (*Onopordum acanthium)*	Hoary cress (*Cardaria draba*)

Perennial pepperweed (*Lepidium latifolium*)	Halogeton (*Halogeton glomeratus*)
Spotted knapweed (*Centaurea maculosa*)	Dalmation toadflax (*Linaria genistifolia*)
Yellow toadflax (*Linaria vulgaris*)	Camelthorn (*Alhagi pseudalhagi*)
African rue (*Peganum harmala*)	Saltcedar (*Tamarix* spp.)
Diffuse knapweed (*Centaurea diffusa*)	Leafy spurge (*Euphorbia esula*)

a. Any identified weeds will be treated prior to new surface disturbance if determined by the FFO Noxious Weed Specialist. If a Weed Management Plan is not on file, a Weed Management Plan will be created. A PUP will be submitted to and approved by the FFO Noxious Weed Specialist prior to application of pesticide. The FFO Noxious Weed Specialist (505-564-7600) can provide assistance in the development of the PUP.
b. Vehicles and equipment should be inspected and cleaned prior to coming onto the site. This is especially important for vehicles from out of state or if coming from a weed-infested site.
c. Fill dirt or gravel may be needed for excavation, road construction/repair, or as a surfacing material. If fill dirt or gravel will be required, the source shall be free of noxious weeds and approved by the FFO Noxious Weed Specialist.
d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found, the FFO Noxious Weed Specialist shall be notified at (505) 564-7600 and provided with a Weed Management Plan and, if necessary, a PUP. The FFO Specialist can provide assistance developing the Weed Management Plan and/or the PUP.
e. Only pesticides authorized for use on BLM land would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. DJR's weed-control contractor would contact the BLM FFO prior to using these chemicals.

Noxious/invasive weed treatments must be reported to the FFO Noxious Weed Specialist. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological, or cultural treatments used to eradicate and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Specialist.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 171154

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 171154
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	1/17/2023
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	1/17/2023
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	1/17/2023
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	1/17/2023
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	1/17/2023