U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

01/29/2024

Well Name: BETONNIE TSOSIE WASH UNIT	**Well Location:** T23N / R8W / SEC 28 / SENE /	**County or Parish/State:**
Well Number: 732H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM50999	**Unit or CA Name:**	**Unit or CA Number:** NMNM135219A
US Well Number: 3004538332	**Well Status:** Approved Application for Permit to Drill	**Operator:** DJR OPERATING LLC

Notice of Intent

Sundry ID: 2772122

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/26/2024

Time Sundry Submitted: 01:14

Date proposed operation will begin: 01/26/2024

Procedure Description: Original APD approved on 11/7/2023. The subject well is located in DJRs undivided Betonnie Tsosie Wash Unit. Original plans were to drill a 4810-ft lateral. DJR is seeking approval to extend the lateral to 5424-ft, changing the proposed depth from 4949 / 10283 to 4949 / 10830, adjusting the BHL & increasing the dedicated acres from 280 to 360. Attached please find updated C102, revised drilling plan with new casing/cement assumptions, revised directional designs, offset well location map, and proposed wellbore diagram. Please note, effective December 21, 2023, Enduring Resources, LLC & DJR Operating, LLC are wholly owned subsidiaries of Enduring Resources, LLC. Leases, rights of way, wells, and other property interests will continue to be held in their current entity names.

NOI Attachments

Procedure Description

732H_NOI_Change_to_APD__BLM_Submittal_Rev1_20240126131359.pdf

Well Name: BETONNIE TSOSIE WASH UNIT

Well Location: T23N / R8W / SEC 28 / SENE /

County or Parish/State:

Well Number: 732H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM50999

Unit or CA Name:

Unit or CA Number: NMNM135219A

US Well Number: 3004538332

Well Status: Approved Application for Permit to Drill

Operator: DJR OPERATING LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHAW-MARIE FORD

Signed on: JAN 26, 2024 01:12 PM

Name: DJR OPERATING LLC

Title: Regulatory Specialist

Street Address: 1 ROAD 3263

City: AZTEC **State:** NM

Phone: (505) 632-3476

Email address: SFORD@DJRLLC.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 01/29/2024

Signature: Kenneth Rennick

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-38332	98175	BETONNIE TSOSIE WASH UNIT MANCOS OIL POOL

[4] Property Code	[5] Property Name	[6] Well Number
325179	BETONNIE TSOSIE WASH UNIT	732H

[7] OGRID No.	[8] Operator Name	[9] Elevation
371838	DJR OPERATING, LLC	6864'

[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
H	28	23N	8W		1645'	NORTH	442'	EAST	SAN JUAN

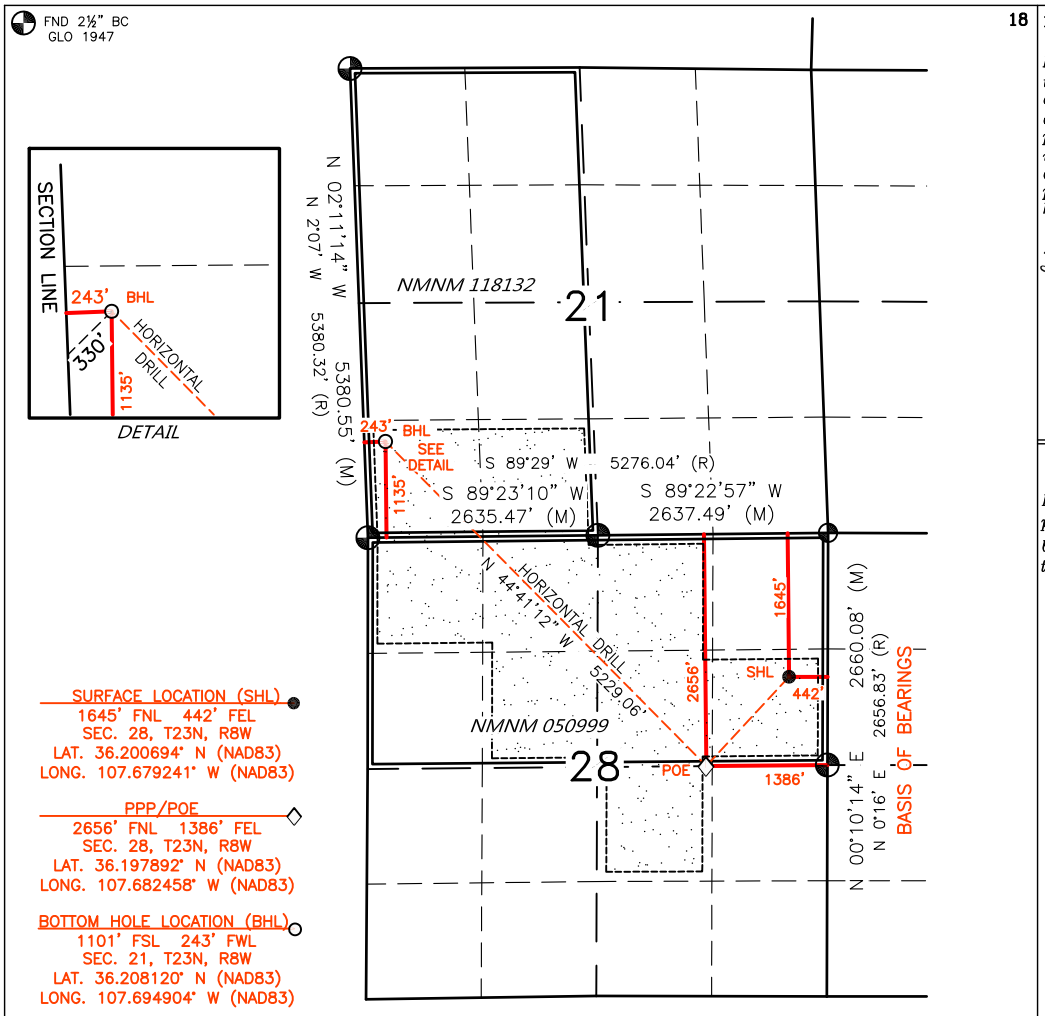
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	23N	8W		1101'	SOUTH	243'	WEST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
PENETRATED SPACING UNIT; SEC 28: NW/SE, SE/NE, SW/NE, NW/NE, SE/NW, NE/NW & NW/NW (280 AC.); SEC 21: SE/SW & SW/SW (80 AC.) = 360 ACRES			R-13930 R-13930A

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



18

[17] OPERATOR CERTIFICATION

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

Shaw-Marie Ford — Signature
1/26/24 — Date

Shaw-Marie Ford
Printed Name

sford@djrllc.com
E-mail Address

SURVEYOR CERTIFICATION

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

MARCH 8, 2021
Date of Survey

Signature and Seal of Professional Surveyor:

HENRY P. BROADHURST — NEW MEXICO — 11393 — 01/15/2024 — PROFESSIONAL SURVEYOR

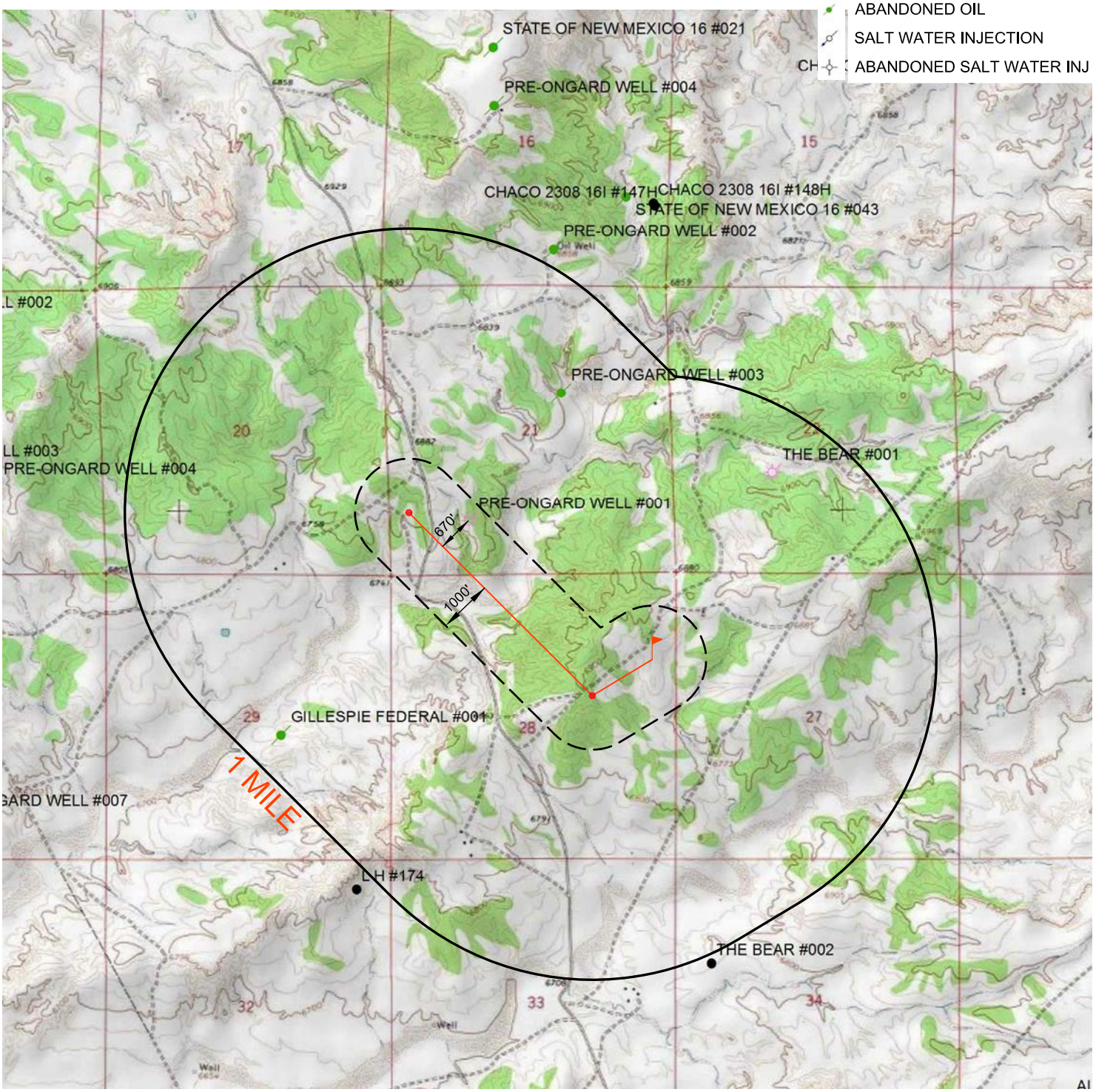
Certificate Number 11393

WELL FLAG
LATITUDE: 36.200694° N
LONGITUDE: 107.679241° W
DATUM: NAD83

DJR OPERATING, LLC
BETONNIE TSOSIE WASH UNIT #732H
1645' FNL & 442' FEL
LOCATED IN THE SE/4 NE/4 OF SECTION 28,
T23N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO

WELL LOCATION MAP

WELL LEGEND
- GAS
- ABANDONED GAS
- INJECTION
- ABANDONED
- OIL
- ABANDONED OIL
- SALT WATER INJECTION
- ABANDONED SALT WATER INJ



0 .25 .5
SCALE = 1" = 1/2 MILE

DATE: 03/22/21
DRAWN BY: GRR

DJR OPERATING, LLC

CCI
CHENAULT CONSULTING INC.
4800 COLLEGE BLVD.
SUITE 201
FARMINGTON, NM 87402
(505)-325-7707

ENDURING RESOURCES IV, LLC
6300 S SYRACUSE WAY, SUITE 525
CENTENNIAL, COLORADO 80211

DRILLING PLAN: **Drill, complete, and equip single lateral in the Mancos-Gallup formation**

WELL INFORMATION:

Name: **BETONNIE TSOSIE WASH UNIT 732H**
API Number: 30-045-38332
State: New Mexico
County: San Juan
Surface Elevation: 6,864 ft ASL (GL) 6,889 ft ASL (KB)
Surface Location: 28-23N-08W Sec-Twn-Rng 1,645 ft FNL 442 ft FEL
36.200694 ° N latitude 107.679241 ° W longitude (NAD 83)
BH Location: 21-23N-08W Sec-Twn-Rng 1,101 ft FSL 243 ft FWL
36.208120 ° N latitude 107.694904 ° W longitude (NAD 83)
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 39.0 miles to MM 112.7, Right (Southwest) on CR #7900 / IR #7061 for 3.3 miles to 4-way, Left (East) leaving CR #7900 for 0.6 miles to new access road; Right into to Betonnie Tsosie Wash Unit H28 PAD (from West to East: BTWU 402H, 401H and 732H wells).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
Ojo Alamo	6,225	664	664	W	normal
Kirtland	6,140	749	749	W	normal
Fruitland	5,945	944	944	G, W	sub
Pictured Cliffs	5,580	1,309	1,312	G, W	sub
Lewis	5,470	1,419	1,425	G, W	normal
Chacra	5,231	1,658	1,680	G, W	normal
Cliff House	4,138	2,751	2,897	G, W	sub
Menefee	4,123	2,766	2,913	G, W	normal
Point Lookout	3,195	3,694	3,948	G, W	normal
Mancos	3,042	3,847	4,118	O,G	sub (~0.38)
Gallup (MNCS_A)	2,726	4,163	4,471	O,G	sub (~0.38)
MNCS_B	2,618	4,271	4,589	O,G	sub (~0.38)
MNCS_C	2,536	4,353	4,677	O,G	sub (~0.38)
MNCS_Cms	2,488	4,401	4,728	O,G	sub (~0.38)
MNCS_D	2,370	4,519	4,856	O,G	sub (~0.38)
MNCS_E	2,235	4,654	5,019	O,G	sub (~0.38)
MNCS_F	2,184	4,705	5,088	O,G	sub (~0.38)
MNCS_G	2,106	4,783	5,213	O,G	sub (~0.38)
MNCS_H	2,055	4,834	5,315	O,G	sub (~0.38)
MNCS_I	2,004	4,885	5,449	O,G	sub (~0.38)
FTP TARGET	**2,017**	**4,872**	**5,406**	**O,G**	**sub (~0.38)**
PROJECTED TD	**1,940**	**4,949**	**10,830**	**O,G**	**sub (~0.38)**

Surface: Nacimiento
Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup
Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations
Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft
Maximum anticipated BH pressure, assuming maximum pressure gradient: **2,130 psi**
Maximum anticipated surface pressure, assuming partially evacuated hole: **1,050 psi**
Temperature: **Maximum anticipated BHT is 125° F or less**

H_2S INFORMATION:

H_2S Zones: Encountering hydrogen-sulfide bearing zones is **NOT** anticipated.

Safety: Sensors and alarms will be placed in the substructure, on the rig floor, above the pits, and at the shakers.

LOGGING, CORING, AND TESTING:

Mud Logs: None planned; remote geo-steering from drill out of 7" casing to TD; gas detection from drillout of 9-5/8" casing to TD.

MWD / LWD: Gamma Ray from drillout of 9-5/8" casing to TD

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 7" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Aztec

Rig No.: 1000

Draw Works: E80 AC 1,500 hp

Mast: Hyduke Triple (136 ft, 600,000 lbs, 10 lines)

Top Drive: NOV IDS-350PE (350 ton)

Prime Movers: 4 - GE Jenbacher Natural Gas Generator

Pumps: 2 - RS F-1600 (7,500 psi)

BOPE 1: Cameron single & double gate rams (11", 3,000 psi)

BOPE 2: Cameron annular (11", 3,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 25

Note: Actual drilling rig may vary depending on availability at time the well is scheduled to be drilled.

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

1) Rig will be equipped with upper and lower kelly cocks with handles available.

2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.

2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.

3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.

4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.

5) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device.The valve will be maintained in the open position and shall only be closed when the there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement:

Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimimize the amount of fluids and solids that require disposal.

Fluid Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Solids Disposal: Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Fluid Program: See "Detailed Drilling Plan" section and attached Newpark mud program for additional details.

DETAILED DRILLING PLAN:

SURFACE: **Drill vertically to casing setting depth (plus necessary rathole), run casing, cement casing to surface.**

0 ft (MD)	**to**	**350 ft (MD)**	**Hole Section Length:**	**350 ft**
0 ft (TVD)	**to**	**350 ft (TVD)**	**Casing Required:**	**350 ft**

Note: Surface hole may be drilled, cased, and cemented with a smaller rig in advance of the drilling rig.

Fluid:	**Type**	**MW (ppg)**	**FL (mL/30 min)**	**PV (cp)**	**YP (lb/100 sqft)**	**pH**	**Comments**
	Fresh Water	8.4	N/C	2 - 8	2 - 12	9.0	Spud mud

Hole Size: 12-1/4"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:		**Wt (lb/ft)**	**Grade**	**Conn.**	**Collapse (psi)**	**Burst (psi)**	**Tens. Body (lbs)**	**Tens. Conn (lbs)**
Specs	9.625	36.0	K-55	STC	2,020	3,520	564,000	423,000
Loading					153	1,049	110,988	110,988
Min. S.F.					**13.21**	**3.36**	**5.08**	**3.81**

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient
Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling intermediate hole and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minumum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Cement:	**Type**	**Weight (ppg)**	**Yield (cuft/sk)**	**Water (gal/sk)**	**Hole Cap. (cuft/ft)**	**% Excess**	**Planned TOC (ft MD)**	**Total Cmt (sx)**	**Total Cmt (cu ft)**
Redi-Mix	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114	184

Calculated cement volumes assume gauge hole and the excess noted in table Csg ID 8.921

INTERMEDIATE: **Drill as per directional plan to casing setting depth, run casing, cement casing to surface.**

350 ft (MD)	**to**	**5,506 ft (MD)**	**Hole Section Length:**	**5,156 ft**
350 ft (TVD)	**to**	**4,898 ft (TVD)**	**Casing Required:**	**5,506 ft**

Fluid:	**Type**	**MW (ppg)**	**FL (mL/30 min)**	**PV (cp)**	**YP (lb/100 sqft)**	**pH**	**Comments**
	LSND (KCl)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	No OBM

Hole Size: 8.75

Bit / Motor: 8-3/4" PDC bit w/mud motor

MWD / Survey: MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional

Logging: None

Casing Specs:		**Wt (lb/ft)**	**Grade**	**Conn.**	**Collapse (psi)**	**Burst (psi)**	**Tens. Body (lbs)**	**Tens. Conn (lbs)**
Specs	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
Loading					2,139	1,330	224,839	224,839
Min. S.F.					**2.02**	**3.74**	**1.85**	**1.63**

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient
Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling production hole and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minumum: 3,400 Optimum: 4,530 Maximum: 5,660

Cement:	**Type**	**Weight (ppg)**	**Yield (cuft/sk)**	**Water (gal/sk)**	**% Excess**	**Planned TOC (ft MD)**	**Total Cmt (sx)**	**Total Cmt (cu ft)**
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	465	996
Tail	Type III	14.6	1.380	6.64	20%	4,018	201	278

Annular Capacity	0.16681	cuft/ft	7" casing x 9-5/8" casing annulus	Shoe Track L	44
	0.1503	cuft/ft	9-5/8" casing x 12-1/4" hole annulus	Casing ID	6.276
	0.2148	cuft/ft	7" casing casing volume		

Calculated cement volumes assume gauge hole and the excess noted in table

PRODUCTION: Drill to TD following directional plan, run casing, cement casing to surface.

5,506	ft (MD)	to	10,830	ft (MD)	Hole Section Length:		5,324 ft
4,898	ft (TVD)	to	4,949	ft (TVD)	Casing Required:		5,474 ft
		Estimated KOP:	4,498	ft (MD)	4,188	ft (TVD)	
		Estimated Liner Top:	5,356	ft (MD)	4,852	ft (TVD)	
		Estimated Landing Point (FTP):	5,406	ft (MD)	4,872	ft (TVD)	
		Estimated Lateral Length:	5,424	ft (MD)			

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments	Comments
	WBM	8.7 - 9.0	NC	+20	±2	9-9.5	prod water	OBM as contingency

Hole Size: 6.125

Bit / Motor: 6-1/8" PDC bit w/mud motor

MWD / Survey: MWD with GR, inclination, and azimuth (survey every joint from KOP to Landing Point and survey every 100' minimum before KOP and after Landing Point)

Logging: GR MWD for entire section, no mud-log or cuttings sampling, no OH WL logs

Liner/Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	4.500	11.6	P-110	BTC	7,560	10,690	367,000	385,000
Loading					2,445	8,783	208,406	208,406
Min. S.F.					**3.09**	**1.22**	**1.76**	**1.85**

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)
Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient.
Tension: buoyed weight in 9.0 ppg fluid with 100,000 lbs over-pull. Tension calculations assume vertical hole to approximate drag in lateral.

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Spacer	IntegraGuard Star	11		31.6		0	60 bbls	
Tail	G:POZ blend	13.3	1.560	7.70	30%	5,356	461	719

Displacement	138	est bbls			
Annular Capacity	0.1044	cuft/ft	4-1/2" casing x 7" casing annulus		
	0.09417	cuft/ft	4-1/2" casing x 6-1/8" hole annulus		
	0.0873	cuft/ft	4-1/2" casing vol	est shoe jt ft	100
	0.0102	bbls/ft	4" DP capacity		

Calculated cement volumes assume gauge hole and the excess noted in table

Spacer	S-8 Silica Flour 163.7 lbs/bbl	Avis 616 viscosifier 11.6 lb/bbl	FP24 Defoamer .5 lb/bbl	IntegraGuard Star Plus 3K LCM 15 lb/bbl	SS201 Surfactant 1 gal/bbl			
Lead	ASTM Type I/II	BA90 Bonding Agent 5.0 lb/sx	Bentonite Viscosifier 8% BWOB	FL24 Fluid Loss .5% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R7C Retarder .2% BWOB	FP24 Defoamer 0.3% BWOB, Anti-Static .01 lb/sx	
Tail	Type G 50%	Pozzolan Fly Ash Extender 50%	BA90 Bonding Agent 3.0 lb/sx	Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder .5% BWOB	FP24 Defoamer .3% BWOB, IntegraSeal 0.25 lb/sx

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 5,324

Est Frac Inform: 22 Frac Stages 86,000 bbls slick water 6,930,000 lbs proppant

Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 2/16/2024

Completion: 4/16/2024

Production: 5/31/2024

Prepared by: **Greg Olson** **1/25/2024**

Updated:

Well: Betonnie Tsosie Wash Unit 732H
Site: Betonnie Tsosie Wash Unit (401, 402 & 732)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

T G M

Azimuths to Grid North
True North: -0.09°
Magnetic North: 8.40°

Magnetic Field
Strength: 49036.0nT
Dip Angle: 62.68°
Date: 1/16/2024
Model: IGRF2020

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6864+25 @ 6889.00ft

Surface location:

Northing	Easting	Latittude	Longitude
1892386.182	2768554.487	36.200694000	-107.679241000

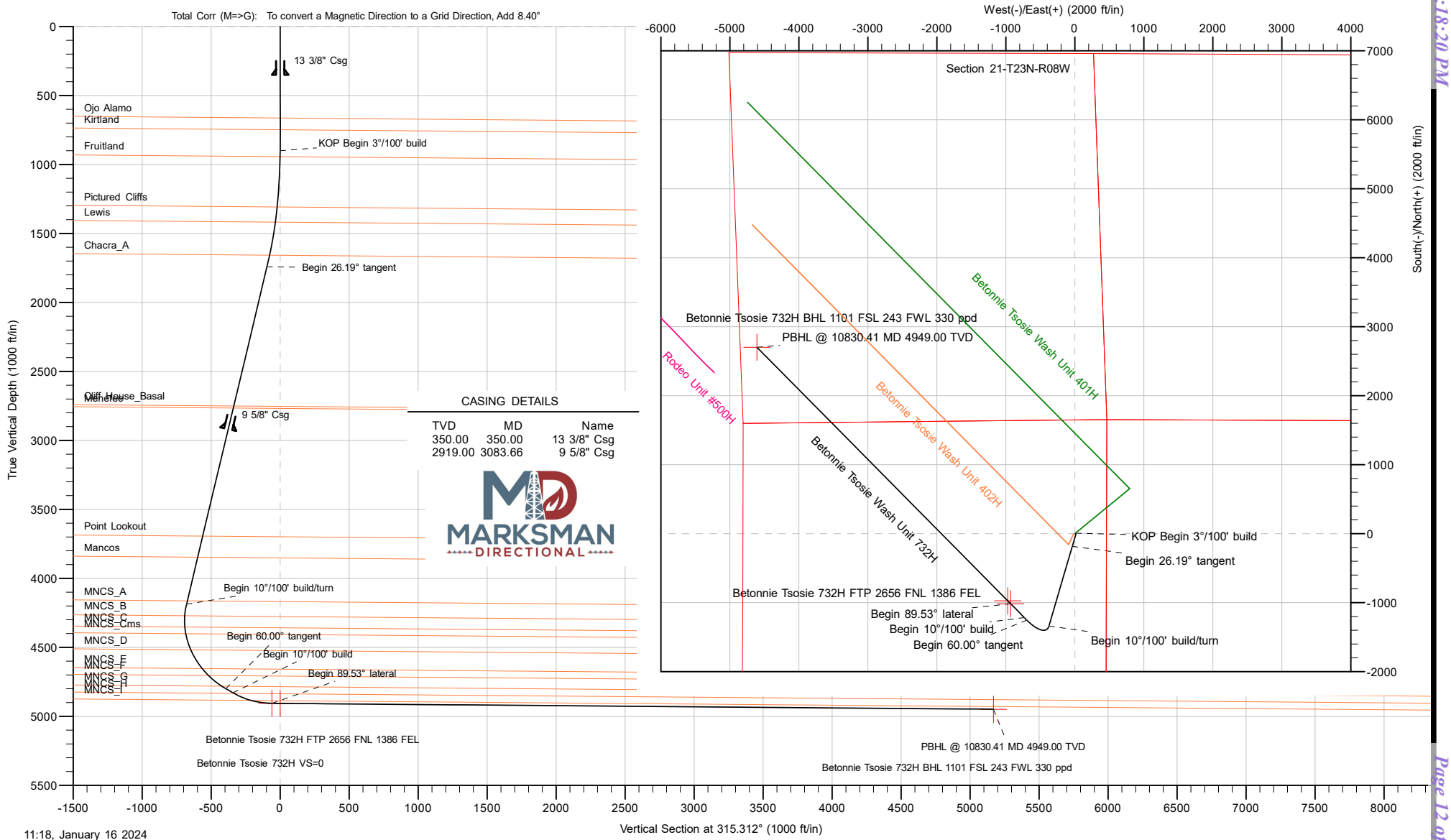
Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.40°

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.000	0.00	6.22	18.87	0.00	0.00	0.00	
2	900.00	0.00	0.000	900.00	6.22	18.87	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1773.05	26.19	196.280	1742.96	-182.02	-36.10	3.00	196.28	-95.17	Begin 26.19° tangent
4	4498.20	26.19	196.280	4188.30	-1336.59	-373.29	0.00	0.00	-678.88	Begin 10°/100' build/turn
5	5245.62	60.00	315.312	4799.77	-1252.56	-693.95	10.00	128.29	-393.64	Begin 60.00° tangent
6	5305.62	60.00	315.312	4829.77	-1215.62	-730.49	0.00	0.00	-341.68	Begin 10°/100' build
7	5600.96	89.53	315.312	4906.51	-1015.26	-928.68	10.00	0.00	-59.86	Begin 89.53° lateral
8	10830.41	89.53	315.312	4949.00	2702.47	-4606.15	0.00	0.00	5169.42	PBHL @ 10830.41 MD 4949.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Betonnie Tsosie 732H BHL 1101 FSL 243 FWL 330 ppd	4949.00	2702.47	-4606.15	1895082.430	2763929.474	36.208120000	-107.694904000
Betonnie Tsosie 732H FTP 2656 FNL 1386 FEL	4906.51	-1015.26	-928.68	1891364.705	2767606.941	36.197892000	-107.682458000
Betonnie Tsosie 732H VS=0	4907.00	-972.70	-970.77	1891407.264	2767564.849	36.198009092	-107.682600438



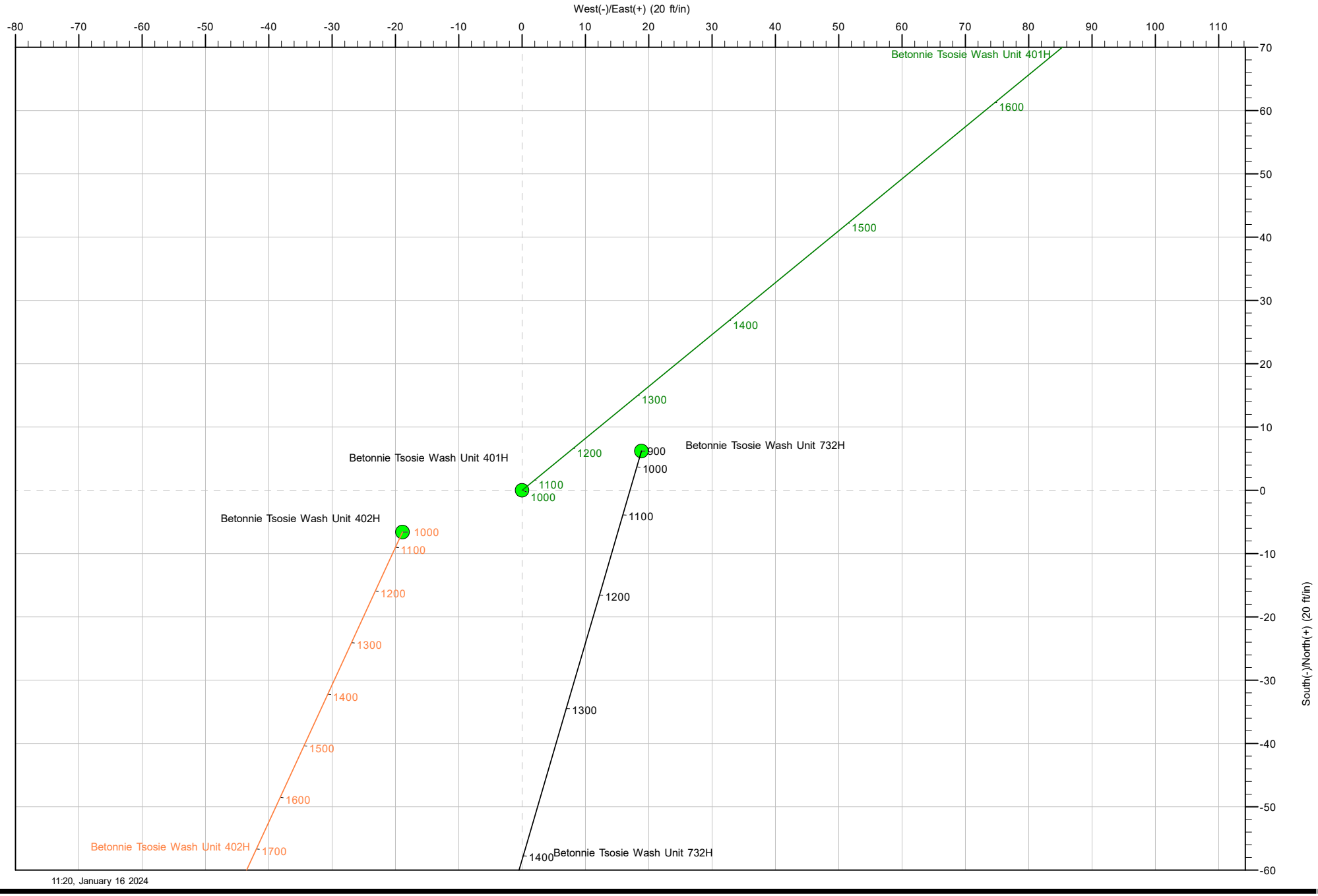
CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
2919.00	3083.66	9 5/8" Csg

MARKSMAN DIRECTIONAL

11:18, January 16 2024

Well: Betonnie Tsosie Wash Unit 732H
Site: Betonnie Tsosie Wash Unit (401, 402 & 732)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:



Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project San Juan County, New Mexico NAD83 NM W

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site Betonnie Tsosie Wash Unit (401, 402 & 732)

Site Position:		**Northing:**	1,892,379.964 usft	**Latitude:**	36.200677000
From:	Lat/Long	**Easting:**	2,768,535.614 usft	**Longitude:**	-107.679305000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Betonnie Tsosie Wash Unit 732H, Surf loc: 1645 FNL 442 FEL Section 28-T23N-R08W

Well Position	**+N/-S**	6.22 ft	**Northing:**	1,892,386.182 usft	**Latitude:**	36.200694000
	+E/-W	18.87 ft	**Easting:**	2,768,554.487 usft	**Longitude:**	-107.679241000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,864.00 ft
Grid Convergence:		0.09 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/16/2024	8.49	62.68	49,035.98157423

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	6.22	18.87	315.312

Plan Survey Tool Program **Date** 1/16/2024

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,830.41	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	

Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	6.22	18.87	0.00	0.00	0.00	0.00	
900.00	0.00	0.000	900.00	6.22	18.87	0.00	0.00	0.00	0.00	
1,773.05	26.19	196.280	1,742.96	-182.02	-36.10	3.00	3.00	0.00	196.28	
4,498.20	26.19	196.280	4,188.30	-1,336.59	-373.29	0.00	0.00	0.00	0.00	
5,245.62	60.00	315.312	4,799.77	-1,252.56	-693.95	10.00	4.52	15.93	128.29	
5,305.62	60.00	315.312	4,829.77	-1,215.62	-730.49	0.00	0.00	0.00	0.00	
5,600.96	89.53	315.312	4,906.51	-1,015.26	-928.68	10.00	10.00	0.00	0.00	
10,830.41	89.53	315.312	4,949.00	2,702.47	-4,606.15	0.00	0.00	0.00	0.00	Betonnie Tsosie 732H

Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	6.22	18.87	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	6.22	18.87	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	6.22	18.87	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	6.22	18.87	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	6.22	18.87	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	6.22	18.87	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	6.22	18.87	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	6.22	18.87	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	6.22	18.87	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	6.22	18.87	0.00	0.00	0.00	0.00
1,000.00	3.00	196.280	999.95	3.71	18.14	-1.27	3.00	3.00	0.00
1,100.00	6.00	196.280	1,099.63	-3.82	15.94	-5.08	3.00	3.00	0.00
1,200.00	9.00	196.280	1,198.77	-16.35	12.28	-11.41	3.00	3.00	0.00
1,300.00	12.00	196.280	1,297.08	-33.84	7.17	-20.25	3.00	3.00	0.00
1,400.00	15.00	196.280	1,394.31	-56.25	0.63	-31.58	3.00	3.00	0.00
1,500.00	18.00	196.280	1,490.18	-83.51	-7.33	-45.36	3.00	3.00	0.00
1,600.00	21.00	196.280	1,584.43	-115.55	-16.69	-61.56	3.00	3.00	0.00
1,700.00	24.00	196.280	1,676.81	-152.28	-27.42	-80.13	3.00	3.00	0.00
1,773.05	26.19	196.280	1,742.96	-182.02	-36.10	-95.17	3.00	3.00	0.00
1,800.00	26.19	196.280	1,767.14	-193.43	-39.43	-100.94	0.00	0.00	0.00
1,900.00	26.19	196.280	1,856.88	-235.80	-51.81	-122.36	0.00	0.00	0.00
2,000.00	26.19	196.280	1,946.61	-278.17	-64.18	-143.78	0.00	0.00	0.00
2,100.00	26.19	196.280	2,036.34	-320.54	-76.55	-165.20	0.00	0.00	0.00
2,200.00	26.19	196.280	2,126.07	-362.90	-88.93	-186.62	0.00	0.00	0.00
2,300.00	26.19	196.280	2,215.80	-405.27	-101.30	-208.04	0.00	0.00	0.00
2,400.00	26.19	196.280	2,305.54	-447.64	-113.67	-229.46	0.00	0.00	0.00
2,500.00	26.19	196.280	2,395.27	-490.01	-126.05	-250.88	0.00	0.00	0.00
2,600.00	26.19	196.280	2,485.00	-532.37	-138.42	-272.29	0.00	0.00	0.00
2,700.00	26.19	196.280	2,574.73	-574.74	-150.79	-293.71	0.00	0.00	0.00
2,800.00	26.19	196.280	2,664.47	-617.11	-163.17	-315.13	0.00	0.00	0.00
2,900.00	26.19	196.280	2,754.20	-659.48	-175.54	-336.55	0.00	0.00	0.00
3,000.00	26.19	196.280	2,843.93	-701.84	-187.91	-357.97	0.00	0.00	0.00
3,100.00	26.19	196.280	2,933.66	-744.21	-200.29	-379.39	0.00	0.00	0.00
3,200.00	26.19	196.280	3,023.40	-786.58	-212.66	-400.81	0.00	0.00	0.00
3,300.00	26.19	196.280	3,113.13	-828.95	-225.03	-422.23	0.00	0.00	0.00
3,400.00	26.19	196.280	3,202.86	-871.31	-237.41	-443.65	0.00	0.00	0.00
3,500.00	26.19	196.280	3,292.59	-913.68	-249.78	-465.07	0.00	0.00	0.00
3,600.00	26.19	196.280	3,382.33	-956.05	-262.15	-486.49	0.00	0.00	0.00
3,700.00	26.19	196.280	3,472.06	-998.42	-274.53	-507.91	0.00	0.00	0.00
3,800.00	26.19	196.280	3,561.79	-1,040.78	-286.90	-529.33	0.00	0.00	0.00
3,900.00	26.19	196.280	3,651.52	-1,083.15	-299.27	-550.75	0.00	0.00	0.00
4,000.00	26.19	196.280	3,741.25	-1,125.52	-311.65	-572.17	0.00	0.00	0.00
4,100.00	26.19	196.280	3,830.99	-1,167.89	-324.02	-593.59	0.00	0.00	0.00
4,200.00	26.19	196.280	3,920.72	-1,210.25	-336.39	-615.01	0.00	0.00	0.00
4,300.00	26.19	196.280	4,010.45	-1,252.62	-348.76	-636.43	0.00	0.00	0.00
4,400.00	26.19	196.280	4,100.18	-1,294.99	-361.14	-657.85	0.00	0.00	0.00
4,498.20	26.19	196.280	4,188.30	-1,336.59	-373.29	-678.88	0.00	0.00	0.00
4,500.00	26.08	196.602	4,189.92	-1,337.35	-373.51	-679.27	10.00	-6.18	17.85
4,550.00	23.31	206.595	4,235.36	-1,356.75	-381.09	-687.73	10.00	-5.53	19.99
4,600.00	21.32	218.705	4,281.64	-1,372.70	-391.21	-691.95	10.00	-3.98	24.22
4,650.00	20.34	232.523	4,328.40	-1,385.09	-403.80	-691.90	10.00	-1.96	27.64
4,700.00	20.51	246.873	4,375.28	-1,393.82	-418.76	-687.59	10.00	0.34	28.70
4,750.00	21.81	260.282	4,421.94	-1,398.83	-435.98	-679.04	10.00	2.59	26.82

Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.00	24.05	271.784	4,468.00	-1,400.09	-455.34	-666.32	10.00	4.48	23.00
4,850.00	27.00	281.175	4,513.14	-1,397.57	-476.67	-649.53	10.00	5.90	18.78
4,900.00	30.45	288.715	4,556.99	-1,391.30	-499.82	-628.79	10.00	6.91	15.08
4,950.00	34.26	294.789	4,599.23	-1,381.33	-524.61	-604.27	10.00	7.61	12.15
5,000.00	38.31	299.753	4,639.54	-1,367.73	-550.86	-576.14	10.00	8.10	9.93
5,050.00	42.53	303.884	4,677.60	-1,350.60	-578.36	-544.62	10.00	8.45	8.26
5,100.00	46.88	307.392	4,713.13	-1,330.08	-606.91	-509.96	10.00	8.70	7.02
5,150.00	51.33	310.429	4,745.86	-1,306.33	-636.28	-472.42	10.00	8.89	6.07
5,200.00	55.84	313.108	4,775.54	-1,279.52	-666.26	-432.27	10.00	9.02	5.36
5,245.62	60.00	315.312	4,799.77	-1,252.56	-693.95	-393.64	10.00	9.13	4.83
5,305.62	60.00	315.312	4,829.77	-1,215.62	-730.49	-341.68	0.00	0.00	0.00
5,350.00	64.44	315.312	4,850.45	-1,187.71	-758.09	-302.42	10.00	10.00	0.00
5,400.00	69.44	315.312	4,870.03	-1,155.02	-790.44	-256.43	10.00	10.00	0.00
5,450.00	74.44	315.312	4,885.53	-1,121.23	-823.85	-208.91	10.00	10.00	0.00
5,500.00	79.44	315.312	4,896.82	-1,086.62	-858.10	-160.22	10.00	10.00	0.00
5,550.00	84.44	315.312	4,903.83	-1,051.43	-892.90	-110.73	10.00	10.00	0.00
5,600.96	89.53	315.312	4,906.51	-1,015.26	-928.68	-59.86	10.00	10.00	0.00
5,700.00	89.53	315.312	4,907.32	-944.85	-998.32	39.18	0.00	0.00	0.00
5,800.00	89.53	315.312	4,908.13	-873.76	-1,068.65	139.17	0.00	0.00	0.00
5,900.00	89.53	315.312	4,908.94	-802.67	-1,138.97	239.17	0.00	0.00	0.00
6,000.00	89.53	315.312	4,909.75	-731.58	-1,209.29	339.17	0.00	0.00	0.00
6,100.00	89.53	315.312	4,910.57	-660.48	-1,279.61	439.16	0.00	0.00	0.00
6,200.00	89.53	315.312	4,911.38	-589.39	-1,349.94	539.16	0.00	0.00	0.00
6,300.00	89.53	315.312	4,912.19	-518.30	-1,420.26	639.16	0.00	0.00	0.00
6,400.00	89.53	315.312	4,913.00	-447.21	-1,490.58	739.15	0.00	0.00	0.00
6,500.00	89.53	315.312	4,913.82	-376.12	-1,560.90	839.15	0.00	0.00	0.00
6,600.00	89.53	315.312	4,914.63	-305.02	-1,631.22	939.15	0.00	0.00	0.00
6,700.00	89.53	315.312	4,915.44	-233.93	-1,701.55	1,039.14	0.00	0.00	0.00
6,800.00	89.53	315.312	4,916.25	-162.84	-1,771.87	1,139.14	0.00	0.00	0.00
6,900.00	89.53	315.312	4,917.07	-91.75	-1,842.19	1,239.14	0.00	0.00	0.00
7,000.00	89.53	315.312	4,917.88	-20.65	-1,912.51	1,339.13	0.00	0.00	0.00
7,100.00	89.53	315.312	4,918.69	50.44	-1,982.84	1,439.13	0.00	0.00	0.00
7,200.00	89.53	315.312	4,919.50	121.53	-2,053.16	1,539.13	0.00	0.00	0.00
7,300.00	89.53	315.312	4,920.32	192.62	-2,123.48	1,639.12	0.00	0.00	0.00
7,400.00	89.53	315.312	4,921.13	263.71	-2,193.80	1,739.12	0.00	0.00	0.00
7,500.00	89.53	315.312	4,921.94	334.81	-2,264.13	1,839.12	0.00	0.00	0.00
7,600.00	89.53	315.312	4,922.75	405.90	-2,334.45	1,939.11	0.00	0.00	0.00
7,700.00	89.53	315.312	4,923.57	476.99	-2,404.77	2,039.11	0.00	0.00	0.00
7,800.00	89.53	315.312	4,924.38	548.08	-2,475.09	2,139.11	0.00	0.00	0.00
7,900.00	89.53	315.312	4,925.19	619.18	-2,545.42	2,239.11	0.00	0.00	0.00
8,000.00	89.53	315.312	4,926.00	690.27	-2,615.74	2,339.10	0.00	0.00	0.00
8,100.00	89.53	315.312	4,926.82	761.36	-2,686.06	2,439.10	0.00	0.00	0.00
8,200.00	89.53	315.312	4,927.63	832.45	-2,756.38	2,539.10	0.00	0.00	0.00
8,300.00	89.53	315.312	4,928.44	903.55	-2,826.70	2,639.09	0.00	0.00	0.00
8,400.00	89.53	315.312	4,929.25	974.64	-2,897.03	2,739.09	0.00	0.00	0.00
8,500.00	89.53	315.312	4,930.07	1,045.73	-2,967.35	2,839.09	0.00	0.00	0.00
8,600.00	89.53	315.312	4,930.88	1,116.82	-3,037.67	2,939.08	0.00	0.00	0.00
8,700.00	89.53	315.312	4,931.69	1,187.91	-3,107.99	3,039.08	0.00	0.00	0.00
8,800.00	89.53	315.312	4,932.50	1,259.01	-3,178.32	3,139.08	0.00	0.00	0.00
8,900.00	89.53	315.312	4,933.32	1,330.10	-3,248.64	3,239.07	0.00	0.00	0.00
9,000.00	89.53	315.312	4,934.13	1,401.19	-3,318.96	3,339.07	0.00	0.00	0.00
9,100.00	89.53	315.312	4,934.94	1,472.28	-3,389.28	3,439.07	0.00	0.00	0.00
9,200.00	89.53	315.312	4,935.75	1,543.38	-3,459.61	3,539.06	0.00	0.00	0.00

Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,300.00	89.53	315.312	4,936.57	1,614.47	-3,529.93	3,639.06	0.00	0.00	0.00
9,400.00	89.53	315.312	4,937.38	1,685.56	-3,600.25	3,739.06	0.00	0.00	0.00
9,500.00	89.53	315.312	4,938.19	1,756.65	-3,670.57	3,839.05	0.00	0.00	0.00
9,600.00	89.53	315.312	4,939.00	1,827.74	-3,740.90	3,939.05	0.00	0.00	0.00
9,700.00	89.53	315.312	4,939.82	1,898.84	-3,811.22	4,039.05	0.00	0.00	0.00
9,800.00	89.53	315.312	4,940.63	1,969.93	-3,881.54	4,139.04	0.00	0.00	0.00
9,900.00	89.53	315.312	4,941.44	2,041.02	-3,951.86	4,239.04	0.00	0.00	0.00
10,000.00	89.53	315.312	4,942.25	2,112.11	-4,022.18	4,339.04	0.00	0.00	0.00
10,100.00	89.53	315.312	4,943.07	2,183.21	-4,092.51	4,439.03	0.00	0.00	0.00
10,200.00	89.53	315.312	4,943.88	2,254.30	-4,162.83	4,539.03	0.00	0.00	0.00
10,300.00	89.53	315.312	4,944.69	2,325.39	-4,233.15	4,639.03	0.00	0.00	0.00
10,400.00	89.53	315.312	4,945.50	2,396.48	-4,303.47	4,739.02	0.00	0.00	0.00
10,500.00	89.53	315.312	4,946.32	2,467.57	-4,373.80	4,839.02	0.00	0.00	0.00
10,600.00	89.53	315.312	4,947.13	2,538.67	-4,444.12	4,939.02	0.00	0.00	0.00
10,700.00	89.53	315.312	4,947.94	2,609.76	-4,514.44	5,039.01	0.00	0.00	0.00
10,800.00	89.53	315.312	4,948.75	2,680.85	-4,584.76	5,139.01	0.00	0.00	0.00
10,830.41	89.53	315.312	4,949.00	2,702.47	-4,606.15	5,169.42	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Betonnie Tsosie 732H F - plan hits target center - Point	0.00	0.000	4,906.51	-1,015.26	-928.68	1,891,364.706	2,767,606.941	36.197892000	-107.682458000
Betonnie Tsosie 732H V - plan misses target center by 0.01ft at 5660.82ft MD (4907.00 TVD, -972.71 N, -970.77 E) - Point	0.00	0.000	4,907.00	-972.70	-970.77	1,891,407.264	2,767,564.849	36.198009091	-107.682600438
Betonnie Tsosie 732H B - plan hits target center - Point	0.00	0.000	4,949.00	2,702.47	-4,606.15	1,895,082.430	2,763,929.474	36.208120000	-107.694904000

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8" Csg	13-3/8	17-1/2
3,083.66	2,919.00	9 5/8" Csg	9-5/8	12-1/4

Planning Report

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
664.00	664.00	Ojo Alamo		0.47	315.313
749.00	749.00	Kirtland		0.47	315.313
944.00	944.00	Fruitland		0.47	315.313
1,312.01	1,308.82	Pictured Cliffs		0.47	315.313
1,425.31	1,418.71	Lewis		0.47	315.313
1,679.87	1,658.37	Chacra_A		0.47	315.313
2,896.71	2,751.24	Cliff House_Basal		0.47	315.313
2,913.39	2,766.22	Menefee		0.47	315.313
3,947.78	3,694.40	Point Lookout		0.47	315.313
4,117.96	3,847.10	Mancos		0.47	315.313
4,470.54	4,163.48	MNCS_A		0.47	315.313
4,588.92	4,271.33	MNCS_B		0.47	315.313
4,676.59	4,353.34	MNCS_C		0.47	315.313
4,727.93	4,401.39	MNCS_Cms		0.47	315.313
4,856.24	4,518.69	MNCS_D		0.47	315.313
5,019.12	4,654.37	MNCS_E		0.47	315.313
5,087.85	4,704.75	MNCS_F		0.47	315.313
5,212.65	4,782.54	MNCS_G		0.47	315.313
5,314.73	4,834.26	MNCS_H		0.47	315.313
5,449.07	4,885.28	MNCS_I		0.47	315.313

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
900.00	900.00	6.22	18.87	KOP Begin 3°/100' build
1,773.05	1,742.96	-182.02	-36.10	Begin 26.19° tangent
4,498.20	4,188.30	-1,336.59	-373.29	Begin 10°/100' build/turn
5,245.62	4,799.77	-1,252.56	-693.95	Begin 60.00° tangent
5,305.62	4,829.77	-1,215.62	-730.49	Begin 10°/100' build
5,600.96	4,906.51	-1,015.26	-928.68	Begin 89.53° lateral
10,830.41	4,949.00	2,702.47	-4,606.15	PBHL @ 10830.41 MD 4949.00 TVD

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project San Juan County, New Mexico NAD83 NM W

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site Betonnie Tsosie Wash Unit (401, 402 & 732)

Site Position:		**Northing:**	1,892,379.964 usft	**Latitude:**	36.200677000
From:	Lat/Long	**Easting:**	2,768,535.614 usft	**Longitude:**	-107.679305000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Betonnie Tsosie Wash Unit 732H, Surf loc: 1645 FNL 442 FEL Section 28-T23N-R08W

Well Position	**+N/-S**	6.22 ft	**Northing:**	1,892,386.182 usft	**Latitude:**	36.200694000
	+E/-W	18.87 ft	**Easting:**	2,768,554.487 usft	**Longitude:**	-107.679241000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,864.00 ft
Grid Convergence:		0.09 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/16/2024	8.49	62.68	49,035.98157423

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	6.22	18.87	315.312

Plan Survey Tool Program **Date** 1/16/2024

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,830.41	rev0 (Original Hole)	MWD OWSG MWD - Standard	

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	6.22	18.87	0.00	0.00	0.00	0.00	
900.00	0.00	0.000	900.00	6.22	18.87	0.00	0.00	0.00	0.00	
1,773.05	26.19	196.280	1,742.96	-182.02	-36.10	3.00	3.00	0.00	196.28	
4,498.20	26.19	196.280	4,188.30	-1,336.59	-373.29	0.00	0.00	0.00	0.00	
5,245.62	60.00	315.312	4,799.77	-1,252.56	-693.95	10.00	4.52	15.93	128.29	
5,305.62	60.00	315.312	4,829.77	-1,215.62	-730.49	0.00	0.00	0.00	0.00	
5,600.96	89.53	315.312	4,906.51	-1,015.26	-928.68	10.00	10.00	0.00	0.00	
10,830.41	89.53	315.312	4,949.00	2,702.47	-4,606.15	0.00	0.00	0.00	0.00	Betonnie Tsosie 732H

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
100.00	0.00	0.000	100.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
200.00	0.00	0.000	200.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
300.00	0.00	0.000	300.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
400.00	0.00	0.000	400.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
500.00	0.00	0.000	500.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
600.00	0.00	0.000	600.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
700.00	0.00	0.000	700.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
800.00	0.00	0.000	800.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
900.00	0.00	0.000	900.00	6.22	18.87	1,892,386.182	2,768,554.487	36.200694000	-107.679241000
1,000.00	3.00	196.280	999.95	3.71	18.14	1,892,383.669	2,768,553.753	36.200687101	-107.679243501
1,100.00	6.00	196.280	1,099.63	-3.82	15.94	1,892,376.139	2,768,551.554	36.200666424	-107.679250995
1,200.00	9.00	196.280	1,198.77	-16.35	12.28	1,892,363.611	2,768,547.895	36.200632025	-107.679263464
1,300.00	12.00	196.280	1,297.08	-33.84	7.17	1,892,346.120	2,768,542.787	36.200583998	-107.679280871
1,400.00	15.00	196.280	1,394.31	-56.25	0.63	1,892,323.715	2,768,536.243	36.200522476	-107.679303170
1,500.00	18.00	196.280	1,490.18	-83.51	-7.33	1,892,296.455	2,768,528.282	36.200447626	-107.679330300
1,600.00	21.00	196.280	1,584.43	-115.55	-16.69	1,892,264.417	2,768,518.926	36.200359654	-107.679362186
1,700.00	24.00	196.280	1,676.81	-152.28	-27.42	1,892,227.687	2,768,508.199	36.200258801	-107.679398740
1,773.05	26.19	196.280	1,742.96	-182.02	-36.10	1,892,197.948	2,768,499.514	36.200177144	-107.679428337
1,800.00	26.19	196.280	1,767.14	-193.43	-39.43	1,892,186.530	2,768,496.179	36.200145793	-107.679439700
1,900.00	26.19	196.280	1,856.88	-235.80	-51.81	1,892,144.163	2,768,483.806	36.200029459	-107.679481866
2,000.00	26.19	196.280	1,946.61	-278.17	-64.18	1,892,101.795	2,768,471.433	36.199913126	-107.679524031
2,100.00	26.19	196.280	2,036.34	-320.54	-76.55	1,892,059.428	2,768,459.060	36.199796792	-107.679566195
2,200.00	26.19	196.280	2,126.07	-362.90	-88.93	1,892,017.061	2,768,446.687	36.199680459	-107.679608360
2,300.00	26.19	196.280	2,215.80	-405.27	-101.30	1,891,974.693	2,768,434.313	36.199564126	-107.679650525
2,400.00	26.19	196.280	2,305.54	-447.64	-113.67	1,891,932.326	2,768,421.940	36.199447792	-107.679692689
2,500.00	26.19	196.280	2,395.27	-490.01	-126.05	1,891,889.958	2,768,409.567	36.199331459	-107.679734854
2,600.00	26.19	196.280	2,485.00	-532.37	-138.42	1,891,847.591	2,768,397.194	36.199215125	-107.679777018
2,700.00	26.19	196.280	2,574.73	-574.74	-150.79	1,891,805.224	2,768,384.821	36.199098792	-107.679819182
2,800.00	26.19	196.280	2,664.47	-617.11	-163.17	1,891,762.856	2,768,372.448	36.198982458	-107.679861346
2,900.00	26.19	196.280	2,754.20	-659.48	-175.54	1,891,720.489	2,768,360.074	36.198866125	-107.679903510
3,000.00	26.19	196.280	2,843.93	-701.84	-187.91	1,891,678.121	2,768,347.701	36.198749791	-107.679945674
3,100.00	26.19	196.280	2,933.66	-744.21	-200.29	1,891,635.754	2,768,335.328	36.198633458	-107.679987837
3,200.00	26.19	196.280	3,023.40	-786.58	-212.66	1,891,593.386	2,768,322.955	36.198517124	-107.680030001
3,300.00	26.19	196.280	3,113.13	-828.95	-225.03	1,891,551.019	2,768,310.582	36.198400791	-107.680072164
3,400.00	26.19	196.280	3,202.86	-871.31	-237.41	1,891,508.652	2,768,298.209	36.198284457	-107.680114327
3,500.00	26.19	196.280	3,292.59	-913.68	-249.78	1,891,466.284	2,768,285.835	36.198168123	-107.680156490
3,600.00	26.19	196.280	3,382.33	-956.05	-262.15	1,891,423.917	2,768,273.462	36.198051790	-107.680198653
3,700.00	26.19	196.280	3,472.06	-998.42	-274.53	1,891,381.549	2,768,261.089	36.197935456	-107.680240816
3,800.00	26.19	196.280	3,561.79	-1,040.78	-286.90	1,891,339.182	2,768,248.716	36.197819123	-107.680282979
3,900.00	26.19	196.280	3,651.52	-1,083.15	-299.27	1,891,296.815	2,768,236.343	36.197702789	-107.680325142
4,000.00	26.19	196.280	3,741.25	-1,125.52	-311.65	1,891,254.447	2,768,223.970	36.197586455	-107.680367304
4,100.00	26.19	196.280	3,830.99	-1,167.89	-324.02	1,891,212.080	2,768,211.596	36.197470121	-107.680409467
4,200.00	26.19	196.280	3,920.72	-1,210.25	-336.39	1,891,169.712	2,768,199.223	36.197353788	-107.680451629
4,300.00	26.19	196.280	4,010.45	-1,252.62	-348.76	1,891,127.345	2,768,186.850	36.197237454	-107.680493791
4,400.00	26.19	196.280	4,100.18	-1,294.99	-361.14	1,891,084.978	2,768,174.477	36.197121120	-107.680535953
4,498.20	26.19	196.280	4,188.30	-1,336.59	-373.29	1,891,043.374	2,768,162.327	36.197006883	-107.680577355
4,500.00	26.08	196.602	4,189.92	-1,337.35	-373.51	1,891,042.612	2,768,162.102	36.197004792	-107.680578120
4,550.00	23.31	206.595	4,235.36	-1,356.75	-381.09	1,891,023.220	2,768,154.527	36.196951553	-107.680603896
4,600.00	21.32	218.705	4,281.64	-1,372.70	-391.21	1,891,007.268	2,768,144.407	36.196907776	-107.680638282
4,650.00	20.34	232.523	4,328.40	-1,385.09	-403.80	1,890,994.878	2,768,131.817	36.196873793	-107.680681019
4,700.00	20.51	246.873	4,375.28	-1,393.82	-418.76	1,890,986.144	2,768,116.854	36.196849864	-107.680731779
4,750.00	21.81	260.282	4,421.94	-1,398.83	-435.98	1,890,981.132	2,768,099.631	36.196836170	-107.680790178
4,800.00	24.05	271.784	4,468.00	-1,400.09	-455.34	1,890,979.880	2,768,080.280	36.196832816	-107.680855770

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,850.00	27.00	281.175	4,513.14	-1,397.57	-476.67	1,890,982.399	2,768,058.948	36.196839827	-107.680928057
4,900.00	30.45	288.715	4,556.99	-1,391.30	-499.82	1,890,988.669	2,768,035.796	36.196857149	-107.681006488
4,950.00	34.26	294.789	4,599.23	-1,381.33	-524.61	1,890,998.641	2,768,011.003	36.196884652	-107.681090466
5,000.00	38.31	299.753	4,639.54	-1,367.73	-550.86	1,891,012.241	2,767,984.755	36.196922125	-107.681179353
5,050.00	42.53	303.884	4,677.60	-1,350.60	-578.36	1,891,029.365	2,767,957.254	36.196969284	-107.681272472
5,100.00	46.88	307.392	4,713.13	-1,330.08	-606.91	1,891,049.882	2,767,928.707	36.197025769	-107.681369114
5,150.00	51.33	310.429	4,745.86	-1,306.33	-636.28	1,891,073.636	2,767,899.333	36.197091151	-107.681468544
5,200.00	55.84	313.108	4,775.54	-1,279.52	-666.26	1,891,100.447	2,767,869.355	36.197164931	-107.681570005
5,245.62	60.00	315.312	4,799.77	-1,252.56	-693.95	1,891,127.403	2,767,841.670	36.197239101	-107.681663694
5,305.62	60.00	315.312	4,829.77	-1,215.62	-730.49	1,891,164.344	2,767,805.128	36.197340740	-107.681787348
5,350.00	64.44	315.312	4,850.45	-1,187.71	-758.09	1,891,192.253	2,767,777.522	36.197417526	-107.681880765
5,400.00	69.44	315.312	4,870.03	-1,155.02	-790.44	1,891,224.949	2,767,745.180	36.197507483	-107.681990207
5,450.00	74.44	315.312	4,885.53	-1,121.23	-823.85	1,891,258.734	2,767,711.761	36.197600436	-107.682103295
5,500.00	79.44	315.312	4,896.82	-1,086.62	-858.10	1,891,293.350	2,767,677.519	36.197695678	-107.682219166
5,550.00	84.44	315.312	4,903.83	-1,051.43	-892.90	1,891,328.535	2,767,642.716	36.197792483	-107.682336940
5,600.96	89.53	315.312	4,906.51	-1,015.26	-928.68	1,891,364.705	2,767,606.937	36.197892000	-107.682458014
5,700.00	89.53	315.312	4,907.32	-944.85	-998.32	1,891,435.112	2,767,537.293	36.198085711	-107.682693687
5,800.00	89.53	315.312	4,908.13	-873.76	-1,068.65	1,891,506.204	2,767,466.970	36.198281307	-107.682931656
5,900.00	89.53	315.312	4,908.94	-802.67	-1,138.97	1,891,577.296	2,767,396.648	36.198476903	-107.683169626
6,000.00	89.53	315.312	4,909.75	-731.58	-1,209.29	1,891,648.389	2,767,326.326	36.198672499	-107.683407597
6,100.00	89.53	315.312	4,910.57	-660.48	-1,279.61	1,891,719.481	2,767,256.004	36.198868094	-107.683645569
6,200.00	89.53	315.312	4,911.38	-589.39	-1,349.94	1,891,790.573	2,767,185.682	36.199063688	-107.683883543
6,300.00	89.53	315.312	4,912.19	-518.30	-1,420.26	1,891,861.665	2,767,115.359	36.199259282	-107.684121517
6,400.00	89.53	315.312	4,913.00	-447.21	-1,490.58	1,891,932.757	2,767,045.037	36.199454876	-107.684359493
6,500.00	89.53	315.312	4,913.82	-376.12	-1,560.90	1,892,003.849	2,766,974.715	36.199650469	-107.684597471
6,600.00	89.53	315.312	4,914.63	-305.02	-1,631.22	1,892,074.941	2,766,904.393	36.199846062	-107.684835449
6,700.00	89.53	315.312	4,915.44	-233.93	-1,701.55	1,892,146.033	2,766,834.071	36.200041654	-107.685073429
6,800.00	89.53	315.312	4,916.25	-162.84	-1,771.87	1,892,217.125	2,766,763.748	36.200237246	-107.685311409
6,900.00	89.53	315.312	4,917.07	-91.75	-1,842.19	1,892,288.217	2,766,693.426	36.200432837	-107.685549391
7,000.00	89.53	315.312	4,917.88	-20.65	-1,912.51	1,892,359.310	2,766,623.104	36.200628428	-107.685787374
7,100.00	89.53	315.312	4,918.69	50.44	-1,982.84	1,892,430.402	2,766,552.782	36.200824018	-107.686025359
7,200.00	89.53	315.312	4,919.50	121.53	-2,053.16	1,892,501.494	2,766,482.460	36.201019608	-107.686263344
7,300.00	89.53	315.312	4,920.32	192.62	-2,123.48	1,892,572.586	2,766,412.137	36.201215197	-107.686501331
7,400.00	89.53	315.312	4,921.13	263.71	-2,193.80	1,892,643.678	2,766,341.815	36.201410786	-107.686739319
7,500.00	89.53	315.312	4,921.94	334.81	-2,264.13	1,892,714.770	2,766,271.493	36.201606374	-107.686977308
7,600.00	89.53	315.312	4,922.75	405.90	-2,334.45	1,892,785.862	2,766,201.171	36.201801962	-107.687215298
7,700.00	89.53	315.312	4,923.57	476.99	-2,404.77	1,892,856.954	2,766,130.849	36.201997549	-107.687453289
7,800.00	89.53	315.312	4,924.38	548.08	-2,475.09	1,892,928.046	2,766,060.526	36.202193136	-107.687691282
7,900.00	89.53	315.312	4,925.19	619.18	-2,545.42	1,892,999.138	2,765,990.204	36.202388723	-107.687929276
8,000.00	89.53	315.312	4,926.00	690.27	-2,615.74	1,893,070.231	2,765,919.882	36.202584309	-107.688167270
8,100.00	89.53	315.312	4,926.82	761.36	-2,686.06	1,893,141.323	2,765,849.560	36.202779894	-107.688405267
8,200.00	89.53	315.312	4,927.63	832.45	-2,756.38	1,893,212.415	2,765,779.238	36.202975479	-107.688643264
8,300.00	89.53	315.312	4,928.44	903.55	-2,826.70	1,893,283.507	2,765,708.915	36.203171064	-107.688881262
8,400.00	89.53	315.312	4,929.25	974.64	-2,897.03	1,893,354.599	2,765,638.593	36.203366648	-107.689119262
8,500.00	89.53	315.312	4,930.07	1,045.73	-2,967.35	1,893,425.691	2,765,568.271	36.203562231	-107.689357263
8,600.00	89.53	315.312	4,930.88	1,116.82	-3,037.67	1,893,496.783	2,765,497.949	36.203757814	-107.689595265
8,700.00	89.53	315.312	4,931.69	1,187.91	-3,107.99	1,893,567.875	2,765,427.627	36.203953397	-107.689833268
8,800.00	89.53	315.312	4,932.50	1,259.01	-3,178.32	1,893,638.967	2,765,357.304	36.204148979	-107.690071273
8,900.00	89.53	315.312	4,933.32	1,330.10	-3,248.64	1,893,710.060	2,765,286.982	36.204344561	-107.690309278
9,000.00	89.53	315.312	4,934.13	1,401.19	-3,318.96	1,893,781.152	2,765,216.660	36.204540142	-107.690547285
9,100.00	89.53	315.312	4,934.94	1,472.28	-3,389.28	1,893,852.244	2,765,146.338	36.204735723	-107.690785293
9,200.00	89.53	315.312	4,935.75	1,543.38	-3,459.61	1,893,923.336	2,765,076.016	36.204931303	-107.691023302
9,300.00	89.53	315.312	4,936.57	1,614.47	-3,529.93	1,893,994.428	2,765,005.693	36.205126883	-107.691261313
9,400.00	89.53	315.312	4,937.38	1,685.56	-3,600.25	1,894,065.520	2,764,935.371	36.205322462	-107.691499324

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,500.00	89.53	315.312	4,938.19	1,756.65	-3,670.57	1,894,136.612	2,764,865.049	36.205518041	-107.691737337
9,600.00	89.53	315.312	4,939.00	1,827.74	-3,740.90	1,894,207.704	2,764,794.727	36.205713619	-107.691975351
9,700.00	89.53	315.312	4,939.82	1,898.84	-3,811.22	1,894,278.796	2,764,724.405	36.205909197	-107.692213366
9,800.00	89.53	315.312	4,940.63	1,969.93	-3,881.54	1,894,349.888	2,764,654.082	36.206104775	-107.692451382
9,900.00	89.53	315.312	4,941.44	2,041.02	-3,951.86	1,894,420.981	2,764,583.760	36.206300351	-107.692689400
10,000.00	89.53	315.312	4,942.25	2,112.11	-4,022.18	1,894,492.073	2,764,513.438	36.206495928	-107.692927418
10,100.00	89.53	315.312	4,943.07	2,183.21	-4,092.51	1,894,563.165	2,764,443.116	36.206691504	-107.693165438
10,200.00	89.53	315.312	4,943.88	2,254.30	-4,162.83	1,894,634.257	2,764,372.794	36.206887079	-107.693403459
10,300.00	89.53	315.312	4,944.69	2,325.39	-4,233.15	1,894,705.349	2,764,302.471	36.207082654	-107.693641481
10,400.00	89.53	315.312	4,945.50	2,396.48	-4,303.47	1,894,776.441	2,764,232.149	36.207278229	-107.693879505
10,500.00	89.53	315.312	4,946.32	2,467.57	-4,373.80	1,894,847.533	2,764,161.827	36.207473803	-107.694117529
10,600.00	89.53	315.312	4,947.13	2,538.67	-4,444.12	1,894,918.625	2,764,091.505	36.207669376	-107.694355555
10,700.00	89.53	315.312	4,947.94	2,609.76	-4,514.44	1,894,989.717	2,764,021.183	36.207864949	-107.694593582
10,800.00	89.53	315.312	4,948.75	2,680.85	-4,584.76	1,895,060.809	2,763,950.860	36.208060522	-107.694831610
10,830.41	89.53	315.312	4,949.00	2,702.47	-4,606.15	1,895,082.430	2,763,929.474	36.208120000	-107.694904000

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Betonnie Tsosie 732H F - plan hits target center - Point	0.00	0.000	4,906.51	-1,015.26	-928.68	1,891,364.706	2,767,606.941	36.197892000	-107.682458000
Betonnie Tsosie 732H V - plan misses target center by 0.01ft at 5660.82ft MD (4907.00 TVD, -972.71 N, -970.77 E) - Point	0.00	0.000	4,907.00	-972.70	-970.77	1,891,407.264	2,767,564.849	36.198009091	-107.682600438
Betonnie Tsosie 732H B - plan hits target center - Point	0.00	0.000	4,949.00	2,702.47	-4,606.15	1,895,082.430	2,763,929.474	36.208120000	-107.694904000

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8" Csg	13-3/8	17-1/2
3,083.66	2,919.00	9 5/8" Csg	9-5/8	12-1/4

Planning Report - Geographic

Database:	DT_Aug2923v16	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**North Reference:**	Grid
Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
664.00	664.00	Ojo Alamo		0.47	315.313
749.00	749.00	Kirtland		0.47	315.313
944.00	944.00	Fruitland		0.47	315.313
1,312.01	1,308.82	Pictured Cliffs		0.47	315.313
1,425.31	1,418.71	Lewis		0.47	315.313
1,679.87	1,658.37	Chacra_A		0.47	315.313
2,896.71	2,751.24	Cliff House_Basal		0.47	315.313
2,913.39	2,766.22	Menefee		0.47	315.313
3,947.78	3,694.40	Point Lookout		0.47	315.313
4,117.96	3,847.10	Mancos		0.47	315.313
4,470.54	4,163.48	MNCS_A		0.47	315.313
4,588.92	4,271.33	MNCS_B		0.47	315.313
4,676.59	4,353.34	MNCS_C		0.47	315.313
4,727.93	4,401.39	MNCS_Cms		0.47	315.313
4,856.24	4,518.69	MNCS_D		0.47	315.313
5,019.12	4,654.37	MNCS_E		0.47	315.313
5,087.85	4,704.75	MNCS_F		0.47	315.313
5,212.65	4,782.54	MNCS_G		0.47	315.313
5,314.73	4,834.26	MNCS_H		0.47	315.313
5,449.07	4,885.28	MNCS_I		0.47	315.313

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
900.00	900.00	6.22	18.87	KOP Begin 3°/100' build
1,773.05	1,742.96	-182.02	-36.10	Begin 26.19° tangent
4,498.20	4,188.30	-1,336.59	-373.29	Begin 10°/100' build/turn
5,245.62	4,799.77	-1,252.56	-693.95	Begin 60.00° tangent
5,305.62	4,829.77	-1,215.62	-730.49	Begin 10°/100' build
5,600.96	4,906.51	-1,015.26	-928.68	Begin 89.53° lateral
10,830.41	4,949.00	2,702.47	-4,606.15	PBHL @ 10830.41 MD 4949.00 TVD

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Reference rev0

Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,283.04ft	**Error Surface:**	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 1/16/2024

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,830.41	rev0 (Original Hole)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Betonnie Tsosie Wash Unit (401, 402 & 732)						
Betonnie Tsosie Wash Unit 401H - Original Hole - rev0	1,110.75	1,110.72	14.87	7.41	1.993	Level 3<2.00, CC, ES, SF
Betonnie Tsosie Wash Unit 402H - Original Hole - rev0	1,256.63	1,254.26	35.17	26.74	4.169	CC
Betonnie Tsosie Wash Unit 402H - Original Hole - rev0	1,300.00	1,297.36	35.43	26.69	4.051	ES, SF
Rodeo Unit (500, 501, 503, 504, 506, 508, 509&510)						
Rodeo Unit #500H - Original Hole - Surveys Original Hole	10,830.41	11,527.00	718.26	451.06	2.688	CC, ES, SF

Offset Design: Betonnie Tsosie Wash Unit (401, 402 & 732) - Betonnie Tsosie Wash Unit 401H - Original Hole - rev0

Offset Site Error: 0.00 ft

Survey Program: 0-MWD **Rule Assigned:** **Offset Well Error:** 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-108.24	0.00	0.00	19.87				
100.00	100.00	100.00	100.00	0.13	0.13	-108.24	0.00	0.00	19.87	19.60	0.27	73.909	
200.00	200.00	200.00	200.00	0.49	0.49	-108.24	0.00	0.00	19.87	18.88	0.99	20.157	
300.00	300.00	300.00	300.00	0.85	0.85	-108.24	0.00	0.00	19.87	18.17	1.70	11.670	
400.00	400.00	400.00	400.00	1.21	1.21	-108.24	0.00	0.00	19.87	17.45	2.42	8.212	
500.00	500.00	500.00	500.00	1.57	1.57	-108.24	0.00	0.00	19.87	16.73	3.14	6.335	
600.00	600.00	600.00	600.00	1.93	1.93	-108.24	0.00	0.00	19.87	16.02	3.85	5.156	
700.00	700.00	700.00	700.00	2.29	2.29	-108.24	0.00	0.00	19.87	15.30	4.57	4.348	
800.00	800.00	800.00	800.00	2.64	2.64	-108.24	0.00	0.00	19.87	14.58	5.29	3.758	
900.00	900.00	900.00	900.00	3.00	3.00	-108.24	0.00	0.00	19.87	13.87	6.00	3.309	
1,000.00	999.95	999.95	999.95	3.34	3.36	62.21	0.00	0.00	18.51	11.81	6.70	2.762	
1,100.00	1,099.63	1,100.06	1,100.02	3.68	3.72	95.37	1.66	2.03	14.96	7.57	7.39	2.025	
1,110.75	1,110.32	1,110.72	1,110.65	3.71	3.76	101.73	2.04	2.48	14.87	7.41	7.46	1.993	Level 3<2.00, CC, ES, SF
1,200.00	1,198.77	1,197.96	1,197.61	4.02	4.07	152.43	6.50	7.92	23.29	15.21	8.08	2.883	
1,300.00	1,297.08	1,292.32	1,291.18	4.39	4.41	175.37	14.16	17.26	49.41	40.68	8.73	5.659	
1,400.00	1,394.31	1,382.00	1,379.45	4.79	4.75	-176.27	24.15	29.44	86.69	77.34	9.35	9.273	
1,500.00	1,490.18	1,466.10	1,461.49	5.23	5.09	-172.21	35.90	43.75	133.01	123.07	9.93	13.390	
1,600.00	1,584.43	1,543.99	1,536.66	5.73	5.42	-169.79	48.81	59.49	187.35	176.87	10.48	17.881	
1,700.00	1,676.81	1,615.29	1,604.70	6.28	5.75	-168.10	62.32	75.96	248.88	237.89	10.99	22.653	
1,800.00	1,767.14	1,679.92	1,665.65	6.91	6.07	-166.92	75.96	92.58	316.71	305.24	11.46	27.626	
1,900.00	1,856.88	1,740.07	1,721.69	7.57	6.38	-166.34	89.82	109.47	387.71	375.82	11.89	32.617	

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

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Offset Design: Betonnie Tsosie Wash Unit (401, 402 & 732) - Betonnie Tsosie Wash Unit 401H - Original Hole - rev0

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Rule Assigned:

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,000.00	1,946.61	1,807.71	1,784.22	8.26	6.76	-165.78	106.18	129.41	459.97	447.53	12.44	36.980	
2,100.00	2,036.34	1,876.75	1,848.04	8.98	7.17	-165.36	122.89	149.77	532.27	519.24	13.02	40.869	
2,200.00	2,126.07	1,945.80	1,911.86	9.70	7.58	-165.04	139.60	170.14	604.57	590.95	13.62	44.387	
2,300.00	2,215.80	2,014.84	1,975.68	10.45	8.01	-164.79	156.30	190.50	676.89	662.66	14.23	47.578	
2,400.00	2,305.54	2,083.88	2,039.50	11.20	8.45	-164.59	173.01	210.86	749.20	734.36	14.84	50.474	
2,500.00	2,395.27	2,152.93	2,103.32	11.96	8.89	-164.42	189.72	231.23	821.53	806.06	15.47	53.109	
2,600.00	2,485.00	2,221.97	2,167.14	12.72	9.34	-164.28	206.43	251.59	893.85	877.75	16.10	55.518	
2,700.00	2,574.73	2,291.01	2,230.97	13.49	9.80	-164.16	223.14	271.96	966.18	949.44	16.74	57.722	
2,800.00	2,664.47	2,360.06	2,294.79	14.27	10.26	-164.06	239.84	292.32	1,038.51	1,021.12	17.38	59.742	
2,900.00	2,754.20	2,429.10	2,358.61	15.05	10.72	-163.97	256.55	312.68	1,110.84	1,092.81	18.03	61.602	
3,000.00	2,843.93	2,498.14	2,422.43	15.83	11.19	-163.89	273.26	333.05	1,183.17	1,164.48	18.69	63.318	
3,100.00	2,933.66	2,567.19	2,486.25	16.62	11.66	-163.82	289.97	353.41	1,255.50	1,236.16	19.34	64.901	

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Offset Design: Betonnie Tsosie Wash Unit (401, 402 & 732) - Betonnie Tsosie Wash Unit 402H - Original Hole - rev0

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Rule Assigned: Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-108.73	-6.58	-18.87	39.86				
100.00	100.00	100.00	100.00	0.13	0.13	-108.73	-6.58	-18.87	39.86	39.59	0.27	148.244	
200.00	200.00	200.00	200.00	0.49	0.49	-108.73	-6.58	-18.87	39.86	38.87	0.99	40.430	
300.00	300.00	300.00	300.00	0.85	0.85	-108.73	-6.58	-18.87	39.86	38.15	1.70	23.407	
400.00	400.00	400.00	400.00	1.21	1.21	-108.73	-6.58	-18.87	39.86	37.44	2.42	16.472	
500.00	500.00	500.00	500.00	1.57	1.57	-108.73	-6.58	-18.87	39.86	36.72	3.14	12.707	
600.00	600.00	600.00	600.00	1.93	1.93	-108.73	-6.58	-18.87	39.86	36.00	3.85	10.343	
700.00	700.00	700.00	700.00	2.29	2.29	-108.73	-6.58	-18.87	39.86	35.29	4.57	8.720	
800.00	800.00	800.00	800.00	2.64	2.64	-108.73	-6.58	-18.87	39.86	34.57	5.29	7.538	
900.00	900.00	900.00	900.00	3.00	3.00	-108.73	-6.58	-18.87	39.86	33.85	6.00	6.638	
1,000.00	999.95	999.95	999.95	3.34	3.36	58.22	-6.58	-18.87	38.41	31.71	6.70	5.730	
1,100.00	1,099.63	1,098.66	1,098.62	3.68	3.70	65.64	-8.90	-19.94	36.25	28.88	7.37	4.920	
1,200.00	1,198.77	1,197.83	1,197.49	4.02	4.03	74.63	-15.71	-23.08	35.39	27.35	8.04	4.404	
1,256.63	1,254.56	1,254.26	1,253.70	4.23	4.22	82.37	-20.29	-25.19	35.17	26.74	8.44	4.169	CC
1,300.00	1,297.08	1,297.36	1,296.63	4.39	4.36	90.06	-23.78	-26.80	35.43	26.69	8.75	4.051	ES, SF
1,400.00	1,394.31	1,396.26	1,395.13	4.79	4.71	111.47	-31.81	-30.50	39.58	30.10	9.48	4.175	
1,500.00	1,490.18	1,494.26	1,492.74	5.23	5.05	131.45	-39.76	-34.16	51.38	41.19	10.20	5.040	
1,600.00	1,584.43	1,591.08	1,589.17	5.73	5.40	145.45	-47.62	-37.78	71.29	60.40	10.89	6.548	
1,700.00	1,676.81	1,686.47	1,684.18	6.28	5.74	154.35	-55.36	-41.35	98.20	86.62	11.58	8.483	
1,800.00	1,767.14	1,780.23	1,777.57	6.91	6.09	160.13	-62.96	-44.85	131.00	118.73	12.27	10.677	
1,900.00	1,856.88	1,873.51	1,870.47	7.57	6.43	163.92	-70.53	-48.34	165.86	152.91	12.96	12.800	
2,000.00	1,946.61	1,966.78	1,963.37	8.26	6.77	166.40	-78.10	-51.83	201.15	187.49	13.66	14.726	
2,100.00	2,036.34	2,060.05	2,056.27	8.98	7.12	168.14	-85.67	-55.32	236.67	222.30	14.37	16.468	
2,200.00	2,126.07	2,153.33	2,149.17	9.70	7.47	169.43	-93.24	-58.81	272.33	257.24	15.09	18.046	
2,300.00	2,215.80	2,246.60	2,242.07	10.45	7.82	170.41	-100.80	-62.29	308.08	292.26	15.82	19.477	
2,400.00	2,305.54	2,339.88	2,334.97	11.20	8.17	171.20	-108.37	-65.78	343.89	327.34	16.55	20.779	
2,500.00	2,395.27	2,433.15	2,427.87	11.96	8.52	171.83	-115.94	-69.27	379.75	362.47	17.29	21.967	
2,600.00	2,485.00	2,526.42	2,520.78	12.72	8.88	172.36	-123.51	-72.76	415.65	397.62	18.03	23.053	
2,700.00	2,574.73	2,619.70	2,613.68	13.49	9.23	172.80	-131.08	-76.24	451.57	432.79	18.78	24.050	
2,800.00	2,664.47	2,712.97	2,706.58	14.27	9.58	173.18	-138.64	-79.73	487.51	467.98	19.53	24.967	
2,900.00	2,754.20	2,806.25	2,799.48	15.05	9.94	173.50	-146.21	-83.22	523.46	503.18	20.28	25.813	
3,000.00	2,843.93	2,892.47	2,885.37	15.83	10.27	173.77	-153.06	-86.38	559.63	538.65	20.99	26.667	
3,100.00	2,933.66	2,963.65	2,956.43	16.62	10.53	174.02	-156.80	-88.10	598.46	576.89	21.57	27.747	
3,200.00	3,023.40	3,032.58	3,025.33	17.41	10.77	174.30	-158.12	-88.71	640.56	618.46	22.11	28.976	
3,300.00	3,113.13	3,120.37	3,113.13	18.20	11.06	174.66	-158.13	-88.71	684.53	661.72	22.80	30.023	
3,400.00	3,202.86	3,210.10	3,202.86	18.99	11.36	174.98	-158.13	-88.71	728.52	705.00	23.51	30.982	
3,500.00	3,292.59	3,299.83	3,292.59	19.79	11.66	175.27	-158.13	-88.71	772.53	748.30	24.23	31.882	
3,600.00	3,382.33	3,389.57	3,382.33	20.58	11.96	175.53	-158.13	-88.71	816.55	791.60	24.95	32.728	
3,700.00	3,472.06	3,479.30	3,472.06	21.38	12.26	175.75	-158.13	-88.71	860.58	834.91	25.67	33.524	
3,800.00	3,561.79	3,569.03	3,561.79	22.18	12.56	175.96	-158.13	-88.71	904.63	878.23	26.39	34.275	
3,900.00	3,651.52	3,658.76	3,651.52	22.98	12.86	176.15	-158.13	-88.71	948.68	921.56	27.12	34.983	
4,000.00	3,741.25	3,748.50	3,741.25	23.78	13.17	176.32	-158.13	-88.71	992.74	964.90	27.84	35.653	
4,100.00	3,830.99	3,838.23	3,830.99	24.58	13.47	176.48	-158.13	-88.71	1,036.81	1,008.24	28.57	36.286	
4,200.00	3,920.72	3,927.96	3,920.72	25.38	13.77	176.62	-158.13	-88.71	1,080.88	1,051.58	29.30	36.887	
4,300.00	4,010.45	4,017.69	4,010.45	26.19	14.08	176.75	-158.13	-88.71	1,124.96	1,094.93	30.03	37.457	
4,400.00	4,100.18	4,107.43	4,100.18	26.99	14.39	176.88	-158.13	-88.71	1,169.04	1,138.28	30.77	37.999	
4,500.00	4,189.92	4,197.16	4,189.92	27.80	14.70	176.63	-158.13	-88.71	1,213.13	1,181.63	31.50	38.514	
4,600.00	4,281.64	4,288.88	4,281.64	28.53	15.01	153.70	-158.13	-88.71	1,251.67	1,219.45	32.22	38.848	
4,700.00	4,375.28	4,350.00	4,342.76	29.10	15.22	125.85	-158.05	-88.79	1,279.48	1,246.86	32.62	39.221	
5,300.00	4,826.96	4,632.90	4,612.88	29.42	16.13	72.64	-105.54	-140.73	1,276.56	1,242.56	33.99	37.553	
5,400.00	4,870.03	4,682.05	4,654.59	29.20	16.27	75.41	-87.08	-158.99	1,259.21	1,224.57	34.65	36.341	

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

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Offset Design: Betonnie Tsosie Wash Unit (401, 402 & 732) - Betonnie Tsosie Wash Unit 402H - Original Hole - rev0

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Rule Assigned:

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,500.00	4,896.82	4,731.09	4,693.85	28.99	16.41	78.46	-66.20	-179.65	1,242.07	1,206.45	35.62	34.871	
5,600.00	4,906.50	4,779.99	4,730.35	28.82	16.58	81.57	-43.08	-202.52	1,226.31	1,189.42	36.88	33.247	
5,700.00	4,907.32	4,833.16	4,766.72	28.71	16.82	83.27	-15.53	-229.76	1,214.12	1,175.72	38.40	31.618	
5,800.00	4,908.13	4,900.00	4,807.11	28.70	17.19	85.16	22.30	-267.19	1,206.43	1,166.25	40.18	30.026	
5,900.00	4,908.94	4,973.93	4,845.18	28.86	17.70	86.94	67.35	-311.74	1,202.21	1,160.05	42.16	28.517	
6,000.00	4,909.75	5,058.18	4,884.57	29.31	18.40	88.79	120.26	-364.08	1,200.27	1,155.86	44.41	27.026	
6,080.85	4,910.41	5,132.49	4,910.35	29.94	19.14	90.00	169.77	-413.05	1,199.95	1,153.48	46.47	25.821	
6,100.00	4,910.57	5,151.05	4,915.36	30.13	19.34	90.23	182.47	-425.61	1,199.96	1,153.02	46.94	25.562	
6,200.00	4,911.38	5,252.18	4,932.37	31.32	20.55	91.00	253.25	-495.63	1,200.14	1,150.35	49.78	24.107	
6,300.00	4,912.19	5,353.73	4,934.78	32.75	21.92	91.08	325.40	-567.00	1,200.17	1,147.36	52.81	22.727	
6,400.00	4,913.00	5,453.73	4,935.70	34.34	23.41	91.08	396.50	-637.32	1,200.17	1,144.17	56.01	21.429	
6,500.00	4,913.82	5,553.73	4,936.63	36.04	25.02	91.09	467.59	-707.64	1,200.17	1,140.78	59.39	20.208	
6,600.00	4,914.63	5,653.73	4,937.56	37.81	26.72	91.09	538.68	-777.96	1,200.18	1,137.24	62.93	19.070	
6,700.00	4,915.44	5,753.73	4,938.49	39.64	28.51	91.10	609.77	-848.28	1,200.18	1,133.57	66.61	18.018	
6,800.00	4,916.25	5,853.73	4,939.42	41.52	30.37	91.11	680.87	-918.60	1,200.18	1,129.79	70.39	17.050	
6,900.00	4,917.07	5,953.73	4,940.35	43.45	32.28	91.11	751.96	-988.92	1,200.19	1,125.92	74.26	16.161	
7,000.00	4,917.88	6,053.73	4,941.27	45.40	34.24	91.12	823.05	-1,059.24	1,200.19	1,121.98	78.22	15.345	
7,100.00	4,918.69	6,153.72	4,942.20	47.39	36.23	91.12	894.14	-1,129.56	1,200.19	1,117.96	82.23	14.595	
7,200.00	4,919.50	6,253.72	4,943.13	49.40	38.26	91.13	965.24	-1,199.88	1,200.20	1,113.89	86.31	13.906	
7,300.00	4,920.32	6,353.72	4,944.06	51.43	40.32	91.13	1,036.33	-1,270.20	1,200.20	1,109.77	90.43	13.272	
7,400.00	4,921.13	6,453.72	4,944.99	53.48	42.40	91.14	1,107.42	-1,340.52	1,200.21	1,105.61	94.60	12.687	
7,500.00	4,921.94	6,553.72	4,945.92	55.56	44.50	91.14	1,178.51	-1,410.85	1,200.21	1,101.41	98.80	12.148	
7,600.00	4,922.75	6,653.72	4,946.85	57.64	46.62	91.15	1,249.61	-1,481.17	1,200.21	1,097.18	103.03	11.649	
7,700.00	4,923.57	6,753.72	4,947.77	59.74	48.75	91.16	1,320.70	-1,551.49	1,200.22	1,092.92	107.30	11.186	
7,800.00	4,924.38	6,853.72	4,948.70	61.86	50.90	91.16	1,391.79	-1,621.81	1,200.22	1,088.64	111.58	10.756	
7,900.00	4,925.19	6,953.72	4,949.63	63.98	53.06	91.17	1,462.88	-1,692.13	1,200.22	1,084.33	115.89	10.356	
8,000.00	4,926.00	7,053.72	4,950.56	66.12	55.23	91.17	1,533.97	-1,762.45	1,200.23	1,080.00	120.22	9.983	
8,100.00	4,926.82	7,153.72	4,951.49	68.26	57.41	91.18	1,605.07	-1,832.77	1,200.23	1,075.66	124.57	9.635	
8,200.00	4,927.63	7,253.72	4,952.42	70.42	59.60	91.18	1,676.16	-1,903.09	1,200.23	1,071.30	128.93	9.309	
8,300.00	4,928.44	7,353.72	4,953.34	72.58	61.79	91.19	1,747.25	-1,973.41	1,200.24	1,066.93	133.31	9.003	
8,400.00	4,929.25	7,453.72	4,954.27	74.74	63.99	91.19	1,818.34	-2,043.73	1,200.24	1,062.54	137.70	8.716	
8,500.00	4,930.07	7,553.72	4,955.20	76.92	66.20	91.20	1,889.44	-2,114.05	1,200.24	1,058.14	142.10	8.446	
8,600.00	4,930.88	7,653.72	4,956.13	79.10	68.41	91.21	1,960.53	-2,184.37	1,200.25	1,053.73	146.51	8.192	
8,700.00	4,931.69	7,753.72	4,957.06	81.29	70.63	91.21	2,031.62	-2,254.69	1,200.25	1,049.32	150.94	7.952	
8,800.00	4,932.50	7,853.72	4,957.99	83.48	72.85	91.22	2,102.71	-2,325.01	1,200.26	1,044.89	155.37	7.725	
8,900.00	4,933.32	7,953.72	4,958.92	85.68	75.08	91.22	2,173.81	-2,395.34	1,200.26	1,040.45	159.81	7.511	
9,000.00	4,934.13	8,053.72	4,959.84	87.88	77.31	91.23	2,244.90	-2,465.66	1,200.26	1,036.01	164.25	7.307	
9,100.00	4,934.94	8,153.72	4,960.77	90.08	79.54	91.23	2,315.99	-2,535.98	1,200.27	1,031.56	168.71	7.114	
9,200.00	4,935.75	8,253.72	4,961.70	92.29	81.78	91.24	2,387.08	-2,606.30	1,200.27	1,027.10	173.17	6.931	
9,300.00	4,936.57	8,353.72	4,962.63	94.51	84.02	91.24	2,458.18	-2,676.62	1,200.27	1,022.64	177.63	6.757	
9,400.00	4,937.38	8,453.72	4,963.56	96.72	86.26	91.25	2,529.27	-2,746.94	1,200.28	1,018.17	182.11	6.591	
9,500.00	4,938.19	8,553.72	4,964.49	98.94	88.50	91.26	2,600.36	-2,817.26	1,200.28	1,013.70	186.58	6.433	
9,600.00	4,939.00	8,653.72	4,965.41	101.16	90.75	91.26	2,671.45	-2,887.58	1,200.29	1,009.22	191.06	6.282	
9,700.00	4,939.82	8,753.72	4,966.34	103.39	92.99	91.27	2,742.54	-2,957.90	1,200.29	1,004.74	195.55	6.138	
9,800.00	4,940.63	8,853.72	4,967.27	105.62	95.24	91.27	2,813.64	-3,028.22	1,200.29	1,000.26	200.04	6.000	
9,900.00	4,941.44	8,953.72	4,968.20	107.85	97.50	91.28	2,884.73	-3,098.54	1,200.30	995.77	204.53	5.869	
10,000.00	4,942.25	9,053.72	4,969.13	110.08	99.75	91.28	2,955.82	-3,168.86	1,200.30	991.28	209.02	5.742	
10,100.00	4,943.07	9,153.72	4,970.06	112.31	102.01	91.29	3,026.91	-3,239.18	1,200.30	986.78	213.52	5.621	
10,200.00	4,943.88	9,253.72	4,970.99	114.55	104.26	91.29	3,098.01	-3,309.51	1,200.31	982.28	218.03	5.505	
10,300.00	4,944.69	9,353.72	4,971.91	116.79	106.52	91.30	3,169.10	-3,379.83	1,200.31	977.78	222.53	5.394	
10,400.00	4,945.50	9,453.72	4,972.84	119.03	108.78	91.31	3,240.19	-3,450.15	1,200.32	973.28	227.04	5.287	

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

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Offset Design: Betonnie Tsosie Wash Unit (401, 402 & 732) - Betonnie Tsosie Wash Unit 402H - Original Hole - rev0

Offset Site Error: 0.00 ft

Survey Program: 0-MWD

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,500.00	4,946.32	9,553.72	4,973.77	121.27	111.04	91.31	3,311.28	-3,520.47	1,200.32	968.77	231.55	5.184	
10,600.00	4,947.13	9,653.72	4,974.70	123.52	113.30	91.32	3,382.38	-3,590.79	1,200.32	964.26	236.07	5.085	
10,700.00	4,947.94	9,753.72	4,975.63	125.76	115.56	91.32	3,453.47	-3,661.11	1,200.33	959.75	240.58	4.989	
10,800.00	4,948.75	9,853.72	4,976.56	128.01	117.83	91.33	3,524.56	-3,731.43	1,200.33	955.23	245.10	4.897	
10,830.41	4,949.00	9,884.13	4,976.84	128.69	118.52	91.33	3,546.18	-3,752.82	1,200.33	953.86	246.47	4.870	

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Offset Design: Rodeo Unit (500, 501, 503, 504, 506, 508, 509&510) - Rodeo Unit #500H - Original Hole - Surveys Original Hole

Offset Site Error: 0.00 ft

Survey Program: 438-MWD

Rule Assigned:

Offset Well Error: 0.00 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,000.00	4,942.25	11,527.00	4,986.36	110.08	160.35	-90.65	2,335.29	-5,223.39	1,221.87	1,097.14	124.73	9.796	
10,100.00	4,943.07	11,527.00	4,986.36	112.31	160.35	-90.65	2,335.29	-5,223.39	1,141.17	1,006.07	135.10	8.447	
10,200.00	4,943.88	11,527.00	4,986.36	114.55	160.35	-90.65	2,335.29	-5,223.39	1,063.75	916.56	147.19	7.227	
10,300.00	4,944.69	11,527.00	4,986.36	116.79	160.35	-90.65	2,335.29	-5,223.39	990.39	829.12	161.26	6.141	
10,400.00	4,945.50	11,527.00	4,986.36	119.03	160.35	-90.65	2,335.29	-5,223.39	922.04	744.49	177.55	5.193	
10,500.00	4,946.32	11,527.00	4,986.36	121.27	160.35	-90.65	2,335.29	-5,223.39	859.92	663.74	196.18	4.383	
10,600.00	4,947.13	11,527.00	4,986.36	123.52	160.35	-90.65	2,335.29	-5,223.39	805.46	588.49	216.97	3.712	
10,700.00	4,947.94	11,527.00	4,986.36	125.76	160.35	-90.65	2,335.29	-5,223.39	760.30	521.14	239.16	3.179	
10,800.00	4,948.75	11,527.00	4,986.36	128.01	160.35	-90.65	2,335.29	-5,223.39	726.19	465.16	261.04	2.782	
10,830.41	4,949.00	11,527.00	4,986.36	128.69	160.35	-90.65	2,335.29	-5,223.39	718.26	451.06	267.20	2.688	CC, ES, SF

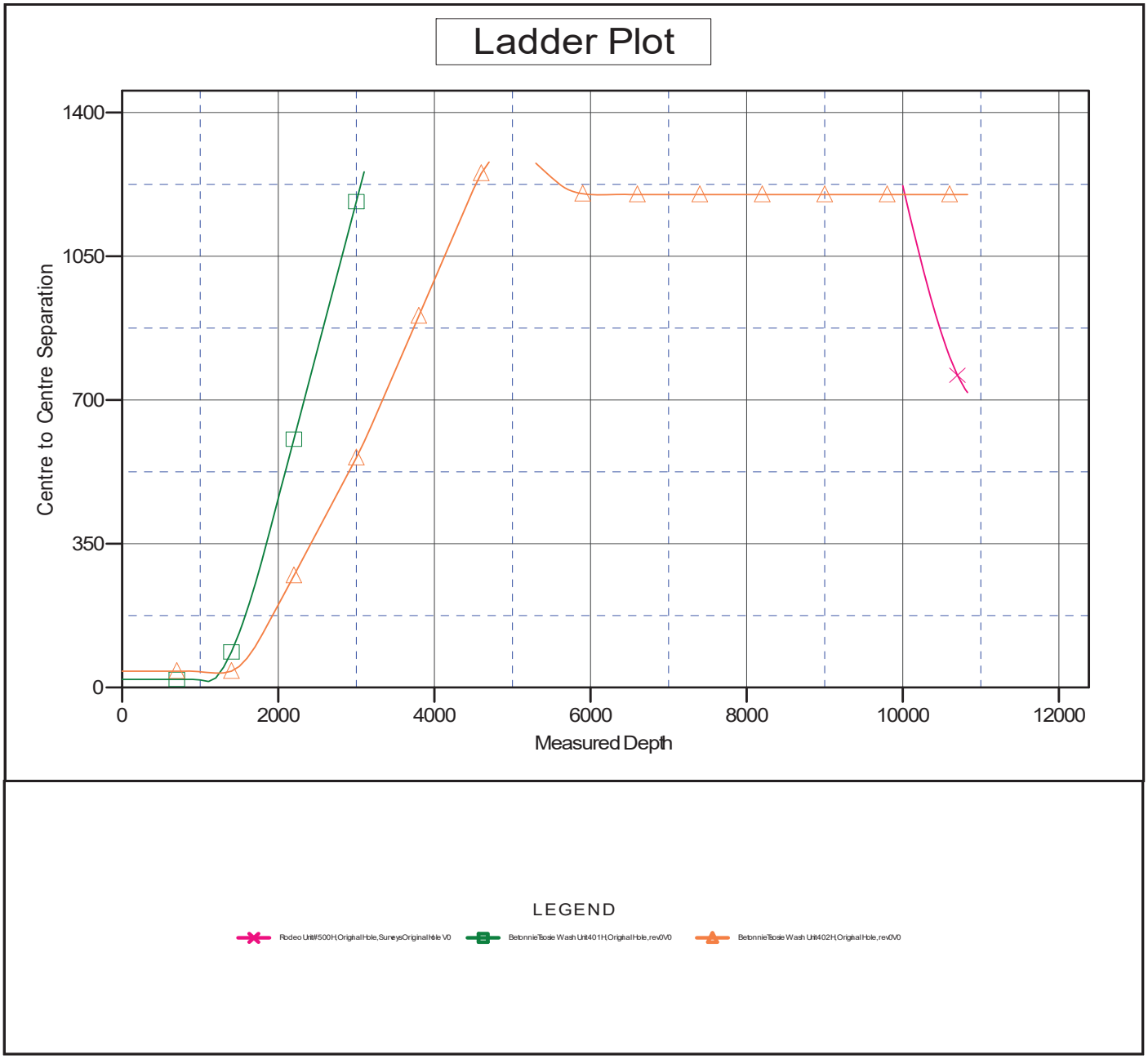
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=6864+25 @ 6889.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -107.833333333

Coordinates are relative to: Betonnie Tsosie Wash Unit (401, 402 & 732)
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.09°



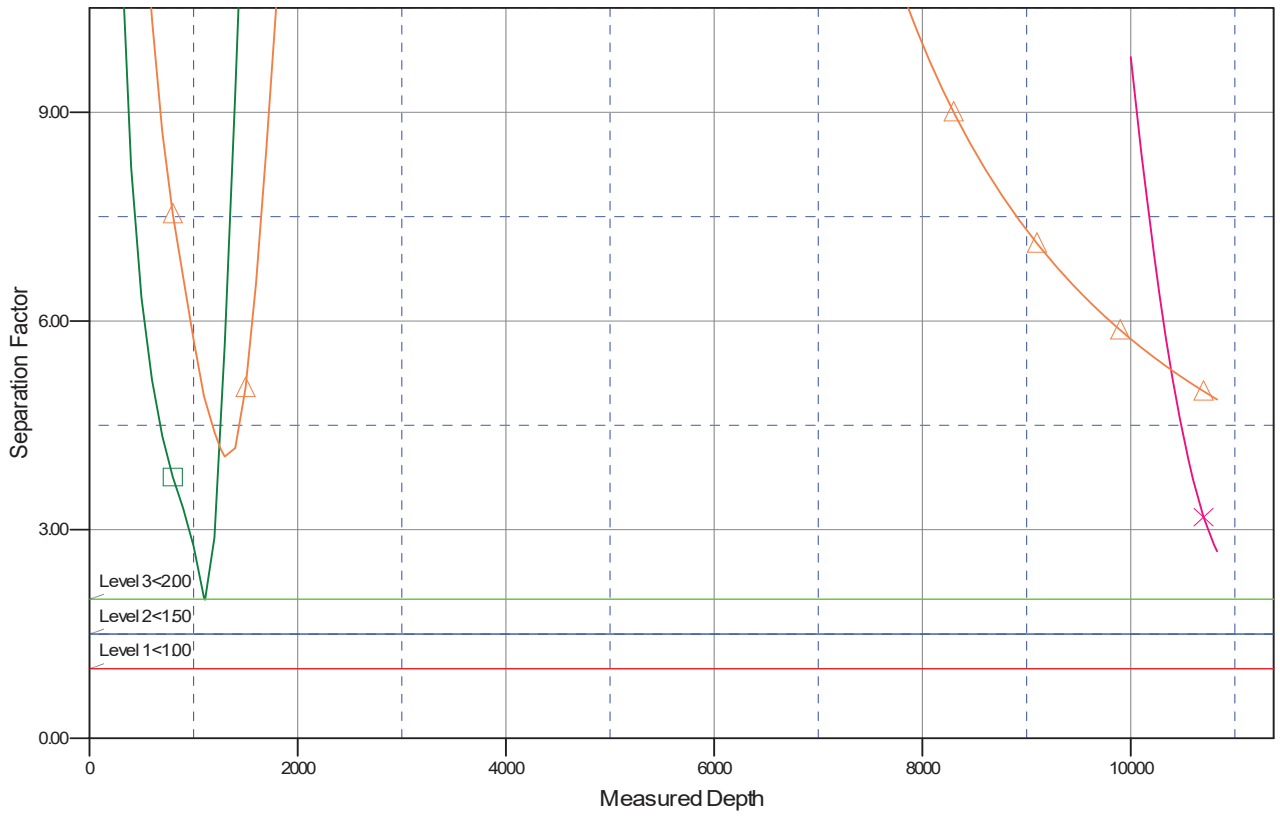
Anticollision Report

Company:	Enduring Resources LLC	**Local Co-ordinate Reference:**	Site Betonnie Tsosie Wash Unit (401, 402 & 732)
Project:	San Juan County, New Mexico NAD83 NM W	**TVD Reference:**	RKB=6864+25 @ 6889.00ft
Reference Site:	Betonnie Tsosie Wash Unit (401, 402 & 732)	**MD Reference:**	RKB=6864+25 @ 6889.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Betonnie Tsosie Wash Unit 732H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Original Hole	**Database:**	DT_Aug2923v16
Reference Design:	rev0	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=6864+25 @ 6889.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -107.833333333

Coordinates are relative to: Betonnie Tsosie Wash Unit (401, 402 & 732)
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.09°

Separation Factor Plot



LEGEND

Rodeo Unit#500H,Original Hole,Survey#Original Hole V0 | Betonnie Tsosie Wash Unit401H,Original Hole,rev0V0 | Betonnie Tsosie Wash Unit402H,Original Hole,rev0V0

WELL NAME: **BETONNIE TSOSIE WASH UNIT 732H**

OBJECTIVE: **Drill, complete, and equip single lateral in the Mancos-Gallup formation**

API Number: *30-045-38332*

AFE Number: *Not yet assigned*

ER Well Number: *Not yet assigned*

State: New Mexico

County: San Juan

Surface Elev.: 6,864 ft ASL (GL) 6,889 ft ASL (KB)

Surface Location: 28-23N-08W Sec-Twn- Rng 1,645 ft FNL 442 ft FEL

BH Location: 21-23N-08W Sec-Twn- Rng 1101 ft FSL 243 ft FWL

Driving Directions: ***FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:***

South on US Hwy 550 for 39.0 miles to MM 112.7, Right (Southwest) on CR #7900 / IR #7061 for 3.3 miles to 4-way, Left (East) leaving CR #7900 for 0.6 miles to new access road; Right into to Betonnie Tsosie Wash Unit H28 PAD (from West to East: BTWU 402H, 401H and 732H wells).

QUICK REFERENCE		
Sur TD (MD)	350	ft
Int TD (MD)	5,506	ft
KOP (MD)	4,498	ft
KOP (TVD)	4,188	ft
Target (TVD)	4,872	ft
Curve BUR	10	°/100 ft
POE (MD)	5,406	ft
TD (MD)	10,830	ft
Lat Len (ft)	5,424	ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	9.625	36	K-55	STC	0	350
Intermediate	12.250	5,506	7	26.0	K-55	LTC	0	5,506
Production	8.500	10,830	4.500	11.6	P-110	BTC	0	10,830

CEMENT PROPERTIES SUMMARY:

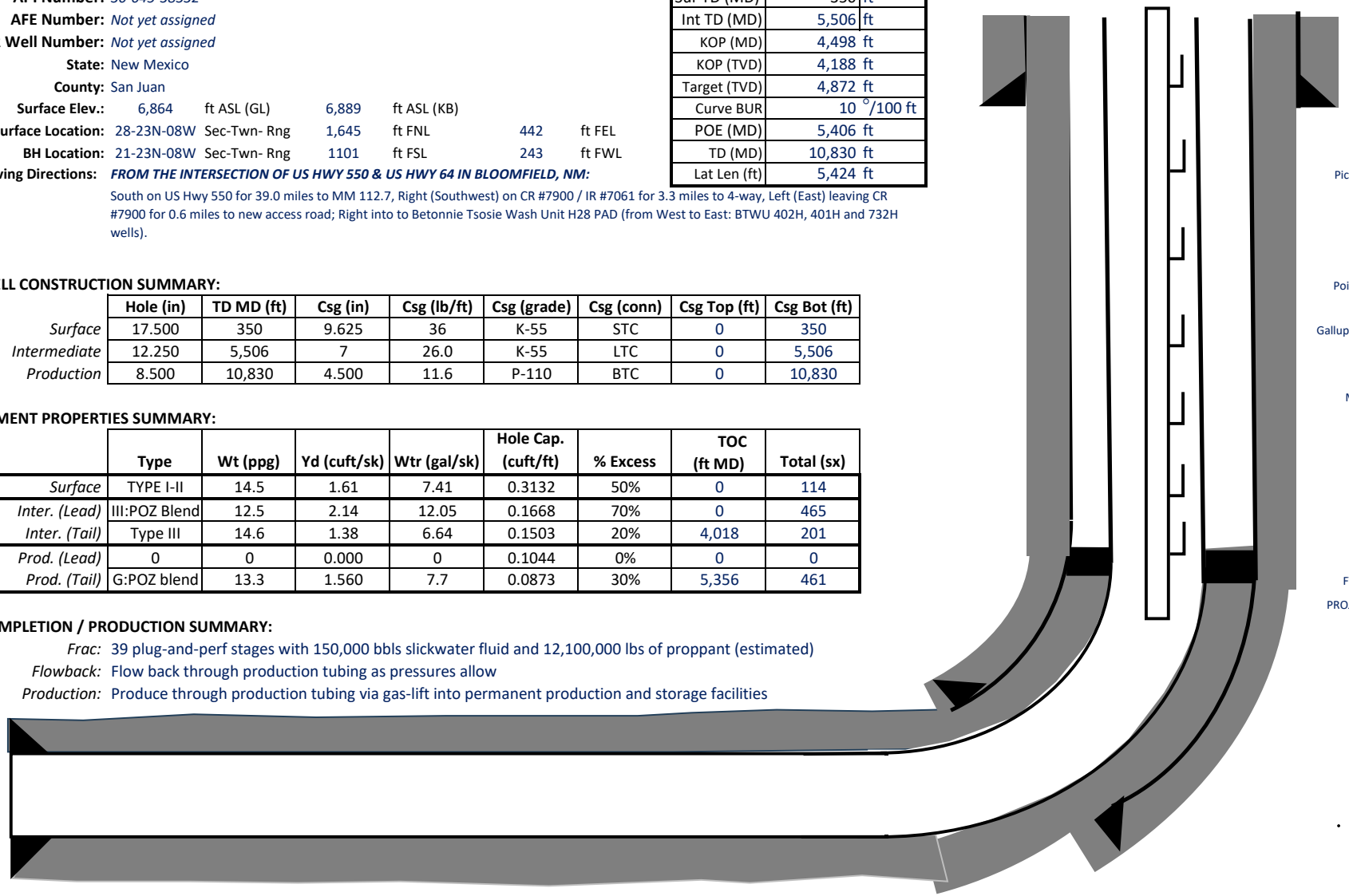
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.1668	70%	0	465
Inter. (Tail)	Type III	14.6	1.38	6.64	0.1503	20%	4,018	201
Prod. (Lead)	0	0	0.000	0	0.1044	0%	0	0
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.0873	30%	5,356	461

COMPLETION / PRODUCTION SUMMARY:

Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow

Production: Produce through production tubing via gas-lift into permanent production and storage facilities



Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	664	664
Kirtland	749	749
Fruitland	944	944
Pictured Cliffs	1,309	1,312
Lewis	1,419	1,425
Chacra	1,658	1,680
Cliff House	2,751	2,897
Menefee	2,766	2,913
Point Lookout	3,694	3,948
Mancos	3,847	4,118
Gallup (MNCS_A)	4,163	4,471
MNCS_B	4,271	4,589
MNCS_C	4,353	4,677
MNCS_Cms	4,401	4,728
MNCS_D	4,519	4,856
MNCS_E	4,654	5,019
MNCS_F	4,705	5,088
MNCS_G	4,783	5,213
MNCS_H	4,834	5,315
MNCS_I	4,885	5,449
FTP TARGET	4,872	5,406
PROJECTED TD	4,949	10,830

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: __DJR Operating, LLC_____ **OGRID:** __371838_____ **Date:** _1_/_29_/_2024_

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

If Other, please describe: _____Change to Original APD_____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Betonnie Tsosie Wash Unit 401H	30-045-38330	H-28-23N-08W	1651 FNL x 461 FEL	423	538	150
Betonnie Tsosie Wash Unit 402H	30-045-38331	H-28-23N-08W	1657 FNL x 479 FEL	345	439	123
Betonnie Tsosie Wash Unit 732H	30-045-38332	H-28-23N-08W	1645 FNL x 442 FEL	289	368	103

IV. Central Delivery Point Name: _____Chaco Processing Plant_____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Betonnie Tsosie Wash Unit 401H	30-045-38330	02/19/2024	02/29/2024	09/15/2024	09/25/2024	09/27/2024
Betonnie Tsosie Wash Unit 402H	30-045-38331	02/27/2024	03/08/2024	09/15/2024	09/27/2024	09/29/2024
Betonnie Tsosie Wash Unit 732H	30-045-38332	03/06/2024	03/16/2024	09/15/2024	09/29/2024	09/31/2024

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: Shaw-Marie Ford
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@djrllc.com
Date: 01/29/2024
Phone: 505-716-3297

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

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Betonnie Tsosie Wash Unit 401H, 402H, 732H
SENE H-28-23N-08W

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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

1 Road 3263
Aztec, NM 87410

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

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Betonnie Tsosie Wash Unit 401H, 402H, 732H
SENE H-28-23N-08W

VENTING and FLARING

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

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

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

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

1 Road 3263
Aztec, NM 87410

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

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Betonnie Tsosie Wash Unit 401H, 402H, 732H
SENE H-28-23N-08W

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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

19.15.27.8 B. Venting and flaring during drilling operations

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

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

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

1 Road 3263
Aztec, NM 87410

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

DJR Operating, LLC

19.15.27.8 D. Venting and flaring during production operations

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

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

19.15.27.8 E. Performance standards

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

1 Road 3263
Aztec, NM 87410

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

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

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

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

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

1 Road 3263
Aztec, NM 87410

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

DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
Betonnie Tsosie Wash Unit 305H, 306H, 721H
NWNE B-21-23N-08W

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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

1 Road 3263
Aztec, NM 87410

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

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Blvd, Suite A
Farmington, New Mexico 87402

In Reply Refer To:
3162.3-1(NMF0110)

DJR Operating, LLC
#732H Betonnie Tsosie Wash Unit
Lease: NMNM50999 Unit:NMNM135219A
SH: SE¼NE¼ Section 28, T.23 N., R.8 W.
BH: SW¼SW¼ Section 21, T.23 N., R.8 W.
San Juan County, New Mexico

***Above Data Required on Well Sign**

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

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

A. ☒ Note all surface/drilling conditions of approval attached.

B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated

C. ☐ Test the surface casing to a minimum of _____ psi for 30 minutes.

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

E. ☐ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, Farmington District Office, Branch of Reservoir Management, 6251 College Blvd. Suite A, Farmington, New Mexico 87402. The effective date of the agreement must be **prior** to any sales.

Approval Date: 11/07/2023

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

I. GENERAL

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

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

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

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

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

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

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

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

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

II. REPORTING REQUIREMENTS

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

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

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

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

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

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

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

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

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

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

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

B. Rig safety lines are to be installed.

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

VI. CHANGE OF PLANS OR ABANDONMENT

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

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

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

VII. PHONE NUMBERS

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

B. Emergency program changes after hours contact:

Virgil Lucero (505) 793-1836
BLM 24 Hour Number (505) 564-7750

Approval Date: 11/07/2023

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

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

CONDITIONS

Action 309056

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 309056
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing, then a CBL is required.	2/6/2024