

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, 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 3160-5 form.

Operator Signature Date: **Original APD 3/2/2015**
Change of Plans Sundry Date 5/1/2019

WELL INFORMATION:

DJR OPERATING, LLC

30-045-35658 BLANCO WASH UNIT #403H

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,
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☒ 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
- ☒ 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
- ☒ Submit Gas Capture Plan form prior to spudding or initiating recompletions 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.

June 7, 2019

Page 2

- ✓ 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.
- ✓ Comply with current regulations at time of spud
Prior to production operator needs to be in compliance with RULE 19.15.5.9
- ✓ Submit an amendment to the BLM to correct the bottom hole location reported on the BLM sundry form (see sundry submitted on 5/21/2019).



NMOCD Approved by Signature

5/31/19

Date

RECEIVED

MAY 01 2019

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM 135989

6. If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
DJR Operating LLC.

3a. Address
1 Road 3263
Aztec, New Mexico 87410

3b. Phone No. (include area code)
505-632-3476

7. If Unit of CA/Agreement, Name and/or No.
NMNM 137065X

8. Well Name and No.
Blanco Wash Unit #403H

9. API Well No.
30-045-35658

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1543' FSL and 76' FEL Section 24, T24N, R9W
BHL: 224' FNL and 765' FWL Section 30, T24N, R8W

10. Field and Pool or Exploratory Area
Blanco Wash Mancos Oil Pool

11. County or Parish, State
San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other SHL Change, BHL Change & New Drilling Plan
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

DJR Operating LLC. has an approved APD for the proposed well, Blanco Wash Unit 403H well (API 30-045-35658) which will be a part of the Blanco Wash Unit. DJR Operating is submitting this sundry to change the SHL (switched SHL between 402H & 403H), BHL and a New Drilling Plan.

Please find attached an updated C-102 package reflecting the SHL change, BHL change and a new drilling plan.

NMOC

MAY 20 2019

DISTRICT III

ACCEPTED FOR RECORD

MAY 17 2019

FARMINGTON FIELD OFFICE
By: _____

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Steven Merrell

Title Regulatory Specialist

Signature

Date 05/01/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Petroleum Engr

Title

Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

FFO

17 MAY 2019

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.

(Instructions on page 2)

NMOC

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. 86210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III

1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35658		² Pool Code 98173	³ Pool Name Blanco Wash Unit Oil Pool
⁴ Property Code 325180	⁵ Property Name BLANCO WASH UNIT		⁶ Well Number 403H
⁷ GRID No. 371838	⁸ Operator Name DJR OPERATING, LLC		⁹ Elevation 6892.4'

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
I	24	24N	9W		1543'	SOUTH	76'	EAST	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
D	14	24N	9W		224'	NORTH	765'	WEST	SAN JUAN

¹² Dedicated Acres PROJECT AREA: SEC 11: SW/SW (40 AC); SEC 13: SW/SW (40 AC); SEC 14: NW/SE, NE/SE, SE/SE, SW/NE, NW/NW, NE/NW & SW/NW (280 AC); SEC 24: NE/SE, NW/SE, NE/SW, SW/NE, NW/NW, NE/NW & SE/NW (280 AC) = 640 ACRES TOTAL

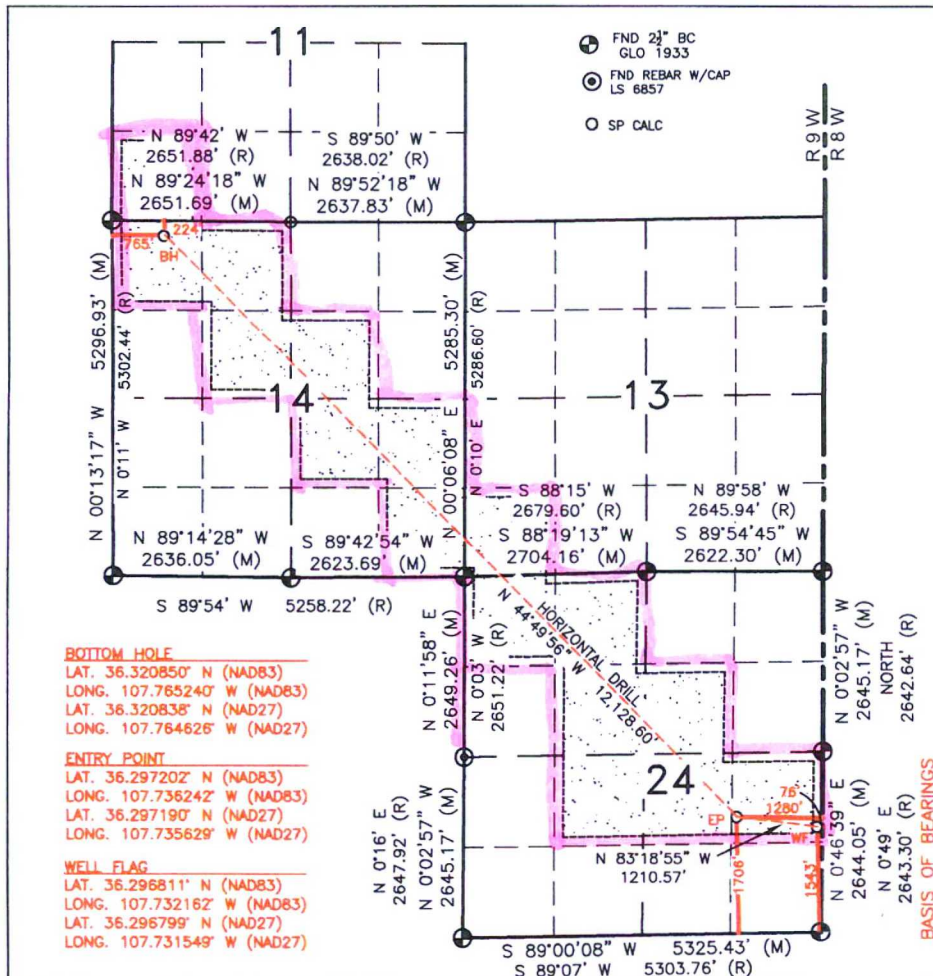
¹³ Joint or Infill

¹⁴ Consolidation Code

¹⁵ Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

¹⁷ OPERATOR CERTIFICATION

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

Steven Merrell 5/1/19
Signature Date

Steven Merrell

Printed Name

Smerrell@djrlc.com

E-mail Address

SURVEYOR CERTIFICATION

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

APRIL 29, 2019

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

11393

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State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

DJR OPERATING, LLC
BLANCO WASH UNIT #403H

NW CORNER SEC 25

LAT. 36.306867° N (NAD83)
LONG. 107.749931° W (NAD83)
LAT. 36.306855° N (NAD27)
LONG. 107.749317° W (NAD27)

SE CORNER SEC 25

LAT. 36.292576° N (NAD83)
LONG. 107.731976° W (NAD83)
LAT. 36.292564° N (NAD27)
LONG. 107.731363° W (NAD27)

SW CORNER SEC 25

LAT. 36.292232° N (NAD83)
LONG. 107.750036° W (NAD83)
LAT. 36.292220° N (NAD27)
LONG. 107.749422° W (NAD27)

SW CORNER SEC 14

LAT. 36.306938° N (NAD83)
LONG. 107.767781° W (NAD83)
LAT. 36.306926° N (NAD27)
LONG. 107.767167° W (NAD27)

NW CORNER SEC 14

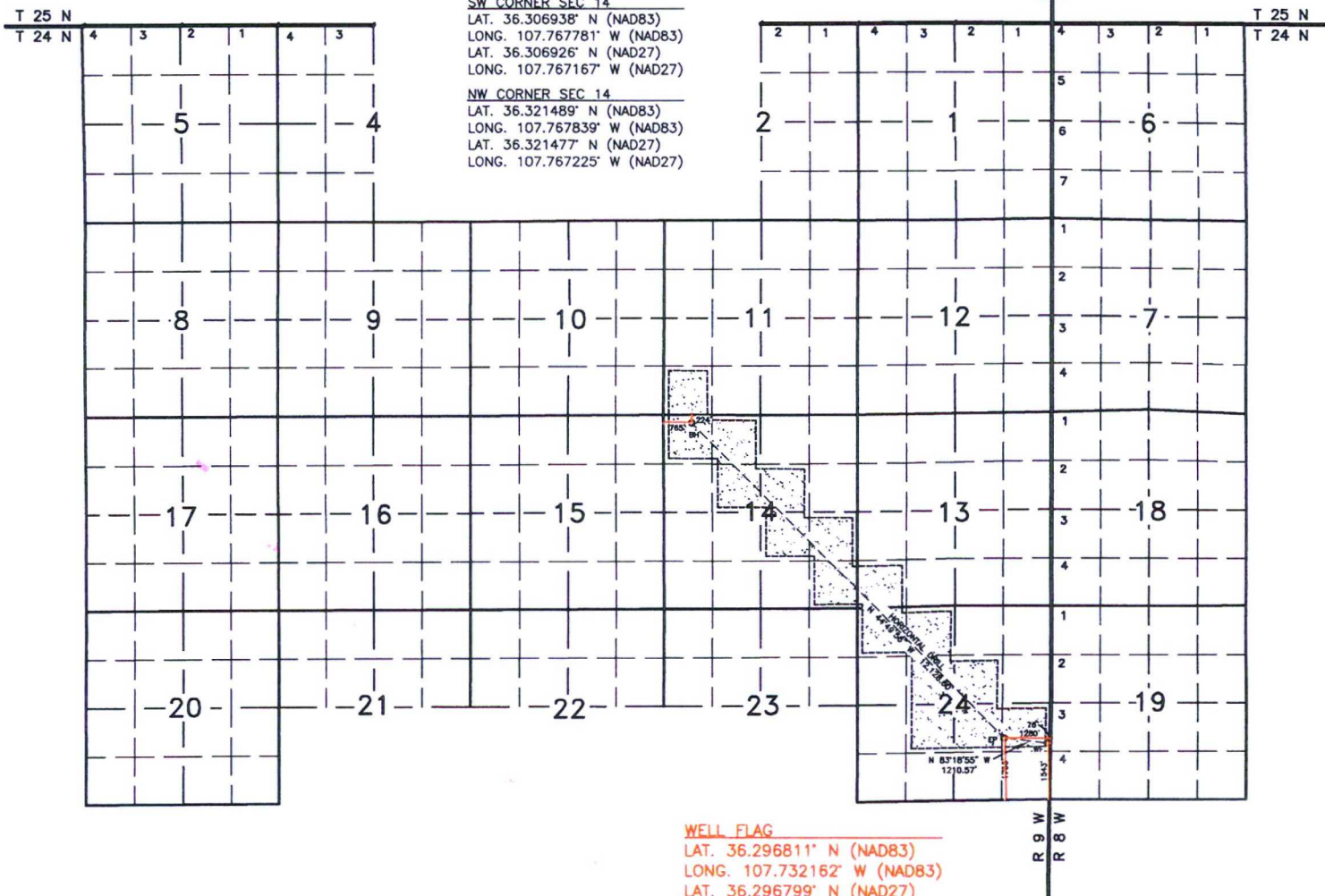
LAT. 36.321489° N (NAD83)
LONG. 107.767839° W (NAD83)
LAT. 36.321477° N (NAD27)
LONG. 107.767225° W (NAD27)

N/4 CORNER SEC 14

LAT. 36.321408° N (NAD83)
LONG. 107.758838° W (NAD83)
LAT. 36.321396° N (NAD27)
LONG. 107.758224° W (NAD27)

NE CORNER SEC 14

LAT. 36.321386° N (NAD83)
LONG. 107.749883° W (NAD83)
LAT. 36.321374° N (NAD27)
LONG. 107.749270° W (NAD27)

WELL FLAG

LAT. 36.296811° N (NAD83)
LONG. 107.732162° W (NAD83)
LAT. 36.296799° N (NAD27)
LONG. 107.731549° W (NAD27)

ENTRY POINT

LAT. 36.297202° N (NAD83)
LONG. 107.736242° W (NAD83)
LAT. 36.297190° N (NAD27)
LONG. 107.735629° W (NAD27)

BOTTOM HOLE

LAT. 36.320850° N (NAD83)
LONG. 107.765240° W (NAD83)
LAT. 36.320838° N (NAD27)
LONG. 107.764626° W (NAD27)

PROJECT AREA: SEC 11: SW/SW (40 AC.); SEC 13:
SW/SW (40 AC); SEC 14: NW/SE, NE/SE, SE/SE,
SW/NE, NW/NW, NE/NW & SW/NW (280 AC); SEC 24:
NE/SE, NW/SE, NE/SW, SW/NE, NW/NW, NE/NW &
SE/NW (280 AC) = 640 ACRES TOTAL

TOTAL 13128.47 ACRES: ALL OF SEC. 6, 7, 18, & 19, IN
T24N R8W. ALL OF SECTIONS 1, 5, 8 - 17, 20, & 21, E/2
SECTION 2, W/2 SECTION 4, N/2 SECTIONS 21 - 23, IN T24N
R9W, - UNDIVIDED UNIT

DRILLING PLAN **Blanco Wash Unit 403H** **San Juan County, New Mexico**

Surface Location
 76-ft FEL & 1543-ft FSL
 Sec 24 T24N R9W
 Graded Elevation 6892' MSL
 RKB Elevation 6906' (14' KB)

SHL Geographical Coordinates (NAD-83)

Latitude 36.2968110° N
 Longitude 107.7321620° W

Kick Off Point for Horizontal Build Curve
 5027-ft MD
 4090-ft TVD

Local Coordinates (from SHL)

245-ft South
 691-ft West

Heel Location (Pay zone entry)
 1280-ft FEL & 1706-ft FSL
 Sec 24 T24N R9W

Heel Geographical Coordinates (NAD-83)

Latitude 36.29720158° N
 Longitude 107.73624190° W

Bottom Hole Location (TD)
 224-ft FNL & 765-ft FWL
 Sec 14 T24N R9W

BHL Geographical Coordinates (NAD-83)

Latitude 36.32084978° N
 Longitude 107.76524015° W

First Take Point (FTP)
 1280-ft FEL & 1706-ft FSL
 Sec 24 T24N R9W

FTP Geographical Coordinates (NAD-83)

Latitude 36.29720158° N
 Longitude -107.73624190° W

Last Take Point (LTP)
 224-ft FNL & 765-ft FWL
 Sec 14 T24N R9W

LTP Geographical Coordinates (NAD-83)

Latitude 36.32084978° N
 Longitude -107.76524015° W

Well objectives

This well is planned as a 12130-ft lateral in the Gallup C sand.

Bottom Hole temperature and pressure

The temperature in the Gallup C horizontal objective is 145.0°F. Bottom hole pressure in the Gallup C is forecast to be 1985 psi.

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

Name	MD (ft)	TVD (ft)	Lithology	Pore fluid	Expected Pore Pressure (ppg)	Planned Mud Weight (ppg)
Ojo Alamo	877	875	Sd	W	8.3	8.4 - 8.8
Kirtland	1238	1231	Sh	-	8.3	8.4 - 8.8
Fruitland	1633	1621	C	G	8.3	9.0 - 9.5
Picture Cliffs	1859	1843	Sd	W	8.3	9.0 - 9.5
Lewis	1955	1938	Sh	-		9.0 - 9.5
Chacra	2713	2685	Sd	-	8.3	9.0 - 9.5
Menefee	3386	3348	Sd, C	G	8.3	9.0 - 9.5
Point Lookout	4310	4259	Sd	-	8.3	9.0 - 9.5
Mancos	4529	4475	Sh	-		9.0 - 9.5
Mancos Silt	4913	4853	Slt	O/G	6.6	9.0 - 9.5
Gallup A	5358	5271	Slt	O/G	6.6	9.0 - 9.5
Gallup B	5406	5310	Sd	O/G	6.6	8.8 - 9.0
Gallup C	5544	5407	Sd	O/G	6.6	8.8 - 9.0
Target	5981	5549	Sd	O/G	6.6	8.8 - 9.0

Casing Program

Casing OD	Hole Size	Weight (#/ft)	Grade	Coupling	MD Top	MD Bottom	TVD Top	TVD Bottom	Top of Cement
9-5/8"	12-1/4"	36	K-55	STC	surf	350	surf	350	surface
7"	8-3/4"	26	K-55	LTC	surf	5971	surf	5549	surface
4-1/2"	6-1/8"	11.6	P-110	BTC	5771	18109	5515	5549	5771

Note: all casing will be new

Casing Design Load Cases

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

Note

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

Casing Design Factors

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

Cement Design

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

9-5/8" Surface Casing

	Lead
Name	Redi-Mix
Type	I-II
Additives	20% Fly Ash
Planned top	Surface
Density (ppg)	14.50
Yield (cf/sx)	1.61
Mix water (gal/sx)	7.41
Volume (sx)	114
Volume (bbls)	33

<u>7" Intermediate Casing</u>	<u>Lead</u>	<u>Tail</u>
Halliburton Name	HALCEM	VARICEM
Type	Poz/G	Poz/G
Additives	Ex, L, SA	Ex, FI, SA, L, THX
Planned top	Surface	4029-ft
Density (ppg)	12.30	13.50
Yield (cf/sx)	1.95	1.30
Mix water (gal/sx)	10.14	5.64
Volume (sx)	511	388
Volume (bbls)	178	90

<u>4-1/2" Production Liner</u>	<u>Lead</u>
Halliburton Name	EXTENDACEM
Type	Poz/G
Additives	B, De, Di, FI, Re, V
Planned top	5771-ft
Density (ppg)	13.3
Yield (cf/sx)	1.36
Mix water (gal/sx)	5.94
Volume (sx)	1246
Volume (bbls)	302

Wellhead & Pressure Control

The well head will be an 11" 5M multi-bowl system. A 3M BOP conforming to Onshore Order #2 will be installed on the surface casing. All testing will be as stipulated in Onshore Order #2. 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 geograph will be employed to monitor and record drilling data (ROP, WOB, SPM, Pressure, RPM and torque).

Mud Program

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

Hole Section	Fluid type	Interval (MD)	Density (ppg)	Funnel Viscosity	Yield Point	Fluid Loss (cc/30 min)
Surface	Fresh water spud mud	0 – 350	8.4 – 8.8	32 – 44	2 – 12	NC
Intermediate	7% KCl Low solids, non-dispersed	350 – 5971	9.0 – 9.5	38 – 45	8 – 14	<20
Production	Low solids, non-dispersed	5971 – 18109	8.8 – 9.2	34 – 38	6 – 8	6 – 8

Cores, tests and logs

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

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

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

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

Cuttings and drilling fluids management

A closed loop, steel tank-based circulating system will be used. In addition to the rig solids control equipment, a dewatering centrifuge and chemical flocculation system will be operational to strip solids from the whole mud. All solids

will be collected in 3-sided bins and will then be put into transports with a bucket loader. Drying agents will be used if necessary. The solids will be taken to a licensed commercial disposal facility. Whole mud will be dewatered back to drill water and used as make up for subsequent wells or hauled off for disposal. A diagram of the closed loop system is included.

Completion

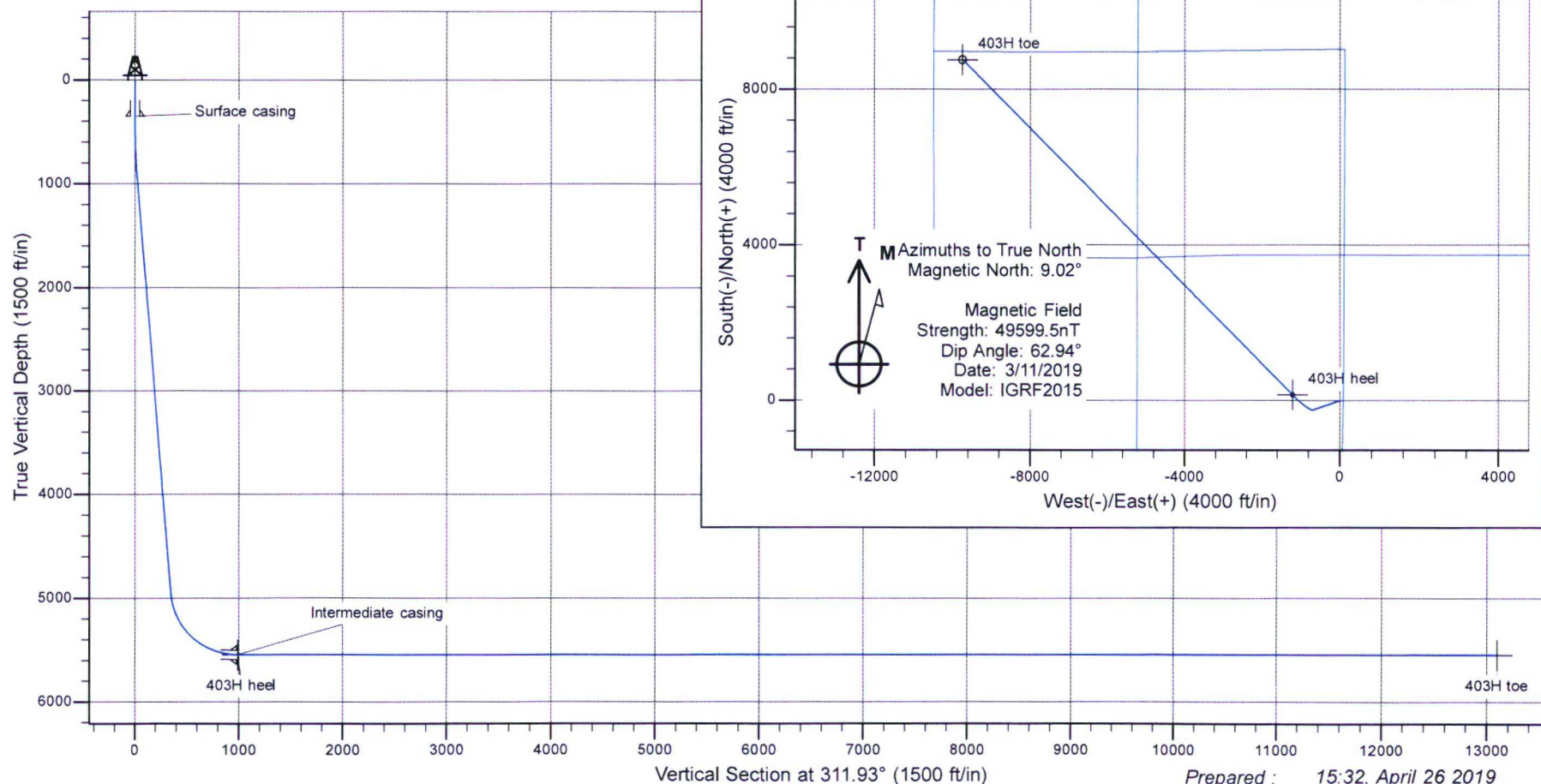
It is envisioned that this well will be completed with a multi-stage sand frac, using the plug and perf technique. After drilling out the plugs, the current plan is to install a 2-7/8" plunger-assisted gas lift tubing string. The stimulation and completion plan will be sundried at a later date.



Pad name : I24A 2409
Well name : Blanco Wash Unit # 403H

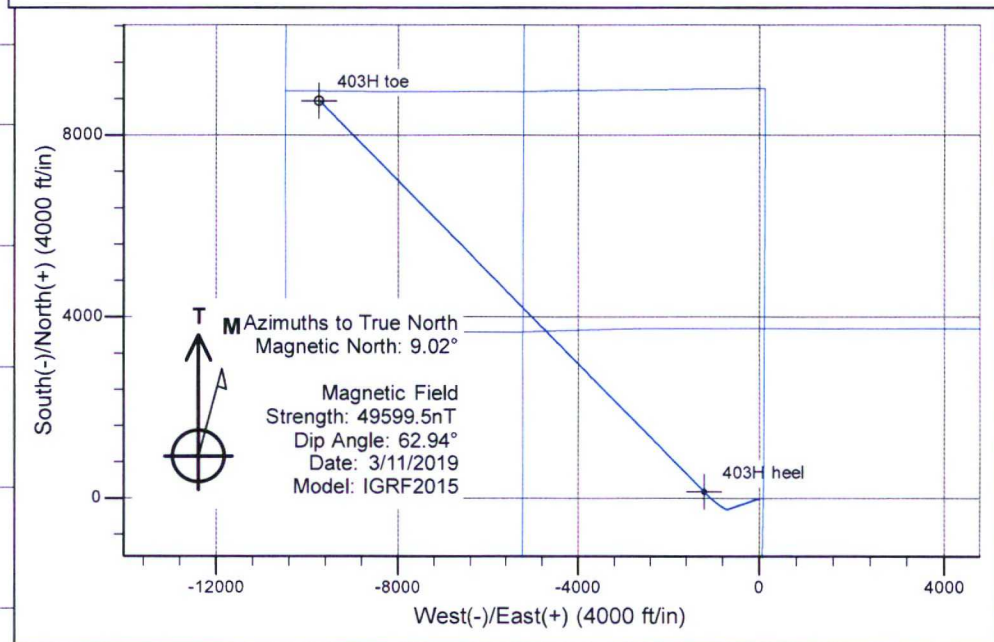
SHL Latitude : 36.29681100
SHL Longitude : -107.73216200

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



TRAJECTORY DETAILS									
Pad elevation : 6892 RKB @ 6906ft (RIG)									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0	0.00	0.00	0	0	0	0.00	0.00	0	
450	0.00	0.00	450	0	0	0.00	0.00	0	
937	9.74	250.49	934	-14	-39	2.00	250.49	20	
5027	9.74	250.49	4965	-245	-691	0.00	0.00	350	
5981	90.00	315.23	5549	142	-1202	9.00	65.06	989	403H heel
18109	90.00	315.23	5549	8752	-9744	0.00	0.00	13098	403H toe

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
403H heel	5549	142	-1202	1927495	2751702	36.29720158	-107.73624190
403H toe	5549	8752	-9744	1936097	2743151	36.32084978	-107.76524015



Prepared : 15:32, April 26 2019

DJR Operating

Blanco Wash Unit

I24A 2409

403H

Original drilling

Plan: APD

Standard Planning Report

26 April, 2019

Planning Report

Database: EDM	Local Co-ordinate Reference: Well # 403H
Company: DJR Operating	TVD Reference: RKB @ 6906.0usft (RIG)
Project: Blanco Wash Unit	MD Reference: RKB @ 6906.0usft (RIG)
Site: I24A 2409	North Reference: True
Well: # 403H	Survey Calculation Method: Minimum Curvature
Wellbore: Original drilling	
Design: APD	

Project	Blanco Wash 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	I24A 2409		
Site Position:		Northing:	1,927,380.66 usft
From:	Lat/Long	Easting:	2,752,918.75 usft
Position Uncertainty:	0.0 usft	Slot Radius:	16 "
		Latitude:	36° 17' 48.779 N
		Longitude:	107° 43' 55.607 W
		Grid Convergence:	0.06 °

Well	# 403H		
Well Position	+N/-S	-26.2 usft	Northing: 1,927,354.44 usft
	+E/-W	-14.4 usft	Easting: 2,752,904.34 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 36° 17' 48.520 N
			Longitude: 107° 43' 55.783 W
			Ground Level: 6,892.0 usft

Wellbore	Original drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/11/2019	9.02	62.94	49,599.45856591

Design	APD			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	311.93

Plan Survey Tool Program	Date	4/26/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,109.2	APD (Original drilling)	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.00	0.00	0.00	0.00	
936.8	9.74	250.49	934.4	-13.8	-38.9	2.00	2.00	0.00	250.49	
5,026.5	9.74	250.49	4,965.3	-244.8	-690.7	0.00	0.00	0.00	0.00	
5,980.6	90.00	315.23	5,549.0	142.2	-1,202.2	9.00	8.41	6.79	65.06	403H heel
18,109.2	90.00	315.23	5,549.0	8,752.4	-9,744.3	0.00	0.00	0.00	0.00	403H toe

Planning Report

Database: EDM
 Company: DJR Operating
 Project: Blanco Wash Unit
 Site: I24A 2409
 Well: # 403H
 Wellbore: Original drilling
 Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
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
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	1.00	250.49	500.0	-0.1	-0.4	0.2	2.00	2.00	0.00
600.0	3.00	250.49	599.9	-1.3	-3.7	1.9	2.00	2.00	0.00
700.0	5.00	250.49	699.7	-3.6	-10.3	5.2	2.00	2.00	0.00
800.0	7.00	250.49	799.1	-7.1	-20.1	10.2	2.00	2.00	0.00
900.0	9.00	250.49	898.2	-11.8	-33.2	16.9	2.00	2.00	0.00
936.8	9.74	250.49	934.4	-13.8	-38.9	19.7	2.00	2.00	0.00
1,000.0	9.74	250.49	996.8	-17.4	-49.0	24.8	0.00	0.00	0.00
1,083.5	9.74	250.49	1,079.0	-22.1	-62.3	31.6	0.00	0.00	0.00
Ojo Alamo									
1,100.0	9.74	250.49	1,095.3	-23.0	-64.9	32.9	0.00	0.00	0.00
1,200.0	9.74	250.49	1,193.9	-28.6	-80.8	41.0	0.00	0.00	0.00
1,237.7	9.74	250.49	1,231.0	-30.8	-86.8	44.0	0.00	0.00	0.00
Kirtland									
1,300.0	9.74	250.49	1,292.4	-34.3	-96.8	49.1	0.00	0.00	0.00
1,400.0	9.74	250.49	1,391.0	-39.9	-112.7	57.2	0.00	0.00	0.00
1,500.0	9.74	250.49	1,489.6	-45.6	-128.7	65.3	0.00	0.00	0.00
1,600.0	9.74	250.49	1,588.1	-51.2	-144.6	73.3	0.00	0.00	0.00
1,633.4	9.74	250.49	1,621.0	-53.1	-149.9	76.0	0.00	0.00	0.00
Fruitland									
1,700.0	9.74	250.49	1,686.7	-56.9	-160.5	81.4	0.00	0.00	0.00
1,800.0	9.74	250.49	1,785.2	-62.5	-176.5	89.5	0.00	0.00	0.00
1,858.6	9.74	250.49	1,843.0	-65.8	-185.8	94.2	0.00	0.00	0.00
Picture Cliffs									
1,900.0	9.74	250.49	1,883.8	-68.2	-192.4	97.6	0.00	0.00	0.00
1,955.0	9.74	250.49	1,938.0	-71.3	-201.2	102.0	0.00	0.00	0.00
Lewis									
2,000.0	9.74	250.49	1,982.3	-73.8	-208.4	105.7	0.00	0.00	0.00
2,100.0	9.74	250.49	2,080.9	-79.5	-224.3	113.8	0.00	0.00	0.00
2,200.0	9.74	250.49	2,179.5	-85.1	-240.2	121.8	0.00	0.00	0.00
2,300.0	9.74	250.49	2,278.0	-90.8	-256.2	129.9	0.00	0.00	0.00
2,400.0	9.74	250.49	2,376.6	-96.4	-272.1	138.0	0.00	0.00	0.00
2,500.0	9.74	250.49	2,475.1	-102.1	-288.0	146.1	0.00	0.00	0.00
2,600.0	9.74	250.49	2,573.7	-107.7	-304.0	154.2	0.00	0.00	0.00
2,700.0	9.74	250.49	2,672.3	-113.4	-319.9	162.3	0.00	0.00	0.00
2,712.9	9.74	250.49	2,685.0	-114.1	-322.0	163.3	0.00	0.00	0.00
Chacra									
2,800.0	9.74	250.49	2,770.8	-119.0	-335.9	170.3	0.00	0.00	0.00
2,900.0	9.74	250.49	2,869.4	-124.7	-351.8	178.4	0.00	0.00	0.00
3,000.0	9.74	250.49	2,967.9	-130.3	-367.7	186.5	0.00	0.00	0.00
3,100.0	9.74	250.49	3,066.5	-136.0	-383.7	194.6	0.00	0.00	0.00
3,200.0	9.74	250.49	3,165.1	-141.6	-399.6	202.7	0.00	0.00	0.00
3,300.0	9.74	250.49	3,263.6	-147.3	-415.6	210.8	0.00	0.00	0.00
3,385.6	9.74	250.49	3,348.0	-152.1	-429.2	217.7	0.00	0.00	0.00
Menefee									
3,400.0	9.74	250.49	3,362.2	-152.9	-431.5	218.8	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Blanco Wash Unit
Site: I24A 2409
Well: # 403H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,500.0	9.74	250.49	3,460.7	-158.6	-447.4	226.9	0.00	0.00	0.00
3,600.0	9.74	250.49	3,559.3	-164.2	-463.4	235.0	0.00	0.00	0.00
3,700.0	9.74	250.49	3,657.9	-169.8	-479.3	243.1	0.00	0.00	0.00
3,800.0	9.74	250.49	3,756.4	-175.5	-495.3	251.2	0.00	0.00	0.00
3,900.0	9.74	250.49	3,855.0	-181.1	-511.2	259.3	0.00	0.00	0.00
4,000.0	9.74	250.49	3,953.5	-186.8	-527.1	267.3	0.00	0.00	0.00
4,100.0	9.74	250.49	4,052.1	-192.4	-543.1	275.4	0.00	0.00	0.00
4,200.0	9.74	250.49	4,150.7	-198.1	-559.0	283.5	0.00	0.00	0.00
4,300.0	9.74	250.49	4,249.2	-203.7	-574.9	291.6	0.00	0.00	0.00
4,309.9	9.74	250.49	4,259.0	-204.3	-576.5	292.4	0.00	0.00	0.00
Point Lookout									
4,400.0	9.74	250.49	4,347.8	-209.4	-590.9	299.7	0.00	0.00	0.00
4,500.0	9.74	250.49	4,446.3	-215.0	-606.8	307.8	0.00	0.00	0.00
4,529.1	9.74	250.49	4,475.0	-216.7	-611.5	310.1	0.00	0.00	0.00
Mancos									
4,600.0	9.74	250.49	4,544.9	-220.7	-622.8	315.8	0.00	0.00	0.00
4,700.0	9.74	250.49	4,643.5	-226.3	-638.7	323.9	0.00	0.00	0.00
4,800.0	9.74	250.49	4,742.0	-232.0	-654.6	332.0	0.00	0.00	0.00
4,900.0	9.74	250.49	4,840.6	-237.6	-670.6	340.1	0.00	0.00	0.00
4,912.6	9.74	250.49	4,853.0	-238.3	-672.6	341.1	0.00	0.00	0.00
Mancos Silt									
5,000.0	9.74	250.49	4,939.1	-243.3	-686.5	348.2	0.00	0.00	0.00
5,026.5	9.74	250.49	4,965.3	-244.8	-690.7	350.3	0.00	0.00	0.00
5,027.0	9.75	250.70	4,965.7	-244.8	-690.8	350.4	9.00	3.81	48.18
KOP									
5,050.0	10.80	260.76	4,988.4	-245.8	-694.8	352.6	9.00	4.53	43.71
5,100.0	13.87	276.30	5,037.2	-245.9	-705.4	360.5	9.00	6.15	31.08
5,150.0	17.56	285.87	5,085.4	-243.2	-718.6	372.1	9.00	7.38	19.14
5,200.0	21.56	292.10	5,132.5	-237.6	-734.4	387.5	9.00	7.99	12.46
5,250.0	25.71	296.43	5,178.3	-229.3	-752.6	406.6	9.00	8.31	8.66
5,300.0	29.96	299.61	5,222.5	-218.3	-773.2	429.3	9.00	8.50	6.37
5,350.0	34.27	302.06	5,264.8	-204.7	-796.0	455.4	9.00	8.62	4.90
5,357.5	34.92	302.39	5,271.0	-202.4	-799.6	459.6	9.00	8.67	4.28
Gallup A									
5,400.0	38.62	304.03	5,305.0	-188.5	-820.8	484.7	9.00	8.70	3.86
5,406.4	39.17	304.25	5,310.0	-186.2	-824.2	488.7	9.00	8.73	3.50
Gallup B									
5,450.0	42.99	305.65	5,342.9	-169.8	-847.6	517.1	9.00	8.75	3.20
5,500.0	47.38	307.02	5,378.1	-148.8	-876.2	552.4	9.00	8.79	2.75
5,544.3	51.29	308.08	5,407.0	-128.3	-902.9	586.0	9.00	8.81	2.40
Gallup C									
5,550.0	51.79	308.21	5,410.5	-125.5	-906.3	590.4	9.00	8.83	2.25
5,600.0	56.21	309.27	5,439.9	-100.2	-937.9	630.8	9.00	8.84	2.11
5,650.0	60.64	310.22	5,466.1	-73.0	-970.6	673.3	9.00	8.85	1.90
5,700.0	65.07	311.09	5,488.9	-44.0	-1,004.4	717.8	9.00	8.87	1.74
5,750.0	69.51	311.90	5,508.2	-13.5	-1,038.9	763.9	9.00	8.87	1.62
5,771.0	71.37	312.23	5,515.2	-0.2	-1,053.6	783.7	9.00	8.88	1.55
Top of liner									
5,800.0	73.95	312.67	5,523.9	18.5	-1,074.0	811.4	9.00	8.88	1.51
5,850.0	78.39	313.40	5,535.8	51.6	-1,109.5	859.9	9.00	8.89	1.46
5,900.0	82.84	314.11	5,544.0	85.7	-1,145.1	909.2	9.00	8.89	1.42
5,950.0	87.28	314.81	5,548.3	120.6	-1,180.6	958.9	9.00	8.89	1.39
5,970.6	89.11	315.09	5,548.9	135.1	-1,195.2	979.5	9.00	8.89	1.38

Planning Report

Database: EDM
Company: DJR Operating
Project: Blanco Wash Unit
Site: I24A 2409
Well: # 403H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Intermediate casing									
5,980.6	90.00	315.23	5,549.0	142.2	-1,202.2	989.4	9.00	8.89	1.38
Target									
6,000.0	90.00	315.23	5,549.0	156.0	-1,215.9	1,008.8	0.00	0.00	0.00
6,100.0	90.00	315.23	5,549.0	227.0	-1,286.4	1,108.7	0.00	0.00	0.00
6,200.0	90.00	315.23	5,549.0	298.0	-1,356.8	1,208.5	0.00	0.00	0.00
6,300.0	90.00	315.23	5,549.0	369.0	-1,427.2	1,308.4	0.00	0.00	0.00
6,400.0	90.00	315.23	5,549.0	440.0	-1,497.6	1,408.2	0.00	0.00	0.00
6,500.0	90.00	315.23	5,549.0	511.0	-1,568.1	1,508.0	0.00	0.00	0.00
6,600.0	90.00	315.23	5,549.0	582.0	-1,638.5	1,607.9	0.00	0.00	0.00
6,700.0	90.00	315.23	5,549.0	652.9	-1,708.9	1,707.7	0.00	0.00	0.00
6,800.0	90.00	315.23	5,549.0	723.9	-1,779.4	1,807.5	0.00	0.00	0.00
6,900.0	90.00	315.23	5,549.0	794.9	-1,849.8	1,907.4	0.00	0.00	0.00
7,000.0	90.00	315.23	5,549.0	865.9	-1,920.2	2,007.2	0.00	0.00	0.00
7,100.0	90.00	315.23	5,549.0	936.9	-1,990.7	2,107.0	0.00	0.00	0.00
7,200.0	90.00	315.23	5,549.0	1,007.9	-2,061.1	2,206.9	0.00	0.00	0.00
7,300.0	90.00	315.23	5,549.0	1,078.9	-2,131.5	2,306.7	0.00	0.00	0.00
7,400.0	90.00	315.23	5,549.0	1,149.9	-2,201.9	2,406.5	0.00	0.00	0.00
7,500.0	90.00	315.23	5,549.0	1,220.9	-2,272.4	2,506.4	0.00	0.00	0.00
7,600.0	90.00	315.23	5,549.0	1,291.9	-2,342.8	2,606.2	0.00	0.00	0.00
7,700.0	90.00	315.23	5,549.0	1,362.9	-2,413.2	2,706.0	0.00	0.00	0.00
7,800.0	90.00	315.23	5,549.0	1,433.8	-2,483.7	2,805.9	0.00	0.00	0.00
7,900.0	90.00	315.23	5,549.0	1,504.8	-2,554.1	2,905.7	0.00	0.00	0.00
8,000.0	90.00	315.23	5,549.0	1,575.8	-2,624.5	3,005.5	0.00	0.00	0.00
8,100.0	90.00	315.23	5,549.0	1,646.8	-2,694.9	3,105.4	0.00	0.00	0.00
8,200.0	90.00	315.23	5,549.0	1,717.8	-2,765.4	3,205.2	0.00	0.00	0.00
8,300.0	90.00	315.23	5,549.0	1,788.8	-2,835.8	3,305.0	0.00	0.00	0.00
8,400.0	90.00	315.23	5,549.0	1,859.8	-2,906.2	3,404.9	0.00	0.00	0.00
8,500.0	90.00	315.23	5,549.0	1,930.8	-2,976.7	3,504.7	0.00	0.00	0.00
8,600.0	90.00	315.23	5,549.0	2,001.8	-3,047.1	3,604.5	0.00	0.00	0.00
8,700.0	90.00	315.23	5,549.0	2,072.8	-3,117.5	3,704.4	0.00	0.00	0.00
8,800.0	90.00	315.23	5,549.0	2,143.8	-3,187.9	3,804.2	0.00	0.00	0.00
8,900.0	90.00	315.23	5,549.0	2,214.7	-3,258.4	3,904.0	0.00	0.00	0.00
9,000.0	90.00	315.23	5,549.0	2,285.7	-3,328.8	4,003.9	0.00	0.00	0.00
9,100.0	90.00	315.23	5,549.0	2,356.7	-3,399.2	4,103.7	0.00	0.00	0.00
9,200.0	90.00	315.23	5,549.0	2,427.7	-3,469.7	4,203.6	0.00	0.00	0.00
9,300.0	90.00	315.23	5,549.0	2,498.7	-3,540.1	4,303.4	0.00	0.00	0.00
9,400.0	90.00	315.23	5,549.0	2,569.7	-3,610.5	4,403.2	0.00	0.00	0.00
9,500.0	90.00	315.23	5,549.0	2,640.7	-3,681.0	4,503.1	0.00	0.00	0.00
9,600.0	90.00	315.23	5,549.0	2,711.7	-3,751.4	4,602.9	0.00	0.00	0.00
9,700.0	90.00	315.23	5,549.0	2,782.7	-3,821.8	4,702.7	0.00	0.00	0.00
9,800.0	90.00	315.23	5,549.0	2,853.7	-3,892.2	4,802.6	0.00	0.00	0.00
9,900.0	90.00	315.23	5,549.0	2,924.7	-3,962.7	4,902.4	0.00	0.00	0.00
10,000.0	90.00	315.23	5,549.0	2,995.6	-4,033.1	5,002.2	0.00	0.00	0.00
10,100.0	90.00	315.23	5,549.0	3,066.6	-4,103.5	5,102.1	0.00	0.00	0.00
10,200.0	90.00	315.23	5,549.0	3,137.6	-4,174.0	5,201.9	0.00	0.00	0.00
10,300.0	90.00	315.23	5,549.0	3,208.6	-4,244.4	5,301.7	0.00	0.00	0.00
10,400.0	90.00	315.23	5,549.0	3,279.6	-4,314.8	5,401.6	0.00	0.00	0.00
10,500.0	90.00	315.23	5,549.0	3,350.6	-4,385.2	5,501.4	0.00	0.00	0.00
10,600.0	90.00	315.23	5,549.0	3,421.6	-4,455.7	5,601.2	0.00	0.00	0.00
10,700.0	90.00	315.23	5,549.0	3,492.6	-4,526.1	5,701.1	0.00	0.00	0.00
10,800.0	90.00	315.23	5,549.0	3,563.6	-4,596.5	5,800.9	0.00	0.00	0.00
10,900.0	90.00	315.23	5,549.0	3,634.6	-4,667.0	5,900.7	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Blanco Wash Unit
Site: I24A 2409
Well: # 403H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,000.0	90.00	315.23	5,549.0	3,705.6	-4,737.4	6,000.6	0.00	0.00	0.00
11,100.0	90.00	315.23	5,549.0	3,776.6	-4,807.8	6,100.4	0.00	0.00	0.00
11,200.0	90.00	315.23	5,549.0	3,847.5	-4,878.2	6,200.2	0.00	0.00	0.00
11,300.0	90.00	315.23	5,549.0	3,918.5	-4,948.7	6,300.1	0.00	0.00	0.00
11,400.0	90.00	315.23	5,549.0	3,989.5	-5,019.1	6,399.9	0.00	0.00	0.00
11,500.0	90.00	315.23	5,549.0	4,060.5	-5,089.5	6,499.7	0.00	0.00	0.00
11,600.0	90.00	315.23	5,549.0	4,131.5	-5,160.0	6,599.6	0.00	0.00	0.00
11,700.0	90.00	315.23	5,549.0	4,202.5	-5,230.4	6,699.4	0.00	0.00	0.00
11,800.0	90.00	315.23	5,549.0	4,273.5	-5,300.8	6,799.2	0.00	0.00	0.00
11,900.0	90.00	315.23	5,549.0	4,344.5	-5,371.3	6,899.1	0.00	0.00	0.00
12,000.0	90.00	315.23	5,549.0	4,415.5	-5,441.7	6,998.9	0.00	0.00	0.00
12,100.0	90.00	315.23	5,549.0	4,486.5	-5,512.1	7,098.8	0.00	0.00	0.00
12,200.0	90.00	315.23	5,549.0	4,557.5	-5,582.5	7,198.6	0.00	0.00	0.00
12,300.0	90.00	315.23	5,549.0	4,628.4	-5,653.0	7,298.4	0.00	0.00	0.00
12,400.0	90.00	315.23	5,549.0	4,699.4	-5,723.4	7,398.3	0.00	0.00	0.00
12,500.0	90.00	315.23	5,549.0	4,770.4	-5,793.8	7,498.1	0.00	0.00	0.00
12,600.0	90.00	315.23	5,549.0	4,841.4	-5,864.3	7,597.9	0.00	0.00	0.00
12,700.0	90.00	315.23	5,549.0	4,912.4	-5,934.7	7,697.8	0.00	0.00	0.00
12,800.0	90.00	315.23	5,549.0	4,983.4	-6,005.1	7,797.6	0.00	0.00	0.00
12,900.0	90.00	315.23	5,549.0	5,054.4	-6,075.5	7,897.4	0.00	0.00	0.00
13,000.0	90.00	315.23	5,549.0	5,125.4	-6,146.0	7,997.3	0.00	0.00	0.00
13,100.0	90.00	315.23	5,549.0	5,196.4	-6,216.4	8,097.1	0.00	0.00	0.00
13,200.0	90.00	315.23	5,549.0	5,267.4	-6,286.8	8,196.9	0.00	0.00	0.00
13,300.0	90.00	315.23	5,549.0	5,338.4	-6,357.3	8,296.8	0.00	0.00	0.00
13,400.0	90.00	315.23	5,549.0	5,409.3	-6,427.7	8,396.6	0.00	0.00	0.00
13,500.0	90.00	315.23	5,549.0	5,480.3	-6,498.1	8,496.4	0.00	0.00	0.00
13,600.0	90.00	315.23	5,549.0	5,551.3	-6,568.6	8,596.3	0.00	0.00	0.00
13,700.0	90.00	315.23	5,549.0	5,622.3	-6,639.0	8,696.1	0.00	0.00	0.00
13,800.0	90.00	315.23	5,549.0	5,693.3	-6,709.4	8,795.9	0.00	0.00	0.00
13,900.0	90.00	315.23	5,549.0	5,764.3	-6,779.8	8,895.8	0.00	0.00	0.00
14,000.0	90.00	315.23	5,549.0	5,835.3	-6,850.3	8,995.6	0.00	0.00	0.00
14,100.0	90.00	315.23	5,549.0	5,906.3	-6,920.7	9,095.4	0.00	0.00	0.00
14,200.0	90.00	315.23	5,549.0	5,977.3	-6,991.1	9,195.3	0.00	0.00	0.00
14,300.0	90.00	315.23	5,549.0	6,048.3	-7,061.6	9,295.1	0.00	0.00	0.00
14,400.0	90.00	315.23	5,549.0	6,119.3	-7,132.0	9,394.9	0.00	0.00	0.00
14,500.0	90.00	315.23	5,549.0	6,190.2	-7,202.4	9,494.8	0.00	0.00	0.00
14,600.0	90.00	315.23	5,549.0	6,261.2	-7,272.8	9,594.6	0.00	0.00	0.00
14,700.0	90.00	315.23	5,549.0	6,332.2	-7,343.3	9,694.4	0.00	0.00	0.00
14,800.0	90.00	315.23	5,549.0	6,403.2	-7,413.7	9,794.3	0.00	0.00	0.00
14,900.0	90.00	315.23	5,549.0	6,474.2	-7,484.1	9,894.1	0.00	0.00	0.00
15,000.0	90.00	315.23	5,549.0	6,545.2	-7,554.6	9,994.0	0.00	0.00	0.00
15,100.0	90.00	315.23	5,549.0	6,616.2	-7,625.0	10,093.8	0.00	0.00	0.00
15,200.0	90.00	315.23	5,549.0	6,687.2	-7,695.4	10,193.6	0.00	0.00	0.00
15,300.0	90.00	315.23	5,549.0	6,758.2	-7,765.8	10,293.5	0.00	0.00	0.00
15,400.0	90.00	315.23	5,549.0	6,829.2	-7,836.3	10,393.3	0.00	0.00	0.00
15,500.0	90.00	315.23	5,549.0	6,900.2	-7,906.7	10,493.1	0.00	0.00	0.00
15,600.0	90.00	315.23	5,549.0	6,971.1	-7,977.1	10,593.0	0.00	0.00	0.00
15,700.0	90.00	315.23	5,549.0	7,042.1	-8,047.6	10,692.8	0.00	0.00	0.00
15,800.0	90.00	315.23	5,549.0	7,113.1	-8,118.0	10,792.6	0.00	0.00	0.00
15,900.0	90.00	315.23	5,549.0	7,184.1	-8,188.4	10,892.5	0.00	0.00	0.00
16,000.0	90.00	315.23	5,549.0	7,255.1	-8,258.9	10,992.3	0.00	0.00	0.00
16,100.0	90.00	315.23	5,549.0	7,326.1	-8,329.3	11,092.1	0.00	0.00	0.00
16,200.0	90.00	315.23	5,549.0	7,397.1	-8,399.7	11,192.0	0.00	0.00	0.00
16,300.0	90.00	315.23	5,549.0	7,468.1	-8,470.1	11,291.8	0.00	0.00	0.00

Planning Report

Database: EDM
Company: DJR Operating
Project: Blanco Wash Unit
Site: I24A 2409
Well: # 403H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,400.0	90.00	315.23	5,549.0	7,539.1	-8,540.6	11,391.6	0.00	0.00	0.00
16,500.0	90.00	315.23	5,549.0	7,610.1	-8,611.0	11,491.5	0.00	0.00	0.00
16,600.0	90.00	315.23	5,549.0	7,681.1	-8,681.4	11,591.3	0.00	0.00	0.00
16,700.0	90.00	315.23	5,549.0	7,752.0	-8,751.9	11,691.1	0.00	0.00	0.00
16,800.0	90.00	315.23	5,549.0	7,823.0	-8,822.3	11,791.0	0.00	0.00	0.00
16,900.0	90.00	315.23	5,549.0	7,894.0	-8,892.7	11,890.8	0.00	0.00	0.00
17,000.0	90.00	315.23	5,549.0	7,965.0	-8,963.1	11,990.6	0.00	0.00	0.00
17,100.0	90.00	315.23	5,549.0	8,036.0	-9,033.6	12,090.5	0.00	0.00	0.00
17,200.0	90.00	315.23	5,549.0	8,107.0	-9,104.0	12,190.3	0.00	0.00	0.00
17,300.0	90.00	315.23	5,549.0	8,178.0	-9,174.4	12,290.1	0.00	0.00	0.00
17,400.0	90.00	315.23	5,549.0	8,249.0	-9,244.9	12,390.0	0.00	0.00	0.00
17,500.0	90.00	315.23	5,549.0	8,320.0	-9,315.3	12,489.8	0.00	0.00	0.00
17,600.0	90.00	315.23	5,549.0	8,391.0	-9,385.7	12,589.6	0.00	0.00	0.00
17,700.0	90.00	315.23	5,549.0	8,462.0	-9,456.1	12,689.5	0.00	0.00	0.00
17,800.0	90.00	315.23	5,549.0	8,532.9	-9,526.6	12,789.3	0.00	0.00	0.00
17,900.0	90.00	315.23	5,549.0	8,603.9	-9,597.0	12,889.1	0.00	0.00	0.00
18,000.0	90.00	315.23	5,549.0	8,674.9	-9,667.4	12,989.0	0.00	0.00	0.00
18,109.2	90.00	315.23	5,549.0	8,752.4	-9,744.3	13,098.0	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
403H heel - hit/miss target - Shape - plan hits target center - Circle (radius 50.0)	0.00	0.00	5,549.0	142.2	-1,202.2	1,927,495.39	2,751,701.95	36° 17' 49.926 N	107° 44' 10.471 W
403H toe - plan hits target center - Circle (radius 100.0)	0.00	0.00	5,549.0	8,752.4	-9,744.3	1,936,096.67	2,743,150.87	36° 19' 15.059 N	107° 45' 54.865 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
350.0	350.0	Surface casing	9-5/8	12-1/4
5,970.6	5,548.9	Intermediate casing	7	8-3/4

Planning Report

Database: EDM
Company: DJR Operating
Project: Blanco Wash Unit
Site: I24A 2409
Well: # 403H
Wellbore: Original drilling
Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,083.5	1,079.0	Ojo Alamo		0.00	
1,237.7	1,231.0	Kirtland		0.00	
1,633.4	1,621.0	Fruitland		0.00	
1,858.6	1,843.0	Picture Cliffs		0.00	
1,955.0	1,938.0	Lewis		0.00	
2,712.9	2,685.0	Chacra		0.00	
3,385.6	3,348.0	Menefee		0.00	
4,309.9	4,259.0	Point Lookout		0.00	
4,529.1	4,475.0	Mancos		0.00	
4,912.6	4,853.0	Mancos Silt		0.00	
5,357.5	5,271.0	Gallup A		0.00	
5,406.4	5,310.0	Gallup B		0.00	
5,544.3	5,407.0	Gallup C		0.00	
5,980.6	5,549.0	Target		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,027.0	4,965.7	-244.8	-690.8	KOP
5,771.0	5,515.2	-0.2	-1,053.6	Top of liner

DJR Operating

Blanco Wash Unit

I24A 2409

403H

Original drilling

APD

Anticollision Report

26 April, 2019

Anticollision Report

Company: DJR Operating	Local Co-ordinate Reference: Well # 403H
Project: Blanco Wash Unit	TVD Reference: RKB @ 6906.0usft (RIG)
Reference Site: I24A 2409	MD Reference: RKB @ 6906.0usft (RIG)
Site Error: 0.0 usft	North Reference: True
Reference Well: # 403H	Survey Calculation Method: Minimum Curvature
Well Error: 0.0 usft	Output errors are at 2.00 sigma
Reference Wellbore Original drilling	Database: EDM
Reference Design: APD	Offset TVD Reference: Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft		
Warning Levels Evaluated at:	2.00 Sigma	Error Surface:	Pedal Curve
		Casing Method:	Not applied

Survey Tool Program	Date	4/26/2019
From (usft)	To (usft)	Survey (Wellbore)
0.0	18,109.2	APD (Original drilling)
		Tool Name
		MWD+IGRF
		Description
		OWSG MWD + IGRF or WMM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
I24 2409 (Encana)						
# 401H - Original drilling - As drilled	6,431.9	6,646.4	50.4	25.9	2.053	CC
# 401H - Original drilling - As drilled	6,500.0	6,690.5	72.3	16.4	1.293	Level 3, ES, SF
I24A 2409						
# 402H - Original drilling - APD	450.0	450.0	29.9	27.1	10.620	CC, ES
# 402H - Original drilling - APD	17,000.0	16,910.2	1,268.3	681.4	2.161	SF

Offset Design I24 2409 (Encana) - # 401H - Original drilling - As drilled												Offset Site Error: 0.0 usft	
Survey Program: 150-GYRO-NS, 4920-MWD - no corrections												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance Between						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-17.58	389.3	-123.3	408.6				
100.0	100.0	88.6	88.6	0.2	0.1	-17.56	389.2	-123.1	408.2	408.0	0.30	1,374.864	
200.0	200.0	189.7	189.7	0.5	0.4	-17.48	388.8	-122.5	407.7	406.8	0.89	456.566	
300.0	300.0	289.1	289.1	0.9	0.7	-17.43	388.4	-122.0	407.1	405.5	1.60	254.618	
400.0	400.0	388.7	388.7	1.2	1.1	-17.39	388.0	-121.5	406.6	404.3	2.31	176.336	
450.0	450.0	438.5	438.5	1.4	1.3	-17.38	387.8	-121.4	406.4	403.7	2.66	152.802	
500.0	500.0	488.1	488.1	1.6	1.4	92.21	387.7	-121.2	406.2	403.2	3.01	135.114	
552.9	552.9	540.5	540.5	1.8	1.6	92.43	387.6	-121.1	406.1	402.8	3.37	120.471	
600.0	599.9	587.3	587.3	1.9	1.8	92.71	387.6	-121.1	406.2	402.5	3.70	109.898	
700.0	699.7	687.8	687.8	2.3	2.1	93.68	387.4	-121.2	406.5	402.1	4.40	92.345	
800.0	799.1	787.7	787.7	2.7	2.5	95.13	387.1	-121.1	406.9	401.8	5.12	79.407	
900.0	898.2	886.2	886.2	3.0	2.8	97.02	386.7	-121.1	408.1	402.2	5.87	69.568	
936.8	934.4	922.5	922.4	3.2	2.9	97.82	386.6	-121.1	408.7	402.6	6.14	66.518	
1,000.0	996.8	984.4	984.3	3.5	3.2	99.27	386.5	-121.1	410.3	403.6	6.63	61.879	
1,100.0	1,095.3	1,082.4	1,082.4	3.9	3.5	101.56	386.5	-120.9	413.3	405.9	7.41	55.803	
1,200.0	1,193.9	1,181.0	1,181.0	4.4	3.8	103.81	386.4	-120.9	417.0	408.8	8.19	50.923	
1,300.0	1,292.4	1,278.9	1,278.9	4.8	4.2	106.00	386.5	-120.9	421.5	412.5	8.97	46.982	
1,400.0	1,391.0	1,378.2	1,378.2	5.3	4.5	108.16	386.5	-121.0	426.5	416.8	9.76	43.709	
1,500.0	1,489.6	1,476.9	1,476.9	5.7	4.9	110.23	386.4	-121.2	432.1	421.5	10.54	40.975	
1,600.0	1,588.1	1,575.1	1,575.1	6.2	5.2	112.23	386.4	-121.6	438.3	426.9	11.33	38.697	
1,700.0	1,686.7	1,675.3	1,675.3	6.7	5.6	114.21	386.4	-121.9	444.9	432.8	12.11	36.737	

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

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24 2409 (Encana) - # 401H - Original drilling - As drilled													Offset Site Error:	0.0 usft
Survey Program: 150-GYRO-NS, 4920-MWD - no corrections													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
1,800.0	1,785.2	1,773.9	1,773.8	7.2	5.9	116.09	386.1	-122.4	451.9	439.0	12.89	35.062		
1,900.0	1,883.8	1,873.5	1,873.4	7.6	6.3	117.91	385.7	-123.0	459.1	445.5	13.66	33.601		
2,000.0	1,982.3	1,973.2	1,973.1	8.1	6.6	119.66	385.0	-123.8	466.6	452.2	14.44	32.322		
2,100.0	2,080.9	2,070.3	2,070.3	8.6	7.0	121.32	384.5	-124.5	474.6	459.4	15.19	31.232		
2,200.0	2,179.5	2,168.1	2,168.1	9.1	7.3	122.94	384.2	-125.1	483.3	467.3	15.95	30.297		
2,300.0	2,278.0	2,265.7	2,265.7	9.5	7.6	124.49	384.1	-125.7	492.5	475.8	16.70	29.490		
2,400.0	2,376.6	2,366.3	2,366.2	10.0	8.0	126.06	384.0	-126.1	502.1	484.6	17.46	28.758		
2,500.0	2,475.1	2,466.4	2,466.3	10.5	8.3	127.57	383.4	-126.6	511.7	493.5	18.21	28.095		
2,600.0	2,573.7	2,565.4	2,565.4	11.0	8.7	129.00	382.7	-127.2	521.4	502.4	18.96	27.504		
2,700.0	2,672.3	2,663.9	2,663.9	11.5	9.0	130.34	382.1	-128.0	531.4	511.7	19.70	26.979		
2,800.0	2,770.8	2,762.9	2,762.8	11.9	9.4	131.66	381.5	-128.6	541.7	521.3	20.43	26.511		
2,900.0	2,869.4	2,863.5	2,863.5	12.4	9.7	132.96	380.5	-129.3	552.1	530.9	21.18	26.071		
3,000.0	2,967.9	2,961.6	2,961.6	12.9	10.1	134.17	379.6	-130.1	562.6	540.7	21.90	25.687		
3,100.0	3,066.5	3,062.7	3,062.7	13.4	10.4	135.38	378.5	-130.9	573.3	550.6	22.64	25.319		
3,200.0	3,165.1	3,162.7	3,162.6	13.9	10.8	136.50	377.1	-132.1	583.8	560.4	23.37	24.975		
3,300.0	3,263.6	3,260.4	3,260.3	14.3	11.1	137.58	375.8	-133.1	594.5	570.4	24.09	24.678		
3,400.0	3,362.2	3,359.6	3,359.5	14.8	11.5	138.65	374.4	-133.9	605.6	580.8	24.82	24.403		
3,500.0	3,460.7	3,456.7	3,456.6	15.3	11.8	139.65	373.1	-134.8	616.9	591.3	25.53	24.166		
3,600.0	3,559.3	3,555.8	3,555.7	15.8	12.2	140.65	371.9	-135.5	628.5	602.3	26.24	23.948		
3,700.0	3,657.9	3,656.9	3,656.7	16.3	12.5	141.65	370.2	-136.2	640.0	613.0	26.97	23.729		
3,800.0	3,756.4	3,755.7	3,755.5	16.8	12.9	142.58	368.6	-137.0	651.5	623.9	27.68	23.535		
3,900.0	3,855.0	3,858.2	3,858.0	17.2	13.2	143.53	366.6	-137.9	663.0	634.6	28.41	23.336		
4,000.0	3,953.5	3,956.2	3,956.0	17.7	13.6	144.39	364.4	-139.1	674.3	645.2	29.12	23.156		
4,100.0	4,052.1	4,055.3	4,055.1	18.2	13.9	145.24	362.4	-140.1	686.0	656.1	29.83	22.995		
4,200.0	4,150.7	4,153.3	4,153.1	18.7	14.2	146.06	360.4	-141.0	697.7	667.2	30.54	22.849		
4,300.0	4,249.2	4,247.6	4,247.3	19.2	14.6	146.80	358.7	-142.0	709.9	678.7	31.22	22.738		
4,400.0	4,347.8	4,342.6	4,342.3	19.7	14.9	147.52	357.7	-142.6	722.9	691.0	31.91	22.654		
4,500.0	4,446.3	4,443.1	4,442.8	20.1	15.3	148.23	356.9	-143.3	736.2	703.6	32.63	22.583		
4,600.0	4,544.9	4,543.6	4,543.3	20.6	15.6	148.92	355.9	-144.0	749.5	716.2	33.35	22.477		
4,700.0	4,643.5	4,640.3	4,639.9	21.1	16.0	149.58	354.9	-144.5	763.0	728.9	34.04	22.413		
4,800.0	4,742.0	4,738.2	4,737.9	21.6	16.3	150.22	353.9	-145.1	776.5	741.7	34.74	22.349		
4,900.0	4,840.6	4,835.7	4,835.4	22.1	16.6	150.84	352.8	-145.7	790.1	754.6	35.44	22.292		
5,000.0	4,939.1	5,025.7	5,024.1	22.6	16.9	151.16	352.8	-160.6	800.9	764.8	36.07	22.202		
5,026.5	4,965.3	5,037.2	5,035.3	22.7	16.9	151.06	353.4	-163.2	801.8	765.6	36.21	22.145		
5,050.0	4,988.4	5,048.6	5,046.4	22.8	16.9	140.75	354.2	-165.7	803.1	766.7	36.32	22.109		
5,100.0	5,037.2	5,110.0	5,105.4	23.1	16.9	124.89	360.2	-181.6	805.1	768.6	36.59	22.004		
5,150.0	5,085.4	5,222.8	5,208.3	23.3	17.0	114.44	377.2	-224.1	804.9	767.9	36.91	21.803		
5,200.0	5,132.5	5,282.8	5,259.4	23.6	17.0	107.95	388.7	-253.5	802.0	764.6	37.32	21.489		
5,250.0	5,178.3	5,894.2	5,488.3	23.9	22.3	75.71	496.5	-768.5	794.6	752.2	42.43	18.728		
5,300.0	5,222.5	5,918.8	5,488.8	24.3	22.7	73.48	495.6	-793.1	766.9	723.1	43.79	17.513		
5,350.0	5,264.8	5,945.6	5,489.7	24.6	23.1	71.91	494.5	-819.8	738.9	693.8	45.16	16.364		
5,400.0	5,305.0	5,971.4	5,490.8	25.0	23.5	70.99	493.2	-845.5	710.5	664.0	46.48	15.287		
5,450.0	5,342.9	5,999.5	5,491.9	25.4	24.0	70.31	491.9	-873.6	681.7	633.9	47.82	14.256		
5,500.0	5,378.1	6,028.2	5,492.4	25.8	24.5	69.90	490.6	-902.3	652.5	603.3	49.14	13.278		
5,550.0	5,410.5	6,055.9	5,492.5	26.2	25.0	69.83	489.5	-930.0	622.8	572.3	50.42	12.352		
5,600.0	5,439.9	6,083.9	5,492.4	26.7	25.5	69.98	488.5	-957.9	592.7	541.0	51.67	11.471		
5,650.0	5,466.1	6,114.8	5,491.9	27.2	26.1	70.13	487.5	-988.8	562.2	509.2	52.93	10.622		
5,700.0	5,488.9	6,149.3	5,491.3	27.7	26.7	70.26	486.4	-1,023.3	531.0	476.8	54.20	9.797		
5,750.0	5,508.2	6,182.6	5,490.6	28.3	27.4	70.75	485.2	-1,056.6	499.0	443.6	55.41	9.004		
5,800.0	5,523.9	6,215.5	5,490.0	28.9	28.0	71.60	484.0	-1,089.4	466.3	409.7	56.59	8.240		
5,850.0	5,535.8	6,252.4	5,489.6	29.6	28.7	72.59	482.7	-1,126.3	432.7	375.0	57.78	7.489		
5,900.0	5,544.0	6,290.8	5,489.6	30.2	29.5	74.07	481.1	-1,164.6	398.0	339.0	58.95	6.751		

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

Anticollision Report

Company: DJR Operating
Project: Blanco Wash Unit
Reference Site: I24A 2409
Site Error: 0.0 usft
Reference Well: # 403H
Well Error: 0.0 usft
Reference Wellbore Design: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Offset Design I24 2409 (Encana) - # 401H - Original drilling - As drilled												Offset Site Error: 0.0 usft	
Survey Program: 150-GYRO-NS, 4920-MWD - no corrections												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
5,950.0	5,548.3	6,323.8	5,489.7	31.0	30.2	76.54	479.5	-1,197.6	362.1	302.1	60.09	6.027	
5,980.6	5,549.0	6,343.9	5,489.7	31.4	30.6	78.42	478.5	-1,217.7	339.8	279.1	60.79	5.591	
6,000.0	5,549.0	6,356.7	5,489.7	31.7	30.8	77.93	477.9	-1,230.5	325.6	264.3	61.23	5.317	
6,100.0	5,549.0	6,423.7	5,489.2	33.2	32.2	74.32	474.8	-1,297.4	252.5	189.1	63.40	3.982	
6,200.0	5,549.0	6,489.8	5,488.1	34.9	33.7	67.87	471.9	-1,363.4	180.5	115.5	64.97	2.778	
6,300.0	5,549.0	6,557.4	5,486.5	36.7	35.1	53.86	469.0	-1,431.0	111.6	48.1	63.46	1.759	
6,400.0	5,549.0	6,625.8	5,485.7	38.5	36.6	17.88	464.5	-1,499.1	56.0	17.4	38.60	1.450	Level 3
6,431.9	5,549.0	6,646.4	5,485.6	39.1	37.1	0.63	463.0	-1,519.7	50.4	25.9	24.57	2.053	CC
6,500.0	5,549.0	6,690.5	5,485.1	40.4	38.0	-32.96	459.8	-1,563.8	72.3	16.4	55.93	1.293	Level 3, ES, SF
6,600.0	5,549.0	6,756.3	5,483.9	42.4	39.5	-57.74	455.4	-1,629.3	137.2	64.6	72.54	1.891	
6,700.0	5,549.0	6,823.3	5,481.9	44.5	41.0	-67.86	451.5	-1,696.2	209.0	130.7	78.32	2.669	
6,800.0	5,549.0	6,890.4	5,481.3	46.5	42.6	-73.35	447.7	-1,763.2	282.1	199.7	82.35	3.425	
6,900.0	5,549.0	6,956.4	5,480.9	48.7	44.1	-76.67	443.8	-1,829.1	356.0	270.3	85.75	4.152	
7,000.0	5,549.0	7,021.3	5,480.2	50.8	45.6	-78.78	440.1	-1,893.9	430.3	341.4	88.85	4.842	
7,100.0	5,549.0	7,081.5	5,479.4	53.0	47.0	-80.17	436.2	-1,954.0	505.3	413.7	91.52	5.521	
7,200.0	5,549.0	7,139.0	5,478.7	55.2	48.3	-81.21	431.7	-2,011.2	581.2	487.2	93.98	6.184	
7,300.0	5,549.0	7,201.1	5,478.2	57.5	49.8	-82.13	426.1	-2,073.2	658.0	561.2	96.83	6.795	
7,400.0	5,549.0	7,268.3	5,477.4	59.7	51.3	-82.89	420.6	-2,140.0	734.3	634.2	100.03	7.340	
7,500.0	5,549.0	7,327.9	5,476.7	62.0	52.7	-83.44	415.2	-2,199.4	811.1	708.4	102.71	7.897	
7,600.0	5,549.0	7,401.0	5,474.9	64.3	54.5	-83.90	409.3	-2,272.3	887.5	781.2	106.31	8.348	
7,700.0	5,549.0	7,466.1	5,473.0	66.6	56.0	-84.20	404.3	-2,337.1	963.7	854.3	109.36	8.812	
7,800.0	5,549.0	7,520.5	5,472.1	68.9	57.3	-84.49	399.9	-2,391.3	1,040.0	928.3	111.73	9.309	
7,900.0	5,549.0	7,573.7	5,471.9	71.3	58.6	-84.80	394.7	-2,444.3	1,117.4	1,003.4	114.04	9.798	
8,000.0	5,549.0	7,681.3	5,470.0	73.6	61.2	-85.20	386.5	-2,551.6	1,193.4	1,073.6	119.82	9.960	
8,100.0	5,549.0	7,747.3	5,469.4	76.0	62.8	-85.44	382.5	-2,617.4	1,268.4	1,145.5	122.96	10.316	
8,200.0	5,549.0	7,846.4	5,468.0	78.3	65.2	-85.72	378.7	-2,716.5	1,341.8	1,213.7	128.07	10.477	
8,300.0	5,549.0	7,905.3	5,467.0	80.7	66.6	-85.85	376.2	-2,775.3	1,415.6	1,284.8	130.80	10.823	
8,400.0	5,549.0	8,039.9	5,466.3	83.1	69.9	-86.20	373.3	-2,909.8	1,488.1	1,350.3	137.82	10.798	
8,500.0	5,549.0	8,111.3	5,465.0	85.5	71.7	-86.31	373.8	-2,981.2	1,558.6	1,417.4	141.27	11.033	
8,600.0	5,549.0	8,179.7	5,465.3	87.9	73.3	-86.48	373.8	-3,049.6	1,629.5	1,484.9	144.57	11.271	
8,700.0	5,549.0	8,250.2	5,465.3	90.3	75.1	-86.62	374.0	-3,120.1	1,700.3	1,552.3	147.99	11.489	
8,800.0	5,549.0	8,327.9	5,464.2	92.7	77.0	-86.72	374.3	-3,197.9	1,770.9	1,619.1	151.80	11.666	
8,900.0	5,549.0	8,384.0	5,462.9	95.1	78.4	-86.77	374.5	-3,253.9	1,841.7	1,687.2	154.45	11.924	
9,000.0	5,549.0	8,428.6	5,462.0	97.5	79.5	-86.80	374.2	-3,298.5	1,913.2	1,756.7	156.46	12.228	
9,100.0	5,549.0	8,467.1	5,461.6	99.9	80.4	-86.85	373.3	-3,337.0	1,985.8	1,827.6	158.13	12.558	
9,200.0	5,549.0	8,511.0	5,461.6	102.3	81.5	-86.92	371.5	-3,380.8	2,059.4	1,899.4	160.08	12.865	
9,300.0	5,549.0	8,577.0	5,461.3	104.7	83.1	-87.02	368.4	-3,446.7	2,133.6	1,970.3	163.28	13.067	
9,400.0	5,549.0	8,639.0	5,460.4	107.2	84.7	-87.08	365.8	-3,508.7	2,207.5	2,041.2	166.27	13.277	
9,500.0	5,549.0	8,678.0	5,460.0	109.6	85.6	-87.12	363.9	-3,547.7	2,281.9	2,114.0	167.95	13.587	
9,600.0	5,549.0	8,799.2	5,459.8	112.0	88.6	-87.27	357.9	-3,668.7	2,356.5	2,182.2	174.27	13.522	
9,700.0	5,549.0	8,858.3	5,459.1	114.5	90.1	-87.32	355.8	-3,727.7	2,429.9	2,252.9	177.10	13.721	
9,800.0	5,549.0	8,933.2	5,457.6	116.9	92.0	-87.36	352.8	-3,802.5	2,503.7	2,322.9	180.81	13.847	
9,900.0	5,549.0	9,115.1	5,454.1	119.3	96.5	-87.44	350.8	-3,984.4	2,575.2	2,385.0	190.25	13.536	
10,000.0	5,549.0	9,179.3	5,453.0	121.8	98.1	-87.46	351.6	-4,048.6	2,645.4	2,452.0	193.39	13.679	
10,100.0	5,549.0	9,209.0	5,452.6	124.2	98.8	-87.48	351.7	-4,078.3	2,716.4	2,521.7	194.71	13.951	
10,200.0	5,549.0	9,273.0	5,451.4	126.7	100.4	-87.50	351.0	-4,142.3	2,788.1	2,590.3	197.83	14.093	
10,300.0	5,549.0	9,318.4	5,451.1	129.1	101.6	-87.53	350.1	-4,187.7	2,860.3	2,660.3	199.97	14.304	
10,400.0	5,549.0	9,388.3	5,451.6	131.6	103.3	-87.61	348.7	-4,257.6	2,932.7	2,729.3	203.42	14.417	
10,500.0	5,549.0	9,491.9	5,450.3	134.0	105.9	-87.66	347.5	-4,361.1	3,004.4	2,795.7	208.67	14.398	
10,600.0	5,549.0	9,545.6	5,449.9	136.5	107.2	-87.69	347.0	-4,414.9	3,076.1	2,864.8	211.26	14.561	
10,700.0	5,549.0	9,590.0	5,449.7	138.9	108.3	-87.72	346.3	-4,459.2	3,148.2	2,934.9	213.36	14.756	
10,800.0	5,549.0	9,636.1	5,449.4	141.4	109.5	-87.75	345.2	-4,505.3	3,220.8	3,005.3	215.54	14.944	

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

Anticollision Report

Company: DJR Operating
Project: Blanco Wash Unit
Reference Site: I24A 2409
Site Error: 0.0 usft
Reference Well: # 403H
Well Error: 0.0 usft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Offset Design I24 2409 (Encana) - # 401H - Original drilling - As drilled											Offset Site Error:	0.0 usft	
Survey Program: 150-GYRO-NS, 4920-MWD - no corrections											Offset Well Error:	0.0 usft	
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,900.0	5,549.0	9,671.6	5,449.1	143.8	110.4	-87.77	344.0	-4,540.8	3,294.1	3,077.0	217.13	15.171	
11,000.0	5,549.0	9,716.0	5,448.8	146.3	111.5	-87.79	342.0	-4,585.1	3,368.1	3,148.9	219.20	15.365	
11,100.0	5,549.0	9,716.0	5,448.8	148.8	111.5	-87.79	342.0	-4,585.1	3,442.9	3,224.1	218.81	15.734	
11,200.0	5,549.0	9,755.1	5,448.6	151.2	112.4	-87.81	339.5	-4,624.1	3,518.3	3,297.7	220.56	15.951	
11,300.0	5,549.0	9,780.0	5,448.5	153.7	113.1	-87.83	337.6	-4,649.0	3,594.5	3,373.0	221.52	16.227	
11,400.0	5,549.0	9,806.1	5,448.5	156.1	113.7	-87.85	335.3	-4,675.0	3,671.5	3,449.0	222.52	16.500	
11,500.0	5,549.0	9,843.0	5,448.5	158.6	114.6	-87.88	331.5	-4,711.7	3,749.1	3,525.0	224.13	16.727	
11,600.0	5,549.0	9,874.3	5,448.4	161.1	115.4	-87.90	328.1	-4,742.8	3,827.2	3,601.8	225.42	16.978	
11,700.0	5,549.0	9,923.5	5,447.7	163.5	116.6	-87.91	322.7	-4,791.7	3,905.5	3,677.7	227.73	17.150	
11,800.0	5,549.0	9,972.0	5,446.7	166.0	117.8	-87.92	317.2	-4,839.9	3,984.1	3,754.1	230.01	17.322	
11,900.0	5,549.0	10,020.0	5,445.5	168.5	119.0	-87.92	311.5	-4,887.5	4,062.9	3,830.7	232.25	17.493	
12,000.0	5,549.0	10,020.0	5,445.5	170.9	119.0	-87.92	311.5	-4,887.5	4,142.2	3,910.5	231.73	17.875	
12,100.0	5,549.0	10,020.0	5,445.5	173.4	119.0	-87.92	311.5	-4,887.5	4,222.4	3,991.2	231.17	18.265	
12,200.0	5,549.0	10,020.0	5,445.5	175.9	119.0	-87.92	311.5	-4,887.5	4,303.4	4,072.8	230.60	18.662	
12,300.0	5,549.0	10,020.0	5,445.5	178.3	119.0	-87.92	311.5	-4,887.5	4,385.2	4,155.2	230.01	19.065	
12,400.0	5,549.0	10,020.0	5,445.5	180.8	119.0	-87.92	311.5	-4,887.5	4,467.8	4,238.4	229.40	19.476	
12,500.0	5,549.0	10,020.0	5,445.5	183.3	119.0	-87.92	311.5	-4,887.5	4,551.0	4,322.2	228.79	19.892	
12,600.0	5,549.0	10,020.0	5,445.5	185.7	119.0	-87.92	311.5	-4,887.5	4,634.9	4,406.8	228.16	20.314	
12,700.0	5,549.0	10,020.0	5,445.5	188.2	119.0	-87.92	311.5	-4,887.5	4,719.5	4,491.9	227.53	20.742	
12,800.0	5,549.0	10,020.0	5,445.5	190.7	119.0	-87.92	311.5	-4,887.5	4,804.6	4,577.7	226.89	21.175	
12,900.0	5,549.0	10,020.0	5,445.5	193.2	119.0	-87.92	311.5	-4,887.5	4,890.3	4,664.0	226.26	21.614	
13,000.0	5,549.0	10,020.0	5,445.5	195.6	119.0	-87.92	311.5	-4,887.5	4,976.5	4,750.9	225.62	22.057	
13,100.0	5,549.0	10,020.0	5,445.5	198.1	119.0	-87.92	311.5	-4,887.5	5,063.2	4,838.2	224.98	22.505	
13,200.0	5,549.0	10,020.0	5,445.5	200.6	119.0	-87.92	311.5	-4,887.5	5,150.4	4,926.1	224.34	22.958	
13,300.0	5,549.0	10,020.0	5,445.5	203.0	119.0	-87.92	311.5	-4,887.5	5,238.1	5,014.4	223.71	23.414	
13,400.0	5,549.0	10,020.0	5,445.5	205.5	119.0	-87.92	311.5	-4,887.5	5,326.2	5,103.1	223.08	23.875	
13,500.0	5,549.0	10,020.0	5,445.5	208.0	119.0	-87.92	311.5	-4,887.5	5,414.7	5,192.3	222.46	24.340	
13,600.0	5,549.0	10,020.0	5,445.5	210.5	119.0	-87.92	311.5	-4,887.5	5,503.6	5,281.8	221.84	24.809	
13,700.0	5,549.0	10,020.0	5,445.5	212.9	119.0	-87.92	311.5	-4,887.5	5,592.9	5,371.7	221.23	25.281	
13,800.0	5,549.0	10,020.0	5,445.5	215.4	119.0	-87.92	311.5	-4,887.5	5,682.6	5,461.9	220.63	25.756	
13,900.0	5,549.0	10,020.0	5,445.5	217.9	119.0	-87.92	311.5	-4,887.5	5,772.5	5,552.5	220.03	26.235	
14,000.0	5,549.0	10,020.0	5,445.5	220.4	119.0	-87.92	311.5	-4,887.5	5,862.9	5,643.4	219.44	26.717	
14,100.0	5,549.0	10,020.0	5,445.5	222.9	119.0	-87.92	311.5	-4,887.5	5,953.5	5,734.6	218.86	27.202	
14,200.0	5,549.0	10,020.0	5,445.5	225.3	119.0	-87.92	311.5	-4,887.5	6,044.4	5,826.1	218.29	27.690	
14,300.0	5,549.0	10,020.0	5,445.5	227.8	119.0	-87.92	311.5	-4,887.5	6,135.6	5,917.9	217.72	28.181	
14,400.0	5,549.0	10,020.0	5,445.5	230.3	119.0	-87.92	311.5	-4,887.5	6,227.0	6,009.9	217.16	28.675	
14,500.0	5,549.0	10,020.0	5,445.5	232.8	119.0	-87.92	311.5	-4,887.5	6,318.8	6,102.2	216.61	29.171	
14,600.0	5,549.0	10,020.0	5,445.5	235.2	119.0	-87.92	311.5	-4,887.5	6,410.7	6,194.7	216.07	29.669	
14,700.0	5,549.0	10,020.0	5,445.5	237.7	119.0	-87.92	311.5	-4,887.5	6,502.9	6,287.4	215.54	30.170	
14,800.0	5,549.0	10,020.0	5,445.5	240.2	119.0	-87.92	311.5	-4,887.5	6,595.4	6,380.4	215.02	30.673	
14,900.0	5,549.0	10,020.0	5,445.5	242.7	119.0	-87.92	311.5	-4,887.5	6,688.0	6,473.5	214.50	31.179	
15,000.0	5,549.0	10,020.0	5,445.5	245.2	119.0	-87.92	311.5	-4,887.5	6,780.9	6,566.9	214.00	31.687	
15,100.0	5,549.0	10,020.0	5,445.5	247.6	119.0	-87.92	311.5	-4,887.5	6,874.0	6,660.5	213.50	32.196	
15,200.0	5,549.0	10,020.0	5,445.5	250.1	119.0	-87.92	311.5	-4,887.5	6,967.2	6,754.2	213.01	32.708	
15,300.0	5,549.0	10,020.0	5,445.5	252.6	119.0	-87.92	311.5	-4,887.5	7,060.7	6,848.1	212.53	33.221	
15,400.0	5,549.0	10,020.0	5,445.5	255.1	119.0	-87.92	311.5	-4,887.5	7,154.3	6,942.2	212.06	33.737	
15,500.0	5,549.0	10,020.0	5,445.5	257.6	119.0	-87.92	311.5	-4,887.5	7,248.1	7,036.5	211.60	34.254	
15,600.0	5,549.0	10,020.0	5,445.5	260.0	119.0	-87.92	311.5	-4,887.5	7,342.0	7,130.9	211.14	34.773	
15,700.0	5,549.0	10,020.0	5,445.5	262.5	119.0	-87.92	311.5	-4,887.5	7,436.1	7,225.4	210.70	35.293	
15,800.0	5,549.0	10,020.0	5,445.5	265.0	119.0	-87.92	311.5	-4,887.5	7,530.4	7,320.1	210.26	35.815	
15,900.0	5,549.0	10,020.0	5,445.5	267.5	119.0	-87.92	311.5	-4,887.5	7,624.8	7,415.0	209.83	36.339	
16,000.0	5,549.0	10,020.0	5,445.5	270.0	119.0	-87.92	311.5	-4,887.5	7,719.3	7,509.9	209.40	36.864	

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

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24 2409 (Encana) - # 401H - Original drilling - As drilled													Offset Site Error: 0.0 usft
Survey Program: 150-GYRO-NS, 4920-MWD - no corrections													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,100.0	5,549.0	10,020.0	5,445.5	272.5	119.0	-87.92	311.5	-4,887.5	7,814.0	7,605.0	208.99	37.390	
16,200.0	5,549.0	10,020.0	5,445.5	274.9	119.0	-87.92	311.5	-4,887.5	7,908.8	7,700.3	208.58	37.918	
16,300.0	5,549.0	10,020.0	5,445.5	277.4	119.0	-87.92	311.5	-4,887.5	8,003.8	7,795.6	208.18	38.447	
16,400.0	5,549.0	10,020.0	5,445.5	279.9	119.0	-87.92	311.5	-4,887.5	8,098.8	7,891.0	207.78	38.977	
16,500.0	5,549.0	10,020.0	5,445.5	282.4	119.0	-87.92	311.5	-4,887.5	8,194.0	7,986.6	207.40	39.509	
16,600.0	5,549.0	10,020.0	5,445.5	284.9	119.0	-87.92	311.5	-4,887.5	8,289.3	8,082.3	207.02	40.042	
16,700.0	5,549.0	10,020.0	5,445.5	287.4	119.0	-87.92	311.5	-4,887.5	8,384.7	8,178.1	206.64	40.575	
16,800.0	5,549.0	10,020.0	5,445.5	289.8	119.0	-87.92	311.5	-4,887.5	8,480.2	8,273.9	206.28	41.110	
16,900.0	5,549.0	10,020.0	5,445.5	292.3	119.0	-87.92	311.5	-4,887.5	8,575.8	8,369.9	205.92	41.646	
17,000.0	5,549.0	10,020.0	5,445.5	294.8	119.0	-87.92	311.5	-4,887.5	8,671.5	8,466.0	205.57	42.183	
17,100.0	5,549.0	10,020.0	5,445.5	297.3	119.0	-87.92	311.5	-4,887.5	8,767.3	8,562.1	205.22	42.721	
17,200.0	5,549.0	10,020.0	5,445.5	299.8	119.0	-87.92	311.5	-4,887.5	8,863.2	8,658.4	204.88	43.260	
17,300.0	5,549.0	10,020.0	5,445.5	302.3	119.0	-87.92	311.5	-4,887.5	8,959.2	8,754.7	204.55	43.800	
17,400.0	5,549.0	10,020.0	5,445.5	304.7	119.0	-87.92	311.5	-4,887.5	9,055.3	8,851.1	204.22	44.341	
17,500.0	5,549.0	10,020.0	5,445.5	307.2	119.0	-87.92	311.5	-4,887.5	9,151.5	8,947.6	203.90	44.882	
17,600.0	5,549.0	10,020.0	5,445.5	309.7	119.0	-87.92	311.5	-4,887.5	9,247.7	9,044.1	203.58	45.425	
17,700.0	5,549.0	10,020.0	5,445.5	312.2	119.0	-87.92	311.5	-4,887.5	9,344.0	9,140.8	203.27	45.968	
17,800.0	5,549.0	10,020.0	5,445.5	314.7	119.0	-87.92	311.5	-4,887.5	9,440.4	9,237.5	202.97	46.512	
17,900.0	5,549.0	10,020.0	5,445.5	317.2	119.0	-87.92	311.5	-4,887.5	9,536.9	9,334.2	202.67	47.056	
18,000.0	5,549.0	10,020.0	5,445.5	319.7	119.0	-87.92	311.5	-4,887.5	9,633.4	9,431.1	202.38	47.602	
18,109.2	5,549.0	10,020.0	5,445.5	322.4	119.0	-87.92	311.5	-4,887.5	9,738.9	9,536.8	202.06	48.198	

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24A 2409 - # 402H - Original drilling - APD													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	28.85	26.2	14.4	29.9					
100.0	100.0	100.0	100.0	0.2	0.2	28.85	26.2	14.4	29.9	29.6	0.31	97.065		
200.0	200.0	200.0	200.0	0.5	0.5	28.85	26.2	14.4	29.9	28.9	1.03	29.188		
300.0	300.0	300.0	300.0	0.9	0.9	28.85	26.2	14.4	29.9	28.2	1.74	17.176		
400.0	400.0	400.0	400.0	1.2	1.2	28.85	26.2	14.4	29.9	27.5	2.46	12.169		
450.0	450.0	450.0	450.0	1.4	1.4	28.85	26.2	14.4	29.9	27.1	2.82	10.620 CC, ES		
500.0	500.0	499.5	499.5	1.6	1.6	138.61	26.6	14.5	30.7	27.5	3.17	9.673		
600.0	599.9	598.3	598.2	1.9	1.9	140.22	30.0	15.0	36.5	32.6	3.87	9.438		
700.0	699.7	696.2	695.9	2.3	2.3	142.23	36.7	16.0	48.3	43.7	4.58	10.544		
800.0	799.1	793.1	792.3	2.7	2.7	143.86	46.5	17.4	65.8	60.5	5.29	12.451		
900.0	898.2	890.7	889.3	3.0	3.0	145.63	57.7	19.0	87.4	81.4	6.01	14.541		
936.8	934.4	926.4	924.7	3.2	3.2	146.34	61.8	19.6	96.1	89.8	6.28	15.290		
1,000.0	996.8	987.8	985.6	3.5	3.4	147.56	68.8	20.7	111.3	104.6	6.74	16.514		
1,100.0	1,095.3	1,084.7	1,082.0	3.9	3.8	148.92	79.9	22.3	135.6	128.1	7.47	18.146		
1,200.0	1,193.9	1,181.7	1,178.3	4.4	4.2	149.87	91.1	23.9	159.8	151.6	8.21	19.479		
1,300.0	1,292.4	1,278.7	1,274.6	4.8	4.6	150.57	102.2	25.5	184.1	175.2	8.94	20.586		
1,400.0	1,391.0	1,375.7	1,370.9	5.3	5.0	151.10	113.3	27.2	208.5	198.8	9.69	21.519		
1,500.0	1,489.6	1,472.7	1,467.3	5.7	5.4	151.53	124.4	28.8	232.8	222.4	10.43	22.315		
1,600.0	1,588.1	1,569.6	1,563.6	6.2	5.8	151.87	135.5	30.4	257.1	246.0	11.18	23.001		
1,700.0	1,686.7	1,666.6	1,659.9	6.7	6.2	152.15	146.6	32.1	281.5	269.6	11.93	23.598		
1,800.0	1,785.2	1,763.6	1,756.3	7.2	6.6	152.39	157.8	33.7	305.8	293.2	12.68	24.122		
1,900.0	1,883.8	1,860.6	1,852.6	7.6	7.0	152.60	168.9	35.3	330.2	316.8	13.43	24.586		
2,000.0	1,982.3	1,957.6	1,948.9	8.1	7.4	152.77	180.0	36.9	354.6	340.4	14.18	24.999		
2,100.0	2,080.9	2,054.6	2,045.2	8.6	7.8	152.93	191.1	38.6	378.9	364.0	14.94	25.369		
2,200.0	2,179.5	2,151.5	2,141.6	9.1	8.2	153.06	202.2	40.2	403.3	387.6	15.69	25.702		
2,300.0	2,278.0	2,248.5	2,237.9	9.5	8.6	153.18	213.4	41.8	427.7	411.2	16.45	26.004		
2,400.0	2,376.6	2,345.5	2,334.2	10.0	9.0	153.29	224.5	43.4	452.0	434.8	17.20	26.279		
2,500.0	2,475.1	2,442.5	2,430.5	10.5	9.4	153.38	235.6	45.1	476.4	458.5	17.96	26.530		
2,600.0	2,573.7	2,539.5	2,526.9	11.0	9.8	153.47	246.7	46.7	500.8	482.1	18.71	26.760		
2,700.0	2,672.3	2,636.4	2,623.2	11.5	10.2	153.55	257.8	48.3	525.2	505.7	19.47	26.971		
2,800.0	2,770.8	2,733.4	2,719.5	11.9	10.6	153.62	269.0	49.9	549.5	529.3	20.23	27.166		
2,900.0	2,869.4	2,830.4	2,815.9	12.4	11.0	153.68	280.1	51.6	573.9	552.9	20.99	27.347		
3,000.0	2,967.9	2,927.4	2,912.2	12.9	11.4	153.74	291.2	53.2	598.3	576.6	21.74	27.515		
3,100.0	3,066.5	3,024.4	3,008.5	13.4	11.8	153.80	302.3	54.8	622.7	600.2	22.50	27.671		
3,200.0	3,165.1	3,121.3	3,104.8	13.9	12.2	153.85	313.4	56.4	647.1	623.8	23.26	27.817		
3,300.0	3,263.6	3,218.3	3,201.2	14.3	12.6	153.90	324.6	58.1	671.4	647.4	24.02	27.953		
3,400.0	3,362.2	3,315.3	3,297.5	14.8	13.0	153.94	335.7	59.7	695.8	671.0	24.78	28.081		
3,500.0	3,460.7	3,412.3	3,393.8	15.3	13.4	153.98	346.8	61.3	720.2	694.7	25.54	28.201		
3,600.0	3,559.3	3,509.3	3,490.2	15.8	13.8	154.02	357.9	62.9	744.6	718.3	26.30	28.314		
3,700.0	3,657.9	3,606.3	3,586.5	16.3	14.2	154.06	369.0	64.6	769.0	741.9	27.06	28.420		
3,800.0	3,756.4	3,703.2	3,682.8	16.8	14.6	154.09	380.1	66.2	793.3	765.5	27.82	28.521		
3,900.0	3,855.0	3,800.2	3,779.1	17.2	15.0	154.12	391.3	67.8	817.7	789.1	28.58	28.616		
4,000.0	3,953.5	3,897.2	3,875.5	17.7	15.4	154.15	402.4	69.4	842.1	812.8	29.34	28.705		
4,100.0	4,052.1	3,994.2	3,971.8	18.2	15.8	154.18	413.5	71.1	866.5	836.4	30.10	28.791		
4,200.0	4,150.7	4,091.2	4,068.1	18.7	16.2	154.21	424.6	72.7	890.9	860.0	30.86	28.872		
4,300.0	4,249.2	4,188.1	4,164.5	19.2	16.6	154.23	435.7	74.3	915.2	883.6	31.62	28.948		
4,400.0	4,347.8	4,285.1	4,260.8	19.7	17.0	154.25	446.9	75.9	939.6	907.2	32.38	29.022		
4,500.0	4,446.3	4,382.1	4,357.1	20.1	17.4	154.28	458.0	77.6	964.0	930.9	33.14	29.091		
4,600.0	4,544.9	4,479.1	4,453.4	20.6	17.8	154.30	469.1	79.2	988.4	954.5	33.90	29.158		
4,700.0	4,643.5	4,576.1	4,549.8	21.1	18.2	154.32	480.2	80.8	1,012.8	978.1	34.66	29.221		
4,800.0	4,742.0	4,673.0	4,646.1	21.6	18.6	154.34	491.3	82.5	1,037.2	1,001.7	35.42	29.282		
4,900.0	4,840.6	4,770.0	4,742.4	22.1	19.0	154.36	502.5	84.1	1,061.5	1,025.4	36.18	29.340		

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

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24A 2409 - # 402H - Original drilling - APD													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.0	4,939.1	4,867.0	4,838.7	22.6	19.4	154.38	513.6	85.7	1,085.9	1,049.0	36.94	29.395		
5,026.5	4,965.3	4,892.7	4,864.3	22.7	19.5	154.38	516.5	86.1	1,092.4	1,055.3	37.14	29.410		
5,050.0	4,988.4	4,915.5	4,886.9	22.8	19.6	143.77	519.1	86.5	1,098.1	1,060.8	37.32	29.421		
5,100.0	5,037.2	4,963.8	4,934.9	23.1	19.8	127.66	524.7	87.3	1,110.2	1,072.5	37.72	29.434		
5,150.0	5,085.4	5,012.8	4,983.4	23.3	20.0	117.66	531.4	87.1	1,122.2	1,084.1	38.15	29.418		
5,200.0	5,132.5	5,062.4	5,032.0	23.6	20.3	111.04	540.8	84.1	1,134.0	1,095.4	38.62	29.364		
5,250.0	5,178.3	5,112.6	5,080.3	23.9	20.5	106.35	553.1	78.3	1,145.5	1,106.4	39.14	29.268		
5,300.0	5,222.5	5,163.5	5,128.1	24.3	20.8	102.85	568.1	69.7	1,156.7	1,117.0	39.71	29.127		
5,350.0	5,264.8	5,215.0	5,175.0	24.6	21.1	100.13	586.1	58.1	1,167.4	1,127.1	40.34	28.938		
5,400.0	5,305.0	5,267.2	5,220.7	25.0	21.4	97.94	606.8	43.6	1,177.7	1,136.6	41.04	28.697		
5,450.0	5,342.9	5,320.2	5,264.8	25.4	21.8	96.15	630.4	26.1	1,187.4	1,145.6	41.82	28.394		
5,500.0	5,378.1	5,373.9	5,306.8	25.8	22.2	94.67	656.7	5.6	1,196.5	1,153.8	42.64	28.058		
5,550.0	5,410.5	5,428.4	5,346.5	26.2	22.6	93.43	685.7	-17.8	1,204.9	1,161.3	43.59	27.643		
5,600.0	5,439.9	5,483.6	5,383.4	26.7	23.1	92.39	717.2	-44.1	1,212.5	1,167.9	44.63	27.168		
5,650.0	5,466.1	5,539.5	5,416.9	27.2	23.6	91.53	751.1	-73.2	1,219.4	1,173.6	45.78	26.634		
5,700.0	5,488.9	5,596.0	5,446.8	27.7	24.2	90.81	787.2	-104.9	1,225.4	1,178.4	47.05	26.046		
5,750.0	5,508.2	5,653.2	5,472.6	28.3	24.8	90.24	825.1	-139.0	1,230.6	1,182.1	48.43	25.408		
5,800.0	5,523.9	5,710.9	5,493.9	28.9	25.5	89.78	864.7	-175.2	1,234.8	1,184.9	49.93	24.730		
5,850.0	5,535.8	5,769.0	5,510.4	29.6	26.3	89.45	905.4	-213.3	1,238.0	1,186.5	51.54	24.022		
5,900.0	5,544.0	5,827.5	5,521.8	30.2	27.2	89.22	946.9	-252.8	1,240.3	1,187.1	53.24	23.298		
5,950.0	5,548.3	5,886.2	5,527.9	31.0	28.0	89.10	988.8	-293.4	1,241.6	1,186.5	55.01	22.570		
5,980.6	5,549.0	5,922.1	5,529.0	31.4	28.6	89.08	1,014.4	-318.5	1,241.8	1,185.7	56.12	22.127		
6,000.0	5,549.0	5,941.8	5,529.0	31.7	28.9	89.08	1,028.5	-332.4	1,241.9	1,185.1	56.78	21.871		
6,100.0	5,549.0	6,041.8	5,529.0	33.2	30.6	89.08	1,099.6	-402.6	1,242.1	1,181.8	60.27	20.608		
6,200.0	5,549.0	6,141.8	5,529.0	34.9	32.4	89.08	1,170.8	-472.9	1,242.3	1,178.4	63.96	19.425		
6,300.0	5,549.0	6,241.8	5,529.0	36.7	34.2	89.08	1,241.9	-543.1	1,242.6	1,174.8	67.81	18.325		
6,400.0	5,549.0	6,341.8	5,529.0	38.5	36.2	89.08	1,313.1	-613.4	1,242.8	1,171.0	71.80	17.310		
6,500.0	5,549.0	6,441.8	5,529.0	40.4	38.2	89.08	1,384.2	-683.7	1,243.1	1,167.2	75.91	16.376		
6,600.0	5,549.0	6,541.8	5,529.0	42.4	40.2	89.08	1,455.4	-753.9	1,243.3	1,163.2	80.11	15.519		
6,700.0	5,549.0	6,641.8	5,529.0	44.5	42.3	89.08	1,526.6	-824.2	1,243.5	1,159.1	84.40	14.733		
6,800.0	5,549.0	6,741.8	5,529.0	46.5	44.5	89.08	1,597.7	-894.4	1,243.8	1,155.0	88.77	14.011		
6,900.0	5,549.0	6,841.8	5,529.0	48.7	46.7	89.08	1,668.9	-964.7	1,244.0	1,150.8	93.19	13.348		
7,000.0	5,549.0	6,941.8	5,529.0	50.8	48.9	89.08	1,740.0	-1,035.0	1,244.2	1,146.6	97.67	12.739		
7,100.0	5,549.0	7,041.8	5,529.0	53.0	51.1	89.08	1,811.2	-1,105.2	1,244.5	1,142.3	102.20	12.177		
7,200.0	5,549.0	7,141.8	5,529.0	55.2	53.4	89.08	1,882.3	-1,175.5	1,244.7	1,137.9	106.77	11.658		
7,300.0	5,549.0	7,241.8	5,529.0	57.5	55.7	89.08	1,953.5	-1,245.8	1,244.9	1,133.6	111.37	11.179		
7,400.0	5,549.0	7,341.8	5,529.0	59.7	58.0	89.08	2,024.7	-1,316.0	1,245.2	1,129.2	116.00	10.734		
7,500.0	5,549.0	7,441.8	5,529.0	62.0	60.3	89.08	2,095.8	-1,386.3	1,245.4	1,124.8	120.66	10.321		
7,600.0	5,549.0	7,541.8	5,529.0	64.3	62.6	89.08	2,167.0	-1,456.5	1,245.7	1,120.3	125.35	9.937		
7,700.0	5,549.0	7,641.8	5,529.0	66.6	64.9	89.08	2,238.1	-1,526.8	1,245.9	1,115.8	130.06	9.580		
7,800.0	5,549.0	7,741.8	5,529.0	68.9	67.3	89.08	2,309.3	-1,597.1	1,246.1	1,111.3	134.79	9.245		
7,900.0	5,549.0	7,841.8	5,529.0	71.3	69.6	89.08	2,380.4	-1,667.3	1,246.4	1,106.8	139.53	8.933		
8,000.0	5,549.0	7,941.8	5,529.0	73.6	72.0	89.08	2,451.6	-1,737.6	1,246.6	1,102.3	144.29	8.639		
8,100.0	5,549.0	8,041.8	5,529.0	76.0	74.4	89.08	2,522.7	-1,807.8	1,246.8	1,097.8	149.07	8.364		
8,200.0	5,549.0	8,141.8	5,529.0	78.3	76.8	89.08	2,593.9	-1,878.1	1,247.1	1,093.2	153.86	8.105		
8,300.0	5,549.0	8,241.8	5,529.0	80.7	79.2	89.08	2,665.1	-1,948.4	1,247.3	1,088.7	158.66	7.862		
8,400.0	5,549.0	8,341.8	5,529.0	83.1	81.6	89.08	2,736.2	-2,018.6	1,247.5	1,084.1	163.47	7.632		
8,500.0	5,549.0	8,441.8	5,529.0	85.5	84.0	89.08	2,807.4	-2,088.9	1,247.8	1,079.5	168.29	7.414		
8,600.0	5,549.0	8,541.8	5,529.0	87.9	86.4	89.08	2,878.5	-2,159.1	1,248.0	1,074.9	173.12	7.209		
8,700.0	5,549.0	8,641.8	5,529.0	90.3	88.8	89.08	2,949.7	-2,229.4	1,248.3	1,070.3	177.96	7.014		
8,800.0	5,549.0	8,741.8	5,529.0	92.7	91.2	89.08	3,020.8	-2,299.7	1,248.5	1,065.7	182.81	6.829		
8,900.0	5,549.0	8,841.8	5,529.0	95.1	93.6	89.08	3,092.0	-2,369.9	1,248.7	1,061.1	187.66	6.654		

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

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24A 2409 - # 402H - Original drilling - APD													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+IGRF													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,000.0	5,549.0	8,941.8	5,529.0	97.5	96.0	89.08	3,163.2	-2,440.2	1,249.0	1,056.4	192.52	6.487		
9,100.0	5,549.0	9,041.8	5,529.0	99.9	98.5	89.08	3,234.3	-2,510.5	1,249.2	1,051.8	197.39	6.329		
9,200.0	5,549.0	9,141.8	5,529.0	102.3	100.9	89.08	3,305.5	-2,580.7	1,249.4	1,047.2	202.26	6.177		
9,300.0	5,549.0	9,241.8	5,529.0	104.7	103.3	89.08	3,376.6	-2,651.0	1,249.7	1,042.5	207.14	6.033		
9,400.0	5,549.0	9,341.8	5,529.0	107.2	105.8	89.08	3,447.8	-2,721.2	1,249.9	1,037.9	212.02	5.895		
9,500.0	5,549.0	9,441.8	5,529.0	109.6	108.2	89.08	3,518.9	-2,791.5	1,250.1	1,033.2	216.91	5.763		
9,600.0	5,549.0	9,541.8	5,529.0	112.0	110.6	89.08	3,590.1	-2,861.8	1,250.4	1,028.6	221.80	5.637		
9,700.0	5,549.0	9,641.8	5,529.0	114.5	113.1	89.08	3,661.3	-2,932.0	1,250.6	1,023.9	226.69	5.517		
9,800.0	5,549.0	9,741.8	5,529.0	116.9	115.5	89.08	3,732.4	-3,002.3	1,250.9	1,019.3	231.59	5.401		
9,900.0	5,549.0	9,841.8	5,529.0	119.3	118.0	89.08	3,803.6	-3,072.5	1,251.1	1,014.6	236.49	5.290		
10,000.0	5,549.0	9,941.8	5,529.0	121.8	120.4	89.08	3,874.7	-3,142.8	1,251.3	1,009.9	241.40	5.184		
10,100.0	5,549.0	10,041.8	5,529.0	124.2	122.9	89.08	3,945.9	-3,213.1	1,251.6	1,005.3	246.31	5.081		
10,200.0	5,549.0	10,141.8	5,529.0	126.7	125.3	89.08	4,017.0	-3,283.3	1,251.8	1,000.6	251.22	4.983		
10,300.0	5,549.0	10,241.8	5,529.0	129.1	127.8	89.08	4,088.2	-3,353.6	1,252.0	995.9	256.13	4.888		
10,400.0	5,549.0	10,341.8	5,529.0	131.6	130.2	89.08	4,159.4	-3,423.8	1,252.3	991.2	261.05	4.797		
10,500.0	5,549.0	10,441.8	5,529.0	134.0	132.7	89.09	4,230.5	-3,494.1	1,252.5	986.5	265.97	4.709		
10,600.0	5,549.0	10,541.8	5,529.0	136.5	135.1	89.09	4,301.7	-3,564.4	1,252.7	981.9	270.89	4.625		
10,700.0	5,549.0	10,641.8	5,529.0	138.9	137.6	89.09	4,372.8	-3,634.6	1,253.0	977.2	275.82	4.543		
10,800.0	5,549.0	10,741.8	5,529.0	141.4	140.1	89.09	4,444.0	-3,704.9	1,253.2	972.5	280.74	4.464		
10,900.0	5,549.0	10,841.8	5,529.0	143.8	142.5	89.09	4,515.1	-3,775.2	1,253.5	967.8	285.67	4.388		
11,000.0	5,549.0	10,941.8	5,529.0	146.3	145.0	89.09	4,586.3	-3,845.4	1,253.7	963.1	290.60	4.314		
11,100.0	5,549.0	11,041.8	5,529.0	148.8	147.4	89.09	4,657.5	-3,915.7	1,253.9	958.4	295.53	4.243		
11,200.0	5,549.0	11,141.8	5,529.0	151.2	149.9	89.09	4,728.6	-3,985.9	1,254.2	953.7	300.46	4.174		
11,300.0	5,549.0	11,241.8	5,529.0	153.7	152.4	89.09	4,799.8	-4,056.2	1,254.4	949.0	305.40	4.107		
11,400.0	5,549.0	11,341.8	5,529.0	156.1	154.8	89.09	4,870.9	-4,126.5	1,254.6	944.3	310.33	4.043		
11,500.0	5,549.0	11,441.8	5,529.0	158.6	157.3	89.09	4,942.1	-4,196.7	1,254.9	939.6	315.27	3.980		
11,600.0	5,549.0	11,541.8	5,529.0	161.1	159.8	89.09	5,013.2	-4,267.0	1,255.1	934.9	320.21	3.920		
11,700.0	5,549.0	11,641.8	5,529.0	163.5	162.2	89.09	5,084.4	-4,337.2	1,255.3	930.2	325.15	3.861		
11,800.0	5,549.0	11,741.8	5,529.0	166.0	164.7	89.09	5,155.6	-4,407.5	1,255.6	925.5	330.09	3.804		
11,900.0	5,549.0	11,841.8	5,529.0	168.5	167.2	89.09	5,226.7	-4,477.8	1,255.8	920.8	335.03	3.748		
12,000.0	5,549.0	11,941.8	5,529.0	170.9	169.6	89.09	5,297.9	-4,548.0	1,256.1	916.1	339.98	3.695		
12,100.0	5,549.0	12,041.8	5,529.0	173.4	172.1	89.09	5,369.0	-4,618.3	1,256.3	911.4	344.92	3.642		
12,200.0	5,549.0	12,141.8	5,529.0	175.9	174.6	89.09	5,440.2	-4,688.5	1,256.5	906.7	349.87	3.591		
12,300.0	5,549.0	12,241.8	5,529.0	178.3	177.1	89.09	5,511.3	-4,758.8	1,256.8	901.9	354.82	3.542		
12,400.0	5,549.0	12,341.8	5,529.0	180.8	179.5	89.09	5,582.5	-4,829.1	1,257.0	897.2	359.76	3.494		
12,500.0	5,549.0	12,441.8	5,529.0	183.3	182.0	89.09	5,653.7	-4,899.3	1,257.2	892.5	364.71	3.447		
12,600.0	5,549.0	12,541.8	5,529.0	185.7	184.5	89.09	5,724.8	-4,969.6	1,257.5	887.8	369.66	3.402		
12,700.0	5,549.0	12,641.8	5,529.0	188.2	187.0	89.09	5,796.0	-5,039.9	1,257.7	883.1	374.61	3.357		
12,800.0	5,549.0	12,741.8	5,529.0	190.7	189.4	89.09	5,867.1	-5,110.1	1,257.9	878.4	379.56	3.314		
12,900.0	5,549.0	12,841.8	5,529.0	193.2	191.9	89.09	5,938.3	-5,180.4	1,258.2	873.7	384.52	3.272		
13,000.0	5,549.0	12,941.8	5,529.0	195.6	194.4	89.09	6,009.4	-5,250.6	1,258.4	868.9	389.47	3.231		
13,100.0	5,549.0	13,041.8	5,529.0	198.1	196.8	89.09	6,080.6	-5,320.9	1,258.6	864.2	394.42	3.191		
13,200.0	5,549.0	13,141.8	5,529.0	200.6	199.3	89.09	6,151.8	-5,391.2	1,258.9	859.5	399.38	3.152		
13,300.0	5,549.0	13,241.8	5,529.0	203.0	201.8	89.09	6,222.9	-5,461.4	1,259.1	854.8	404.33	3.114		
13,400.0	5,549.0	13,341.8	5,529.0	205.5	204.3	89.09	6,294.1	-5,531.7	1,259.4	850.1	409.29	3.077		
13,500.0	5,549.0	13,441.8	5,529.0	208.0	206.8	89.09	6,365.2	-5,601.9	1,259.6	845.3	414.25	3.041		
13,600.0	5,549.0	13,541.8	5,529.0	210.5	209.2	89.09	6,436.4	-5,672.2	1,259.8	840.6	419.20	3.005		
13,700.0	5,549.0	13,641.8	5,529.0	212.9	211.7	89.09	6,507.5	-5,742.5	1,260.1	835.9	424.16	2.971		
13,800.0	5,549.0	13,741.8	5,529.0	215.4	214.2	89.09	6,578.7	-5,812.7	1,260.3	831.2	429.12	2.937		
13,900.0	5,549.0	13,841.8	5,529.0	217.9	216.7	89.09	6,649.9	-5,883.0	1,260.5	826.5	434.08	2.904		
14,000.0	5,549.0	13,941.8	5,529.0	220.4	219.1	89.09	6,721.0	-5,953.2	1,260.8	821.7	439.04	2.872		
14,100.0	5,549.0	14,041.8	5,529.0	222.9	221.6	89.09	6,792.2	-6,023.5	1,261.0	817.0	444.00	2.840		

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

Anticollision Report

Company: DJR Operating
 Project: Blanco Wash Unit
 Reference Site: I24A 2409
 Site Error: 0.0 usft
 Reference Well: # 403H
 Well Error: 0.0 usft
 Reference Wellbore: Original drilling
 Reference Design: APD

Local Co-ordinate Reference: Well # 403H
 TVD Reference: RKB @ 6906.0usft (RIG)
 MD Reference: RKB @ 6906.0usft (RIG)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM
 Offset TVD Reference: Offset Datum

Offset Design I24A 2409 - # 402H - Original drilling - APD													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IGRF													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.0	5,549.0	14,141.8	5,529.0	225.3	224.1	89.09	6,863.3	-6,093.8	1,261.2	812.3	448.96	2.809		
14,300.0	5,549.0	14,241.8	5,529.0	227.8	226.6	89.09	6,934.5	-6,164.0	1,261.5	807.6	453.92	2.779		
14,400.0	5,549.0	14,341.8	5,529.0	230.3	229.1	89.09	7,005.6	-6,234.3	1,261.7	802.8	458.88	2.750		
14,500.0	5,549.0	14,441.8	5,529.0	232.8	231.5	89.09	7,076.8	-6,304.6	1,262.0	798.1	463.84	2.721		
14,600.0	5,549.0	14,541.8	5,529.0	235.2	234.0	89.09	7,148.0	-6,374.8	1,262.2	793.4	468.80	2.692		
14,700.0	5,549.0	14,641.8	5,529.0	237.7	236.5	89.09	7,219.1	-6,445.1	1,262.4	788.7	473.76	2.665		
14,800.0	5,549.0	14,741.8	5,529.0	240.2	239.0	89.09	7,290.3	-6,515.3	1,262.7	783.9	478.73	2.638		
14,900.0	5,549.0	14,841.8	5,529.0	242.7	241.5	89.09	7,361.4	-6,585.6	1,262.9	779.2	483.69	2.611		
15,000.0	5,549.0	14,941.8	5,529.0	245.2	243.9	89.09	7,432.6	-6,655.9	1,263.1	774.5	488.65	2.585		
15,100.0	5,549.0	15,041.8	5,529.0	247.6	246.4	89.09	7,503.7	-6,726.1	1,263.4	769.8	493.62	2.559		
15,200.0	5,549.0	15,141.8	5,529.0	250.1	248.9	89.09	7,574.9	-6,796.4	1,263.6	765.0	498.58	2.534		
15,300.0	5,549.0	15,241.8	5,529.0	252.6	251.4	89.09	7,646.1	-6,866.6	1,263.8	760.3	503.55	2.510		
15,400.0	5,549.0	15,341.8	5,529.0	255.1	253.9	89.09	7,717.2	-6,936.9	1,264.1	755.6	508.51	2.486		
15,500.0	5,549.0	15,441.8	5,529.0	257.6	256.3	89.09	7,788.4	-7,007.2	1,264.3	750.8	513.48	2.462		
15,600.0	5,549.0	15,541.8	5,529.0	260.0	258.8	89.09	7,859.5	-7,077.4	1,264.6	746.1	518.44	2.439		
15,700.0	5,549.0	15,641.8	5,529.0	262.5	261.3	89.09	7,930.7	-7,147.7	1,264.8	741.4	523.41	2.416		
15,800.0	5,549.0	15,741.8	5,529.0	265.0	263.8	89.09	8,001.8	-7,217.9	1,265.0	736.7	528.38	2.394		
15,900.0	5,549.0	15,841.8	5,529.0	267.5	266.3	89.09	8,073.0	-7,288.2	1,265.3	731.9	533.34	2.372		
16,000.0	5,549.0	15,941.8	5,529.0	270.0	268.7	89.09	8,144.2	-7,358.5	1,265.5	727.2	538.31	2.351		
16,100.0	5,549.0	16,041.8	5,529.0	272.5	271.2	89.09	8,215.3	-7,428.7	1,265.7	722.5	543.28	2.330		
16,200.0	5,549.0	16,141.8	5,529.0	274.9	273.7	89.09	8,286.5	-7,499.0	1,266.0	717.7	548.25	2.309		
16,300.0	5,549.0	16,241.8	5,529.0	277.4	276.2	89.09	8,357.6	-7,569.3	1,266.2	713.0	553.21	2.289		
16,400.0	5,549.0	16,341.8	5,529.0	279.9	278.7	89.10	8,428.8	-7,639.5	1,266.4	708.3	558.18	2.269		
16,500.0	5,549.0	16,441.8	5,529.0	282.4	281.2	89.10	8,499.9	-7,709.8	1,266.7	703.5	563.15	2.249		
16,600.0	5,549.0	16,541.8	5,529.0	284.9	283.6	89.10	8,571.1	-7,780.0	1,266.9	698.8	568.12	2.230		
16,700.0	5,549.0	16,641.8	5,529.0	287.4	286.1	89.10	8,642.3	-7,850.3	1,267.2	694.1	573.09	2.211		
16,800.0	5,549.0	16,741.8	5,529.0	289.8	288.6	89.10	8,713.4	-7,920.6	1,267.4	689.3	578.06	2.193		
16,900.0	5,549.0	16,841.8	5,529.0	292.3	291.1	89.10	8,784.6	-7,990.8	1,267.6	684.6	583.03	2.174		
16,903.5	5,549.0	16,845.3	5,529.0	292.4	291.2	89.10	8,787.0	-7,993.3	1,267.6	684.4	583.20	2.174		
17,000.0	5,549.0	16,910.2	5,529.0	294.8	292.8	89.10	8,833.2	-8,038.9	1,268.3	681.4	586.89	2.161 SF		
17,100.0	5,549.0	16,910.2	5,529.0	297.3	292.8	89.10	8,833.2	-8,038.9	1,274.9	688.9	585.99	2.176		
17,200.0	5,549.0	16,910.2	5,529.0	299.8	292.8	89.10	8,833.2	-8,038.9	1,289.3	707.7	581.61	2.217		
17,300.0	5,549.0	16,910.2	5,529.0	302.3	292.8	89.10	8,833.2	-8,038.9	1,311.2	737.1	574.06	2.284		
17,400.0	5,549.0	16,910.2	5,529.0	304.7	292.8	89.10	8,833.2	-8,038.9	1,340.2	776.4	563.78	2.377		
17,500.0	5,549.0	16,910.2	5,529.0	307.2	292.8	89.10	8,833.2	-8,038.9	1,375.9	824.6	551.28	2.496		
17,600.0	5,549.0	16,910.2	5,529.0	309.7	292.8	89.10	8,833.2	-8,038.9	1,417.7	880.7	537.09	2.640		
17,700.0	5,549.0	16,910.2	5,529.0	312.2	292.8	89.10	8,833.2	-8,038.9	1,465.2	943.5	521.72	2.808		
17,800.0	5,549.0	16,910.2	5,529.0	314.7	292.8	89.10	8,833.2	-8,038.9	1,517.8	1,012.2	505.64	3.002		
17,900.0	5,549.0	16,910.2	5,529.0	317.2	292.8	89.10	8,833.2	-8,038.9	1,575.0	1,085.8	489.23	3.219		
18,000.0	5,549.0	16,910.2	5,529.0	319.7	292.8	89.10	8,833.2	-8,038.9	1,636.4	1,163.6	472.80	3.461		
18,109.2	5,549.0	16,910.2	5,529.0	322.4	292.8	89.10	8,833.2	-8,038.9	1,707.5	1,252.4	455.12	3.752		

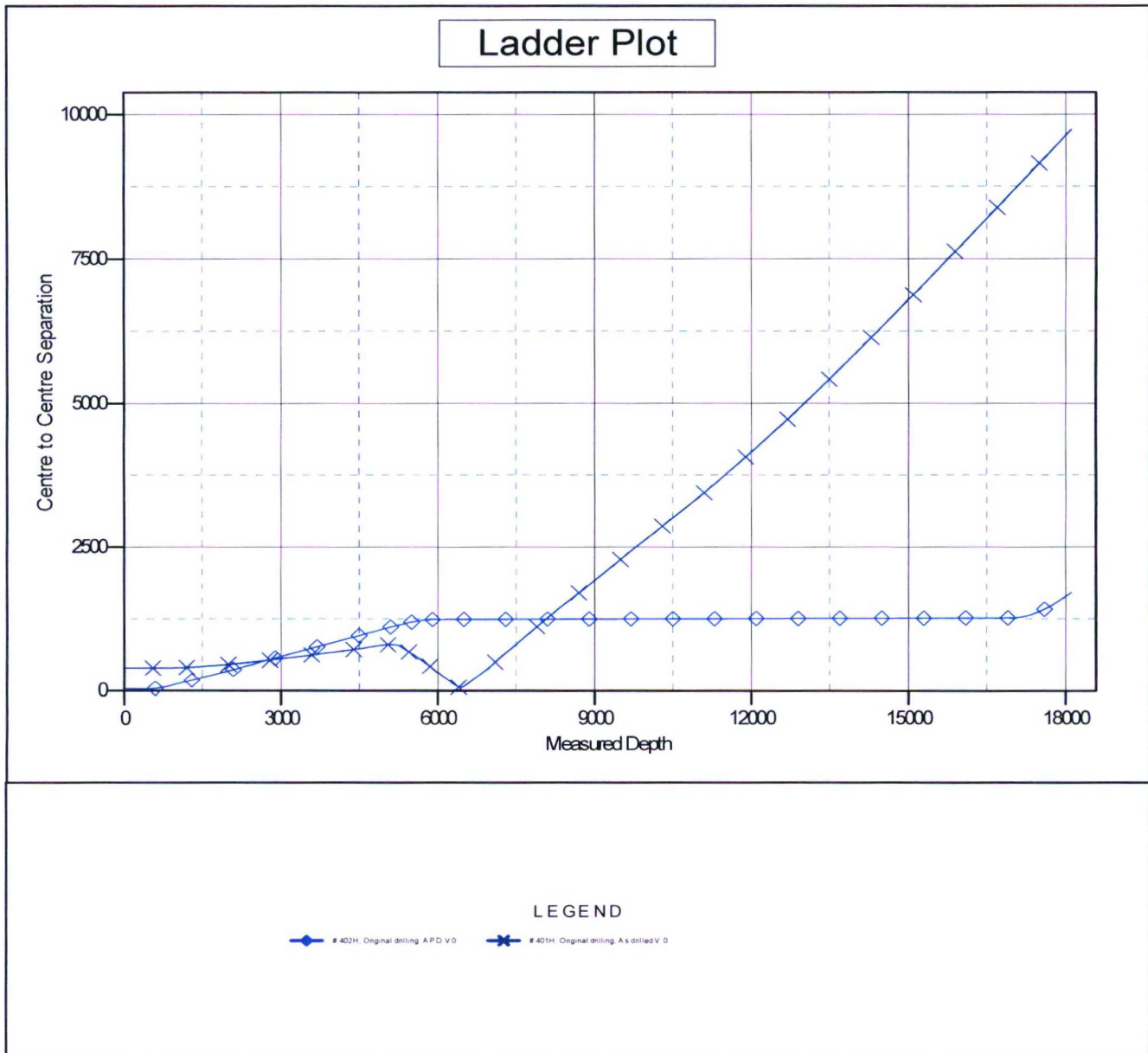
Anticollision Report

Company: DJR Operating
Project: Blanco Wash Unit
Reference Site: I24A 2409
Site Error: 0.0 usft
Reference Well: # 403H
Well Error: 0.0 usft
Reference Wellbore: Original drilling
Reference Design: APD

Local Co-ordinate Reference: Well # 403H
TVD Reference: RKB @ 6906.0usft (RIG)
MD Reference: RKB @ 6906.0usft (RIG)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM
Offset TVD Reference: Offset Datum

Reference Depths are relative to RKB @ 6906.0usft (RIG)
 Offset Depths are relative to Offset Datum
 Central Meridian is 107° 50' 0.000 W

Coordinates are relative to: # 403H
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.06°



Anticollision Report

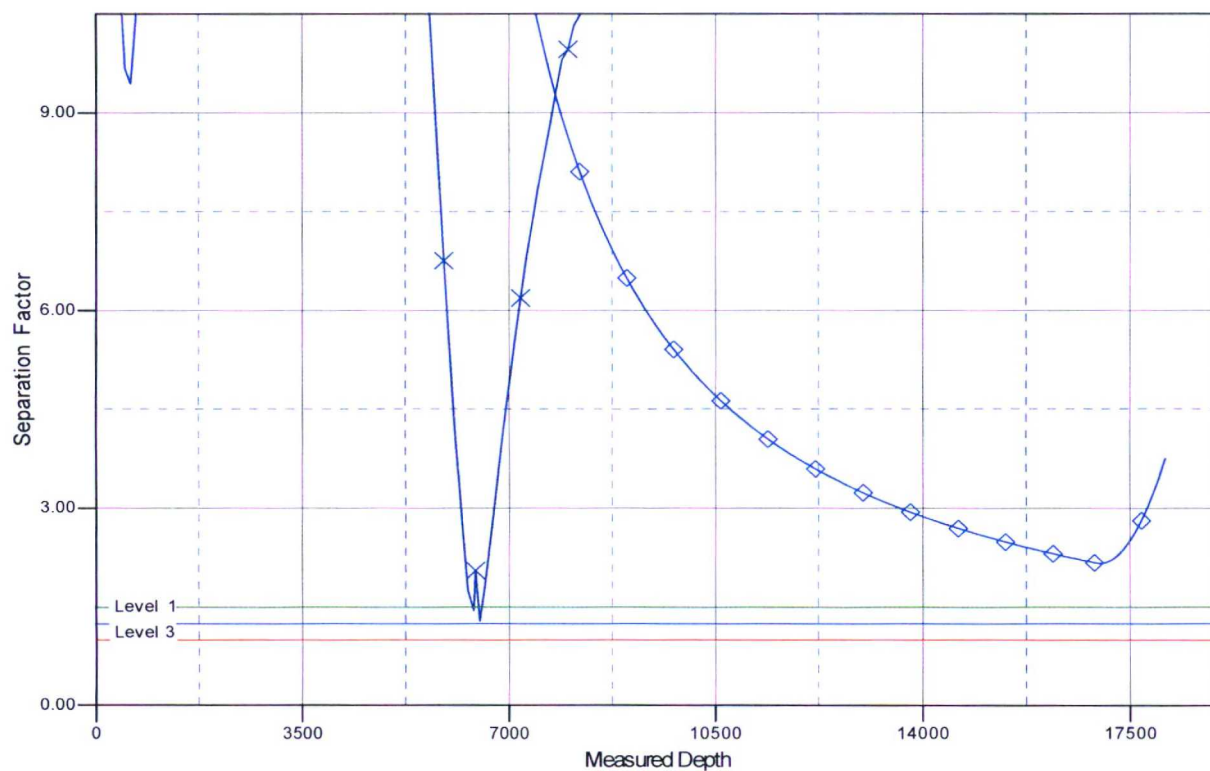
Company: DJR Operating
Project: Blanco Wash Unit
Reference Site: I24A 2409
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Reference Depths are relative to RKB @ 6906.0usft (RIG)
 Offset Depths are relative to Offset Datum
 Central Meridian is 107° 50' 0.000 W

Coordinates are relative to: # 403H
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.06°

Separation Factor Plot



LEGEND

◆ # 402H Original drilling APD V.0 ✕ # 403H Original drilling As drilled V.0