

Form 3160-3
(October 2024)FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2027UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER		5. Lease Serial No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30-043-21544
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

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

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 09/25/2025

Additional Operator Remarks

Location of Well

0. SHL: NENE / 993 FNL / 1135 FEL / TWSP: 23N / RANGE: 7W / SECTION: 19 / LAT: 36.217056 / LONG: -107.610409 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 4 / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 7W / SECTION: 18 / LAT: 36.222251 / LONG: -107.629378 (TVD: 5191 feet, MD: 8167 feet)

PPP: SESW / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 8W / SECTION: 13 / LAT: 36.227698 / LONG: -107.642216 (TVD: 5308 feet, MD: 13761 feet)

PPP: SENE / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 8W / SECTION: 14 / LAT: 36.227698 / LONG: -107.642216 (TVD: 5308 feet, MD: 13761 feet)

BHL: SENE / 1866 FNL / 552 FEL / TWSP: 23N / RANGE: 8W / SECTION: 14 / LAT: 36.229133 / LONG: -107.644058 (TVD: 5308 feet, MD: 13761 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN

Title: Natural Resource Specialist

Phone: (505) 564-7727

Email: cwenman@blm.gov

CONFIDENTIAL

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
	Submittal Type:	☒ Initial Submittal ☐ Amended Report ☐ As Drilled	

WELL LOCATION INFORMATION

API Number 30-043-21544	Pool Code 98175	Pool Name BETONNIE TSOSIE WASH UNIT MANCOS OIL POOL
Property Code 325179	Property Name BETONNIE TSOSIE WASH UNIT	Well Number 107H
OGRID No. 371838	Operator Name DJR OPERATING, LLC	Ground Level Elevation 6962'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location (SHL)

UL A	Section 19	Township 23N	Range 7W	Lot	Ft from the N/S 993' NORTH	Ft from the E/W 1135' EAST	Latitude 36.217056° N	Longitude 107.610409° W	County SANDOVAL
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Bottom Hole Location (BHL)

UL H	Section 14	Township 23N	Range 8W	Lot	Ft from the N/S 1866' NORTH	Ft from the E/W 552' EAST	Latitude 36.229133° N	Longitude 107.644058° W	County SAN JUAN
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Dedicated Acres SEC 13: SW/SE, SW/4 & SW/NW (240 AC.); SEC 14: NE/SE & SE/NE (80 AC.) = 320 ACRES	PENETRATED SPACING UNIT:	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code UNIT
Order Numbers: R-13930 R-13930A			Well Setbacks are under Common Ownership: ☒ Yes ☐ No		

Kick Off Point (KOP)

UL O	Section 13	Township 23N	Range 8W	Lot	Ft from the N/S 909' SOUTH	Ft from the E/W 1505' EAST	Latitude 36.222251° N	Longitude 107.629378° W	County SAN JUAN
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First Take Point (FTP)

UL O	Section 13	Township 23N	Range 8W	Lot	Ft from the N/S 909' SOUTH	Ft from the E/W 1505' EAST	Latitude 36.222251° N	Longitude 107.629378° W	County SAN JUAN
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Last Take Point (LTP)

UL C	Section 14	Township 23N	Range 8W	Lot	Ft from the N/S 1866' NORTH	Ft from the E/W 552' EAST	Latitude 36.229133° N	Longitude 107.644058° W	County SAN JUAN
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Unitized Area or Area of Uniform Interest BETONNIE TSOSIE WASH	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation
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OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Shaw-Marie Ford
Signature

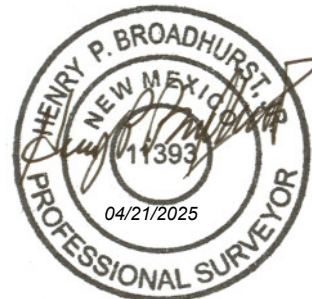
4/21/2025
Date

Shaw-Marie Ford
Printed Name

sford@enduringresources.com
E-mail Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor:

Certificate Number

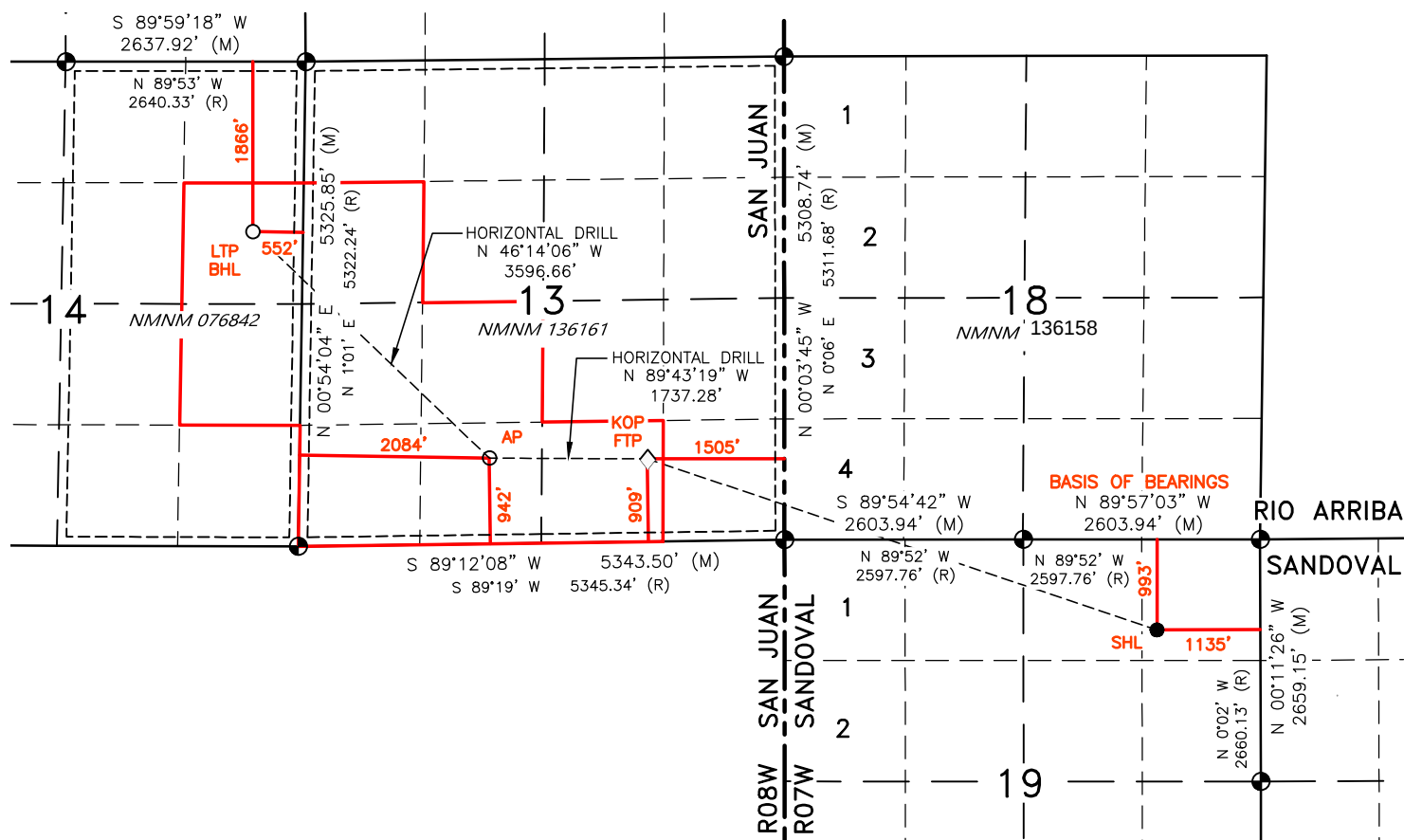
11393

Date of Survey

NOVEMBER 8, 2024

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

FND 2 1/2" BC
GLO 1948



SURFACE LOCATION (SHL) ●
993' FNL 1135' FEL
SEC. 19, T23N, R7W
LAT. 36.217056° N (NAD83)
LONG. 107.610409° W (NAD83)

KICK OFF POINT (KOP) ▲
909' FSL 1505' FEL
SEC. 13, T23N, R8W
LAT. 36.222251° N (NAD83)
LONG. 107.629378° W (NAD83)

FIRST TAKE POINT (FTP) ◇
909' FSL 1505' FEL
SEC. 13, T23N, R8W
LAT. 36.222251° N (NAD83)
LONG. 107.629378° W (NAD83)

ANGLE POINT (AP) ○
942' FSL 2084' FWL
SEC. 13, T23N, R8W
LAT. 36.222284° N (NAD83)
LONG. 107.635268° W (NAD83)

LAST TAKE POINT (LTP) □
1866' FNL 552' FEL
SEC. 14, T23N, R8W
LAT. 36.229133° N (NAD83)
LONG. 107.644058° W (NAD83)

BOTTOM HOLE LOCATION (BHL) ○
1866' FNL 552' FEL
SEC. 14, T23N, R8W
LAT. 36.229133° N (NAD83)
LONG. 107.644058° W (NAD83)

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: _DJR Operating, LLC_ **OGRID:** _371838_ **Date:** _6/9/2025_

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

If Other, please describe: _____

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

Well Name	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Betonnies Tsosie Wash Unit 101H	A-19-23N-7W	935 FNL 1149 FEL	563	1278	225
Betonnies Tsosie Wash Unit 103H	A-19-23N-7W	954 FNL 1144 FEL	298	675	119
Betonnies Tsosie Wash Unit 105H	A-19-23N-7W	974 FNL 1140 FEL	587	1331	235
Betonnies Tsosie Wash Unit 107H	A-19-23N-7W	993 FNL 1135 FEL	238	540	95
			3-year Decline	3-year Decline	3-year Decline
Betonnies Tsosie Wash Unit 101H	A-19-23N-7W	935 FNL 1149 FEL	127	509	51
Betonnies Tsosie Wash Unit 103H	A-19-23N-7W	954 FNL 1144 FEL	67	269	27
Betonnies Tsosie Wash Unit 105H	A-19-23N-7W	974 FNL 1140 FEL	133	530	53
Betonnies Tsosie Wash Unit 107H	A-19-23N-7W	993 FNL 1135 FEL	54	215	22

IV. Central Delivery Point Name: _____ Chaco Processing Plat _____ [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	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Betonnies Tsosie Wash Unit 101H	9/19/2027	9/29/2027	11/18/2027	11/28/2027	1/2/2028
Betonnies Tsosie Wash Unit 103H	9/20/2027	9/30/2027	11/18/2027	11/29/2027	1/4/2028
Betonnies Tsosie Wash Unit 105H	9/21/2027	10/1/2027	11/18/2027	11/30/2027	1/6/2028
Betonnies Tsosie Wash Unit 107H	9/22/2027	10/2/2027	11/18/2027	12/1/2027	1/8/2028

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

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

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

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

If Operator checks this box, Operator will select one of the following:

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 6/9/2025
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 101H 103H 105H and 107H

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 101H 103H 105H and 107H

VENTING and FLARING

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

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

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

DJR will only flare gas during the following times:

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 101H 103H 105H and 107H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

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

19.15.27.8 B. Venting and flaring during drilling operations

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

19.15.27.8 E. Venting and flaring during completion or recompletion operations

During Completion Operations, DJR utilizes the following:

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



19.15.27.8 D. Venting and flaring during production operations

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

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

19.15.27.8 E. Performance standards

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



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

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

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



DJR OPERATING, LLC.
OGRID NO: 371838
NATURAL GAS MANAGEMENT PLAN
BETONNIE TSOSIE WASH UNIT 101H 103H 105H and 107H

BEST MANAGEMENT PRACTICES

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

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

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

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

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

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

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

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



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 107H

State: New Mexico

County: Sandoval

Surface Elevation: 6,962 ft ASL (GL) 6,986 ft ASL (KB)

Surface Location: 19-23-7 Sec-Twn-Rng 993 ft FNL 1,135 ft FEL

36.217056 ° N latitude 107.610409 ° W longitude (NAD 83)

BH Location: 14-23-8 Sec-Twn-Rng 1,866 ft FNL 552 ft FEL

36.229133 ° N latitude 107.644058 ° 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 (South) on CR #7900 / IR #7061 for 5.1 miles to Y (just passed 4-way), Left (East) leaving CR #7900 for 4.0 miles to lease road; Left (NorthEast) for 1.8 miles to new access; Right (North) for 1.5 miles to NAU A19-2307 pad entrance on left. There are two existing wells on this location and 4 proposed wells. From South (location entrance) to North: BTWU 107H, 105H, 103H, 101H, N Alamito 102H (existing), N Alamito 106H (existing).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	5,920	1,066	1,075	W	normal
	Kirtland	5,800	1,186	1,202	W	normal
	Fruitland	5,630	1,356	1,388	G, W	sub
	Pictured Cliffs	5,295	1,691	1,786	G, W	sub
	Lewis	5,140	1,846	1,994	G, W	normal
	Chacra	4,890	2,096	2,390	G, W	normal
	Cliff House	3,800	3,186	4,424	G, W	sub
	Menefee	3,230	3,756	5,488	G, W	normal
	Point Lookout	2,930	4,056	6,048	G, W	normal
	Mancos	2,720	4,266	6,440	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,385	4,601	7,065	O,G	sub (~0.38)
	MNCS_B	2,280	4,706	7,261	O,G	sub (~0.38)
	MNCS_C	2,195	4,791	7,420	O,G	sub (~0.38)
	MNCS_Cms	2,155	4,831	7,495	O,G	sub (~0.38)
	MNCS_D	2,025	4,961	7,737	O,G	sub (~0.38)
	MNCS_E	1,910	5,076	7,952	O,G	sub (~0.38)
	MNCS_F	1,860	5,126	8,045	O,G	sub (~0.38)
	MNCS_G	1,795	5,191	8,167	O,G	sub (~0.38)
	MNCS_H	1,735	5,251	8,296	O,G	sub (~0.38)
	MNCS_I	1,690	5,296	8,439	O,G	sub (~0.38)
	FTP TARGET	1,795	5,191	8,167	O,G	sub (~0.38)
	PROJECTED TD	1,686	5,300	13,761	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: 2,280 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,120 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S 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: Ensign

Rig No.: 140

Draw Works: Pacific Rim 1500AC (1,500 hp)

Mast: Process MFG Corp Swing Up Triple (136 ft, 750,000 lbs)

Top Drive: Tesco 400-EXI-600 (400 ton)

Prime Movers: 3 - CAT 3512C (1,350 hp)

Pumps: 2 - Gardner Denver PZ-11 (7,500 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (11", 5,000 psi)

BOPE 2: T3 annular(11", 5,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 23.5

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.
- 3) 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.
- 4) 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 casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.

- 5) 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.
- 6) 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 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 minimize 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	1,134	110,988	110,988
Min. S.F.					13.21	3.10	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: 3,400 Optimum: 4,530 Maximum: 5,660

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

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

Mesa Ready Mix or first available

Shoe Track L 44

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

350 ft (MD)	to	8,506 ft (MD)	Hole Section Length:	8,156 ft
350 ft (TVD)	to	5,306 ft (TVD)	Casing Required:	8,506 ft

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCI)	8.8 - 9.2	15	8 - 14	6 - 12	10.8 - 11.2	No OBM

Hole Size (inches): 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

Pressure Test: NU BOPE and test (as noted above); pressure test 9-5/8" casing to 1,500 psi for 30 minutes.

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					2,318	1,424	292,859	292,859
Min. S.F.					1.86	3.50	1.42	1.25

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): Minimum: 3,400 Optimum: 4,530 Maximum: 5,660

Centralizers: 1 per joint in non-vertical hole; 1 per 2-joints in vertical hole

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	2.150	12.05	70%	0	739	1,589
Tail	Type III	13.5	1.710	8.88	30%	6,340	253	433

Annular Capacity	0.16681	cuft/ft	7" casing x 9-5/8" casing annulus	Shoe Track L	44
	0.1503	cuft/ft	7" casing x 8-3/4" 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

10 bbls D-Mud

Breaker (SAPP)

Spacer	10 bbls water f/b	f/b	10 bbls water f/b					
			D-MPA-2 .4%					
		D-CSE 1 5.0%	BWOC Fluid Loss & Gas Migration Control	D-SA 1 1.4%				
ASTM Type III		BWOC Strength Enhancer		BWOC Na Metasilicate	D-CD 2 .4%	Cello Flace LCM	D-FP 1 .5%	D-R1 1.2%
Lead	90/10 Poz				BWOC Dispersant	.25 lb/sx	BWOC Defoamer	Retarder
			D-MPA-2 1.2%					
		D-CSE 1 5.0%	BWOC Fluid Loss & Gas Migration Control					
ASTM Type III		BWOC Strength Enhancer		Cello Flace LCM	D-FP 1 .5%	D-R1 0.3%		
Tail	90/10 Poz			.25 lb/sx	BWOC Defoamer	Retarder		

Drake Intermediate Cementing Program

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

8,506 ft (MD)	to	13,761 ft (MD)	Hole Section Length:	5,255 ft
5,306 ft (TVD)	to	5,300 ft (TVD)	Casing Required:	5,405 ft
Estimated KOP:		8,149 ft (MD)	5,182 ft (TVD)	
Estimated Liner Top:		8,356 ft (MD)	5,274 ft (TVD)	
Estimated Landing Point (FTP):		8,167 ft (MD)	5,191 ft (TVD)	
Estimated Lateral Length:		5,594 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

Pressure Test: NU BOPE and test (as noted above); pressure test 9-5/8" casing to 1,500 psi for 30 minutes.

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					2,618	8,803	237,744	237,744
Min. S.F.					2.89	1.21	1.54	1.62

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.

MU Torque (ft lbs): Minimum: BTC Optimum: BTC Maximum: BTC

Centralizers: Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys.

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Spacer	Water	8.4				0	10 bbls	
Spacer	IntegraGuard Star	10		35.7		0	20 bbls	
Tail	G:POZ blend	13.3	1.520	7.50	25%	8,356	420	638

Displacement 169 est bbls

Annular Capacities	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 volume	est shoe jt ft 42
	0.0102	bbls/ft	4" DP capacity	

Calculated cement volumes assume gauge hole and the excess noted in table
American Cementing Liner & Production Blend

S-8 Silica Flour	Avis 616 viscosifier	Xcem-311	SS201 Surfactant				
Spacer 113.2 lbs/bbl	4.0 lb/bbl	Defoamer .8 lb/bbl	0.5 gal/bbl				
		Bentonite	IntegraGuard	Xcem-311			
	Pozzolan Fly Ash	Viscosifier 4%	FL24 Fluid Loss .4%	GW86 Viscosifier	R3 Retarder .2%	Defoamer 0.3%	
Lead/Tail Type G 50%	Extender 50%	BWOB	BWOB	.1% BWOB	BWOB	BWOB	

Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as defined by NMAC 19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. **Neither the toe-initiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.**

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 5,494
Est Frac Inform: 23 Frac Stages 88,000 bbls slick water 7,150,000 lbs proppant
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: 9/19/2027
Completion: 11/18/2027
Production: 1/2/2028

Prepared by: Greg Olson 7/18/2024
Updated: Greg Olson 4/3/2025
 Greg Olson 5/29/2025

WELL NAME: Betonnie Tsosie Wash Unit 107H

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

API Number: Not yet assigned

AFE Number: Not yet assigned

ER Well Number: Not yet assigned

State: New Mexico

County: Sandoval

Surface Elev.: 6,962 ft ASL (GL) 6,986 ft ASL (KB)

Surface Location: 19-23-7 Sec-Twn- Rng 993 ft FNL 1,135 ft FEL

BH Location: 14-23-8 Sec-Twn- Rng 1866 ft FNL 552 ft FEL

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 (South) on CR #7900 / IR #7061 for 5.1 miles to Y (just passed 4-way), Left (East) leaving CR #7900 for 4.0 miles to lease road; Left (NorthEast) for 1.8 miles to new access; Right (North) for 1.5 miles to NAU A19-2307 pad entrance on left. There are two existing wells on this location and 4 proposed wells. From South (location entrance) to North: BTWU 107H, 105H, 103H, 101H, N Alamito 102H (existing), N Alamito 106H (existing).

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	8,506 ft
KOP (MD)	8,149 ft
KOP (TVD)	5,182 ft
Target (TVD)	5,191 ft
Curve BUR	10 °/100 ft
POE (MD)	8,167 ft
TD (MD)	13,761 ft
Lat Len (ft)	5,594 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	12.250	350	9.625	36	K-55	STC	0	350
Intermediate	8.750	8,506	7	26.0	K-55	LTC	0	8,506
Production	6.125	13,761	4.500	11.6	P-110	BTC	8,356	13,761

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	2.15	12.05	0.1668	70%	0	739
Inter. (Tail)	Type III	13.5	1.71	8.88	0.1503	30%	6,340	253
Prod. (Lead)	PegraGuard S	10	0.000	35.7	0.1044	0%	0	20 bbls
Prod. (Tail)	G:POZ blend	13.3	1.520	7.5	0.0873	25%	8,356	420

COMPLETION / PRODUCTION SUMMARY:

Flowback: Flow back through production tubing as pressures allow

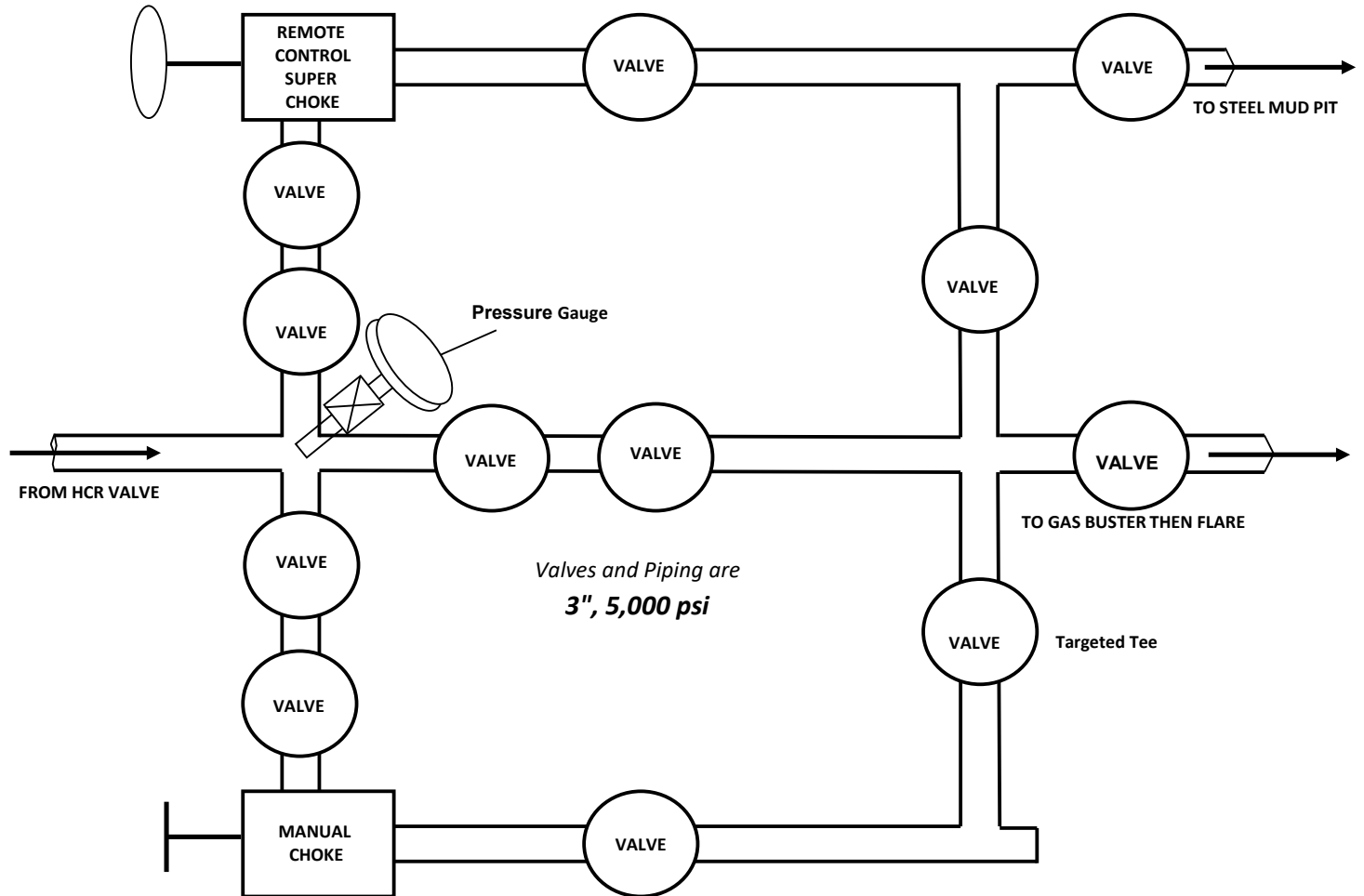
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	1,066	1,075
Kirtland	1,186	1,202
Fruitland	1,356	1,388
Pictured Cliffs	1,691	1,786
Lewis	1,846	1,994
Chacra	2,096	2,390
Cliff House	3,186	4,424
Menefee	3,756	5,488
Point Lookout	4,056	6,048
Mancos	4,266	6,440
Gallup (MNCS_A)	4,601	7,065
MNCS_B	4,706	7,261
MNCS_C	4,791	7,420
MNCS_Cms	4,831	7,495
MNCS_D	4,961	7,737
MNCS_E	5,076	7,952
MNCS_F	5,126	8,045
MNCS_G	5,191	8,167
MNCS_H	5,251	8,296
MNCS_J	5,296	8,439
FTP TARGET	5,191	8,167
PROJECTED TD	5,300	13,761

CHOKE MANIFOLD DIAGRAMS

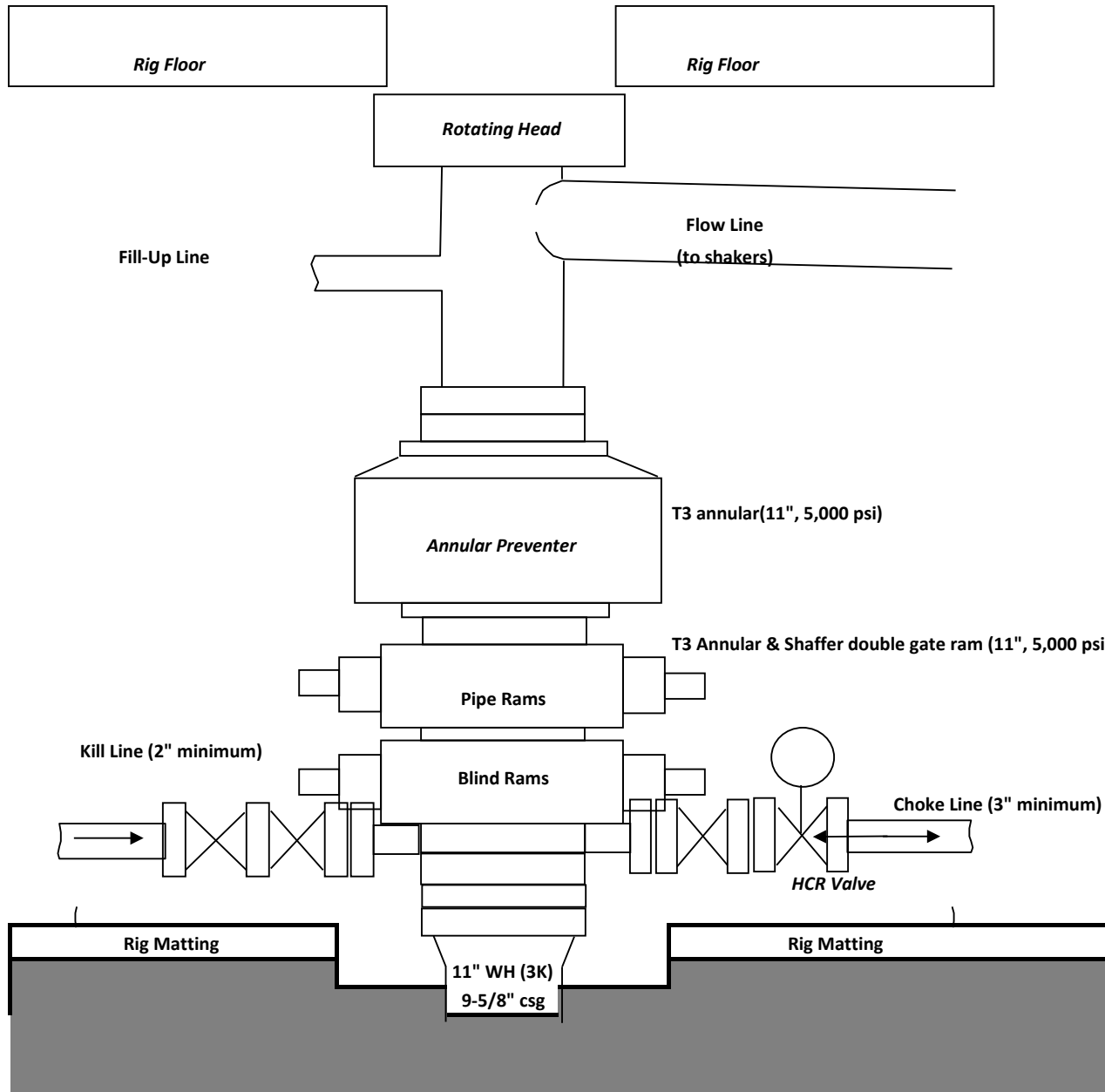
NOTE: EXACT BOPE AND CHOKE CONFIGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

CHOKE MANIFOLD



BOPE DIAGRAM

NOTE: EXACT BOPE AND CHOKE CONFIGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

BOPE



Well: Bettonnie Tsosie Wash Unit 107 H
Site: Bettonnie Tsosie Wash (101,103,105 & 107)
Project: Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW
Design: rev1
Rig:

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BTW 107 AP1	5295.00	1887.19	-7336.69	1900268.95	2781512.08	36.22228400	-107.63526800
BTW 107 LTP 1866 FNL 552 FEL	5300.00	4375.21	-9934.23	1902756.96	2778914.55	36.22913300	-107.64405800
BTW 107 FTP 909 FSL 1505 FEL	5310.00	1878.78	-5599.38	1900260.54	2783249.39	36.22225100	-107.62937800

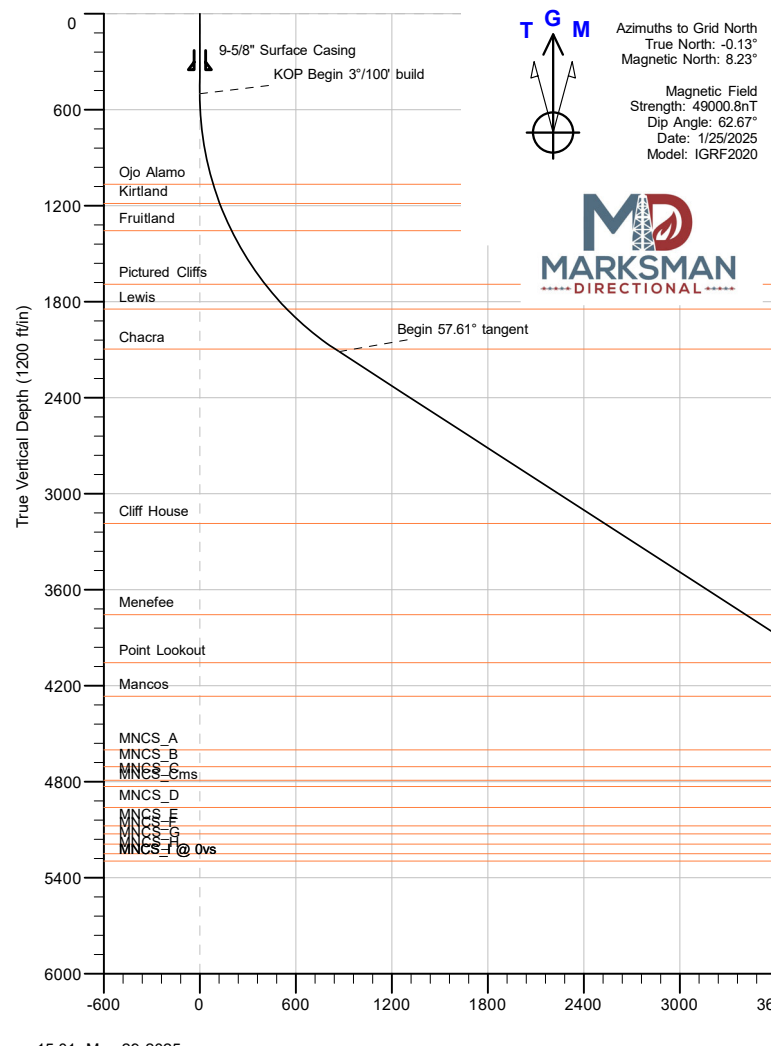
CASING DETAILS

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=6962+23.5 @ 6985.50ft

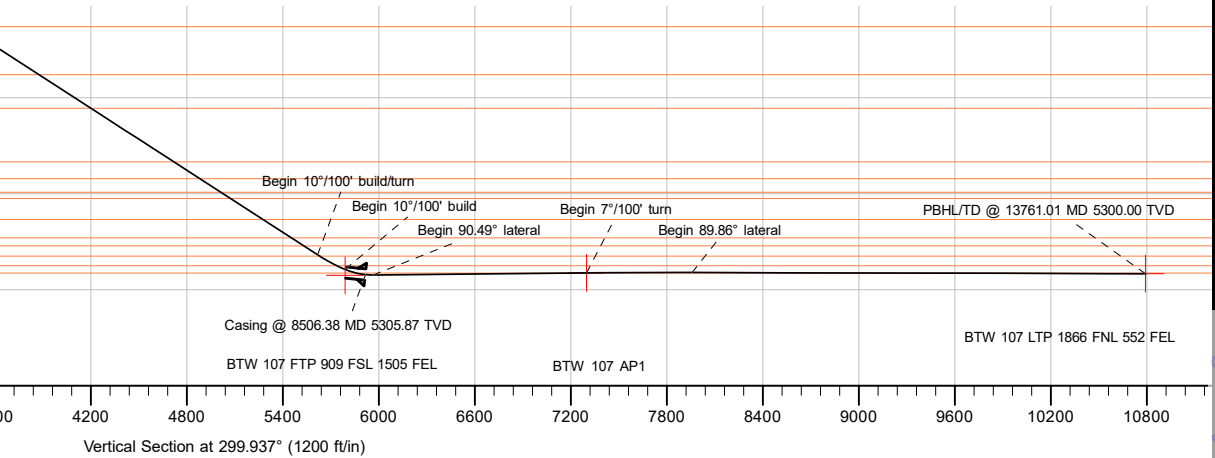
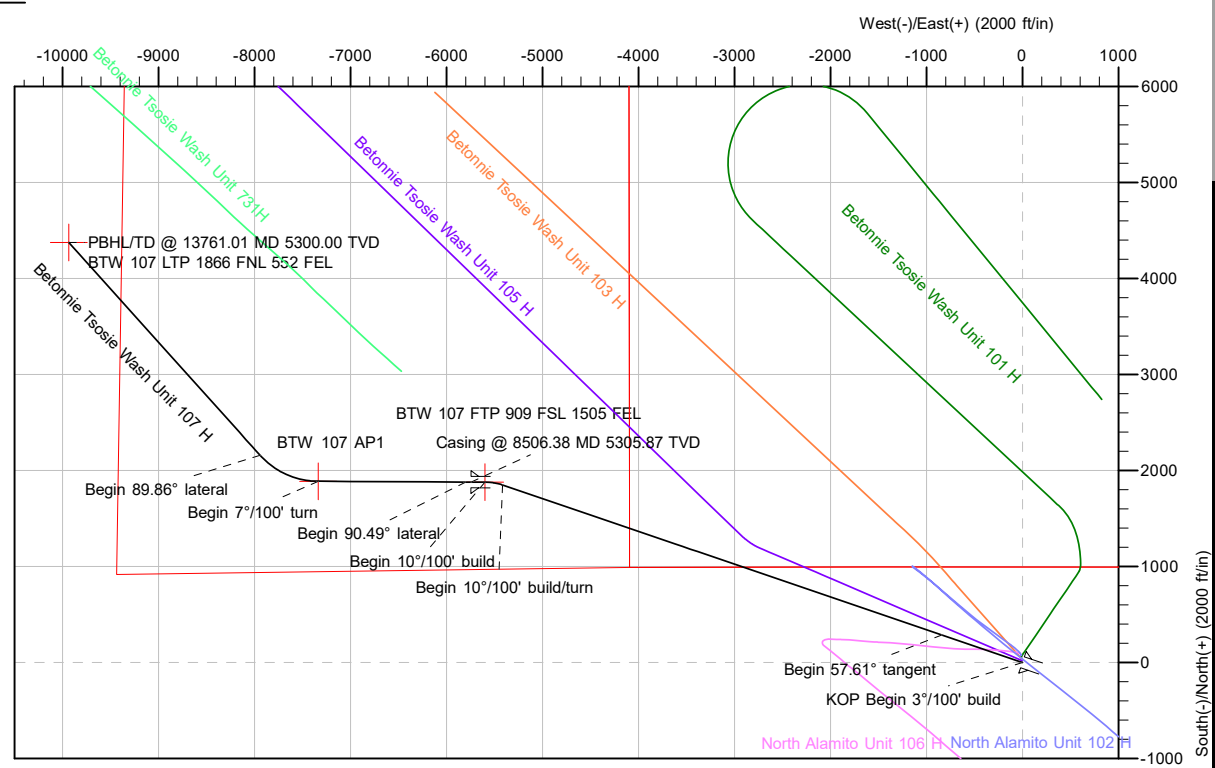
TVD	MD	Name
350.00	350.00	9-5/8" Surface Casing
5305.87	8506.38	7" Intermediate Casing

Surface location:
Northing 1898381.76 Easting 2788848.76 Latitude 36.21705600 Longitude -107.61040900

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.225°

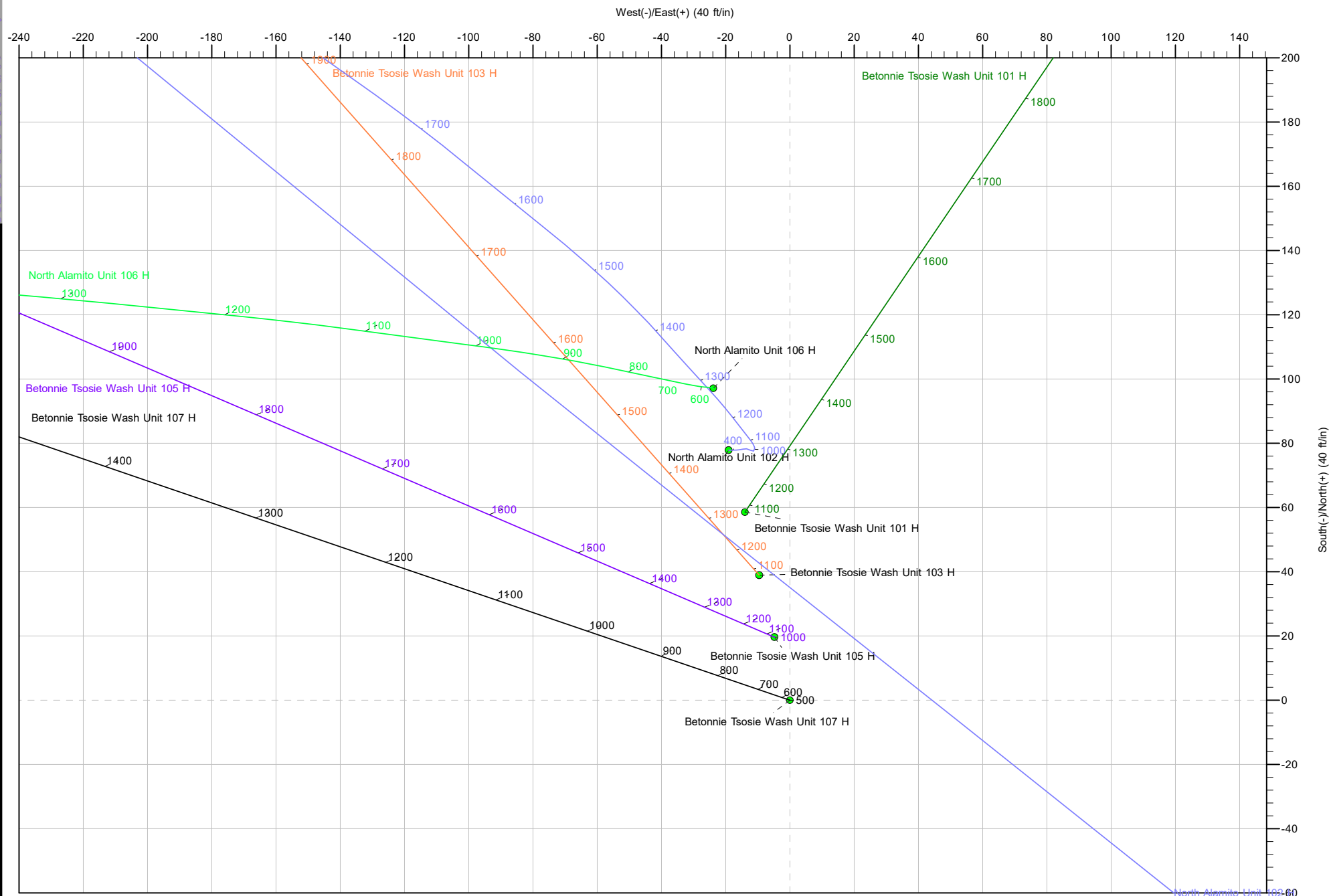


Section Details										Annotation
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3 1/100' build Begin 57.61° tangent
2	500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.000	0.00	
3	2420.33	57.61	288.852	2112.72	286.55	-839.21	3.00	288.852	870.24	
4	8149.29	57.61	288.852	5181.61	1849.73	-5417.35	0.00	0.000	5617.64	Begin 10°/100' build/turn
5	8356.38	70.00	270.280	5273.50	1878.78	-5599.38	10.00	-57.817	5789.88	Begin 10°/100' build
6	8506.38	85.00	270.278	5305.87	1879.49	-5745.40	10.00	-0.008	5916.78	Casing @ 8506.38 MD 5305.87
7	8561.24	90.49	270.277	5308.03	1879.76	-5800.20	10.00	-0.008	5964.39	Begin 90.49° lateral
8	10097.81	90.49	270.277	5295.00	1887.19	-7336.69	0.00	0.000	7299.59	Begin 7°/100' turn
9	10780.26	89.86	318.045	5292.80	2158.51	-7941.48	7.00	90.628	7959.08	Begin 89.86° lateral
10	13761.01	89.86	318.045	5300.00	4375.21	-9934.23	0.00	0.000	10792.18	PBHL/TD





Well: **Betonnies Tsosie Wash Unit 107 H**
Site: **Betonnies Tsosie Wash (101,103,105 & 107)**
Project: **Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW**
Design: **rev1**
Rig:





Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW		
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 (101,103,105 & 107)		
Site Position:		Northing:	1,898,440.34 usft
From:	Lat/Long	Easting:	2,788,834.76 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.21721700
		Longitude:	-107.61045600

Well	Betonnie Tsosie Wash Unit 107 H, Surf loc: 993 FNL 1135 FEL Section 19-T23N-R07W			
Well Position	+N/-S	0.00 ft	Northing:	1,898,381.76 usft
	+E/-W	0.00 ft	Easting:	2,788,848.76 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
Grid Convergence:		0.132 °	Ground Level:	6,962.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/25/2025	8.357	62.674	49,000.84354537

Design	rev1			
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	0.00	0.00	299.937

Plan Survey Tool Program	Date	5/29/2025		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,761.01	rev1 (Original Hole)	MWD
				OWSG MWD - Standard



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	0.00	0.00	0.00	0.00	0.00	0.000	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,420.33	57.61	288.852	2,112.73	286.55	-839.21	3.00	3.00	0.00	288.852	
8,149.29	57.61	288.852	5,181.61	1,849.73	-5,417.35	0.00	0.00	0.00	0.000	
8,356.38	70.00	270.280	5,273.50	1,878.78	-5,599.38	10.00	5.98	-8.97	-57.817	
8,506.38	85.00	270.278	5,305.87	1,879.49	-5,745.40	10.00	10.00	0.00	-0.008	
8,561.24	90.49	270.277	5,308.03	1,879.76	-5,800.20	10.00	10.00	0.00	-0.008	
10,097.81	90.49	270.277	5,295.00	1,887.19	-7,336.69	0.00	0.00	0.00	0.000	BTW 107 AP1
10,780.26	89.86	318.045	5,292.80	2,158.51	-7,941.48	7.00	-0.09	7.00	90.628	
13,761.01	89.86	318.045	5,300.00	4,375.21	-9,934.23	0.00	0.00	0.00	0.000	BTW 107 LTP 1866 F



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.000	350.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8" Surface Casing									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
600.00	3.00	288.852	599.95	0.85	-2.48	2.57	3.00	3.00	0.00
700.00	6.00	288.852	699.63	3.38	-9.90	10.27	3.00	3.00	0.00
800.00	9.00	288.852	798.77	7.60	-22.25	23.07	3.00	3.00	0.00
900.00	12.00	288.852	897.08	13.49	-39.50	40.96	3.00	3.00	0.00
1,000.00	15.00	288.852	994.31	21.03	-61.59	63.86	3.00	3.00	0.00
1,074.63	17.24	288.852	1,066.00	27.72	-81.19	84.20	3.00	3.00	0.00
Ojo Alamo									
1,100.00	18.00	288.852	1,090.18	30.20	-88.46	91.73	3.00	3.00	0.00
1,200.00	21.00	288.852	1,184.43	40.99	-120.05	124.49	3.00	3.00	0.00
1,201.68	21.05	288.852	1,186.00	41.18	-120.62	125.08	3.00	3.00	0.00
Kirtland									
1,300.00	24.00	288.852	1,276.81	53.35	-156.26	162.04	3.00	3.00	0.00
1,387.61	26.63	288.852	1,356.00	65.46	-191.71	198.79	3.00	3.00	0.00
Fruitland									
1,400.00	27.00	288.852	1,367.06	67.26	-197.00	204.28	3.00	3.00	0.00
1,500.00	30.00	288.852	1,454.93	82.68	-242.15	251.10	3.00	3.00	0.00
1,600.00	33.00	288.852	1,540.18	99.56	-291.59	302.37	3.00	3.00	0.00
1,700.00	36.00	288.852	1,622.59	117.86	-345.18	357.95	3.00	3.00	0.00
1,786.00	38.58	288.852	1,691.00	134.70	-394.49	409.07	3.00	3.00	0.00
Pictured Cliffs									
1,800.00	39.00	288.852	1,701.91	137.53	-402.79	417.68	3.00	3.00	0.00
1,900.00	42.00	288.852	1,777.95	158.51	-464.24	481.41	3.00	3.00	0.00
1,993.68	44.81	288.852	1,846.00	179.31	-525.16	544.57	3.00	3.00	0.00
Lewis									
2,000.00	45.00	288.852	1,850.47	180.75	-529.38	548.95	3.00	3.00	0.00
2,100.00	48.00	288.852	1,919.30	204.19	-598.01	620.13	3.00	3.00	0.00
2,200.00	51.00	288.852	1,984.24	228.76	-669.97	694.74	3.00	3.00	0.00
2,300.00	54.00	288.852	2,045.11	254.39	-745.04	772.58	3.00	3.00	0.00
2,389.50	56.69	288.852	2,096.00	278.18	-814.70	844.82	3.00	3.00	0.00
Chacra									
2,400.00	57.00	288.852	2,101.74	281.02	-823.02	853.45	3.00	3.00	0.00
2,420.33	57.61	288.852	2,112.73	286.55	-839.21	870.24	3.00	3.00	0.00
Begin 57.61° tangent									
2,500.00	57.61	288.852	2,155.40	308.28	-902.88	936.26	0.00	0.00	0.00
2,600.00	57.61	288.852	2,208.97	335.57	-982.79	1,019.13	0.00	0.00	0.00
2,700.00	57.61	288.852	2,262.54	362.86	-1,062.70	1,101.99	0.00	0.00	0.00
2,800.00	57.61	288.852	2,316.11	390.14	-1,142.61	1,184.86	0.00	0.00	0.00
2,900.00	57.61	288.852	2,369.67	417.43	-1,222.53	1,267.73	0.00	0.00	0.00
3,000.00	57.61	288.852	2,423.24	444.71	-1,302.44	1,350.59	0.00	0.00	0.00
3,100.00	57.61	288.852	2,476.81	472.00	-1,382.35	1,433.46	0.00	0.00	0.00
3,200.00	57.61	288.852	2,530.38	499.28	-1,462.26	1,516.33	0.00	0.00	0.00
3,300.00	57.61	288.852	2,583.95	526.57	-1,542.18	1,599.19	0.00	0.00	0.00
3,400.00	57.61	288.852	2,637.51	553.86	-1,622.09	1,682.06	0.00	0.00	0.00



Planning Report

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Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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)	
3,500.00	57.61	288.852	2,691.08	581.14	-1,702.00	1,764.93	0.00	0.00	0.00	
3,600.00	57.61	288.852	2,744.65	608.43	-1,781.91	1,847.79	0.00	0.00	0.00	
3,700.00	57.61	288.852	2,798.22	635.71	-1,861.82	1,930.66	0.00	0.00	0.00	
3,800.00	57.61	288.852	2,851.79	663.00	-1,941.74	2,013.53	0.00	0.00	0.00	
3,900.00	57.61	288.852	2,905.35	690.28	-2,021.65	2,096.39	0.00	0.00	0.00	
4,000.00	57.61	288.852	2,958.92	717.57	-2,101.56	2,179.26	0.00	0.00	0.00	
4,100.00	57.61	288.852	3,012.49	744.86	-2,181.47	2,262.13	0.00	0.00	0.00	
4,200.00	57.61	288.852	3,066.06	772.14	-2,261.39	2,344.99	0.00	0.00	0.00	
4,300.00	57.61	288.852	3,119.63	799.43	-2,341.30	2,427.86	0.00	0.00	0.00	
4,400.00	57.61	288.852	3,173.19	826.71	-2,421.21	2,510.73	0.00	0.00	0.00	
4,423.90	57.61	288.852	3,186.00	833.24	-2,440.31	2,530.54	0.00	0.00	0.00	
Cliff House										
4,500.00	57.61	288.852	3,226.76	854.00	-2,501.12	2,593.59	0.00	0.00	0.00	
4,600.00	57.61	288.852	3,280.33	881.29	-2,581.03	2,676.46	0.00	0.00	0.00	
4,700.00	57.61	288.852	3,333.90	908.57	-2,660.95	2,759.33	0.00	0.00	0.00	
4,800.00	57.61	288.852	3,387.47	935.86	-2,740.86	2,842.20	0.00	0.00	0.00	
4,900.00	57.61	288.852	3,441.03	963.14	-2,820.77	2,925.06	0.00	0.00	0.00	
5,000.00	57.61	288.852	3,494.60	990.43	-2,900.68	3,007.93	0.00	0.00	0.00	
5,100.00	57.61	288.852	3,548.17	1,017.71	-2,980.59	3,090.80	0.00	0.00	0.00	
5,200.00	57.61	288.852	3,601.74	1,045.00	-3,060.51	3,173.66	0.00	0.00	0.00	
5,300.00	57.61	288.852	3,655.31	1,072.29	-3,140.42	3,256.53	0.00	0.00	0.00	
5,400.00	57.61	288.852	3,708.88	1,099.57	-3,220.33	3,339.40	0.00	0.00	0.00	
5,487.97	57.61	288.852	3,756.00	1,123.57	-3,290.63	3,412.30	0.00	0.00	0.00	
Menefee										
5,500.00	57.61	288.852	3,762.44	1,126.86	-3,300.24	3,422.26	0.00	0.00	0.00	
5,600.00	57.61	288.852	3,816.01	1,154.14	-3,380.16	3,505.13	0.00	0.00	0.00	
5,700.00	57.61	288.852	3,869.58	1,181.43	-3,460.07	3,588.00	0.00	0.00	0.00	
5,800.00	57.61	288.852	3,923.15	1,208.71	-3,539.98	3,670.86	0.00	0.00	0.00	
5,900.00	57.61	288.852	3,976.72	1,236.00	-3,619.89	3,753.73	0.00	0.00	0.00	
6,000.00	57.61	288.852	4,030.28	1,263.29	-3,699.80	3,836.60	0.00	0.00	0.00	
6,048.01	57.61	288.852	4,056.00	1,276.38	-3,738.17	3,876.38	0.00	0.00	0.00	
Point Lookout										
6,100.00	57.61	288.852	4,083.85	1,290.57	-3,779.72	3,919.46	0.00	0.00	0.00	
6,200.00	57.61	288.852	4,137.42	1,317.86	-3,859.63	4,002.33	0.00	0.00	0.00	
6,300.00	57.61	288.852	4,190.99	1,345.14	-3,939.54	4,085.20	0.00	0.00	0.00	
6,400.00	57.61	288.852	4,244.56	1,372.43	-4,019.45	4,168.06	0.00	0.00	0.00	
6,440.03	57.61	288.852	4,266.00	1,383.35	-4,051.44	4,201.24	0.00	0.00	0.00	
Mancos										
6,500.00	57.61	288.852	4,298.12	1,399.71	-4,099.37	4,250.93	0.00	0.00	0.00	
6,600.00	57.61	288.852	4,351.69	1,427.00	-4,179.28	4,333.80	0.00	0.00	0.00	
6,700.00	57.61	288.852	4,405.26	1,454.29	-4,259.19	4,416.66	0.00	0.00	0.00	
6,800.00	57.61	288.852	4,458.83	1,481.57	-4,339.10	4,499.53	0.00	0.00	0.00	
6,900.00	57.61	288.852	4,512.40	1,508.86	-4,419.01	4,582.40	0.00	0.00	0.00	
7,000.00	57.61	288.852	4,565.96	1,536.14	-4,498.93	4,665.26	0.00	0.00	0.00	
7,065.41	57.61	288.852	4,601.00	1,553.99	-4,551.19	4,719.46	0.00	0.00	0.00	
MNCS_A										
7,100.00	57.61	288.852	4,619.53	1,563.43	-4,578.84	4,748.13	0.00	0.00	0.00	
7,200.00	57.61	288.852	4,673.10	1,590.71	-4,658.75	4,831.00	0.00	0.00	0.00	
7,261.42	57.61	288.852	4,706.00	1,607.47	-4,707.83	4,881.89	0.00	0.00	0.00	
MNCS_B										
7,300.00	57.61	288.852	4,726.67	1,618.00	-4,738.66	4,913.86	0.00	0.00	0.00	
7,400.00	57.61	288.852	4,780.24	1,645.29	-4,818.57	4,996.73	0.00	0.00	0.00	



Planning Report

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Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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)	
7,420.09	57.61	288.852	4,791.00	1,650.77	-4,834.63	5,013.38	0.00	0.00	0.00	
MNCS_C										
7,494.77	57.61	288.852	4,831.00	1,671.14	-4,894.30	5,075.26	0.00	0.00	0.00	
MNCS_Cms										
7,500.00	57.61	288.852	4,833.80	1,672.57	-4,898.49	5,079.60	0.00	0.00	0.00	
7,600.00	57.61	288.852	4,887.37	1,699.86	-4,978.40	5,162.46	0.00	0.00	0.00	
7,700.00	57.61	288.852	4,940.94	1,727.14	-5,058.31	5,245.33	0.00	0.00	0.00	
7,737.45	57.61	288.852	4,961.00	1,737.36	-5,088.24	5,276.36	0.00	0.00	0.00	
MNCS_D										
7,800.00	57.61	288.852	4,994.51	1,754.43	-5,138.22	5,328.20	0.00	0.00	0.00	
7,900.00	57.61	288.852	5,048.08	1,781.71	-5,218.14	5,411.06	0.00	0.00	0.00	
7,952.13	57.61	288.852	5,076.00	1,795.94	-5,259.79	5,454.26	0.00	0.00	0.00	
MNCS_E										
8,000.00	57.61	288.852	5,101.64	1,809.00	-5,298.05	5,493.93	0.00	0.00	0.00	
8,045.47	57.61	288.852	5,126.00	1,821.41	-5,334.38	5,531.61	0.00	0.00	0.00	
MNCS_F										
8,100.00	57.61	288.852	5,155.21	1,836.29	-5,377.96	5,576.80	0.00	0.00	0.00	
8,149.29	57.61	288.852	5,181.61	1,849.73	-5,417.35	5,617.64	0.00	0.00	0.00	
Begin 10°/100' build/turn										
8,167.04	58.57	287.091	5,191.00	1,854.38	-5,431.68	5,632.38	10.00	5.40	-9.92	
MNCS_G										
8,200.00	60.41	283.917	5,207.74	1,861.96	-5,459.04	5,659.87	10.00	5.58	-9.63	
8,250.00	63.33	279.319	5,231.32	1,870.82	-5,502.21	5,701.70	10.00	5.85	-9.20	
8,296.13	66.16	275.287	5,251.00	1,876.10	-5,543.58	5,740.19	10.00	6.13	-8.74	
MNCS_H										
8,300.00	66.40	274.957	5,252.56	1,876.42	-5,547.11	5,743.41	10.00	6.25	-8.53	
8,350.00	69.59	270.798	5,271.30	1,878.72	-5,593.39	5,784.66	10.00	6.37	-8.32	
8,356.38	70.00	270.280	5,273.50	1,878.78	-5,599.38	5,789.88	10.00	6.48	-8.11	
Begin 10°/100' build										
8,400.00	74.36	270.279	5,286.84	1,878.98	-5,640.90	5,825.96	10.00	10.00	0.00	
8,438.65	78.23	270.279	5,296.00	1,879.17	-5,678.44	5,858.58	10.00	10.00	0.00	
MNCS_I @ 0vs										
8,450.00	79.36	270.279	5,298.21	1,879.22	-5,689.57	5,868.26	10.00	10.00	0.00	
8,500.00	84.36	270.278	5,305.28	1,879.46	-5,739.05	5,911.26	10.00	10.00	0.00	
8,506.38	85.00	270.278	5,305.87	1,879.49	-5,745.40	5,916.78	10.00	10.00	0.00	
Casing @ 8506.38 MD 5305.87 TVD - 7" Intermediate Casing										
8,550.00	89.36	270.277	5,308.02	1,879.70	-5,788.96	5,954.63	10.00	10.00	0.00	
8,561.24	90.49	270.277	5,308.03	1,879.76	-5,800.20	5,964.39	10.00	10.00	0.00	
Begin 90.49° lateral										
8,600.00	90.49	270.277	5,307.70	1,879.94	-5,838.96	5,998.07	0.00	0.00	0.00	
8,700.00	90.49	270.277	5,306.86	1,880.43	-5,938.95	6,084.97	0.00	0.00	0.00	
8,800.00	90.49	270.277	5,306.01	1,880.91	-6,038.95	6,171.86	0.00	0.00	0.00	
8,900.00	90.49	270.277	5,305.16	1,881.40	-6,138.94	6,258.76	0.00	0.00	0.00	
9,000.00	90.49	270.277	5,304.31	1,881.88	-6,238.94	6,345.65	0.00	0.00	0.00	
9,100.00	90.49	270.277	5,303.46	1,882.36	-6,338.93	6,432.55	0.00	0.00	0.00	
9,200.00	90.49	270.277	5,302.62	1,882.85	-6,438.93	6,519.44	0.00	0.00	0.00	
9,300.00	90.49	270.277	5,301.77	1,883.33	-6,538.92	6,606.34	0.00	0.00	0.00	
9,400.00	90.49	270.277	5,300.92	1,883.82	-6,638.92	6,693.23	0.00	0.00	0.00	
9,500.00	90.49	270.277	5,300.07	1,884.30	-6,738.92	6,780.13	0.00	0.00	0.00	
9,600.00	90.49	270.277	5,299.22	1,884.78	-6,838.91	6,867.02	0.00	0.00	0.00	
9,700.00	90.49	270.277	5,298.37	1,885.27	-6,938.91	6,953.92	0.00	0.00	0.00	
9,800.00	90.49	270.277	5,297.53	1,885.75	-7,038.90	7,040.81	0.00	0.00	0.00	



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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)	
9,900.00	90.49	270.277	5,296.68	1,886.23	-7,138.90	7,127.71	0.00	0.00	0.00	
10,000.00	90.49	270.277	5,295.83	1,886.72	-7,238.89	7,214.60	0.00	0.00	0.00	
10,097.81	90.49	270.277	5,295.00	1,887.19	-7,336.69	7,299.59	0.00	0.00	0.00	
Begin 7°/100' turn										
10,100.00	90.48	270.431	5,294.98	1,887.21	-7,338.89	7,301.50	7.00	-0.08	7.00	
10,150.00	90.44	273.931	5,294.58	1,889.11	-7,388.84	7,345.74	7.00	-0.08	7.00	
10,200.00	90.40	277.431	5,294.21	1,894.06	-7,438.59	7,391.31	7.00	-0.08	7.00	
10,250.00	90.36	280.930	5,293.87	1,902.03	-7,487.94	7,438.06	7.00	-0.08	7.00	
10,300.00	90.32	284.430	5,293.57	1,913.01	-7,536.71	7,485.80	7.00	-0.09	7.00	
10,350.00	90.27	287.930	5,293.32	1,926.94	-7,584.72	7,534.36	7.00	-0.09	7.00	
10,400.00	90.23	291.430	5,293.10	1,943.77	-7,631.79	7,583.55	7.00	-0.09	7.00	
10,450.00	90.18	294.929	5,292.92	1,963.45	-7,677.75	7,633.20	7.00	-0.09	7.00	
10,500.00	90.13	298.429	5,292.79	1,985.89	-7,722.42	7,683.11	7.00	-0.10	7.00	
10,550.00	90.08	301.929	5,292.69	2,011.03	-7,765.63	7,733.10	7.00	-0.10	7.00	
10,600.00	90.04	305.428	5,292.64	2,038.75	-7,807.24	7,782.98	7.00	-0.10	7.00	
10,650.00	89.99	308.928	5,292.63	2,068.96	-7,847.07	7,832.58	7.00	-0.10	7.00	
10,700.00	89.94	312.428	5,292.66	2,101.54	-7,884.98	7,881.69	7.00	-0.10	7.00	
10,750.00	89.89	315.927	5,292.74	2,136.38	-7,920.83	7,930.15	7.00	-0.10	7.00	
10,780.26	89.86	318.045	5,292.80	2,158.51	-7,941.48	7,959.08	7.00	-0.10	7.00	
Begin 89.86° lateral										
10,800.00	89.86	318.045	5,292.85	2,173.19	-7,954.67	7,977.84	0.00	0.00	0.00	
10,900.00	89.86	318.045	5,293.09	2,247.55	-8,021.53	8,072.89	0.00	0.00	0.00	
11,000.00	89.86	318.045	5,293.33	2,321.92	-8,088.38	8,167.94	0.00	0.00	0.00	
11,100.00	89.86	318.045	5,293.57	2,396.29	-8,155.24	8,262.98	0.00	0.00	0.00	
11,200.00	89.86	318.045	5,293.81	2,470.66	-8,222.09	8,358.03	0.00	0.00	0.00	
11,300.00	89.86	318.045	5,294.06	2,545.02	-8,288.94	8,453.08	0.00	0.00	0.00	
11,400.00	89.86	318.045	5,294.30	2,619.39	-8,355.80	8,548.12	0.00	0.00	0.00	
11,500.00	89.86	318.045	5,294.54	2,693.76	-8,422.65	8,643.17	0.00	0.00	0.00	
11,600.00	89.86	318.045	5,294.78	2,768.12	-8,489.51	8,738.22	0.00	0.00	0.00	
11,700.00	89.86	318.045	5,295.02	2,842.49	-8,556.36	8,833.26	0.00	0.00	0.00	
11,800.00	89.86	318.045	5,295.26	2,916.86	-8,623.21	8,928.31	0.00	0.00	0.00	
11,900.00	89.86	318.045	5,295.51	2,991.23	-8,690.07	9,023.36	0.00	0.00	0.00	
12,000.00	89.86	318.045	5,295.75	3,065.59	-8,756.92	9,118.40	0.00	0.00	0.00	
12,100.00	89.86	318.045	5,295.99	3,139.96	-8,823.78	9,213.45	0.00	0.00	0.00	
12,200.00	89.86	318.045	5,296.23	3,214.33	-8,890.63	9,308.50	0.00	0.00	0.00	
12,300.00	89.86	318.045	5,296.47	3,288.69	-8,957.48	9,403.54	0.00	0.00	0.00	
12,400.00	89.86	318.045	5,296.71	3,363.06	-9,024.34	9,498.59	0.00	0.00	0.00	
12,500.00	89.86	318.045	5,296.95	3,437.43	-9,091.19	9,593.64	0.00	0.00	0.00	
12,600.00	89.86	318.045	5,297.20	3,511.80	-9,158.05	9,688.68	0.00	0.00	0.00	
12,700.00	89.86	318.045	5,297.44	3,586.16	-9,224.90	9,783.73	0.00	0.00	0.00	
12,800.00	89.86	318.045	5,297.68	3,660.53	-9,291.75	9,878.78	0.00	0.00	0.00	
12,900.00	89.86	318.045	5,297.92	3,734.90	-9,358.61	9,973.82	0.00	0.00	0.00	
13,000.00	89.86	318.045	5,298.16	3,809.27	-9,425.46	10,068.87	0.00	0.00	0.00	
13,100.00	89.86	318.045	5,298.40	3,883.63	-9,492.32	10,163.92	0.00	0.00	0.00	
13,200.00	89.86	318.045	5,298.65	3,958.00	-9,559.17	10,258.96	0.00	0.00	0.00	
13,300.00	89.86	318.045	5,298.89	4,032.37	-9,626.02	10,354.01	0.00	0.00	0.00	
13,400.00	89.86	318.045	5,299.13	4,106.73	-9,692.88	10,449.06	0.00	0.00	0.00	
13,500.00	89.86	318.045	5,299.37	4,181.10	-9,759.73	10,544.10	0.00	0.00	0.00	
13,600.00	89.86	318.045	5,299.61	4,255.47	-9,826.59	10,639.15	0.00	0.00	0.00	
13,700.00	89.86	318.045	5,299.85	4,329.84	-9,893.44	10,734.20	0.00	0.00	0.00	
13,761.01	89.86	318.045	5,300.00	4,375.21	-9,934.23	10,792.18	0.00	0.00	0.00	
PBHL/TD @ 13761.01 MD 5300.00 TVD										



Planning Report

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
8,506.38	5,305.87	7" Intermediate Casing	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,074.63	1,066.00	Ojo Alamo				
1,201.68	1,186.00	Kirtland				
1,387.61	1,356.00	Fruitland				
1,786.00	1,691.00	Pictured Cliffs				
1,993.68	1,846.00	Lewis				
2,389.50	2,096.00	Chacra				
4,423.90	3,186.00	Cliff House				
5,487.97	3,756.00	Menefee				
6,048.01	4,056.00	Point Lookout				
6,440.03	4,266.00	Mancos				
7,065.41	4,601.00	MNCS_A				
7,261.42	4,706.00	MNCS_B				
7,420.09	4,791.00	MNCS_C				
7,494.77	4,831.00	MNCS_Cms				
7,737.45	4,961.00	MNCS_D				
7,952.13	5,076.00	MNCS_E				
8,045.47	5,126.00	MNCS_F				
8,167.04	5,191.00	MNCS_G				
8,296.13	5,251.00	MNCS_H				
8,438.65	5,296.00	MNCS_I @ 0vs				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build	
2,420.33	2,112.73	286.55	-839.21	Begin 57.61° tangent	
8,149.29	5,181.61	1,849.73	-5,417.35	Begin 10°/100' build/turn	
8,356.38	5,273.50	1,878.78	-5,599.38	Begin 10°/100' build	
8,506.38	5,305.87	1,879.49	-5,745.40	Casing @ 8506.38 MD 5305.87 TVD	
8,561.24	5,308.03	1,879.76	-5,800.20	Begin 90.49° lateral	
10,097.81	5,295.00	1,887.19	-7,336.69	Begin 7°/100' turn	
10,780.26	5,292.80	2,158.51	-7,941.48	Begin 89.86° lateral	
13,761.01	5,300.00	4,375.21	-9,934.23	PBHL/TD @ 13761.01 MD 5300.00 TVD	



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW		
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 (101,103,105 & 107)		
Site Position:		Northing:	1,898,440.34 usft
From:	Lat/Long	Easting:	2,788,834.76 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.21721700
		Longitude:	-107.61045600

Well	Betonnie Tsosie Wash Unit 107 H, Surf loc: 993 FNL 1135 FEL Section 19-T23N-R07W						
Well Position	+N/-S	0.00 ft	Northing:	1,898,381.76	usft	Latitude:	36.21705600
	+E/-W	0.00 ft	Easting:	2,788,848.76	usft	Longitude:	-107.61040900
Position Uncertainty		0.00 ft	Wellhead Elevation:		ft	Ground Level:	6,962.00 ft
Grid Convergence:		0.132 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/25/2025	8.357	62.674	49,000.84354537

Design	rev1			
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	0.00	0.00	299.937

Plan Survey Tool Program	Date	5/29/2025		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,761.01 rev1 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	0.00	0.00	0.00	0.00	0.00	0.000	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,420.33	57.61	288.852	2,112.73	286.55	-839.21	3.00	3.00	0.00	288.852	
8,149.29	57.61	288.852	5,181.61	1,849.73	-5,417.35	0.00	0.00	0.00	0.000	
8,356.38	70.00	270.280	5,273.50	1,878.78	-5,599.38	10.00	5.98	-8.97	-57.817	
8,506.38	85.00	270.278	5,305.87	1,879.49	-5,745.40	10.00	10.00	0.00	-0.008	
8,561.24	90.49	270.277	5,308.03	1,879.76	-5,800.20	10.00	10.00	0.00	-0.008	
10,097.81	90.49	270.277	5,295.00	1,887.19	-7,336.69	0.00	0.00	0.00	0.000	BTW 107 AP1
10,780.26	89.86	318.045	5,292.80	2,158.51	-7,941.48	7.00	-0.09	7.00	90.628	
13,761.01	89.86	318.045	5,300.00	4,375.21	-9,934.23	0.00	0.00	0.00	0.000	BTW 107 LTP 1866 F



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
100.00	0.00	0.000	100.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
200.00	0.00	0.000	200.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
300.00	0.00	0.000	300.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
350.00	0.00	0.000	350.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
9-5/8" Surface Casing									
400.00	0.00	0.000	400.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
500.00	0.00	0.000	500.00	0.00	0.00	1,898,381.76	2,788,848.76	36.21705600	-107.61040900
KOP Begin 3°/100' build									
600.00	3.00	288.852	599.95	0.85	-2.48	1,898,382.61	2,788,846.28	36.21705834	-107.61041739
700.00	6.00	288.852	699.63	3.38	-9.90	1,898,385.14	2,788,838.86	36.21706535	-107.61044254
800.00	9.00	288.852	798.77	7.60	-22.25	1,898,389.36	2,788,826.51	36.21707701	-107.61048438
900.00	12.00	288.852	897.08	13.49	-39.50	1,898,395.25	2,788,809.26	36.21709330	-107.61054279
1,000.00	15.00	288.852	994.31	21.03	-61.59	1,898,402.79	2,788,787.17	36.21711415	-107.61061762
1,074.63	17.24	288.852	1,066.00	27.72	-81.19	1,898,409.48	2,788,767.57	36.21713267	-107.61068404
Ojo Alamo									
1,100.00	18.00	288.852	1,090.18	30.20	-88.46	1,898,411.97	2,788,760.30	36.21713953	-107.61070866
1,200.00	21.00	288.852	1,184.43	40.99	-120.05	1,898,422.75	2,788,728.71	36.21716936	-107.61081566
1,201.68	21.05	288.852	1,186.00	41.18	-120.62	1,898,422.95	2,788,728.14	36.21716990	-107.61081759
Kirtland									
1,300.00	24.00	288.852	1,276.81	53.35	-156.26	1,898,435.12	2,788,692.50	36.21720355	-107.61093832
1,387.61	26.63	288.852	1,356.00	65.46	-191.71	1,898,447.22	2,788,657.05	36.21723702	-107.61105840
Fruitland									
1,400.00	27.00	288.852	1,367.06	67.26	-197.00	1,898,449.02	2,788,651.76	36.21724202	-107.61107631
1,500.00	30.00	288.852	1,454.93	82.68	-242.15	1,898,464.44	2,788,606.61	36.21728465	-107.61122926
1,600.00	33.00	288.852	1,540.18	99.56	-291.59	1,898,481.32	2,788,557.17	36.21733134	-107.61139674
1,700.00	36.00	288.852	1,622.59	117.86	-345.18	1,898,499.62	2,788,503.58	36.21738195	-107.61157829
1,786.00	38.58	288.852	1,691.00	134.70	-394.49	1,898,516.46	2,788,454.27	36.21742850	-107.61174530
Pictured Cliffs									
1,800.00	39.00	288.852	1,701.91	137.53	-402.79	1,898,519.29	2,788,445.97	36.21743634	-107.61177342
1,900.00	42.00	288.852	1,777.95	158.51	-464.24	1,898,540.27	2,788,384.52	36.21749437	-107.61198160
1,993.68	44.81	288.852	1,846.00	179.31	-525.16	1,898,561.07	2,788,323.60	36.21755189	-107.61218794
Lewis									
2,000.00	45.00	288.852	1,850.47	180.75	-529.38	1,898,562.51	2,788,319.38	36.21755587	-107.61220224
2,100.00	48.00	288.852	1,919.30	204.19	-598.01	1,898,585.95	2,788,250.75	36.21762068	-107.61243475
2,200.00	51.00	288.852	1,984.24	228.76	-669.97	1,898,610.52	2,788,178.79	36.21768862	-107.61267849
2,300.00	54.00	288.852	2,045.11	254.39	-745.04	1,898,636.15	2,788,103.72	36.21775951	-107.61293279
2,389.50	56.69	288.852	2,096.00	278.18	-814.70	1,898,659.94	2,788,034.06	36.21782529	-107.61316878
Chacra									
2,400.00	57.00	288.852	2,101.74	281.02	-823.02	1,898,662.78	2,788,025.74	36.21783314	-107.61319696
2,420.33	57.61	288.852	2,112.73	286.55	-839.21	1,898,668.31	2,788,009.55	36.21784843	-107.61325181
Begin 57.61° tangent									
2,500.00	57.61	288.852	2,155.40	308.28	-902.88	1,898,690.05	2,787,945.88	36.21790854	-107.61346747
2,600.00	57.61	288.852	2,208.97	335.57	-982.79	1,898,717.33	2,787,865.97	36.21798400	-107.61373818
2,700.00	57.61	288.852	2,262.54	362.86	-1,062.70	1,898,744.62	2,787,786.06	36.21805945	-107.61400888
2,800.00	57.61	288.852	2,316.11	390.14	-1,142.61	1,898,771.90	2,787,706.15	36.21813490	-107.61427958
2,900.00	57.61	288.852	2,369.67	417.43	-1,222.53	1,898,799.19	2,787,626.24	36.21821035	-107.61455029
3,000.00	57.61	288.852	2,423.24	444.71	-1,302.44	1,898,826.47	2,787,546.32	36.21828580	-107.61482099
3,100.00	57.61	288.852	2,476.81	472.00	-1,382.35	1,898,853.76	2,787,466.41	36.21836125	-107.61509170
3,200.00	57.61	288.852	2,530.38	499.28	-1,462.26	1,898,881.05	2,787,386.50	36.21843670	-107.61536240
3,300.00	57.61	288.852	2,583.95	526.57	-1,542.18	1,898,908.33	2,787,306.59	36.21851215	-107.61563311
3,400.00	57.61	288.852	2,637.51	553.86	-1,622.09	1,898,935.62	2,787,226.67	36.21858760	-107.61590382
3,500.00	57.61	288.852	2,691.08	581.14	-1,702.00	1,898,962.90	2,787,146.76	36.21866305	-107.61617452



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Bettonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Bettonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Bettonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,600.00	57.61	288.852	2,744.65	608.43	-1,781.91	1,898,990.19	2,787,066.85	36.21873849	-107.61644523
3,700.00	57.61	288.852	2,798.22	635.71	-1,861.82	1,899,017.47	2,786,986.94	36.21881394	-107.61671594
3,800.00	57.61	288.852	2,851.79	663.00	-1,941.74	1,899,044.76	2,786,907.03	36.21888939	-107.61698665
3,900.00	57.61	288.852	2,905.35	690.28	-2,021.65	1,899,072.04	2,786,827.11	36.21896483	-107.61725736
4,000.00	57.61	288.852	2,958.92	717.57	-2,101.56	1,899,099.33	2,786,747.20	36.21904028	-107.61752807
4,100.00	57.61	288.852	3,012.49	744.86	-2,181.47	1,899,126.62	2,786,667.29	36.21911572	-107.61779878
4,200.00	57.61	288.852	3,066.06	772.14	-2,261.39	1,899,153.90	2,786,587.38	36.21919116	-107.61806949
4,300.00	57.61	288.852	3,119.63	799.43	-2,341.30	1,899,181.19	2,786,507.47	36.21926661	-107.61834020
4,400.00	57.61	288.852	3,173.19	826.71	-2,421.21	1,899,208.47	2,786,427.55	36.21934205	-107.61861092
4,423.90	57.61	288.852	3,186.00	833.24	-2,440.31	1,899,215.00	2,786,408.45	36.21936008	-107.61867563
Cliff House									
4,500.00	57.61	288.852	3,226.76	854.00	-2,501.12	1,899,235.76	2,786,347.64	36.21941749	-107.61888163
4,600.00	57.61	288.852	3,280.33	881.29	-2,581.03	1,899,263.04	2,786,267.73	36.21949293	-107.61915234
4,700.00	57.61	288.852	3,333.90	908.57	-2,660.95	1,899,290.33	2,786,187.82	36.21956837	-107.61942306
4,800.00	57.61	288.852	3,387.47	935.86	-2,740.86	1,899,317.62	2,786,107.91	36.21964381	-107.61969377
4,900.00	57.61	288.852	3,441.03	963.14	-2,820.77	1,899,344.90	2,786,027.99	36.21971925	-107.61996449
5,000.00	57.61	288.852	3,494.60	990.43	-2,900.68	1,899,372.19	2,785,948.08	36.21979469	-107.62023520
5,100.00	57.61	288.852	3,548.17	1,017.71	-2,980.59	1,899,399.47	2,785,868.17	36.21987013	-107.62050592
5,200.00	57.61	288.852	3,601.74	1,045.00	-3,060.51	1,899,426.76	2,785,788.26	36.21994556	-107.62077663
5,300.00	57.61	288.852	3,655.31	1,072.29	-3,140.42	1,899,454.04	2,785,708.35	36.22002100	-107.62104735
5,400.00	57.61	288.852	3,708.88	1,099.57	-3,220.33	1,899,481.33	2,785,628.43	36.22009644	-107.62131807
5,487.97	57.61	288.852	3,756.00	1,123.57	-3,290.63	1,899,505.33	2,785,558.13	36.22016280	-107.62155622
Menefee									
5,500.00	57.61	288.852	3,762.44	1,126.86	-3,300.24	1,899,508.62	2,785,548.52	36.22017187	-107.62158879
5,600.00	57.61	288.852	3,816.01	1,154.14	-3,380.16	1,899,535.90	2,785,468.61	36.22024731	-107.62185950
5,700.00	57.61	288.852	3,869.58	1,181.43	-3,460.07	1,899,563.19	2,785,388.70	36.22032274	-107.62213022
5,800.00	57.61	288.852	3,923.15	1,208.71	-3,539.98	1,899,590.47	2,785,308.79	36.22039818	-107.62240094
5,900.00	57.61	288.852	3,976.72	1,236.00	-3,619.89	1,899,617.76	2,785,228.87	36.22047361	-107.62267166
6,000.00	57.61	288.852	4,030.28	1,263.29	-3,699.80	1,899,645.04	2,785,148.96	36.22054904	-107.62294238
6,048.01	57.61	288.852	4,056.00	1,276.38	-3,738.17	1,899,658.14	2,785,110.60	36.22058525	-107.62307235
Point Lookout									
6,100.00	57.61	288.852	4,083.85	1,290.57	-3,779.72	1,899,672.33	2,785,069.05	36.22062447	-107.62321310
6,200.00	57.61	288.852	4,137.42	1,317.86	-3,859.63	1,899,699.62	2,784,989.14	36.22069990	-107.62348383
6,300.00	57.61	288.852	4,190.99	1,345.14	-3,939.54	1,899,726.90	2,784,909.23	36.22077533	-107.62375455
6,400.00	57.61	288.852	4,244.56	1,372.43	-4,019.45	1,899,754.19	2,784,829.31	36.22085076	-107.62402527
6,440.03	57.61	288.852	4,266.00	1,383.35	-4,051.44	1,899,765.11	2,784,797.32	36.22088096	-107.62413365
Mancos									
6,500.00	57.61	288.852	4,298.12	1,399.71	-4,099.37	1,899,781.47	2,784,749.40	36.22092619	-107.62429599
6,600.00	57.61	288.852	4,351.69	1,427.00	-4,179.28	1,899,808.76	2,784,669.49	36.22100162	-107.62456672
6,700.00	57.61	288.852	4,405.26	1,454.29	-4,259.19	1,899,836.04	2,784,589.58	36.22107705	-107.62483744
6,800.00	57.61	288.852	4,458.83	1,481.57	-4,339.10	1,899,863.33	2,784,509.67	36.22115248	-107.62510817
6,900.00	57.61	288.852	4,512.40	1,508.86	-4,419.01	1,899,890.62	2,784,429.75	36.22122791	-107.62537889
7,000.00	57.61	288.852	4,565.96	1,536.14	-4,498.93	1,899,917.90	2,784,349.84	36.22130333	-107.62564962
7,065.41	57.61	288.852	4,601.00	1,553.99	-4,551.19	1,899,935.75	2,784,297.58	36.22135266	-107.62582669
MNCS_A									
7,100.00	57.61	288.852	4,619.53	1,563.43	-4,578.84	1,899,945.19	2,784,269.93	36.22137876	-107.62592034
7,200.00	57.61	288.852	4,673.10	1,590.71	-4,658.75	1,899,972.47	2,784,190.02	36.22145418	-107.62619107
7,261.42	57.61	288.852	4,706.00	1,607.47	-4,707.83	1,899,989.23	2,784,140.94	36.22150051	-107.62635735
MNCS_B									
7,300.00	57.61	288.852	4,726.67	1,618.00	-4,738.66	1,899,999.76	2,784,110.11	36.22152961	-107.62646180
7,400.00	57.61	288.852	4,780.24	1,645.29	-4,818.57	1,900,027.04	2,784,030.19	36.22160503	-107.62673253
7,420.09	57.61	288.852	4,791.00	1,650.77	-4,834.63	1,900,032.53	2,784,014.14	36.22162019	-107.62678693
MNCS_C									



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,494.77	57.61	288.852	4,831.00	1,671.14	-4,894.30	1,900,052.90	2,783,954.47	36.22167651	-107.62698908	
MNCS_Cms										
7,500.00	57.61	288.852	4,833.80	1,672.57	-4,898.49	1,900,054.33	2,783,950.28	36.22168045	-107.62700326	
7,600.00	57.61	288.852	4,887.37	1,699.86	-4,978.40	1,900,081.62	2,783,870.37	36.22175588	-107.62727398	
7,700.00	57.61	288.852	4,940.94	1,727.14	-5,058.31	1,900,108.90	2,783,790.46	36.22183130	-107.62754471	
7,737.45	57.61	288.852	4,961.00	1,737.36	-5,088.24	1,900,119.12	2,783,760.53	36.22185954	-107.62764610	
MNCS_D										
7,800.00	57.61	288.852	4,994.51	1,754.43	-5,138.22	1,900,136.19	2,783,710.55	36.22190672	-107.62781544	
7,900.00	57.61	288.852	5,048.08	1,781.71	-5,218.14	1,900,163.47	2,783,630.63	36.22198214	-107.62808617	
7,952.13	57.61	288.852	5,076.00	1,795.94	-5,259.79	1,900,177.70	2,783,588.98	36.22202146	-107.62822730	
MNCS_E										
8,000.00	57.61	288.852	5,101.64	1,809.00	-5,298.05	1,900,190.76	2,783,550.72	36.22205756	-107.62835691	
8,045.47	57.61	288.852	5,126.00	1,821.41	-5,334.38	1,900,203.16	2,783,514.39	36.22209185	-107.62848000	
MNCS_F										
8,100.00	57.61	288.852	5,155.21	1,836.29	-5,377.96	1,900,218.04	2,783,470.81	36.22213298	-107.62862764	
8,149.29	57.61	288.852	5,181.61	1,849.73	-5,417.35	1,900,231.49	2,783,431.42	36.22217015	-107.62876107	
Begin 10°/100' build/turn										
8,167.04	58.57	287.091	5,191.00	1,854.38	-5,431.68	1,900,236.14	2,783,417.09	36.22218301	-107.62880964	
MNCS_G										
8,200.00	60.41	283.917	5,207.74	1,861.96	-5,459.04	1,900,243.72	2,783,389.73	36.22220399	-107.62890233	
8,250.00	63.33	279.319	5,231.32	1,870.82	-5,502.21	1,900,252.57	2,783,346.56	36.22222856	-107.62904865	
8,296.13	66.16	275.287	5,251.00	1,876.10	-5,543.58	1,900,257.86	2,783,305.19	36.22224331	-107.62918887	
MNCS_H										
8,300.00	66.40	274.957	5,252.56	1,876.42	-5,547.11	1,900,258.17	2,783,301.66	36.22224420	-107.62920083	
8,350.00	69.59	270.798	5,271.30	1,878.72	-5,593.39	1,900,260.48	2,783,255.38	36.22225081	-107.62935772	
8,356.38	70.00	270.280	5,273.50	1,878.78	-5,599.38	1,900,260.54	2,783,249.39	36.22225100	-107.62937802	
Begin 10°/100' build										
8,400.00	74.36	270.279	5,286.84	1,878.98	-5,640.90	1,900,260.74	2,783,207.87	36.22225179	-107.62951877	
8,438.65	78.23	270.279	5,296.00	1,879.17	-5,678.44	1,900,260.92	2,783,170.34	36.22225251	-107.62964604	
MNCS_I @ 0vs										
8,450.00	79.36	270.279	5,298.21	1,879.22	-5,689.57	1,900,260.98	2,783,159.20	36.22225273	-107.62968379	
8,500.00	84.36	270.278	5,305.28	1,879.46	-5,739.05	1,900,261.22	2,783,109.72	36.22225367	-107.62985154	
8,506.38	85.00	270.278	5,305.87	1,879.49	-5,745.40	1,900,261.25	2,783,103.37	36.22225379	-107.62987308	
Casing @ 8506.38 MD 5305.87 TVD - 7" Intermediate Casing										
8,550.00	89.36	270.277	5,308.02	1,879.70	-5,788.96	1,900,261.46	2,783,059.81	36.22225462	-107.63002075	
8,561.24	90.49	270.277	5,308.03	1,879.76	-5,800.20	1,900,261.51	2,783,048.57	36.22225484	-107.63005886	
Begin 90.49° lateral										
8,600.00	90.49	270.277	5,307.70	1,879.94	-5,838.96	1,900,261.70	2,783,009.81	36.22225558	-107.63019025	
8,700.00	90.49	270.277	5,306.86	1,880.43	-5,938.95	1,900,262.19	2,782,909.82	36.22225748	-107.63052927	
8,800.00	90.49	270.277	5,306.01	1,880.91	-6,038.95	1,900,262.67	2,782,809.82	36.22225938	-107.63086828	
8,900.00	90.49	270.277	5,305.16	1,881.40	-6,138.94	1,900,263.15	2,782,709.83	36.22226129	-107.63120729	
9,000.00	90.49	270.277	5,304.31	1,881.88	-6,238.94	1,900,263.64	2,782,609.83	36.22226319	-107.63154630	
9,100.00	90.49	270.277	5,303.46	1,882.36	-6,338.93	1,900,264.12	2,782,509.84	36.22226509	-107.63188532	
9,200.00	90.49	270.277	5,302.62	1,882.85	-6,438.93	1,900,264.61	2,782,409.84	36.22226699	-107.63222433	
9,300.00	90.49	270.277	5,301.77	1,883.33	-6,538.92	1,900,265.09	2,782,309.85	36.22226889	-107.63256334	
9,400.00	90.49	270.277	5,300.92	1,883.82	-6,638.92	1,900,265.57	2,782,209.85	36.22227079	-107.63290235	
9,500.00	90.49	270.277	5,300.07	1,884.30	-6,738.92	1,900,266.06	2,782,109.86	36.22227268	-107.63324136	
9,600.00	90.49	270.277	5,299.22	1,884.78	-6,838.91	1,900,266.54	2,782,009.86	36.22227458	-107.63358038	
9,700.00	90.49	270.277	5,298.37	1,885.27	-6,938.91	1,900,267.02	2,781,909.87	36.22227647	-107.63391939	
9,800.00	90.49	270.277	5,297.53	1,885.75	-7,038.90	1,900,267.51	2,781,809.87	36.22227837	-107.63425840	
9,900.00	90.49	270.277	5,296.68	1,886.23	-7,138.90	1,900,267.99	2,781,709.88	36.22228026	-107.63459741	
10,000.00	90.49	270.277	5,295.83	1,886.72	-7,238.89	1,900,268.48	2,781,609.88	36.22228215	-107.63493643	



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,097.81	90.49	270.277	5,295.00	1,887.19	-7,336.69	1,900,268.95	2,781,512.08	36.22228400	-107.63526800
Begin 7°/100' turn									
10,100.00	90.48	270.431	5,294.98	1,887.21	-7,338.89	1,900,268.96	2,781,509.89	36.22228405	-107.63527544
10,150.00	90.44	273.931	5,294.58	1,889.11	-7,388.84	1,900,270.87	2,781,459.93	36.22228956	-107.63544479
10,200.00	90.40	277.431	5,294.21	1,894.06	-7,438.59	1,900,275.81	2,781,410.19	36.22230343	-107.63561341
10,250.00	90.36	280.930	5,293.87	1,902.03	-7,487.94	1,900,283.79	2,781,360.84	36.22232561	-107.63578067
10,300.00	90.32	284.430	5,293.57	1,913.01	-7,536.71	1,900,294.76	2,781,312.07	36.22235603	-107.63594594
10,350.00	90.27	287.930	5,293.32	1,926.94	-7,584.72	1,900,308.69	2,781,264.05	36.22239457	-107.63610862
10,400.00	90.23	291.430	5,293.10	1,943.77	-7,631.79	1,900,325.53	2,781,216.98	36.22244108	-107.63626809
10,450.00	90.18	294.929	5,292.92	1,963.45	-7,677.75	1,900,345.21	2,781,171.03	36.22249539	-107.63642376
10,500.00	90.13	298.429	5,292.79	1,985.89	-7,722.42	1,900,367.65	2,781,126.36	36.22255730	-107.63657505
10,550.00	90.08	301.929	5,292.69	2,011.03	-7,765.63	1,900,392.78	2,781,083.14	36.22262658	-107.63672140
10,600.00	90.04	305.428	5,292.64	2,038.75	-7,807.24	1,900,420.51	2,781,041.54	36.22270297	-107.63686225
10,650.00	89.99	308.928	5,292.63	2,068.96	-7,847.07	1,900,450.72	2,781,001.71	36.22278618	-107.63699709
10,700.00	89.94	312.428	5,292.66	2,101.54	-7,884.98	1,900,483.30	2,780,963.79	36.22287590	-107.63712540
10,750.00	89.89	315.927	5,292.74	2,136.38	-7,920.83	1,900,518.14	2,780,927.94	36.22297180	-107.63724672
10,780.26	89.86	318.045	5,292.80	2,158.51	-7,941.48	1,900,540.26	2,780,907.30	36.22303270	-107.63731655
Begin 89.86° lateral									
10,800.00	89.86	318.045	5,292.85	2,173.19	-7,954.67	1,900,554.94	2,780,894.10	36.22307310	-107.63736119
10,900.00	89.86	318.045	5,293.09	2,247.55	-8,021.53	1,900,629.31	2,780,827.25	36.22327776	-107.63758734
11,000.00	89.86	318.045	5,293.33	2,321.92	-8,088.38	1,900,703.68	2,780,760.39	36.22348242	-107.63781349
11,100.00	89.86	318.045	5,293.57	2,396.29	-8,155.24	1,900,778.05	2,780,693.54	36.22368709	-107.63803965
11,200.00	89.86	318.045	5,293.81	2,470.66	-8,222.09	1,900,852.41	2,780,626.69	36.22389175	-107.63826580
11,300.00	89.86	318.045	5,294.06	2,545.02	-8,288.94	1,900,926.78	2,780,559.83	36.22409641	-107.63849195
11,400.00	89.86	318.045	5,294.30	2,619.39	-8,355.80	1,901,001.15	2,780,492.98	36.22430107	-107.63871811
11,500.00	89.86	318.045	5,294.54	2,693.76	-8,422.65	1,901,075.51	2,780,426.13	36.22450573	-107.63894427
11,600.00	89.86	318.045	5,294.78	2,768.12	-8,489.51	1,901,149.88	2,780,359.27	36.22471039	-107.63917042
11,700.00	89.86	318.045	5,295.02	2,842.49	-8,556.36	1,901,224.25	2,780,292.42	36.22491505	-107.63939658
11,800.00	89.86	318.045	5,295.26	2,916.86	-8,623.21	1,901,298.61	2,780,225.56	36.22511971	-107.63962274
11,900.00	89.86	318.045	5,295.51	2,991.23	-8,690.07	1,901,372.98	2,780,158.71	36.22532437	-107.63984891
12,000.00	89.86	318.045	5,295.75	3,065.59	-8,756.92	1,901,447.35	2,780,091.86	36.22552902	-107.64007507
12,100.00	89.86	318.045	5,295.99	3,139.96	-8,823.78	1,901,521.72	2,780,025.00	36.22573368	-107.64030123
12,200.00	89.86	318.045	5,296.23	3,214.33	-8,890.63	1,901,596.08	2,779,958.15	36.22593834	-107.64052740
12,300.00	89.86	318.045	5,296.47	3,288.69	-8,957.48	1,901,670.45	2,779,891.29	36.22614300	-107.64075356
12,400.00	89.86	318.045	5,296.71	3,363.06	-9,024.34	1,901,744.82	2,779,824.44	36.22634765	-107.64097973
12,500.00	89.86	318.045	5,296.95	3,437.43	-9,091.19	1,901,819.18	2,779,757.59	36.22655231	-107.64120590
12,600.00	89.86	318.045	5,297.20	3,511.80	-9,158.05	1,901,893.55	2,779,690.73	36.22675697	-107.64143207
12,700.00	89.86	318.045	5,297.44	3,586.16	-9,224.90	1,901,967.92	2,779,623.88	36.22696162	-107.64165824
12,800.00	89.86	318.045	5,297.68	3,660.53	-9,291.75	1,902,042.29	2,779,557.02	36.22716628	-107.64188441
12,900.00	89.86	318.045	5,297.92	3,734.90	-9,358.61	1,902,116.65	2,779,490.17	36.22737093	-107.64211059
13,000.00	89.86	318.045	5,298.16	3,809.27	-9,425.46	1,902,191.02	2,779,423.32	36.22757558	-107.64233676
13,100.00	89.86	318.045	5,298.40	3,883.63	-9,492.32	1,902,265.39	2,779,356.46	36.22778024	-107.64256294
13,200.00	89.86	318.045	5,298.65	3,958.00	-9,559.17	1,902,339.75	2,779,289.61	36.22798489	-107.64278911
13,300.00	89.86	318.045	5,298.89	4,032.37	-9,626.02	1,902,414.12	2,779,222.76	36.22818954	-107.64301529
13,400.00	89.86	318.045	5,299.13	4,106.73	-9,692.88	1,902,488.49	2,779,155.90	36.22839419	-107.64324147
13,500.00	89.86	318.045	5,299.37	4,181.10	-9,759.73	1,902,562.85	2,779,089.05	36.22859885	-107.64346765
13,600.00	89.86	318.045	5,299.61	4,255.47	-9,826.59	1,902,637.22	2,779,022.19	36.22880350	-107.64369383
13,700.00	89.86	318.045	5,299.85	4,329.84	-9,893.44	1,902,711.59	2,778,955.34	36.22900815	-107.64392002
13,761.01	89.86	318.045	5,300.00	4,375.21	-9,934.23	1,902,756.96	2,778,914.55	36.22913300	-107.64405800
PBHL/TD @ 13761.01 MD 5300.00 TVD									



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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
BTW 107 AP1 - plan hits target center - Point	0.00	2.166	5,295.00	1,887.19	-7,336.69	1,900,268.95	2,781,512.08	36.22228400	-107.63526800
BTW 107 LTP 1866 FNL - plan hits target center - Point	0.00	2.166	5,300.00	4,375.21	-9,934.23	1,902,756.96	2,778,914.55	36.22913300	-107.64405800
BTW 107 FTP 909 FSL - plan misses target center by 34.43ft at 8367.55ft MD (5277.22 TVD, 1878.83 N, -5609.91 E) - Point	0.00	2.166	5,310.00	1,878.78	-5,599.38	1,900,260.54	2,783,249.39	36.22225100	-107.62937800

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
8,506.38	5,305.87	7" Intermediate Casing	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,074.63	1,066.00	Ojo Alamo				
1,201.68	1,186.00	Kirtland				
1,387.61	1,356.00	Fruitland				
1,786.00	1,691.00	Pictured Cliffs				
1,993.68	1,846.00	Lewis				
2,389.50	2,096.00	Chacra				
4,423.90	3,186.00	Cliff House				
5,487.97	3,756.00	Menefee				
6,048.01	4,056.00	Point Lookout				
6,440.03	4,266.00	Mancos				
7,065.41	4,601.00	MNCS_A				
7,261.42	4,706.00	MNCS_B				
7,420.09	4,791.00	MNCS_C				
7,494.77	4,831.00	MNCS_Cms				
7,737.45	4,961.00	MNCS_D				
7,952.13	5,076.00	MNCS_E				
8,045.47	5,126.00	MNCS_F				
8,167.04	5,191.00	MNCS_G				
8,296.13	5,251.00	MNCS_H				
8,438.65	5,296.00	MNCS_I @ 0vs				



Planning Report - Geographic

Database:	DT_Jul1724_v17	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site:	Betonnie Tsosie Wash (101,103,105 & 107)	North Reference:	Grid
Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
2,420.33	2,112.73	286.55	-839.21	Begin 57.61° tangent
8,149.29	5,181.61	1,849.73	-5,417.35	Begin 10°/100' build/turn
8,356.38	5,273.50	1,878.78	-5,599.38	Begin 10°/100' build
8,506.38	5,305.87	1,879.49	-5,745.40	Casing @ 8506.38 MD 5305.87 TVD
8,561.24	5,308.03	1,879.76	-5,800.20	Begin 90.49° lateral
10,097.81	5,295.00	1,887.19	-7,336.69	Begin 7°/100' turn
10,780.26	5,292.80	2,158.51	-7,941.48	Begin 89.86° lateral
13,761.01	5,300.00	4,375.21	-9,934.23	PBHL/TD @ 13761.01 MD 5300.00 TVD



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference	rev1		
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 1,576.19ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/29/2025		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	13,761.01	rev1 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Betonnie Tsosie Wash (101,103,105 & 107)						
Betonnie Tsosie Wash Unit 101 H - Original Hole - rev1	851.02	849.05	50.91	44.96	8.549	CC, ES
Betonnie Tsosie Wash Unit 101 H - Original Hole - rev1	900.00	897.08	51.80	45.48	8.195	SF
Betonnie Tsosie Wash Unit 103 H - Original Hole - rev1	787.49	786.40	33.76	28.28	6.162	CC
Betonnie Tsosie Wash Unit 103 H - Original Hole - rev1	800.00	798.77	33.82	28.25	6.071	ES, SF
Betonnie Tsosie Wash Unit 105 H - Original Hole - rev1	704.45	704.06	17.05	12.18	3.499	CC, ES, SF
Betonnie Tsosie Wash Unit 731						
Betonnie Tsosie Wash Unit 731H - Original Hole - Survey	9,236.30	15,587.00	1,150.77	826.57	3.550	CC
Betonnie Tsosie Wash Unit 731H - Original Hole - Survey	9,400.00	15,587.00	1,162.36	802.86	3.233	ES
Betonnie Tsosie Wash Unit 731H - Original Hole - Survey	9,600.00	15,587.00	1,206.88	817.82	3.102	SF
North Alamito Unit (102 & 106)						
North Alamito Unit 102 H - Original Hole - MWD surveys	874.89	872.59	69.62	64.31	13.114	CC, ES
North Alamito Unit 102 H - Original Hole - MWD surveys	1,000.00	993.52	76.27	70.01	12.190	SF
North Alamito Unit 106 H - Original Hole - MWD surveys	1,865.14	1,834.86	20.60	4.94	1.315	Level 3<2.00, CC
North Alamito Unit 106 H - Original Hole - MWD surveys	1,900.00	1,868.37	22.44	3.36	1.176	Level 3<2.00, ES, SF

Offset Design:	Betonnie Tsosie Wash (101,103,105 & 107) - Betonnie Tsosie Wash Unit 101 H - Original Hole - rev1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD											Offset Well Error:	0.00 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	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	-13.441	58.58	-14.00	60.23				
100.00	100.00	100.00	100.00	0.27	0.27	-13.441	58.58	-14.00	60.23	59.68	0.55	109.807	
200.00	200.00	200.00	200.00	0.63	0.63	-13.441	58.58	-14.00	60.23	58.96	1.27	47.594	
300.00	300.00	300.00	300.00	0.99	0.99	-13.441	58.58	-14.00	60.23	58.24	1.98	30.381	
400.00	400.00	400.00	400.00	1.35	1.35	-13.441	58.58	-14.00	60.23	57.53	2.70	22.311	
500.00	500.00	500.00	500.00	1.71	1.71	-13.441	58.58	-14.00	60.23	56.81	3.42	17.629	
600.00	599.95	599.95	599.95	2.06	2.07	59.895	58.58	-14.00	58.87	54.74	4.13	14.259	
700.00	699.63	699.63	699.63	2.42	2.42	67.015	58.58	-14.00	55.35	50.50	4.84	11.429	
800.00	798.77	798.77	798.77	2.79	2.78	80.461	58.58	-14.00	51.64	46.07	5.57	9.270	
851.02	849.05	849.05	849.05	3.00	2.96	89.991	58.58	-14.00	50.91	44.96	5.95	8.549	CC, ES
900.00	897.08	897.08	897.08	3.19	3.13	100.408	58.58	-14.00	51.80	45.48	6.32	8.195	SF

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Betonnie Tsosie Wash (101,103,105 & 107) - Betonnie Tsosie Wash Unit 101 H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,000.00	994.31	994.31	994.31	3.64	3.48	121.974	58.58	-14.00	60.62	53.54	7.07	8.570	
1,100.00	1,090.18	1,087.14	1,087.11	4.13	3.81	137.598	60.22	-12.88	81.38	73.59	7.79	10.445	
1,200.00	1,184.43	1,177.04	1,176.78	4.69	4.14	146.141	65.36	-9.40	113.56	105.08	8.49	13.382	
1,300.00	1,276.81	1,263.44	1,262.60	5.34	4.45	150.323	73.59	-3.81	154.44	145.26	9.17	16.838	
1,400.00	1,367.06	1,345.74	1,343.86	6.07	4.75	152.193	84.40	3.52	202.58	192.73	9.85	20.567	
1,500.00	1,454.93	1,423.47	1,420.01	6.89	5.05	152.818	97.27	12.25	257.20	246.68	10.52	24.448	
1,600.00	1,540.18	1,500.00	1,494.31	7.82	5.36	152.763	112.43	22.54	317.72	306.50	11.22	28.317	
1,700.00	1,622.59	1,565.07	1,556.87	8.86	5.64	152.183	127.23	32.58	383.55	371.71	11.84	32.388	
1,800.00	1,701.91	1,636.48	1,625.29	10.01	5.97	151.610	144.15	44.06	453.42	440.84	12.58	36.041	
1,900.00	1,777.95	1,704.42	1,690.38	11.27	6.28	151.040	160.25	54.98	526.56	513.25	13.31	39.554	
2,000.00	1,850.47	1,768.70	1,751.97	12.65	6.59	150.401	175.49	65.32	602.82	588.79	14.03	42.951	
2,100.00	1,919.30	1,829.17	1,809.90	14.13	6.89	149.636	189.82	75.04	682.04	667.30	14.74	46.273	
2,200.00	1,984.24	1,885.64	1,864.01	15.73	7.17	148.691	203.20	84.12	764.04	748.62	15.42	49.546	
2,300.00	2,045.11	1,937.96	1,914.14	17.44	7.43	147.507	215.60	92.53	848.64	832.56	16.07	52.793	
2,400.00	2,101.74	1,985.99	1,960.16	19.25	7.68	146.011	226.99	100.26	935.63	918.94	16.69	56.051	
2,500.00	2,155.40	2,031.03	2,003.31	21.13	7.91	146.748	237.66	107.50	1,024.20	1,006.92	17.28	59.262	
2,600.00	2,208.97	2,075.97	2,046.37	23.03	8.14	147.928	248.31	114.73	1,112.92	1,095.05	17.87	62.282	
2,700.00	2,262.54	2,120.91	2,089.43	24.95	8.38	148.942	258.96	121.95	1,201.74	1,183.28	18.46	65.101	
2,800.00	2,316.11	2,165.85	2,132.49	26.88	8.62	149.821	269.61	129.18	1,290.62	1,271.57	19.05	67.734	
2,900.00	2,369.67	2,210.79	2,175.54	28.82	8.85	150.590	280.27	136.40	1,379.56	1,359.91	19.65	70.201	
3,000.00	2,423.24	2,255.74	2,218.60	30.76	9.09	151.270	290.92	143.63	1,468.55	1,448.30	20.25	72.509	
3,100.00	2,476.81	2,300.68	2,261.66	32.71	9.33	151.873	301.57	150.86	1,557.58	1,536.72	20.86	74.678	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Bettonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Bettonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Bettonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Bettonnie Tsosie Wash (101,103,105 & 107) - Bettonnie Tsosie Wash Unit 103 H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	-13.754	38.93	-9.53	40.08				
100.00	100.00	100.00	100.00	0.27	0.27	-13.754	38.93	-9.53	40.08	39.53	0.55	73.073	
200.00	200.00	200.00	200.00	0.63	0.63	-13.754	38.93	-9.53	40.08	38.81	1.27	31.672	
300.00	300.00	300.00	300.00	0.99	0.99	-13.754	38.93	-9.53	40.08	38.10	1.98	20.217	
400.00	400.00	400.00	400.00	1.35	1.35	-13.754	38.93	-9.53	40.08	37.38	2.70	14.848	
500.00	500.00	500.00	500.00	1.71	1.71	-13.754	38.93	-9.53	40.08	36.66	3.42	11.732	
600.00	599.95	599.95	599.95	2.06	2.07	60.691	38.93	-9.53	38.73	34.60	4.13	9.381	
700.00	699.63	699.63	699.63	2.42	2.42	71.841	38.93	-9.53	35.55	30.71	4.84	7.341	
787.49	786.40	786.40	786.40	2.75	2.73	90.000	38.93	-9.53	33.76	28.28	5.48	6.162 CC	
800.00	798.77	798.77	798.77	2.79	2.78	93.210	38.93	-9.53	33.82	28.25	5.57	6.071 ES, SF	
900.00	897.08	897.08	897.08	3.19	3.13	120.262	38.93	-9.53	39.31	33.00	6.31	6.232	
1,000.00	994.31	994.31	994.31	3.64	3.48	141.205	38.93	-9.53	55.05	48.01	7.03	7.826	
1,100.00	1,090.18	1,092.32	1,092.29	4.13	3.83	152.568	40.60	-11.01	78.18	70.42	7.76	10.080	
1,200.00	1,184.43	1,191.31	1,190.99	4.69	4.19	157.481	46.10	-15.88	104.50	96.02	8.49	12.313	
1,300.00	1,276.81	1,291.14	1,290.01	5.34	4.55	159.391	55.51	-24.21	132.72	123.49	9.24	14.367	
1,400.00	1,367.06	1,391.74	1,389.00	6.07	4.93	159.753	68.90	-36.07	162.42	152.40	10.02	16.210	
1,500.00	1,454.93	1,493.04	1,487.59	6.89	5.34	159.237	86.31	-51.48	193.47	182.63	10.85	17.836	
1,600.00	1,540.18	1,594.99	1,585.41	7.82	5.79	158.188	107.76	-70.47	225.84	214.10	11.74	19.237	
1,700.00	1,622.59	1,697.50	1,682.10	8.86	6.30	156.797	133.23	-93.03	259.54	246.82	12.72	20.403	
1,800.00	1,701.91	1,793.18	1,771.04	10.01	6.82	155.466	159.64	-116.41	295.43	281.66	13.78	21.445	
1,900.00	1,777.95	1,884.72	1,856.06	11.27	7.35	154.637	185.03	-138.89	335.65	320.79	14.85	22.595	
2,000.00	1,850.47	1,974.25	1,939.22	12.65	7.89	154.154	209.87	-160.88	380.15	364.21	15.94	23.846	
2,100.00	1,919.30	2,061.54	2,020.30	14.13	8.43	153.892	234.08	-182.32	428.83	411.81	17.03	25.188	
2,200.00	1,984.24	2,146.35	2,099.07	15.73	8.96	153.759	257.61	-203.15	481.60	463.50	18.10	26.614	
2,300.00	2,045.11	2,228.43	2,175.31	17.44	9.49	153.685	280.38	-223.31	538.36	519.21	19.14	28.121	
2,400.00	2,101.74	2,307.58	2,248.82	19.25	10.00	153.617	302.34	-242.75	599.00	578.83	20.16	29.707	
2,500.00	2,155.40	2,384.59	2,320.36	21.13	10.51	154.341	323.70	-261.67	662.27	641.10	21.16	31.295	
2,600.00	2,208.97	2,461.55	2,391.84	23.03	11.03	155.126	345.05	-280.57	725.70	703.54	22.16	32.744	
2,700.00	2,262.54	2,538.50	2,463.31	24.95	11.54	155.785	366.40	-299.47	789.20	766.03	23.17	34.058	
2,800.00	2,316.11	2,615.45	2,534.79	26.88	12.07	156.347	387.74	-318.37	852.76	828.57	24.19	35.251	
2,900.00	2,369.67	2,692.40	2,606.26	28.82	12.59	156.832	409.09	-337.27	916.36	891.14	25.22	36.338	
3,000.00	2,423.24	2,769.36	2,677.74	30.76	13.12	157.253	430.44	-356.18	979.99	953.74	26.25	37.331	
3,100.00	2,476.81	2,846.31	2,749.21	32.71	13.65	157.624	451.79	-375.08	1,043.65	1,016.36	27.29	38.243	
3,200.00	2,530.38	2,923.26	2,820.69	34.67	14.18	157.952	473.13	-393.98	1,107.34	1,079.00	28.33	39.082	
3,300.00	2,583.95	3,000.22	2,892.16	36.63	14.71	158.245	494.48	-412.88	1,171.04	1,141.66	29.38	39.856	
3,400.00	2,637.51	3,077.17	2,963.64	38.60	15.25	158.507	515.83	-431.78	1,234.76	1,204.33	30.43	40.571	
3,500.00	2,691.08	3,154.12	3,035.11	40.56	15.79	158.744	537.18	-450.68	1,298.50	1,267.00	31.49	41.234	
3,600.00	2,744.65	3,231.07	3,106.59	42.53	16.33	158.959	558.52	-469.58	1,362.24	1,329.69	32.55	41.850	
3,700.00	2,798.22	3,308.03	3,178.07	44.51	16.87	159.154	579.87	-488.48	1,426.00	1,392.38	33.61	42.424	
3,800.00	2,851.79	3,384.98	3,249.54	46.48	17.41	159.333	601.22	-507.38	1,489.76	1,455.08	34.68	42.960	
3,900.00	2,905.35	3,461.93	3,321.02	48.46	17.95	159.497	622.57	-526.29	1,553.54	1,517.79	35.75	43.460	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Bettonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Bettonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Bettonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Bettonnie Tsosie Wash (101,103,105 & 107) - Bettonnie Tsosie Wash Unit 105 H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	-13.633	19.65	-4.76	20.22				
100.00	100.00	100.00	100.00	0.27	0.27	-13.633	19.65	-4.76	20.22	19.67	0.55	36.859	
200.00	200.00	200.00	200.00	0.63	0.63	-13.633	19.65	-4.76	20.22	18.95	1.27	15.976	
300.00	300.00	300.00	300.00	0.99	0.99	-13.633	19.65	-4.76	20.22	18.23	1.98	10.198	
400.00	400.00	400.00	400.00	1.35	1.35	-13.633	19.65	-4.76	20.22	17.52	2.70	7.489	
500.00	500.00	500.00	500.00	1.71	1.71	-13.633	19.65	-4.76	20.22	16.80	3.42	5.918	
600.00	599.95	599.95	599.95	2.06	2.07	64.240	19.65	-4.76	18.94	14.81	4.13	4.587	
700.00	699.63	699.63	699.63	2.42	2.42	88.680	19.65	-4.76	17.06	12.22	4.84	3.523	
704.45	704.06	704.06	704.06	2.44	2.44	90.251	19.65	-4.76	17.05	12.18	4.87	3.499 CC, ES, SF	
800.00	798.77	798.77	798.77	2.79	2.78	126.243	19.65	-4.76	21.24	15.67	5.56	3.817	
900.00	897.08	897.08	897.08	3.19	3.13	150.550	19.65	-4.76	35.27	28.99	6.29	5.612	
1,000.00	994.31	994.31	994.31	3.64	3.48	161.964	19.65	-4.76	56.84	49.83	7.00	8.116	
1,100.00	1,090.18	1,094.10	1,094.06	4.13	3.83	167.478	20.56	-6.89	82.23	74.51	7.72	10.650	
1,200.00	1,184.43	1,195.49	1,195.15	4.69	4.19	170.171	23.59	-13.95	108.05	99.61	8.44	12.808	
1,300.00	1,276.81	1,298.38	1,297.17	5.34	4.57	171.634	28.82	-26.14	133.97	124.81	9.15	14.635	
1,400.00	1,367.06	1,402.82	1,399.84	6.07	4.97	172.453	36.34	-43.66	159.82	149.95	9.88	16.184	
1,500.00	1,454.93	1,508.86	1,502.86	6.89	5.41	172.892	46.22	-66.69	185.50	174.90	10.60	17.492	
1,600.00	1,540.18	1,616.55	1,605.90	7.82	5.90	173.083	58.55	-95.43	210.90	199.56	11.34	18.598	
1,700.00	1,622.59	1,725.94	1,708.59	8.86	6.47	173.102	73.40	-130.03	235.93	223.84	12.09	19.518	
1,800.00	1,701.91	1,837.07	1,810.52	10.01	7.14	172.994	90.84	-170.65	260.50	247.65	12.85	20.272	
1,900.00	1,777.95	1,949.97	1,911.28	11.27	7.92	172.787	110.91	-217.43	284.53	270.90	13.63	20.872	
2,000.00	1,850.47	2,064.66	2,010.37	12.65	8.84	172.500	133.68	-270.47	307.92	293.48	14.44	21.330	
2,100.00	1,919.30	2,181.17	2,107.30	14.13	9.91	172.147	159.16	-329.85	330.58	315.31	15.27	21.652	
2,200.00	1,984.24	2,299.49	2,201.51	15.73	11.14	171.734	187.37	-395.59	352.43	336.29	16.13	21.845	
2,300.00	2,045.11	2,411.66	2,286.79	17.44	12.47	171.304	216.11	-462.56	373.72	356.61	17.11	21.837	
2,400.00	2,101.74	2,508.46	2,359.46	19.25	13.67	171.006	241.33	-521.31	398.77	380.51	18.26	21.837	
2,500.00	2,155.40	2,604.32	2,431.43	21.13	14.89	170.900	266.30	-579.50	427.23	407.81	19.42	22.001	
2,600.00	2,208.97	2,700.15	2,503.38	23.03	16.13	170.833	291.26	-637.68	455.79	435.20	20.59	22.135	
2,700.00	2,262.54	2,795.99	2,575.33	24.95	17.39	170.775	316.23	-695.85	484.35	462.56	21.78	22.234	
2,800.00	2,316.11	2,891.82	2,647.28	26.88	18.67	170.723	341.19	-754.02	512.91	489.92	22.99	22.310	
2,900.00	2,369.67	2,987.66	2,719.23	28.82	19.96	170.676	366.16	-812.20	541.47	517.26	24.21	22.366	
3,000.00	2,423.24	3,083.49	2,791.18	30.76	21.26	170.634	391.13	-870.37	570.03	544.59	25.44	22.406	
3,100.00	2,476.81	3,179.32	2,863.13	32.71	22.56	170.596	416.09	-928.54	598.59	571.91	26.68	22.435	
3,200.00	2,530.38	3,275.16	2,935.08	34.67	23.87	170.562	441.06	-986.71	627.15	599.22	27.93	22.455	
3,300.00	2,583.95	3,370.99	3,007.03	36.63	25.19	170.530	466.02	-1,044.89	655.71	626.53	29.18	22.468	
3,400.00	2,637.51	3,466.83	3,078.98	38.60	26.51	170.502	490.99	-1,103.06	684.27	653.83	30.45	22.474	
3,500.00	2,691.08	3,562.66	3,150.93	40.56	27.84	170.475	515.95	-1,161.23	712.83	681.12	31.72	22.476	
3,600.00	2,744.65	3,658.49	3,222.87	42.53	29.17	170.451	540.92	-1,219.41	741.40	708.41	32.99	22.475	
3,700.00	2,798.22	3,754.33	3,294.82	44.51	30.50	170.428	565.88	-1,277.58	769.96	735.69	34.27	22.470	
3,800.00	2,851.79	3,850.16	3,366.77	46.48	31.84	170.407	590.85	-1,335.75	798.52	762.97	35.55	22.464	
3,900.00	2,905.35	3,946.00	3,438.72	48.46	33.18	170.387	615.81	-1,393.93	827.08	790.25	36.83	22.456	
4,000.00	2,958.92	4,041.83	3,510.67	50.44	34.52	170.369	640.78	-1,452.10	855.64	817.53	38.12	22.447	
4,100.00	3,012.49	4,137.66	3,582.62	52.42	35.86	170.352	665.74	-1,510.27	884.21	844.80	39.41	22.436	
4,200.00	3,066.06	4,233.50	3,654.57	54.40	37.20	170.336	690.71	-1,568.45	912.77	872.07	40.70	22.425	
4,300.00	3,119.63	4,329.33	3,726.52	56.38	38.55	170.321	715.67	-1,626.62	941.33	899.33	42.00	22.413	
4,400.00	3,173.19	4,425.17	3,798.47	58.36	39.89	170.307	740.64	-1,684.79	969.89	926.60	43.30	22.401	
4,500.00	3,226.76	4,521.00	3,870.42	60.35	41.24	170.293	765.61	-1,742.96	998.46	953.86	44.60	22.388	
4,600.00	3,280.33	4,616.83	3,942.37	62.33	42.59	170.281	790.57	-1,801.14	1,027.02	981.12	45.90	22.375	
4,700.00	3,333.90	4,712.67	4,014.32	64.32	43.94	170.269	815.54	-1,859.31	1,055.58	1,008.38	47.20	22.362	
4,800.00	3,387.47	4,808.50	4,086.27	66.30	45.29	170.257	840.50	-1,917.48	1,084.14	1,035.63	48.51	22.350	
4,900.00	3,441.03	4,904.33	4,158.22	68.29	46.64	170.247	865.47	-1,975.66	1,112.71	1,062.89	49.81	22.337	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Betonnie Tsosie Wash (101,103,105 & 107) - Betonnie Tsosie Wash Unit 105 H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	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
5,000.00	3,494.60	5,000.17	4,230.17	70.28	47.99	170.237	890.43	-2,033.83	1,141.27	1,090.15	51.12	22.324	
5,100.00	3,548.17	5,096.00	4,302.12	72.26	49.34	170.227	915.40	-2,092.00	1,169.83	1,117.40	52.43	22.312	
5,200.00	3,601.74	5,191.84	4,374.07	74.25	50.69	170.218	940.36	-2,150.18	1,198.39	1,144.65	53.74	22.299	
5,300.00	3,655.31	5,287.67	4,446.02	76.24	52.05	170.209	965.33	-2,208.35	1,226.96	1,171.90	55.05	22.287	
5,400.00	3,708.88	5,383.50	4,517.97	78.23	53.40	170.200	990.29	-2,266.52	1,255.52	1,199.15	56.36	22.275	
5,500.00	3,762.44	5,479.34	4,589.92	80.22	54.76	170.192	1,015.26	-2,324.70	1,284.08	1,226.40	57.68	22.263	
5,600.00	3,816.01	5,575.17	4,661.87	82.21	56.11	170.185	1,040.22	-2,382.87	1,312.64	1,253.65	58.99	22.251	
5,700.00	3,869.58	5,671.01	4,733.82	84.20	57.47	170.177	1,065.19	-2,441.04	1,341.21	1,280.90	60.31	22.239	
5,800.00	3,923.15	5,766.84	4,805.77	86.19	58.82	170.170	1,090.15	-2,499.21	1,369.77	1,308.15	61.62	22.228	
5,900.00	3,976.72	5,862.67	4,877.72	88.18	60.18	170.164	1,115.12	-2,557.39	1,398.33	1,335.39	62.94	22.217	
6,000.00	4,030.28	5,958.30	4,949.65	90.17	61.53	170.157	1,140.08	-2,615.66	1,426.88	1,362.94	64.26	22.205	
6,100.00	4,083.85	6,054.17	5,021.52	92.16	62.88	170.150	1,165.03	-2,673.93	1,454.43	1,390.49	65.58	22.193	
6,200.00	4,137.42	6,150.04	5,093.39	94.15	64.23	170.143	1,190.00	-2,732.20	1,481.98	1,418.04	66.90	22.181	
6,300.00	4,190.99	6,245.91	5,165.26	96.14	65.58	170.136	1,214.96	-2,790.47	1,509.53	1,445.59	68.22	22.169	
6,400.00	4,244.56	6,341.78	5,237.13	98.14	66.93	170.129	1,239.92	-2,848.74	1,537.08	1,473.14	69.54	22.157	
6,500.00	4,298.12	6,437.65	5,308.99	100.13	68.28	170.122	1,264.89	-2,907.01	1,564.63	1,500.69	70.86	22.145	
6,600.00	4,351.69	6,533.52	5,380.86	102.12	69.63	170.115	1,289.85	-2,965.28	1,592.18	1,528.24	72.18	22.133	
6,700.00	4,405.26	6,629.39	5,452.73	104.11	70.98	170.108	1,314.82	-3,023.55	1,619.73	1,555.79	73.50	22.121	
6,800.00	4,458.83	6,725.26	5,524.60	106.10	72.33	170.101	1,339.78	-3,081.82	1,647.28	1,583.34	74.82	22.109	
6,900.00	4,512.40	6,821.13	5,596.47	108.10	73.68	170.094	1,364.75	-3,140.09	1,674.83	1,610.89	76.14	22.097	
7,000.00	4,565.96	6,917.00	5,668.34	110.09	75.03	170.087	1,389.71	-3,198.36	1,702.38	1,638.44	77.46	22.085	
7,100.00	4,619.53	7,012.87	5,740.21	112.08	76.38	170.080	1,414.68	-3,256.63	1,729.93	1,665.99	78.78	22.073	
7,165.26	4,654.49	7,057.83	5,785.17	113.38	77.68	170.073	1,439.64	-3,314.90	1,757.48	1,693.54	80.10	22.061	
7,200.00	4,673.10	7,086.44	5,813.78	114.08	78.38	170.066	1,464.61	-3,373.17	1,785.03	1,721.09	81.42	22.049	
7,300.00	4,726.67	7,140.01	5,867.35	116.07	80.03	170.059	1,489.57	-3,431.44	1,812.58	1,748.64	82.74	22.037	
7,400.00	4,780.24	7,193.58	5,920.92	118.06	81.68	170.052	1,514.54	-3,489.71	1,840.13	1,776.19	84.06	22.025	
7,500.00	4,833.80	7,247.15	5,972.49	120.05	83.33	170.045	1,539.50	-3,547.94	1,867.68	1,803.74	85.38	22.013	
7,600.00	4,887.37	7,300.72	6,024.06	122.05	84.98	170.038	1,564.47	-3,606.17	1,895.23	1,831.29	86.70	22.001	
7,700.00	4,940.94	7,354.29	6,075.63	124.04	86.63	170.031	1,589.43	-3,664.40	1,922.78	1,858.84	88.02	21.989	
7,800.00	4,994.51	7,407.86	6,127.20	126.04	88.28	170.024	1,614.40	-3,722.63	1,950.33	1,886.39	89.34	21.977	
7,900.00	5,048.08	7,461.43	6,178.77	128.03	89.93	170.017	1,639.36	-3,780.86	1,977.88	1,913.94	90.66	21.965	
8,000.00	5,101.64	7,515.00	6,230.34	130.02	91.58	170.010	1,664.33	-3,839.09	2,005.43	1,941.49	91.98	21.953	
8,100.00	5,155.21	7,568.57	6,281.91	132.02	93.23	170.003	1,689.29	-3,897.32	2,032.98	1,969.04	93.30	21.941	
8,200.00	5,207.74	7,622.14	6,333.48	134.03	94.88	170.000	1,714.26	-3,955.55	2,060.53	1,996.59	94.62	21.929	
8,300.00	5,252.56	7,675.71	6,385.05	136.16	96.53	170.000	1,739.22	-4,013.78	2,088.08	2,024.14	95.94	21.917	
8,400.00	5,286.84	7,729.28	6,436.62	138.34	98.18	170.000	1,764.19	-4,072.01	2,115.63	2,051.69	97.26	21.905	
8,500.00	5,305.28	7,757.72	6,465.06	140.62	100.00	170.000	1,789.15	-4,130.24	2,143.18	2,079.24	98.58	21.893	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Betonnie Tsosie Wash Unit 731 - Betonnie Tsosie Wash Unit 731H - Original Hole - Surveys													Offset Site Error:	0.00 ft
Survey Program: 440-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Reference (ft)	Semi Major 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	
8,200.00	5,207.74	15,587.00	5,255.05	134.03	239.48	58.015	3,033.61	-6,469.50	1,548.99	1,442.42	106.57	14.535		
8,300.00	5,252.56	15,587.00	5,255.05	136.16	239.48	70.483	3,033.61	-6,469.50	1,480.13	1,364.16	115.97	12.763		
8,400.00	5,286.84	15,587.00	5,255.05	138.34	239.48	78.743	3,033.61	-6,469.50	1,421.18	1,291.69	129.49	10.975		
8,500.00	5,305.28	15,587.00	5,255.05	140.62	239.48	85.283	3,033.61	-6,469.50	1,366.07	1,219.85	146.21	9.343		
8,600.00	5,307.70	15,587.00	5,255.05	142.93	239.48	89.016	3,033.61	-6,469.50	1,314.98	1,149.40	165.58	7.942		
8,700.00	5,306.86	15,587.00	5,255.05	145.24	239.48	89.016	3,033.61	-6,469.50	1,269.61	1,082.26	187.35	6.777		
8,800.00	5,306.01	15,587.00	5,255.05	147.56	239.48	89.016	3,033.61	-6,469.50	1,230.71	1,019.47	211.24	5.826		
8,900.00	5,305.16	15,587.00	5,255.05	149.89	239.48	89.016	3,033.61	-6,469.50	1,198.91	962.16	236.75	5.064		
9,000.00	5,304.31	15,587.00	5,255.05	152.22	239.48	89.016	3,033.61	-6,469.50	1,174.79	911.57	263.21	4.463		
9,100.00	5,303.46	15,587.00	5,255.05	154.57	239.48	89.016	3,033.61	-6,469.50	1,158.82	869.07	289.75	3.999		
9,200.00	5,302.62	15,587.00	5,255.05	156.91	239.48	89.016	3,033.61	-6,469.50	1,151.35	836.00	315.35	3.651		
9,236.30	5,302.31	15,587.00	5,255.05	157.77	239.48	89.016	3,033.61	-6,469.50	1,150.77	826.57	324.20	3.550 CC		
9,300.00	5,301.77	15,587.00	5,255.05	159.26	239.48	89.016	3,033.61	-6,469.50	1,152.54	813.61	338.93	3.401		
9,400.00	5,300.92	15,587.00	5,255.05	161.62	239.48	89.016	3,033.61	-6,469.50	1,162.36	802.86	359.50	3.233 ES		
9,500.00	5,300.07	15,587.00	5,255.05	163.99	239.48	89.016	3,033.61	-6,469.50	1,180.60	804.27	376.33	3.137		
9,600.00	5,299.22	15,587.00	5,255.05	166.36	239.48	89.016	3,033.61	-6,469.50	1,206.88	817.82	389.06	3.102 SF		
9,700.00	5,298.37	15,587.00	5,255.05	168.73	239.48	89.016	3,033.61	-6,469.50	1,240.68	842.95	397.73	3.119		
9,800.00	5,297.53	15,587.00	5,255.05	171.11	239.48	89.016	3,033.61	-6,469.50	1,281.42	878.69	402.73	3.182		
9,900.00	5,296.68	15,587.00	5,255.05	173.49	239.48	89.016	3,033.61	-6,469.50	1,328.45	923.82	404.62	3.283		
10,000.00	5,295.83	15,587.00	5,255.05	175.88	239.48	89.016	3,033.61	-6,469.50	1,381.13	977.06	404.07	3.418		
10,100.00	5,294.98	15,587.00	5,255.05	178.27	239.48	89.021	3,033.61	-6,469.50	1,438.84	1,037.17	401.67	3.582		
10,200.00	5,294.21	15,587.00	5,255.05	180.71	239.48	89.206	3,033.61	-6,469.50	1,495.95	1,098.20	397.75	3.761		
10,300.00	5,293.57	15,527.85	5,256.16	183.20	238.10	89.426	3,072.74	-6,513.85	1,546.39	1,150.09	396.30	3.902		
11,600.00	5,294.78	14,295.00	5,282.84	209.24	209.80	90.558	3,912.71	-7,415.58	1,569.59	1,177.27	392.32	4.001		
11,700.00	5,295.02	14,219.09	5,284.65	211.13	208.07	90.620	3,965.26	-7,470.34	1,562.16	1,171.72	390.44	4.001		
11,800.00	5,295.26	14,140.61	5,286.12	213.04	206.29	90.669	4,020.15	-7,526.40	1,555.82	1,167.18	388.64	4.003		
11,900.00	5,295.51	14,056.41	5,286.40	214.94	204.40	90.674	4,079.87	-7,585.76	1,550.80	1,163.56	387.24	4.005		
12,000.00	5,295.75	13,818.92	5,289.25	216.86	198.92	90.771	4,238.81	-7,762.00	1,538.42	1,141.64	396.78	3.877		
12,100.00	5,295.99	13,730.74	5,289.78	218.78	196.87	90.788	4,296.00	-7,829.10	1,525.21	1,129.22	395.99	3.852		
12,200.00	5,296.23	13,647.10	5,289.69	220.70	194.93	90.783	4,350.93	-7,892.18	1,513.01	1,118.13	394.88	3.832		
12,300.00	5,296.47	13,554.74	5,289.71	222.64	192.79	90.781	4,412.07	-7,961.41	1,501.52	1,107.23	394.29	3.808		
12,400.00	5,296.71	13,461.23	5,289.29	224.58	190.63	90.761	4,474.20	-8,031.29	1,490.36	1,096.61	393.75	3.785		
12,500.00	5,296.95	13,371.51	5,288.41	226.52	188.56	90.724	4,534.25	-8,097.95	1,479.83	1,086.88	392.95	3.766		
12,600.00	5,297.20	13,282.68	5,287.04	228.47	186.52	90.666	4,594.02	-8,163.65	1,469.81	1,077.76	392.05	3.749		
12,700.00	5,297.44	13,202.40	5,287.82	230.42	184.69	90.692	4,648.79	-8,222.33	1,461.04	1,070.60	390.44	3.742		
12,800.00	5,297.68	13,101.07	5,290.87	232.38	182.38	90.807	4,718.18	-8,296.10	1,452.71	1,062.28	390.43	3.721		
12,900.00	5,297.92	13,005.52	5,293.95	234.35	180.20	90.925	4,783.71	-8,365.57	1,444.54	1,054.57	389.97	3.704		
13,000.00	5,298.16	12,913.78	5,296.78	236.32	178.12	91.034	4,846.83	-8,432.09	1,436.67	1,047.49	389.18	3.692		
13,100.00	5,298.40	12,801.21	5,299.98	238.30	175.56	91.158	4,924.80	-8,513.22	1,429.51	1,039.41	390.10	3.664		
13,200.00	5,298.65	12,703.36	5,299.74	240.28	173.33	91.146	4,991.32	-8,584.97	1,420.43	1,030.60	389.83	3.644		
13,300.00	5,298.89	12,611.58	5,300.45	242.26	171.25	91.172	5,054.73	-8,651.33	1,412.83	1,023.77	389.06	3.631		
13,400.00	5,299.13	12,445.01	5,302.79	244.25	167.43	91.265	5,166.86	-8,774.46	1,402.97	1,008.94	394.03	3.561		
13,500.00	5,299.37	12,355.13	5,303.43	246.24	165.36	91.294	5,225.45	-8,842.60	1,390.25	997.02	393.23	3.535		
13,600.00	5,299.61	12,288.04	5,304.72	248.24	163.82	91.347	5,270.37	-8,892.42	1,379.77	989.14	390.63	3.532		
13,700.00	5,299.85	12,196.81	5,307.32	250.24	161.74	91.455	5,332.39	-8,959.27	1,370.77	980.97	389.80	3.517		
13,761.89	5,300.00	12,124.68	5,307.91	251.49	160.09	91.480	5,381.34	-9,012.25	1,365.05	974.47	390.58	3.495		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: North Alamito Unit (102 & 106) - North Alamito Unit 102 H - Original Hole - MWD surveys											Offset Site Error:	0.00 ft
Survey Program: 485-MWD, 5977-MWD, 15067-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Distance		Minimum Separation		Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-13.754	77.86	-19.06	80.16			
100.00	100.00	100.04	100.04	0.27	0.17	-13.684	77.86	-18.96	80.13	79.69	0.44	180.090
200.00	200.00	200.07	200.07	0.63	0.34	-13.472	77.87	-18.65	80.07	79.09	0.97	82.192
300.00	300.00	300.10	300.10	0.99	0.51	-13.120	77.88	-18.15	79.96	78.46	1.50	53.189
400.00	400.00	400.13	400.13	1.35	0.68	-12.624	77.89	-17.44	79.82	77.79	2.03	39.270
500.00	500.00	500.14	500.13	1.71	0.88	-11.983	77.91	-16.54	79.64	77.05	2.59	30.748
600.00	599.95	599.98	599.96	2.06	1.24	61.703	78.04	-15.36	78.27	74.96	3.30	23.699
700.00	699.63	699.60	699.58	2.42	1.60	68.026	78.26	-14.12	75.00	70.98	4.02	18.671
800.00	798.77	799.03	799.00	2.79	1.95	78.859	78.18	-12.90	71.19	66.45	4.75	15.000
874.89	872.49	872.59	872.55	3.09	2.22	90.278	77.63	-11.90	69.62	64.31	5.31	13.114 CC, ES
900.00	897.08	896.93	896.89	3.19	2.30	94.528	77.54	-11.62	69.86	64.36	5.50	12.712
1,000.00	994.31	993.52	993.48	3.64	2.64	111.874	78.08	-10.98	76.27	70.01	6.26	12.190 SF
1,100.00	1,090.18	1,090.41	1,090.31	4.13	2.98	126.424	80.55	-11.99	91.55	84.55	7.01	13.068
1,200.00	1,184.43	1,187.95	1,187.51	4.69	3.31	135.571	86.94	-16.93	112.94	105.18	7.76	14.553
1,300.00	1,276.81	1,288.08	1,286.60	5.34	3.67	140.856	97.81	-26.15	137.84	129.29	8.55	16.122
1,400.00	1,367.06	1,386.40	1,382.96	6.07	4.04	143.693	112.23	-39.26	164.79	155.41	9.38	17.560
1,500.00	1,454.93	1,491.67	1,484.90	6.89	4.48	145.420	130.92	-57.59	193.10	182.81	10.29	18.760
1,600.00	1,540.18	1,596.51	1,584.86	7.82	4.98	146.564	151.32	-81.69	220.75	209.48	11.27	19.587
1,700.00	1,622.59	1,699.99	1,682.11	8.86	5.53	147.338	173.53	-109.16	249.70	237.39	12.31	20.290
1,800.00	1,701.91	1,809.53	1,782.62	10.01	6.20	147.805	199.23	-144.27	277.76	264.31	13.45	20.654
1,900.00	1,777.95	1,902.12	1,866.77	11.27	6.81	148.334	221.14	-176.08	307.98	293.38	14.59	21.105
2,000.00	1,850.47	1,989.19	1,946.30	12.65	7.41	148.861	242.85	-204.08	344.76	329.04	15.72	21.934
2,100.00	1,919.30	2,080.94	2,030.76	14.13	8.04	149.903	263.94	-233.08	386.23	369.42	16.81	22.980
2,200.00	1,984.24	2,172.22	2,114.57	15.73	8.69	150.928	284.98	-262.45	431.53	413.65	17.88	24.133
2,300.00	2,045.11	2,259.72	2,194.40	17.44	9.33	151.665	306.46	-291.15	480.63	461.68	18.95	25.362
2,400.00	2,101.74	2,344.56	2,271.86	19.25	9.96	152.374	327.01	-318.99	533.95	513.97	19.98	26.722
2,500.00	2,155.40	2,426.93	2,346.86	21.13	10.58	153.620	347.31	-346.34	589.84	568.85	20.99	28.105
2,600.00	2,208.97	2,505.19	2,418.51	23.03	11.17	154.873	365.58	-371.96	646.47	624.53	21.94	29.471
2,700.00	2,262.54	2,589.95	2,495.96	24.95	11.82	155.951	386.02	-399.67	703.30	680.34	22.96	30.633
2,800.00	2,316.11	2,677.94	2,575.85	26.88	12.51	156.797	408.28	-429.09	759.55	735.50	24.05	31.580
2,900.00	2,369.67	2,753.51	2,644.57	28.82	13.10	157.450	427.12	-454.24	816.04	791.01	25.03	32.603
3,000.00	2,423.24	2,839.83	2,722.92	30.76	13.79	158.037	449.40	-482.78	872.74	846.60	26.14	33.392
3,100.00	2,476.81	2,905.15	2,782.26	32.71	14.30	158.402	466.64	-503.97	929.99	902.95	27.04	34.395
3,200.00	2,530.38	2,976.23	2,847.44	34.67	14.85	158.828	484.47	-526.00	988.61	960.63	27.97	35.339
3,300.00	2,583.95	3,051.44	2,916.45	36.63	15.42	159.204	503.76	-548.88	1,047.72	1,018.76	28.96	36.177
3,400.00	2,637.51	3,129.46	2,988.32	38.60	16.01	159.597	523.09	-572.27	1,107.31	1,077.34	29.97	36.951
3,500.00	2,691.08	3,233.04	3,083.23	40.56	16.81	160.008	549.64	-604.12	1,166.24	1,134.95	31.29	37.277
3,600.00	2,744.65	3,328.80	3,169.60	42.53	17.59	160.191	576.82	-635.27	1,223.26	1,190.67	32.59	37.531
3,700.00	2,798.22	3,411.78	3,244.68	44.51	18.28	160.371	599.72	-662.22	1,280.50	1,246.76	33.74	37.948
3,800.00	2,851.79	3,503.70	3,327.25	46.48	19.04	160.503	626.04	-692.84	1,336.85	1,301.82	35.02	38.169
3,900.00	2,905.35	3,578.49	3,394.65	48.46	19.67	160.626	646.98	-717.59	1,393.50	1,357.41	36.09	38.610
4,000.00	2,958.92	3,677.88	3,484.28	50.44	20.50	160.789	674.54	-750.53	1,450.22	1,412.77	37.45	38.724
4,100.00	3,012.49	3,772.01	3,567.98	52.42	21.31	160.851	702.36	-783.40	1,504.98	1,466.18	38.80	38.792
4,200.00	3,066.06	3,826.00	3,616.35	54.40	21.78	160.895	718.05	-801.54	1,561.05	1,521.41	39.64	39.383

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Bettonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Bettonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Bettonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: North Alamito Unit (102 & 106) - North Alamito Unit 106 H - Original Hole - MWD surveys												Offset Site Error:	0.00 ft
Survey Program: 440-MWD, 6091-MWD, 18454-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Measured Depth (ft)	Offset Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-13.779	97.14	-23.82	100.02				
100.00	100.00	99.97	99.97	0.27	0.17	-13.793	97.15	-23.85	100.04	99.59	0.44	225.375	
200.00	200.00	199.93	199.93	0.63	0.34	-13.834	97.18	-23.93	100.09	99.11	0.97	102.974	
300.00	300.00	299.90	299.90	0.99	0.51	-13.904	97.24	-24.07	100.17	98.67	1.50	66.779	
400.00	400.00	399.86	399.86	1.35	0.68	-14.001	97.31	-24.26	100.29	98.26	2.03	49.450	
500.00	500.00	499.75	499.75	1.71	0.96	-14.124	97.38	-24.50	100.42	97.75	2.67	37.625	
600.00	599.95	597.96	597.91	2.06	1.32	56.669	97.61	-27.44	99.95	96.57	3.38	29.598	
700.00	699.63	694.99	694.57	2.42	1.68	56.012	99.12	-35.60	99.26	95.17	4.09	24.276	
800.00	798.77	792.45	791.08	2.79	2.06	55.168	101.91	-48.82	98.28	93.45	4.83	20.345	
900.00	897.08	890.13	886.83	3.19	2.48	53.743	105.71	-67.65	96.97	91.35	5.62	17.251	
1,000.00	994.31	988.33	981.77	3.64	2.95	51.382	109.61	-92.36	94.61	88.13	6.48	14.611	
1,100.00	1,090.18	1,085.10	1,073.67	4.13	3.49	47.957	113.54	-122.37	91.47	84.09	7.38	12.398	
1,200.00	1,184.43	1,181.83	1,163.16	4.69	4.13	42.941	118.21	-158.73	88.94	80.64	8.31	10.708	
1,300.00	1,276.81	1,278.76	1,250.27	5.34	4.87	36.101	122.51	-201.02	86.55	77.37	9.18	9.424	
1,400.00	1,367.06	1,379.14	1,339.32	6.07	5.70	29.099	126.71	-247.12	82.56	72.49	10.07	8.200	
1,500.00	1,454.93	1,477.90	1,427.26	6.89	6.55	22.913	130.02	-291.96	74.08	63.24	10.84	6.833	
1,600.00	1,540.18	1,577.12	1,515.25	7.82	7.42	15.823	133.06	-337.71	62.22	50.73	11.49	5.415	
1,700.00	1,622.59	1,676.28	1,603.63	8.86	8.29	5.437	135.10	-382.63	45.37	33.40	11.97	3.789	
1,800.00	1,701.91	1,772.75	1,689.62	10.01	9.15	-18.322	136.86	-426.31	26.55	13.91	12.64	2.101	
1,865.14	1,751.83	1,834.86	1,743.94	10.83	9.75	-54.268	138.17	-456.39	20.60	4.94	15.66	1.315 Level 3<2.00, CC	
1,900.00	1,777.95	1,868.37	1,772.69	11.27	10.07	-76.086	138.81	-473.60	22.44	3.36	19.07	1.176 Level 3<2.00, ES, SF	
2,000.00	1,850.47	1,963.50	1,854.70	12.65	11.03	-115.488	139.22	-521.78	42.43	20.42	22.01	1.928 Level 3<2.00	
2,100.00	1,919.30	2,057.50	1,936.27	14.13	11.95	-131.141	139.30	-568.52	73.27	51.33	21.94	3.339	
2,200.00	1,984.24	2,148.97	2,016.03	15.73	12.84	-139.155	139.41	-613.29	110.48	88.16	22.32	4.950	
2,300.00	2,045.11	2,241.44	2,096.94	17.44	13.75	-144.555	140.46	-658.03	152.44	129.52	22.92	6.651	
2,400.00	2,101.74	2,335.19	2,177.82	19.25	14.69	-148.271	143.72	-705.33	196.18	172.49	23.69	8.280	
2,500.00	2,155.40	2,421.90	2,252.31	21.13	15.59	-151.051	146.34	-749.63	243.11	218.55	24.56	9.899	
2,600.00	2,208.97	2,510.38	2,328.73	23.03	16.49	-153.547	150.79	-793.99	290.06	264.63	25.43	11.405	
2,700.00	2,262.54	2,595.01	2,402.31	24.95	17.34	-155.375	154.95	-835.59	338.14	311.82	26.32	12.846	
2,800.00	2,316.11	2,687.69	2,482.37	26.88	18.28	-156.755	159.38	-882.07	385.72	358.31	27.41	14.070	
2,900.00	2,369.67	2,773.92	2,556.50	28.82	19.17	-157.634	163.07	-925.98	433.06	404.54	28.52	15.183	
3,000.00	2,423.24	2,860.02	2,630.76	30.76	20.06	-158.317	166.20	-969.43	481.18	451.51	29.67	16.220	
3,100.00	2,476.81	2,955.73	2,712.91	32.71	21.05	-159.054	171.34	-1,018.27	527.92	497.03	30.89	17.088	
3,200.00	2,530.38	3,030.88	2,778.07	34.67	21.82	-159.667	175.79	-1,055.44	575.76	543.93	31.83	18.086	
3,300.00	2,583.95	3,117.04	2,853.17	36.63	22.68	-160.268	180.37	-1,097.41	624.62	591.71	32.91	18.978	
3,400.00	2,637.51	3,205.44	2,930.07	38.60	23.57	-160.737	184.59	-1,140.79	673.49	639.43	34.06	19.771	
3,500.00	2,691.08	3,294.26	3,007.17	40.56	24.47	-161.116	188.69	-1,184.70	722.17	686.92	35.25	20.488	
3,600.00	2,744.65	3,374.77	3,077.17	42.53	25.28	-161.411	192.19	-1,224.32	771.19	734.85	36.34	21.224	
3,700.00	2,798.22	3,482.98	3,170.75	44.51	26.39	-161.733	197.16	-1,278.43	819.42	781.62	37.81	21.674	
3,800.00	2,851.79	3,572.33	3,247.23	46.48	27.33	-161.921	201.53	-1,324.41	866.27	827.20	39.07	22.173	
3,900.00	2,905.35	3,647.00	3,311.63	48.46	28.10	-162.061	204.57	-1,362.08	914.33	874.19	40.14	22.779	
4,000.00	2,958.92	3,747.64	3,398.25	50.44	29.15	-162.173	207.92	-1,413.22	962.58	920.99	41.60	23.140	
4,100.00	3,012.49	3,826.00	3,465.09	52.42	29.99	-162.195	210.21	-1,454.03	1,009.88	967.08	42.80	23.595	
4,200.00	3,066.06	3,893.28	3,522.82	54.40	30.69	-162.196	211.50	-1,488.56	1,058.40	1,014.56	43.84	24.143	
4,300.00	3,119.63	4,018.82	3,631.03	56.38	31.99	-162.252	214.35	-1,552.12	1,107.54	1,061.83	45.71	24.230	
4,400.00	3,173.19	4,094.00	3,695.64	58.36	32.78	-162.343	217.52	-1,590.42	1,155.11	1,108.31	46.81	24.678	
4,500.00	3,226.76	4,152.41	3,746.27	60.35	33.37	-162.425	219.80	-1,619.46	1,203.92	1,156.28	47.64	25.271	
4,600.00	3,280.33	4,276.52	3,854.24	62.33	34.63	-162.610	224.71	-1,680.46	1,253.60	1,204.22	49.37	25.391	
4,700.00	3,333.90	4,335.12	3,904.97	64.32	35.23	-162.703	227.60	-1,709.64	1,301.86	1,251.66	50.20	25.935	
4,800.00	3,387.47	4,440.86	3,996.84	66.30	36.30	-162.833	231.81	-1,761.82	1,351.12	1,299.44	51.69	26.140	
4,900.00	3,441.03	4,573.21	4,109.02	68.29	37.75	-162.836	236.72	-1,831.85	1,397.09	1,343.42	53.67	26.031	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties,NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design:	North Alamito Unit (102 & 106) - North Alamito Unit 106 H - Original Hole - MWD surveys												Offset Site Error:	0.00 ft
Survey Program:	440-MWD, 6091-MWD, 18454-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Distance		Minimum Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor			
5,000.00	3,494.60	4,631.00	4,157.59	70.28	38.39	-162.810	238.66	-1,863.11	1,442.65	1,388.03	54.62	26.412		
5,100.00	3,548.17	4,677.52	4,197.28	72.26	38.87	-162.802	239.85	-1,887.33	1,490.52	1,435.17	55.35	26.930		
5,200.00	3,601.74	4,720.00	4,234.51	74.25	39.31	-162.820	240.44	-1,907.77	1,541.60	1,485.65	55.95	27.555		



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Betonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties, NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Betonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Betonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6962+23.5 @ 6985.50ft

Offset Depths are relative to Offset Datum

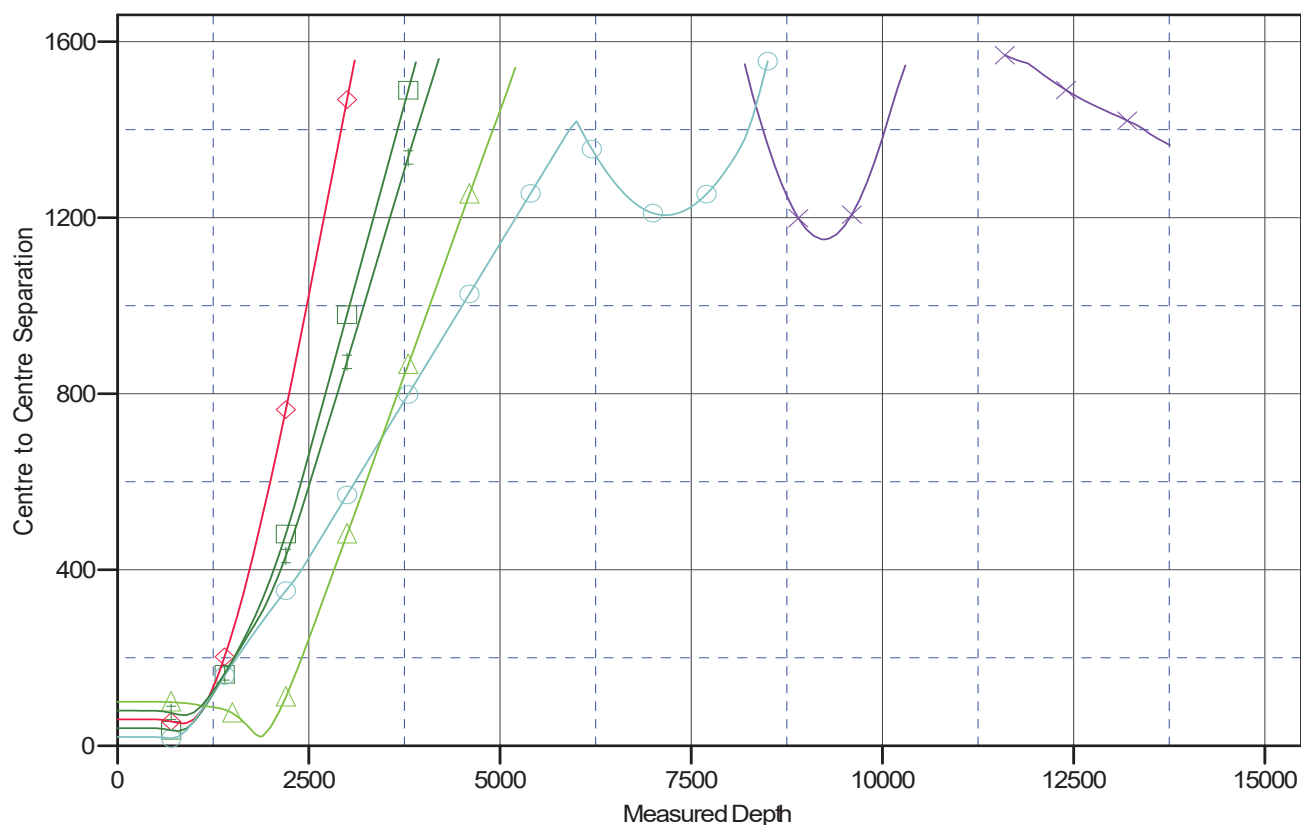
Central Meridian is -107.83333333

Coordinates are relative to: Betonnie Tsosie Wash Unit 107 H

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

Grid Convergence at Surface is: 0.132°

Ladder Plot



LEGEND

Betonnie Tsosie Wash Unit 107 H Original Hole, Survey V0
 Betonnie Tsosie Wash Unit 103 H Original Hole, rev V0
 Betonnie Tsosie Wash Unit 101 H Original Hole, rev V0
 Betonnie Tsosie Wash Unit 105 H Original Hole, rev V0
 North Arriba Unit 106 H Original Hole, MW Data Survey V0
 North Arriba Unit 102 H Original Hole, MW Data Survey V0

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Bettonnie Tsosie Wash Unit 107 H
Project:	Rio Arriba, Sandoval & San Juan Counties, NAD83 NmW	TVD Reference:	RKB=6962+23.5 @ 6985.50ft
Reference Site:	Bettonnie Tsosie Wash (101,103,105 & 107)	MD Reference:	RKB=6962+23.5 @ 6985.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Bettonnie Tsosie Wash Unit 107 H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Jul1724_v17
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6962+23.5 @ 6985.50ft

Offset Depths are relative to Offset Datum

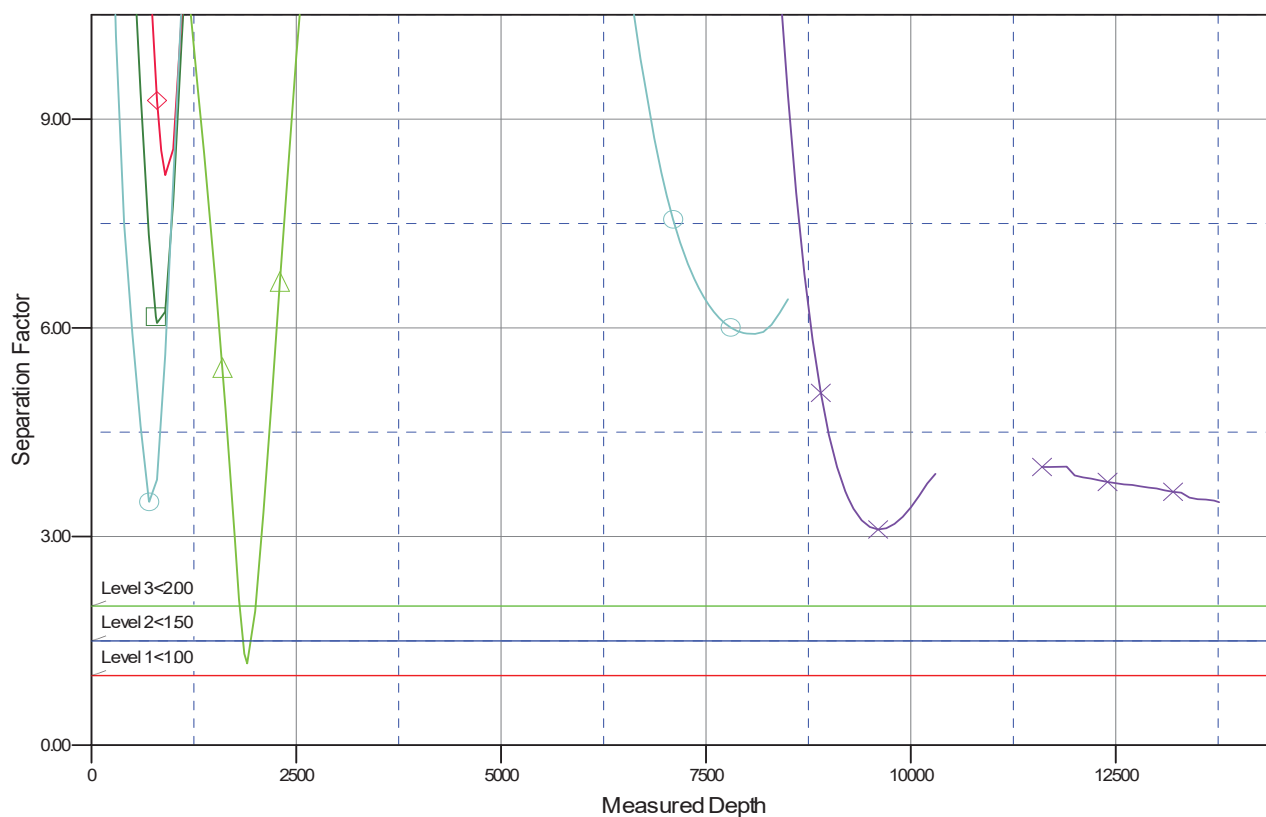
Central Meridian is -107.83333333

Coordinates are relative to: Bettonnie Tsosie Wash Unit 107 H

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

Grid Convergence at Surface is: 0.132°

Separation Factor Plot



LEGEND

Bettonnie Tsosie Wash Unit 107 H Original Hole, Survey V0
 Bettonnie Tsosie Wash Unit 103 H Original Hole, rev1 V0
 Bettonnie Tsosie Wash Unit 101 H Original Hole, rev1 V0
 Bettonnie Tsosie Wash Unit 105 H Original Hole, rev1 V0
 North Aemib Unit 106 H Original Hole, MW Daurey V0
 North Aemib Unit 102 H Original Hole, MW Daurey V0

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



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)

* ENDURING RESOURCES LLC
#107H BETONNIE TSOSIE WASH UNIT
Lease: NMNM136161 Agreement: NMNM135219A

SH: NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 19, T. 23N., R. 07W.
Sandoval County, New Mexico
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 14, T. 23N., R. 08W.
San Juan County, New Mexico
***Above Data Required on Well Sign**

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

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

- A. ☒ Note all surface/drilling conditions of approval attached.
- B. ☒ The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. ☒ Test all casing strings below the conductor casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield (burst) for a minimum of 30 minutes. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- D. ☐ Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.
- E. ☐ The use of co-flex hose is authorized contingent upon the following:
 1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
 2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
 3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

- A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable. (See 43 CFR 3172.6(b)(9)(ii)).
- G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation. (See 43 CFR 3172.8(a)).
- H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare. (See 43 CFR 3172.8(b)(7)).
- I. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a Notice of Intent sundry within three business days. **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to Virgil Lucero at 505-793-1836.**
- J. **The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.**
- K. Unless drilling operations are commenced within four years according to 43 CFR 3171.14, approval of the Application for Permit to Drill will expire. No extensions will be granted.

- L. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.
- M. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.
- N. **Commingling:** No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office. (See 43 CFR 3173.14)

II. REPORTING REQUIREMENTS

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer online through AFMSS 2 within 30 days after the work is completed.
 - 1. Provide complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
 - b. Intervals tested, perforated (include size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
 - c. Subsequent Report of Abandonment, show the way the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
 - 2. Well Completion Report will be submitted with 30 days after well has been completed.
 - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
 - 3. Submit a cement evaluation log if cement is not circulated to surface.
- C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

III. DRILLER'S LOG

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

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * Days, 20 MMCF following its (completion)(recompletion), or flowback has been routed to the production separator, whichever first occurs, without the prior, written approval of the authorized officer in accordance with 43 CFR 3179.81. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the beginning of flowback following completion or recompletion.

V. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.I.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.I. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

VII. PHONE NUMBERS

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

Virgil Lucero (505) 793-1836
Kenneth Rennick (505) 564-7742
Matthew Kade (505) 564-7736

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico

Energy, Minerals and Natural Resources

Oil Conservation Division

1220 S. St Francis Dr.

Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 510216

ACKNOWLEDGMENTS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 510216
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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State of New Mexico
Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
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CONDITIONS

Action 510216

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 510216
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
scrues76	Cement is required to circulate on both surface and intermediate1 strings of casing.	9/29/2025
scrues76	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	9/29/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	10/8/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	10/8/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	10/8/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	10/8/2025