

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	3b. Phone No. (include area code)	9. API Well No. 30-045-38510
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
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)



Additional Operator Remarks

Location of Well

0. SHL: SESE / 304 FSL / 461 FEL / TWSP: 23N / RANGE: 8W / SECTION: 18 / LAT: 36.2205 / LONG: -107.715738 (TVD: 0 feet, MD: 0 feet)
PPP: SWSW / 228 FSL / 1063 FWL / TWSP: 23N / RANGE: 8W / SECTION: 17 / LAT: 36.220368 / LONG: -107.710574 (TVD: 4550 feet, MD: 5264 feet)
PPP: SESE / 1250 FSL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 12 / LAT: 36.237662 / LONG: -107.731754 (TVD: 4739 feet, MD: 19855 feet)
PPP: SWSW / 0 FSL / 1140 FWL / TWSP: 23N / RANGE: 8W / SECTION: 7 / LAT: 36.234224 / LONG: -107.727542 (TVD: 4739 feet, MD: 19855 feet)
PPP: SENW / 1426 FNL / 2500 FEL / TWSP: 23N / RANGE: 9W / SECTION: 12 / LAT: 36.244925 / LONG: -107.740653 (TVD: 4739 feet, MD: 19855 feet)
PPP: SWNE / 2719 FSL / 1333 FEL / TWSP: 23N / RANGE: 9W / SECTION: 12 / LAT: 36.241691 / LONG: -107.73669 (TVD: 4739 feet, MD: 19855 feet)
PPP: SESE / 1284 FSL / 0 FEL / TWSP: 23N / RANGE: 8W / SECTION: 18 / LAT: 36.22321 / LONG: -107.714054 (TVD: 4739 feet, MD: 19855 feet)
BHL: NENW / 225 FNL / 1408 FWL / TWSP: 23N / RANGE: 9W / SECTION: 12 / LAT: 36.248129 / LONG: -107.744579 (TVD: 4739 feet, MD: 19855 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN
Title: Natural Resource Specialist
Phone: (505) 564-7727
Email: cwenman@blm.gov

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 30-045-38510	Pool Code 98157	Pool Name LYBROOK MANCOS W
Property Code 332891	Property Name GREATER LYBROOK UNIT	Well Number 081H
OGRID No. 372286	Operator Name ENDURING RESOURCES, LLC	Ground Level Elevation 6894'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☒ Tribal ☒ Federal

Surface Location

UL P	Section 18	Township 23N	Range 8W	Lot	Feet from N/S Line 304' SOUTH	Feet from E/W Line 461' EAST	Latitude 36.220500 °N	Longitude -107.715738 °W	County SAN JUAN
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Bottom Hole Location

UL C	Section 12	Township 23N	Range 9W	Lot	Feet from N/S Line 225' NORTH	Feet from E/W Line 1408' WEST	Latitude 36.248129 °N	Longitude -107.744579 °W	County SAN JUAN
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Penetrated Spacing Unit

Dedicated Acres 919.01 W/2 SW/4 - Section 17 E/2 SE/4, NW/4 SE/4, S/2 NE/4 NW/4 NE/4, E/2 NW/4, Lot 1 - Sec 18 Lots 3 & 4, SE/4 SW/4 - Section 7 E/2 SE/4, NW/4 SE/4, S/2 NE/4 NW/4 NE/4, SE/4 NW/4, N/2 NW/4 - Sec 12	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit ☐ Yes ☐ No	Consolidation Code UNIT
	Order Numbers R-22081		Well setbacks are under Common Ownership ☒ Yes ☐ No	

Kick Off Point (KOP)

UL P	Section 18	Township 23N	Range 8W	Lot	Feet from N/S Line 304' SOUTH	Feet from E/W Line 461' EAST	Latitude 36.220500 °N	Longitude -107.715738 °W	County SAN JUAN
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First Take Point (FTP)

UL M	Section 17	Township 23N	Range 8W	Lot	Feet from N/S Line 228' SOUTH	Feet from E/W Line 1063' WEST	Latitude 36.220368 °N	Longitude -107.710574 °W	County SAN JUAN
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Last Take Point (LTP)

UL C	Section 12	Township 23N	Range 9W	Lot	Feet from N/S Line 225' NORTH	Feet from E/W Line 1408' WEST	Latitude 36.248129 °N	Longitude -107.744579 °W	County SAN JUAN
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Unitized Area or Area of Uniform Interest GREATER LYBROOK UNIT	Spacing Unit Type ☒ Horizontal ☐ Vertical ☐ Directional	Ground Floor Elevation
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OPERATOR CERTIFICATION 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. <u>Shaw-Marie Ford</u> 11/5/2025 Signature Date Shaw-Marie Ford Printed Name sford@enduringresources.com E-mail Address	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  JASON C. EDWARDS Signature and Seal of Professional Surveyor <table><tr><td>Certificate Number 15269</td><td>Date of Survey JANUARY 11, 2023</td></tr></table>	Certificate Number 15269	Date of Survey JANUARY 11, 2023
Certificate Number 15269	Date of Survey JANUARY 11, 2023		

SURFACE LOCATION (SHL)		KICK OFF POINT (KOP)		FIRST TAKE POINT (FTP)		LAST TAKE POINT (LTP)		BOTTOM HOLE LOCATION (BHL)	
304' FSL	461' FEL	304' FSL	461' FEL	228' FSL	1063' FWL	225' FNL	1408' FWL	225' FNL	1408' FWL
SECTION 18, T23N, R9W		SECTION 18, T23N, R9W		SECTION 17, T23N, R9W		SECTION 12, T23N, R9W		SECTION 12, T23N, R9W	
LAT 36.220500 °N		LAT 36.220500 °N		LAT 36.220368 °N		LAT 36.248129 °N		LAT 36.248129 °N	
LONG -107.715738 °W		LONG -107.715738 °W		LONG -107.710574 °W		LONG -107.744579 °W		LONG -107.744579 °W	
DATUM: NAD1983		DATUM: NAD1983		DATUM: NAD1983		DATUM: NAD1983		DATUM: NAD1983	



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: Enduring Operating, LLC **OGRID:** 372286 **Date:** 09 / 25 / 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	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Greater Lybrook Unit 079		P-18-23N-8W	293 FSL 444 FEL	210	210	84
Greater Lybrook Unit 081		P-18-23N-8W	304 FSL 461 FEL	391	782	156
				3-year decline		
Greater Lybrook Unit 079		P-18-23N-8W	293 FSL 444 FEL	80	80	32
Greater Lybrook Unit 081		P-18-23N-8W	304 FSL 461 FEL	88	177	35

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

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Greater Lybrook Unit 079		Q2 2026	Q2 2026	Q2 2026	Q2 2026	Q2 2026
Greater Lybrook Unit 081		Q2 2026	Q2 2026	Q2 2026	Q2 2026	Q2 2026

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 9/25/2025
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

SEPARATION EQUIPMENT

Enduring Resources, LLC (Enduring) has pulled representative pressurized samples from wells in the same producing formation. Enduring 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.



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

VENTING and FLARING

Enduring has a natural gas system available prior to startup of completion operations. Enduring 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, Enduring utilizes the following from list A-I of Section 3 for its operations to minimize flaring:

- a) Enduring 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) Enduring'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.

Enduring 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



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

Enduring 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

- Enduring 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, Enduring will vent natural gas in order to avoid substantial impact. Enduring 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, Enduring utilizes the following:

- Enduring 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) Enduring analyzes the natural gas samples twice per week.
 - 3) Enduring routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met.
 - 4) Enduring provides the NMOCD with pipeline specifications and natural gas data.



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

19.15.27.8 D. Venting and flaring during production operations

During Production Operations Enduring 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. Enduring does not vent after the well achieves a stabilized rate and pressure.
 - b. Enduring 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. Enduring 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. Enduring receives approval from the NMOCD.
 - b. Enduring remains in compliance with the NM gas capture requirements.
 - c. Enduring 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. Enduring 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. Enduring 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.



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

- 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 ENDURING 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. Enduring will conduct an AVO inspection on all components for leaks and defects on a weekly basis.
 5. Enduring will make and keep records of AVO inspections which will be available to the NMOCD for at least 5 years.
 6. Enduring 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. Enduring will resolve emergencies as promptly as possible.

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

1. Enduring will have meters on both the low- and high-pressure sides of the flares and the volumes will be recorded in ENDURING's SCADA system.
2. Enduring 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. Enduring'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. Enduring 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. Enduring 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. Enduring will install measuring equipment whenever the NMOCD determines that metering is necessary.



Enduring Resources, LLC.
OGRID No: 372286
NATURAL GAS MANAGEMENT PLAN
Greater Lybrook Unit 079H and 081H

BEST MANAGEMENT PRACTICES

Enduring utilizes the following Best Management Practices to minimize venting during active and planned maintenance.

Enduring 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.

Enduring 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.

Enduring 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.

Enduring 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.

Enduring 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.

Enduring'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.

Enduring 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 Silt formation*

WELL INFORMATION:

Name: Greater Lybrook Unit 081H

State: New Mexico

County: San Juan

Surface Elevation: 6,894 ft ASL (GL) 6,919 ft ASL (KB)

Surface Location: 18-23-8 Sec-Twn-Rng 304 ft FSL 461 ft FEL
 36.2205 ° N latitude 107.715738 ° W longitude (NAD 83)

BH Location: 12-23-9 Sec-Twn-Rng 225 ft FNL 1,408 ft FWL
 36.248129 ° N latitude 107.744579 ° 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 37.8 miles to MM 113.4; Right (South) on CR #7890 for 0.7 miles to fork; Left (SouthEast) exiting CR #7890 for 1.2 miles to location access on right into Greater Rodeo Unit 500H Pad. From NorthWest to SouthEast will be Greater Lybrook Unit 081H (closest to location entrance), Greater Lybrook Unit 079H, Rodeo Unit 501H, and Rodeo Unit 500H.

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,227	692	692	W	normal
	Kirtland	6,101	818	818	W	normal
	Fruitland	5,910	1,009	1,010	G, W	sub
	Pictured Cliffs	5,601	1,318	1,330	G, W	sub
	Lewis	5,425	1,494	1,519	G, W	normal
	Chacra	5,172	1,747	1,808	G, W	normal
	Cliff House	4,096	2,823	3,144	G, W	sub
	Menefee	4,076	2,843	3,169	G, W	normal
	Point Lookout	3,100	3,819	4,382	G, W	normal
	Mancos	2,938	3,981	4,562	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,600	4,319	4,926	O,G	sub (~0.38)
	MNCS_B	2,508	4,411	5,041	O,G	sub (~0.38)
	MNCS_C	2,412	4,507	5,183	O,G	sub (~0.38)
	MNCS_Cms	2,369	4,550	5,264	O,G	sub (~0.38)
	MNCS_D	2,228	4,691	NA	O,G	sub (~0.38)
	FTP TARGET	2,369	4,550	5,264	O,G	sub (~0.38)
	PROJECTED LTP	2,180	4,739	19,855	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: 2,040 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,000 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 9-5/8" casing to TD; gas detection from drillout of 13-3/8" casing to TD.

MWD / LWD: Gamma Ray from drillout of 13-3/8" casing to TD

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 5-1/2" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Aztec

Rig No.: 1000

Draw Works: E80 AC 1,500 hp

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

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

Prime Movers: 4 - GE Jenbacher Natural Gas Generator

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

BOPE 1: Cameron single & double gate rams (13-5/8", 3,000 psi)

BOPE 2: Cameron annular (13-5/8", 5,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 25

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

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well and located on drill floor.
- 2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
- 3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
- 4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 5) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when 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 at drill out of surface casing, 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 for additional details. Sufficient barite will be on location to weight up mud system to balance maximum anticipated pressure gradient.

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: 17-1/2"

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	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	649	116,634	116,634
Min. S.F.					7.39	4.21	7.31	7.79

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): Minimum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

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)
	TYPE III	14.6	1.39	6.686	0.6946	100%	0	364
Annular Capacity	0.6946	cuft/ft	13-3/8" casing x 17-1/2" hole annulus			Csg capacity	0.8680	ft3/ft
Drake Energy Services: Calculated cement volumes assume gauge hole and the excess noted in table								Cu Ft Slurry
								505.3
Tail	ASTM Type III	Calcium Chloride	D-CD2 .3% BWOC					
	Blend	2% BWOC	Dispersant/Friction	.25 lbs/sx Cello				
		Accelerator	reducer	Flake - seepage				
Notify COGCC & 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	3,355 ft (MD)	Hole Section Length:	3,005 ft
350 ft (TVD)	to	2,993 ft (TVD)	Casing Required:	3,355 ft

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (5% KCl)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	No OBM

Hole Size: 12-1/4"

Bit / Motor: 12-1/4" 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 13-3/8" 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	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,307	1,171	193,962	193,962
Min. S.F.					1.55	3.01	2.91	2.34

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

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface (FLOAT EQUIPMENT FROM WEATHERFORD)

Centralizers: 1 per joint in non-vertical hole; 1 per 3-joints in vertical hole

Stage 1	Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
	Spacer	D-Mud Breaker	8.5				0	10 bbls	
	Lead	90:10 Type							
		III:POZ	12.5	2.140	12.05	70%	0	683	1,461
	Tail	Type III	14.6	1.380	6.64	20%	2,855	150	207
	Displacement	256	est bbls						
Annular Capacity	0.3627	cuft/ft	9-5/8" casing x 13-3/8" casing annulus						
	0.3132	cuft/ft	9-5/8" casing x 12-1/4" hole annulus				9-5/8" 36# ID	8.921	
	0.4341	cuft/ft	9-5/8" casing vol			est shoe jt ft	44		
Calculated cement volumes assume gauge hole and the excess (open hole only) noted in table									

Spacer D-Mud Breaker SAPP

		D-MPA-1 .4%					
		BWOC Fluid Loss &					
		Gas Migration	D-SA 1 1.4% BWOC	D-CD 2 .4% BWOC	Cello Flace LCM	D-FP1 0.5% BWOC	
Lead	ASTM Type III 90/10 Poz	BWOC Strength Enhancer	Control	Na Metasilicate	Dispersant	.25 lb/sx	Defoamer
		D-MPA-1 .4%					
		BWOC Fluid Loss &					
		Gas Migration		D-CD 2 .5% BWOC	Cello Flace LCM		
Tail	ASTM Type III Blend	Control		Dispersant	.25 lb/sx		D-R1 .2% Retarder
Drake Intermediate Cementing Program							

Cement must achieve 500 psi compressive strength before drilling out.

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.

3,355 ft (MD)	to	19,855 ft (MD)	Hole Section Length:	16,500 ft
2,993 ft (TVD)	to	4,739 ft (TVD)	Casing Required:	19,855 ft

Estimated KOP:	4,350 ft (MD)	3,792 ft (TVD)
Estimated Landing Point (FTP):	5,264 ft (MD)	4,550 ft (TVD)
Estimated Lateral Length:	14,591 ft (MD)	

Fluid:	Type	MW (ppg)	WPS ppm	HTHP	YP (lb/100 sqft)	ES	OWR	Comment
	OBM	8.0 - 9.0	120,000 CaCl	NC	±6	+300	80:20	WBM as contingency

Hole Size: 8-1/2"

Bit / Motor: 8-1/2" 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.

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,341	8,944	391,262	391,262
Min. S.F.					3.19	1.19	1.40	1.14

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

MU Torque (ft lbs): Minimum: 3,470 Optimum: 4,620 Maximum: 5,780

Casing Summary: Float shoe, float collar, 1 jt casing, float collar, 20' marker joint, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every 2,000', floatation sub at KOP, casing to surface. The toe-initiation sleeve (last-take-point) cannot be placed closer than 330' to the unit boundary when measured perpendicular to the well path.

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	IntegraGuard Star	11		31.6		0	60 bbls	
Lead	ASTM type I/II	12.4	2.370	13.40	50%	0	556	1,318
Tail	G:POZ blend	13.3	1.570	7.70	10%	4,562	2,463	3,866

Displacement	438	est bbls	
Annular Capacity	0.2691	cuft/ft	5-1/2" casing x 9-5/8" casing annulus
	0.2291	cuft/ft	5-1/2" casing x 8-1/2" hole annulus
	0.1245	cuft/ft	5-1/2" casing vol est shoe jt ft 100

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

American Cementing Liner & Production Blend

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

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

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: 14,491

Est Frac Inform: 60 Frac Stages 232,000 bbls slick water 18,840,000 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: 5/1/2024

Completion: 6/30/2024

Production: 8/14/2024

Prepared by: G Olson 9/28/2023

Updated:

WELL NAME: Greater Lybrook Unit 081H

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

API Number: Not yet assigned

AFE Number: Not yet assigned

ER Well Number: Not yet assigned

State: New Mexico

County: San Juan

Surface Elev.: 6,894 ft ASL (GL) 6,919 ft ASL (KB)

Surface Location: 18-23-8 Sec-Twn- Rng 304 ft FSL 461 ft FEL

BH Location: 12-23-9 Sec-Twn- Rng 225 ft FNL 1408 ft FWL

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

South on US Hwy 550 for 37.8 miles to MM 113.4; Right (South) on CR #7890 for 0.7 miles to fork; Left (SouthEast) exiting CR #7890 for 1.2 miles to location access on right into Greater Rodeo Unit 500H Pad. From NorthWest to SouthEast will be Greater Lybrook Unit 081H (closest to location entrance), Greater Lybrook Unit 079H, Rodeo Unit 501H, and Rodeo Unit 500H.

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	3,355 ft
KOP (MD)	4,350 ft
KOP (TVD)	3,792 ft
Target (TVD)	4,550 ft
Curve BUR	10 °/100 ft
POE (MD)	5,264 ft
TD (MD)	19,855 ft
Lat Len (ft)	14,591 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	3,355	9.625	36.0	J-55	LTC	0	3,355
Production	8.500	19,855	5.500	17.0	P-110	LTC	0	19,855

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	% Excess	TOC (ft MD)	Total (sx)	Cu Ft Slurry
Surface	TYPE III	14.6	1.39	6.686	100%	0	364	505
Inter. (Lead)	10 Type III:P	12.5	2.14	12.05	70%	0	683	1,461
Inter. (Tail)	Type III	14.6	1.38	6.64	20%	2855	150	207
Prod. (Lead)	ASTM type I/I	12.4	2.370	13.4	50%	0	556	1,318
Prod. (Tail)	G:POZ blend	13.3	1.570	7.7	10%	4562	2463	3,866

COMPLETION / PRODUCTION SUMMARY:

Frac: 14491

Flowback: Flow back through production tubing as pressures allow

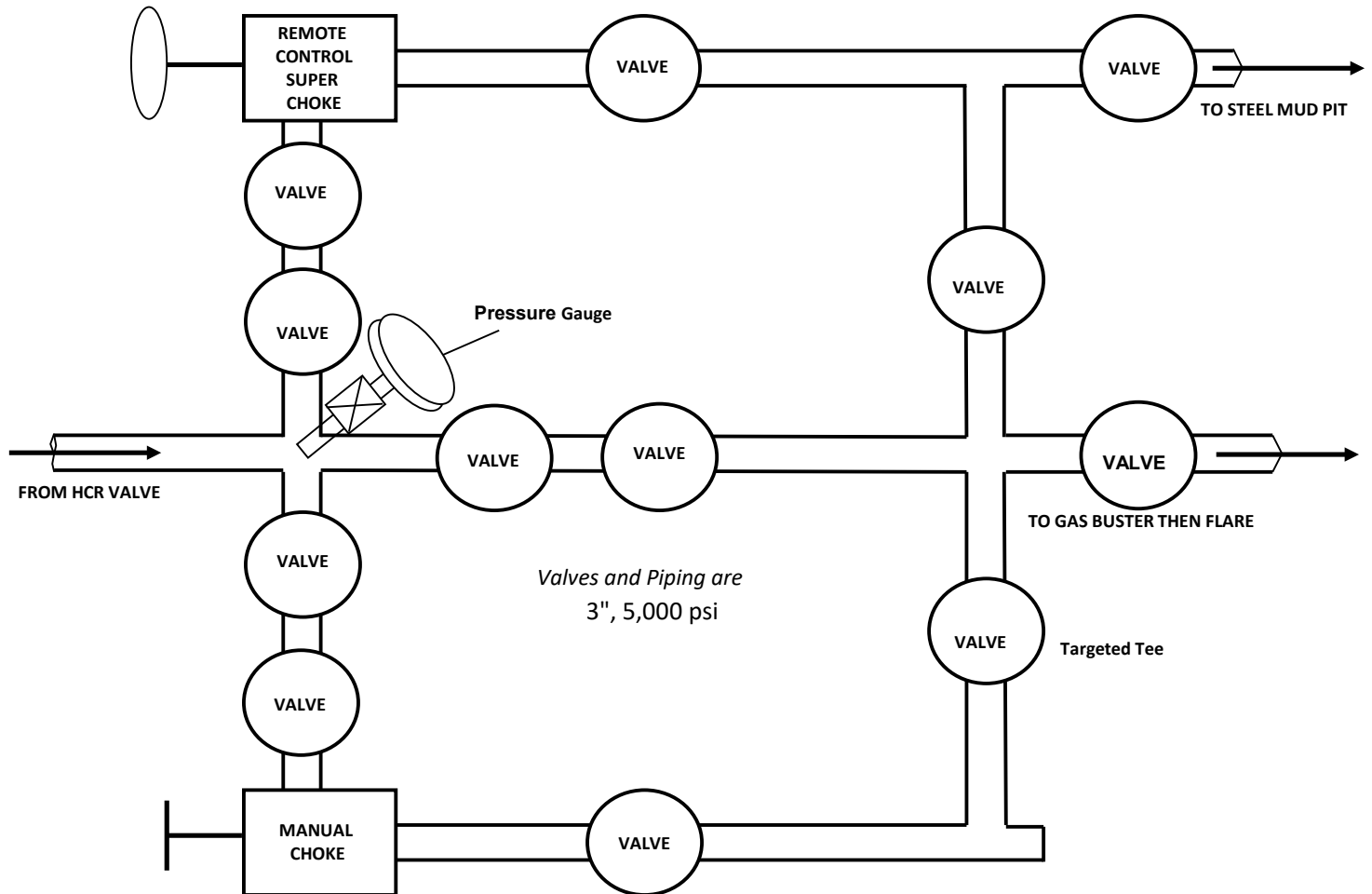
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	692	692
Kirtland	818	818
Fruitland	1,009	1,010
Pictured Cliffs	1,318	1,330
Lewis	1,494	1,519
Chacra	1,747	1,808
Cliff House	2,823	3,144
Menefee	2,843	3,169
Point Lookout	3,819	4,382
Mancos	3,981	4,562
Gallup (MNCS_A)	4,319	4,926
MNCS_B	4,411	5,041
MNCS_C	4,507	5,183
MNCS_Cms	4,550	5,264
MNCS_D	4,691	NA
MNCS_E	0	0
MNCS_F	0	0
MNCS_G	0	0
MNCS_H	0	0
MNCS_I	0	0
FTP TARGET	4,550	5,264
PROJECTED LTP	4,739	19,855

Greater Lybrook Unit 081H

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.

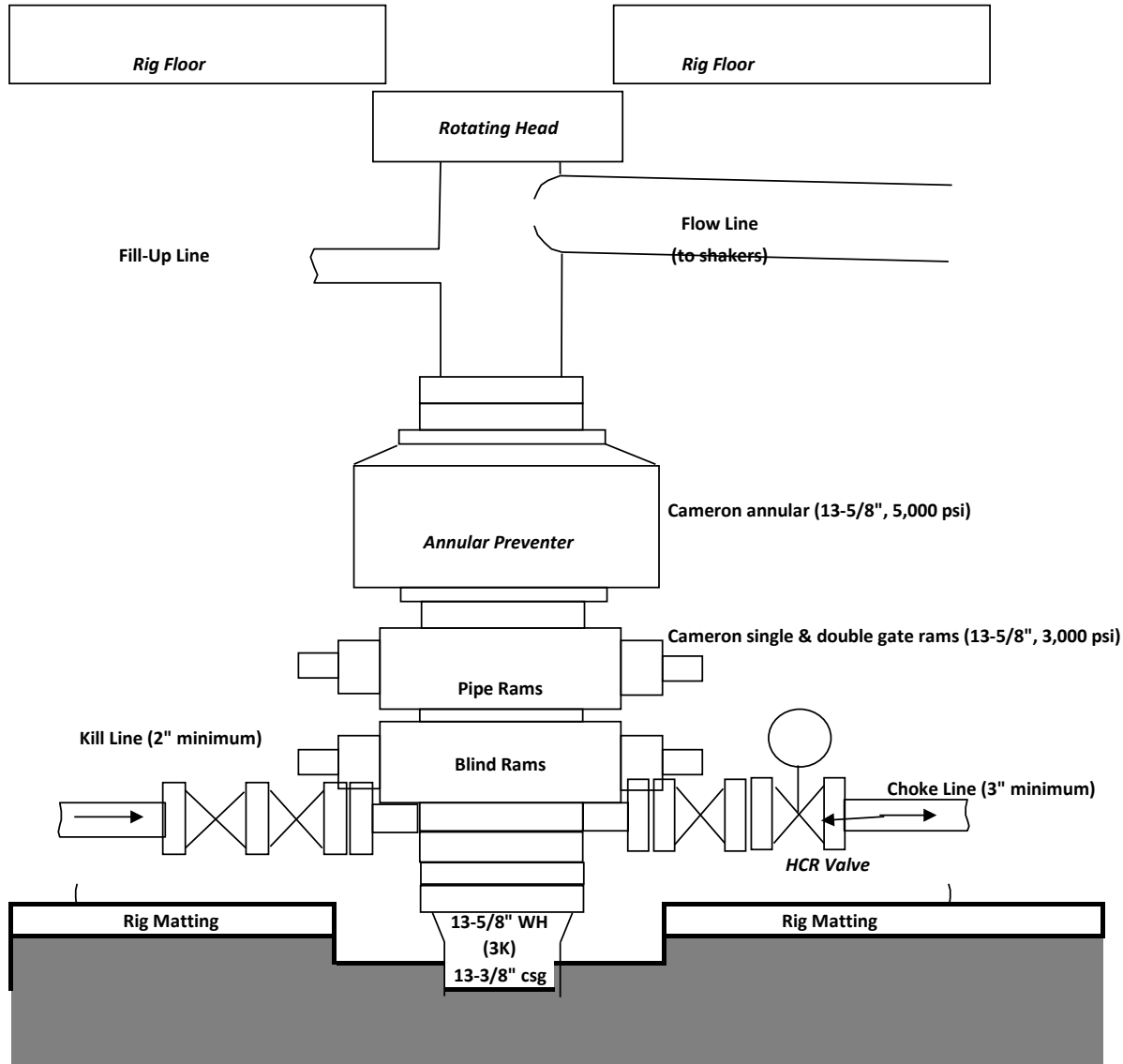
CHOKE MANIFOLD



Greater Lybrook Unit 081H

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: Greater Lybrook Unit 081H
Site: Greater Lybrook Unit (79 & 81)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lybrook 81 FTP 228 FSL 1063 FWL 330 perp	4652.26	-46.16	1523.25	1899534.735	2759301.047	36.220368000	-107.710574000
Lybrook 81 vs=0	4659.00	738.62	742.75	1900319.516	2758520.551	36.222526548	-107.713216786
Lybrook 81 LTP 225 FNL 1408 FWL 330 perp	4739.00	10048.53	-8516.22	1909629.411	2749261.597	36.248129000	-107.744579000

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1916.62	36.50	109.74	1835.99	-126.49	352.57	3.00	109.74	-338.30	Begin 36.50° tangent
4	4335.88	36.50	109.74	3780.76	-612.41	1707.02	0.00	0.00	-1637.92	Begin 10°/100' build/turn
5	5246.27	60.00	325.10	4541.50	-315.20	1744.58	10.00	-149.91	-1453.65	Begin 60.00° tangent
6	5306.27	60.00	325.10	4571.50	-272.58	1714.85	0.00	0.00	-1402.47	Begin 10°/100' build/turn
7	5617.51	89.65	315.16	4652.25	-46.11	1523.27	10.00	-19.51	-1106.80	Begin 89.65° lateral
8	19854.81	89.65	315.16	4739.00	10048.53	-8516.22	0.00	0.00	13130.24	PBHL/TD

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=6894+25 @ 6919.00ft
Surface location:

Northing: 1899580.898
Easting: 2757777.803
Latitude: 36.220500000
Longitude: -107.715738000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.51°

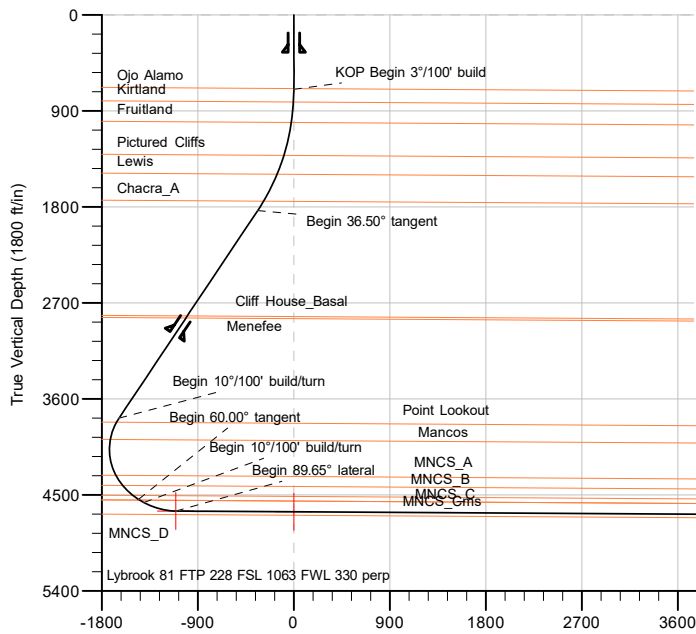
CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
2999.00	3363.38	9 5/8" Csg

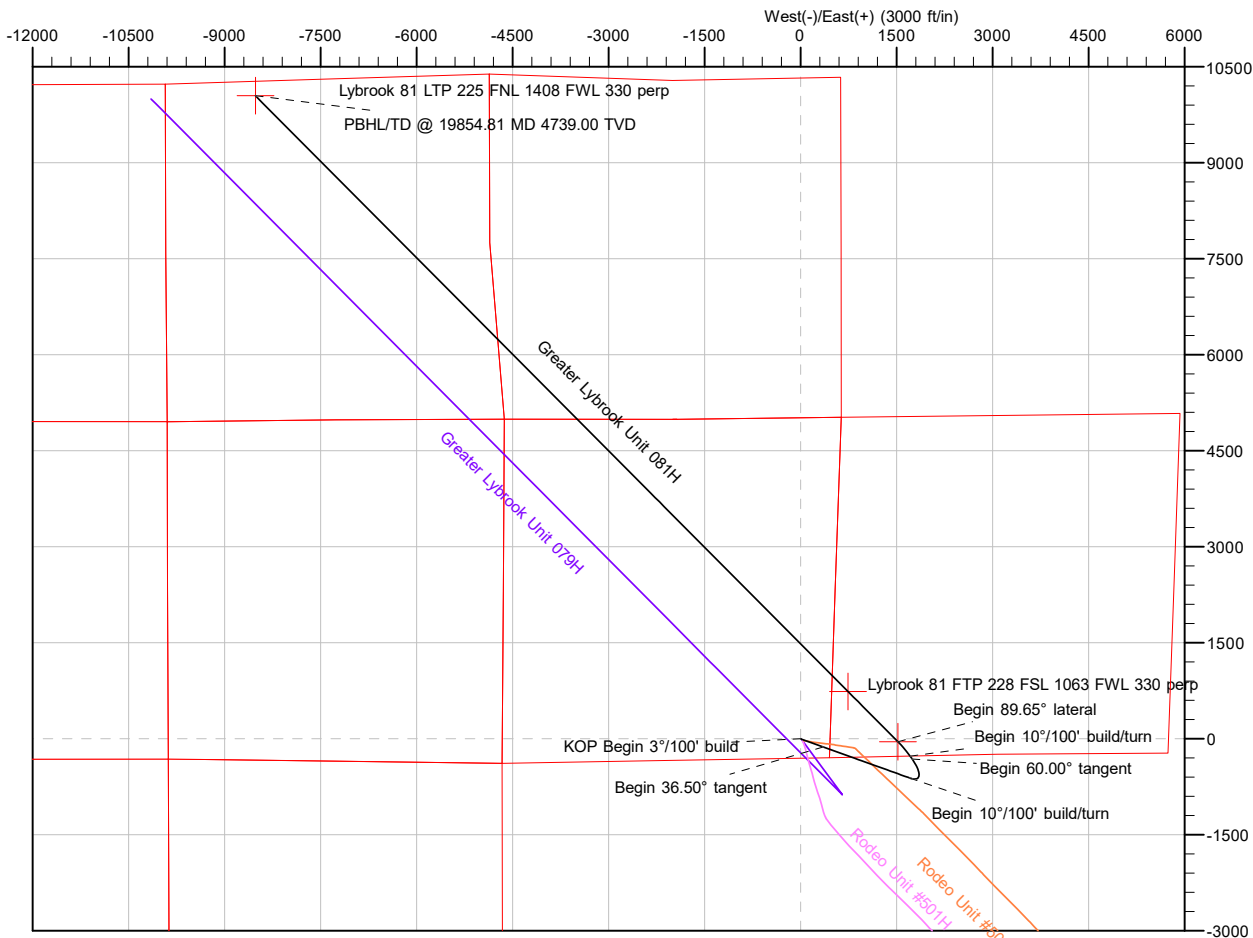


Azimuths to Grid North
True North: -0.07°
Magnetic North: 8.51°

Magnetic Field
Strength: 49105.4nT
Dip Angle: 62.71°
Date: 6/5/2023
Model: IGRF2020

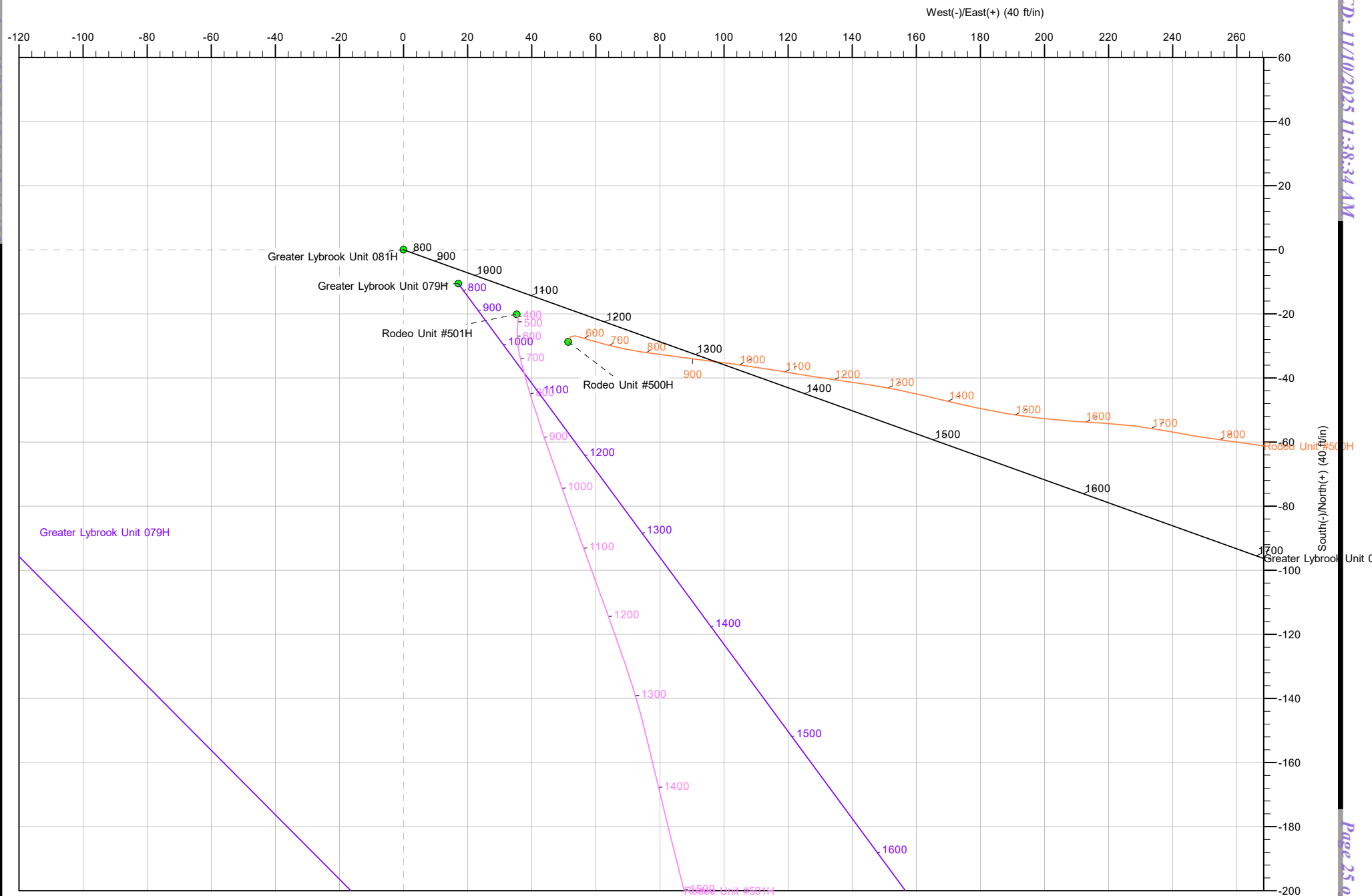


15:16, June 06 2023



Vertical Section at 315.16° (1800 ft/in)

(ft) (3000) (+) North (-) South





Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Greater Lybrook Unit (79 & 81)		
Site Position:		Northing:	1,899,570.361 usft
From:	Lat/Long	Easting:	2,757,794.923 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.220471000
		Longitude:	-107.715680000

Well	Greater Lybrook Unit 081H, Surf loc: 304 FSL 461 FEL Section 18-T23N-R08W		
Well Position	+N/-S	0.00 ft	Northing: 1,899,580.897 usft
	+E/-W	0.00 ft	Easting: 2,757,777.803 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.07 °	Ground Level:	6,894.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/5/2023	8.58	62.71	49,105.36362607

Design	rev0				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	315.16	

Plan Survey Tool Program	Date	6/6/2023			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	19,854.81	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,916.62	36.50	109.74	1,835.99	-126.49	352.57	3.00	3.00	0.00	109.74	
4,335.88	36.50	109.74	3,780.76	-612.41	1,707.02	0.00	0.00	0.00	0.00	
5,246.27	60.00	325.10	4,541.50	-315.20	1,744.58	10.00	2.58	-15.89	-149.91	
5,306.27	60.00	325.10	4,571.50	-272.58	1,714.85	0.00	0.00	0.00	0.00	
5,617.51	89.65	315.16	4,652.25	-46.11	1,523.27	10.00	9.53	-3.19	-19.51	
19,854.81	89.65	315.16	4,739.00	10,048.53	-8,516.22	0.00	0.00	0.00	0.00	Lybrook 81 LTP 225 F



Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8" Csg									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
692.00	0.00	0.00	692.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
800.00	3.00	109.74	799.95	-0.88	2.46	-2.36	3.00	3.00	0.00
818.06	3.54	109.74	817.98	-1.23	3.43	-3.29	3.00	3.00	0.00
Kirtland									
900.00	6.00	109.74	899.63	-3.53	9.85	-9.45	3.00	3.00	0.00
1,000.00	9.00	109.74	998.77	-7.94	22.13	-21.24	3.00	3.00	0.00
1,010.22	9.31	109.74	1,008.86	-8.49	23.66	-22.71	3.00	3.00	0.00
Fruitland									
1,100.00	12.00	109.74	1,097.08	-14.09	39.28	-37.69	3.00	3.00	0.00
1,200.00	15.00	109.74	1,194.31	-21.98	61.25	-58.77	3.00	3.00	0.00
1,300.00	18.00	109.74	1,290.18	-31.57	87.98	-84.42	3.00	3.00	0.00
1,329.78	18.89	109.74	1,318.43	-34.75	96.85	-92.93	3.00	3.00	0.00
Pictured Cliffs									
1,400.00	21.00	109.74	1,384.43	-42.84	119.40	-114.57	3.00	3.00	0.00
1,500.00	24.00	109.74	1,476.81	-55.76	155.42	-149.13	3.00	3.00	0.00
1,518.91	24.57	109.74	1,494.05	-58.38	162.74	-156.15	3.00	3.00	0.00
Lewis									
1,600.00	27.00	109.74	1,567.06	-70.29	195.93	-188.00	3.00	3.00	0.00
1,700.00	30.00	109.74	1,654.93	-86.40	240.84	-231.09	3.00	3.00	0.00
1,800.00	33.00	109.74	1,740.18	-104.05	290.02	-278.28	3.00	3.00	0.00
1,808.47	33.25	109.74	1,747.27	-105.61	294.37	-282.46	3.00	3.00	0.00
Chacra_A									
1,900.00	36.00	109.74	1,822.59	-123.17	343.32	-329.43	3.00	3.00	0.00
1,916.62	36.50	109.74	1,835.99	-126.49	352.57	-338.30	3.00	3.00	0.00
Begin 36.50° tangent									
2,000.00	36.50	109.74	1,903.02	-143.24	399.26	-383.09	0.00	0.00	0.00
2,100.00	36.50	109.74	1,983.40	-163.32	455.24	-436.81	0.00	0.00	0.00
2,200.00	36.50	109.74	2,063.79	-183.41	511.23	-490.53	0.00	0.00	0.00
2,300.00	36.50	109.74	2,144.18	-203.49	567.21	-544.25	0.00	0.00	0.00
2,400.00	36.50	109.74	2,224.57	-223.58	623.20	-597.97	0.00	0.00	0.00
2,500.00	36.50	109.74	2,304.95	-243.67	679.19	-651.69	0.00	0.00	0.00
2,600.00	36.50	109.74	2,385.34	-263.75	735.17	-705.41	0.00	0.00	0.00
2,700.00	36.50	109.74	2,465.73	-283.84	791.16	-759.13	0.00	0.00	0.00
2,800.00	36.50	109.74	2,546.12	-303.92	847.15	-812.85	0.00	0.00	0.00
2,900.00	36.50	109.74	2,626.50	-324.01	903.13	-866.57	0.00	0.00	0.00
3,000.00	36.50	109.74	2,706.89	-344.09	959.12	-920.29	0.00	0.00	0.00
3,100.00	36.50	109.74	2,787.28	-364.18	1,015.10	-974.01	0.00	0.00	0.00
3,144.32	36.50	109.74	2,822.90	-373.08	1,039.92	-997.82	0.00	0.00	0.00
Cliff House_Basal									
3,169.10	36.50	109.74	2,842.82	-378.06	1,053.79	-1,011.13	0.00	0.00	0.00



Planning Report

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Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
Menefee										
3,200.00	36.50	109.74	2,867.66	-384.26	1,071.09	-1,027.73	0.00	0.00	0.00	
3,300.00	36.50	109.74	2,948.05	-404.35	1,127.08	-1,081.45	0.00	0.00	0.00	
3,363.38	36.50	109.74	2,999.00	-417.08	1,162.56	-1,115.50	0.00	0.00	0.00	
9 5/8" Csg										
3,400.00	36.50	109.74	3,028.44	-424.44	1,183.06	-1,135.17	0.00	0.00	0.00	
3,500.00	36.50	109.74	3,108.83	-444.52	1,239.05	-1,188.89	0.00	0.00	0.00	
3,600.00	36.50	109.74	3,189.21	-464.61	1,295.04	-1,242.61	0.00	0.00	0.00	
3,700.00	36.50	109.74	3,269.60	-484.69	1,351.02	-1,296.33	0.00	0.00	0.00	
3,800.00	36.50	109.74	3,349.99	-504.78	1,407.01	-1,350.05	0.00	0.00	0.00	
3,900.00	36.50	109.74	3,430.38	-524.86	1,462.99	-1,403.77	0.00	0.00	0.00	
4,000.00	36.50	109.74	3,510.76	-544.95	1,518.98	-1,457.49	0.00	0.00	0.00	
4,100.00	36.50	109.74	3,591.15	-565.04	1,574.97	-1,511.21	0.00	0.00	0.00	
4,200.00	36.50	109.74	3,671.54	-585.12	1,630.95	-1,564.93	0.00	0.00	0.00	
4,300.00	36.50	109.74	3,751.92	-605.21	1,686.94	-1,618.65	0.00	0.00	0.00	
4,335.88	36.50	109.74	3,780.76	-612.41	1,707.02	-1,637.92	0.00	0.00	0.00	
Begin 10°/100' build/turn										
4,350.00	35.28	108.51	3,792.21	-615.13	1,714.85	-1,645.36	10.00	-8.61	-8.68	
4,382.11	32.57	105.43	3,818.85	-620.37	1,731.98	-1,661.16	10.00	-8.45	-9.59	
Point Lookout										
4,400.00	31.09	103.51	3,834.05	-622.73	1,741.11	-1,669.27	10.00	-8.25	-10.73	
4,450.00	27.15	97.18	3,877.73	-627.18	1,765.00	-1,689.27	10.00	-7.89	-12.66	
4,500.00	23.58	88.99	3,922.92	-628.43	1,786.33	-1,705.20	10.00	-7.15	-16.37	
4,550.00	20.56	78.33	3,969.27	-626.48	1,804.94	-1,716.93	10.00	-6.02	-21.32	
4,561.97	19.96	75.36	3,980.50	-625.53	1,808.97	-1,719.11	10.00	-5.08	-24.88	
Mancos										
4,600.00	18.40	64.78	4,016.43	-621.33	1,820.68	-1,724.39	10.00	-4.10	-27.82	
4,650.00	17.39	48.78	4,064.04	-613.04	1,833.45	-1,727.51	10.00	-2.01	-31.99	
4,700.00	17.74	32.20	4,111.74	-601.67	1,843.14	-1,726.28	10.00	0.71	-33.16	
4,750.00	19.38	17.32	4,159.16	-587.29	1,849.67	-1,720.69	10.00	3.28	-29.78	
4,800.00	22.02	5.26	4,205.95	-570.02	1,853.00	-1,710.80	10.00	5.28	-24.10	
4,850.00	25.36	355.95	4,251.74	-549.99	1,853.11	-1,696.67	10.00	6.66	-18.63	
4,900.00	29.14	348.79	4,296.20	-527.36	1,849.98	-1,678.42	10.00	7.57	-14.32	
4,926.16	31.24	345.70	4,318.82	-514.53	1,847.07	-1,667.27	10.00	8.05	-11.81	
MNCS_A										
4,950.00	33.22	343.20	4,338.98	-502.29	1,843.65	-1,656.18	10.00	8.29	-10.49	
5,000.00	37.50	338.73	4,379.75	-474.98	1,834.17	-1,630.12	10.00	8.56	-8.94	
5,040.62	41.08	335.70	4,411.19	-451.28	1,824.18	-1,606.28	10.00	8.82	-7.45	
MNCS_B										
5,050.00	41.92	335.07	4,418.21	-445.63	1,821.60	-1,600.45	10.00	8.93	-6.79	
5,100.00	46.44	331.99	4,454.06	-414.47	1,806.04	-1,567.38	10.00	9.04	-6.15	
5,150.00	51.03	329.35	4,487.03	-381.73	1,787.61	-1,531.17	10.00	9.18	-5.29	
5,182.50	54.04	327.81	4,506.80	-359.73	1,774.16	-1,506.09	10.00	9.27	-4.74	
MNCS_C										
5,200.00	55.67	327.03	4,516.87	-347.67	1,766.45	-1,492.10	10.00	9.31	-4.46	
5,246.27	60.00	325.10	4,541.50	-315.20	1,744.58	-1,453.65	10.00	9.36	-4.17	
Begin 60.00° tangent										
5,263.69	60.00	325.10	4,550.21	-302.82	1,735.95	-1,438.79	0.00	0.00	0.00	
MNCS_Cms - MNCS_Cms @ 0vs										
5,306.27	60.00	325.10	4,571.50	-272.58	1,714.85	-1,402.47	0.00	0.00	0.00	
Begin 10°/100' build/turn										
5,350.00	64.13	323.48	4,591.98	-241.22	1,692.29	-1,364.33	10.00	9.45	-3.71	
5,400.00	68.88	321.76	4,611.91	-204.80	1,664.45	-1,318.88	10.00	9.49	-3.44	



Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,450.00	73.64	320.14	4,627.98	-168.05	1,634.63	-1,271.79	10.00	9.52	-3.23
5,500.00	78.41	318.60	4,640.05	-131.24	1,603.04	-1,223.41	10.00	9.54	-3.07
5,550.00	83.19	317.12	4,648.04	-94.66	1,569.93	-1,174.13	10.00	9.56	-2.97
5,600.00	87.97	315.66	4,651.89	-58.58	1,535.56	-1,124.30	10.00	9.57	-2.91
5,617.51	89.65	315.16	4,652.25	-46.11	1,523.27	-1,106.80	10.00	9.57	-2.89
Begin 89.65° lateral									
5,700.00	89.65	315.16	4,652.76	12.38	1,465.10	-1,024.31	0.00	0.00	0.00
5,800.00	89.65	315.16	4,653.37	83.28	1,394.58	-924.31	0.00	0.00	0.00
5,900.00	89.65	315.16	4,653.98	154.18	1,324.07	-824.31	0.00	0.00	0.00
6,000.00	89.65	315.16	4,654.59	225.09	1,253.55	-724.31	0.00	0.00	0.00
6,100.00	89.65	315.16	4,655.19	295.99	1,183.04	-624.31	0.00	0.00	0.00
6,200.00	89.65	315.16	4,655.80	366.89	1,112.52	-524.32	0.00	0.00	0.00
6,300.00	89.65	315.16	4,656.41	437.80	1,042.01	-424.32	0.00	0.00	0.00
6,400.00	89.65	315.16	4,657.02	508.70	971.49	-324.32	0.00	0.00	0.00
6,500.00	89.65	315.16	4,657.63	579.60	900.98	-224.32	0.00	0.00	0.00
6,600.00	89.65	315.16	4,658.24	650.50	830.46	-124.32	0.00	0.00	0.00
6,700.00	89.65	315.16	4,658.85	721.41	759.95	-24.33	0.00	0.00	0.00
6,800.00	89.65	315.16	4,659.46	792.31	689.43	75.67	0.00	0.00	0.00
6,900.00	89.65	315.16	4,660.07	863.21	618.92	175.67	0.00	0.00	0.00
7,000.00	89.65	315.16	4,660.68	934.12	548.40	275.67	0.00	0.00	0.00
7,100.00	89.65	315.16	4,661.29	1,005.02	477.88	375.67	0.00	0.00	0.00
7,200.00	89.65	315.16	4,661.90	1,075.92	407.37	475.66	0.00	0.00	0.00
7,300.00	89.65	315.16	4,662.51	1,146.82	336.85	575.66	0.00	0.00	0.00
7,400.00	89.65	315.16	4,663.12	1,217.73	266.34	675.66	0.00	0.00	0.00
7,500.00	89.65	315.16	4,663.72	1,288.63	195.82	775.66	0.00	0.00	0.00
7,600.00	89.65	315.16	4,664.33	1,359.53	125.31	875.66	0.00	0.00	0.00
7,700.00	89.65	315.16	4,664.94	1,430.43	54.79	975.66	0.00	0.00	0.00
7,800.00	89.65	315.16	4,665.55	1,501.34	-15.72	1,075.65	0.00	0.00	0.00
7,900.00	89.65	315.16	4,666.16	1,572.24	-86.24	1,175.65	0.00	0.00	0.00
8,000.00	89.65	315.16	4,666.77	1,643.14	-156.75	1,275.65	0.00	0.00	0.00
8,100.00	89.65	315.16	4,667.38	1,714.05	-227.27	1,375.65	0.00	0.00	0.00
8,200.00	89.65	315.16	4,667.99	1,784.95	-297.79	1,475.65	0.00	0.00	0.00
8,300.00	89.65	315.16	4,668.60	1,855.85	-368.30	1,575.64	0.00	0.00	0.00
8,400.00	89.65	315.16	4,669.21	1,926.75	-438.82	1,675.64	0.00	0.00	0.00
8,500.00	89.65	315.16	4,669.82	1,997.66	-509.33	1,775.64	0.00	0.00	0.00
8,600.00	89.65	315.16	4,670.43	2,068.56	-579.85	1,875.64	0.00	0.00	0.00
8,700.00	89.65	315.16	4,671.04	2,139.46	-650.36	1,975.64	0.00	0.00	0.00
8,800.00	89.65	315.16	4,671.65	2,210.37	-720.88	2,075.63	0.00	0.00	0.00
8,900.00	89.65	315.16	4,672.25	2,281.27	-791.39	2,175.63	0.00	0.00	0.00
9,000.00	89.65	315.16	4,672.86	2,352.17	-861.91	2,275.63	0.00	0.00	0.00
9,100.00	89.65	315.16	4,673.47	2,423.07	-932.42	2,375.63	0.00	0.00	0.00
9,200.00	89.65	315.16	4,674.08	2,493.98	-1,002.94	2,475.63	0.00	0.00	0.00
9,300.00	89.65	315.16	4,674.69	2,564.88	-1,073.45	2,575.63	0.00	0.00	0.00
9,400.00	89.65	315.16	4,675.30	2,635.78	-1,143.97	2,675.62	0.00	0.00	0.00
9,500.00	89.65	315.16	4,675.91	2,706.68	-1,214.49	2,775.62	0.00	0.00	0.00
9,600.00	89.65	315.16	4,676.52	2,777.59	-1,285.00	2,875.62	0.00	0.00	0.00
9,700.00	89.65	315.16	4,677.13	2,848.49	-1,355.52	2,975.62	0.00	0.00	0.00
9,800.00	89.65	315.16	4,677.74	2,919.39	-1,426.03	3,075.62	0.00	0.00	0.00
9,900.00	89.65	315.16	4,678.35	2,990.30	-1,496.55	3,175.61	0.00	0.00	0.00
10,000.00	89.65	315.16	4,678.96	3,061.20	-1,567.06	3,275.61	0.00	0.00	0.00
10,100.00	89.65	315.16	4,679.57	3,132.10	-1,637.58	3,375.61	0.00	0.00	0.00
10,200.00	89.65	315.16	4,680.17	3,203.00	-1,708.09	3,475.61	0.00	0.00	0.00
10,300.00	89.65	315.16	4,680.78	3,273.91	-1,778.61	3,575.61	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,400.00	89.65	315.16	4,681.39	3,344.81	-1,849.12	3,675.61	0.00	0.00	0.00	
10,500.00	89.65	315.16	4,682.00	3,415.71	-1,919.64	3,775.60	0.00	0.00	0.00	
10,600.00	89.65	315.16	4,682.61	3,486.62	-1,990.16	3,875.60	0.00	0.00	0.00	
10,700.00	89.65	315.16	4,683.22	3,557.52	-2,060.67	3,975.60	0.00	0.00	0.00	
10,800.00	89.65	315.16	4,683.83	3,628.42	-2,131.19	4,075.60	0.00	0.00	0.00	
10,900.00	89.65	315.16	4,684.44	3,699.32	-2,201.70	4,175.60	0.00	0.00	0.00	
11,000.00	89.65	315.16	4,685.05	3,770.23	-2,272.22	4,275.59	0.00	0.00	0.00	
11,100.00	89.65	315.16	4,685.66	3,841.13	-2,342.73	4,375.59	0.00	0.00	0.00	
11,200.00	89.65	315.16	4,686.27	3,912.03	-2,413.25	4,475.59	0.00	0.00	0.00	
11,300.00	89.65	315.16	4,686.88	3,982.93	-2,483.76	4,575.59	0.00	0.00	0.00	
11,400.00	89.65	315.16	4,687.49	4,053.84	-2,554.28	4,675.59	0.00	0.00	0.00	
11,500.00	89.65	315.16	4,688.10	4,124.74	-2,624.79	4,775.58	0.00	0.00	0.00	
11,600.00	89.65	315.16	4,688.70	4,195.64	-2,695.31	4,875.58	0.00	0.00	0.00	
11,700.00	89.65	315.16	4,689.31	4,266.55	-2,765.82	4,975.58	0.00	0.00	0.00	
11,800.00	89.65	315.16	4,689.92	4,337.45	-2,836.34	5,075.58	0.00	0.00	0.00	
11,900.00	89.65	315.16	4,690.53	4,408.35	-2,906.86	5,175.58	0.00	0.00	0.00	
12,000.00	89.65	315.16	4,691.14	4,479.25	-2,977.37	5,275.58	0.00	0.00	0.00	
12,100.00	89.65	315.16	4,691.75	4,550.16	-3,047.89	5,375.57	0.00	0.00	0.00	
12,200.00	89.65	315.16	4,692.36	4,621.06	-3,118.40	5,475.57	0.00	0.00	0.00	
12,300.00	89.65	315.16	4,692.97	4,691.96	-3,188.92	5,575.57	0.00	0.00	0.00	
12,400.00	89.65	315.16	4,693.58	4,762.87	-3,259.43	5,675.57	0.00	0.00	0.00	
12,500.00	89.65	315.16	4,694.19	4,833.77	-3,329.95	5,775.57	0.00	0.00	0.00	
12,600.00	89.65	315.16	4,694.80	4,904.67	-3,400.46	5,875.56	0.00	0.00	0.00	
12,700.00	89.65	315.16	4,695.41	4,975.57	-3,470.98	5,975.56	0.00	0.00	0.00	
12,800.00	89.65	315.16	4,696.02	5,046.48	-3,541.49	6,075.56	0.00	0.00	0.00	
12,900.00	89.65	315.16	4,696.63	5,117.38	-3,612.01	6,175.56	0.00	0.00	0.00	
13,000.00	89.65	315.16	4,697.23	5,188.28	-3,682.53	6,275.56	0.00	0.00	0.00	
13,100.00	89.65	315.16	4,697.84	5,259.19	-3,753.04	6,375.56	0.00	0.00	0.00	
13,200.00	89.65	315.16	4,698.45	5,330.09	-3,823.56	6,475.55	0.00	0.00	0.00	
13,300.00	89.65	315.16	4,699.06	5,400.99	-3,894.07	6,575.55	0.00	0.00	0.00	
13,400.00	89.65	315.16	4,699.67	5,471.89	-3,964.59	6,675.55	0.00	0.00	0.00	
13,500.00	89.65	315.16	4,700.28	5,542.80	-4,035.10	6,775.55	0.00	0.00	0.00	
13,600.00	89.65	315.16	4,700.89	5,613.70	-4,105.62	6,875.55	0.00	0.00	0.00	
13,700.00	89.65	315.16	4,701.50	5,684.60	-4,176.13	6,975.54	0.00	0.00	0.00	
13,800.00	89.65	315.16	4,702.11	5,755.50	-4,246.65	7,075.54	0.00	0.00	0.00	
13,900.00	89.65	315.16	4,702.72	5,826.41	-4,317.16	7,175.54	0.00	0.00	0.00	
14,000.00	89.65	315.16	4,703.33	5,897.31	-4,387.68	7,275.54	0.00	0.00	0.00	
14,100.00	89.65	315.16	4,703.94	5,968.21	-4,458.19	7,375.54	0.00	0.00	0.00	
14,200.00	89.65	315.16	4,704.55	6,039.12	-4,528.71	7,475.53	0.00	0.00	0.00	
14,300.00	89.65	315.16	4,705.16	6,110.02	-4,599.23	7,575.53	0.00	0.00	0.00	
14,400.00	89.65	315.16	4,705.76	6,180.92	-4,669.74	7,675.53	0.00	0.00	0.00	
14,500.00	89.65	315.16	4,706.37	6,251.82	-4,740.26	7,775.53	0.00	0.00	0.00	
14,600.00	89.65	315.16	4,706.98	6,322.73	-4,810.77	7,875.53	0.00	0.00	0.00	
14,700.00	89.65	315.16	4,707.59	6,393.63	-4,881.29	7,975.53	0.00	0.00	0.00	
14,800.00	89.65	315.16	4,708.20	6,464.53	-4,951.80	8,075.52	0.00	0.00	0.00	
14,900.00	89.65	315.16	4,708.81	6,535.44	-5,022.32	8,175.52	0.00	0.00	0.00	
15,000.00	89.65	315.16	4,709.42	6,606.34	-5,092.83	8,275.52	0.00	0.00	0.00	
15,100.00	89.65	315.16	4,710.03	6,677.24	-5,163.35	8,375.52	0.00	0.00	0.00	
15,200.00	89.65	315.16	4,710.64	6,748.14	-5,233.86	8,475.52	0.00	0.00	0.00	
15,300.00	89.65	315.16	4,711.25	6,819.05	-5,304.38	8,575.51	0.00	0.00	0.00	
15,400.00	89.65	315.16	4,711.86	6,889.95	-5,374.90	8,675.51	0.00	0.00	0.00	
15,500.00	89.65	315.16	4,712.47	6,960.85	-5,445.41	8,775.51	0.00	0.00	0.00	
15,600.00	89.65	315.16	4,713.08	7,031.75	-5,515.93	8,875.51	0.00	0.00	0.00	
15,700.00	89.65	315.16	4,713.69	7,102.66	-5,586.44	8,975.51	0.00	0.00	0.00	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,800.00	89.65	315.16	4,714.29	7,173.56	-5,656.96	9,075.51	0.00	0.00	0.00
15,900.00	89.65	315.16	4,714.90	7,244.46	-5,727.47	9,175.50	0.00	0.00	0.00
16,000.00	89.65	315.16	4,715.51	7,315.37	-5,797.99	9,275.50	0.00	0.00	0.00
16,100.00	89.65	315.16	4,716.12	7,386.27	-5,868.50	9,375.50	0.00	0.00	0.00
16,200.00	89.65	315.16	4,716.73	7,457.17	-5,939.02	9,475.50	0.00	0.00	0.00
16,300.00	89.65	315.16	4,717.34	7,528.07	-6,009.53	9,575.50	0.00	0.00	0.00
16,400.00	89.65	315.16	4,717.95	7,598.98	-6,080.05	9,675.49	0.00	0.00	0.00
16,500.00	89.65	315.16	4,718.56	7,669.88	-6,150.56	9,775.49	0.00	0.00	0.00
16,600.00	89.65	315.16	4,719.17	7,740.78	-6,221.08	9,875.49	0.00	0.00	0.00
16,700.00	89.65	315.16	4,719.78	7,811.69	-6,291.60	9,975.49	0.00	0.00	0.00
16,800.00	89.65	315.16	4,720.39	7,882.59	-6,362.11	10,075.49	0.00	0.00	0.00
16,900.00	89.65	315.16	4,721.00	7,953.49	-6,432.63	10,175.48	0.00	0.00	0.00
17,000.00	89.65	315.16	4,721.61	8,024.39	-6,503.14	10,275.48	0.00	0.00	0.00
17,100.00	89.65	315.16	4,722.22	8,095.30	-6,573.66	10,375.48	0.00	0.00	0.00
17,200.00	89.65	315.16	4,722.82	8,166.20	-6,644.17	10,475.48	0.00	0.00	0.00
17,300.00	89.65	315.16	4,723.43	8,237.10	-6,714.69	10,575.48	0.00	0.00	0.00
17,400.00	89.65	315.16	4,724.04	8,308.01	-6,785.20	10,675.48	0.00	0.00	0.00
17,500.00	89.65	315.16	4,724.65	8,378.91	-6,855.72	10,775.47	0.00	0.00	0.00
17,600.00	89.65	315.16	4,725.26	8,449.81	-6,926.23	10,875.47	0.00	0.00	0.00
17,700.00	89.65	315.16	4,725.87	8,520.71	-6,996.75	10,975.47	0.00	0.00	0.00
17,800.00	89.65	315.16	4,726.48	8,591.62	-7,067.27	11,075.47	0.00	0.00	0.00
17,900.00	89.65	315.16	4,727.09	8,662.52	-7,137.78	11,175.47	0.00	0.00	0.00
18,000.00	89.65	315.16	4,727.70	8,733.42	-7,208.30	11,275.46	0.00	0.00	0.00
18,100.00	89.65	315.16	4,728.31	8,804.32	-7,278.81	11,375.46	0.00	0.00	0.00
18,200.00	89.65	315.16	4,728.92	8,875.23	-7,349.33	11,475.46	0.00	0.00	0.00
18,300.00	89.65	315.16	4,729.53	8,946.13	-7,419.84	11,575.46	0.00	0.00	0.00
18,400.00	89.65	315.16	4,730.14	9,017.03	-7,490.36	11,675.46	0.00	0.00	0.00
18,500.00	89.65	315.16	4,730.75	9,087.94	-7,560.87	11,775.46	0.00	0.00	0.00
18,600.00	89.65	315.16	4,731.35	9,158.84	-7,631.39	11,875.45	0.00	0.00	0.00
18,700.00	89.65	315.16	4,731.96	9,229.74	-7,701.90	11,975.45	0.00	0.00	0.00
18,800.00	89.65	315.16	4,732.57	9,300.64	-7,772.42	12,075.45	0.00	0.00	0.00
18,900.00	89.65	315.16	4,733.18	9,371.55	-7,842.93	12,175.45	0.00	0.00	0.00
19,000.00	89.65	315.16	4,733.79	9,442.45	-7,913.45	12,275.45	0.00	0.00	0.00
19,100.00	89.65	315.16	4,734.40	9,513.35	-7,983.97	12,375.44	0.00	0.00	0.00
19,200.00	89.65	315.16	4,735.01	9,584.26	-8,054.48	12,475.44	0.00	0.00	0.00
19,300.00	89.65	315.16	4,735.62	9,655.16	-8,125.00	12,575.44	0.00	0.00	0.00
19,400.00	89.65	315.16	4,736.23	9,726.06	-8,195.51	12,675.44	0.00	0.00	0.00
19,500.00	89.65	315.16	4,736.84	9,796.96	-8,266.03	12,775.44	0.00	0.00	0.00
19,600.00	89.65	315.16	4,737.45	9,867.87	-8,336.54	12,875.43	0.00	0.00	0.00
19,700.00	89.65	315.16	4,738.06	9,938.77	-8,407.06	12,975.43	0.00	0.00	0.00
19,800.00	89.65	315.16	4,738.67	10,009.67	-8,477.57	13,075.43	0.00	0.00	0.00
19,854.81	89.65	315.16	4,739.00	10,048.53	-8,516.22	13,130.24	0.00	0.00	0.00
PBHL/TD @ 19854.81 MD 4739.00 TVD									



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
Lybrook 81 FTP 228 FSI	0.00	0.00	4,652.26	-46.16	1,523.25	1,899,534.734	2,759,301.047	36.220368000	-107.710574000
- plan misses target center by 0.05ft at 5617.49ft MD (4652.25 TVD, -46.13 N, 1523.29 E)									
- Point									
Lybrook 81 vs=0	0.00	0.00	4,659.00	738.62	742.75	1,900,319.516	2,758,520.551	36.222526549	-107.713216786
- plan misses target center by 0.05ft at 6724.33ft MD (4659.00 TVD, 738.66 N, 742.79 E)									
- Point									
Lybrook 81 LTP 225 FNI	0.00	0.00	4,739.00	10,048.53	-8,516.22	1,909,629.411	2,749,261.597	36.248129000	-107.744579000
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(")	(")
350.00	350.00	13 3/8" Csg		13-3/8	17-1/2
3,363.38	2,999.00	9 5/8" Csg		9-5/8	12-1/4

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)	Name	Lithology	(°)	(°)	
692.00	692.00	Ojo Alamo		0.35	315.16	
818.06	817.98	Kirtland		0.35	315.16	
1,010.22	1,008.86	Fruitland		0.35	315.16	
1,329.78	1,318.43	Pictured Cliffs		0.35	315.16	
1,518.91	1,494.05	Lewis		0.35	315.16	
1,808.47	1,747.27	Chacra_A		0.35	315.16	
3,144.32	2,822.90	Cliff House_Basal		0.35	315.16	
3,169.10	2,842.82	Menefee		0.35	315.16	
4,382.11	3,818.85	Point Lookout		0.35	315.16	
4,561.97	3,980.50	Mancos		0.35	315.16	
4,926.16	4,318.82	MNCS_A		0.35	315.16	
5,040.62	4,411.19	MNCS_B		0.35	315.16	
5,182.50	4,506.80	MNCS_C		0.35	315.16	
5,263.69	4,550.21	MNCS_Cms		0.35	315.16	
5,263.69	4,550.21	MNCS_Cms @ 0vs		0.35	315.16	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
700.00	700.00	0.00	0.00	KOP Begin 3°/100' build	
1,916.62	1,835.99	-126.49	352.57	Begin 36.50° tangent	
4,335.88	3,780.76	-612.41	1,707.02	Begin 10°/100' build/turn	
5,246.27	4,541.50	-315.20	1,744.58	Begin 60.00° tangent	
5,306.27	4,571.50	-272.58	1,714.85	Begin 10°/100' build/turn	
5,617.51	4,652.25	-46.11	1,523.27	Begin 89.65° lateral	
19,854.81	4,739.00	10,048.53	-8,516.22	PBHL/TD @ 19854.81 MD 4739.00 TVD	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Greater Lybrook Unit (79 & 81)				
Site Position:		Northing:	1,899,570.361 usft	Latitude:	36.220471000
From:	Lat/Long	Easting:	2,757,794.923 usft	Longitude:	-107.715680000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Greater Lybrook Unit 081H, Surf loc: 304 FSL 461 FEL Section 18-T23N-R08W						
Well Position	+N/-S	0.00 ft	Northing:	1,899,580.897	usft	Latitude:	36.220500000
	+E/-W	0.00 ft	Easting:	2,757,777.803	usft	Longitude:	-107.715738000
Position Uncertainty		0.00 ft	Wellhead Elevation:		ft	Ground Level:	6,894.00 ft
Grid Convergence:		0.07 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/5/2023	8.58	62.71	49,105.36362607

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	315.16

Plan Survey Tool Program	Date	6/6/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,854.81 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,916.62	36.50	109.74	1,835.99	-126.49	352.57	3.00	3.00	0.00	109.74	
4,335.88	36.50	109.74	3,780.76	-612.41	1,707.02	0.00	0.00	0.00	0.00	
5,246.27	60.00	325.10	4,541.50	-315.20	1,744.58	10.00	2.58	-15.89	-149.91	
5,306.27	60.00	325.10	4,571.50	-272.58	1,714.85	0.00	0.00	0.00	0.00	
5,617.51	89.65	315.16	4,652.25	-46.11	1,523.27	10.00	9.53	-3.19	-19.51	
19,854.81	89.65	315.16	4,739.00	10,048.53	-8,516.22	0.00	0.00	0.00	0.00	Lybrook 81 LTP 225 F



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
100.00	0.00	0.00	100.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
200.00	0.00	0.00	200.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
300.00	0.00	0.00	300.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
350.00	0.00	0.00	350.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
13 3/8" Csg										
400.00	0.00	0.00	400.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
500.00	0.00	0.00	500.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
600.00	0.00	0.00	600.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
692.00	0.00	0.00	692.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
Ojo Alamo										
700.00	0.00	0.00	700.00	0.00	0.00	1,899,580.897	2,757,777.803	36.220500000	-107.715738000	
KOP Begin 3°/100' build										
800.00	3.00	109.74	799.95	-0.88	2.46	1,899,580.013	2,757,780.266	36.220497564	-107.715729652	
818.06	3.54	109.74	817.98	-1.23	3.43	1,899,579.666	2,757,781.236	36.220496605	-107.715726366	
Kirtland										
900.00	6.00	109.74	899.63	-3.53	9.85	1,899,577.364	2,757,787.651	36.220490262	-107.715704628	
1,000.00	9.00	109.74	998.77	-7.94	22.13	1,899,572.957	2,757,799.935	36.220478114	-107.715662999	
1,010.22	9.31	109.74	1,008.86	-8.49	23.66	1,899,572.408	2,757,801.466	36.220476600	-107.715657811	
Fruitland										
1,100.00	12.00	109.74	1,097.08	-14.09	39.28	1,899,566.804	2,757,817.086	36.220461154	-107.715604877	
1,200.00	15.00	109.74	1,194.31	-21.98	61.25	1,899,558.922	2,757,839.057	36.220439427	-107.715530424	
1,300.00	18.00	109.74	1,290.18	-31.57	87.98	1,899,549.332	2,757,865.787	36.220412995	-107.715439841	
1,329.78	18.89	109.74	1,318.43	-34.75	96.85	1,899,546.150	2,757,874.658	36.220404222	-107.715409781	
Pictured Cliffs										
1,400.00	21.00	109.74	1,384.43	-42.84	119.40	1,899,538.061	2,757,897.203	36.220381927	-107.715333379	
1,500.00	24.00	109.74	1,476.81	-55.76	155.42	1,899,525.140	2,757,933.219	36.220346311	-107.715211328	
1,518.91	24.57	109.74	1,494.05	-58.38	162.74	1,899,522.514	2,757,940.539	36.220339073	-107.715186523	
Lewis										
1,600.00	27.00	109.74	1,567.06	-70.29	195.93	1,899,510.604	2,757,973.737	36.220306244	-107.715074023	
1,700.00	30.00	109.74	1,654.93	-86.40	240.84	1,899,494.493	2,758,018.645	36.220261835	-107.714921841	
1,800.00	33.00	109.74	1,740.18	-104.05	290.02	1,899,476.851	2,758,067.820	36.220213205	-107.714755199	
1,808.47	33.25	109.74	1,747.27	-105.61	294.37	1,899,475.288	2,758,072.175	36.220208898	-107.714740440	
Chacra_A										
1,900.00	36.00	109.74	1,822.59	-123.17	343.32	1,899,457.726	2,758,121.127	36.220160489	-107.714574553	
1,916.62	36.50	109.74	1,835.99	-126.49	352.57	1,899,454.409	2,758,130.374	36.220151344	-107.714543215	
Begin 36.50° tangent										
2,000.00	36.50	109.74	1,903.02	-143.24	399.26	1,899,437.660	2,758,177.058	36.220105178	-107.714385016	
2,100.00	36.50	109.74	1,983.40	-163.32	455.24	1,899,417.575	2,758,233.044	36.220049813	-107.714195293	
2,200.00	36.50	109.74	2,063.79	-183.41	511.23	1,899,397.489	2,758,289.030	36.219994447	-107.714005570	
2,300.00	36.50	109.74	2,144.18	-203.49	567.21	1,899,377.404	2,758,345.016	36.219939080	-107.713815848	
2,400.00	36.50	109.74	2,224.57	-223.58	623.20	1,899,357.318	2,758,401.003	36.219883714	-107.713626126	
2,500.00	36.50	109.74	2,304.95	-243.67	679.19	1,899,337.233	2,758,456.989	36.219828347	-107.713436404	
2,600.00	36.50	109.74	2,385.34	-263.75	735.17	1,899,317.147	2,758,512.975	36.219772980	-107.713246682	
2,700.00	36.50	109.74	2,465.73	-283.84	791.16	1,899,297.061	2,758,568.961	36.219717612	-107.713056961	
2,800.00	36.50	109.74	2,546.12	-303.92	847.15	1,899,276.976	2,758,624.947	36.219662245	-107.712867240	
2,900.00	36.50	109.74	2,626.50	-324.01	903.13	1,899,256.890	2,758,680.933	36.219606877	-107.712677519	
3,000.00	36.50	109.74	2,706.89	-344.09	959.12	1,899,236.805	2,758,736.919	36.219551508	-107.712487799	
3,100.00	36.50	109.74	2,787.28	-364.18	1,015.10	1,899,216.719	2,758,792.905	36.219496140	-107.712298078	
3,144.32	36.50	109.74	2,822.90	-373.08	1,039.92	1,899,207.817	2,758,817.718	36.219471600	-107.712213995	
Cliff House_Basal										
3,169.10	36.50	109.74	2,842.82	-378.06	1,053.79	1,899,202.840	2,758,831.590	36.219457881	-107.712166986	
Menefee										



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,200.00	36.50	109.74	2,867.66	-384.26	1,071.09	1,899,196.634	2,758,848.891	36.219440771	-107.712108359
3,300.00	36.50	109.74	2,948.05	-404.35	1,127.08	1,899,176.548	2,758,904.877	36.219385401	-107.711918639
3,363.38	36.50	109.74	2,999.00	-417.08	1,162.56	1,899,163.818	2,758,940.360	36.219350309	-107.711798398
9 5/8" Csg									
3,400.00	36.50	109.74	3,028.44	-424.44	1,183.06	1,899,156.462	2,758,960.863	36.219330032	-107.711728919
3,500.00	36.50	109.74	3,108.83	-444.52	1,239.05	1,899,136.377	2,759,016.849	36.219274662	-107.711539200
3,600.00	36.50	109.74	3,189.21	-464.61	1,295.04	1,899,116.291	2,759,072.835	36.219219292	-107.711349481
3,700.00	36.50	109.74	3,269.60	-484.69	1,351.02	1,899,096.206	2,759,128.822	36.219163921	-107.711159763
3,800.00	36.50	109.74	3,349.99	-504.78	1,407.01	1,899,076.120	2,759,184.808	36.219108551	-107.710970044
3,900.00	36.50	109.74	3,430.38	-524.86	1,462.99	1,899,056.035	2,759,240.794	36.219053180	-107.710780326
4,000.00	36.50	109.74	3,510.76	-544.95	1,518.98	1,899,035.949	2,759,296.780	36.218997808	-107.710590609
4,100.00	36.50	109.74	3,591.15	-565.04	1,574.97	1,899,015.863	2,759,352.766	36.218942437	-107.710400891
4,200.00	36.50	109.74	3,671.54	-585.12	1,630.95	1,898,995.778	2,759,408.752	36.218887065	-107.710211174
4,300.00	36.50	109.74	3,751.92	-605.21	1,686.94	1,898,975.692	2,759,464.738	36.218831692	-107.710021457
4,335.88	36.50	109.74	3,780.76	-612.41	1,707.02	1,898,968.487	2,759,484.823	36.218811827	-107.709953395
Begin 10°/100' build/turn									
4,350.00	35.28	108.51	3,792.21	-615.13	1,714.85	1,898,965.773	2,759,492.646	36.218804345	-107.709926887
4,382.11	32.57	105.43	3,818.85	-620.37	1,731.98	1,898,960.527	2,759,509.777	36.218789875	-107.709868833
Point Lookout									
4,400.00	31.09	103.51	3,834.05	-622.73	1,741.11	1,898,958.167	2,759,518.909	36.218783359	-107.709837882
4,450.00	27.15	97.18	3,877.73	-627.18	1,765.00	1,898,953.722	2,759,542.796	36.218771064	-107.709756919
4,500.00	23.58	88.99	3,922.92	-628.43	1,786.33	1,898,952.470	2,759,564.126	36.218767552	-107.709684614
4,550.00	20.56	78.33	3,969.27	-626.48	1,804.94	1,898,954.423	2,759,582.735	36.218772850	-107.709621517
4,561.97	19.96	75.36	3,980.50	-625.53	1,808.97	1,898,955.364	2,759,586.771	36.218775422	-107.709607831
Mancos									
4,600.00	18.40	64.78	4,016.43	-621.33	1,820.68	1,898,959.564	2,759,598.482	36.218786918	-107.709568108
4,650.00	17.39	48.78	4,064.04	-613.04	1,833.45	1,898,967.855	2,759,611.248	36.218809649	-107.709524795
4,700.00	17.74	32.20	4,111.74	-601.67	1,843.14	1,898,979.232	2,759,620.934	36.218840870	-107.709491906
4,750.00	19.38	17.32	4,159.16	-587.29	1,849.67	1,898,993.610	2,759,627.469	36.218880344	-107.709469692
4,800.00	22.02	5.26	4,205.95	-570.02	1,853.00	1,899,010.878	2,759,630.800	36.218927769	-107.709458321
4,850.00	25.36	355.95	4,251.74	-549.99	1,853.11	1,899,030.905	2,759,630.905	36.218982785	-107.709457882
4,900.00	29.14	348.79	4,296.20	-527.36	1,849.98	1,899,053.539	2,759,627.780	36.219044974	-107.709468376
4,926.16	31.24	345.70	4,318.82	-514.53	1,847.07	1,899,066.366	2,759,624.865	36.219080219	-107.709478202
MNCS_A									
4,950.00	33.22	343.20	4,338.98	-502.29	1,843.65	1,899,078.608	2,759,621.451	36.219113862	-107.709489724
5,000.00	37.50	338.73	4,379.75	-474.98	1,834.17	1,899,105.920	2,759,611.966	36.219188924	-107.709521764
5,040.62	41.08	335.70	4,411.19	-451.28	1,824.18	1,899,129.620	2,759,601.984	36.219254065	-107.709555502
MNCS_B									
5,050.00	41.92	335.07	4,418.21	-445.63	1,821.60	1,899,135.268	2,759,599.396	36.219269590	-107.709564251
5,100.00	46.44	331.99	4,454.06	-414.47	1,806.04	1,899,166.429	2,759,583.837	36.219355246	-107.709616863
5,150.00	51.03	329.35	4,487.03	-381.73	1,787.61	1,899,199.165	2,759,565.408	36.219445239	-107.709679199
5,182.50	54.04	327.81	4,506.80	-359.73	1,774.16	1,899,221.169	2,759,551.957	36.219505734	-107.709724707
MNCS_C									
5,200.00	55.67	327.03	4,516.87	-347.67	1,766.45	1,899,233.227	2,759,544.250	36.219538885	-107.709750785
5,246.27	60.00	325.10	4,541.50	-315.20	1,744.58	1,899,265.702	2,759,522.379	36.219628172	-107.709824791
Begin 60.00° tangent									
5,263.69	60.00	325.10	4,550.21	-302.82	1,735.95	1,899,278.076	2,759,513.747	36.219662195	-107.709854003
MNCS_Cms - MNCS_Cms @ 0vs									
5,306.27	60.00	325.10	4,571.50	-272.58	1,714.85	1,899,308.318	2,759,492.649	36.219745346	-107.709925397
Begin 10°/100' build/turn									
5,350.00	64.13	323.48	4,591.98	-241.22	1,692.29	1,899,339.677	2,759,470.094	36.219831571	-107.710001731
5,400.00	68.88	321.76	4,611.91	-204.80	1,664.45	1,899,376.093	2,759,442.253	36.219931706	-107.710095960
5,450.00	73.64	320.14	4,627.98	-168.05	1,634.63	1,899,412.845	2,759,412.426	36.220032772	-107.710196924



Planning Report - Geographic

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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured			Vertical			Map				
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,500.00	78.41	318.60	4,640.05	-131.24	1,603.04	1,899,449.654	2,759,380.838	36.220133999	-107.710303854	
5,550.00	83.19	317.12	4,648.04	-94.66	1,569.93	1,899,486.239	2,759,347.732	36.220234617	-107.710415937	
5,600.00	87.97	315.66	4,651.89	-58.58	1,535.56	1,899,522.322	2,759,313.357	36.220333860	-107.710532319	
5,617.51	89.65	315.16	4,652.25	-46.11	1,523.27	1,899,534.788	2,759,301.069	36.220368146	-107.710573927	
Begin 89.65° lateral										
5,700.00	89.65	315.16	4,652.76	12.38	1,465.10	1,899,593.276	2,759,242.900	36.220529022	-107.710770884	
5,800.00	89.65	315.16	4,653.37	83.28	1,394.58	1,899,664.179	2,759,172.385	36.220724042	-107.711009646	
5,900.00	89.65	315.16	4,653.98	154.18	1,324.07	1,899,735.081	2,759,101.869	36.220919062	-107.711248409	
6,000.00	89.65	315.16	4,654.59	225.09	1,253.55	1,899,805.984	2,759,031.354	36.221114082	-107.711487174	
6,100.00	89.65	315.16	4,655.19	295.99	1,183.04	1,899,876.887	2,758,960.839	36.221309100	-107.711725939	
6,200.00	89.65	315.16	4,655.80	366.89	1,112.52	1,899,947.789	2,758,890.324	36.221504119	-107.711964706	
6,300.00	89.65	315.16	4,656.41	437.80	1,042.01	1,900,018.692	2,758,819.808	36.221699137	-107.712203474	
6,400.00	89.65	315.16	4,657.02	508.70	971.49	1,900,089.595	2,758,749.293	36.221894154	-107.712442244	
6,500.00	89.65	315.16	4,657.63	579.60	900.98	1,900,160.497	2,758,678.778	36.222089171	-107.712681014	
6,600.00	89.65	315.16	4,658.24	650.50	830.46	1,900,231.400	2,758,608.262	36.222284188	-107.712919785	
6,700.00	89.65	315.16	4,658.85	721.41	759.95	1,900,302.303	2,758,537.747	36.222479204	-107.713158558	
6,800.00	89.65	315.16	4,659.46	792.31	689.43	1,900,373.205	2,758,467.232	36.222674220	-107.713397332	
6,900.00	89.65	315.16	4,660.07	863.21	618.92	1,900,444.108	2,758,396.717	36.222869235	-107.713636107	
7,000.00	89.65	315.16	4,660.68	934.12	548.40	1,900,515.010	2,758,326.201	36.223064249	-107.713874884	
7,100.00	89.65	315.16	4,661.29	1,005.02	477.88	1,900,585.913	2,758,255.686	36.223259263	-107.714113661	
7,200.00	89.65	315.16	4,661.90	1,075.92	407.37	1,900,656.816	2,758,185.171	36.223454277	-107.714352440	
7,300.00	89.65	315.16	4,662.51	1,146.82	336.85	1,900,727.718	2,758,114.656	36.223649290	-107.714591220	
7,400.00	89.65	315.16	4,663.12	1,217.73	266.34	1,900,798.621	2,758,044.140	36.223844303	-107.714830001	
7,500.00	89.65	315.16	4,663.72	1,288.63	195.82	1,900,869.524	2,757,973.625	36.224039315	-107.715068783	
7,600.00	89.65	315.16	4,664.33	1,359.53	125.31	1,900,940.426	2,757,903.110	36.224234327	-107.715307567	
7,700.00	89.65	315.16	4,664.94	1,430.43	54.79	1,901,011.329	2,757,832.594	36.224429338	-107.715546351	
7,800.00	89.65	315.16	4,665.55	1,501.34	-15.72	1,901,082.232	2,757,762.079	36.224624348	-107.715785137	
7,900.00	89.65	315.16	4,666.16	1,572.24	-86.24	1,901,153.134	2,757,691.564	36.224819358	-107.716023924	
8,000.00	89.65	315.16	4,666.77	1,643.14	-156.75	1,901,224.037	2,757,621.049	36.225014368	-107.716262712	
8,100.00	89.65	315.16	4,667.38	1,714.05	-227.27	1,901,294.940	2,757,550.533	36.225209377	-107.716501501	
8,200.00	89.65	315.16	4,667.99	1,784.95	-297.79	1,901,365.842	2,757,480.018	36.225404386	-107.716740292	
8,300.00	89.65	315.16	4,668.60	1,855.85	-368.30	1,901,436.745	2,757,409.503	36.225599394	-107.716979084	
8,400.00	89.65	315.16	4,669.21	1,926.75	-438.82	1,901,507.647	2,757,338.988	36.225794402	-107.717217877	
8,500.00	89.65	315.16	4,669.82	1,997.66	-509.33	1,901,578.550	2,757,268.472	36.225989410	-107.717456671	
8,600.00	89.65	315.16	4,670.43	2,068.56	-579.85	1,901,649.453	2,757,197.957	36.226184417	-107.717695466	
8,700.00	89.65	315.16	4,671.04	2,139.46	-650.36	1,901,720.355	2,757,127.442	36.226379423	-107.717934263	
8,800.00	89.65	315.16	4,671.65	2,210.37	-720.88	1,901,791.258	2,757,056.927	36.226574429	-107.718173060	
8,900.00	89.65	315.16	4,672.25	2,281.27	-791.39	1,901,862.161	2,756,986.411	36.226769434	-107.718411859	
9,000.00	89.65	315.16	4,672.86	2,352.17	-861.91	1,901,933.063	2,756,915.896	36.226964439	-107.718650659	
9,100.00	89.65	315.16	4,673.47	2,423.07	-932.42	1,902,003.966	2,756,845.381	36.227159444	-107.718889460	
9,200.00	89.65	315.16	4,674.08	2,493.98	-1,002.94	1,902,074.869	2,756,774.865	36.227354448	-107.719128262	
9,300.00	89.65	315.16	4,674.69	2,564.88	-1,073.45	1,902,145.771	2,756,704.350	36.227549452	-107.719367065	
9,400.00	89.65	315.16	4,675.30	2,635.78	-1,143.97	1,902,216.674	2,756,633.835	36.227744455	-107.719605870	
9,500.00	89.65	315.16	4,675.91	2,706.68	-1,214.49	1,902,287.576	2,756,563.320	36.227939457	-107.719844676	
9,600.00	89.65	315.16	4,676.52	2,777.59	-1,285.00	1,902,358.479	2,756,492.804	36.228134459	-107.720083483	
9,700.00	89.65	315.16	4,677.13	2,848.49	-1,355.52	1,902,429.382	2,756,422.289	36.228329461	-107.720322292	
9,800.00	89.65	315.16	4,677.74	2,919.39	-1,426.03	1,902,500.284	2,756,351.774	36.228524462	-107.720561101	
9,900.00	89.65	315.16	4,678.35	2,990.30	-1,496.55	1,902,571.187	2,756,281.259	36.228719463	-107.720799912	
10,000.00	89.65	315.16	4,678.96	3,061.20	-1,567.06	1,902,642.090	2,756,210.743	36.228914463	-107.721038724	
10,100.00	89.65	315.16	4,679.57	3,132.10	-1,637.58	1,902,712.992	2,756,140.228	36.229109463	-107.721277537	
10,200.00	89.65	315.16	4,680.17	3,203.00	-1,708.09	1,902,783.895	2,756,069.713	36.229304462	-107.721516351	
10,300.00	89.65	315.16	4,680.78	3,273.91	-1,778.61	1,902,854.798	2,755,999.197	36.229499461	-107.721755166	
10,400.00	89.65	315.16	4,681.39	3,344.81	-1,849.12	1,902,925.700	2,755,928.682	36.229694459	-107.721993983	
10,500.00	89.65	315.16	4,682.00	3,415.71	-1,919.64	1,902,996.603	2,755,858.167	36.229889457	-107.722232801	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude		Longitude
10,600.00	89.65	315.16	4,682.61	3,486.62	-1,990.16	1,903,067.506	2,755,787.652	36.230084454		-107.722471620
10,700.00	89.65	315.16	4,683.22	3,557.52	-2,060.67	1,903,138.408	2,755,717.136	36.230279451		-107.722710440
10,800.00	89.65	315.16	4,683.83	3,628.42	-2,131.19	1,903,209.311	2,755,646.621	36.230474447		-107.722949262
10,900.00	89.65	315.16	4,684.44	3,699.32	-2,201.70	1,903,280.213	2,755,576.106	36.230669443		-107.723188084
11,000.00	89.65	315.16	4,685.05	3,770.23	-2,272.22	1,903,351.116	2,755,505.591	36.230864438		-107.723426908
11,100.00	89.65	315.16	4,685.66	3,841.13	-2,342.73	1,903,422.019	2,755,435.075	36.231059433		-107.723665733
11,200.00	89.65	315.16	4,686.27	3,912.03	-2,413.25	1,903,492.921	2,755,364.560	36.231254428		-107.723904559
11,300.00	89.65	315.16	4,686.88	3,982.93	-2,483.76	1,903,563.824	2,755,294.045	36.231449422		-107.724143386
11,400.00	89.65	315.16	4,687.49	4,053.84	-2,554.28	1,903,634.727	2,755,223.529	36.231644415		-107.724382215
11,500.00	89.65	315.16	4,688.10	4,124.74	-2,624.79	1,903,705.629	2,755,153.014	36.231839408		-107.724621044
11,600.00	89.65	315.16	4,688.70	4,195.64	-2,695.31	1,903,776.532	2,755,082.499	36.232034400		-107.724859875
11,700.00	89.65	315.16	4,689.31	4,266.55	-2,765.82	1,903,847.435	2,755,011.984	36.232229392		-107.725098707
11,800.00	89.65	315.16	4,689.92	4,337.45	-2,836.34	1,903,918.337	2,754,941.468	36.232424384		-107.725337541
11,900.00	89.65	315.16	4,690.53	4,408.35	-2,906.86	1,903,989.240	2,754,870.953	36.232619375		-107.725576375
12,000.00	89.65	315.16	4,691.14	4,479.25	-2,977.37	1,904,060.143	2,754,800.438	36.232814366		-107.725815211
12,100.00	89.65	315.16	4,691.75	4,550.16	-3,047.89	1,904,131.045	2,754,729.923	36.233009356		-107.726054047
12,200.00	89.65	315.16	4,692.36	4,621.06	-3,118.40	1,904,201.948	2,754,659.407	36.233204345		-107.726292885
12,300.00	89.65	315.16	4,692.97	4,691.96	-3,188.92	1,904,272.850	2,754,588.892	36.233399334		-107.726531725
12,400.00	89.65	315.16	4,693.58	4,762.87	-3,259.43	1,904,343.753	2,754,518.377	36.233594323		-107.726770565
12,500.00	89.65	315.16	4,694.19	4,833.77	-3,329.95	1,904,414.656	2,754,447.862	36.233789311		-107.727009406
12,600.00	89.65	315.16	4,694.80	4,904.67	-3,400.46	1,904,485.558	2,754,377.346	36.233984299		-107.727248249
12,700.00	89.65	315.16	4,695.41	4,975.57	-3,470.98	1,904,556.461	2,754,306.831	36.234179286		-107.727487093
12,800.00	89.65	315.16	4,696.02	5,046.48	-3,541.49	1,904,627.364	2,754,236.316	36.234374273		-107.727725938
12,900.00	89.65	315.16	4,696.63	5,117.38	-3,612.01	1,904,698.266	2,754,165.800	36.234569259		-107.727964784
13,000.00	89.65	315.16	4,697.23	5,188.28	-3,682.53	1,904,769.169	2,754,095.285	36.234764245		-107.728203632
13,100.00	89.65	315.16	4,697.84	5,259.19	-3,753.04	1,904,840.072	2,754,024.770	36.234959230		-107.728442481
13,200.00	89.65	315.16	4,698.45	5,330.09	-3,823.56	1,904,910.974	2,753,954.255	36.235154215		-107.728681330
13,300.00	89.65	315.16	4,699.06	5,400.99	-3,894.07	1,904,981.877	2,753,883.739	36.235349199		-107.728920181
13,400.00	89.65	315.16	4,699.67	5,471.89	-3,964.59	1,905,052.779	2,753,813.224	36.235544183		-107.729159034
13,500.00	89.65	315.16	4,700.28	5,542.80	-4,035.10	1,905,123.682	2,753,742.709	36.235739166		-107.729397887
13,600.00	89.65	315.16	4,700.89	5,613.70	-4,105.62	1,905,194.585	2,753,672.194	36.235934149		-107.729636742
13,700.00	89.65	315.16	4,701.50	5,684.60	-4,176.13	1,905,265.487	2,753,601.678	36.236129132		-107.729875597
13,800.00	89.65	315.16	4,702.11	5,755.50	-4,246.65	1,905,336.390	2,753,531.163	36.236324114		-107.730114454
13,900.00	89.65	315.16	4,702.72	5,826.41	-4,317.16	1,905,407.294	2,753,460.648	36.236519095		-107.730353312
14,000.00	89.65	315.16	4,703.33	5,897.31	-4,387.68	1,905,478.196	2,753,390.132	36.236714076		-107.730592172
14,100.00	89.65	315.16	4,703.94	5,968.21	-4,458.19	1,905,549.099	2,753,319.617	36.236909056		-107.730831032
14,200.00	89.65	315.16	4,704.55	6,039.12	-4,528.71	1,905,620.002	2,753,249.102	36.237104036		-107.731069894
14,300.00	89.65	315.16	4,705.16	6,110.02	-4,599.23	1,905,690.904	2,753,178.587	36.237299016		-107.731308757
14,400.00	89.65	315.16	4,705.76	6,180.92	-4,669.74	1,905,761.807	2,753,108.071	36.237493995		-107.731547621
14,500.00	89.65	315.16	4,706.37	6,251.82	-4,740.26	1,905,832.710	2,753,037.556	36.237688973		-107.731786486
14,600.00	89.65	315.16	4,706.98	6,322.73	-4,810.77	1,905,903.612	2,752,967.041	36.237883951		-107.732025353
14,700.00	89.65	315.16	4,707.59	6,393.63	-4,881.29	1,905,974.515	2,752,896.526	36.238078929		-107.732264220
14,800.00	89.65	315.16	4,708.20	6,464.53	-4,951.80	1,906,045.417	2,752,826.010	36.238273906		-107.732503089
14,900.00	89.65	315.16	4,708.81	6,535.44	-5,022.32	1,906,116.320	2,752,755.495	36.238468883		-107.732741959
15,000.00	89.65	315.16	4,709.42	6,606.34	-5,092.83	1,906,187.223	2,752,684.980	36.238663859		-107.732980830
15,100.00	89.65	315.16	4,710.03	6,677.24	-5,163.35	1,906,258.125	2,752,614.464	36.238858834		-107.733219703
15,200.00	89.65	315.16	4,710.64	6,748.14	-5,233.86	1,906,329.028	2,752,543.949	36.239053810		-107.733458576
15,300.00	89.65	315.16	4,711.25	6,819.05	-5,304.38	1,906,399.931	2,752,473.434	36.239248784		-107.733697451
15,400.00	89.65	315.16	4,711.86	6,889.95	-5,374.90	1,906,470.833	2,752,402.919	36.239443758		-107.733936327
15,500.00	89.65	315.16	4,712.47	6,960.85	-5,445.41	1,906,541.736	2,752,332.403	36.239638732		-107.734175204
15,600.00	89.65	315.16	4,713.08	7,031.75	-5,515.93	1,906,612.639	2,752,261.888	36.239833705		-107.734414082
15,700.00	89.65	315.16	4,713.69	7,102.66	-5,586.44	1,906,683.541	2,752,191.373	36.240028678		-107.734652962
15,800.00	89.65	315.16	4,714.29	7,173.56	-5,656.96	1,906,754.444	2,752,120.858	36.240223650		-107.734891843
15,900.00	89.65	315.16	4,714.90	7,244.46	-5,727.47	1,906,825.347	2,752,050.342	36.240418622		-107.735130725
16,000.00	89.65	315.16	4,715.51	7,315.37	-5,797.99	1,906,896.249	2,751,979.827	36.240613594		-107.735369608



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
16,100.00	89.65	315.16	4,716.12	7,386.27	-5,868.50	1,906,967.152	2,751,909.312	36.240808564	-107.735608492	
16,200.00	89.65	315.16	4,716.73	7,457.17	-5,939.02	1,907,038.054	2,751,838.797	36.241003535	-107.735847377	
16,300.00	89.65	315.16	4,717.34	7,528.07	-6,009.53	1,907,108.957	2,751,768.281	36.241198505	-107.736086264	
16,400.00	89.65	315.16	4,717.95	7,598.98	-6,080.05	1,907,179.860	2,751,697.766	36.241393474	-107.736325152	
16,500.00	89.65	315.16	4,718.56	7,669.88	-6,150.56	1,907,250.762	2,751,627.251	36.241588443	-107.736564041	
16,600.00	89.65	315.16	4,719.17	7,740.78	-6,221.08	1,907,321.665	2,751,556.735	36.241783411	-107.736802931	
16,700.00	89.65	315.16	4,719.78	7,811.69	-6,291.60	1,907,392.568	2,751,486.220	36.241978379	-107.737041822	
16,800.00	89.65	315.16	4,720.39	7,882.59	-6,362.11	1,907,463.470	2,751,415.705	36.242173347	-107.737280715	
16,900.00	89.65	315.16	4,721.00	7,953.49	-6,432.63	1,907,534.373	2,751,345.190	36.242368314	-107.737519609	
17,000.00	89.65	315.16	4,721.61	8,024.39	-6,503.14	1,907,605.276	2,751,274.674	36.242563280	-107.737758503	
17,100.00	89.65	315.16	4,722.22	8,095.30	-6,573.66	1,907,676.178	2,751,204.159	36.242758246	-107.737997400	
17,200.00	89.65	315.16	4,722.82	8,166.20	-6,644.17	1,907,747.081	2,751,133.644	36.242953212	-107.738236297	
17,300.00	89.65	315.16	4,723.43	8,237.10	-6,714.69	1,907,817.983	2,751,063.129	36.243148177	-107.738475195	
17,400.00	89.65	315.16	4,724.04	8,308.01	-6,785.20	1,907,888.886	2,750,992.613	36.243343141	-107.738714095	
17,500.00	89.65	315.16	4,724.65	8,378.91	-6,855.72	1,907,959.789	2,750,922.098	36.243538105	-107.738952996	
17,600.00	89.65	315.16	4,725.26	8,449.81	-6,926.23	1,908,030.691	2,750,851.583	36.243733069	-107.739191898	
17,700.00	89.65	315.16	4,725.87	8,520.71	-6,996.75	1,908,101.594	2,750,781.067	36.243928032	-107.739430801	
17,800.00	89.65	315.16	4,726.48	8,591.62	-7,067.27	1,908,172.497	2,750,710.552	36.244122995	-107.739669706	
17,900.00	89.65	315.16	4,727.09	8,662.52	-7,137.78	1,908,243.399	2,750,640.037	36.244317957	-107.739908611	
18,000.00	89.65	315.16	4,727.70	8,733.42	-7,208.30	1,908,314.302	2,750,569.522	36.244512919	-107.740147518	
18,100.00	89.65	315.16	4,728.31	8,804.32	-7,278.81	1,908,385.205	2,750,499.006	36.244707880	-107.740386426	
18,200.00	89.65	315.16	4,728.92	8,875.23	-7,349.33	1,908,456.107	2,750,428.491	36.244902841	-107.740625335	
18,300.00	89.65	315.16	4,729.53	8,946.13	-7,419.84	1,908,527.010	2,750,357.976	36.245097801	-107.740864245	
18,400.00	89.65	315.16	4,730.14	9,017.03	-7,490.36	1,908,597.913	2,750,287.461	36.245292761	-107.741103157	
18,500.00	89.65	315.16	4,730.75	9,087.94	-7,560.87	1,908,668.815	2,750,216.945	36.245487720	-107.741342070	
18,600.00	89.65	315.16	4,731.35	9,158.84	-7,631.39	1,908,739.718	2,750,146.430	36.245682679	-107.741580984	
18,700.00	89.65	315.16	4,731.96	9,229.74	-7,701.90	1,908,810.620	2,750,075.915	36.245877637	-107.741819899	
18,800.00	89.65	315.16	4,732.57	9,300.64	-7,772.42	1,908,881.523	2,750,005.399	36.246072595	-107.742058815	
18,900.00	89.65	315.16	4,733.18	9,371.55	-7,842.93	1,908,952.426	2,749,934.884	36.246267552	-107.742297732	
19,000.00	89.65	315.16	4,733.79	9,442.45	-7,913.45	1,909,023.328	2,749,864.369	36.246462509	-107.742536651	
19,100.00	89.65	315.16	4,734.40	9,513.35	-7,983.97	1,909,094.231	2,749,793.854	36.246657465	-107.742775571	
19,200.00	89.65	315.16	4,735.01	9,584.26	-8,054.48	1,909,165.134	2,749,723.338	36.246852421	-107.743014492	
19,300.00	89.65	315.16	4,735.62	9,655.16	-8,125.00	1,909,236.036	2,749,652.823	36.247047377	-107.743253414	
19,400.00	89.65	315.16	4,736.23	9,726.06	-8,195.51	1,909,306.939	2,749,582.308	36.247242332	-107.743492338	
19,500.00	89.65	315.16	4,736.84	9,796.96	-8,266.03	1,909,377.842	2,749,511.793	36.247437286	-107.743731262	
19,600.00	89.65	315.16	4,737.45	9,867.87	-8,336.54	1,909,448.744	2,749,441.277	36.247632240	-107.743970188	
19,700.00	89.65	315.16	4,738.06	9,938.77	-8,407.06	1,909,519.647	2,749,370.762	36.247827194	-107.744209115	
19,800.00	89.65	315.16	4,738.67	10,009.67	-8,477.57	1,909,590.550	2,749,300.247	36.248022147	-107.744448043	
19,854.81	89.65	315.16	4,739.00	10,048.53	-8,516.22	1,909,629.411	2,749,261.597	36.248129000	-107.744579000	
PBHL/TD @ 19854.81 MD 4739.00 TVD										



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
Lybrook 81 FTP 228 FSI	0.00	0.00	4,652.26	-46.16	1,523.25	1,899,534.734	2,759,301.047	36.220368000	-107.710574000
- plan misses target center by 0.05ft at 5617.49ft MD (4652.25 TVD, -46.13 N, 1523.29 E)									
- Point									
Lybrook 81 LTP 225 FNI	0.00	0.00	4,739.00	10,048.53	-8,516.22	1,909,629.411	2,749,261.597	36.248129000	-107.744579000
- plan hits target center									
- Point									
Lybrook 81 vs=0	0.00	0.00	4,659.00	738.62	742.75	1,900,319.516	2,758,520.551	36.222526549	-107.713216786
- plan misses target center by 0.05ft at 6724.33ft MD (4659.00 TVD, 738.66 N, 742.79 E)									
- Point									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(")	(")
350.00	350.00	13 3/8" Csg		13-3/8	17-1/2
3,363.38	2,999.00	9 5/8" Csg		9-5/8	12-1/4

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)	Name	Lithology		(°)	(°)
692.00	692.00	Ojo Alamo			0.35	315.16
818.06	817.98	Kirtland			0.35	315.16
1,010.22	1,008.86	Fruitland			0.35	315.16
1,329.78	1,318.43	Pictured Cliffs			0.35	315.16
1,518.91	1,494.05	Lewis			0.35	315.16
1,808.47	1,747.27	Chacra_A			0.35	315.16
3,144.32	2,822.90	Cliff House_Basal			0.35	315.16
3,169.10	2,842.82	Menefee			0.35	315.16
4,382.11	3,818.85	Point Lookout			0.35	315.16
4,561.97	3,980.50	Mancos			0.35	315.16
4,926.16	4,318.82	MNCS_A			0.35	315.16
5,040.62	4,411.19	MNCS_B			0.35	315.16
5,182.50	4,506.80	MNCS_C			0.35	315.16
5,263.69	4,550.21	MNCS_Cms			0.35	315.16
5,263.69	4,550.21	MNCS_Cms @ 0vs			0.35	315.16



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6894+25 @ 6919.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6894+25 @ 6919.00ft
Site:	Greater Lybrook Unit (79 & 81)	North Reference:	Grid
Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
700.00	700.00	0.00	0.00	KOP Begin 3°/100' build	
1,916.62	1,835.99	-126.49	352.57	Begin 36.50° tangent	
4,335.88	3,780.76	-612.41	1,707.02	Begin 10°/100' build/turn	
5,246.27	4,541.50	-315.20	1,744.58	Begin 60.00° tangent	
5,306.27	4,571.50	-272.58	1,714.85	Begin 10°/100' build/turn	
5,617.51	4,652.25	-46.11	1,523.27	Begin 89.65° lateral	
19,854.81	4,739.00	10,048.53	-8,516.22	PBHL/TD @ 19854.81 MD 4739.00 TVD	



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference	rev0		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,185.48ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	6/6/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	19,854.81	rev0 (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						
Greater Lybrook Unit (79 & 81)						
Greater Lybrook Unit 079H - Original Hole - rev0	818.14	816.96	19.99	14.62	3.720	CC
Greater Lybrook Unit 079H - Original Hole - rev0	900.00	897.89	20.37	14.47	3.450	ES
Greater Lybrook Unit 079H - Original Hole - rev0	19,854.81	18,783.87	1,193.01	536.68	1.818	Level 3<2.00, SF
Rodeo Unit						
Rodeo Unit #500H - Original Hole - Surveys Original Hole	1,597.84	1,573.99	19.57	8.21	1.723	Level 3<2.00, CC
Rodeo Unit #500H - Original Hole - Surveys Original Hole	1,600.00	1,576.08	19.57	8.17	1.716	Level 3<2.00, ES, SF
Rodeo Unit #501H - Original Hole - Surveys Original Hole	308.83	306.55	40.66	39.78	45.978	CC, ES
Rodeo Unit #501H - Original Hole - Surveys Original Hole	1,100.00	1,084.00	78.58	72.33	12.578	SF

Offset Design:	Greater Lybrook Unit (79 & 81) - Greater Lybrook Unit 079H - Original Hole - rev0												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	
0.00	0.00	0.00	0.00	0.00	0.00	121.61	-10.54	17.12	20.10					
100.00	100.00	100.00	100.00	0.13	0.13	121.61	-10.54	17.12	20.10	19.83	0.27	74.772		
200.00	200.00	200.00	200.00	0.49	0.49	121.61	-10.54	17.12	20.10	19.12	0.99	20.392		
300.00	300.00	300.00	300.00	0.85	0.85	121.61	-10.54	17.12	20.10	18.40	1.70	11.806		
400.00	400.00	400.00	400.00	1.21	1.21	121.61	-10.54	17.12	20.10	17.68	2.42	8.308		
500.00	500.00	500.00	500.00	1.57	1.57	121.61	-10.54	17.12	20.10	16.97	3.14	6.409		
600.00	600.00	600.00	600.00	1.93	1.93	121.61	-10.54	17.12	20.10	16.25	3.85	5.217		
700.00	700.00	700.00	700.00	2.29	2.29	121.61	-10.54	17.12	20.10	15.53	4.57	4.398		
800.00	799.95	799.01	798.97	2.63	2.63	16.16	-12.60	18.64	20.00	14.75	5.25	3.807		
818.14	818.07	816.96	816.89	2.70	2.69	17.86	-13.42	19.24	19.99	14.62	5.37	3.720	CC	
900.00	899.63	897.89	897.53	2.98	2.96	28.91	-18.78	23.19	20.37	14.47	5.91	3.450	ES	
1,000.00	998.77	996.50	995.31	3.34	3.31	47.41	-29.03	30.74	23.04	16.48	6.57	3.509		
1,100.00	1,097.08	1,094.72	1,091.92	3.73	3.68	65.02	-43.27	41.22	29.69	22.41	7.28	4.076		
1,200.00	1,194.31	1,192.43	1,186.99	4.16	4.09	77.60	-61.38	54.55	40.63	32.54	8.09	5.020		
1,300.00	1,290.18	1,289.51	1,280.19	4.64	4.54	85.65	-83.22	70.63	55.40	46.40	9.00	6.155		
1,400.00	1,384.43	1,385.87	1,371.22	5.18	5.05	90.73	-108.65	89.35	73.55	63.53	10.02	7.343		
1,500.00	1,476.81	1,481.42	1,459.80	5.80	5.62	93.99	-137.49	110.58	94.76	83.60	11.16	8.495		
1,600.00	1,567.06	1,577.80	1,547.77	6.50	6.24	96.75	-169.20	133.92	118.32	105.86	12.45	9.500		
1,700.00	1,654.93	1,674.18	1,635.67	7.30	6.90	100.37	-201.04	157.36	143.11	129.22	13.89	10.301		

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Unit (79 & 81) - Greater Lybrook Unit 079H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Rule Assigned:											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)	Minimum Separation (ft)	Separation Factor
1,800.00	1,740.18	1,769.72	1,722.80	8.21	7.57	104.38	-232.60	180.60	169.71	154.29	15.42	11.008
1,900.00	1,822.59	1,864.15	1,808.92	9.22	8.25	108.47	-263.79	203.56	198.73	181.75	16.98	11.701
2,000.00	1,903.02	1,957.74	1,894.26	10.31	8.94	112.81	-294.71	226.32	230.06	211.51	18.55	12.401
2,100.00	1,983.40	2,051.30	1,979.59	11.44	9.64	116.25	-325.62	249.08	262.41	242.31	20.10	13.055
2,200.00	2,063.79	2,144.86	2,064.92	12.60	10.34	118.94	-356.53	271.83	295.44	273.80	21.64	13.653
2,300.00	2,144.18	2,238.43	2,150.25	13.77	11.05	121.10	-387.44	294.59	328.93	305.76	23.18	14.193
2,400.00	2,224.57	2,331.99	2,235.58	14.95	11.76	122.86	-418.35	317.34	362.77	338.06	24.71	14.681
2,500.00	2,304.95	2,425.55	2,320.91	16.14	12.48	124.32	-449.25	340.10	396.87	370.62	26.25	15.121
2,600.00	2,385.34	2,519.12	2,406.24	17.34	13.20	125.55	-480.16	362.85	431.16	403.37	27.78	15.519
2,700.00	2,465.73	2,612.68	2,491.56	18.55	13.93	126.60	-511.07	385.61	465.59	436.27	29.32	15.879
2,800.00	2,546.12	2,706.24	2,576.89	19.77	14.66	127.51	-541.98	408.36	500.15	469.29	30.86	16.206
2,900.00	2,626.50	2,799.81	2,662.22	20.98	15.39	128.30	-572.89	431.11	534.81	502.40	32.40	16.504
3,000.00	2,706.89	2,893.37	2,747.55	22.21	16.12	128.99	-603.80	453.87	569.54	535.59	33.95	16.777
3,100.00	2,787.28	2,986.93	2,832.88	23.43	16.85	129.60	-634.71	476.62	604.34	568.85	35.49	17.026
3,200.00	2,867.66	3,080.50	2,918.21	24.66	17.58	130.15	-665.62	499.38	639.19	602.15	37.04	17.256
3,300.00	2,948.05	3,174.06	3,003.54	25.89	18.32	130.64	-696.53	522.13	674.09	635.50	38.59	17.467
3,400.00	3,028.44	3,267.62	3,088.86	27.12	19.06	131.09	-727.43	544.89	709.03	668.89	40.14	17.663
3,500.00	3,108.83	3,356.30	3,170.09	28.35	19.73	131.54	-758.07	565.97	744.21	702.64	41.57	17.901
3,600.00	3,189.21	3,441.57	3,249.59	29.59	20.34	132.22	-788.89	584.24	780.33	737.49	42.83	18.218
3,700.00	3,269.60	3,525.29	3,328.91	30.82	20.89	133.10	-802.46	600.12	817.53	773.59	43.94	18.607
3,800.00	3,349.99	3,607.21	3,407.58	32.06	21.38	134.15	-820.83	613.64	855.94	811.05	44.89	19.068
3,900.00	3,430.38	3,687.09	3,485.17	33.30	21.80	135.31	-836.11	624.89	895.71	850.03	45.68	19.609
4,000.00	3,510.76	3,764.72	3,561.27	34.54	22.16	136.56	-848.44	633.97	936.96	890.64	46.32	20.228
4,100.00	3,591.15	3,839.97	3,635.57	35.78	22.47	137.87	-858.01	641.02	979.83	933.01	46.83	20.924
4,200.00	3,671.54	3,912.72	3,707.79	37.02	22.74	139.21	-865.02	646.17	1,024.43	977.22	47.21	21.701
4,300.00	3,751.92	3,982.89	3,777.72	38.26	22.96	140.56	-869.67	649.60	1,070.83	1,023.37	47.46	22.561
4,400.00	3,834.05	4,051.76	3,846.52	39.44	23.14	150.08	-872.22	651.48	1,117.90	1,070.27	47.63	23.470
4,500.00	3,922.92	4,128.17	3,922.92	40.35	23.31	167.86	-872.83	651.92	1,160.43	1,112.57	47.87	24.243
4,600.00	4,016.43	4,221.68	4,016.43	40.95	23.50	-166.24	-872.83	651.92	1,195.51	1,147.19	48.32	24.740
4,700.00	4,111.74	4,275.57	4,070.29	41.28	23.59	-133.14	-872.00	651.10	1,223.01	1,174.45	48.56	25.185
4,800.00	4,205.95	4,320.35	4,114.82	41.40	23.64	-106.35	-868.73	647.86	1,244.95	1,196.18	48.78	25.524
4,900.00	4,296.20	4,365.19	4,158.92	41.37	23.67	-90.72	-863.00	642.16	1,261.08	1,211.98	49.10	25.685
5,000.00	4,379.75	4,400.00	4,192.63	41.27	23.68	-82.00	-856.88	636.08	1,271.33	1,221.78	49.54	25.660
5,100.00	4,454.06	4,450.00	4,240.01	41.14	23.66	-77.54	-845.57	624.84	1,275.49	1,225.20	50.29	25.363
5,200.00	4,516.87	4,500.00	4,285.81	41.04	23.64	-75.59	-831.37	610.74	1,273.98	1,222.68	51.30	24.835
5,300.00	4,568.37	4,550.00	4,329.70	41.00	23.59	-75.94	-814.39	593.88	1,268.57	1,216.03	52.54	24.146
5,400.00	4,611.91	4,600.00	4,371.33	41.04	23.55	-76.17	-794.77	574.38	1,262.62	1,208.71	53.90	23.423
5,500.00	4,640.05	4,650.00	4,410.39	41.18	23.50	-77.54	-772.65	552.40	1,252.19	1,196.65	55.54	22.547
5,600.00	4,651.89	4,689.04	4,438.91	41.44	23.48	-79.63	-753.74	533.62	1,237.94	1,180.53	57.40	21.566
5,700.00	4,652.76	4,739.73	4,473.12	41.80	23.46	-81.45	-727.22	507.27	1,223.40	1,164.11	59.29	20.635
5,800.00	4,653.37	4,800.00	4,509.30	42.28	23.46	-83.13	-693.05	473.33	1,213.32	1,152.26	61.06	19.872
5,900.00	4,653.98	4,873.67	4,547.27	42.87	23.53	-84.90	-648.27	428.85	1,206.95	1,144.23	62.73	19.242
6,000.00	4,654.59	4,953.39	4,584.85	43.57	23.69	-86.67	-598.43	379.34	1,203.04	1,138.63	64.41	18.679
6,100.00	4,655.19	5,038.62	4,614.39	44.38	23.98	-88.05	-541.77	323.05	1,201.28	1,135.18	66.10	18.172
6,200.00	4,655.80	5,131.55	4,632.72	45.30	24.44	-88.90	-477.21	258.92	1,200.70	1,132.82	67.88	17.689
6,300.00	4,656.41	5,229.07	4,636.84	46.33	25.08	-89.07	-408.13	190.30	1,200.58	1,130.78	69.80	17.201
6,400.00	4,657.02	5,329.07	4,637.33	47.46	25.89	-89.06	-337.19	119.83	1,200.52	1,128.58	71.94	16.689
6,500.00	4,657.63	5,429.07	4,637.83	48.68	26.87	-89.05	-266.24	49.35	1,200.46	1,126.14	74.32	16.152
6,600.00	4,658.24	5,529.07	4,638.32	49.98	28.01	-89.05	-195.30	-21.12	1,200.41	1,123.48	76.92	15.605
6,700.00	4,658.85	5,629.07	4,638.81	51.37	29.28	-89.04	-124.35	-91.60	1,200.35	1,120.62	79.73	15.056
6,800.00	4,659.46	5,729.07	4,639.30	52.83	30.68	-89.04	-53.41	-162.07	1,200.29	1,117.59	82.70	14.514
6,900.00	4,660.07	5,829.07	4,639.79	54.35	32.18	-89.03	17.53	-232.55	1,200.24	1,114.41	85.83	13.984

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Unit (79 & 81) - Greater Lybrook Unit 079H - Original Hole - rev0													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
7,000.00	4,660.68	5,929.07	4,640.29	55.94	33.77	-89.03	88.48	-303.02	1,200.18	1,111.08	89.09	13.471	
7,100.00	4,661.29	6,029.07	4,640.78	57.58	35.44	-89.02	159.42	-373.49	1,200.12	1,107.64	92.48	12.977	
7,200.00	4,661.90	6,129.07	4,641.27	59.27	37.17	-89.01	230.37	-443.97	1,200.07	1,104.10	95.97	12.505	
7,300.00	4,662.51	6,229.07	4,641.76	61.01	38.96	-89.01	301.31	-514.44	1,200.01	1,100.46	99.55	12.054	
7,400.00	4,663.12	6,329.07	4,642.25	62.78	40.80	-89.00	372.26	-584.92	1,199.95	1,096.74	103.22	11.626	
7,500.00	4,663.72	6,429.07	4,642.75	64.60	42.69	-89.00	443.20	-655.39	1,199.90	1,092.94	106.96	11.219	
7,600.00	4,664.33	6,529.07	4,643.24	66.44	44.61	-88.99	514.15	-725.87	1,199.84	1,089.08	110.76	10.833	
7,700.00	4,664.94	6,629.07	4,643.73	68.32	46.57	-88.99	585.09	-796.34	1,199.78	1,085.16	114.62	10.467	
7,800.00	4,665.55	6,729.07	4,644.22	70.22	48.56	-88.98	656.03	-866.81	1,199.73	1,081.19	118.54	10.121	
7,900.00	4,666.16	6,829.07	4,644.71	72.15	50.57	-88.98	726.98	-937.29	1,199.67	1,077.17	122.50	9.793	
8,000.00	4,666.77	6,929.07	4,645.21	74.10	52.61	-88.97	797.92	-1,007.76	1,199.61	1,073.11	126.50	9.483	
8,100.00	4,667.38	7,029.07	4,645.70	76.07	54.66	-88.96	868.87	-1,078.24	1,199.56	1,069.01	130.54	9.189	
8,200.00	4,667.99	7,129.07	4,646.19	78.06	56.74	-88.96	939.81	-1,148.71	1,199.50	1,064.88	134.62	8.910	
8,300.00	4,668.60	7,229.07	4,646.68	80.07	58.83	-88.95	1,010.76	-1,219.19	1,199.45	1,060.72	138.73	8.646	
8,400.00	4,669.21	7,329.07	4,647.17	82.09	60.93	-88.95	1,081.70	-1,289.66	1,199.39	1,056.52	142.87	8.395	
8,500.00	4,669.82	7,429.07	4,647.67	84.13	63.05	-88.94	1,152.65	-1,360.13	1,199.33	1,052.30	147.03	8.157	
8,600.00	4,670.43	7,529.07	4,648.16	86.18	65.18	-88.94	1,223.59	-1,430.61	1,199.28	1,048.06	151.22	7.931	
8,700.00	4,671.04	7,629.07	4,648.65	88.24	67.32	-88.93	1,294.53	-1,501.08	1,199.22	1,043.80	155.42	7.716	
8,800.00	4,671.65	7,729.07	4,649.14	90.32	69.47	-88.92	1,365.48	-1,571.56	1,199.16	1,039.51	159.65	7.511	
8,900.00	4,672.25	7,829.07	4,649.63	92.40	71.63	-88.92	1,436.42	-1,642.03	1,199.11	1,035.21	163.90	7.316	
9,000.00	4,672.86	7,929.07	4,650.13	94.50	73.79	-88.91	1,507.37	-1,712.51	1,199.05	1,030.88	168.17	7.130	
9,100.00	4,673.47	8,029.07	4,650.62	96.60	75.97	-88.91	1,578.31	-1,782.98	1,199.00	1,026.55	172.45	6.953	
9,200.00	4,674.08	8,129.07	4,651.11	98.72	78.15	-88.90	1,649.26	-1,853.45	1,198.94	1,022.20	176.74	6.783	
9,300.00	4,674.69	8,229.07	4,651.60	100.84	80.33	-88.90	1,720.20	-1,923.93	1,198.88	1,017.83	181.05	6.622	
9,400.00	4,675.30	8,329.07	4,652.09	102.97	82.53	-88.89	1,791.15	-1,994.40	1,198.83	1,013.45	185.38	6.467	
9,500.00	4,675.91	8,429.07	4,652.59	105.11	84.72	-88.88	1,862.09	-2,064.88	1,198.77	1,009.06	189.71	6.319	
9,600.00	4,676.52	8,529.07	4,653.08	107.25	86.93	-88.88	1,933.03	-2,135.35	1,198.71	1,004.66	194.05	6.177	
9,700.00	4,677.13	8,629.07	4,653.57	109.40	89.13	-88.87	2,003.98	-2,205.83	1,198.66	1,000.25	198.41	6.041	
9,800.00	4,677.74	8,729.07	4,654.06	111.55	91.34	-88.87	2,074.92	-2,276.30	1,198.60	995.83	202.78	5.911	
9,900.00	4,678.35	8,829.07	4,654.55	113.72	93.56	-88.86	2,145.87	-2,346.77	1,198.55	991.40	207.15	5.786	
10,000.00	4,678.96	8,929.07	4,655.05	115.88	95.78	-88.86	2,216.81	-2,417.25	1,198.49	986.96	211.53	5.666	
10,100.00	4,679.57	9,029.07	4,655.54	118.05	98.00	-88.85	2,287.76	-2,487.72	1,198.43	982.51	215.92	5.550	
10,200.00	4,680.17	9,129.07	4,656.03	120.23	100.22	-88.85	2,358.70	-2,558.20	1,198.38	978.06	220.32	5.439	
10,300.00	4,680.78	9,229.07	4,656.52	122.41	102.45	-88.84	2,429.65	-2,628.67	1,198.32	973.59	224.73	5.332	
10,400.00	4,681.39	9,329.07	4,657.01	124.59	104.68	-88.83	2,500.59	-2,699.15	1,198.26	969.13	229.14	5.229	
10,500.00	4,682.00	9,429.07	4,657.51	126.78	106.91	-88.83	2,571.53	-2,769.62	1,198.21	964.65	233.56	5.130	
10,600.00	4,682.61	9,529.07	4,658.00	128.97	109.15	-88.82	2,642.48	-2,840.09	1,198.15	960.17	237.98	5.035	
10,700.00	4,683.22	9,629.07	4,658.49	131.16	111.39	-88.82	2,713.42	-2,910.57	1,198.10	955.68	242.41	4.942	
10,800.00	4,683.83	9,729.07	4,658.98	133.36	113.63	-88.81	2,784.37	-2,981.04	1,198.04	951.19	246.85	4.853	
10,900.00	4,684.44	9,829.07	4,659.47	135.56	115.87	-88.81	2,855.31	-3,051.52	1,197.98	946.70	251.29	4.767	
11,000.00	4,685.05	9,929.07	4,659.96	137.77	118.11	-88.80	2,926.26	-3,121.99	1,197.93	942.19	255.73	4.684	
11,100.00	4,685.66	10,029.07	4,660.46	139.97	120.36	-88.79	2,997.20	-3,192.47	1,197.87	937.69	260.18	4.604	
11,200.00	4,686.27	10,129.07	4,660.95	142.18	122.60	-88.79	3,068.15	-3,262.94	1,197.82	933.18	264.64	4.526	
11,300.00	4,686.88	10,229.07	4,661.44	144.40	124.85	-88.78	3,139.09	-3,333.41	1,197.76	928.66	269.10	4.451	
11,400.00	4,687.49	10,329.07	4,661.93	146.61	127.10	-88.78	3,210.03	-3,403.89	1,197.70	924.15	273.56	4.378	
11,500.00	4,688.10	10,429.07	4,662.42	148.83	129.36	-88.77	3,280.98	-3,474.36	1,197.65	919.62	278.02	4.308	
11,600.00	4,688.70	10,529.07	4,662.92	151.05	131.61	-88.77	3,351.92	-3,544.84	1,197.59	915.10	282.49	4.239	
11,700.00	4,689.31	10,629.07	4,663.41	153.27	133.86	-88.76	3,422.87	-3,615.31	1,197.54	910.57	286.97	4.173	
11,800.00	4,689.92	10,729.07	4,663.90	155.49	136.12	-88.75	3,493.81	-3,685.79	1,197.48	906.04	291.44	4.109	
11,900.00	4,690.53	10,829.07	4,664.39	157.72	138.37	-88.75	3,564.76	-3,756.26	1,197.42	901.50	295.92	4.046	
12,000.00	4,691.14	10,929.07	4,664.88	159.94	140.63	-88.74	3,635.70	-3,826.73	1,197.37	896.97	300.40	3.986	
12,100.00	4,691.75	11,029.07	4,665.38	162.17	142.89	-88.74	3,706.65	-3,897.21	1,197.31	892.42	304.89	3.927	

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Unit (79 & 81) - Greater Lybrook Unit 079H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
12,200.00	4,692.36	11,129.07	4,665.87	164.40	145.15	-88.73	3,777.59	-3,967.68	1,197.26	887.88	309.37	3.870	
12,300.00	4,692.97	11,229.07	4,666.36	166.64	147.41	-88.73	3,848.53	-4,038.16	1,197.20	883.34	313.86	3.814	
12,400.00	4,693.58	11,329.07	4,666.85	168.87	149.67	-88.72	3,919.48	-4,108.63	1,197.14	878.79	318.36	3.760	
12,500.00	4,694.19	11,429.07	4,667.34	171.11	151.94	-88.71	3,990.42	-4,179.11	1,197.09	874.24	322.85	3.708	
12,600.00	4,694.80	11,529.07	4,667.84	173.34	154.20	-88.71	4,061.37	-4,249.58	1,197.03	869.68	327.35	3.657	
12,700.00	4,695.41	11,629.07	4,668.33	175.58	156.46	-88.70	4,132.31	-4,320.06	1,196.98	865.13	331.85	3.607	
12,800.00	4,696.02	11,729.07	4,668.82	177.82	158.73	-88.70	4,203.26	-4,390.53	1,196.92	860.57	336.35	3.559	
12,900.00	4,696.63	11,829.07	4,669.31	180.06	160.99	-88.69	4,274.20	-4,461.00	1,196.87	856.01	340.85	3.511	
13,000.00	4,697.23	11,929.07	4,669.80	182.30	163.26	-88.69	4,345.15	-4,531.48	1,196.81	851.45	345.36	3.465	
13,100.00	4,697.84	12,029.07	4,670.30	184.55	165.53	-88.68	4,416.09	-4,601.95	1,196.75	846.89	349.86	3.421	
13,200.00	4,698.45	12,129.07	4,670.79	186.79	167.80	-88.68	4,487.03	-4,672.43	1,196.70	842.33	354.37	3.377	
13,300.00	4,699.06	12,229.07	4,671.28	189.04	170.06	-88.67	4,557.98	-4,742.90	1,196.64	837.76	358.88	3.334	
13,400.00	4,699.67	12,329.07	4,671.77	191.29	172.33	-88.66	4,628.92	-4,813.38	1,196.59	833.19	363.39	3.293	
13,500.00	4,700.28	12,429.07	4,672.26	193.53	174.60	-88.66	4,699.87	-4,883.85	1,196.53	828.63	367.90	3.252	
13,600.00	4,700.89	12,529.07	4,672.76	195.78	176.87	-88.65	4,770.81	-4,954.32	1,196.47	824.06	372.42	3.213	
13,700.00	4,701.50	12,629.07	4,673.25	198.03	179.14	-88.65	4,841.76	-5,024.80	1,196.42	819.48	376.94	3.174	
13,800.00	4,702.11	12,729.07	4,673.74	200.28	181.41	-88.64	4,912.70	-5,095.27	1,196.36	814.91	381.45	3.136	
13,900.00	4,702.72	12,829.07	4,674.23	202.54	183.69	-88.64	4,983.65	-5,165.75	1,196.31	810.34	385.97	3.099	
14,000.00	4,703.33	12,929.07	4,674.72	204.79	185.96	-88.63	5,054.59	-5,236.22	1,196.25	805.76	390.49	3.063	
14,100.00	4,703.94	13,029.07	4,675.22	207.04	188.23	-88.62	5,125.53	-5,306.70	1,196.20	801.18	395.01	3.028	
14,200.00	4,704.55	13,129.07	4,675.71	209.30	190.50	-88.62	5,196.48	-5,377.17	1,196.14	796.60	399.54	2.994	
14,300.00	4,705.16	13,229.07	4,676.20	211.55	192.78	-88.61	5,267.42	-5,447.64	1,196.08	792.02	404.06	2.960	
14,400.00	4,705.76	13,329.07	4,676.69	213.81	195.05	-88.61	5,338.37	-5,518.12	1,196.03	787.44	408.58	2.927	
14,500.00	4,706.37	13,429.07	4,677.18	216.06	197.33	-88.60	5,409.31	-5,588.59	1,195.97	782.86	413.11	2.895	
14,600.00	4,706.98	13,529.07	4,677.68	218.32	199.60	-88.60	5,480.26	-5,659.07	1,195.92	778.28	417.64	2.864	
14,700.00	4,707.59	13,629.06	4,678.17	220.58	201.87	-88.59	5,551.20	-5,729.54	1,195.86	773.70	422.17	2.833	
14,800.00	4,708.20	13,729.06	4,678.66	222.84	204.15	-88.58	5,622.15	-5,800.02	1,195.81	769.11	426.69	2.802	
14,900.00	4,708.81	13,829.06	4,679.15	225.10	206.43	-88.58	5,693.09	-5,870.49	1,195.75	764.53	431.22	2.773	
15,000.00	4,709.42	13,929.06	4,679.64	227.36	208.70	-88.57	5,764.03	-5,940.96	1,195.70	759.94	435.75	2.744	
15,100.00	4,710.03	14,029.06	4,680.14	229.62	210.98	-88.57	5,834.98	-6,011.44	1,195.64	755.35	440.29	2.716	
15,200.00	4,710.64	14,129.06	4,680.63	231.88	213.25	-88.56	5,905.92	-6,081.91	1,195.58	750.77	444.82	2.688	
15,300.00	4,711.25	14,229.06	4,681.12	234.14	215.53	-88.56	5,976.87	-6,152.39	1,195.53	746.18	449.35	2.661	
15,400.00	4,711.86	14,329.06	4,681.61	236.40	217.81	-88.55	6,047.81	-6,222.86	1,195.47	741.59	453.89	2.634	
15,500.00	4,712.47	14,429.06	4,682.10	238.67	220.09	-88.54	6,118.76	-6,293.34	1,195.42	737.00	458.42	2.608	
15,600.00	4,713.08	14,529.06	4,682.59	240.93	222.36	-88.54	6,189.70	-6,363.81	1,195.36	732.41	462.96	2.582	
15,700.00	4,713.69	14,629.06	4,683.09	243.19	224.64	-88.53	6,260.65	-6,434.28	1,195.31	727.81	467.49	2.557	
15,800.00	4,714.29	14,729.06	4,683.58	245.46	226.92	-88.53	6,331.59	-6,504.76	1,195.25	723.22	472.03	2.532	
15,900.00	4,714.90	14,829.06	4,684.07	247.72	229.20	-88.52	6,402.53	-6,575.23	1,195.20	718.63	476.57	2.508	
16,000.00	4,715.51	14,929.06	4,684.56	249.99	231.48	-88.52	6,473.48	-6,645.71	1,195.14	714.04	481.10	2.484	
16,100.00	4,716.12	15,029.06	4,685.05	252.25	233.76	-88.51	6,544.42	-6,716.18	1,195.08	709.44	485.64	2.461	
16,200.00	4,716.73	15,129.06	4,685.55	254.52	236.04	-88.50	6,615.37	-6,786.66	1,195.03	704.85	490.18	2.438	
16,300.00	4,717.34	15,229.06	4,686.04	256.79	238.32	-88.50	6,686.31	-6,857.13	1,194.97	700.25	494.72	2.415	
16,400.00	4,717.95	15,329.06	4,686.53	259.06	240.60	-88.49	6,757.26	-6,927.60	1,194.92	695.66	499.26	2.393	
16,500.00	4,718.56	15,429.06	4,687.02	261.32	242.88	-88.49	6,828.20	-6,998.08	1,194.86	691.06	503.80	2.372	
16,600.00	4,719.17	15,529.06	4,687.51	263.59	245.16	-88.48	6,899.15	-7,068.55	1,194.81	686.46	508.34	2.350	
16,700.00	4,719.78	15,629.06	4,688.01	265.86	247.44	-88.48	6,970.09	-7,139.03	1,194.75	681.87	512.89	2.329	
16,800.00	4,720.39	15,729.06	4,688.50	268.13	249.72	-88.47	7,041.03	-7,209.50	1,194.70	677.27	517.43	2.309	
16,900.00	4,721.00	15,829.06	4,688.99	270.40	252.00	-88.46	7,111.98	-7,279.98	1,194.64	672.67	521.97	2.289	
17,000.00	4,721.61	15,929.06	4,689.48	272.67	254.28	-88.46	7,182.92	-7,350.45	1,194.59	668.07	526.51	2.269	
17,100.00	4,722.22	16,029.06	4,689.97	274.94	256.56	-88.45	7,253.87	-7,420.92	1,194.53	663.47	531.06	2.249	
17,200.00	4,722.82	16,129.06	4,690.47	277.21	258.84	-88.45	7,324.81	-7,491.40	1,194.48	658.88	535.60	2.230	
17,300.00	4,723.43	16,229.06	4,690.96	279.48	261.12	-88.44	7,395.76	-7,561.87	1,194.42	654.28	540.14	2.211	

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Unit (79 & 81) - Greater Lybrook Unit 079H - Original Hole - rev0												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)	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)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
17,400.00	4,724.04	16,329.06	4,691.45	281.75	263.40	-88.44	7,466.70	-7,632.35	1,194.36	649.68	544.69	2.193	
17,500.00	4,724.85	16,429.06	4,691.94	284.02	265.69	-88.43	7,537.65	-7,702.82	1,194.31	645.07	549.23	2.174	
17,600.00	4,725.26	16,529.06	4,692.43	286.29	267.97	-88.42	7,608.59	-7,773.30	1,194.25	640.47	553.78	2.157	
17,700.00	4,725.87	16,629.06	4,692.93	288.56	270.25	-88.42	7,679.53	-7,843.77	1,194.20	635.87	558.33	2.139	
17,800.00	4,726.48	16,729.06	4,693.42	290.84	272.53	-88.41	7,750.48	-7,914.24	1,194.14	631.27	562.87	2.122	
17,900.00	4,727.09	16,829.06	4,693.91	293.11	274.81	-88.41	7,821.42	-7,984.72	1,194.09	626.67	567.42	2.104	
18,000.00	4,727.70	16,929.06	4,694.40	295.38	277.10	-88.40	7,892.37	-8,055.19	1,194.03	622.07	571.96	2.088	
18,100.00	4,728.31	17,029.06	4,694.89	297.66	279.38	-88.40	7,963.31	-8,125.67	1,193.98	617.47	576.51	2.071	
18,200.00	4,728.92	17,129.06	4,695.39	299.93	281.66	-88.39	8,034.26	-8,196.14	1,193.92	612.87	581.06	2.055	
18,300.00	4,729.53	17,229.06	4,695.88	302.20	283.94	-88.38	8,105.20	-8,266.62	1,193.87	608.26	585.60	2.039	
18,400.00	4,730.14	17,329.06	4,696.37	304.48	286.23	-88.38	8,176.15	-8,337.09	1,193.81	603.66	590.15	2.023	
18,500.00	4,730.75	17,429.06	4,696.86	306.75	288.51	-88.37	8,247.09	-8,407.56	1,193.76	599.06	594.70	2.007	
18,600.00	4,731.35	17,529.06	4,697.35	309.03	290.79	-88.37	8,318.03	-8,478.04	1,193.70	594.45	599.25	1.992 Level 3<2.00	
18,700.00	4,731.96	17,629.06	4,697.85	311.30	293.08	-88.36	8,388.98	-8,548.51	1,193.65	589.85	603.80	1.977 Level 3<2.00	
18,800.00	4,732.57	17,729.06	4,698.34	313.58	295.36	-88.36	8,459.92	-8,618.99	1,193.59	585.25	608.34	1.962 Level 3<2.00	
18,900.00	4,733.18	17,829.06	4,698.83	315.85	297.64	-88.35	8,530.87	-8,689.46	1,193.54	580.64	612.89	1.947 Level 3<2.00	
19,000.00	4,733.79	17,929.06	4,699.32	318.13	299.93	-88.34	8,601.81	-8,759.94	1,193.48	576.04	617.44	1.933 Level 3<2.00	
19,100.00	4,734.40	18,029.06	4,699.81	320.40	302.21	-88.34	8,672.76	-8,830.41	1,193.43	571.44	621.99	1.919 Level 3<2.00	
19,200.00	4,735.01	18,129.06	4,700.31	322.68	304.50	-88.33	8,743.70	-8,900.88	1,193.37	566.83	626.54	1.905 Level 3<2.00	
19,300.00	4,735.62	18,229.06	4,700.80	324.95	306.78	-88.33	8,814.65	-8,971.36	1,193.32	562.23	631.09	1.891 Level 3<2.00	
19,400.00	4,736.23	18,329.06	4,701.29	327.23	309.06	-88.32	8,885.59	-9,041.83	1,193.26	557.62	635.64	1.877 Level 3<2.00	
19,500.00	4,736.84	18,429.06	4,701.78	329.51	311.35	-88.32	8,956.53	-9,112.31	1,193.21	553.02	640.19	1.864 Level 3<2.00	
19,600.00	4,737.45	18,529.06	4,702.27	331.78	313.63	-88.31	9,027.48	-9,182.78	1,193.15	548.42	644.74	1.851 Level 3<2.00	
19,700.00	4,738.06	18,629.06	4,702.77	334.06	315.92	-88.30	9,098.42	-9,253.26	1,193.10	543.81	649.28	1.838 Level 3<2.00	
19,800.00	4,738.67	18,729.06	4,703.26	336.34	318.20	-88.30	9,169.37	-9,323.73	1,193.04	539.21	653.83	1.825 Level 3<2.00	
19,854.81	4,739.00	18,783.87	4,703.53	337.59	319.45	-88.30	9,208.25	-9,362.36	1,193.01	536.68	656.33	1.818 Level 3<2.00, 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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit - Rodeo Unit #500H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 438-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
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
0.00	0.00	306.00	305.88	0.00	0.00	119.20	-28.75	51.43	313.47				
100.00	100.00	306.00	305.88	0.13	0.00	119.20	-28.75	51.43	216.07	213.86	2.21	97.690	
200.00	200.00	306.00	305.88	0.49	0.00	119.20	-28.75	51.43	122.92	120.89	2.03	60.413	
300.00	300.00	306.00	305.88	0.85	0.00	119.20	-28.75	51.43	59.45	58.55	0.89	66.428	
336.98	336.98	335.22	335.09	0.98	0.05	118.88	-28.43	51.55	58.87	57.83	1.04	56.792	
400.00	400.00	398.24	398.11	1.21	0.17	118.13	-27.69	51.81	58.75	57.37	1.38	42.713	
445.61	445.61	443.74	443.61	1.37	0.26	117.54	-27.13	52.02	58.67	57.04	1.63	35.979	
500.00	500.00	497.14	497.00	1.57	0.45	116.94	-26.79	52.70	59.13	57.11	2.02	29.334	
600.00	600.00	594.59	594.38	1.93	0.80	116.13	-27.57	56.19	62.69	59.97	2.72	23.010	
700.00	700.00	691.81	691.29	2.29	1.16	115.02	-29.66	63.56	70.46	67.03	3.43	20.542	
800.00	799.95	788.92	787.75	2.63	1.53	3.52	-31.87	74.49	79.07	74.95	4.12	19.192	
900.00	899.63	887.72	885.55	2.98	1.94	1.28	-33.74	88.40	85.02	80.21	4.81	17.682	
1,000.00	998.77	987.75	984.51	3.34	2.35	-0.79	-35.65	102.88	86.24	80.72	5.52	15.630	
1,100.00	1,097.08	1,087.94	1,083.68	3.73	2.78	-2.77	-37.76	116.95	81.99	75.75	6.24	13.139	
1,200.00	1,194.31	1,185.94	1,180.56	4.16	3.20	-5.22	-40.12	131.54	73.54	66.59	6.95	10.577	
1,300.00	1,290.18	1,284.33	1,277.60	4.64	3.63	-9.32	-42.48	147.66	61.59	53.90	7.68	8.014	
1,400.00	1,384.43	1,381.92	1,373.55	5.18	4.08	-15.50	-46.15	165.04	46.62	38.17	8.44	5.521	
1,500.00	1,476.81	1,479.23	1,468.80	5.80	4.54	-29.86	-50.46	184.44	30.11	20.74	9.37	3.212	
1,597.84	1,565.13	1,573.99	1,561.30	6.49	5.00	-78.04	-53.17	204.88	19.57	8.21	11.36	1.723 Level 3<2.00, CC	
1,600.00	1,567.06	1,576.08	1,563.33	6.50	5.01	-79.64	-53.21	205.33	19.57	8.17	11.41	1.716 Level 3<2.00, ES, SF	
1,700.00	1,654.93	1,671.61	1,656.81	7.30	5.48	-134.52	-54.60	224.98	35.75	23.99	11.76	3.039	
1,800.00	1,740.18	1,766.43	1,749.64	8.21	5.94	-153.16	-57.63	244.05	66.33	54.27	12.05	5.503	
1,900.00	1,822.59	1,859.47	1,840.40	9.22	6.40	-160.06	-60.56	264.32	102.74	90.05	12.69	8.098	
2,000.00	1,903.02	1,950.66	1,929.37	10.31	6.86	-163.89	-63.38	284.12	142.96	129.56	13.40	10.665	
2,100.00	1,983.40	2,042.36	2,018.72	11.44	7.33	-166.09	-66.47	304.49	183.02	168.86	14.16	12.921	
2,200.00	2,063.79	2,130.89	2,105.23	12.60	7.77	-167.55	-69.21	323.10	224.32	209.40	14.93	15.027	
2,300.00	2,144.18	2,225.69	2,197.66	13.77	8.25	-168.44	-71.77	343.97	265.09	249.33	15.76	16.825	
2,400.00	2,224.57	2,316.30	2,285.93	14.95	8.72	-168.99	-74.03	364.34	305.60	289.02	16.58	18.437	
2,500.00	2,304.95	2,409.51	2,376.68	16.14	9.20	-169.41	-76.41	385.45	345.97	328.54	17.42	19.859	
2,600.00	2,385.34	2,503.20	2,467.74	17.34	9.70	-169.67	-78.66	407.41	385.76	367.48	18.29	21.096	
2,700.00	2,465.73	2,593.52	2,555.47	18.55	10.17	-169.81	-80.54	428.77	425.53	406.39	19.14	22.236	
2,800.00	2,546.12	2,681.73	2,641.29	19.77	10.64	-169.97	-82.40	449.10	465.79	445.81	19.97	23.324	
2,900.00	2,626.50	2,769.00	2,726.45	20.98	11.08	-170.19	-84.34	468.06	507.07	486.28	20.79	24.392	
3,000.00	2,706.89	2,864.90	2,820.08	22.21	11.57	-170.46	-87.05	488.64	548.35	526.68	21.67	25.305	
3,100.00	2,787.28	2,937.44	2,891.06	23.43	11.92	-170.69	-89.22	503.44	590.42	568.07	22.35	26.419	
3,200.00	2,867.66	3,031.66	2,983.58	24.66	12.38	-171.01	-91.83	520.99	634.06	610.85	23.21	27.323	
3,300.00	2,948.05	3,140.28	3,089.84	25.89	12.92	-171.35	-96.09	543.15	675.78	651.59	24.19	27.940	
3,400.00	3,028.44	3,234.90	3,182.04	27.12	13.41	-171.57	-100.13	564.02	715.96	690.90	25.06	28.570	
3,500.00	3,108.83	3,322.88	3,267.77	28.35	13.86	-171.73	-103.71	583.46	756.21	730.32	25.89	29.214	
3,600.00	3,189.21	3,428.91	3,370.92	29.59	14.42	-171.87	-107.79	607.64	795.97	769.11	26.86	29.630	
3,700.00	3,269.60	3,507.30	3,447.09	30.82	14.83	-171.90	-110.16	625.98	835.57	807.93	27.63	30.239	
3,800.00	3,349.99	3,581.80	3,519.77	32.06	15.21	-171.95	-112.03	642.21	876.74	848.39	28.35	30.923	
3,900.00	3,430.38	3,673.09	3,609.15	33.30	15.67	-172.03	-114.21	660.73	919.21	890.00	29.21	31.465	
4,000.00	3,510.76	3,768.13	3,701.99	34.54	16.15	-172.10	-116.62	680.87	960.85	930.73	30.11	31.909	
4,100.00	3,591.15	3,870.29	3,801.73	35.78	16.67	-172.17	-119.58	702.76	1,002.18	971.11	31.07	32.252	
4,200.00	3,671.54	3,963.78	3,892.82	37.02	17.15	-172.25	-122.96	723.55	1,042.51	1,010.55	31.96	32.621	
4,300.00	3,751.92	4,051.85	3,978.69	38.26	17.61	-172.34	-126.38	742.78	1,083.07	1,050.28	32.79	33.028	
4,400.00	3,834.05	4,134.82	4,059.70	39.44	18.03	-166.38	-129.68	760.44	1,121.00	1,087.45	33.56	33.406	
4,500.00	3,922.92	4,221.51	4,144.51	40.35	18.46	-152.94	-132.45	778.20	1,145.55	1,111.29	34.27	33.428	
4,600.00	4,016.43	4,309.54	4,226.17	40.95	18.92	-169.76	-135.06	796.65	1,169.61	1,134.16	34.95	33.856	
4,700.00	4,111.74	4,399.82	4,313.18	41.28	19.40	-172.96	-137.65	815.29	1,198.08	1,162.82	35.62	34.287	
4,800.00	4,205.95	4,488.81	4,396.16	41.40	19.83	-158.01	-140.29	834.65	1,227.16	1,190.72	36.44	34.716	

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit - Rodeo Unit #500H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 438-MWD											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
4,900.00	4,296.20	5,865.00	5,063.26	41.37	36.38	-150.11	-830.65	1,566.63	873.91	831.97	41.94	20.836
5,000.00	4,379.75	5,821.46	5,063.87	41.27	35.57	-145.30	-800.17	1,535.55	815.90	770.46	45.44	17.957
5,100.00	4,454.06	5,767.99	5,065.27	41.14	34.59	-141.90	-762.94	1,497.18	769.97	721.20	48.77	15.787
5,200.00	4,516.87	5,689.63	5,067.16	41.04	33.17	-138.26	-708.99	1,440.40	736.12	684.81	51.31	14.346
5,300.00	4,568.37	5,586.57	5,067.41	41.00	31.36	-134.14	-638.29	1,365.41	711.22	658.39	52.84	13.461
5,400.00	4,611.91	5,461.91	5,062.18	41.04	29.29	-129.80	-552.03	1,275.66	690.12	636.66	53.46	12.909
5,500.00	4,640.05	5,228.15	5,001.86	41.18	25.77	-121.42	-396.10	1,113.69	664.81	613.26	51.55	12.896
5,600.00	4,651.89	5,034.89	4,894.82	41.44	23.43	-113.57	-286.40	997.72	633.37	582.17	51.20	12.372
5,700.00	4,652.76	4,886.99	4,780.13	41.80	22.09	-103.25	-221.94	931.05	597.37	545.35	52.02	11.484
5,800.00	4,653.37	4,832.14	4,732.50	42.28	21.69	-98.39	-202.89	911.64	567.19	511.93	55.26	10.264
5,900.00	4,653.98	4,782.27	4,687.66	42.87	21.35	-93.71	-187.99	895.71	549.40	490.77	58.63	9.370
5,971.56	4,654.41	4,752.00	4,659.91	43.36	21.15	-90.79	-179.72	886.92	545.47	484.58	60.90	8.957
6,000.00	4,654.59	4,741.46	4,650.14	43.57	21.09	-89.76	-177.02	884.04	546.11	484.41	61.70	8.851
6,100.00	4,655.19	4,709.65	4,620.34	44.38	20.90	-86.63	-169.41	875.92	558.57	494.56	64.00	8.727
6,200.00	4,655.80	4,682.97	4,595.04	45.30	20.75	-83.99	-163.63	869.74	586.39	521.19	65.20	8.994
6,300.00	4,656.41	4,661.70	4,574.66	46.33	20.64	-81.88	-159.44	865.31	627.91	562.52	65.40	9.601
6,400.00	4,657.02	4,640.00	4,553.70	47.46	20.53	-79.74	-155.59	861.19	680.97	616.15	64.82	10.506
6,500.00	4,657.63	4,629.66	4,543.67	48.68	20.48	-78.73	-153.91	859.34	743.17	679.25	63.93	11.625
6,600.00	4,658.24	4,616.35	4,530.72	49.98	20.42	-77.43	-151.88	857.02	812.58	749.80	62.78	12.943
6,700.00	4,658.85	4,609.00	4,523.56	51.37	20.38	-76.72	-150.83	855.76	887.55	825.93	61.61	14.405
6,800.00	4,659.46	4,594.54	4,509.45	52.83	20.31	-75.34	-148.93	853.25	966.78	906.35	60.44	15.997
6,900.00	4,660.07	4,577.00	4,492.31	54.35	20.23	-73.70	-146.96	850.05	1,049.45	990.11	59.34	17.685
7,000.00	4,660.68	4,577.00	4,492.31	55.94	20.23	-73.70	-146.96	850.05	1,134.64	1,076.26	58.38	19.436
7,100.00	4,661.29	4,567.34	4,482.87	57.58	20.18	-72.81	-146.05	848.21	1,221.98	1,164.49	57.48	21.259
7,200.00	4,661.90	4,559.54	4,475.25	59.27	20.14	-72.11	-145.40	846.71	1,311.01	1,254.34	56.67	23.133
7,300.00	4,662.51	4,546.00	4,462.01	61.01	20.08	-70.91	-144.48	844.02	1,401.46	1,345.51	55.95	25.048
7,400.00	4,663.12	4,546.00	4,462.01	62.78	20.08	-70.91	-144.48	844.02	1,492.97	1,437.68	55.29	27.003
7,500.00	4,663.72	4,536.02	4,452.25	64.60	20.03	-70.04	-143.92	842.01	1,585.45	1,530.74	54.70	28.983
7,600.00	4,664.33	4,527.58	4,444.00	66.44	19.99	-69.32	-143.51	840.30	1,678.70	1,624.53	54.17	30.989
7,700.00	4,664.94	4,515.00	4,431.69	68.32	19.92	-68.26	-143.00	837.73	1,772.62	1,718.92	53.70	33.011
7,800.00	4,665.55	4,504.51	4,421.43	70.22	19.87	-67.39	-142.62	835.58	1,867.06	1,813.80	53.27	35.051
7,900.00	4,666.16	4,477.80	4,395.34	72.15	19.73	-65.27	-141.60	829.97	1,961.88	1,908.97	52.91	37.082
8,000.00	4,666.77	4,460.00	4,377.98	74.10	19.64	-63.90	-140.91	826.09	2,056.96	2,004.40	52.57	39.131
8,100.00	4,667.38	4,441.47	4,359.91	76.07	19.55	-62.53	-140.20	822.04	2,152.34	2,100.08	52.26	41.184

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit - Rodeo Unit #501H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 438-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												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)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	306.00	305.99	0.00	0.00	119.67	-20.12	35.33	310.66				
100.00	100.00	306.00	305.99	0.13	0.00	119.67	-20.12	35.33	211.93	209.67	2.26	93.908	
200.00	200.00	306.00	305.99	0.49	0.00	119.67	-20.12	35.33	115.39	113.23	2.16	53.318	
300.00	300.00	306.00	305.99	0.85	0.00	119.67	-20.12	35.33	41.43	40.49	0.94	44.153	
308.83	308.83	306.55	306.54	0.88	0.00	119.67	-20.13	35.33	40.66	39.78	0.88	45.978 CC, ES	
400.00	400.00	397.71	397.70	1.21	0.17	120.23	-20.80	35.70	41.32	39.94	1.37	30.057	
500.00	500.00	497.47	497.44	1.57	0.45	122.06	-22.41	35.78	42.22	40.20	2.02	20.899	
600.00	600.00	596.60	596.47	1.93	0.81	127.15	-26.83	35.41	44.45	41.71	2.74	16.224	
700.00	700.00	694.70	694.32	2.29	1.18	132.72	-33.61	36.40	49.68	46.22	3.46	14.362	
800.00	799.95	792.07	791.09	2.63	1.56	29.66	-43.99	39.23	57.07	52.91	4.16	13.729	
900.00	899.63	890.53	888.57	2.98	1.97	37.83	-57.18	43.45	63.95	59.10	4.85	13.199	
1,000.00	998.77	987.27	984.03	3.34	2.38	46.91	-71.96	48.65	70.46	64.93	5.53	12.744	
1,100.00	1,097.08	1,084.00	1,078.96	3.73	2.82	57.03	-89.41	54.87	78.58	72.33	6.25	12.578 SF	
1,200.00	1,194.31	1,180.45	1,173.17	4.16	3.29	67.41	-108.83	61.95	88.94	81.90	7.05	12.625	
1,300.00	1,290.18	1,274.79	1,264.67	4.64	3.77	77.17	-130.48	69.64	103.31	95.38	7.94	13.019	
1,400.00	1,384.43	1,366.81	1,353.26	5.18	4.27	86.26	-154.44	76.37	123.12	114.18	8.93	13.784	
1,500.00	1,476.81	1,457.94	1,440.16	5.80	4.79	93.87	-181.05	82.86	148.87	138.84	10.04	14.834	
1,600.00	1,567.06	1,551.04	1,528.50	6.50	5.35	100.33	-209.56	89.93	178.80	167.52	11.27	15.862	
1,700.00	1,654.93	1,640.40	1,612.82	7.30	5.91	105.33	-238.22	97.41	212.67	200.13	12.54	16.963	
1,800.00	1,740.18	1,730.74	1,697.81	8.21	6.49	109.71	-267.82	105.08	250.31	236.43	13.88	18.033	
1,900.00	1,822.59	1,817.86	1,779.98	9.22	7.04	113.59	-295.97	111.86	291.69	276.48	15.21	19.172	
2,000.00	1,903.02	1,906.74	1,863.73	10.31	7.61	117.89	-324.85	119.03	336.01	319.43	16.58	20.265	
2,100.00	1,983.40	1,994.04	1,946.28	11.44	8.17	121.46	-352.39	126.04	381.25	363.36	17.89	21.312	
2,200.00	2,063.79	2,084.39	2,031.86	12.60	8.74	124.44	-380.43	133.33	427.23	408.01	19.22	22.229	
2,300.00	2,144.18	2,175.06	2,117.73	13.77	9.31	126.82	-408.34	141.52	473.05	452.50	20.54	23.028	
2,400.00	2,224.57	2,262.58	2,200.68	14.95	9.87	128.73	-435.03	149.69	519.04	497.23	21.82	23.790	
2,500.00	2,304.95	2,348.58	2,281.87	16.14	10.42	130.20	-462.17	157.92	565.60	542.52	23.08	24.503	
2,600.00	2,385.34	2,434.83	2,363.13	17.34	10.99	131.40	-489.92	166.14	612.67	588.30	24.36	25.147	
2,700.00	2,465.73	2,520.61	2,443.67	18.55	11.56	132.36	-518.23	174.45	660.05	634.40	25.65	25.731	
2,800.00	2,546.12	2,605.62	2,523.31	19.77	12.13	133.14	-546.83	182.51	707.94	681.00	26.94	26.277	
2,900.00	2,626.50	2,692.74	2,604.80	20.98	12.73	133.81	-576.51	190.84	755.98	727.70	28.27	26.739	
3,000.00	2,706.89	2,775.85	2,682.60	22.21	13.29	134.39	-604.71	198.44	804.39	774.85	29.54	27.232	
3,100.00	2,787.28	2,862.08	2,763.72	23.43	13.86	135.01	-633.04	205.74	853.13	822.30	30.83	27.675	
3,200.00	2,867.66	2,953.45	2,850.00	24.66	14.46	135.67	-662.15	213.35	901.77	869.60	32.17	28.031	
3,300.00	2,948.05	3,049.32	2,940.44	25.89	15.09	136.27	-692.72	222.05	949.87	916.29	33.59	28.282	
3,400.00	3,028.44	3,142.27	3,027.61	27.12	15.72	136.69	-723.55	231.59	997.38	962.38	35.00	28.500	
3,500.00	3,108.83	3,234.86	3,114.13	28.35	16.35	137.01	-754.88	241.77	1,044.48	1,008.06	36.42	28.677	
3,600.00	3,189.21	3,316.73	3,190.88	29.59	16.91	137.31	-782.01	250.55	1,091.66	1,053.98	37.67	28.977	
3,700.00	3,269.60	3,415.22	3,283.37	30.82	17.57	137.67	-814.20	260.99	1,138.85	1,099.70	39.16	29.083	
3,800.00	3,349.99	3,500.63	3,363.69	32.06	18.14	137.98	-841.69	270.44	1,185.56	1,145.11	40.45	29.313	
3,900.00	3,430.38	3,594.54	3,452.18	33.30	18.76	138.32	-871.43	280.61	1,232.36	1,190.52	41.84	29.454	
4,000.00	3,510.76	3,686.47	3,539.13	34.54	19.36	138.67	-899.49	290.77	1,278.72	1,235.54	43.18	29.613	
4,100.00	3,591.15	3,759.65	3,608.54	35.78	19.83	138.97	-921.33	298.50	1,325.40	1,281.16	44.24	29.958	
4,200.00	3,671.54	3,831.58	3,676.91	37.02	20.29	139.26	-942.74	304.97	1,373.39	1,328.11	45.27	30.334	
4,300.00	3,751.92	3,914.22	3,754.99	38.26	20.82	139.51	-968.79	312.26	1,421.96	1,375.47	46.49	30.587	
4,400.00	3,834.05	4,001.03	3,836.34	39.44	21.41	147.88	-998.02	320.25	1,469.60	1,421.79	47.80	30.743	
4,500.00	3,922.92	4,092.67	3,922.04	40.35	22.04	164.38	-1,029.33	328.85	1,511.60	1,462.44	49.17	30.744	
4,600.00	4,016.43	4,178.00	4,002.48	40.95	22.61	-170.63	-1,056.75	336.47	1,546.81	1,496.45	50.36	30.713	
4,700.00	4,111.74	4,259.83	4,079.99	41.28	23.13	-138.36	-1,082.09	343.28	1,575.20	1,523.71	51.48	30.596	
4,800.00	4,205.95	4,345.14	4,160.76	41.40	23.68	-112.82	-1,108.64	350.27	1,596.93	1,544.22	52.71	30.297	
4,900.00	4,296.20	4,420.00	4,231.76	41.37	24.16	-98.40	-1,131.53	356.53	1,612.24	1,558.38	53.87	29.929	
5,000.00	4,379.75	4,499.18	4,306.86	41.27	24.66	-91.30	-1,155.66	363.38	1,622.21	1,567.01	55.21	29.385	

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit - Rodeo Unit #501H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 438-MWD											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5,100.00	4,454.06	4,576.14	4,380.15	41.14	25.14	-88.17	-1,177.89	370.93	1,627.12	1,570.48	56.64	28.729
5,200.00	4,516.87	4,623.41	4,425.31	41.04	25.43	-86.42	-1,190.96	375.78	1,628.84	1,571.03	57.82	28.172
5,300.00	4,568.37	4,666.43	4,466.54	41.00	25.69	-86.85	-1,202.42	380.29	1,629.62	1,570.56	59.07	27.590
5,400.00	4,611.91	4,701.43	4,500.22	41.04	25.89	-86.38	-1,211.13	384.01	1,632.25	1,572.00	60.25	27.090
5,500.00	4,640.05	4,707.79	4,506.37	41.18	25.93	-85.51	-1,212.65	384.69	1,634.37	1,573.16	61.21	26.700
5,600.00	4,651.89	4,664.06	4,464.27	41.44	25.68	-83.50	-1,201.77	380.04	1,636.02	1,574.35	61.67	26.529
5,700.00	4,652.76	4,624.46	4,426.32	41.80	25.44	-82.14	-1,191.25	375.89	1,638.74	1,576.57	62.17	26.359
5,800.00	4,653.37	4,588.09	4,391.56	42.28	25.22	-80.91	-1,181.23	372.15	1,646.78	1,584.11	62.67	26.278
5,900.00	4,653.98	4,552.73	4,357.82	42.87	25.00	-79.72	-1,171.26	368.56	1,660.22	1,597.10	63.12	26.304
6,000.00	4,654.59	4,497.60	4,305.36	43.57	24.65	-77.86	-1,155.19	363.23	1,678.81	1,615.55	63.26	26.539
6,100.00	4,655.19	4,451.26	4,261.39	44.38	24.36	-76.31	-1,141.12	359.17	1,702.22	1,638.78	63.44	26.830
6,200.00	4,655.80	4,424.74	4,236.25	45.30	24.19	-75.42	-1,132.98	356.93	1,730.58	1,666.78	63.80	27.125
6,300.00	4,656.41	4,398.36	4,211.23	46.33	24.02	-74.55	-1,124.91	354.71	1,763.76	1,699.67	64.09	27.520
6,400.00	4,657.02	4,373.77	4,187.92	47.46	23.87	-73.73	-1,117.39	352.65	1,801.48	1,737.15	64.33	28.004
6,500.00	4,657.63	4,340.45	4,156.31	48.68	23.65	-72.63	-1,107.20	349.88	1,843.45	1,779.04	64.41	28.620
6,600.00	4,658.24	4,306.70	4,124.33	49.98	23.44	-71.52	-1,096.76	347.10	1,889.31	1,824.87	64.44	29.319
6,700.00	4,658.85	4,272.50	4,091.97	51.37	23.22	-70.40	-1,086.07	344.31	1,938.76	1,874.35	64.42	30.097
6,800.00	4,659.46	4,249.37	4,070.08	52.83	23.07	-69.65	-1,078.82	342.43	1,991.62	1,927.15	64.46	30.895
6,900.00	4,660.07	4,226.52	4,048.45	54.35	22.92	-68.91	-1,071.71	340.54	2,047.69	1,983.21	64.48	31.759
7,000.00	4,660.68	4,203.79	4,026.92	55.94	22.77	-68.18	-1,064.68	338.65	2,106.72	2,042.26	64.46	32.683
7,100.00	4,661.29	4,143.53	3,970.01	57.58	22.38	-66.26	-1,045.62	333.38	2,168.21	2,104.12	64.09	33.832

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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6894+25 @ 6919.00ft

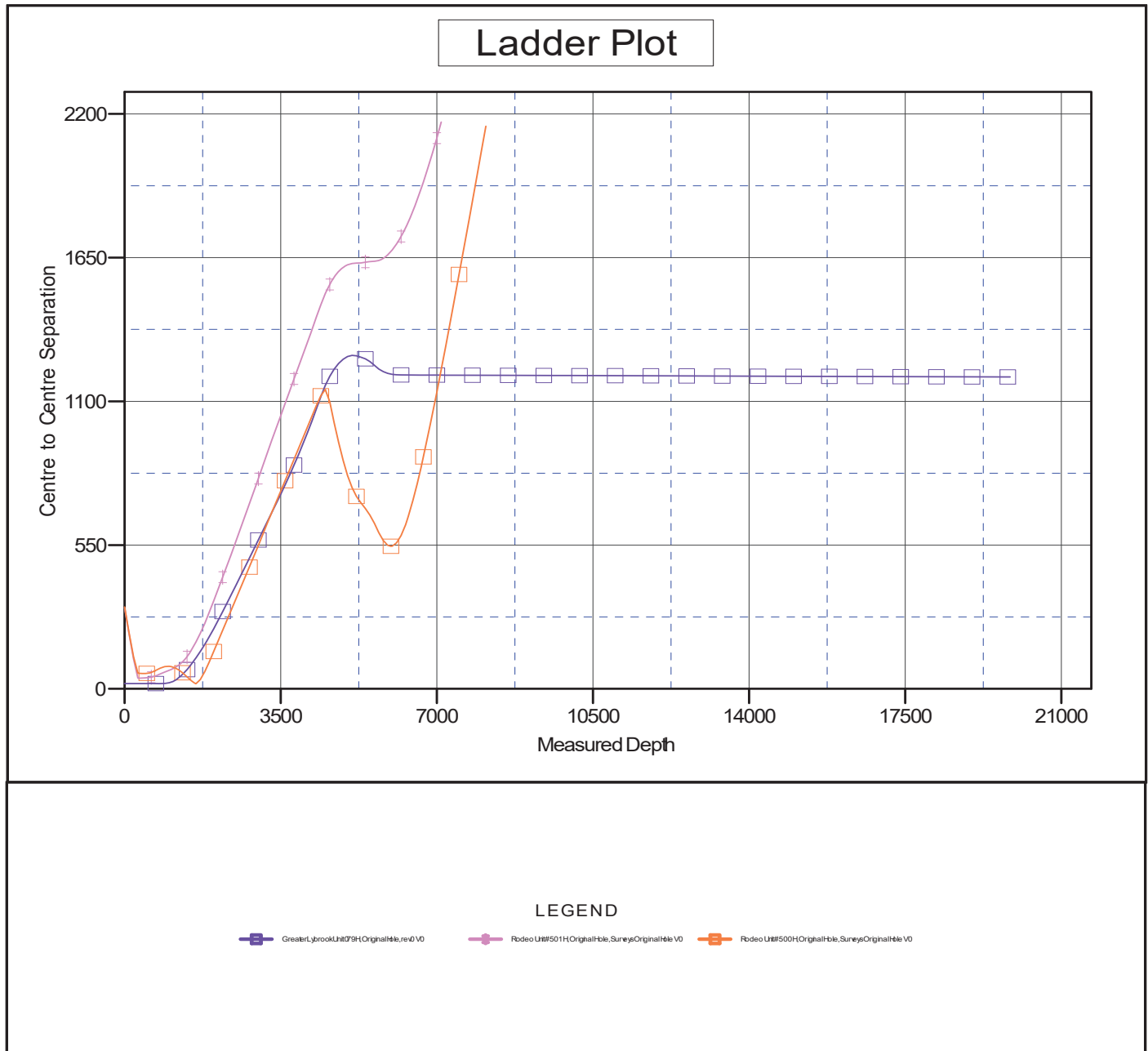
Offset Depths are relative to Offset Datum

Central Meridian is -107.833333333

Coordinates are relative to: Greater Lybrook Unit 081H

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

Grid Convergence at Surface is: 0.07°



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 Greater Lybrook Unit 081H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6894+25 @ 6919.00ft
Reference Site:	Greater Lybrook Unit (79 & 81)	MD Reference:	RKB=6894+25 @ 6919.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 081H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6894+25 @ 6919.00ft

Offset Depths are relative to Offset Datum

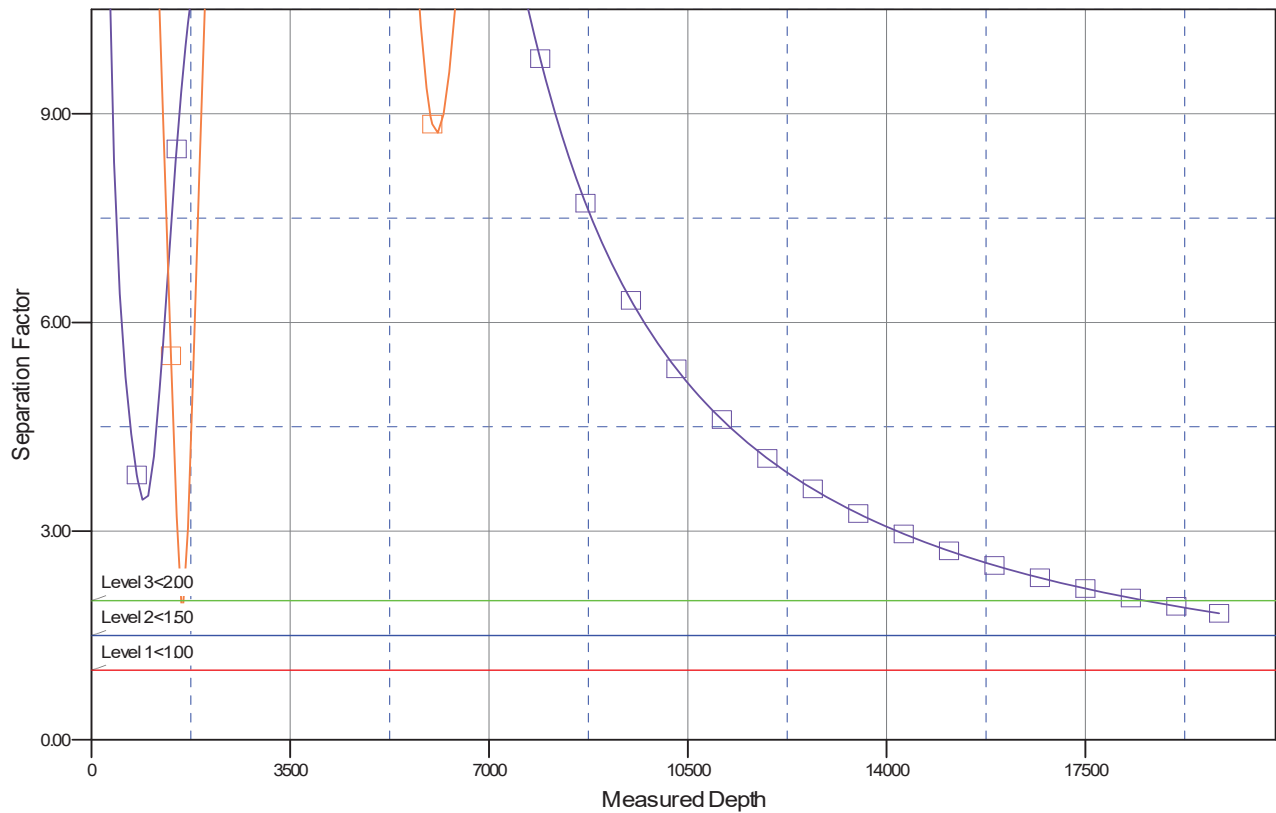
Central Meridian is -107.833333333

Coordinates are relative to: Greater Lybrook Unit 081H

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

Grid Convergence at Surface is: 0.07°

Separation Factor Plot



LEGEND

Greater Lybrook Unit 081H Original Hole, rev0 V0
 Rodeo Unit 501H Original Hole, Surveys Original Hole V0
 Rodeo Unit 500H Original Hole, Surveys Original Hole 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
#081H GREATER LYBROOK UNIT
Lease: NMNM23741 Agreement: NMNM144419X

SH: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 18, T. 23N., R. 08W.
San Juan County, New Mexico
BH: NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 11, T. 23N., R. 09W.
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. 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.
- L. 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.
- M. **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.

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 524876

ACKNOWLEDGMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 524876
	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
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 524876

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 524876
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
sford	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/10/2025
sford	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/10/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	12/22/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/22/2025
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.	12/22/2025
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.	12/22/2025