State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 10/26/2018
Well information;
Operator DJR, Well Name and Number Carson 613H

API# 30-045-35905, Section 21, Township 25 N/S, Range 12 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- ✗ Notify Aztec OCD 24hrs prior to casing & cement.
- ✗ Hold C-104 for directional survey & "As Drilled" Plat
- ✗ Hold C-104 for NSL, NSP, DHC
- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- o 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
- o Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ✓ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ✓ 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.
- ✓ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Brandon Powell
NMOCD Approved by Signature

3/13/19
Date

NMOCD

Form 3160-3
(June 2015)

FEB 11 2013

DISTRICT III

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.
NMNM051013

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other OTH

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.
CARSON
613H

2. Name of Operator
DJR OPERATING LLC

9. API Well No.
30-045-35905

3a. Address
1600 Broadway #1960 Denver CO 80202

3b. Phone No. *(include area code)*
(303)407-7397

10. Field and Pool, or Exploratory
BASIN MANCOS / BISTI LOWER GALLU

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface M SWSW / 628 FSL / 734 FWL / LAT 36.381153 / LONG -108.123282

At proposed prod. zone M SWSW / 811 FSL / 686 FWL / LAT 36.3961693 / LONG -108.1413702

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 21 / T25N / R12W / NMP

14. Distance in miles and direction from nearest town or post office*
11 miles

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
643 feet

16. No of acres in lease
680

17. Spacing Unit dedicated to this well
800

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
20 feet

19. Proposed Depth
4764 feet / 12506 feet

20. BLM/BIA Bond No. in file
FED: NMB001464

KP

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6350 feet

22. Approximate date work will start*
12/14/2018

23. Estimated duration
60 days

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
(Electronic Submission)

Name *(Printed/Typed)*
Brian Wood / Ph: (505)466-8120

Date
10/26/2018

Title
President

Approved by *(Signature)*

Name *(Printed/Typed)*
Richard A Fields

Date
JAN 28 2013

Title
Field Manager

Office
FARMINGTON

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.

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

(Continued on page 2)

*(Instructions on page 2)

NMOCD

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, N.M. 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, N.M. 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
30-045-35905	97232 / 5890	Basin Mancos / Bisti Lower Gallup

[4] Property Code	[5] Property Name	[6] Well Number
322323	Carson	613H

[7] OGRID No.	[8] Operator Name	[9] Elevation
371838	DJR Operating, LLC	6351

[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
M	21	25 N	12 W		628	South	734	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
M	17	25 N	12 W		811	South	686	West	San Juan

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
Basin Mancos 400 Ac. Bisti 400 Ac.			

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

Surface Location
628' FSL & 734' FWL
Sec 21 T25N R12W
Lat = 36.3811530° N
Long = 108.1232824° W
NAD 83

Heel Location
1189' FSL & 851' FWL
Sec 21 T25N R12W
Lat = 36.3826922° N
Long = 108.1228805° W
NAD 83

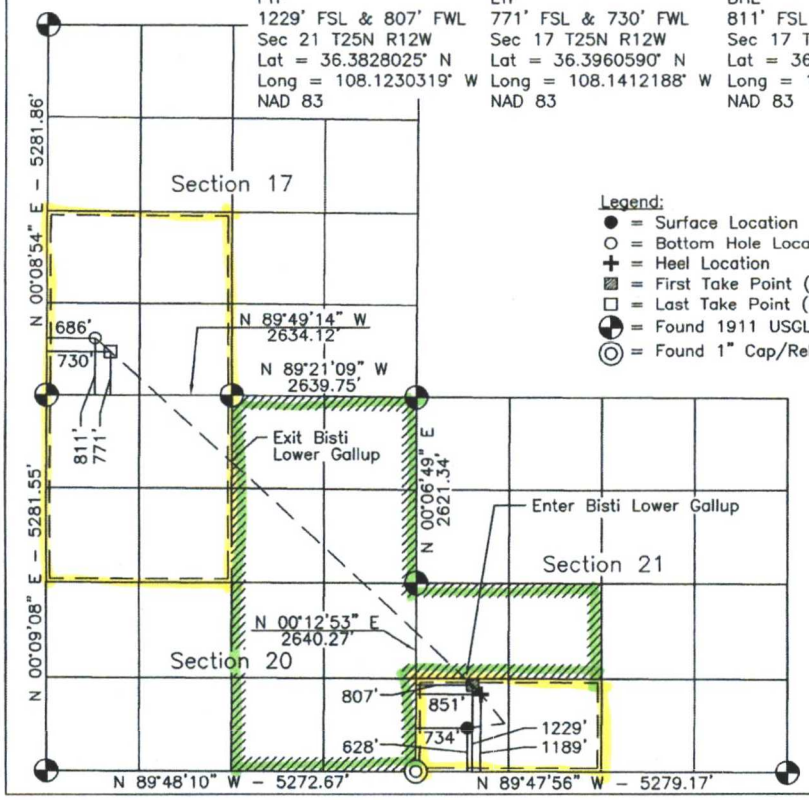
Enter Bisti Lower Galllup
1320' FSL & 705' FWL
Sec 21 T25N R12W
Lat = 36.3830531° N
Long = 108.1233756° W
NAD 83

Exit Bisti Lower Gallup
947' FNL & 2640' FEL
Sec 20 T25N R12W
Lat = 36.3913410° N
Long = 108.1347448° W
NAD 83

FTP
1229' FSL & 807' FWL
Sec 21 T25N R12W
Lat = 36.3828025° N
Long = 108.1230319° W
NAD 83

LTP
771' FSL & 730' FWL
Sec 17 T25N R12W
Lat = 36.3960590° N
Long = 108.1412188° W
NAD 83

BHL
811' FSL & 686' FWL
Sec 17 T25N R12W
Lat = 36.3961693° N
Long = 108.1413702° W
NAD 83



[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.

10-19-18
Signature Date

Mike Deutsch
Printed Name

mike@permitswest.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

8-16-18
Date of Survey

Signature and Seal of Professional Surveyor:

MARSHALL W. LINDEEN
NEW MEXICO
17078
10-19-18
PROFESSIONAL SURVEYOR

17078
Certificate Number

Federal surface

DJR Operating

DRILLING PLAN
Carson 613H
San Juan County, New Mexico

Surface Location
733-ft FWL & 628-ft FSL
Sec 21 T25N R12W
Graded Elevation 6350' MSL
RKB Elevation 6370' (20' KB)

SHL Geographical Coordinates (NAD-83)
Slot A-5
Latitude 36.3811530° N
Longitude 108.1232824° W

Kick Off Point for Horizontal Build Curve
4106-ft MD
4061-ft TVD

Local Coordinates (from SHL)
67-ft North
525-ft East

Heel Location (Pay zone entry)
869-ft FWL & 1177-ft FSL
Sec 21 T25N R12W

Heel Geographical Coordinates (NAD-83)
Latitude 36.38269218° N
Longitude 108.12288050° W

Bottom Hole Location (TD)
680-ft FWL & 825-ft FSL
Sec 17 T25N R12W

BHL Geographical Coordinates (NAD-83)
Latitude 36.39616929° N
Longitude 108.1413702° W

First Take Point (FTP)
5239-ft MD
Gallup C Sand

FTP Geographical Coordinates (NAD-83)
Latitude 36.3828025° N
Longitude 108.1230319° W

Last Take Point (LTP)
12446-ft MD
Gallup C Sand

LTP Geographical Coordinates (NAD-83)
Latitude 36.3960590° N
Longitude 108.1412188° W

Well objectives
This well is planned as a 7330-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure
The temperature in the Gallup C horizontal objective is 133°F. Bottom hole pressure in the Gallup C is forecast to be 2500 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)
Kirtland	-	G.L.	Sh	W	8.3	8.4 – 8.8
Fruitland	943	943	C	G	8.3	9.0 - 9.5
Picture Cliffs	1191	1190	Sd	G	8.3	9.0 - 9.5
Lewis	1291	1289	Sh	-		9.0 - 9.5
Chacra	1964	1952	Sd	-	8.3	9.0 - 9.5
Menefee	2539	2518	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	3614	3576	Sd	-	8.3	9.0 - 9.5
Mancos	3785	3745	Sh	-		9.0 - 9.5
Mancos Silt	4413	4360	Slt	O/G	8.5	9.0 - 9.5
Gallup A	4712	4602	Slt	O/G	8.5	9.0 - 9.5
Gallup B	4821	4667	Sd	O/G	8.5	8.8 -9.0
Gallup C (objective)	5179	4764	Sd	O/G	8.5	8.8 -9.0
Lower Mancos	NP	NP	Sh	-	8.5	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"	23	K-55	LTC	surf	5169	surf	4764	surface

4-1/2"	6-1/8"	11.6	P-110	LTC	4969	12506	4730	4764	4969

Note: all casing will be new

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

Additives: A=Accelerator; B=Bond Enhancer; De=Defoamer; Di=Dispersant; Ex=Extender; Fl=Fluid Loss L=Lost Circulation; R=Retarder; SA=Suspending Agent; THX=Thixotropic Additive; V=Viscosifier

9-5/8" Surface Casing	Lead
Halliburton Name	HALCEM
Type	Class G
Additives	A
Planned top	Surface
Density (ppg)	15.80
Yield (cf/sx)	1.17
Mix water (gal/sx)	5.15
Volume (sx)	205
Volume (bbls)	42

7" Intermediate Casing	Lead	Tail
Halliburton Name	HALCEM	VARICEM
Type	Poz/G	Poz/G
Additives	Ex, L, SA	Ex, Fl, SA, L, THX
Planned top	Surface	3285-ft
Density (ppg)	12.30	13.50

Yield (cf/sx)	1.95	1.30
Mix water (gal/sx)	10.14	5.64
Volume (sx)	414	376
Volume (bbls)	144	87

4-1/2" Production Liner	Lead
Halliburton Name	EXTENDACEM
Type	Poz/G
Additives	B, De, Di, Fl, Re, V
Planned top	4969-ft
Density (ppg)	13.3
Yield (cf/sx)	1.36
Mix water (gal/sx)	5.94
Volume (sx)	775
Volume (bbls)	188

Wellhead & Pressure Control
The well head will be an 11" 5M multi-bowl system. The BOP will consist of, at a minimum, two 5M pipe rams, a 5M annular preventer, a low pressure rotating head, a 3" 5M choke manifold plumbed to a gas buster and a flare stack and a 2" 5M kill line. Diagrams of the wellhead, BOP equipment and choke manifold are provided. All systems will conform to Onshore Order #2 and 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 at all times to maintain adequate pit volumes.

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 – 5169	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5169 – 12506	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 CBL will be run in the 7" casing from the 4-1/2" liner top to surface.

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" gas lift tubing string with packer. The stimulation and completion plan will be sundried at a later date.

DJR Operating

Pad name : WC 21-2
Well name : Carson 613H
Sec 21 T25N R12W

SHL Latitude : 36.38115300
SHL Longitude : -108.12328240

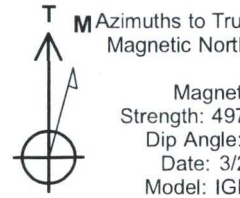
US State Plane 1983
North American Datum 1983
New Mexico Western Zone

TRAJECTORY DETAILS
Pad elevation : 6350.0 Rig (copy) @ 6370.0usft (Rig TBD 20' KB)

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
820.0	0.00	0.00	820.0	0.0	0.0	0.00	0.00	0.0	
1321.8	10.04	82.75	1319.3	5.5	43.5	2.00	82.75	-26.4	
4106.5	10.04	82.75	4061.3	66.8	524.9	0.00	0.00	-318.4	
5179.0	90.00	312.04	4764.0	560.3	118.3	9.00	-130.28	318.9	613 C Heel
12506.1	90.00	312.04	4764.0	5466.9	-5323.3	0.00	0.00	7630.5	613 C Toe

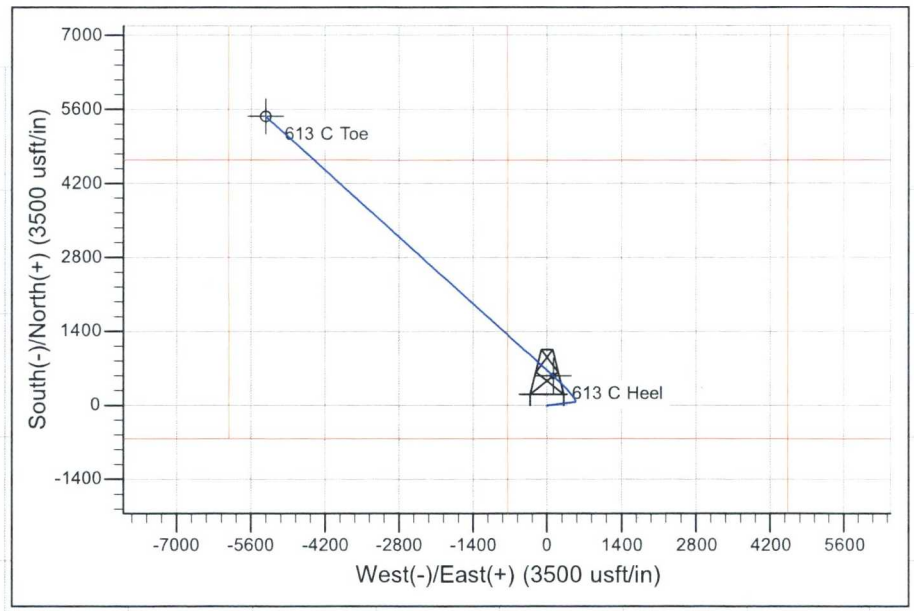
TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
613 C Heel	4764.0	560.3	118.3	1958730	2637863	36.38269218	-108.12288050
613 C Toe	4764.0	5466.9	-5323.3	1963653	2632436	36.39616929	-108.14137020



Azimuths to True North
Magnetic North: 9.29°

Magnetic Field
Strength: 49701.1nT
Dip Angle: 62.96°
Date: 3/29/2018
Model: IGRF2015



Prepared by : C Mallary 16:05, August 30 2018

DJR Operating

Proposed Carson Unit
WC 21-2
Slot 5

Carson 613H

Plan: Lateral plan

Standard Planning Report

30 August, 2018

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Project	Proposed Carson 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	WC 21-2, C Mallary				
Site Position:		**Northing:**	1,958,212 usft	**Latitude:**	36.38126970
From:	Lat/Long	**Easting:**	2,637,701 usft	**Longitude:**	-108.12342620
Position Uncertainty:	0.0 usft	**Slot Radius:**	16.000 in	**Grid Convergence:**	-0.17 °

Well	Slot 5					
Well Position	**+N/-S**	-42.5 usft	**Northing:**	1,958,170 usft	**Latitude:**	36.38115300
	+E/-W	42.3 usft	**Easting:**	2,637,743 usft	**Longitude:**	-108.12328240
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	6,350.0 usft

Wellbore	Carson 613H				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	3/29/2018	9.29	62.96	49,701.13033545

Design	Lateral plan				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	315.76	

Plan Survey Tool Program **Date** 8/30/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	12,506.1	Lateral plan (Carson 613H)	MWD+IGRF	
				OWSG MWD + IGRF or WMM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
820.0	0.00	0.00	820.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,321.8	10.04	82.75	1,319.3	5.5	43.5	2.00	2.00	0.00	82.75	
4,106.5	10.04	82.75	4,061.3	66.8	524.9	0.00	0.00	0.00	0.00	
5,179.0	90.00	312.04	4,764.0	560.3	118.3	9.00	7.46	-12.19	-130.28	613 C Heel
12,506.1	90.00	312.04	4,764.0	5,466.9	-5,323.3	0.00	0.00	0.00	0.00	613 C Toe

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
25.0	0.00	0.00	25.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface casing									
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
820.0	0.00	0.00	820.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
900.0	1.60	82.75	900.0	0.1	1.1	-0.7	2.00	2.00	0.00
943.0	2.46	82.75	943.0	0.3	2.6	-1.6	2.00	2.00	0.00
Fruitland									
1,000.0	3.60	82.75	999.9	0.7	5.6	-3.4	2.00	2.00	0.00
1,100.0	5.60	82.75	1,099.6	1.7	13.6	-8.2	2.00	2.00	0.00
1,191.0	7.42	82.75	1,190.0	3.0	23.8	-14.4	2.00	2.00	0.00
Picture Cliffs									
1,200.0	7.60	82.75	1,198.9	3.2	25.0	-15.1	2.00	2.00	0.00
1,291.1	9.42	82.75	1,289.0	4.9	38.3	-23.3	2.00	2.00	0.00
Lewis									
1,300.0	9.60	82.75	1,297.8	5.1	39.8	-24.1	2.00	2.00	0.00
1,321.8	10.04	82.75	1,319.3	5.5	43.5	-26.4	2.00	2.00	0.00
1,400.0	10.04	82.75	1,396.2	7.2	57.0	-34.6	0.00	0.00	0.00
1,500.0	10.04	82.75	1,494.7	9.4	74.3	-45.1	0.00	0.00	0.00
1,600.0	10.04	82.75	1,593.2	11.6	91.6	-55.5	0.00	0.00	0.00
1,700.0	10.04	82.75	1,691.7	13.8	108.9	-66.0	0.00	0.00	0.00
1,800.0	10.04	82.75	1,790.1	16.0	126.2	-76.5	0.00	0.00	0.00
1,900.0	10.04	82.75	1,888.6	18.2	143.4	-87.0	0.00	0.00	0.00
1,964.4	10.04	82.75	1,952.0	19.7	154.6	-93.8	0.00	0.00	0.00
Chacra									
2,000.0	10.04	82.75	1,987.1	20.4	160.7	-97.5	0.00	0.00	0.00
2,100.0	10.04	82.75	2,085.5	22.6	178.0	-108.0	0.00	0.00	0.00
2,200.0	10.04	82.75	2,184.0	24.8	195.3	-118.5	0.00	0.00	0.00
2,300.0	10.04	82.75	2,282.5	27.0	212.6	-128.9	0.00	0.00	0.00
2,400.0	10.04	82.75	2,380.9	29.2	229.9	-139.4	0.00	0.00	0.00
2,500.0	10.04	82.75	2,479.4	31.4	247.2	-149.9	0.00	0.00	0.00
2,539.2	10.04	82.75	2,518.0	32.3	254.0	-154.0	0.00	0.00	0.00
Menefee									
2,600.0	10.04	82.75	2,577.9	33.6	264.5	-160.4	0.00	0.00	0.00
2,700.0	10.04	82.75	2,676.3	35.8	281.8	-170.9	0.00	0.00	0.00
2,800.0	10.04	82.75	2,774.8	38.0	299.0	-181.4	0.00	0.00	0.00
2,900.0	10.04	82.75	2,873.3	40.2	316.3	-191.9	0.00	0.00	0.00
3,000.0	10.04	82.75	2,971.8	42.4	333.6	-202.3	0.00	0.00	0.00
3,100.0	10.04	82.75	3,070.2	44.6	350.9	-212.8	0.00	0.00	0.00
3,200.0	10.04	82.75	3,168.7	46.8	368.2	-223.3	0.00	0.00	0.00
3,300.0	10.04	82.75	3,267.2	49.0	385.5	-233.8	0.00	0.00	0.00
3,400.0	10.04	82.75	3,365.6	51.2	402.8	-244.3	0.00	0.00	0.00
3,500.0	10.04	82.75	3,464.1	53.4	420.1	-254.8	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,600.0	10.04	82.75	3,562.6	55.6	437.3	-265.3	0.00	0.00	0.00
3,613.6	10.04	82.75	3,576.0	55.9	439.7	-266.7	0.00	0.00	0.00
Point Lookout									
3,700.0	10.04	82.75	3,661.0	57.8	454.6	-275.7	0.00	0.00	0.00
3,785.3	10.04	82.75	3,745.0	59.7	469.4	-284.7	0.00	0.00	0.00
Mancos									
3,800.0	10.04	82.75	3,759.5	60.0	471.9	-286.2	0.00	0.00	0.00
3,900.0	10.04	82.75	3,858.0	62.2	489.2	-296.7	0.00	0.00	0.00
4,000.0	10.04	82.75	3,956.5	64.4	506.5	-307.2	0.00	0.00	0.00
4,106.5	10.04	82.75	4,061.3	66.8	524.9	-318.4	0.00	0.00	0.00
KOP #2									
4,150.0	8.07	60.97	4,104.3	68.7	531.3	-321.5	9.00	-4.52	-50.08
4,200.0	7.87	28.11	4,153.8	73.4	536.0	-321.3	9.00	-0.40	-65.72
4,250.0	9.95	1.94	4,203.2	80.8	537.8	-317.3	9.00	4.16	-52.34
4,300.0	13.28	346.69	4,252.2	90.7	536.6	-309.4	9.00	6.66	-30.49
4,350.0	17.14	337.82	4,300.5	103.1	532.5	-297.6	9.00	7.73	-17.73
4,400.0	21.25	332.22	4,347.7	117.9	525.5	-282.1	9.00	8.22	-11.21
4,413.3	22.36	331.07	4,360.0	122.3	523.2	-277.4	9.00	8.40	-8.68
Mancos Silt									
4,450.0	25.49	328.38	4,393.6	135.1	515.6	-262.9	9.00	8.50	-7.31
4,500.0	29.80	325.59	4,437.9	154.6	503.0	-240.1	9.00	8.62	-5.59
4,550.0	34.15	323.45	4,480.3	176.1	487.6	-214.0	9.00	8.71	-4.29
4,600.0	38.54	321.74	4,520.5	199.6	469.6	-184.6	9.00	8.77	-3.42
4,650.0	42.94	320.33	4,558.4	225.0	449.0	-152.1	9.00	8.81	-2.82
4,700.0	47.36	319.14	4,593.7	252.0	426.1	-116.7	9.00	8.84	-2.39
4,712.4	48.47	318.87	4,602.0	259.0	420.1	-107.5	9.00	8.85	-2.17
Gallup A									
4,750.0	51.79	318.10	4,626.1	280.5	400.9	-78.7	9.00	8.86	-2.03
4,800.0	56.23	317.19	4,655.4	310.4	373.7	-38.3	9.00	8.88	-1.83
4,821.3	58.13	316.83	4,667.0	323.5	361.5	-20.4	9.00	8.89	-1.69
Gallup B									
4,850.0	60.68	316.36	4,681.6	341.5	344.5	4.3	9.00	8.89	-1.62
4,900.0	65.13	315.61	4,704.4	373.5	313.6	48.8	9.00	8.90	-1.51
4,950.0	69.58	314.90	4,723.6	406.2	281.1	94.9	9.00	8.91	-1.41
5,000.0	74.04	314.24	4,739.2	439.5	247.3	142.4	9.00	8.91	-1.33
5,050.0	78.49	313.61	4,751.1	473.2	212.3	190.9	9.00	8.92	-1.27
5,100.0	82.95	312.99	4,759.1	507.1	176.4	240.2	9.00	8.92	-1.23
5,150.0	87.41	312.39	4,763.3	540.8	139.8	290.0	9.00	8.92	-1.21
5,169.0	89.11	312.16	4,763.9	553.6	125.7	308.9	9.00	8.92	-1.20
Intermediate casing									
5,179.0	90.00	312.04	4,764.0	560.3	118.3	318.9	9.00	8.92	-1.20
Gallup C - 613 C Heel									
5,200.0	90.00	312.04	4,764.0	574.4	102.7	339.9	0.00	0.00	0.00
5,239.0	90.00	312.04	4,764.0	600.5	73.7	378.8	0.00	0.00	0.00
First take point									
5,300.0	90.00	312.04	4,764.0	641.3	28.4	439.6	0.00	0.00	0.00
5,400.0	90.00	312.04	4,764.0	708.3	-45.8	539.4	0.00	0.00	0.00
5,500.0	90.00	312.04	4,764.0	775.3	-120.1	639.2	0.00	0.00	0.00
5,600.0	90.00	312.04	4,764.0	842.2	-194.4	739.0	0.00	0.00	0.00
5,700.0	90.00	312.04	4,764.0	909.2	-268.6	838.8	0.00	0.00	0.00
5,800.0	90.00	312.04	4,764.0	976.2	-342.9	938.6	0.00	0.00	0.00
5,900.0	90.00	312.04	4,764.0	1,043.1	-417.2	1,038.4	0.00	0.00	0.00
6,000.0	90.00	312.04	4,764.0	1,110.1	-491.4	1,138.2	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,100.0	90.00	312.04	4,764.0	1,177.1	-565.7	1,238.0	0.00	0.00	0.00
6,200.0	90.00	312.04	4,764.0	1,244.0	-640.0	1,337.7	0.00	0.00	0.00
6,300.0	90.00	312.04	4,764.0	1,311.0	-714.2	1,437.5	0.00	0.00	0.00
6,400.0	90.00	312.04	4,764.0	1,378.0	-788.5	1,537.3	0.00	0.00	0.00
6,500.0	90.00	312.04	4,764.0	1,444.9	-862.8	1,637.1	0.00	0.00	0.00
6,600.0	90.00	312.04	4,764.0	1,511.9	-937.0	1,736.9	0.00	0.00	0.00
6,700.0	90.00	312.04	4,764.0	1,578.9	-1,011.3	1,836.7	0.00	0.00	0.00
6,800.0	90.00	312.04	4,764.0	1,645.8	-1,085.6	1,936.5	0.00	0.00	0.00
6,900.0	90.00	312.04	4,764.0	1,712.8	-1,159.8	2,036.3	0.00	0.00	0.00
7,000.0	90.00	312.04	4,764.0	1,779.8	-1,234.1	2,136.1	0.00	0.00	0.00
7,100.0	90.00	312.04	4,764.0	1,846.7	-1,308.4	2,235.9	0.00	0.00	0.00
7,200.0	90.00	312.04	4,764.0	1,913.7	-1,382.6	2,335.6	0.00	0.00	0.00
7,300.0	90.00	312.04	4,764.0	1,980.7	-1,456.9	2,435.4	0.00	0.00	0.00
7,400.0	90.00	312.04	4,764.0	2,047.6	-1,531.2	2,535.2	0.00	0.00	0.00
7,500.0	90.00	312.04	4,764.0	2,114.6	-1,605.4	2,635.0	0.00	0.00	0.00
7,600.0	90.00	312.04	4,764.0	2,181.5	-1,679.7	2,734.8	0.00	0.00	0.00
7,700.0	90.00	312.04	4,764.0	2,248.5	-1,754.0	2,834.6	0.00	0.00	0.00
7,800.0	90.00	312.04	4,764.0	2,315.5	-1,828.2	2,934.4	0.00	0.00	0.00
7,900.0	90.00	312.04	4,764.0	2,382.4	-1,902.5	3,034.2	0.00	0.00	0.00
8,000.0	90.00	312.04	4,764.0	2,449.4	-1,976.8	3,134.0	0.00	0.00	0.00
8,100.0	90.00	312.04	4,764.0	2,516.4	-2,051.0	3,233.7	0.00	0.00	0.00
8,200.0	90.00	312.04	4,764.0	2,583.3	-2,125.3	3,333.5	0.00	0.00	0.00
8,300.0	90.00	312.04	4,764.0	2,650.3	-2,199.6	3,433.3	0.00	0.00	0.00
8,400.0	90.00	312.04	4,764.0	2,717.3	-2,273.8	3,533.1	0.00	0.00	0.00
8,500.0	90.00	312.04	4,764.0	2,784.2	-2,348.1	3,632.9	0.00	0.00	0.00
8,600.0	90.00	312.04	4,764.0	2,851.2	-2,422.4	3,732.7	0.00	0.00	0.00
8,700.0	90.00	312.04	4,764.0	2,918.2	-2,496.6	3,832.5	0.00	0.00	0.00
8,800.0	90.00	312.04	4,764.0	2,985.1	-2,570.9	3,932.3	0.00	0.00	0.00
8,900.0	90.00	312.04	4,764.0	3,052.1	-2,645.2	4,032.1	0.00	0.00	0.00
9,000.0	90.00	312.04	4,764.0	3,119.1	-2,719.4	4,131.8	0.00	0.00	0.00
9,100.0	90.00	312.04	4,764.0	3,186.0	-2,793.7	4,231.6	0.00	0.00	0.00
9,200.0	90.00	312.04	4,764.0	3,253.0	-2,868.0	4,331.4	0.00	0.00	0.00
9,300.0	90.00	312.04	4,764.0	3,320.0	-2,942.2	4,431.2	0.00	0.00	0.00
9,400.0	90.00	312.04	4,764.0	3,386.9	-3,016.5	4,531.0	0.00	0.00	0.00
9,500.0	90.00	312.04	4,764.0	3,453.9	-3,090.8	4,630.8	0.00	0.00	0.00
9,600.0	90.00	312.04	4,764.0	3,520.9	-3,165.0	4,730.6	0.00	0.00	0.00
9,700.0	90.00	312.04	4,764.0	3,587.8	-3,239.3	4,830.4	0.00	0.00	0.00
9,800.0	90.00	312.04	4,764.0	3,654.8	-3,313.6	4,930.2	0.00	0.00	0.00
9,900.0	90.00	312.04	4,764.0	3,721.8	-3,387.8	5,029.9	0.00	0.00	0.00
10,000.0	90.00	312.04	4,764.0	3,788.7	-3,462.1	5,129.7	0.00	0.00	0.00
10,100.0	90.00	312.04	4,764.0	3,855.7	-3,536.4	5,229.5	0.00	0.00	0.00
10,200.0	90.00	312.04	4,764.0	3,922.7	-3,610.6	5,329.3	0.00	0.00	0.00
10,300.0	90.00	312.04	4,764.0	3,989.6	-3,684.9	5,429.1	0.00	0.00	0.00
10,400.0	90.00	312.04	4,764.0	4,056.6	-3,759.2	5,528.9	0.00	0.00	0.00
10,500.0	90.00	312.04	4,764.0	4,123.6	-3,833.4	5,628.7	0.00	0.00	0.00
10,600.0	90.00	312.04	4,764.0	4,190.5	-3,907.7	5,728.5	0.00	0.00	0.00
10,700.0	90.00	312.04	4,764.0	4,257.5	-3,982.0	5,828.3	0.00	0.00	0.00
10,800.0	90.00	312.04	4,764.0	4,324.5	-4,056.2	5,928.0	0.00	0.00	0.00
10,900.0	90.00	312.04	4,764.0	4,391.4	-4,130.5	6,027.8	0.00	0.00	0.00
11,000.0	90.00	312.04	4,764.0	4,458.4	-4,204.8	6,127.6	0.00	0.00	0.00
11,100.0	90.00	312.04	4,764.0	4,525.4	-4,279.0	6,227.4	0.00	0.00	0.00
11,200.0	90.00	312.04	4,764.0	4,592.3	-4,353.3	6,327.2	0.00	0.00	0.00
11,300.0	90.00	312.04	4,764.0	4,659.3	-4,427.6	6,427.0	0.00	0.00	0.00
11,400.0	90.00	312.04	4,764.0	4,726.2	-4,501.8	6,526.8	0.00	0.00	0.00

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,500.0	90.00	312.04	4,764.0	4,793.2	-4,576.1	6,626.6	0.00	0.00	0.00
11,600.0	90.00	312.04	4,764.0	4,860.2	-4,650.4	6,726.4	0.00	0.00	0.00
11,700.0	90.00	312.04	4,764.0	4,927.1	-4,724.6	6,826.1	0.00	0.00	0.00
11,800.0	90.00	312.04	4,764.0	4,994.1	-4,798.9	6,925.9	0.00	0.00	0.00
11,900.0	90.00	312.04	4,764.0	5,061.1	-4,873.2	7,025.7	0.00	0.00	0.00
12,000.0	90.00	312.04	4,764.0	5,128.0	-4,947.4	7,125.5	0.00	0.00	0.00
12,100.0	90.00	312.04	4,764.0	5,195.0	-5,021.7	7,225.3	0.00	0.00	0.00
12,200.0	90.00	312.04	4,764.0	5,262.0	-5,096.0	7,325.1	0.00	0.00	0.00
12,300.0	90.00	312.04	4,764.0	5,328.9	-5,170.2	7,424.9	0.00	0.00	0.00
12,400.0	90.00	312.04	4,764.0	5,395.9	-5,244.5	7,524.7	0.00	0.00	0.00
12,446.1	90.00	312.04	4,764.0	5,426.8	-5,278.8	7,570.7	0.00	0.00	0.00
Last take point									
12,506.1	90.00	312.04	4,764.0	5,466.9	-5,323.3	7,630.5	0.00	0.00	0.00
613 C Toe									

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
613 C Heel - plan hits target center - Circle (radius 50.0)	0.00	0.00	4,764.0	560.3	118.3	1,958,730	2,637,863	36.38269218	-108.12288050
613 C Toe - plan hits target center - Circle (radius 100.0)	0.00	0.00	4,764.0	5,466.9	-5,323.3	1,963,653	2,632,436	36.39616929	-108.14137020

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
350.0	350.0	Surface casing	9.625	12.250
5,169.0	4,763.9	Intermediate casing	7.000	8.750

Database:	EDM	**Local Co-ordinate Reference:**	Well Slot 5
Company:	DJR Operating	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Project:	Proposed Carson Unit	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site:	WC 21-2	**North Reference:**	True
Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Carson 613H		
Design:	Lateral plan		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
25.0	25.0	Kirtland			
943.0	943.0	Fruitland			
1,191.0	1,190.0	Picture Cliffs			
1,291.1	1,289.0	Lewis			
1,964.4	1,952.0	Chacra			
2,539.2	2,518.0	Menefee			
3,613.6	3,576.0	Point Lookout			
3,785.3	3,745.0	Mancos			
4,413.3	4,360.0	Mancos Silt			
4,712.4	4,602.0	Gallup A			
4,821.3	4,667.0	Gallup B			
5,179.0	4,764.0	Gallup C			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
820.0	820.0	0.0	0.0	KOP #1
4,106.5	4,061.3	66.8	524.9	KOP #2
5,239.0	4,764.0	600.5	73.7	First take point
12,446.1	4,764.0	5,426.8	-5,278.8	Last take point

DJR Operating

Proposed Carson Unit
WC 21-2
Slot 5

Carson 613H
Lateral plan

Anticollision Report

30 August, 2018

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Reference	Lateral plan		
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 center-center distance of 10,000.0 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 8/30/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,506.1	Lateral plan (Carson 613H)	MWD+IGRF	OWSG MWD + IGRF or WMM

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
WC 21-2						
Bisti Coal 21 Com 2 - Original drilling - Original drilling	1,362.3	1,330.0	155.2	146.0	16.782	CC, ES, SF
Slot 1 - Carson 615 - Pilot hole	1,350.5	1,347.5	63.4	54.1	6.826	CC, ES
Slot 1 - Carson 615 - Pilot hole	1,500.0	1,494.7	68.5	58.1	6.576	SF
Slot 1 - Carson 615H - Lateral plan	1,350.5	1,347.5	63.4	54.1	6.826	CC, ES
Slot 1 - Carson 615H - Lateral plan	12,506.1	11,985.8	627.7	242.0	1.628	SF
Slot 2 - Carson 617H - Lateral plan	400.0	400.0	60.0	57.6	24.626	CC, ES
Slot 2 - Carson 617H - Lateral plan	12,506.1	12,424.5	1,194.4	800.1	3.029	SF
Slot 3 - Carson 584H - Lateral plan	857.0	857.5	35.3	29.6	6.160	CC
Slot 3 - Carson 584H - Lateral plan	900.0	900.0	35.5	29.4	5.867	ES
Slot 3 - Carson 584H - Lateral plan	1,000.0	998.5	37.7	30.9	5.588	SF
Slot 4 - Carson 611H - Lateral plan	400.0	400.0	20.1	17.6	8.228	CC
Slot 4 - Carson 611H - Lateral plan	500.0	499.8	20.4	17.3	6.481	ES
Slot 4 - Carson 611H - Lateral plan	12,506.1	12,526.8	579.3	189.4	1.486	Level 3, SF

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling — **Offset Site Error:** 0.0 usft

Survey Program: 103-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	19.34	161.5	56.7	173.0				
100.0	100.0	75.0	75.0	0.1	0.1	19.34	161.5	56.7	171.1	170.9	0.28	615.786	
200.0	200.0	175.0	175.0	0.5	0.4	19.34	161.5	56.7	171.1	170.2	0.94	181.167	
300.0	300.0	275.0	275.0	0.9	0.8	19.34	161.5	56.7	171.1	169.5	1.66	102.997	
400.0	400.0	375.0	375.0	1.2	1.2	19.34	161.5	56.7	171.1	168.8	2.38	71.951	
500.0	500.0	475.1	475.1	1.6	1.5	19.31	161.8	56.7	171.4	168.3	3.10	55.364	
600.0	600.0	575.2	575.2	1.9	1.9	19.32	161.7	56.7	171.3	167.5	3.81	44.922	
700.0	700.0	675.0	675.0	2.3	2.2	19.34	161.5	56.7	171.1	166.6	4.53	37.784	
800.0	800.0	775.0	775.0	2.7	2.6	19.34	161.5	56.7	171.1	165.9	5.25	32.620	
820.0	820.0	795.0	795.0	2.7	2.7	19.34	161.5	56.7	171.1	165.7	5.39	31.753	
900.0	900.0	875.0	875.0	3.0	3.0	-63.76	161.5	56.7	170.6	164.7	5.96	28.643	
1,000.0	999.9	974.9	974.9	3.4	3.3	-65.18	161.5	56.7	168.7	162.0	6.66	25.314	
1,100.0	1,099.6	1,074.7	1,074.7	3.7	3.7	-67.78	161.8	56.7	165.8	158.4	7.38	22.472	
1,200.0	1,198.9	1,174.1	1,174.1	4.1	4.0	-71.60	161.7	56.7	161.7	153.6	8.10	19.954	
1,300.0	1,297.8	1,273.1	1,273.1	4.5	4.4	-76.80	161.5	56.7	157.4	148.5	8.85	17.793	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling — **Offset Site Error:** 0.0 usft

Survey Program: 103-MWD+IGRF — **Offset Well Error:** 0.0 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
1,321.8	1,319.3	1,294.6	1,294.6	4.6	4.5	-78.12	161.5	56.7	156.5	147.5	9.01	17.371	
1,362.3	1,359.1	1,330.0	1,330.0	4.7	4.5	-80.35	161.5	56.7	155.2	146.0	9.25	16.782	CC, ES, SF
1,400.0	1,396.2	1,330.0	1,330.0	4.9	4.5	-80.35	161.5	56.7	159.7	150.4	9.21	17.343	
1,500.0	1,494.7	1,330.0	1,330.0	5.3	4.5	-80.35	161.5	56.7	207.2	199.0	8.20	25.268	
1,600.0	1,593.2	1,330.0	1,330.0	5.7	4.5	-80.35	161.5	56.7	283.6	276.2	7.35	38.604	
1,700.0	1,691.7	1,330.0	1,330.0	6.2	4.5	-80.35	161.5	56.7	371.3	364.4	6.90	53.813	
1,800.0	1,790.1	1,330.0	1,330.0	6.6	4.5	-80.35	161.5	56.7	464.0	457.3	6.69	69.407	
1,900.0	1,888.6	1,330.0	1,330.0	7.1	4.5	-80.35	161.5	56.7	559.3	552.7	6.59	84.851	
2,000.0	1,987.1	1,330.0	1,330.0	7.5	4.5	-80.35	161.5	56.7	655.9	649.4	6.56	99.951	
2,100.0	2,085.5	1,330.0	1,330.0	8.0	4.5	-80.35	161.5	56.7	753.5	746.9	6.57	114.631	
2,200.0	2,184.0	1,330.0	1,330.0	8.5	4.5	-80.35	161.5	56.7	851.6	845.0	6.61	128.863	
2,300.0	2,282.5	1,330.0	1,330.0	8.9	4.5	-80.35	161.5	56.7	950.1	943.4	6.66	142.634	
2,400.0	2,380.9	1,330.0	1,330.0	9.4	4.5	-80.35	161.5	56.7	1,048.8	1,042.1	6.73	155.940	
2,500.0	2,479.4	1,330.0	1,330.0	9.9	4.5	-80.35	161.5	56.7	1,147.8	1,141.0	6.80	168.785	
2,600.0	2,577.9	1,330.0	1,330.0	10.3	4.5	-80.35	161.5	56.7	1,247.0	1,240.1	6.88	181.172	
2,700.0	2,676.3	1,330.0	1,330.0	10.8	4.5	-80.35	161.5	56.7	1,346.3	1,339.3	6.97	193.106	
2,800.0	2,774.8	1,330.0	1,330.0	11.3	4.5	-80.35	161.5	56.7	1,445.6	1,438.6	7.07	204.596	
2,900.0	2,873.3	1,330.0	1,330.0	11.8	4.5	-80.35	161.5	56.7	1,545.1	1,537.9	7.16	215.649	
3,000.0	2,971.8	1,330.0	1,330.0	12.3	4.5	-80.35	161.5	56.7	1,644.6	1,637.4	7.27	226.273	
3,100.0	3,070.2	1,330.0	1,330.0	12.7	4.5	-80.35	161.5	56.7	1,744.2	1,736.8	7.38	236.478	
3,200.0	3,168.7	1,330.0	1,330.0	13.2	4.5	-80.35	161.5	56.7	1,843.8	1,836.3	7.49	246.273	
3,300.0	3,267.2	1,330.0	1,330.0	13.7	4.5	-80.35	161.5	56.7	1,943.5	1,935.9	7.60	255.667	
3,400.0	3,365.6	1,330.0	1,330.0	14.2	4.5	-80.35	161.5	56.7	2,043.2	2,035.5	7.72	264.671	
3,500.0	3,464.1	1,330.0	1,330.0	14.7	4.5	-80.35	161.5	56.7	2,142.9	2,135.1	7.84	273.295	
3,600.0	3,562.6	1,330.0	1,330.0	15.1	4.5	-80.35	161.5	56.7	2,242.7	2,234.7	7.97	281.549	
3,700.0	3,661.0	1,330.0	1,330.0	15.6	4.5	-80.35	161.5	56.7	2,342.4	2,334.3	8.09	289.442	
3,800.0	3,759.5	1,330.0	1,330.0	16.1	4.5	-80.35	161.5	56.7	2,442.2	2,434.0	8.22	296.986	
3,900.0	3,858.0	1,330.0	1,330.0	16.6	4.5	-80.35	161.5	56.7	2,542.0	2,533.7	8.36	304.190	
4,000.0	3,956.5	1,330.0	1,330.0	17.1	4.5	-80.35	161.5	56.7	2,641.9	2,633.4	8.49	311.064	
4,106.5	4,061.3	1,330.0	1,330.0	17.6	4.5	-80.35	161.5	56.7	2,748.2	2,739.5	8.64	318.033	
4,150.0	4,104.3	1,330.0	1,330.0	17.8	4.5	-86.38	161.5	56.7	2,791.5	2,782.8	8.70	320.878	
4,200.0	4,153.8	1,330.0	1,330.0	18.0	4.5	-63.01	161.5	56.7	2,841.0	2,832.2	8.76	324.274	
4,250.0	4,203.2	1,330.0	1,330.0	18.2	4.5	-41.04	161.5	56.7	2,889.7	2,880.9	8.82	327.792	
4,300.0	4,252.2	1,330.0	1,330.0	18.3	4.5	-28.22	161.5	56.7	2,937.6	2,928.7	8.86	331.386	
4,350.0	4,300.5	1,330.0	1,330.0	18.4	4.5	-20.98	161.5	56.7	2,984.2	2,975.3	8.91	335.010	
4,400.0	4,347.7	1,330.0	1,330.0	18.5	4.5	-16.59	161.5	56.7	3,029.5	3,020.6	8.95	338.609	
4,450.0	4,393.6	1,330.0	1,330.0	18.6	4.5	-13.71	161.5	56.7	3,073.2	3,064.2	8.98	342.115	
4,500.0	4,437.9	1,330.0	1,330.0	18.6	4.5	-11.72	161.5	56.7	3,115.0	3,106.0	9.02	345.451	
4,550.0	4,480.3	1,330.0	1,330.0	18.7	4.5	-10.28	161.5	56.7	3,154.9	3,145.8	9.05	348.520	
4,600.0	4,520.5	1,330.0	1,330.0	18.7	4.5	-9.19	161.5	56.7	3,192.6	3,183.5	9.09	351.213	
4,650.0	4,558.4	1,330.0	1,330.0	18.7	4.5	-8.36	161.5	56.7	3,228.0	3,218.8	9.13	353.405	
4,700.0	4,593.7	1,330.0	1,330.0	18.7	4.5	-7.71	161.5	56.7	3,260.9	3,251.7	9.19	354.964	
4,750.0	4,626.1	1,330.0	1,330.0	18.7	4.5	-7.20	161.5	56.7	3,291.3	3,282.1	9.25	355.754	
4,800.0	4,655.4	1,330.0	1,330.0	18.7	4.5	-6.79	161.5	56.7	3,319.0	3,309.7	9.33	355.652	
4,850.0	4,681.6	1,330.0	1,330.0	18.7	4.5	-6.47	161.5	56.7	3,343.9	3,334.5	9.43	354.553	
4,900.0	4,704.4	1,330.0	1,330.0	18.7	4.5	-6.21	161.5	56.7	3,365.9	3,356.3	9.55	352.384	
4,950.0	4,723.6	1,330.0	1,330.0	18.6	4.5	-6.01	161.5	56.7	3,385.0	3,375.3	9.70	349.114	
5,000.0	4,739.2	1,330.0	1,330.0	18.9	4.5	-5.86	161.5	56.7	3,401.0	3,391.1	9.86	344.760	
5,050.0	4,751.1	1,330.0	1,330.0	19.4	4.5	-5.75	161.5	56.7	3,413.9	3,403.9	10.06	339.385	
5,100.0	4,759.1	1,330.0	1,330.0	20.0	4.5	-5.68	161.5	56.7	3,423.7	3,413.5	10.28	333.094	
5,150.0	4,763.3	1,330.0	1,330.0	20.7	4.5	-5.65	161.5	56.7	3,430.4	3,419.9	10.52	326.025	
5,179.0	4,764.0	1,330.0	1,330.0	21.1	4.5	-5.65	161.5	56.7	3,432.8	3,422.1	10.67	321.655	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling — **Offset Site Error:** 0.0 usft

Survey Program: 103-MWD+IGRF — **Offset Well Error:** 0.0 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
5,200.0	4,764.0	1,330.0	1,330.0	21.3	4.5	-5.65	161.5	56.7	3,434.2	3,423.4	10.79	318.383	
5,300.0	4,764.0	1,330.0	1,330.0	22.8	4.5	-5.65	161.5	56.7	3,442.7	3,431.4	11.38	302.638	
5,400.0	4,764.0	1,330.0	1,330.0	24.5	4.5	-5.65	161.5	56.7	3,454.1	3,442.1	12.02	287.351	
5,500.0	4,764.0	1,330.0	1,330.0	26.3	4.5	-5.65	161.5	56.7	3,468.3	3,455.6	12.71	272.961	
5,600.0	4,764.0	1,330.0	1,330.0	28.2	4.5	-5.65	161.5	56.7	3,485.4	3,471.9	13.42	259.691	
5,700.0	4,764.0	1,330.0	1,330.0	30.1	4.5	-5.65	161.5	56.7	3,505.2	3,491.0	14.16	247.623	
5,800.0	4,764.0	1,330.0	1,330.0	32.2	4.5	-5.65	161.5	56.7	3,527.7	3,512.8	14.90	236.751	
5,900.0	4,764.0	1,330.0	1,330.0	34.3	4.5	-5.65	161.5	56.7	3,552.9	3,537.3	15.65	227.018	
6,000.0	4,764.0	1,330.0	1,330.0	36.5	4.5	-5.65	161.5	56.7	3,580.7	3,564.3	16.40	218.344	
6,100.0	4,764.0	1,330.0	1,330.0	38.7	4.5	-5.65	161.5	56.7	3,611.1	3,594.0	17.14	210.640	
6,200.0	4,764.0	1,330.0	1,330.0	40.9	4.5	-5.65	161.5	56.7	3,644.0	3,626.1	17.88	203.816	
6,300.0	4,764.0	1,330.0	1,330.0	43.2	4.5	-5.65	161.5	56.7	3,679.3	3,660.7	18.60	197.783	
6,400.0	4,764.0	1,330.0	1,330.0	45.5	4.5	-5.65	161.5	56.7	3,716.9	3,697.6	19.31	192.463	
6,500.0	4,764.0	1,330.0	1,330.0	47.8	4.5	-5.65	161.5	56.7	3,756.9	3,736.8	20.01	187.783	
6,600.0	4,764.0	1,330.0	1,330.0	50.2	4.5	-5.65	161.5	56.7	3,799.0	3,778.3	20.68	183.676	
6,700.0	4,764.0	1,330.0	1,330.0	52.5	4.5	-5.65	161.5	56.7	3,843.3	3,821.9	21.34	180.085	
6,800.0	4,764.0	1,330.0	1,330.0	54.9	4.5	-5.65	161.5	56.7	3,889.6	3,867.7	21.98	176.957	
6,900.0	4,764.0	1,330.0	1,330.0	57.3	4.5	-5.65	161.5	56.7	3,938.0	3,915.4	22.60	174.246	
7,000.0	4,764.0	1,330.0	1,330.0	59.7	4.5	-5.65	161.5	56.7	3,988.3	3,965.1	23.20	171.911	
7,100.0	4,764.0	1,330.0	1,330.0	62.1	4.5	-5.65	161.5	56.7	4,040.4	4,016.6	23.78	169.917	
7,200.0	4,764.0	1,330.0	1,330.0	64.5	4.5	-5.65	161.5	56.7	4,094.3	4,069.9	24.34	168.230	
7,300.0	4,764.0	1,330.0	1,330.0	67.0	4.5	-5.65	161.5	56.7	4,149.9	4,125.0	24.88	166.822	
7,400.0	4,764.0	1,330.0	1,330.0	69.4	4.5	-5.65	161.5	56.7	4,207.1	4,181.8	25.40	165.667	
7,500.0	4,764.0	1,330.0	1,330.0	71.8	4.5	-5.65	161.5	56.7	4,266.0	4,240.1	25.89	164.744	
7,600.0	4,764.0	1,330.0	1,330.0	74.3	4.5	-5.65	161.5	56.7	4,326.3	4,299.9	26.37	164.032	
7,700.0	4,764.0	1,330.0	1,330.0	76.7	4.5	-5.65	161.5	56.7	4,388.1	4,361.3	26.84	163.512	
7,800.0	4,764.0	1,330.0	1,330.0	79.2	4.5	-5.65	161.5	56.7	4,451.3	4,424.0	27.28	163.169	
7,900.0	4,764.0	1,330.0	1,330.0	81.6	4.5	-5.65	161.5	56.7	4,515.8	4,488.1	27.71	162.988	
8,000.0	4,764.0	1,330.0	1,330.0	84.1	4.5	-5.65	161.5	56.7	4,581.6	4,553.5	28.12	162.955	
8,100.0	4,764.0	1,330.0	1,330.0	86.6	4.5	-5.65	161.5	56.7	4,648.6	4,620.1	28.51	163.060	
8,200.0	4,764.0	1,330.0	1,330.0	89.1	4.5	-5.65	161.5	56.7	4,716.8	4,687.9	28.89	163.290	
8,300.0	4,764.0	1,330.0	1,330.0	91.5	4.5	-5.65	161.5	56.7	4,786.0	4,756.8	29.25	163.638	
8,400.0	4,764.0	1,330.0	1,330.0	94.0	4.5	-5.65	161.5	56.7	4,856.4	4,826.8	29.60	164.093	
8,500.0	4,764.0	1,330.0	1,330.0	96.5	4.5	-5.65	161.5	56.7	4,927.8	4,897.9	29.93	164.647	
8,600.0	4,764.0	1,330.0	1,330.0	99.0	4.5	-5.65	161.5	56.7	5,000.2	4,969.9	30.25	165.295	
8,700.0	4,764.0	1,330.0	1,330.0	101.5	4.5	-5.65	161.5	56.7	5,073.5	5,042.9	30.56	166.028	
8,800.0	4,764.0	1,330.0	1,330.0	103.9	4.5	-5.65	161.5	56.7	5,147.7	5,116.8	30.85	166.841	
8,900.0	4,764.0	1,330.0	1,330.0	106.4	4.5	-5.65	161.5	56.7	5,222.7	5,191.6	31.14	167.728	
9,000.0	4,764.0	1,330.0	1,330.0	108.9	4.5	-5.65	161.5	56.7	5,298.6	5,267.2	31.41	168.684	
9,100.0	4,764.0	1,330.0	1,330.0	111.4	4.5	-5.65	161.5	56.7	5,375.3	5,343.6	31.67	169.704	
9,200.0	4,764.0	1,330.0	1,330.0	113.9	4.5	-5.65	161.5	56.7	5,452.7	5,420.8	31.93	170.784	
9,300.0	4,764.0	1,330.0	1,330.0	116.4	4.5	-5.65	161.5	56.7	5,530.9	5,498.7	32.17	171.921	
9,400.0	4,764.0	1,330.0	1,330.0	118.9	4.5	-5.65	161.5	56.7	5,609.8	5,577.3	32.41	173.110	
9,500.0	4,764.0	1,330.0	1,330.0	121.4	4.5	-5.65	161.5	56.7	5,689.3	5,656.6	32.63	174.347	
9,600.0	4,764.0	1,330.0	1,330.0	123.9	4.5	-5.65	161.5	56.7	5,769.4	5,736.6	32.85	175.631	
9,700.0	4,764.0	1,330.0	1,330.0	126.4	4.5	-5.65	161.5	56.7	5,850.2	5,817.1	33.06	176.957	
9,800.0	4,764.0	1,330.0	1,330.0	128.9	4.5	-5.65	161.5	56.7	5,931.5	5,898.3	33.26	178.323	
9,900.0	4,764.0	1,330.0	1,330.0	131.4	4.5	-5.65	161.5	56.7	6,013.5	5,980.0	33.46	179.727	
10,000.0	4,764.0	1,330.0	1,330.0	133.9	4.5	-5.65	161.5	56.7	6,095.9	6,062.3	33.65	181.166	
10,100.0	4,764.0	1,330.0	1,330.0	136.4	4.5	-5.65	161.5	56.7	6,178.9	6,145.0	33.83	182.638	
10,200.0	4,764.0	1,330.0	1,330.0	138.9	4.5	-5.65	161.5	56.7	6,262.3	6,228.3	34.01	184.141	
10,300.0	4,764.0	1,330.0	1,330.0	141.5	4.5	-5.65	161.5	56.7	6,346.3	6,312.1	34.18	185.673	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Bisti Coal 21 Com 2 - Original drilling - Original drilling

Offset Site Error: 0.0 usft

Survey Program: 103-MWD+IGRF

Offset Well Error: 0.0 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
10,400.0	4,764.0	1,330.0	1,330.0	144.0	4.5	-5.65	161.5	56.7	6,430.7	6,396.4	34.35	187.232	
10,500.0	4,764.0	1,330.0	1,330.0	146.5	4.5	-5.65	161.5	56.7	6,515.5	6,481.0	34.51	188.817	
10,600.0	4,764.0	1,330.0	1,330.0	149.0	4.5	-5.65	161.5	56.7	6,600.8	6,566.2	34.66	190.425	
10,700.0	4,764.0	1,330.0	1,330.0	151.5	4.5	-5.65	161.5	56.7	6,686.5	6,651.7	34.82	192.056	
10,800.0	4,764.0	1,330.0	1,330.0	154.0	4.5	-5.65	161.5	56.7	6,772.6	6,737.6	34.96	193.708	
10,900.0	4,764.0	1,330.0	1,330.0	156.5	4.5	-5.65	161.5	56.7	6,859.0	6,823.9	35.11	195.380	
11,000.0	4,764.0	1,330.0	1,330.0	159.0	4.5	-5.65	161.5	56.7	6,945.8	6,910.6	35.25	197.070	
11,100.0	4,764.0	1,330.0	1,330.0	161.5	4.5	-5.65	161.5	56.7	7,033.0	6,997.6	35.38	198.778	
11,200.0	4,764.0	1,330.0	1,330.0	164.1	4.5	-5.65	161.5	56.7	7,120.5	7,085.0	35.51	200.501	
11,300.0	4,764.0	1,330.0	1,330.0	166.6	4.5	-5.65	161.5	56.7	7,208.3	7,172.7	35.64	202.240	
11,400.0	4,764.0	1,330.0	1,330.0	169.1	4.5	-5.65	161.5	56.7	7,296.5	7,260.7	35.77	203.993	
11,500.0	4,764.0	1,330.0	1,330.0	171.6	4.5	-5.65	161.5	56.7	7,384.9	7,349.0	35.89	205.759	
11,600.0	4,764.0	1,330.0	1,330.0	174.1	4.5	-5.65	161.5	56.7	7,473.6	7,437.6	36.01	207.538	
11,700.0	4,764.0	1,330.0	1,330.0	176.6	4.5	-5.65	161.5	56.7	7,562.7	7,526.5	36.13	209.328	
11,800.0	4,764.0	1,330.0	1,330.0	179.1	4.5	-5.65	161.5	56.7	7,652.0	7,615.7	36.24	211.129	
11,900.0	4,764.0	1,330.0	1,330.0	181.7	4.5	-5.65	161.5	56.7	7,741.5	7,705.1	36.36	212.940	
12,000.0	4,764.0	1,330.0	1,330.0	184.2	4.5	-5.65	161.5	56.7	7,831.3	7,794.8	36.47	214.760	
12,100.0	4,764.0	1,330.0	1,330.0	186.7	4.5	-5.65	161.5	56.7	7,921.3	7,884.8	36.57	216.588	
12,200.0	4,764.0	1,330.0	1,330.0	189.2	4.5	-5.65	161.5	56.7	8,011.6	7,974.9	36.68	218.425	
12,300.0	4,764.0	1,330.0	1,330.0	191.7	4.5	-5.65	161.5	56.7	8,102.1	8,065.4	36.78	220.268	
12,400.0	4,764.0	1,330.0	1,330.0	194.2	4.5	-5.65	161.5	56.7	8,192.9	8,156.0	36.89	222.119	
12,506.1	4,764.0	1,330.0	1,330.0	196.9	4.5	-5.65	161.5	56.7	8,289.4	8,252.4	36.99	224.089	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615 - Pilot hole — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	135.15	-56.7	56.4	80.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.15	-56.7	56.4	80.0	79.7	0.29	279.063	
200.0	200.0	200.0	200.0	0.5	0.5	135.15	-56.7	56.4	80.0	79.0	1.00	79.732	
300.0	300.0	300.0	300.0	0.9	0.9	135.15	-56.7	56.4	80.0	78.3	1.72	46.511	
400.0	400.0	400.0	400.0	1.2	1.2	135.15	-56.7	56.4	80.0	77.6	2.44	32.831	
500.0	500.0	500.0	500.0	1.6	1.6	135.15	-56.7	56.4	80.0	76.9	3.15	25.369	
600.0	600.0	600.0	600.0	1.9	1.9	135.15	-56.7	56.4	80.0	76.2	3.87	20.671	
700.0	700.0	700.0	700.0	2.3	2.3	135.15	-56.7	56.4	80.0	75.4	4.59	17.441	
800.0	800.0	800.0	800.0	2.7	2.7	135.15	-56.7	56.4	80.0	74.7	5.31	15.085	
820.0	820.0	820.0	820.0	2.7	2.7	135.15	-56.7	56.4	80.0	74.6	5.45	14.688	
900.0	900.0	900.0	900.0	3.0	3.0	53.05	-56.7	56.4	79.4	73.3	6.02	13.189	
1,000.0	999.9	999.9	999.9	3.4	3.4	55.80	-56.7	56.4	76.7	70.0	6.72	11.413	
1,100.0	1,099.6	1,099.6	1,099.6	3.7	3.7	61.11	-56.7	56.4	72.5	65.1	7.43	9.754	
1,200.0	1,198.9	1,198.9	1,198.9	4.1	4.1	69.70	-56.7	56.4	67.7	59.5	8.16	8.297	
1,300.0	1,297.8	1,297.8	1,297.8	4.5	4.4	82.28	-56.7	56.4	64.0	55.1	8.90	7.189	
1,321.8	1,319.3	1,319.3	1,319.3	4.6	4.5	85.57	-56.7	56.4	63.6	54.5	9.07	7.014	
1,350.5	1,347.5	1,347.5	1,347.5	4.7	4.6	90.00	-56.7	56.4	63.4	54.1	9.29	6.826	CC, ES
1,400.0	1,396.2	1,396.2	1,396.2	4.9	4.8	97.64	-56.7	56.4	64.0	54.3	9.67	6.619	
1,500.0	1,494.7	1,494.7	1,494.7	5.3	5.1	112.03	-56.7	56.4	68.5	58.1	10.42	6.576	SF
1,600.0	1,593.2	1,593.2	1,593.2	5.7	5.5	124.03	-56.7	56.4	76.9	65.7	11.16	6.889	
1,700.0	1,691.7	1,691.7	1,691.7	6.2	5.8	133.41	-56.7	56.4	87.9	76.0	11.88	7.402	
1,800.0	1,790.1	1,790.1	1,790.1	6.6	6.2	140.58	-56.7	56.4	100.8	88.2	12.59	8.007	
1,900.0	1,888.6	1,888.6	1,888.6	7.1	6.6	146.09	-56.7	56.4	114.9	101.6	13.29	8.640	
2,000.0	1,987.1	1,987.1	1,987.1	7.5	6.9	150.37	-56.7	56.4	129.7	115.7	14.00	9.268	
2,100.0	2,085.5	2,085.5	2,085.5	8.0	7.3	153.76	-56.7	56.4	145.2	130.5	14.71	9.873	
2,200.0	2,184.0	2,184.0	2,184.0	8.5	7.6	156.50	-56.7	56.4	161.1	145.6	15.42	10.448	
2,300.0	2,282.5	2,282.5	2,282.5	8.9	8.0	158.74	-56.7	56.4	177.2	161.1	16.13	10.989	
2,400.0	2,380.9	2,380.9	2,380.9	9.4	8.3	160.61	-56.7	56.4	193.6	176.7	16.84	11.496	
2,500.0	2,479.4	2,479.4	2,479.4	9.9	8.7	162.18	-56.7	56.4	210.1	192.6	17.55	11.972	
2,600.0	2,577.9	2,577.9	2,577.9	10.3	9.0	163.53	-56.7	56.4	226.8	208.5	18.27	12.416	
2,700.0	2,676.3	2,676.3	2,676.3	10.8	9.4	164.69	-56.7	56.4	243.6	224.6	18.98	12.832	
2,800.0	2,774.8	2,774.8	2,774.8	11.3	9.7	165.70	-56.7	56.4	260.5	240.8	19.70	13.221	
2,900.0	2,873.3	2,873.3	2,873.3	11.8	10.1	166.59	-56.7	56.4	277.4	257.0	20.42	13.585	
3,000.0	2,971.8	2,971.8	2,971.8	12.3	10.4	167.37	-56.7	56.4	294.4	273.2	21.14	13.927	
3,100.0	3,070.2	3,070.2	3,070.2	12.7	10.8	168.08	-56.7	56.4	311.4	289.6	21.86	14.249	
3,200.0	3,168.7	3,168.7	3,168.7	13.2	11.1	168.70	-56.7	56.4	328.5	305.9	22.58	14.551	
3,300.0	3,267.2	3,267.2	3,267.2	13.7	11.5	169.27	-56.7	56.4	345.6	322.3	23.30	14.836	
3,400.0	3,365.6	3,365.6	3,365.6	14.2	11.8	169.78	-56.7	56.4	362.8	338.7	24.02	15.104	
3,500.0	3,464.1	3,464.1	3,464.1	14.7	12.2	170.25	-56.7	56.4	379.9	355.2	24.74	15.358	
3,600.0	3,562.6	3,562.6	3,562.6	15.1	12.6	170.67	-56.7	56.4	397.1	371.7	25.46	15.598	
3,700.0	3,661.0	3,661.0	3,661.0	15.6	12.9	171.06	-56.7	56.4	414.3	388.2	26.18	15.825	
3,800.0	3,759.5	3,759.5	3,759.5	16.1	13.3	171.42	-56.7	56.4	431.6	404.7	26.91	16.041	
3,900.0	3,858.0	3,858.0	3,858.0	16.6	13.6	171.75	-56.7	56.4	448.8	421.2	27.63	16.245	
4,000.0	3,956.5	3,956.5	3,956.5	17.1	14.0	172.06	-56.7	56.4	466.1	437.7	28.35	16.440	
4,106.5	4,061.3	4,061.3	4,061.3	17.6	14.3	172.36	-56.7	56.4	484.5	455.3	29.12	16.636	
4,150.0	4,104.3	4,104.3	4,104.3	17.8	14.5	-165.63	-56.7	56.4	491.2	461.8	29.43	16.687	
4,200.0	4,153.8	4,153.8	4,153.8	18.0	14.7	-133.02	-56.7	56.4	496.9	467.1	29.79	16.680	
4,250.0	4,203.2	4,203.2	4,203.2	18.2	14.9	-107.63	-56.7	56.4	500.6	470.5	30.14	16.607	
4,300.0	4,252.2	4,252.2	4,252.2	18.3	15.0	-93.66	-56.7	56.4	502.3	471.8	30.49	16.473	
4,350.0	4,300.5	4,300.5	4,300.5	18.4	15.2	-86.54	-56.7	56.4	502.2	471.3	30.83	16.286	
4,400.0	4,347.7	4,347.7	4,347.7	18.5	15.4	-83.14	-56.7	56.4	500.5	469.4	31.17	16.056	
4,450.0	4,393.6	4,393.6	4,393.6	18.6	15.5	-81.92	-56.7	56.4	497.7	466.2	31.51	15.794	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615 - Pilot hole — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
4,500.0	4,437.9	4,437.9	4,437.9	18.6	15.7	-82.10	-56.7	56.4	494.0	462.1	31.85	15.511	
4,550.0	4,480.3	4,480.3	4,480.3	18.7	15.8	-83.21	-56.7	56.4	490.0	457.8	32.19	15.222	
4,600.0	4,520.5	4,520.5	4,520.5	18.7	16.0	-84.95	-56.7	56.4	486.2	453.7	32.54	14.943	
4,650.0	4,558.4	4,558.4	4,558.4	18.7	16.1	-87.06	-56.7	56.4	483.2	450.3	32.90	14.689	
4,700.0	4,593.7	4,593.7	4,593.7	18.7	16.3	-89.32	-56.7	56.4	481.6	448.4	33.27	14.478	
4,714.9	4,603.6	4,603.6	4,603.6	18.7	16.3	-90.00	-56.7	56.4	481.5	448.2	33.38	14.424	
4,750.0	4,626.1	4,626.1	4,626.1	18.7	16.4	-91.54	-56.7	56.4	482.1	448.5	33.65	14.327	
4,800.0	4,655.4	4,655.4	4,655.4	18.7	16.5	-93.54	-56.7	56.4	485.2	451.2	34.04	14.253	
4,850.0	4,681.6	4,681.6	4,681.6	18.7	16.6	-95.18	-56.7	56.4	491.5	457.0	34.44	14.272	
4,900.0	4,704.4	4,704.4	4,704.4	18.7	16.6	-96.31	-56.7	56.4	501.2	466.4	34.82	14.395	
4,950.0	4,723.6	4,723.6	4,723.6	18.6	16.7	-96.86	-56.7	56.4	514.6	479.4	35.17	14.631	
5,000.0	4,739.2	4,739.2	4,739.2	18.9	16.8	-96.73	-56.7	56.4	531.7	496.2	35.49	14.982	
5,050.0	4,751.1	4,751.1	4,751.1	19.4	16.8	-95.86	-56.7	56.4	552.4	516.6	35.76	15.448	
5,100.0	4,759.1	4,759.1	4,759.1	20.0	16.8	-94.21	-56.7	56.4	576.4	540.4	35.98	16.022	
5,150.0	4,763.3	4,763.3	4,763.3	20.7	16.9	-91.77	-56.7	56.4	603.4	567.2	36.14	16.696	
5,179.0	4,764.0	4,764.0	4,764.0	21.1	16.9	-90.00	-56.7	56.4	620.1	583.9	36.20	17.129	
5,200.0	4,764.0	4,764.0	4,764.0	21.3	16.9	-90.00	-56.7	56.4	632.8	596.6	36.25	17.459	
5,300.0	4,764.0	4,764.0	4,764.0	22.8	16.9	-90.00	-56.7	56.4	698.6	662.2	36.39	19.196	
5,400.0	4,764.0	4,764.0	4,764.0	24.5	16.9	-90.00	-56.7	56.4	771.8	735.4	36.48	21.158	
5,500.0	4,764.0	4,764.0	4,764.0	26.3	16.9	-90.00	-56.7	56.4	850.5	814.0	36.52	23.288	
5,600.0	4,764.0	4,764.0	4,764.0	28.2	16.9	-90.00	-56.7	56.4	933.3	896.8	36.54	25.542	
5,700.0	4,764.0	4,764.0	4,764.0	30.1	16.9	-90.00	-56.7	56.4	1,019.2	982.6	36.54	27.890	
5,800.0	4,764.0	4,764.0	4,764.0	32.2	16.9	-90.00	-56.7	56.4	1,107.4	1,070.9	36.54	30.309	
5,900.0	4,764.0	4,764.0	4,764.0	34.3	16.9	-90.00	-56.7	56.4	1,197.5	1,161.0	36.53	32.783	
6,000.0	4,764.0	4,764.0	4,764.0	36.5	16.9	-90.00	-56.7	56.4	1,289.1	1,252.5	36.52	35.299	
6,100.0	4,764.0	4,764.0	4,764.0	38.7	16.9	-90.00	-56.7	56.4	1,381.8	1,345.3	36.51	37.850	
6,200.0	4,764.0	4,764.0	4,764.0	40.9	16.9	-90.00	-56.7	56.4	1,475.5	1,439.0	36.50	40.426	
6,300.0	4,764.0	4,764.0	4,764.0	43.2	16.9	-90.00	-56.7	56.4	1,569.9	1,533.4	36.49	43.024	
6,400.0	4,764.0	4,764.0	4,764.0	45.5	16.9	-90.00	-56.7	56.4	1,665.0	1,628.5	36.48	45.639	
6,500.0	4,764.0	4,764.0	4,764.0	47.8	16.9	-90.00	-56.7	56.4	1,760.7	1,724.2	36.48	48.267	
6,600.0	4,764.0	4,764.0	4,764.0	50.2	16.9	-90.00	-56.7	56.4	1,856.8	1,820.3	36.48	50.905	
6,700.0	4,764.0	4,764.0	4,764.0	52.5	16.9	-90.00	-56.7	56.4	1,953.3	1,916.8	36.47	53.552	
6,800.0	4,764.0	4,764.0	4,764.0	54.9	16.9	-90.00	-56.7	56.4	2,050.1	2,013.6	36.48	56.204	
6,900.0	4,764.0	4,764.0	4,764.0	57.3	16.9	-90.00	-56.7	56.4	2,147.2	2,110.7	36.48	58.862	
7,000.0	4,764.0	4,764.0	4,764.0	59.7	16.9	-90.00	-56.7	56.4	2,244.6	2,208.1	36.48	61.523	
7,100.0	4,764.0	4,764.0	4,764.0	62.1	16.9	-90.00	-56.7	56.4	2,342.2	2,305.7	36.49	64.187	
7,200.0	4,764.0	4,764.0	4,764.0	64.5	16.9	-90.00	-56.7	56.4	2,440.0	2,403.5	36.50	66.851	
7,300.0	4,764.0	4,764.0	4,764.0	67.0	16.9	-90.00	-56.7	56.4	2,537.9	2,501.4	36.51	69.516	
7,400.0	4,764.0	4,764.0	4,764.0	69.4	16.9	-90.00	-56.7	56.4	2,636.1	2,599.5	36.52	72.180	
7,500.0	4,764.0	4,764.0	4,764.0	71.8	16.9	-90.00	-56.7	56.4	2,734.3	2,697.8	36.53	74.844	
7,600.0	4,764.0	4,764.0	4,764.0	74.3	16.9	-90.00	-56.7	56.4	2,832.7	2,796.1	36.55	77.505	
7,700.0	4,764.0	4,764.0	4,764.0	76.7	16.9	-90.00	-56.7	56.4	2,931.2	2,894.6	36.56	80.165	
7,800.0	4,764.0	4,764.0	4,764.0	79.2	16.9	-90.00	-56.7	56.4	3,029.8	2,993.2	36.58	82.821	
7,900.0	4,764.0	4,764.0	4,764.0	81.6	16.9	-90.00	-56.7	56.4	3,128.4	3,091.8	36.60	85.474	
8,000.0	4,764.0	4,764.0	4,764.0	84.1	16.9	-90.00	-56.7	56.4	3,227.2	3,190.6	36.62	88.124	
8,100.0	4,764.0	4,764.0	4,764.0	86.6	16.9	-90.00	-56.7	56.4	3,326.0	3,289.4	36.64	90.769	
8,200.0	4,764.0	4,764.0	4,764.0	89.1	16.9	-90.00	-56.7	56.4	3,424.9	3,388.2	36.67	93.410	
8,300.0	4,764.0	4,764.0	4,764.0	91.5	16.9	-90.00	-56.7	56.4	3,523.9	3,487.2	36.69	96.046	
8,400.0	4,764.0	4,764.0	4,764.0	94.0	16.9	-90.00	-56.7	56.4	3,622.9	3,586.2	36.71	98.677	
8,500.0	4,764.0	4,764.0	4,764.0	96.5	16.9	-90.00	-56.7	56.4	3,722.0	3,685.2	36.74	101.303	
8,600.0	4,764.0	4,764.0	4,764.0	99.0	16.9	-90.00	-56.7	56.4	3,821.1	3,784.3	36.77	103.923	
8,700.0	4,764.0	4,764.0	4,764.0	101.5	16.9	-90.00	-56.7	56.4	3,920.2	3,883.4	36.80	106.537	

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

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615 - Pilot hole — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
8,800.0	4,764.0	4,764.0	4,764.0	103.9	16.9	-90.00	-56.7	56.4	4,019.4	3,982.6	36.83	109.145	
8,900.0	4,764.0	4,764.0	4,764.0	106.4	16.9	-90.00	-56.7	56.4	4,118.7	4,081.8	36.86	111.746	
9,000.0	4,764.0	4,764.0	4,764.0	108.9	16.9	-90.00	-56.7	56.4	4,218.0	4,181.1	36.89	114.341	
9,100.0	4,764.0	4,764.0	4,764.0	111.4	16.9	-90.00	-56.7	56.4	4,317.3	4,280.4	36.92	116.929	
9,200.0	4,764.0	4,764.0	4,764.0	113.9	16.9	-90.00	-56.7	56.4	4,416.6	4,379.7	36.96	119.510	
9,300.0	4,764.0	4,764.0	4,764.0	116.4	16.9	-90.00	-56.7	56.4	4,516.0	4,479.0	36.99	122.083	
9,400.0	4,764.0	4,764.0	4,764.0	118.9	16.9	-90.00	-56.7	56.4	4,615.4	4,578.4	37.03	124.649	
9,500.0	4,764.0	4,764.0	4,764.0	121.4	16.9	-90.00	-56.7	56.4	4,714.8	4,677.8	37.06	127.207	
9,600.0	4,764.0	4,764.0	4,764.0	123.9	16.9	-90.00	-56.7	56.4	4,814.3	4,777.2	37.10	129.758	
9,700.0	4,764.0	4,764.0	4,764.0	126.4	16.9	-90.00	-56.7	56.4	4,913.7	4,876.6	37.14	132.300	
9,800.0	4,764.0	4,764.0	4,764.0	128.9	16.9	-90.00	-56.7	56.4	5,013.2	4,976.0	37.18	134.835	
9,900.0	4,764.0	4,764.0	4,764.0	131.4	16.9	-90.00	-56.7	56.4	5,112.7	5,075.5	37.22	137.361	
10,000.0	4,764.0	4,764.0	4,764.0	133.9	16.9	-90.00	-56.7	56.4	5,212.3	5,175.0	37.26	139.879	
10,100.0	4,764.0	4,764.0	4,764.0	136.4	16.9	-90.00	-56.7	56.4	5,311.8	5,274.5	37.31	142.388	
10,200.0	4,764.0	4,764.0	4,764.0	138.9	16.9	-90.00	-56.7	56.4	5,411.4	5,374.0	37.35	144.888	
10,300.0	4,764.0	4,764.0	4,764.0	141.5	16.9	-90.00	-56.7	56.4	5,511.0	5,473.6	37.39	147.380	
10,400.0	4,764.0	4,764.0	4,764.0	144.0	16.9	-90.00	-56.7	56.4	5,610.6	5,573.1	37.44	149.862	
10,500.0	4,764.0	4,764.0	4,764.0	146.5	16.9	-90.00	-56.7	56.4	5,710.2	5,672.7	37.48	152.336	
10,600.0	4,764.0	4,764.0	4,764.0	149.0	16.9	-90.00	-56.7	56.4	5,809.8	5,772.3	37.53	154.800	
10,700.0	4,764.0	4,764.0	4,764.0	151.5	16.9	-90.00	-56.7	56.4	5,909.4	5,871.8	37.58	157.255	
10,800.0	4,764.0	4,764.0	4,764.0	154.0	16.9	-90.00	-56.7	56.4	6,009.1	5,971.4	37.63	159.700	
10,900.0	4,764.0	4,764.0	4,764.0	156.5	16.9	-90.00	-56.7	56.4	6,108.7	6,071.1	37.68	162.136	
11,000.0	4,764.0	4,764.0	4,764.0	159.0	16.9	-90.00	-56.7	56.4	6,208.4	6,170.7	37.73	164.563	
11,100.0	4,764.0	4,764.0	4,764.0	161.5	16.9	-90.00	-56.7	56.4	6,308.1	6,270.3	37.78	166.979	
11,200.0	4,764.0	4,764.0	4,764.0	164.1	16.9	-90.00	-56.7	56.4	6,407.8	6,369.9	37.83	169.386	
11,300.0	4,764.0	4,764.0	4,764.0	166.6	16.9	-90.00	-56.7	56.4	6,507.5	6,469.6	37.88	171.783	
11,400.0	4,764.0	4,764.0	4,764.0	169.1	16.9	-90.00	-56.7	56.4	6,607.2	6,569.3	37.94	174.171	
11,500.0	4,764.0	4,764.0	4,764.0	171.6	16.9	-90.00	-56.7	56.4	6,706.9	6,668.9	37.99	176.548	
11,600.0	4,764.0	4,764.0	4,764.0	174.1	16.9	-90.00	-56.7	56.4	6,806.6	6,768.6	38.04	178.915	
11,700.0	4,764.0	4,764.0	4,764.0	176.6	16.9	-90.00	-56.7	56.4	6,906.4	6,868.3	38.10	181.271	
11,800.0	4,764.0	4,764.0	4,764.0	179.1	16.9	-90.00	-56.7	56.4	7,006.1	6,968.0	38.16	183.618	
11,900.0	4,764.0	4,764.0	4,764.0	181.7	16.9	-90.00	-56.7	56.4	7,105.9	7,067.6	38.21	185.954	
12,000.0	4,764.0	4,764.0	4,764.0	184.2	16.9	-90.00	-56.7	56.4	7,205.6	7,167.3	38.27	188.280	
12,100.0	4,764.0	4,764.0	4,764.0	186.7	16.9	-90.00	-56.7	56.4	7,305.4	7,267.0	38.33	190.596	
12,200.0	4,764.0	4,764.0	4,764.0	189.2	16.9	-90.00	-56.7	56.4	7,405.1	7,366.8	38.39	192.901	
12,300.0	4,764.0	4,764.0	4,764.0	191.7	16.9	-90.00	-56.7	56.4	7,504.9	7,466.5	38.45	195.195	
12,400.0	4,764.0	4,764.0	4,764.0	194.2	16.9	-90.00	-56.7	56.4	7,604.7	7,566.2	38.51	197.479	
12,506.1	4,764.0	4,764.0	4,764.0	196.9	16.9	-90.00	-56.7	56.4	7,710.6	7,672.0	38.57	199.890	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF, 3831-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	135.15	-56.7	56.4	80.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.15	-56.7	56.4	80.0	79.7	0.29	279.063	
200.0	200.0	200.0	200.0	0.5	0.5	135.15	-56.7	56.4	80.0	79.0	1.00	79.732	
300.0	300.0	300.0	300.0	0.9	0.9	135.15	-56.7	56.4	80.0	78.3	1.72	46.511	
400.0	400.0	400.0	400.0	1.2	1.2	135.15	-56.7	56.4	80.0	77.6	2.44	32.831	
500.0	500.0	500.0	500.0	1.6	1.6	135.15	-56.7	56.4	80.0	76.9	3.15	25.369	
600.0	600.0	600.0	600.0	1.9	1.9	135.15	-56.7	56.4	80.0	76.2	3.87	20.671	
700.0	700.0	700.0	700.0	2.3	2.3	135.15	-56.7	56.4	80.0	75.4	4.59	17.441	
800.0	800.0	800.0	800.0	2.7	2.7	135.15	-56.7	56.4	80.0	74.7	5.31	15.085	
820.0	820.0	820.0	820.0	2.7	2.7	135.15	-56.7	56.4	80.0	74.6	5.45	14.688	
900.0	900.0	900.0	900.0	3.0	3.0	53.05	-56.7	56.4	79.4	73.3	6.02	13.189	
1,000.0	999.9	999.9	999.9	3.4	3.4	55.80	-56.7	56.4	76.7	70.0	6.72	11.413	
1,100.0	1,099.6	1,099.6	1,099.6	3.7	3.7	61.11	-56.7	56.4	72.5	65.1	7.43	9.754	
1,200.0	1,198.9	1,198.9	1,198.9	4.1	4.1	69.70	-56.7	56.4	67.7	59.5	8.16	8.297	
1,300.0	1,297.8	1,297.8	1,297.8	4.5	4.4	82.28	-56.7	56.4	64.0	55.1	8.90	7.189	
1,321.8	1,319.3	1,319.3	1,319.3	4.6	4.5	85.57	-56.7	56.4	63.6	54.5	9.07	7.014	
1,350.5	1,347.5	1,347.5	1,347.5	4.7	4.6	90.00	-56.7	56.4	63.4	54.1	9.29	6.826	CC, ES
1,400.0	1,396.2	1,396.2	1,396.2	4.9	4.8	97.64	-56.7	56.4	64.0	54.3	9.67	6.619	
1,500.0	1,494.7	1,494.7	1,494.7	5.3	5.1	112.03	-56.7	56.4	68.5	58.1	10.42	6.576	
1,600.0	1,593.2	1,593.2	1,593.2	5.7	5.5	124.03	-56.7	56.4	76.9	65.7	11.16	6.889	
1,700.0	1,691.7	1,691.7	1,691.7	6.2	5.8	133.41	-56.7	56.4	87.9	76.0	11.88	7.402	
1,800.0	1,790.1	1,790.1	1,790.1	6.6	6.2	140.58	-56.7	56.4	100.8	88.2	12.59	8.007	
1,900.0	1,888.6	1,888.6	1,888.6	7.1	6.6	146.09	-56.7	56.4	114.9	101.6	13.29	8.640	
2,000.0	1,987.1	1,987.1	1,987.1	7.5	6.9	150.37	-56.7	56.4	129.7	115.7	14.00	9.268	
2,100.0	2,085.5	2,085.5	2,085.5	8.0	7.3	153.76	-56.7	56.4	145.2	130.5	14.71	9.873	
2,200.0	2,184.0	2,184.0	2,184.0	8.5	7.6	156.50	-56.7	56.4	161.1	145.6	15.42	10.448	
2,300.0	2,282.5	2,282.5	2,282.5	8.9	8.0	158.74	-56.7	56.4	177.2	161.1	16.13	10.989	
2,400.0	2,380.9	2,380.9	2,380.9	9.4	8.3	160.61	-56.7	56.4	193.6	176.7	16.84	11.496	
2,500.0	2,479.4	2,479.4	2,479.4	9.9	8.7	162.18	-56.7	56.4	210.1	192.6	17.55	11.972	
2,600.0	2,577.9	2,577.9	2,577.9	10.3	9.0	163.53	-56.7	56.4	226.8	208.5	18.27	12.416	
2,700.0	2,676.3	2,676.3	2,676.3	10.8	9.4	164.69	-56.7	56.4	243.6	224.6	18.98	12.832	
2,800.0	2,774.8	2,774.8	2,774.8	11.3	9.7	165.70	-56.7	56.4	260.5	240.8	19.70	13.221	
2,900.0	2,873.3	2,873.3	2,873.3	11.8	10.1	166.59	-56.7	56.4	277.4	257.0	20.42	13.585	
3,000.0	2,971.8	2,971.8	2,971.8	12.3	10.4	167.37	-56.7	56.4	294.4	273.2	21.14	13.927	
3,100.0	3,070.2	3,070.2	3,070.2	12.7	10.8	168.08	-56.7	56.4	311.4	289.6	21.86	14.249	
3,200.0	3,168.7	3,168.7	3,168.7	13.2	11.1	168.70	-56.7	56.4	328.5	305.9	22.58	14.551	
3,300.0	3,267.2	3,267.2	3,267.2	13.7	11.5	169.27	-56.7	56.4	345.6	322.3	23.30	14.836	
3,400.0	3,365.6	3,365.6	3,365.6	14.2	11.8	169.78	-56.7	56.4	362.8	338.7	24.02	15.104	
3,500.0	3,464.1	3,464.1	3,464.1	14.7	12.2	170.25	-56.7	56.4	379.9	355.2	24.74	15.358	
3,600.0	3,562.6	3,562.6	3,562.6	15.1	12.6	170.67	-56.7	56.4	397.1	371.7	25.46	15.598	
3,700.0	3,661.0	3,661.0	3,661.0	15.6	12.9	171.06	-56.7	56.4	414.3	388.2	26.18	15.825	
3,800.0	3,759.5	3,759.5	3,759.5	16.1	13.3	171.42	-56.7	56.4	431.6	404.7	26.91	16.041	
3,900.0	3,858.0	3,850.0	3,850.0	16.6	13.6	171.75	-56.6	56.3	449.0	421.5	27.53	16.308	
4,000.0	3,956.5	3,926.6	3,926.4	17.1	13.6	172.55	-53.1	52.3	470.1	442.3	27.78	16.922	
4,106.5	4,061.3	4,000.0	3,998.8	17.6	13.6	173.91	-45.4	43.7	498.0	470.1	27.92	17.839	
4,150.0	4,104.3	4,033.3	4,031.3	17.8	13.6	-162.95	-40.5	38.2	510.3	482.3	27.99	18.235	
4,200.0	4,153.8	4,068.1	4,064.9	18.0	13.6	-128.85	-34.4	31.5	523.6	495.6	28.01	18.691	
4,250.0	4,203.2	4,100.0	4,095.4	18.2	13.6	-101.72	-28.1	24.4	535.8	507.8	27.98	19.149	
4,300.0	4,252.2	4,137.7	4,130.8	18.3	13.6	-85.68	-19.6	14.9	546.9	518.9	28.01	19.526	
4,350.0	4,300.5	4,172.4	4,163.0	18.4	13.7	-76.27	-10.9	5.1	556.9	528.9	27.99	19.893	
4,400.0	4,347.7	4,200.0	4,188.1	18.5	13.7	-70.32	-3.3	-3.4	565.6	537.8	27.86	20.300	
4,450.0	4,393.6	4,241.8	4,225.5	18.6	13.8	-66.34	9.2	-17.5	573.0	545.0	27.95	20.499	

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

Company:	DJR Operating
Project:	Proposed Carson U
Reference Site:	WC 21-2
Site Error:	0.0 usft
Reference Well:	Slot 5
Well Error:	0.0 usft
Reference Wellbore	Carson 613H
Reference Design:	Lateral plan

Offset Design WC 21-2 - Slot 1 - C

Survey Program: 0-MWD+IGRF, 3831-MWD+IGRF

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	R
0.0	0.0	0.0	0.0	
100.0	100.0	100.0	100.0	
200.0	200.0	200.0	200.0	
300.0	300.0	300.0	300.0	
400.0	400.0	400.0	400.0	
500.0	500.0	500.0	500.0	
600.0	600.0	600.0	600.0	
700.0	700.0	700.0	700.0	
800.0	800.0	800.0	800.0	
820.0	820.0	820.0	820.0	
900.0	900.0	900.0	900.0	
1,000.0	999.9	999.9	999.9	
1,100.0	1,099.6	1,099.6	1,099.6	
1,200.0	1,198.9	1,198.9	1,198.9	
1,300.0	1,297.8	1,297.8	1,297.8	
1,321.8	1,319.3	1,319.3	1,319.3	
1,350.5	1,347.5	1,347.5	1,347.5	
1,400.0	1,396.2	1,396.2	1,396.2	
1,500.0	1,494.7	1,494.7	1,494.7	
1,600.0	1,593.2	1,593.2	1,593.2	
1,700.0	1,691.7	1,691.7	1,691.7	
1,800.0	1,790.1	1,790.1	1,790.1	
1,900.0	1,888.6	1,888.6	1,888.6	
2,000.0	1,987.1	1,987.1	1,987.1	
2,100.0	2,085.5	2,085.5	2,085.5	
2,200.0	2,184.0	2,184.0	2,184.0	
2,300.0	2,282.5	2,282.5	2,282.5	
2,400.0	2,380.9	2,380.9	2,380.9	
2,500.0	2,479.4	2,479.4	2,479.4	
2,600.0	2,577.9	2,577.9	2,577.9	
2,700.0	2,676.3	2,676.3	2,676.3	
2,800.0	2,774.8	2,774.8	2,774.8	
2,900.0	2,873.3	2,873.3	2,873.3	
3,000.0	2,971.8	2,971.8	2,971.8	
3,100.0	3,070.2	3,070.2	3,070.2	
3,200.0	3,168.7	3,168.7	3,168.7	
3,300.0	3,267.2	3,267.2	3,267.2	
3,400.0	3,365.6	3,365.6	3,365.6	
3,500.0	3,464.1	3,464.1	3,464.1	
3,600.0	3,562.6	3,562.6	3,562.6	
3,700.0	3,661.0	3,661.0	3,661.0	
3,800.0	3,759.5	3,759.5	3,759.5	
3,900.0	3,858.0	3,850.0	3,850.0	
4,000.0	3,956.5	3,926.6	3,926.4	
4,106.5	4,061.3	4,000.0	3,998.8	
4,150.0	4,104.3	4,033.3	4,031.3	
4,200.0	4,153.8	4,068.1	4,064.9	
4,250.0	4,203.2	4,100.0	4,095.4	
4,300.0	4,252.2	4,137.7	4,130.8	
4,350.0	4,300.5	4,172.4	4,163.0	
4,400.0	4,347.7	4,200.0	4,188.1	
4,450.0	4,393.6	4,241.8	4,225.5	

CC - Min ce

8/30/2018 3:55:42PM

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF, 3831-MWD+IGRF — **Offset Well Error:** 0.0 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
4,500.0	4,437.9	4,276.6	4,255.8	18.6	13.8	-63.59	20.5	-30.2	579.1	551.1	27.95	20.722	
4,550.0	4,480.3	4,311.3	4,285.3	18.7	13.9	-61.68	32.7	-43.8	583.9	555.9	27.96	20.884	
4,600.0	4,520.5	4,350.0	4,317.3	18.7	14.0	-60.42	47.2	-60.0	587.4	559.3	28.07	20.925	
4,650.0	4,558.4	4,380.9	4,342.1	18.7	14.1	-59.57	59.5	-73.8	589.5	561.4	28.10	20.982	
4,700.0	4,593.7	4,415.8	4,369.2	18.7	14.3	-59.15	74.1	-90.1	590.4	562.1	28.25	20.901	
4,750.0	4,626.1	4,450.0	4,394.9	18.7	14.4	-59.06	89.1	-107.0	590.0	561.5	28.45	20.733	
4,800.0	4,655.4	4,485.6	4,420.7	18.7	14.6	-59.30	105.4	-125.3	588.3	559.5	28.79	20.438	
4,850.0	4,681.6	4,520.6	4,445.0	18.7	14.9	-59.81	122.2	-144.1	585.5	556.3	29.21	20.047	
4,900.0	4,704.4	4,550.0	4,464.5	18.7	15.1	-60.44	136.8	-160.5	581.6	552.0	29.62	19.634	
4,950.0	4,723.6	4,590.8	4,490.4	18.6	15.4	-61.63	157.9	-184.0	576.6	546.2	30.42	18.955	
5,000.0	4,739.2	4,626.1	4,511.5	18.9	15.7	-62.92	176.7	-205.1	570.6	539.4	31.24	18.269	
5,050.0	4,751.1	4,661.4	4,531.4	19.4	16.1	-64.46	196.1	-226.9	563.9	531.7	32.20	17.513	
5,100.0	4,759.1	4,700.0	4,551.7	20.0	16.5	-66.38	217.9	-251.4	556.4	523.0	33.38	16.669	
5,150.0	4,763.3	4,732.4	4,567.6	20.7	16.9	-68.29	236.7	-272.4	548.4	513.8	34.58	15.861	
5,179.0	4,764.0	4,750.0	4,575.7	21.1	17.1	-69.44	247.1	-284.1	543.5	508.3	35.30	15.400	
5,200.0	4,764.0	4,768.2	4,583.8	21.3	17.3	-70.26	258.0	-296.2	540.1	504.2	35.97	15.015	
5,300.0	4,764.0	4,843.8	4,613.6	22.8	18.4	-73.33	304.2	-348.1	527.3	488.3	39.04	13.507	
5,400.0	4,764.0	4,924.9	4,638.4	24.5	19.8	-75.98	355.7	-405.7	519.3	476.9	42.39	12.250	
5,500.0	4,764.0	5,010.5	4,656.3	26.3	21.3	-77.92	411.4	-468.1	514.9	469.0	45.94	11.209	
5,600.0	4,764.0	5,100.0	4,665.8	28.2	23.0	-78.97	470.6	-534.5	513.3	463.7	49.63	10.342	
5,625.5	4,764.0	5,121.9	4,666.7	28.7	23.5	-79.07	485.1	-550.8	513.2	462.7	50.55	10.152	
5,700.0	4,764.0	5,193.6	4,667.0	30.1	24.9	-79.11	532.9	-604.3	513.5	460.1	53.44	9.610	
5,800.0	4,764.0	5,293.5	4,667.0	32.2	27.0	-79.12	599.3	-678.8	514.1	456.5	57.54	8.933	
5,900.0	4,764.0	5,393.3	4,667.0	34.3	29.2	-79.14	665.7	-753.3	514.7	452.9	61.78	8.330	
6,000.0	4,764.0	5,493.1	4,667.0	36.5	31.4	-79.15	732.1	-827.9	515.3	449.1	66.12	7.793	
6,100.0	4,764.0	5,592.9	4,667.0	38.7	33.7	-79.16	798.5	-902.5	515.9	445.4	70.55	7.313	
6,200.0	4,764.0	5,692.8	4,667.0	40.9	36.0	-79.18	864.8	-977.1	516.6	441.5	75.04	6.884	
6,300.0	4,764.0	5,792.6	4,667.0	43.2	38.4	-79.19	931.1	-1,051.7	517.3	437.7	79.59	6.499	
6,400.0	4,764.0	5,892.4	4,667.0	45.5	40.7	-79.21	997.4	-1,126.3	518.0	433.8	84.20	6.153	
6,500.0	4,764.0	5,992.2	4,667.0	47.8	43.1	-79.22	1,063.7	-1,201.0	518.8	430.0	88.84	5.840	
6,600.0	4,764.0	6,092.0	4,667.0	50.2	45.5	-79.24	1,129.9	-1,275.7	519.6	426.1	93.52	5.557	
6,700.0	4,764.0	6,191.9	4,667.0	52.5	47.9	-79.26	1,196.1	-1,350.4	520.5	422.3	98.23	5.299	
6,800.0	4,764.0	6,291.7	4,667.0	54.9	50.3	-79.27	1,262.3	-1,425.1	521.4	418.4	102.96	5.064	
6,900.0	4,764.0	6,391.5	4,667.0	57.3	52.8	-79.29	1,328.4	-1,499.9	522.3	414.5	107.72	4.848	
7,000.0	4,764.0	6,491.3	4,667.0	59.7	55.2	-79.31	1,394.6	-1,574.6	523.2	410.7	112.50	4.651	
7,100.0	4,764.0	6,591.1	4,667.0	62.1	57.7	-79.33	1,460.7	-1,649.4	524.2	406.9	117.30	4.469	
7,200.0	4,764.0	6,691.0	4,667.0	64.5	60.1	-79.35	1,526.7	-1,724.2	525.2	403.1	122.11	4.301	
7,300.0	4,764.0	6,790.8	4,667.0	67.0	62.6	-79.37	1,592.8	-1,799.1	526.3	399.3	126.94	4.146	
7,400.0	4,764.0	6,890.6	4,667.0	69.4	65.1	-79.40	1,658.8	-1,873.9	527.3	395.6	131.78	4.002	
7,500.0	4,764.0	6,990.4	4,667.0	71.8	67.5	-79.42	1,724.8	-1,948.8	528.5	391.8	136.64	3.868	
7,600.0	4,764.0	7,090.2	4,667.0	74.3	70.0	-79.44	1,790.8	-2,023.7	529.6	388.1	141.50	3.743	
7,700.0	4,764.0	7,190.0	4,667.0	76.7	72.5	-79.46	1,856.7	-2,098.7	530.8	384.4	146.37	3.626	
7,800.0	4,764.0	7,289.9	4,667.0	79.2	75.0	-79.49	1,922.6	-2,173.6	532.0	380.8	151.25	3.517	
7,900.0	4,764.0	7,389.7	4,667.0	81.6	77.5	-79.51	1,988.5	-2,248.6	533.3	377.1	156.14	3.415	
8,000.0	4,764.0	7,489.5	4,667.0	84.1	80.0	-79.54	2,054.4	-2,323.6	534.5	373.5	161.04	3.319	
8,100.0	4,764.0	7,589.3	4,666.9	86.6	82.5	-79.56	2,120.2	-2,398.6	535.9	369.9	165.95	3.229	
8,200.0	4,764.0	7,689.1	4,666.9	89.1	84.9	-79.59	2,186.0	-2,473.6	537.2	366.4	170.86	3.144	
8,300.0	4,764.0	7,788.9	4,666.9	91.5	87.4	-79.62	2,251.8	-2,548.7	538.6	362.8	175.77	3.064	
8,400.0	4,764.0	7,888.7	4,666.9	94.0	89.9	-79.65	2,317.6	-2,623.8	540.0	359.3	180.70	2.989	
8,500.0	4,764.0	7,988.5	4,666.9	96.5	92.5	-79.67	2,383.3	-2,698.9	541.5	355.9	185.62	2.917	
8,600.0	4,764.0	8,088.3	4,666.9	99.0	95.0	-79.70	2,449.0	-2,774.0	543.0	352.4	190.56	2.849	
8,700.0	4,764.0	8,188.1	4,666.9	101.5	97.5	-79.73	2,514.7	-2,849.2	544.5	349.0	195.50	2.785	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 1 - Carson 615H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF, 3831-MWD+IGRF — **Offset Well Error:** 0.0 usft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,800.0	4,764.0	8,287.9	4,666.9	103.9	100.0	-79.76	2,580.4	-2,924.3	546.0	345.6	200.44	2.724	
8,900.0	4,764.0	8,387.7	4,666.9	106.4	102.5	-79.79	2,646.0	-2,999.5	547.6	342.3	205.39	2.666	
9,000.0	4,764.0	8,487.5	4,666.9	108.9	105.0	-79.82	2,711.6	-3,074.7	549.3	338.9	210.34	2.611	
9,100.0	4,764.0	8,587.3	4,666.9	111.4	107.5	-79.85	2,777.2	-3,150.0	550.9	335.6	215.29	2.559	
9,200.0	4,764.0	8,687.1	4,666.9	113.9	110.0	-79.88	2,842.7	-3,225.2	552.6	332.4	220.25	2.509	
9,300.0	4,764.0	8,786.9	4,666.9	116.4	112.5	-79.91	2,908.2	-3,300.5	554.3	329.1	225.21	2.461	
9,400.0	4,764.0	8,886.7	4,666.9	118.9	115.1	-79.95	2,973.7	-3,375.8	556.1	325.9	230.18	2.416	
9,500.0	4,764.0	8,986.5	4,666.9	121.4	117.6	-79.98	3,039.2	-3,451.1	557.9	322.7	235.14	2.373	
9,600.0	4,764.0	9,086.3	4,666.9	123.9	120.1	-80.01	3,104.6	-3,526.4	559.7	319.6	240.12	2.331	
9,700.0	4,764.0	9,186.1	4,666.9	126.4	122.6	-80.05	3,170.1	-3,601.8	561.6	316.5	245.09	2.291	
9,800.0	4,764.0	9,285.9	4,666.9	128.9	125.1	-80.08	3,235.4	-3,677.2	563.5	313.4	250.07	2.253	
9,900.0	4,764.0	9,385.7	4,666.9	131.4	127.7	-80.11	3,300.8	-3,752.6	565.4	310.3	255.05	2.217	
10,000.0	4,764.0	9,485.5	4,666.9	133.9	130.2	-80.15	3,366.1	-3,828.0	567.4	307.3	260.03	2.182	
10,100.0	4,764.0	9,585.3	4,666.9	136.4	132.7	-80.18	3,431.4	-3,903.5	569.4	304.3	265.02	2.148	
10,200.0	4,764.0	9,685.1	4,667.0	138.9	135.2	-80.22	3,496.7	-3,978.9	571.4	301.4	270.01	2.116	
10,300.0	4,764.0	9,784.8	4,667.0	141.5	137.8	-80.25	3,562.0	-4,054.4	573.5	298.5	275.00	2.085	
10,400.0	4,764.0	9,884.6	4,667.0	144.0	140.3	-80.29	3,627.2	-4,129.9	575.6	295.6	279.99	2.056	
10,500.0	4,764.0	9,984.4	4,667.0	146.5	142.8	-80.33	3,692.4	-4,205.5	577.7	292.7	284.99	2.027	
10,600.0	4,764.0	10,084.2	4,667.0	149.0	145.3	-80.36	3,757.6	-4,281.0	579.9	289.9	289.98	2.000	
10,700.0	4,764.0	10,184.0	4,667.0	151.5	147.9	-80.40	3,822.7	-4,356.6	582.1	287.1	294.99	1.973	
10,800.0	4,764.0	10,283.7	4,667.0	154.0	150.4	-80.44	3,887.8	-4,432.2	584.3	284.3	299.99	1.948	
10,900.0	4,764.0	10,383.5	4,667.0	156.5	152.9	-80.47	3,952.9	-4,507.8	586.6	281.6	304.99	1.923	
11,000.0	4,764.0	10,483.3	4,667.0	159.0	155.4	-80.51	4,018.0	-4,583.5	588.9	278.9	310.00	1.900	
11,100.0	4,764.0	10,583.1	4,667.0	161.5	158.0	-80.55	4,083.0	-4,659.1	591.2	276.2	315.01	1.877	
11,200.0	4,764.0	10,682.8	4,667.0	164.1	160.5	-80.59	4,148.1	-4,734.8	593.6	273.5	320.02	1.855	
11,300.0	4,764.0	10,782.6	4,667.0	166.6	163.0	-80.63	4,213.0	-4,810.5	596.0	270.9	325.03	1.834	
11,400.0	4,764.0	10,882.4	4,667.0	169.1	165.6	-80.67	4,278.0	-4,886.2	598.4	268.4	330.05	1.813	
11,500.0	4,764.0	10,982.1	4,667.0	171.6	168.1	-80.70	4,342.9	-4,962.0	600.9	265.8	335.06	1.793	
11,600.0	4,764.0	11,081.9	4,667.0	174.1	170.6	-80.74	4,407.8	-5,037.7	603.4	263.3	340.08	1.774	
11,700.0	4,764.0	11,181.7	4,667.0	176.6	173.2	-80.78	4,472.7	-5,113.5	605.9	260.8	345.10	1.756	
11,800.0	4,764.0	11,281.4	4,667.0	179.1	175.7	-80.82	4,537.6	-5,189.3	608.5	258.4	350.12	1.738	
11,900.0	4,764.0	11,381.2	4,667.0	181.7	178.2	-80.86	4,602.4	-5,265.2	611.1	256.0	355.14	1.721	
12,000.0	4,764.0	11,480.9	4,667.0	184.2	180.8	-80.90	4,667.2	-5,341.0	613.8	253.6	360.17	1.704	
12,100.0	4,764.0	11,580.7	4,667.0	186.7	183.3	-80.94	4,731.9	-5,416.9	616.4	251.2	365.20	1.688	
12,200.0	4,764.0	11,680.5	4,667.0	189.2	185.8	-80.98	4,796.7	-5,492.8	619.1	248.9	370.22	1.672	
12,300.0	4,764.0	11,780.2	4,667.0	191.7	188.4	-81.02	4,861.4	-5,568.7	621.9	246.6	375.25	1.657	
12,400.0	4,764.0	11,880.0	4,667.0	194.2	190.9	-81.06	4,926.1	-5,644.6	624.7	244.4	380.29	1.643	
12,506.1	4,764.0	11,985.8	4,667.0	196.9	193.6	-81.11	4,994.7	-5,725.2	627.7	242.0	385.63	1.628	SF

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 2 - Carson 617H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	135.16	-42.6	42.3	60.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.16	-42.6	42.3	60.0	59.7	0.29	209.322	
200.0	200.0	200.0	200.0	0.5	0.5	135.16	-42.6	42.3	60.0	59.0	1.00	59.806	
300.0	300.0	300.0	300.0	0.9	0.9	135.16	-42.6	42.3	60.0	58.3	1.72	34.887	
400.0	400.0	400.0	400.0	1.2	1.2	135.16	-42.6	42.3	60.0	57.6	2.44	24.626	CC, ES
500.0	500.0	498.9	498.8	1.6	1.6	136.51	-44.2	42.0	61.0	57.8	3.13	19.450	
600.0	600.0	597.5	597.3	1.9	1.9	140.31	-49.2	40.8	64.0	60.2	3.83	16.725	
700.0	700.0	695.6	695.1	2.3	2.2	145.84	-57.4	39.0	69.6	65.0	4.53	15.371	
800.0	800.0	793.1	791.8	2.7	2.6	152.14	-68.8	36.4	78.3	73.0	5.23	14.968	
820.0	820.0	812.5	811.0	2.7	2.7	153.41	-71.5	35.8	80.4	75.1	5.37	14.978	
900.0	900.0	890.6	888.3	3.0	3.0	76.01	-83.1	33.1	90.0	84.1	5.93	15.181	
1,000.0	999.9	989.1	985.5	3.4	3.4	83.03	-98.1	29.7	102.7	96.1	6.62	15.509	
1,100.0	1,099.6	1,087.1	1,082.3	3.7	3.8	90.04	-113.0	26.4	116.7	109.4	7.32	15.943	
1,200.0	1,198.9	1,184.6	1,178.7	4.1	4.3	96.87	-127.8	23.0	132.6	124.5	8.03	16.515	
1,300.0	1,297.8	1,281.5	1,274.3	4.5	4.7	103.35	-142.5	19.7	150.8	142.1	8.75	17.231	
1,321.8	1,319.3	1,302.5	1,295.1	4.6	4.8	104.70	-145.7	18.9	155.1	146.2	8.91	17.405	
1,400.0	1,396.2	1,377.8	1,369.5	4.9	5.1	109.35	-157.2	16.3	171.5	162.0	9.50	18.057	
1,500.0	1,494.7	1,474.2	1,464.7	5.3	5.6	114.14	-171.8	13.0	193.7	183.4	10.26	18.889	
1,600.0	1,593.2	1,570.5	1,559.8	5.7	6.0	117.94	-186.5	9.7	217.0	205.9	11.02	19.684	
1,700.0	1,691.7	1,666.8	1,655.0	6.2	6.5	121.01	-201.1	6.4	241.0	229.2	11.80	20.428	
1,800.0	1,790.1	1,763.2	1,750.2	6.6	6.9	123.53	-215.8	3.1	265.5	252.9	12.57	21.116	
1,900.0	1,888.6	1,859.5	1,845.3	7.1	7.3	125.62	-230.4	-0.3	290.4	277.1	13.35	21.748	
2,000.0	1,987.1	1,955.8	1,940.5	7.5	7.8	127.38	-245.1	-3.6	315.7	301.5	14.14	22.328	
2,100.0	2,085.5	2,052.2	2,035.6	8.0	8.2	128.88	-259.7	-6.9	341.2	326.3	14.92	22.860	
2,200.0	2,184.0	2,148.5	2,130.8	8.5	8.7	130.17	-274.3	-10.2	366.9	351.1	15.71	23.348	
2,300.0	2,282.5	2,244.8	2,225.9	8.9	9.1	131.29	-289.0	-13.5	392.7	376.2	16.50	23.797	
2,400.0	2,380.9	2,341.2	2,321.1	9.4	9.6	132.28	-303.6	-16.8	418.6	401.4	17.29	24.210	
2,500.0	2,479.4	2,437.5	2,416.3	9.9	10.0	133.15	-318.3	-20.2	444.7	426.6	18.08	24.591	
2,600.0	2,577.9	2,533.9	2,511.4	10.3	10.5	133.92	-332.9	-23.5	470.8	452.0	18.88	24.944	
2,700.0	2,676.3	2,630.2	2,606.6	10.8	10.9	134.62	-347.6	-26.8	497.1	477.4	19.67	25.271	
2,800.0	2,774.8	2,726.5	2,701.7	11.3	11.4	135.24	-362.2	-30.1	523.3	502.9	20.46	25.575	
2,900.0	2,873.3	2,822.9	2,796.9	11.8	11.8	135.81	-376.9	-33.4	549.7	528.4	21.26	25.858	
3,000.0	2,971.8	2,919.2	2,892.1	12.3	12.2	136.32	-391.5	-36.8	576.0	554.0	22.05	26.122	
3,100.0	3,070.2	3,015.5	2,987.2	12.7	12.7	136.79	-406.1	-40.1	602.5	579.6	22.85	26.368	
3,200.0	3,168.7	3,111.9	3,082.4	13.2	13.1	137.22	-420.8	-43.4	628.9	605.3	23.64	26.599	
3,300.0	3,267.2	3,208.2	3,177.5	13.7	13.6	137.61	-435.4	-46.7	655.4	630.9	24.44	26.816	
3,400.0	3,365.6	3,304.5	3,272.7	14.2	14.0	137.97	-450.1	-50.0	681.9	656.7	25.24	27.020	
3,500.0	3,464.1	3,400.9	3,367.9	14.7	14.5	138.31	-464.7	-53.4	708.4	682.4	26.03	27.212	
3,600.0	3,562.6	3,497.2	3,463.0	15.1	14.9	138.62	-479.4	-56.7	735.0	708.1	26.83	27.393	
3,700.0	3,661.0	3,593.6	3,558.2	15.6	15.4	138.91	-494.0	-60.0	761.5	733.9	27.63	27.564	
3,800.0	3,759.5	3,689.9	3,653.3	16.1	15.8	139.18	-508.7	-63.3	788.1	759.7	28.43	27.725	
3,900.0	3,858.0	3,786.2	3,748.5	16.6	16.3	139.44	-523.3	-66.6	814.7	785.5	29.22	27.879	
4,000.0	3,956.5	3,882.6	3,843.6	17.1	16.7	139.67	-537.9	-70.0	841.3	811.3	30.02	28.024	
4,106.5	4,061.3	3,985.1	3,945.0	17.6	17.2	139.91	-553.5	-73.5	869.7	838.8	30.87	28.170	
4,150.0	4,104.3	4,027.1	3,986.4	17.8	17.4	162.50	-559.9	-74.9	881.3	850.1	31.21	28.238	
4,200.0	4,153.8	4,073.4	4,032.2	18.0	17.6	-163.90	-566.5	-77.0	894.5	863.0	31.55	28.357	
4,250.0	4,203.2	4,119.0	4,077.4	18.2	17.8	-137.04	-571.2	-81.2	907.8	876.0	31.83	28.517	
4,300.0	4,252.2	4,164.8	4,122.6	18.3	18.0	-121.17	-574.0	-87.5	921.0	888.9	32.08	28.710	
4,350.0	4,300.5	4,210.8	4,167.8	18.4	18.2	-111.74	-574.9	-96.1	934.0	901.7	32.29	28.927	
4,400.0	4,347.7	4,257.2	4,212.9	18.5	18.3	-105.64	-573.8	-106.9	946.8	914.4	32.47	29.161	
4,450.0	4,393.6	4,303.9	4,257.6	18.6	18.4	-101.37	-570.6	-119.9	959.4	926.8	32.63	29.404	
4,500.0	4,437.9	4,351.1	4,301.9	18.6	18.5	-98.22	-565.4	-135.2	971.6	938.9	32.77	29.646	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 2 - Carson 617H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
4,550.0	4,480.3	4,398.8	4,345.6	18.7	18.6	-95.81	-558.0	-152.8	983.5	950.5	32.92	29.876	
4,600.0	4,520.5	4,447.0	4,388.5	18.7	18.7	-93.91	-548.5	-172.8	994.8	961.8	33.07	30.082	
4,650.0	4,558.4	4,496.0	4,430.5	18.7	18.8	-92.39	-536.8	-195.1	1,005.7	972.4	33.25	30.249	
4,700.0	4,593.7	4,545.6	4,471.3	18.7	18.9	-91.19	-522.7	-219.7	1,016.0	982.5	33.46	30.362	
4,750.0	4,626.1	4,596.1	4,510.7	18.7	19.0	-90.23	-506.4	-246.6	1,025.7	991.9	33.73	30.405	
4,800.0	4,655.4	4,647.4	4,548.4	18.7	19.1	-89.50	-487.7	-276.0	1,034.7	1,000.6	34.08	30.360	
4,850.0	4,681.6	4,699.7	4,584.2	18.7	19.1	-88.95	-466.6	-307.6	1,043.0	1,008.4	34.52	30.214	
4,900.0	4,704.4	4,752.9	4,617.8	18.7	19.2	-88.57	-443.1	-341.6	1,050.5	1,015.4	35.07	29.951	
4,950.0	4,723.6	4,807.2	4,648.9	18.6	19.3	-88.36	-417.2	-377.8	1,057.2	1,021.5	35.76	29.567	
5,000.0	4,739.2	4,862.7	4,677.0	18.9	19.5	-88.29	-388.8	-416.1	1,063.1	1,026.5	36.58	29.060	
5,050.0	4,751.1	4,919.2	4,701.9	19.4	19.7	-88.36	-358.1	-456.5	1,068.1	1,030.6	37.56	28.438	
5,100.0	4,759.1	4,977.0	4,723.2	20.0	20.1	-88.57	-325.0	-498.8	1,072.2	1,033.5	38.69	27.714	
5,150.0	4,763.3	5,035.9	4,740.4	20.7	20.7	-88.91	-289.8	-542.8	1,075.3	1,035.3	39.97	26.904	
5,179.0	4,764.0	5,070.7	4,748.4	21.1	21.1	-89.17	-268.3	-569.0	1,076.7	1,035.9	40.76	26.413	
5,200.0	4,764.0	5,096.2	4,753.2	21.3	21.4	-89.43	-252.4	-588.2	1,077.5	1,036.2	41.35	26.061	
5,300.0	4,764.0	5,221.0	4,764.0	22.8	23.1	-90.00	-171.7	-682.7	1,080.2	1,035.6	44.62	24.210	
5,400.0	4,764.0	5,321.0	4,764.0	24.5	24.7	-90.00	-105.9	-757.9	1,081.7	1,033.8	47.89	22.586	
5,500.0	4,764.0	5,420.9	4,764.0	26.3	26.5	-90.00	-40.1	-833.2	1,083.2	1,031.8	51.46	21.050	
5,600.0	4,764.0	5,520.9	4,764.0	28.2	28.3	-90.00	25.7	-908.4	1,084.7	1,029.5	55.26	19.629	
5,700.0	4,764.0	5,620.9	4,764.0	30.1	30.3	-90.00	91.5	-983.7	1,086.2	1,027.0	59.25	18.333	
5,800.0	4,764.0	5,720.8	4,764.0	32.2	32.4	-90.00	157.3	-1,058.9	1,087.8	1,024.4	63.40	17.158	
5,900.0	4,764.0	5,820.8	4,764.0	34.3	34.5	-90.00	223.1	-1,134.2	1,089.3	1,021.6	67.67	16.097	
6,000.0	4,764.0	5,920.8	4,764.0	36.5	36.6	-90.00	288.9	-1,209.4	1,090.8	1,018.8	72.04	15.141	
6,100.0	4,764.0	6,020.7	4,764.0	38.7	38.9	-90.00	354.7	-1,284.7	1,092.3	1,015.8	76.51	14.278	
6,200.0	4,764.0	6,120.7	4,764.0	40.9	41.1	-90.00	420.5	-1,360.0	1,093.9	1,012.8	81.04	13.498	
6,300.0	4,764.0	6,220.7	4,764.0	43.2	43.4	-90.00	486.3	-1,435.2	1,095.4	1,009.8	85.63	12.792	
6,400.0	4,764.0	6,320.6	4,764.0	45.5	45.7	-90.00	552.1	-1,510.5	1,096.9	1,006.7	90.27	12.151	
6,500.0	4,764.0	6,420.6	4,764.0	47.8	48.0	-90.00	617.9	-1,585.7	1,098.5	1,003.5	94.96	11.567	
6,600.0	4,764.0	6,520.6	4,764.0	50.2	50.4	-90.00	683.7	-1,661.0	1,100.0	1,000.3	99.69	11.035	
6,700.0	4,764.0	6,620.5	4,764.0	52.5	52.7	-90.00	749.5	-1,736.3	1,101.5	997.1	104.44	10.547	
6,800.0	4,764.0	6,720.5	4,764.0	54.9	55.1	-90.00	815.3	-1,811.5	1,103.1	993.9	109.23	10.099	
6,900.0	4,764.0	6,820.5	4,764.0	57.3	57.5	-90.00	881.1	-1,886.8	1,104.6	990.6	114.04	9.686	
7,000.0	4,764.0	6,920.4	4,764.0	59.7	59.9	-90.00	946.9	-1,962.1	1,106.2	987.3	118.87	9.306	
7,100.0	4,764.0	7,020.4	4,764.0	62.1	62.3	-90.00	1,012.7	-2,037.3	1,107.7	984.0	123.72	8.953	
7,200.0	4,764.0	7,120.4	4,764.0	64.5	64.8	-90.00	1,078.4	-2,112.6	1,109.3	980.7	128.59	8.626	
7,300.0	4,764.0	7,220.3	4,764.0	67.0	67.2	-90.00	1,144.2	-2,187.9	1,110.8	977.3	133.47	8.322	
7,400.0	4,764.0	7,320.3	4,764.0	69.4	69.7	-90.00	1,210.0	-2,263.1	1,112.4	974.0	138.37	8.039	
7,500.0	4,764.0	7,420.3	4,764.0	71.8	72.1	-90.00	1,275.8	-2,338.4	1,113.9	970.7	143.28	7.775	
7,600.0	4,764.0	7,520.2	4,764.0	74.3	74.6	-90.00	1,341.6	-2,413.7	1,115.5	967.3	148.20	7.527	
7,700.0	4,764.0	7,620.2	4,764.0	76.7	77.0	-90.00	1,407.3	-2,489.0	1,117.0	963.9	153.13	7.295	
7,800.0	4,764.0	7,720.1	4,764.0	79.2	79.5	-90.00	1,473.1	-2,564.2	1,118.6	960.5	158.06	7.077	
7,900.0	4,764.0	7,820.1	4,764.0	81.6	82.0	-90.00	1,538.9	-2,639.5	1,120.2	957.2	163.01	6.872	
8,000.0	4,764.0	7,920.1	4,764.0	84.1	84.4	-90.00	1,604.7	-2,714.8	1,121.7	953.8	167.96	6.678	
8,100.0	4,764.0	8,020.0	4,764.0	86.6	86.9	-90.00	1,670.4	-2,790.1	1,123.3	950.4	172.92	6.496	
8,200.0	4,764.0	8,120.0	4,764.0	89.1	89.4	-90.00	1,736.2	-2,865.4	1,124.9	947.0	177.89	6.323	
8,300.0	4,764.0	8,220.0	4,764.0	91.5	91.9	-90.00	1,802.0	-2,940.6	1,126.4	943.6	182.86	6.160	
8,400.0	4,764.0	8,319.9	4,764.0	94.0	94.4	-90.00	1,867.7	-3,015.9	1,128.0	940.2	187.84	6.005	
8,500.0	4,764.0	8,419.9	4,764.0	96.5	96.9	-90.00	1,933.5	-3,091.2	1,129.6	936.8	192.82	5.858	
8,600.0	4,764.0	8,519.9	4,764.0	99.0	99.4	-90.00	1,999.3	-3,166.5	1,131.2	933.4	197.81	5.719	
8,700.0	4,764.0	8,619.8	4,764.0	101.5	101.9	-90.00	2,065.0	-3,241.8	1,132.8	930.0	202.80	5.586	
8,800.0	4,764.0	8,719.8	4,764.0	103.9	104.3	-90.00	2,130.8	-3,317.1	1,134.3	926.5	207.79	5.459	
8,900.0	4,764.0	8,819.8	4,764.0	106.4	106.8	-90.00	2,196.5	-3,392.4	1,135.9	923.1	212.79	5.338	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 2 - Carson 617H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
9,000.0	4,764.0	8,919.7	4,764.0	108.9	109.4	-90.00	2,262.3	-3,467.7	1,137.5	919.7	217.79	5.223	
9,100.0	4,764.0	9,019.7	4,764.0	111.4	111.9	-90.00	2,328.0	-3,543.0	1,139.1	916.3	222.80	5.113	
9,200.0	4,764.0	9,119.6	4,764.0	113.9	114.4	-90.00	2,393.8	-3,618.3	1,140.7	912.9	227.81	5.007	
9,300.0	4,764.0	9,219.6	4,764.0	116.4	116.9	-90.00	2,459.5	-3,693.6	1,142.3	909.5	232.82	4.906	
9,400.0	4,764.0	9,319.6	4,764.0	118.9	119.4	-90.00	2,525.3	-3,768.9	1,143.9	906.0	237.83	4.810	
9,500.0	4,764.0	9,419.5	4,764.0	121.4	121.9	-90.00	2,591.0	-3,844.2	1,145.5	902.6	242.85	4.717	
9,600.0	4,764.0	9,519.5	4,764.0	123.9	124.4	-90.00	2,656.8	-3,919.5	1,147.1	899.2	247.86	4.628	
9,700.0	4,764.0	9,619.5	4,764.0	126.4	126.9	-90.00	2,722.5	-3,994.8	1,148.7	895.8	252.88	4.542	
9,800.0	4,764.0	9,719.4	4,764.0	128.9	129.4	-90.00	2,788.3	-4,070.1	1,150.3	892.4	257.90	4.460	
9,900.0	4,764.0	9,819.4	4,764.0	131.4	131.9	-90.00	2,854.0	-4,145.4	1,151.9	888.9	262.93	4.381	
10,000.0	4,764.0	9,919.4	4,764.0	133.9	134.4	-90.00	2,919.8	-4,220.7	1,153.5	885.5	267.95	4.305	
10,100.0	4,764.0	10,019.3	4,764.0	136.4	137.0	-90.00	2,985.5	-4,296.0	1,155.1	882.1	272.98	4.231	
10,200.0	4,764.0	10,119.3	4,764.0	138.9	139.5	-90.00	3,051.2	-4,371.3	1,156.7	878.7	278.01	4.161	
10,300.0	4,764.0	10,219.2	4,764.0	141.5	142.0	-90.00	3,117.0	-4,446.6	1,158.3	875.3	283.04	4.092	
10,400.0	4,764.0	10,319.2	4,764.0	144.0	144.5	-90.00	3,182.7	-4,521.9	1,159.9	871.9	288.07	4.027	
10,500.0	4,764.0	10,419.2	4,764.0	146.5	147.0	-90.00	3,248.4	-4,597.2	1,161.5	868.4	293.10	3.963	
10,600.0	4,764.0	10,519.1	4,764.0	149.0	149.6	-90.00	3,314.2	-4,672.5	1,163.2	865.0	298.14	3.901	
10,700.0	4,764.0	10,619.1	4,764.0	151.5	152.1	-90.00	3,379.9	-4,747.8	1,164.8	861.6	303.17	3.842	
10,800.0	4,764.0	10,719.1	4,764.0	154.0	154.6	-90.00	3,445.6	-4,823.2	1,166.4	858.2	308.21	3.784	
10,900.0	4,764.0	10,819.0	4,764.0	156.5	157.1	-90.00	3,511.4	-4,898.5	1,168.0	854.8	313.25	3.729	
11,000.0	4,764.0	10,919.0	4,764.0	159.0	159.6	-90.00	3,577.1	-4,973.8	1,169.7	851.4	318.28	3.675	
11,100.0	4,764.0	11,019.0	4,764.0	161.5	162.2	-90.00	3,642.8	-5,049.1	1,171.3	848.0	323.32	3.623	
11,200.0	4,764.0	11,118.9	4,764.0	164.1	164.7	-90.00	3,708.5	-5,124.4	1,172.9	844.5	328.36	3.572	
11,300.0	4,764.0	11,218.9	4,764.0	166.6	167.2	-90.00	3,774.2	-5,199.8	1,174.5	841.1	333.41	3.523	
11,400.0	4,764.0	11,318.8	4,764.0	169.1	169.7	-90.00	3,840.0	-5,275.1	1,176.2	837.7	338.45	3.475	
11,500.0	4,764.0	11,418.8	4,764.0	171.6	172.3	-90.00	3,905.7	-5,350.4	1,177.8	834.3	343.49	3.429	
11,600.0	4,764.0	11,518.8	4,764.0	174.1	174.8	-90.00	3,971.4	-5,425.7	1,179.5	830.9	348.54	3.384	
11,700.0	4,764.0	11,618.7	4,764.0	176.6	177.3	-90.00	4,037.1	-5,501.1	1,181.1	827.5	353.58	3.340	
11,800.0	4,764.0	11,718.7	4,764.0	179.1	179.8	-90.00	4,102.8	-5,576.4	1,182.7	824.1	358.63	3.298	
11,900.0	4,764.0	11,818.7	4,764.0	181.7	182.4	-90.00	4,168.5	-5,651.7	1,184.4	820.7	363.67	3.257	
12,000.0	4,764.0	11,918.6	4,764.0	184.2	184.9	-90.00	4,234.2	-5,727.1	1,186.0	817.3	368.72	3.217	
12,100.0	4,764.0	12,018.6	4,764.0	186.7	187.4	-90.00	4,299.9	-5,802.4	1,187.7	813.9	373.77	3.178	
12,200.0	4,764.0	12,118.5	4,764.0	189.2	189.9	-90.00	4,365.6	-5,877.7	1,189.3	810.5	378.81	3.140	
12,300.0	4,764.0	12,218.5	4,764.0	191.7	192.5	-90.00	4,431.3	-5,953.1	1,191.0	807.1	383.86	3.103	
12,400.0	4,764.0	12,318.5	4,764.0	194.2	195.0	-90.00	4,497.0	-6,028.4	1,192.6	803.7	388.91	3.067	
12,506.1	4,764.0	12,424.5	4,764.0	196.9	197.7	-90.00	4,566.7	-6,108.3	1,194.4	800.1	394.27	3.029 SF	

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 3 - Carson 584H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	135.17	-28.4	28.2	40.0				
100.0	100.0	100.0	100.0	0.1	0.1	135.17	-28.4	28.2	40.0	39.7	0.29	139.582	
200.0	200.0	200.0	200.0	0.5	0.5	135.17	-28.4	28.2	40.0	39.0	1.00	39.881	
300.0	300.0	300.0	300.0	0.9	0.9	135.17	-28.4	28.2	40.0	38.3	1.72	23.264	
400.0	400.0	400.0	400.0	1.2	1.2	135.17	-28.4	28.2	40.0	37.6	2.44	16.421	
500.0	500.0	500.0	500.0	1.6	1.6	135.17	-28.4	28.2	40.0	36.9	3.15	12.689	
600.0	600.0	600.6	600.6	1.9	1.9	132.89	-26.7	28.7	39.2	35.4	3.87	10.130	
700.0	700.0	701.0	700.8	2.3	2.3	125.55	-21.7	30.3	37.3	32.7	4.59	8.114	
800.0	800.0	800.9	800.3	2.7	2.7	112.03	-13.3	32.9	35.5	30.2	5.32	6.675	
820.0	820.0	820.8	820.1	2.7	2.7	108.55	-11.3	33.5	35.4	29.9	5.47	6.474	
857.0	857.0	857.5	856.6	2.9	2.9	18.91	-7.1	34.8	35.3	29.6	5.73	6.160	CC
900.0	900.0	900.0	898.7	3.0	3.0	10.32	-1.8	36.5	35.5	29.4	6.04	5.867	ES
1,000.0	999.9	998.5	996.0	3.4	3.4	-11.71	12.9	41.1	37.7	30.9	6.75	5.588	SF
1,100.0	1,099.6	1,096.0	1,091.7	3.7	3.9	-33.52	30.6	46.5	44.5	37.1	7.40	6.019	
1,200.0	1,198.9	1,192.3	1,185.6	4.1	4.3	-51.32	51.1	52.9	57.1	49.0	8.04	7.096	
1,300.0	1,297.8	1,287.3	1,277.4	4.5	4.8	-64.26	74.3	60.1	74.9	66.2	8.72	8.598	
1,321.8	1,319.3	1,308.1	1,297.4	4.6	4.9	-66.56	79.7	61.8	79.5	70.6	8.88	8.954	
1,400.0	1,396.2	1,383.7	1,370.1	4.9	5.3	-73.49	99.6	68.0	96.6	87.1	9.50	10.165	
1,500.0	1,494.7	1,480.3	1,463.0	5.3	5.9	-79.40	125.0	75.9	119.8	109.5	10.34	11.593	
1,600.0	1,593.2	1,577.0	1,555.9	5.7	6.4	-83.38	150.4	83.8	143.9	132.7	11.19	12.855	
1,700.0	1,691.7	1,673.6	1,648.8	6.2	7.0	-86.22	175.8	91.6	168.4	156.3	12.07	13.958	
1,800.0	1,790.1	1,770.3	1,741.7	6.6	7.5	-88.34	201.2	99.5	193.2	180.3	12.95	14.921	
1,900.0	1,888.6	1,866.9	1,834.7	7.1	8.1	-89.97	226.6	107.4	218.2	204.4	13.84	15.765	
2,000.0	1,987.1	1,963.6	1,927.6	7.5	8.7	-91.27	252.0	115.3	243.4	228.6	14.74	16.506	
2,100.0	2,085.5	2,060.2	2,020.5	8.0	9.3	-92.33	277.4	123.2	268.6	253.0	15.65	17.161	
2,200.0	2,184.0	2,156.9	2,113.4	8.5	9.8	-93.20	302.8	131.1	293.9	277.4	16.56	17.744	
2,300.0	2,282.5	2,253.6	2,206.4	8.9	10.4	-93.94	328.3	139.0	319.3	301.8	17.48	18.264	
2,400.0	2,380.9	2,350.2	2,299.3	9.4	11.0	-94.57	353.7	146.9	344.7	326.3	18.40	18.730	
2,500.0	2,479.4	2,446.9	2,392.2	9.9	11.6	-95.11	379.1	154.8	370.1	350.8	19.33	19.151	
2,600.0	2,577.9	2,543.5	2,485.1	10.3	12.2	-95.58	404.5	162.7	395.6	375.3	20.25	19.532	
2,700.0	2,676.3	2,640.2	2,578.0	10.8	12.8	-95.99	429.9	170.6	421.1	399.9	21.18	19.879	
2,800.0	2,774.8	2,736.8	2,671.0	11.3	13.4	-96.36	455.3	178.5	446.6	424.5	22.11	20.195	
2,900.0	2,873.3	2,833.5	2,763.9	11.8	14.0	-96.69	480.7	186.4	472.1	449.1	23.05	20.484	
3,000.0	2,971.8	2,930.1	2,856.8	12.3	14.6	-96.98	506.1	194.2	497.6	473.6	23.98	20.751	
3,100.0	3,070.2	3,026.8	2,949.7	12.7	15.1	-97.25	531.5	202.1	523.2	498.3	24.92	20.996	
3,200.0	3,168.7	3,123.4	3,042.7	13.2	15.7	-97.49	556.9	210.0	548.7	522.9	25.86	21.223	
3,300.0	3,267.2	3,220.1	3,135.6	13.7	16.3	-97.71	582.3	217.9	574.3	547.5	26.79	21.434	
3,400.0	3,365.6	3,316.8	3,228.5	14.2	16.9	-97.91	607.7	225.8	599.9	572.1	27.73	21.629	
3,500.0	3,464.1	3,413.4	3,321.4	14.7	17.5	-98.10	633.1	233.7	625.4	596.8	28.67	21.811	
3,600.0	3,562.6	3,510.1	3,414.3	15.1	18.1	-98.27	658.6	241.6	651.0	621.4	29.62	21.982	
3,700.0	3,661.0	3,606.7	3,507.3	15.6	18.7	-98.42	684.0	249.5	676.6	646.0	30.56	22.141	
3,800.0	3,759.5	3,703.4	3,600.2	16.1	19.3	-98.57	709.4	257.4	702.2	670.7	31.50	22.290	
3,900.0	3,858.0	3,800.0	3,693.1	16.6	19.9	-98.70	734.8	265.3	727.8	695.3	32.45	22.431	
4,000.0	3,956.5	3,896.7	3,786.0	17.1	20.5	-98.83	760.2	273.2	753.4	720.0	33.39	22.563	
4,106.5	4,061.3	3,999.6	3,885.0	17.6	21.2	-98.95	787.2	281.6	780.6	746.2	34.40	22.695	
4,150.0	4,104.3	4,042.0	3,925.7	17.8	21.4	-77.90	798.4	285.0	790.5	755.8	34.79	22.720	
4,200.0	4,153.8	5,211.2	4,667.0	18.0	25.9	14.83	508.5	914.4	771.8	745.2	26.61	29.002	
4,250.0	4,203.2	5,207.7	4,667.0	18.2	25.8	45.29	510.7	911.7	734.7	707.0	27.69	26.528	
4,300.0	4,252.2	5,200.4	4,667.0	18.3	25.8	63.87	515.6	906.2	699.4	670.6	28.77	24.307	
4,350.0	4,300.5	5,189.1	4,667.0	18.4	25.7	75.14	523.0	897.7	666.3	636.5	29.86	22.317	
4,400.0	4,347.7	5,166.3	4,666.9	18.5	25.5	81.47	537.9	880.4	635.8	604.9	30.93	20.557	
4,450.0	4,393.6	5,126.5	4,665.4	18.6	25.2	83.94	563.7	850.2	607.9	575.9	32.03	18.980	

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

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 3 - Carson 584H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
4,500.0	4,437.9	5,083.4	4,661.0	18.6	25.0	84.64	591.0	817.1	582.2	549.1	33.11	17.585	
4,550.0	4,480.3	5,045.4	4,654.8	18.7	24.8	84.84	614.3	787.8	559.1	525.1	34.08	16.407	
4,600.0	4,520.5	5,010.5	4,647.3	18.7	24.7	84.57	635.1	760.9	539.1	504.1	34.91	15.441	
4,650.0	4,558.4	4,977.8	4,638.5	18.7	24.5	83.86	654.0	735.6	522.2	486.6	35.57	14.679	
4,700.0	4,593.7	4,946.6	4,628.7	18.7	24.4	82.74	671.5	711.7	508.7	472.6	36.05	14.111	
4,750.0	4,626.1	4,916.5	4,618.0	18.7	24.4	81.23	687.7	688.7	498.7	462.3	36.36	13.714	
4,800.0	4,655.4	4,887.2	4,606.3	18.7	24.3	79.38	702.9	666.5	492.2	455.7	36.52	13.475	
4,850.0	4,681.6	4,858.5	4,593.7	18.7	24.2	77.22	717.2	645.1	489.1	452.6	36.59	13.370	
4,870.8	4,691.5	4,846.7	4,588.2	18.7	24.2	76.23	722.9	636.3	488.9	452.3	36.60	13.356	
4,900.0	4,704.4	4,830.3	4,580.3	18.7	24.2	74.77	730.7	624.3	489.4	452.8	36.60	13.370	
4,950.0	4,723.6	4,802.5	4,566.1	18.6	24.1	72.09	743.3	604.0	492.7	456.1	36.62	13.454	
5,000.0	4,739.2	4,775.1	4,551.0	18.9	24.1	69.22	755.2	584.4	498.7	462.0	36.70	13.589	
5,050.0	4,751.1	4,750.0	4,536.5	19.4	24.0	66.39	765.5	566.8	507.1	470.2	36.90	13.741	
5,100.0	4,759.1	4,720.9	4,518.6	20.0	24.0	63.12	776.7	546.7	517.4	480.2	37.14	13.931	
5,150.0	4,763.3	4,694.1	4,501.4	20.7	23.9	59.99	786.4	528.7	529.3	491.8	37.53	14.103	
5,179.0	4,764.0	4,678.7	4,491.0	21.1	23.9	58.18	791.7	518.5	536.8	499.0	37.81	14.198	
5,200.0	4,764.0	4,667.7	4,483.5	21.3	23.9	57.35	795.3	511.3	542.6	504.6	38.03	14.268	
5,300.0	4,764.0	4,620.4	4,449.8	22.8	23.8	53.73	809.6	481.4	576.4	537.2	39.21	14.700	
5,400.0	4,764.0	4,580.1	4,419.3	24.5	23.7	50.61	820.0	457.3	620.0	579.5	40.45	15.329	
5,500.0	4,764.0	4,550.0	4,395.6	26.3	23.6	48.29	826.7	440.0	672.4	630.7	41.72	16.118	
5,600.0	4,764.0	4,516.2	4,368.0	28.2	23.6	45.70	833.2	421.6	732.3	689.7	42.60	17.192	
5,700.0	4,764.0	4,500.0	4,354.4	30.1	23.5	44.47	835.9	413.1	798.7	755.0	43.65	18.297	
5,800.0	4,764.0	4,468.4	4,327.5	32.2	23.4	42.12	840.3	397.2	870.0	825.9	44.08	19.735	
5,900.0	4,764.0	4,450.0	4,311.5	34.3	23.4	40.78	842.4	388.4	945.6	900.9	44.63	21.187	
6,000.0	4,764.0	4,431.7	4,295.3	36.5	23.3	39.48	844.1	380.0	1,024.6	979.6	45.01	22.762	
6,100.0	4,764.0	4,416.4	4,281.7	38.7	23.3	38.41	845.3	373.2	1,106.5	1,061.1	45.33	24.408	
6,200.0	4,764.0	4,400.0	4,266.9	40.9	23.2	37.27	846.3	366.2	1,190.7	1,145.1	45.53	26.149	
6,300.0	4,764.0	4,400.0	4,266.9	43.2	23.2	37.27	846.3	366.2	1,276.9	1,230.9	45.93	27.800	
6,400.0	4,764.0	4,379.6	4,248.2	45.5	23.1	35.90	847.1	357.8	1,364.5	1,318.6	45.93	29.710	
6,500.0	4,764.0	4,369.6	4,239.0	47.8	23.1	35.24	847.3	353.9	1,453.6	1,407.5	46.05	31.568	
6,600.0	4,764.0	4,350.0	4,220.9	50.2	23.0	33.98	847.5	346.5	1,543.9	1,498.0	45.99	33.570	
6,700.0	4,764.0	4,350.0	4,220.9	52.5	23.0	33.98	847.5	346.5	1,635.1	1,588.9	46.19	35.401	
6,800.0	4,764.0	4,350.0	4,220.9	54.9	23.0	33.98	847.5	346.5	1,727.1	1,680.8	46.35	37.267	
6,900.0	4,764.0	4,350.0	4,220.9	57.3	23.0	33.98	847.5	346.5	1,820.1	1,773.6	46.48	39.161	
7,000.0	4,764.0	4,331.2	4,203.3	59.7	23.0	32.80	847.2	339.7	1,913.3	1,867.0	46.36	41.276	
7,100.0	4,764.0	4,325.2	4,197.8	62.1	22.9	32.44	847.1	337.7	2,007.3	1,961.0	46.38	43.276	
7,200.0	4,764.0	4,319.7	4,192.5	64.5	22.9	32.10	846.9	335.8	2,101.8	2,055.4	46.41	45.289	
7,300.0	4,764.0	4,300.0	4,174.0	67.0	22.8	30.93	846.0	329.4	2,197.0	2,150.7	46.26	47.488	
7,400.0	4,764.0	4,300.0	4,174.0	69.4	22.8	30.93	846.0	329.4	2,292.1	2,245.8	46.34	49.466	
7,500.0	4,764.0	4,300.0	4,174.0	71.8	22.8	30.93	846.0	329.4	2,387.7	2,341.3	46.40	51.457	
7,600.0	4,764.0	4,300.0	4,174.0	74.3	22.8	30.93	846.0	329.4	2,483.6	2,437.2	46.46	53.457	
7,700.0	4,764.0	4,300.0	4,174.0	76.7	22.8	30.93	846.0	329.4	2,579.9	2,533.4	46.51	55.467	
7,800.0	4,764.0	4,300.0	4,174.0	79.2	22.8	30.93	846.0	329.4	2,676.4	2,629.8	46.56	57.484	
7,900.0	4,764.0	4,300.0	4,174.0	81.6	22.8	30.93	846.0	329.4	2,773.2	2,726.6	46.60	59.507	
8,000.0	4,764.0	4,300.0	4,174.0	84.1	22.8	30.93	846.0	329.4	2,870.1	2,823.5	46.64	61.535	
8,100.0	4,764.0	4,300.0	4,174.0	86.6	22.8	30.93	846.0	329.4	2,967.3	2,920.6	46.68	63.567	
8,200.0	4,764.0	4,300.0	4,174.0	89.1	22.8	30.93	846.0	329.4	3,064.7	3,018.0	46.72	65.604	
8,300.0	4,764.0	4,277.8	4,152.9	91.5	22.7	29.65	844.5	322.8	3,161.8	3,115.2	46.54	67.943	
8,400.0	4,764.0	4,275.2	4,150.3	94.0	22.7	29.50	844.2	322.0	3,259.3	3,212.8	46.55	70.025	
8,500.0	4,764.0	4,272.6	4,147.9	96.5	22.7	29.36	844.0	321.3	3,357.0	3,310.5	46.56	72.107	
8,600.0	4,764.0	4,250.0	4,126.2	99.0	22.6	28.13	841.8	315.2	3,455.2	3,408.8	46.38	74.501	
8,700.0	4,764.0	4,250.0	4,126.2	101.5	22.6	28.13	841.8	315.2	3,553.1	3,506.6	46.41	76.553	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 3 - Carson 584H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
8,800.0	4,764.0	4,250.0	4,126.2	103.9	22.6	28.13	841.8	315.2	3,651.0	3,604.6	46.45	78.606	
8,900.0	4,764.0	4,250.0	4,126.2	106.4	22.6	28.13	841.8	315.2	3,749.1	3,702.6	46.48	80.659	
9,000.0	4,764.0	4,250.0	4,126.2	108.9	22.6	28.13	841.8	315.2	3,847.3	3,800.7	46.51	82.711	
9,100.0	4,764.0	4,250.0	4,126.2	111.4	22.6	28.13	841.8	315.2	3,945.5	3,899.0	46.55	84.763	
9,200.0	4,764.0	4,250.0	4,126.2	113.9	22.6	28.13	841.8	315.2	4,043.9	3,997.3	46.58	86.815	
9,300.0	4,764.0	4,250.0	4,126.2	116.4	22.6	28.13	841.8	315.2	4,142.3	4,095.7	46.61	88.865	
9,400.0	4,764.0	4,250.0	4,126.2	118.9	22.6	28.13	841.8	315.2	4,240.8	4,194.2	46.65	90.913	
9,500.0	4,764.0	4,250.0	4,126.2	121.4	22.6	28.13	841.8	315.2	4,339.4	4,292.7	46.68	92.960	
9,600.0	4,764.0	4,250.0	4,126.2	123.9	22.6	28.13	841.8	315.2	4,438.0	4,391.3	46.71	95.005	
9,700.0	4,764.0	4,250.0	4,126.2	126.4	22.6	28.13	841.8	315.2	4,536.7	4,489.9	46.75	97.048	
9,800.0	4,764.0	4,250.0	4,126.2	128.9	22.6	28.13	841.8	315.2	4,635.4	4,588.7	46.78	99.088	
9,900.0	4,764.0	4,250.0	4,126.2	131.4	22.6	28.13	841.8	315.2	4,734.2	4,687.4	46.82	101.126	
10,000.0	4,764.0	4,250.0	4,126.2	133.9	22.6	28.13	841.8	315.2	4,833.1	4,786.2	46.85	103.161	
10,100.0	4,764.0	4,250.0	4,126.2	136.4	22.6	28.13	841.8	315.2	4,932.0	4,885.1	46.89	105.193	
10,200.0	4,764.0	4,250.0	4,126.2	138.9	22.6	28.13	841.8	315.2	5,030.9	4,984.0	46.92	107.222	
10,300.0	4,764.0	4,250.0	4,126.2	141.5	22.6	28.13	841.8	315.2	5,129.9	5,083.0	46.96	109.247	
10,400.0	4,764.0	4,250.0	4,126.2	144.0	22.6	28.13	841.8	315.2	5,228.9	5,181.9	46.99	111.269	
10,500.0	4,764.0	4,250.0	4,126.2	146.5	22.6	28.13	841.8	315.2	5,328.0	5,281.0	47.03	113.287	
10,600.0	4,764.0	4,250.0	4,126.2	149.0	22.6	28.13	841.8	315.2	5,427.1	5,380.0	47.07	115.302	
10,700.0	4,764.0	4,250.0	4,126.2	151.5	22.6	28.13	841.8	315.2	5,526.2	5,479.1	47.11	117.312	
10,800.0	4,764.0	4,250.0	4,126.2	154.0	22.6	28.13	841.8	315.2	5,625.4	5,578.2	47.15	119.319	
10,900.0	4,764.0	4,250.0	4,126.2	156.5	22.6	28.13	841.8	315.2	5,724.5	5,677.4	47.19	121.321	
11,000.0	4,764.0	4,250.0	4,126.2	159.0	22.6	28.13	841.8	315.2	5,823.8	5,776.5	47.23	123.319	
11,100.0	4,764.0	4,250.0	4,126.2	161.5	22.6	28.13	841.8	315.2	5,923.0	5,875.7	47.27	125.313	
11,200.0	4,764.0	4,250.0	4,126.2	164.1	22.6	28.13	841.8	315.2	6,022.3	5,975.0	47.31	127.302	
11,300.0	4,764.0	4,250.0	4,126.2	166.6	22.6	28.13	841.8	315.2	6,121.6	6,074.2	47.35	129.287	
11,400.0	4,764.0	4,250.0	4,126.2	169.1	22.6	28.13	841.8	315.2	6,220.9	6,173.5	47.39	131.267	
11,500.0	4,764.0	4,250.0	4,126.2	171.6	22.6	28.13	841.8	315.2	6,320.2	6,272.8	47.43	133.242	
11,600.0	4,764.0	4,250.0	4,126.2	174.1	22.6	28.13	841.8	315.2	6,419.5	6,372.1	47.48	135.212	
11,700.0	4,764.0	4,250.0	4,126.2	176.6	22.6	28.13	841.8	315.2	6,518.9	6,471.4	47.52	137.177	
11,800.0	4,764.0	4,250.0	4,126.2	179.1	22.6	28.13	841.8	315.2	6,618.3	6,570.7	47.57	139.137	
11,900.0	4,764.0	4,250.0	4,126.2	181.7	22.6	28.13	841.8	315.2	6,717.7	6,670.1	47.61	141.092	
12,000.0	4,764.0	4,226.9	4,104.0	184.2	22.5	26.91	839.0	309.5	6,816.7	6,769.2	47.47	143.591	
12,100.0	4,764.0	4,226.2	4,103.4	186.7	22.5	26.88	838.9	309.4	6,916.1	6,868.6	47.51	145.558	
12,200.0	4,764.0	4,225.6	4,102.7	189.2	22.5	26.85	838.8	309.2	7,015.5	6,968.0	47.56	147.519	
12,300.0	4,764.0	4,224.9	4,102.1	191.7	22.5	26.81	838.7	309.1	7,115.0	7,067.4	47.60	149.474	
12,400.0	4,764.0	4,224.3	4,101.5	194.2	22.5	26.78	838.6	308.9	7,214.5	7,166.8	47.64	151.424	
12,506.1	4,764.0	4,223.6	4,100.9	196.9	22.5	26.75	838.6	308.8	7,320.0	7,272.3	47.69	153.486	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 611H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
0.0	0.0	0.0	0.0	0.0	0.0	135.21	-14.2	14.1	20.1				
100.0	100.0	100.0	100.0	0.1	0.1	135.21	-14.2	14.1	20.1	19.8	0.29	69.935	
200.0	200.0	200.0	200.0	0.5	0.5	135.21	-14.2	14.1	20.1	19.1	1.00	19.981	
300.0	300.0	300.0	300.0	0.9	0.9	135.21	-14.2	14.1	20.1	18.3	1.72	11.656	
400.0	400.0	400.0	400.0	1.2	1.2	135.21	-14.2	14.1	20.1	17.6	2.44	8.228	CC
500.0	500.0	499.8	499.8	1.6	1.6	132.23	-13.7	15.1	20.4	17.3	3.15	6.481	ES
600.0	600.0	599.4	599.3	1.9	1.9	121.36	-11.7	19.1	22.4	18.5	3.86	5.801	
700.0	700.0	698.5	698.1	2.3	2.3	107.04	-8.0	26.1	27.4	22.8	4.57	5.995	
800.0	800.0	797.0	795.9	2.7	2.7	94.50	-2.8	36.1	36.5	31.2	5.28	6.910	
820.0	820.0	816.6	815.3	2.7	2.7	92.42	-1.6	38.5	38.8	33.4	5.42	7.159	
900.0	900.0	894.8	892.6	3.0	3.1	2.84	3.8	49.0	48.6	42.6	5.96	8.146	
1,000.0	999.9	992.0	988.2	3.4	3.5	-3.48	11.9	64.7	61.2	54.6	6.63	9.235	
1,100.0	1,099.6	1,088.8	1,082.7	3.7	3.9	-8.47	21.5	83.1	74.3	67.0	7.29	10.180	
1,200.0	1,198.9	1,185.0	1,175.9	4.1	4.4	-12.67	32.5	104.3	87.6	79.7	7.95	11.016	
1,300.0	1,297.8	1,281.4	1,268.5	4.5	5.0	-16.39	44.8	128.2	101.3	92.6	8.63	11.731	
1,321.8	1,319.3	1,303.0	1,289.2	4.6	5.1	-17.16	47.7	133.7	104.1	95.3	8.79	11.839	
1,400.0	1,396.2	1,380.4	1,363.3	4.9	5.6	-19.73	58.0	153.6	114.0	104.6	9.38	12.157	
1,500.0	1,494.7	1,479.4	1,458.1	5.3	6.2	-22.43	71.2	179.0	126.9	116.8	10.14	12.516	
1,600.0	1,593.2	1,578.4	1,552.9	5.7	6.8	-24.62	84.3	204.4	140.1	129.2	10.92	12.826	
1,700.0	1,691.7	1,677.4	1,647.6	6.2	7.4	-26.43	97.5	229.8	153.5	141.7	11.72	13.093	
1,800.0	1,790.1	1,776.4	1,742.4	6.6	8.0	-27.96	110.6	255.2	166.9	154.4	12.53	13.324	
1,900.0	1,888.6	1,875.4	1,837.2	7.1	8.6	-29.25	123.8	280.6	180.5	167.2	13.35	13.523	
2,000.0	1,987.1	1,974.4	1,932.0	7.5	9.3	-30.37	136.9	306.0	194.2	180.0	14.18	13.696	
2,100.0	2,085.5	2,073.4	2,026.8	8.0	9.9	-31.33	150.1	331.4	207.9	192.9	15.01	13.847	
2,200.0	2,184.0	2,172.4	2,121.5	8.5	10.5	-32.18	163.2	356.8	221.6	205.8	15.85	13.980	
2,300.0	2,282.5	2,271.4	2,216.3	8.9	11.2	-32.93	176.4	382.2	235.4	218.7	16.70	14.096	
2,400.0	2,380.9	2,370.4	2,311.1	9.4	11.8	-33.60	189.5	407.6	249.3	231.7	17.56	14.200	
2,500.0	2,479.4	2,469.4	2,405.9	9.9	12.5	-34.19	202.7	433.0	263.2	244.7	18.41	14.291	
2,600.0	2,577.9	2,568.4	2,500.6	10.3	13.1	-34.73	215.8	458.3	277.1	257.8	19.28	14.374	
2,700.0	2,676.3	2,667.4	2,595.4	10.8	13.8	-35.21	229.0	483.7	291.0	270.8	20.14	14.447	
2,800.0	2,774.8	2,766.4	2,690.2	11.3	14.4	-35.65	242.1	509.1	304.9	283.9	21.01	14.514	
2,900.0	2,873.3	2,865.4	2,785.0	11.8	15.1	-36.05	255.3	534.5	318.9	297.0	21.88	14.574	
3,000.0	2,971.8	2,964.4	2,879.7	12.3	15.7	-36.42	268.5	559.9	332.8	310.1	22.75	14.629	
3,100.0	3,070.2	3,063.4	2,974.5	12.7	16.4	-36.76	281.6	585.3	346.8	323.2	23.63	14.679	
3,200.0	3,168.7	3,162.4	3,069.3	13.2	17.0	-37.07	294.8	610.7	360.8	336.3	24.50	14.724	
3,300.0	3,267.2	3,261.4	3,164.1	13.7	17.7	-37.36	307.9	636.1	374.8	349.4	25.38	14.766	
3,400.0	3,365.6	3,360.4	3,258.9	14.2	18.3	-37.63	321.1	661.5	388.8	362.5	26.26	14.805	
3,500.0	3,464.1	3,459.4	3,353.6	14.7	19.0	-37.88	334.2	686.9	402.8	375.7	27.14	14.840	
3,600.0	3,562.6	3,558.4	3,448.4	15.1	19.6	-38.11	347.4	712.3	416.8	388.8	28.03	14.873	
3,700.0	3,661.0	3,657.4	3,543.2	15.6	20.3	-38.33	360.5	737.7	430.9	402.0	28.91	14.903	
3,800.0	3,759.5	3,756.4	3,638.0	16.1	20.9	-38.53	373.7	763.1	444.9	415.1	29.80	14.932	
3,900.0	3,858.0	3,855.4	3,732.7	16.6	21.6	-38.73	386.8	788.5	459.0	428.3	30.68	14.958	
4,000.0	3,956.5	3,954.4	3,827.5	17.1	22.2	-38.91	400.0	813.9	473.0	441.4	31.57	14.983	
4,106.5	4,061.3	4,059.8	3,928.4	17.6	22.9	-39.09	414.0	840.9	488.0	455.4	32.52	15.007	
4,150.0	4,104.3	4,102.9	3,969.7	17.8	23.2	-18.02	419.7	852.0	494.1	461.2	32.87	15.034	
4,200.0	4,153.8	4,152.5	4,017.2	18.0	23.5	14.37	426.7	864.3	501.2	468.0	33.18	15.104	
4,250.0	4,203.2	4,202.6	4,065.4	18.2	23.8	40.12	436.1	874.2	508.4	474.9	33.46	15.195	
4,300.0	4,252.2	4,253.0	4,113.9	18.3	24.1	54.93	448.2	881.2	515.5	481.8	33.69	15.301	
4,350.0	4,300.5	4,303.9	4,162.4	18.4	24.4	63.35	463.0	885.2	522.5	488.6	33.89	15.416	
4,400.0	4,347.7	4,355.2	4,210.6	18.5	24.6	68.51	480.6	886.0	529.4	495.3	34.08	15.536	
4,450.0	4,393.6	4,406.9	4,258.1	18.6	24.8	71.89	500.7	883.7	536.2	501.9	34.25	15.655	
4,500.0	4,437.9	4,459.1	4,304.7	18.6	25.0	74.23	523.4	878.1	542.7	508.3	34.42	15.767	

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

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

Offset Design WC 21-2 - Slot 4 - Carson 611H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
4,550.0	4,480.3	4,511.6	4,350.0	18.7	25.1	75.91	548.6	869.2	549.0	514.4	34.60	15.866	
4,600.0	4,520.5	4,564.6	4,393.6	18.7	25.3	77.14	576.1	857.0	555.0	520.2	34.80	15.945	
4,650.0	4,558.4	4,618.0	4,435.1	18.7	25.4	78.07	605.8	841.5	560.6	525.6	35.04	15.998	
4,700.0	4,593.7	4,671.8	4,474.3	18.7	25.5	78.78	637.6	822.7	565.9	530.6	35.33	16.016	
4,750.0	4,626.1	4,726.0	4,510.7	18.7	25.6	79.32	671.1	800.8	570.7	535.0	35.69	15.993	
4,800.0	4,655.4	4,780.5	4,544.0	18.7	25.7	79.73	706.3	775.7	575.1	539.0	36.12	15.922	
4,850.0	4,681.6	4,835.4	4,573.8	18.7	25.7	80.04	742.8	747.8	579.0	542.4	36.65	15.798	
4,900.0	4,704.4	4,890.5	4,600.0	18.7	25.8	80.27	780.3	717.0	582.4	545.1	37.29	15.619	
4,950.0	4,723.6	4,945.8	4,622.1	18.6	25.9	80.43	818.6	683.8	585.2	547.2	38.04	15.385	
5,000.0	4,739.2	5,001.4	4,640.0	18.9	25.9	80.53	857.3	648.3	587.5	548.6	38.91	15.098	
5,050.0	4,751.1	5,057.0	4,653.5	19.4	26.0	80.59	896.1	610.8	589.2	549.3	39.91	14.763	
5,100.0	4,759.1	5,112.7	4,662.4	20.0	26.1	80.60	934.7	571.6	590.3	549.3	41.02	14.390	
5,150.0	4,763.3	5,168.5	4,666.6	20.7	26.3	80.58	972.7	531.1	590.8	548.5	42.22	13.991	
5,179.0	4,764.0	5,199.8	4,667.0	21.1	26.4	80.55	993.7	507.9	590.8	547.8	42.95	13.755	
5,200.0	4,764.0	5,220.8	4,667.0	21.3	26.5	80.55	1,007.8	492.3	590.7	547.2	43.53	13.572	
5,300.0	4,764.0	5,320.8	4,667.0	22.8	27.1	80.55	1,074.6	417.9	590.6	544.2	46.38	12.735	
5,400.0	4,764.0	5,420.8	4,667.0	24.5	28.0	80.54	1,141.5	343.5	590.4	540.8	49.65	11.893	
5,500.0	4,764.0	5,520.8	4,667.0	26.3	29.3	80.54	1,208.3	269.1	590.3	537.4	52.93	11.152	
5,600.0	4,764.0	5,620.8	4,667.0	28.2	30.8	80.54	1,275.2	194.8	590.1	533.5	56.64	10.419	
5,700.0	4,764.0	5,720.8	4,667.0	30.1	32.5	80.54	1,342.0	120.4	590.0	529.4	60.52	9.748	
5,800.0	4,764.0	5,820.8	4,667.0	32.2	34.4	80.53	1,408.9	46.0	589.8	525.3	64.56	9.136	
5,900.0	4,764.0	5,920.8	4,667.0	34.3	36.4	80.53	1,475.7	-28.4	589.7	520.9	68.72	8.581	
6,000.0	4,764.0	6,020.8	4,667.0	36.5	38.4	80.53	1,542.5	-102.7	589.5	516.5	72.98	8.077	
6,100.0	4,764.0	6,120.8	4,667.0	38.7	40.5	80.53	1,609.4	-177.1	589.3	512.0	77.34	7.620	
6,200.0	4,764.0	6,220.8	4,667.0	40.9	42.7	80.52	1,676.2	-251.5	589.2	507.4	81.77	7.206	
6,300.0	4,764.0	6,320.8	4,667.0	43.2	44.9	80.52	1,743.1	-325.9	589.0	502.8	86.26	6.829	
6,400.0	4,764.0	6,420.8	4,667.0	45.5	47.1	80.52	1,809.9	-400.2	588.9	498.1	90.80	6.485	
6,500.0	4,764.0	6,520.8	4,667.0	47.8	49.4	80.52	1,876.8	-474.6	588.7	493.3	95.39	6.172	
6,600.0	4,764.0	6,620.8	4,667.0	50.2	51.6	80.51	1,943.6	-549.0	588.6	488.5	100.02	5.885	
6,700.0	4,764.0	6,720.8	4,667.0	52.5	54.0	80.51	2,010.5	-623.3	588.4	483.7	104.68	5.621	
6,800.0	4,764.0	6,820.8	4,667.0	54.9	56.3	80.51	2,077.3	-697.7	588.2	478.9	109.37	5.378	
6,900.0	4,764.0	6,920.8	4,667.0	57.3	58.6	80.51	2,144.2	-772.1	588.1	474.0	114.09	5.155	
7,000.0	4,764.0	7,020.8	4,667.0	59.7	61.0	80.50	2,211.0	-846.5	587.9	469.1	118.83	4.948	
7,100.0	4,764.0	7,120.8	4,667.0	62.1	63.4	80.50	2,277.9	-920.8	587.8	464.2	123.59	4.756	
7,200.0	4,764.0	7,220.8	4,667.0	64.5	65.8	80.50	2,344.7	-995.2	587.6	459.2	128.37	4.578	
7,300.0	4,764.0	7,320.8	4,667.0	67.0	68.2	80.50	2,411.6	-1,069.6	587.5	454.3	133.17	4.412	
7,400.0	4,764.0	7,420.8	4,667.0	69.4	70.6	80.49	2,478.4	-1,144.0	587.3	449.3	137.98	4.257	
7,500.0	4,764.0	7,520.8	4,667.0	71.8	73.0	80.49	2,545.3	-1,218.3	587.1	444.3	142.80	4.112	
7,600.0	4,764.0	7,620.8	4,667.0	74.3	75.4	80.49	2,612.1	-1,292.7	587.0	439.4	147.63	3.976	
7,700.0	4,764.0	7,720.8	4,667.0	76.7	77.8	80.49	2,679.0	-1,367.1	586.8	434.4	152.48	3.849	
7,800.0	4,764.0	7,820.8	4,667.0	79.2	80.3	80.48	2,745.8	-1,441.4	586.7	429.3	157.33	3.729	
7,900.0	4,764.0	7,920.8	4,667.0	81.6	82.7	80.48	2,812.7	-1,515.8	586.5	424.3	162.20	3.616	
8,000.0	4,764.0	8,020.8	4,667.0	84.1	85.1	80.48	2,879.5	-1,590.2	586.4	419.3	167.07	3.510	
8,100.0	4,764.0	8,120.8	4,667.0	86.6	87.6	80.48	2,946.4	-1,664.6	586.2	414.3	171.95	3.409	
8,200.0	4,764.0	8,220.8	4,667.0	89.1	90.1	80.47	3,013.2	-1,738.9	586.1	409.2	176.83	3.314	
8,300.0	4,764.0	8,320.8	4,667.0	91.5	92.5	80.47	3,080.0	-1,813.3	585.9	404.2	181.72	3.224	
8,400.0	4,764.0	8,420.8	4,667.0	94.0	95.0	80.47	3,146.9	-1,887.7	585.7	399.1	186.62	3.139	
8,500.0	4,764.0	8,520.8	4,667.0	96.5	97.4	80.47	3,213.7	-1,962.1	585.6	394.1	191.52	3.058	
8,600.0	4,764.0	8,620.8	4,667.0	99.0	99.9	80.46	3,280.6	-2,036.4	585.4	389.0	196.43	2.980	
8,700.0	4,764.0	8,720.8	4,667.0	101.5	102.4	80.46	3,347.4	-2,110.8	585.3	383.9	201.34	2.907	
8,800.0	4,764.0	8,820.8	4,667.0	103.9	104.9	80.46	3,414.3	-2,185.2	585.1	378.9	206.26	2.837	
8,900.0	4,764.0	8,920.8	4,667.0	106.4	107.3	80.45	3,481.1	-2,259.6	585.0	373.8	211.18	2.770	

Anticollision Report

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

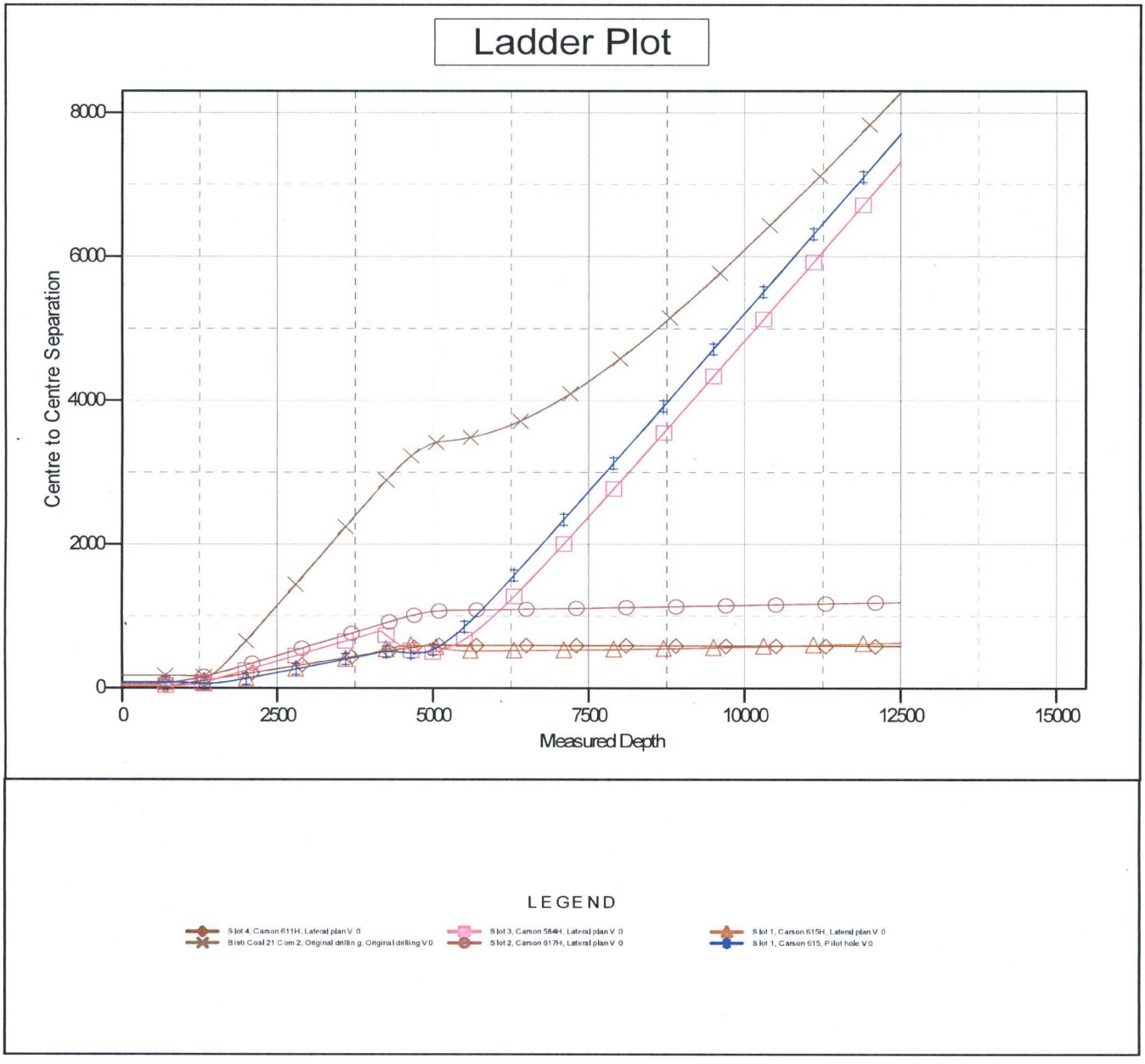
Offset Design WC 21-2 - Slot 4 - Carson 611H - Lateral plan — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD+IGRF — **Offset Well Error:** 0.0 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
9,000.0	4,764.0	9,020.8	4,667.0	108.9	109.8	80.45	3,548.0	-2,333.9	584.8	368.7	216.10	2.706	
9,100.0	4,764.0	9,120.8	4,667.0	111.4	112.3	80.45	3,614.8	-2,408.3	584.6	363.6	221.03	2.645	
9,200.0	4,764.0	9,220.8	4,667.0	113.9	114.8	80.45	3,681.7	-2,482.7	584.5	358.5	225.96	2.587	
9,300.0	4,764.0	9,320.8	4,667.0	116.4	117.3	80.44	3,748.5	-2,557.0	584.3	353.4	230.89	2.531	
9,400.0	4,764.0	9,420.8	4,667.0	118.9	119.8	80.44	3,815.4	-2,631.4	584.2	348.3	235.82	2.477	
9,500.0	4,764.0	9,520.8	4,667.0	121.4	122.2	80.44	3,882.2	-2,705.8	584.0	343.3	240.76	2.426	
9,600.0	4,764.0	9,620.8	4,667.0	123.9	124.7	80.44	3,949.1	-2,780.2	583.9	338.2	245.70	2.376	
9,700.0	4,764.0	9,720.8	4,667.0	126.4	127.2	80.43	4,015.9	-2,854.5	583.7	333.1	250.64	2.329	
9,800.0	4,764.0	9,820.8	4,667.0	128.9	129.7	80.43	4,082.8	-2,928.9	583.5	328.0	255.59	2.283	
9,900.0	4,764.0	9,920.8	4,667.0	131.4	132.2	80.43	4,149.6	-3,003.3	583.4	322.9	260.53	2.239	
10,000.0	4,764.0	10,020.8	4,667.0	133.9	134.7	80.43	4,216.5	-3,077.7	583.2	317.8	265.48	2.197	
10,100.0	4,764.0	10,120.8	4,667.0	136.4	137.2	80.42	4,283.3	-3,152.0	583.1	312.6	270.43	2.156	
10,200.0	4,764.0	10,220.8	4,667.0	138.9	139.7	80.42	4,350.2	-3,226.4	582.9	307.5	275.38	2.117	
10,300.0	4,764.0	10,320.8	4,667.0	141.5	142.2	80.42	4,417.0	-3,300.8	582.8	302.4	280.34	2.079	
10,400.0	4,764.0	10,420.8	4,667.0	144.0	144.7	80.42	4,483.8	-3,375.2	582.6	297.3	285.29	2.042	
10,500.0	4,764.0	10,520.8	4,667.0	146.5	147.2	80.41	4,550.7	-3,449.5	582.5	292.2	290.25	2.007	
10,600.0	4,764.0	10,620.8	4,667.0	149.0	149.7	80.41	4,617.5	-3,523.9	582.3	287.1	295.21	1.973	
10,700.0	4,764.0	10,720.8	4,667.0	151.5	152.2	80.41	4,684.4	-3,598.3	582.1	282.0	300.16	1.939	
10,800.0	4,764.0	10,820.8	4,667.0	154.0	154.7	80.41	4,751.2	-3,672.6	582.0	276.9	305.12	1.907	
10,900.0	4,764.0	10,920.8	4,667.0	156.5	157.2	80.40	4,818.1	-3,747.0	581.8	271.7	310.08	1.876	
11,000.0	4,764.0	11,020.8	4,667.0	159.0	159.8	80.40	4,884.9	-3,821.4	581.7	266.6	315.05	1.846	
11,100.0	4,764.0	11,120.8	4,667.0	161.5	162.3	80.40	4,951.8	-3,895.8	581.5	261.5	320.01	1.817	
11,200.0	4,764.0	11,220.8	4,667.0	164.1	164.8	80.40	5,018.6	-3,970.1	581.4	256.4	324.97	1.789	
11,300.0	4,764.0	11,320.8	4,667.0	166.6	167.3	80.39	5,085.5	-4,044.5	581.2	251.3	329.94	1.762	
11,400.0	4,764.0	11,420.8	4,667.0	169.1	169.8	80.39	5,152.3	-4,118.9	581.0	246.1	334.90	1.735	
11,500.0	4,764.0	11,520.8	4,667.0	171.6	172.3	80.39	5,219.2	-4,193.3	580.9	241.0	339.87	1.709	
11,600.0	4,764.0	11,620.8	4,667.0	174.1	174.8	80.38	5,286.0	-4,267.6	580.7	235.9	344.84	1.684	
11,700.0	4,764.0	11,720.8	4,667.0	176.6	177.3	80.38	5,352.9	-4,342.0	580.6	230.8	349.81	1.660	
11,800.0	4,764.0	11,820.8	4,667.0	179.1	179.8	80.38	5,419.7	-4,416.4	580.4	225.6	354.78	1.636	
11,900.0	4,764.0	11,920.8	4,667.0	181.7	182.3	80.38	5,486.6	-4,490.7	580.3	220.5	359.75	1.613	
12,000.0	4,764.0	12,020.8	4,667.0	184.2	184.9	80.37	5,553.4	-4,565.1	580.1	215.4	364.72	1.591	
12,100.0	4,764.0	12,120.8	4,667.0	186.7	187.4	80.37	5,620.3	-4,639.5	579.9	210.3	369.69	1.569	
12,200.0	4,764.0	12,220.8	4,667.0	189.2	189.9	80.37	5,687.1	-4,713.9	579.8	205.1	374.66	1.548	
12,300.0	4,764.0	12,320.8	4,667.0	191.7	192.4	80.37	5,754.0	-4,788.2	579.6	200.0	379.63	1.527	
12,400.0	4,764.0	12,420.8	4,667.0	194.2	194.9	80.36	5,820.8	-4,862.6	579.5	194.9	384.60	1.507	
12,506.1	4,764.0	12,526.8	4,667.0	196.9	197.6	80.36	5,891.7	-4,941.5	579.3	189.4	389.88	1.486	Level 3, SF

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

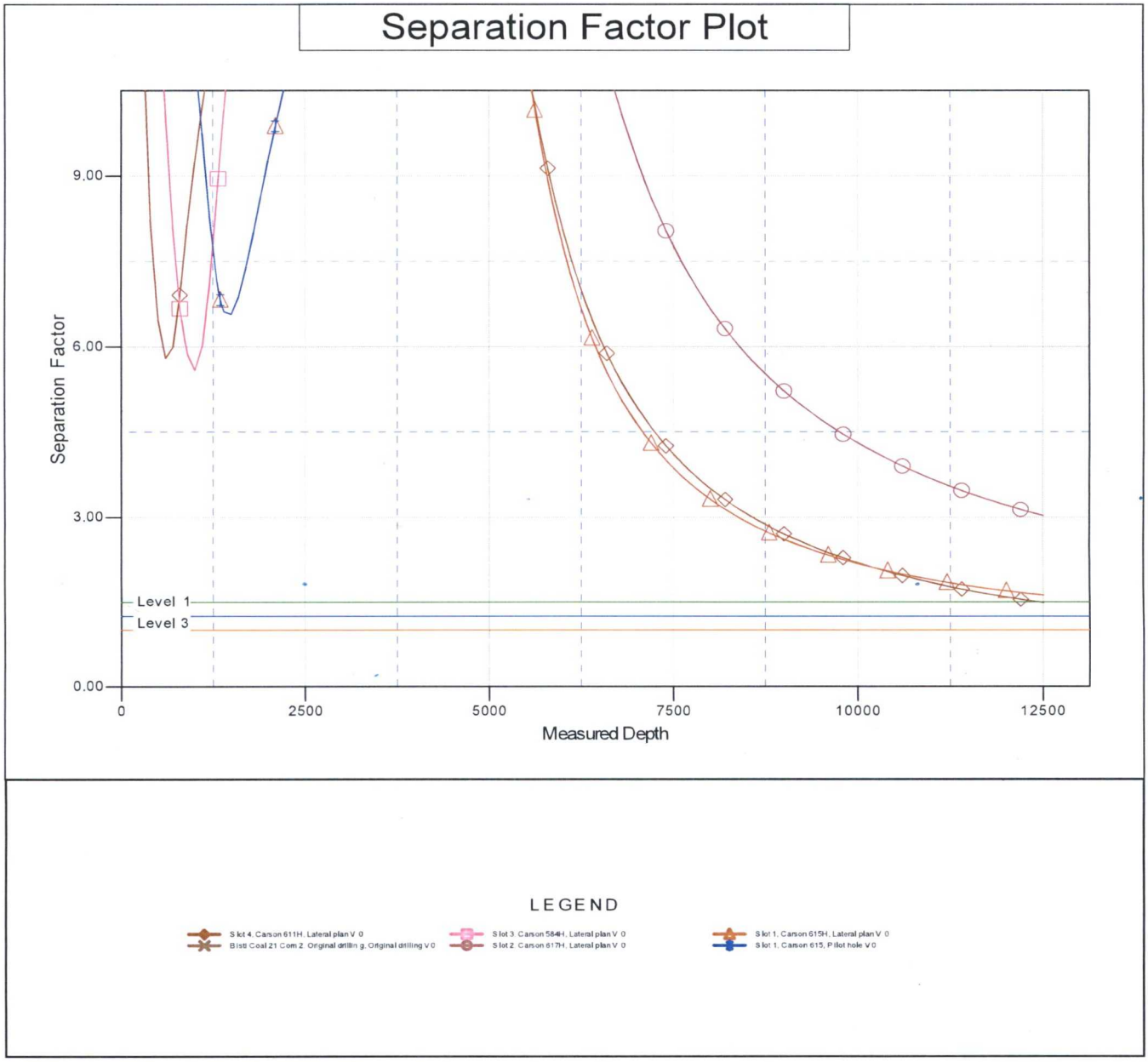
Reference Depths are relative to Rig (copy) @ 6370.0usft (Rig TBD 20	Coordinates are relative to: Slot 5
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Western Zone
Central Meridian is -107.83333333	Grid Convergence at Surface is: -0.17°



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

Company:	DJR Operating	**Local Co-ordinate Reference:**	Well Slot 5
Project:	Proposed Carson Unit	**TVD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Reference Site:	WC 21-2	**MD Reference:**	Rig (copy) @ 6370.0usft (Rig TBD 20' KB)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Slot 5	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Carson 613H	**Database:**	EDM
Reference Design:	Lateral plan	**Offset TVD Reference:**	Offset Datum

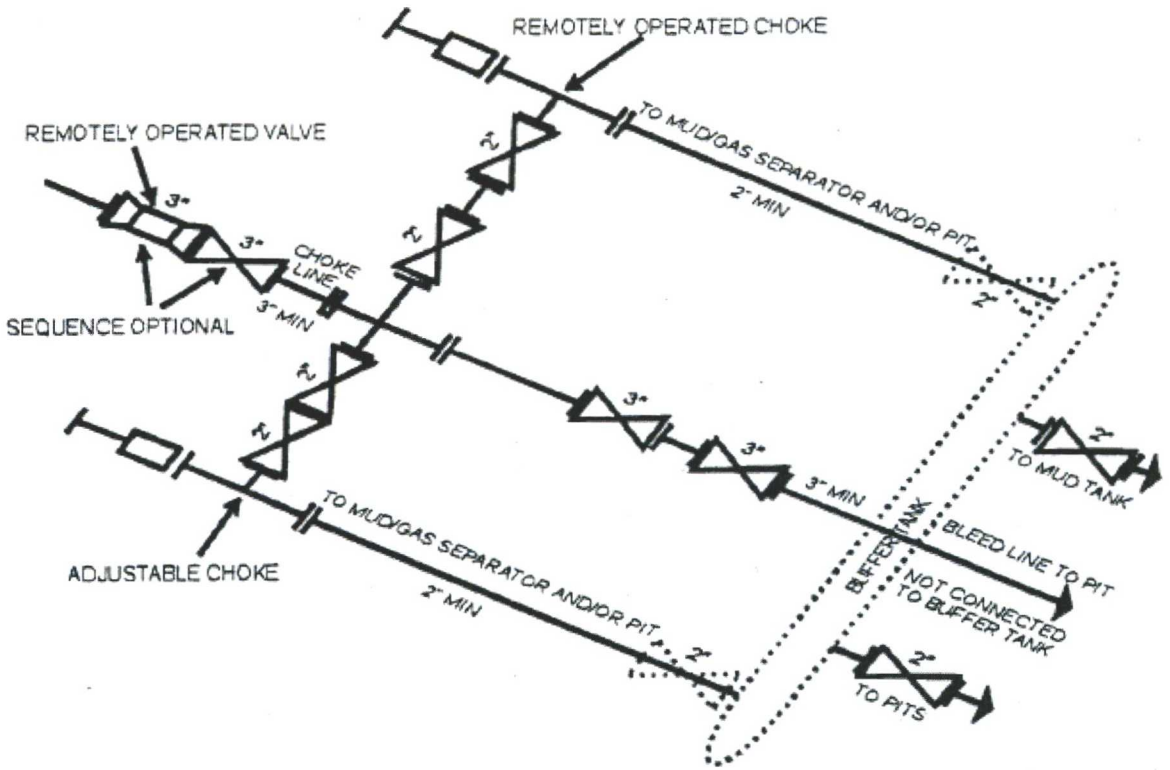
Reference Depths are relative to Rig (copy) @ 6370.0usft (Rig TBD 20	Coordinates are relative to: Slot 5
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Western Zone
Central Meridian is -107.83333333	Grid Convergence at Surface is: -0.17°



Choke Manifold

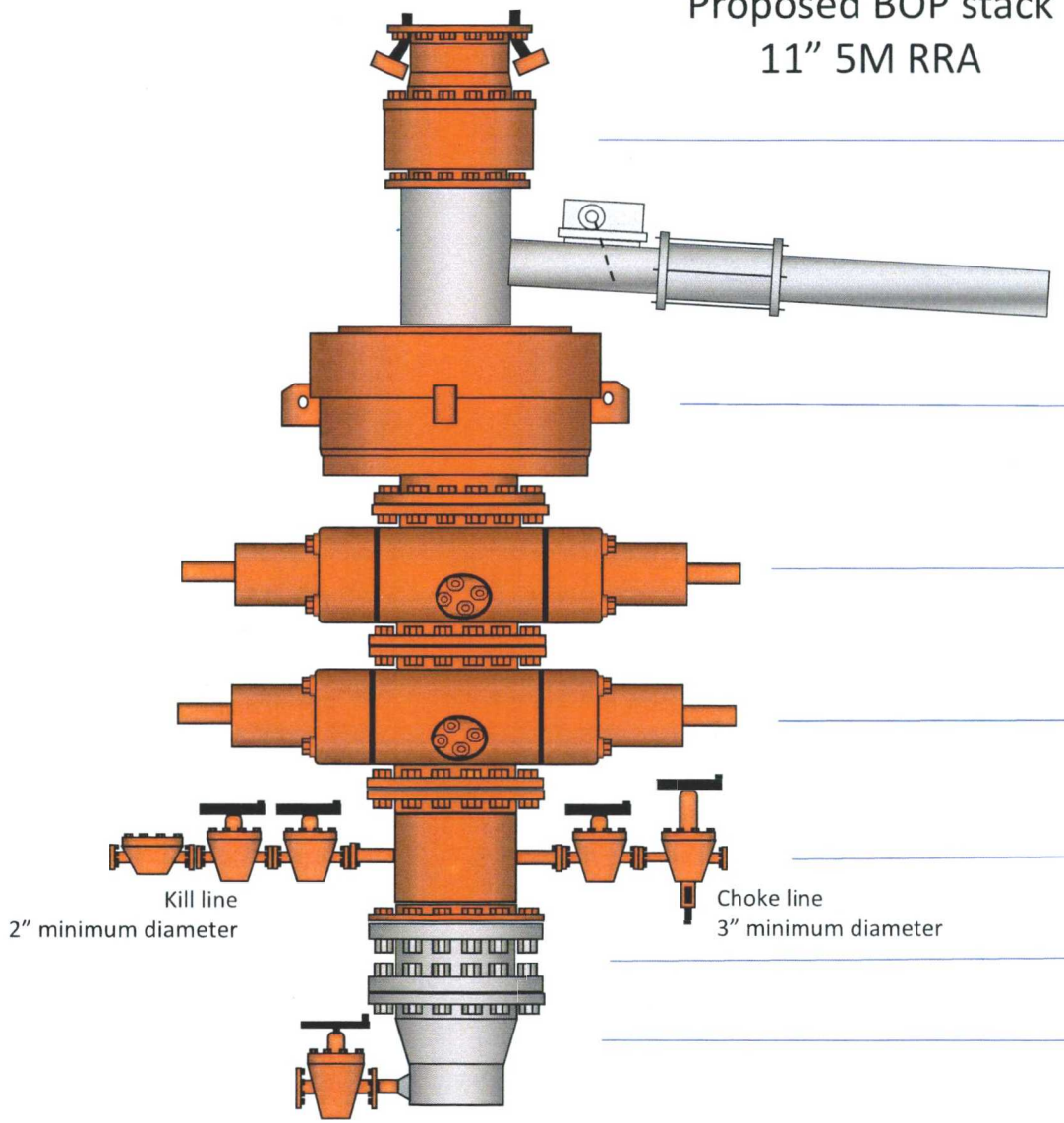
Actual system to conform with Onshore Order 2

DJR Operating



Proposed BOP stack
11" 5M RRA

DJR Operating



Low pressure rotating head

Flowline

3M Annular preventer

5M Pipe rams

5M Blind rams

5M Mud cross

5M Tie-down flange
(moves with BOP)

11" 5M Multi-bowl wellhead