

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-045-38472
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

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

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

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

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 07/24/2025

Additional Operator Remarks

Location of Well

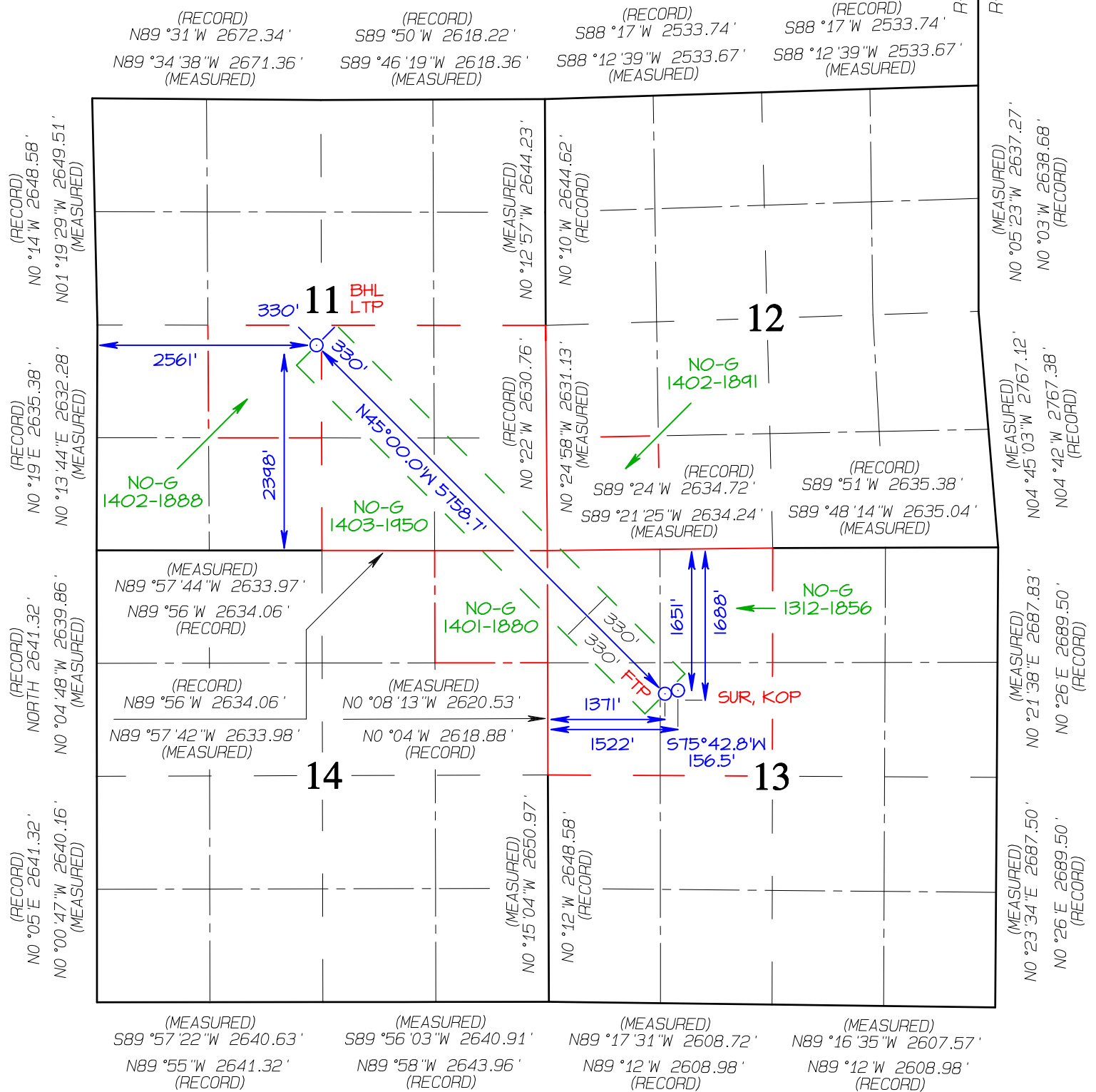
0. SHL: SENW / 1651 FNL / 1522 FWL / TWSP: 23N / RANGE: 9W / SECTION: 13 / LAT: 36.229648 / LONG: -107.744103 (TVD: 0 feet, MD: 0 feet)
PPP: SENW / 1688 FNL / 1371 FWL / TWSP: 23N / RANGE: 9W / SECTION: 13 / LAT: 36.229542 / LONG: -107.744617 (TVD: 4280 feet, MD: 4388 feet)
PPP: NWNW / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 13 / LAT: 36.23332 / LONG: -107.749272 (TVD: 4375 feet, MD: 10302 feet)
PPP: SESE / 0 FSL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 11 / LAT: 36.23414 / LONG: -107.750283 (TVD: 4375 feet, MD: 10302 feet)
PPP: NENE / 0 FNL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 14 / LAT: 36.23332 / LONG: -107.749272 (TVD: 4375 feet, MD: 10302 feet)
BHL: NESW / 2398 FSL / 2561 FWL / TWSP: 23N / RANGE: 9W / SECTION: 11 / LAT: 36.240738 / LONG: -107.758414 (TVD: 4375 feet, MD: 10302 feet)

BLM Point of Contact

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

CONFIDENTIAL

WELL LOCATION INFORMATION



BOTTOM HOLE LOCATION (BHL)
2398' FSL 2561' FWL
SECTION 11, T23N, R9W

LAT 36.240738 °N
LONG -107.758414 °W
DATUM: NAD1983

LAST TAKE POINT (LTP)
2398' FSL 2561' FWL
SECTION 11, T23N, R9W

LAT 36.240738 °N
LONG -107.758414 °W
DATUM: NAD1983

SURFACE LOCATION (SHL)
1651' FNL 1522' FWL
SECTION 13, T23N, R9W

LAT 36.229648 °N
LONG -107.744103 °W
DATUM: NAD1983

KICK OFF POINT (KOP)
1651' FNL 1522' FWL
SECTION 13, T23N, R9W

LAT 36.229648 °N
LONG -107.744103 °W
DATUM: NAD1983

FIRST TAKE POINT (FTP)
1688' FNL 1371' FWL
SECTION 13, T23N, R9W

LAT 36.229542 °N
LONG -107.744617 °W
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 Resources, LLC **OGRID:** 372286 **Date:** 09 / 19 / 2024

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

If Other, please describe: _____

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 065H	TBD	F-13-23N-9W	1651 FNL x 1522 FWL	210	210	84
Greater Lybrook Unit 067H	TBD	F-13-23N-9W	1635 FNL x 1509 FWL	252	252	101
Greater Lybrook Unit 069H	TBD	F-13-23N-9W	1620 FNL x 1496 FWL	263	263	105
Greater Lybrook Unit 073H	TBD	F-13-23N-9W	1605 FNL x 1483 FWL	323	323	129
Greater Lybrook Unit 075H	TBD	F-13-23N-9W	1589 FNL x 1470 FWL	314	314	125
Greater Lybrook Unit 077H	TBD	F-13-23N-9W	1574 FNL x 1458 FWL	269	269	108
				3-year Decline	3-year Decline	3-year Decline
Greater Lybrook Unit 065H	TBD	F-13-23N-9W	1651 FNL x 1522 FWL	80	80	32
Greater Lybrook Unit 067H	TBD	F-13-23N-9W	1635 FNL x 1509 FWL	96	96	38
Greater Lybrook Unit 069H	TBD	F-13-23N-9W	1620 FNL x 1496 FWL	100	100	40
Greater Lybrook Unit 073H	TBD	F-13-23N-9W	1605 FNL x 1483 FWL	123	123	49
Greater Lybrook Unit 075H	TBD	F-13-23N-9W	1589 FNL x 1470 FWL	119	119	48
Greater Lybrook Unit 077H	TBD	F-13-23N-9W	1574 FNL x 1458 FWL	102	102	41

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 065H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Greater Lybrook Unit 067H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Greater Lybrook Unit 069H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Greater Lybrook Unit 073H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Greater Lybrook Unit 075H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025
Greater Lybrook Unit 077H	TBD	Q3 2025	Q3 2025	Q3 2025	Q3 2025	Q3 2025

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: <i>Shaw-Marie Ford</i>
Printed Name: Shaw-Marie Ford
Title: Regulatory Specialist
E-mail Address: sford@enduringresources.com
Date: 09/19/2024
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.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
Greater Lybrook Unit 065H, 067H, 069H, 073H, 075H, 077H

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.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
Greater Lybrook Unit 065H, 067H, 069H, 073H, 075H, 077H

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.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
Greater Lybrook Unit 065H, 067H, 069H, 073H, 075H, 077H

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.



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 its designed with an auto ignition system.
3. Flare stacks will appropriately sized and designed to ensure proper combustion efficiency.
 - a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.



- b. Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous pilot, or technology that alerts 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.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
Greater Lybrook Unit 065H, 067H, 069H, 073H, 075H, 077H

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 065H

API Number: Not yet assigned

State: New Mexico

County: San Juan

Surface Elevation: 6,694 ft ASL (GL) 6,718 ft ASL (KB)

Surface Location: 13-23-9 Sec-Twn-Rng 1,651 ft FNL 1,522 ft FWL

36.229648 ° N latitude 107.744103 ° W longitude (NAD 83)

BH Location: 11-23-9 Sec-Twn-Rng 2,398 ft FSL 2,561 ft FWL

36.240738 ° N latitude 107.758414 ° 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 (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on 7890 for 1.3 miles to fork; Right (NW) for 0.7 mi to Y; Right (NorthEast) for 0.3 miles to location access on left into Greater Lybrook Unit 065 PAD -There are 6 wells on this pad: from SouthEast to NorthWest (location entrance) GLU 065H, 067H, 069H, 073H, 075H and 077H.

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
Ojo Alamo	6,220	498	498	W	normal
Kirtland	6,120	598	598	W	normal
Fruitland	5,960	758	758	G, W	sub
Pictured Cliffs	5,580	1,138	1,138	G, W	sub
Lewis	5,465	1,253	1,254	G, W	normal
Chacra	5,230	1,488	1,492	G, W	normal
Cliff House	4,136	2,582	2,606	G, W	sub
Menefee	4,126	2,592	2,616	G, W	normal
Point Lookout	3,161	3,557	3,584	G, W	normal
Mancos	2,996	3,722	3,749	O,G	sub (~0.38)
Gallup (MNCS_A)	2,666	4,052	4,087	O,G	sub (~0.38)
MNCS_B	2,571	4,147	4,198	O,G	sub (~0.38)
MNCS_C	2,475	4,243	4,327	O,G	sub (~0.38)
MNCS_Cms	2,438	4,280	4,388	O,G	sub (~0.38)
FTP TARGET	2,438	4,280	4,388	O,G	sub (~0.38)
PROJECTED TD	2,317	4,401	10,302	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: 1,900 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 940 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S Zones: Encountering hydrogen-sulfide bearing zones is **NOT** anticipated.

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

LOGGING, CORING, AND TESTING:

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

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

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

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

DRILLING RIG INFORMATION:

Contractor: Ensign

Rig No.: 140

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

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

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

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

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

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

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

Choke 3", 5,000 psi

KB-Gl (ft): 23.5

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

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.
- 2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
- 3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
- 4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 5) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when the there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:**Fluid Measurement:**

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

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

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

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

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

DETAILED DRILLING PLAN:

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

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

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

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

Hole Size: 12-1/4"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	K-55	STC	2,020	3,520	564,000	423,000
Loading					153	939	110,988	110,988
Min. S.F.					13.21	3.75	5.08	3.81

Assumptions: *Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient*

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling intermediate hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

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

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

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

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

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

Csg ID

8.921

Mesa Ready Mix or first available

Shoe Track L

44

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

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

350 ft (MD)	to	4,641 ft (MD)	Hole Section Length:	4,291 ft
350 ft (TVD)	to	4,375 ft (TVD)	Casing Required:	4,641 ft

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

Hole Size: 8.75**Bit / Motor:** 8-3/4" PDC bit w/mud motor**MWD / Survey:** MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional**Logging:** None**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	7	26.0	K-55	LTC	4,320	4,980	415,000	367,000
Loading					1,911	1,190	205,227	205,227
Min. S.F.					2.26	4.18	2.02	1.79

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 production hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minimum: 3,400 Optimum: 4,530 Maximum: 5,660**Centralizers:** 1 per joint in non-vertical hole; 1 per 2-joints in vertical hole

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	421	901
Tail	Type III	14.6	1.380	6.64	20%	3,649	137	188

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

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

Drake Intermediate Cementing Program

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.**PRODUCTION: Drill to TD following directional plan, run casing, cement casing to surface.**

4,641 ft (MD)	to	10,302 ft (MD)	Hole Section Length:	5,661 ft
4,375 ft (TVD)	to	4,401 ft (TVD)	Casing Required:	5,811 ft
Estimated KOP:		3,836 ft (MD)	3,809 ft (TVD)	
Estimated Liner Top:		4,491 ft (MD)	4,331 ft (TVD)	
Estimated Landing Point (FTP):		4,388 ft (MD)	4,280 ft (TVD)	
Estimated Lateral Length:		5,914 ft (MD)		

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

Hole Size: 6.125**Bit / Motor:** 6-1/8" PDC bit w/mud motor**MWD / Survey:** MWD with GR, inclination, and azimuth (survey every joint from KOP to Landing Point and survey every 100' minimum before KOP and after Landing Point)

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

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

Liner/Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	4.500	11.6	P-110	BTC	7,560	10,690	367,000	385,000
Loading					2,174	8,752	203,120	203,120
Min. S.F.					3.48	1.22	1.81	1.90

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

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

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

Cement:	Type	Weight (ppg)	Yield	Water	% Excess	Planned TOC	Total Cmt	Total Cmt (cu)
Spacer	IntegraGuard Star	11		31.6		0	20 bbls	
Tail	G:POZ blend	13.3	1.560	7.70	30%	4,491	487	760
Displacement	135	est bbls						

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

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

American Cementing Liner & Production Blend

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

Note: This well will not be considered an unorthodox well location as defined by NMAC19.15.16.15.C.5. As defined in

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 5,814

Est Frac Inform: 24 Frac Stages 94,000 bbls slick water 7,560,000 lbs proppant

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

Flowback: Flow back through production tubing as pressures allow

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

ESTIMATED START DATES:

Drilling: 8/16/2024

Completion: 10/15/2024

Production: 11/29/2024

Prepared by: Greg Olson 6/10/2024

Updated:

WELL NAME: Greater Lybrook Unit 065H

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.: 6,694 ft ASL (GL) 6,718 ft ASL (KB)

Surface Location: 13-23-9 Sec-Twn- Rng 1,651 ft FNL 1,522 ft FWL

BH Location: 11-23-9 Sec-Twn- Rng 2398 ft FSL 2561 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 (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on 7890 for 1.3 miles to fork; Right (NW) for 0.7 mi to Y; Right (NorthEast) for 0.3 miles to location access on left into Greater Lybrook Unit 065 PAD -There are 6 wells on this pad: from SouthEast to NorthWest (location entrance) GLU 065H, 067H, 069H, 073H, 075H and 077H.

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	4,641 ft
KOP (MD)	3,836 ft
KOP (TVD)	3,809 ft
Target (TVD)	4,280 ft
Curve BUR	10 °/100 ft
POE (MD)	4,388 ft
TD (MD)	10,302 ft
Lat Len (ft)	5,914 ft

WELL CONSTRUCTION SUMMARY:

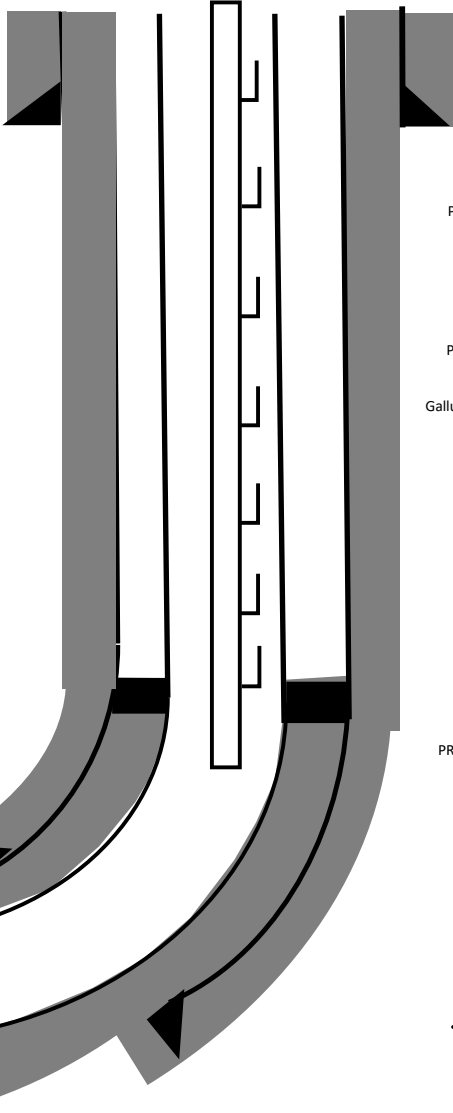
	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	12.250	350	9.625	36	K-55	STC	0	350
Intermediate	8.750	4,641	7	26.0	K-55	LTC	0	4,641
Production	6.125	10,302	4.500	11.6	P-110	BTC	4,491	10,302

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE I-II	14.5	1.61	7.41	0.3132	50%	0	114
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.1668	70%	0	421
Inter. (Tail)	Type III	14.6	1.38	6.64	0.1503	20%	3,649	137
Prod. (Lead)	0	0	0.000	0	0.1044	0%	0	0
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.0873	30%	4,491	487

COMPLETION / PRODUCTION SUMMARY:

Frac: 39 plug-and-perf stages with 150,000 bbls slickwater fluid and 12,100,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow
Production: Produce through production tubing via gas-lift into permanent production and storage facilities



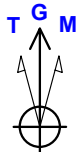
Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	498	498
Kirtland	598	598
Fruitland	758	758
Pictured Cliffs	1,138	1,138
Lewis	1,253	1,254
Chacra	1,488	1,492
Cliff House	2,582	2,606
Menefee	2,592	2,616
Point Lookout	3,557	3,584
Mancos	3,722	3,749
Gallup (MNCS_A)	4,052	4,087
MNCS_B	4,147	4,198
MNCS_C	4,243	4,327
MNCS_Cms	4,280	4,388
MNCS_D	4,418	NA
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
FTP TARGET	4,280	4,388
PROJECTED TD	4,401	10,302



Well: Greater Lybrook Unit 065H
Site: Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

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=6694+23.5 @ 6717.50ft

Surface location:
Northing 1902902.04 Easting 2749408.14 Latitude 36.22964800 Longitude -107.74410300



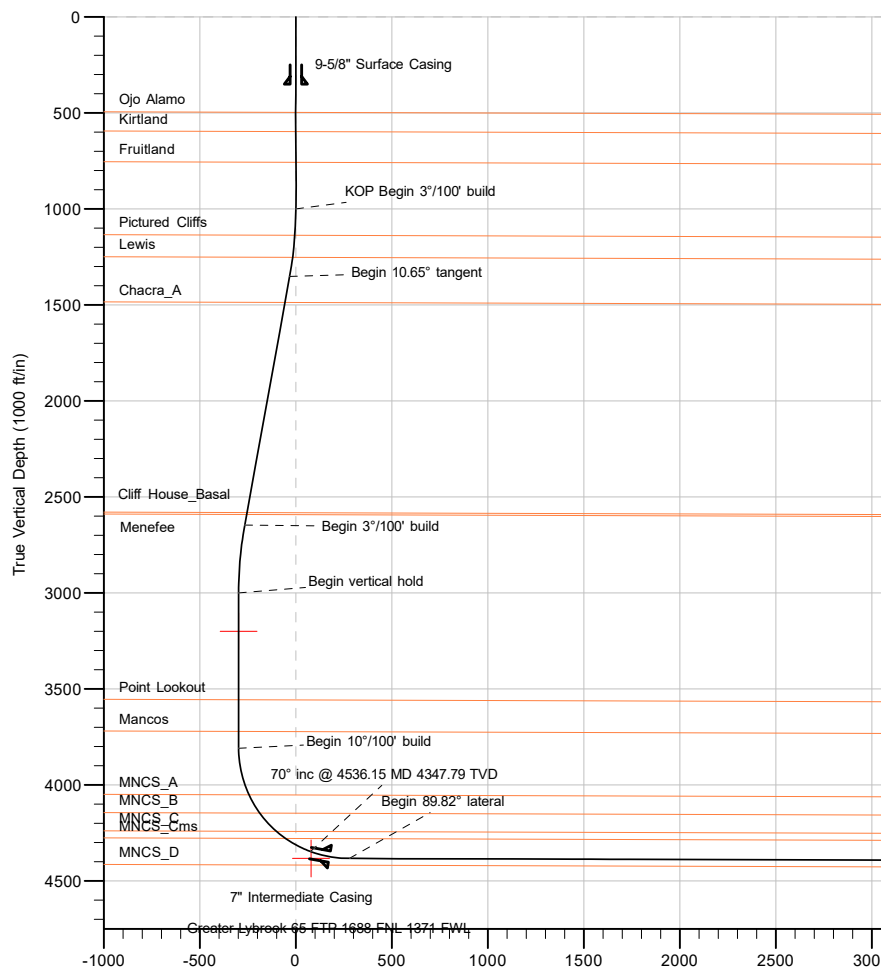
Azimuths to Grid North
True North: -0.05°
Magnetic North: 8.44°

Magnetic Field
Strength: 49015.9nT
Dip Angle: 62.68°
Date: 5/3/2024
Model: IGRF2020

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.44°

CASING DETAILS

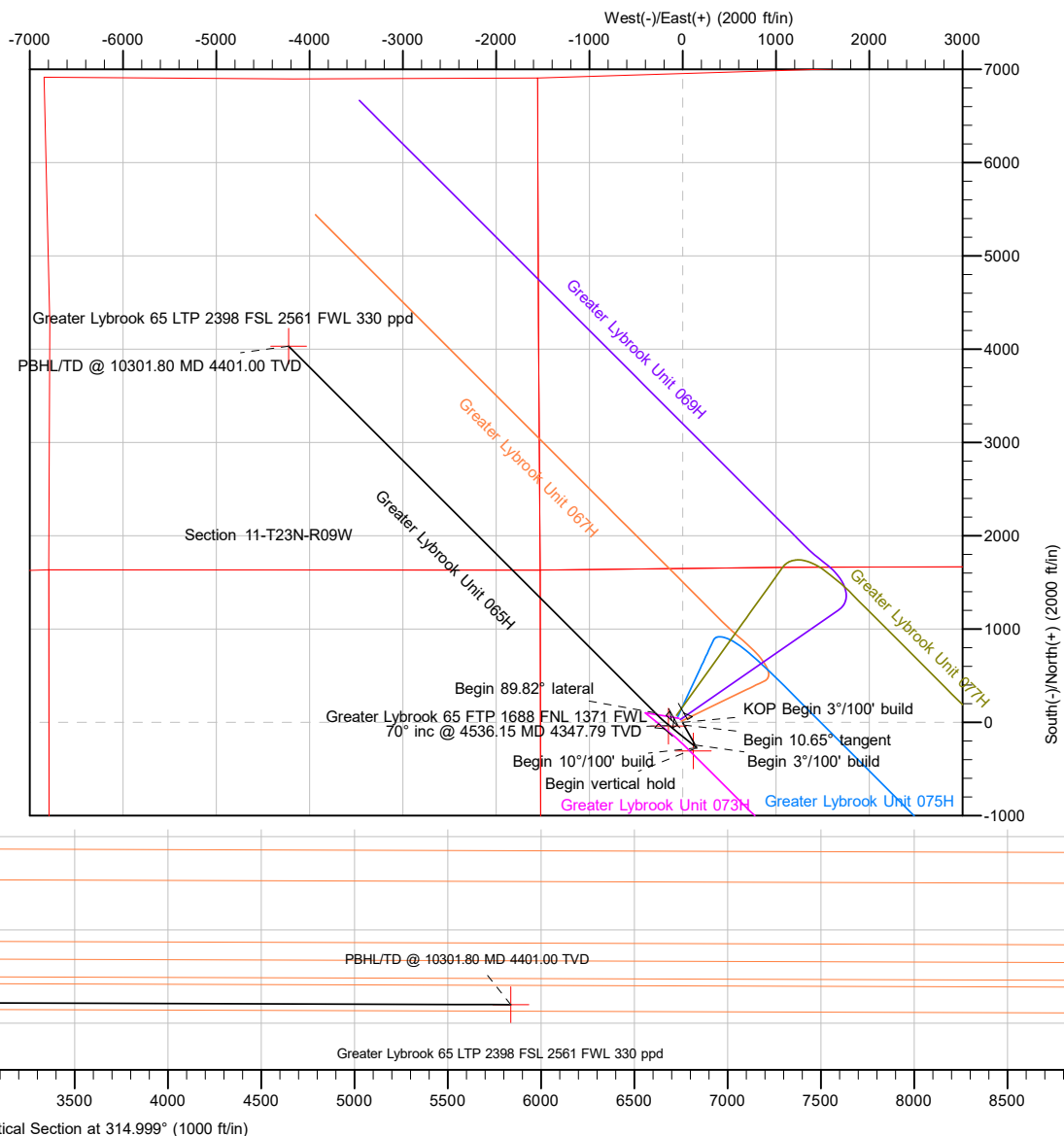
TVD	MD	Name
350.00	350.00	9-5/8" Surface Casing
4374.25	4637.49	7" Intermediate Casing



Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V/Sect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3"/100' build
3	1354.99	10.65	150.969	1352.95	-28.76	15.96	3.00	150.97	-31.63	Begin 10.65" tangent
4	2671.77	10.65	150.969	2647.05	-241.54	134.06	0.00	0.00	-265.58	Begin 3"/100' build
5	3026.76	0.00	0.000	3000.00	-270.30	150.02	3.00	180.00	-297.21	Begin vertical hold
6	3836.15	0.00	0.000	3809.39	-270.30	150.02	0.00	0.00	-297.21	Begin 10"/100' build
7	4536.15	70.00	309.000	4347.79	-33.05	-142.96	10.00	309.00	77.72	70" inc @ 4536.15 MD 4347.79 TVD
8	4742.91	89.82	315.001	4383.86	102.66	-293.19	10.00	17.22	279.91	Begin 89.82" lateral
9	10301.80	89.82	315.001	4401.00	4033.44	-4223.84	0.00	0.00	5838.78	PBHL/TD @ 10301.80 MD 4401.00 TVD

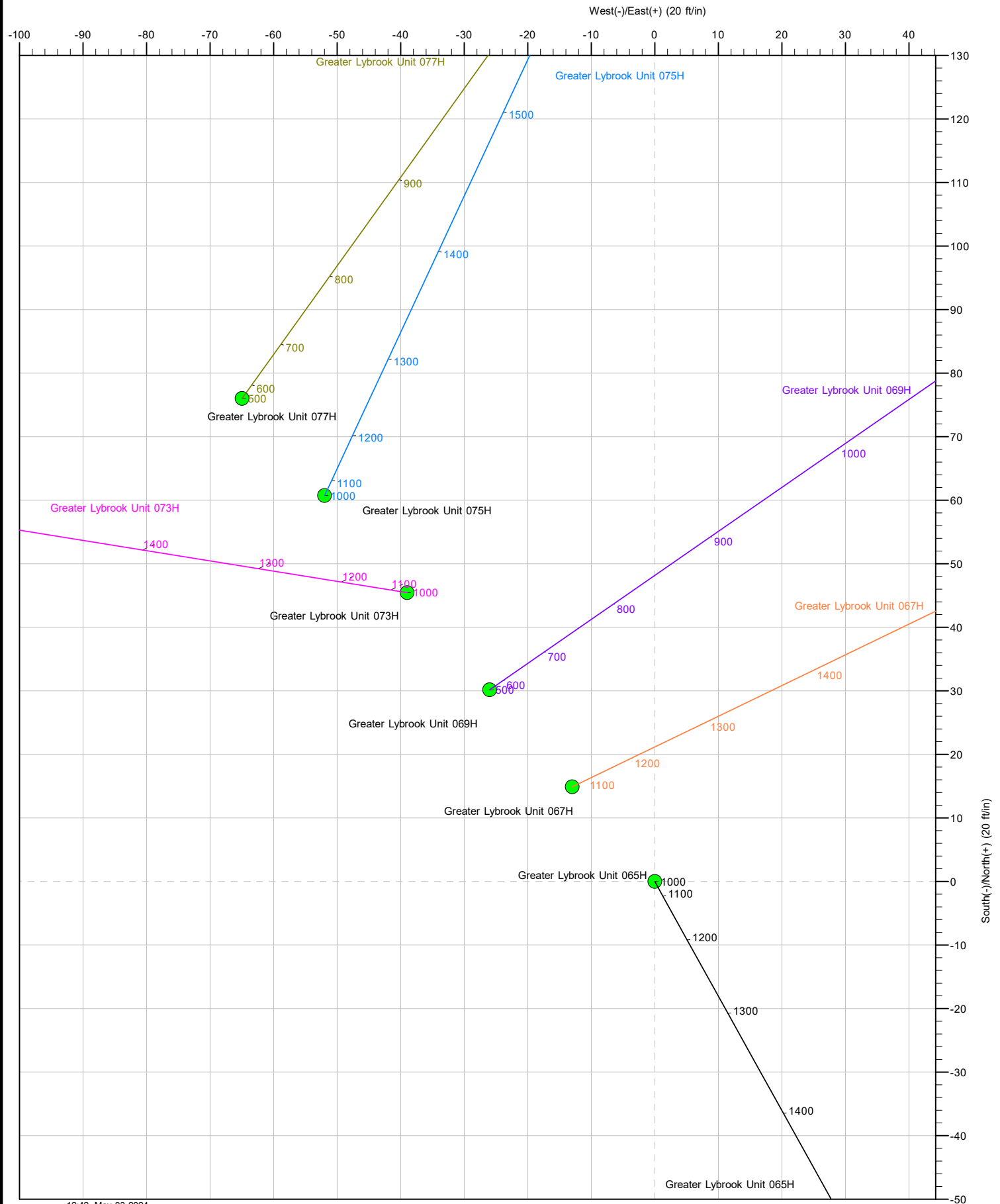
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Greater Lybrook 65 FTP 1688 FNL 1371 FWL	4383.25	-38.73	-151.56	1902863.32	2749256.59	36.22954200	-107.74461700
Greater Lybrook 65 LTP 2398 FSL 2561 FWL 330 ppd	4401.00	4033.44	-4223.84	1906935.47	2745184.31	36.24073800	-107.75841400
Greater Lybrook 65 vert	3200.00	-305.30	115.02	1902596.74	2749523.16	36.22880902	-107.74371396





Well: Greater Lybrook Unit 065H
Site: Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:



12:42, May 03 2024



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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 (65, 67, 69, 73, 75 & 77)			
Site Position:		Northing:	1,902,902.05 usft	Latitude: 36.22964800
From:	Lat/Long	Easting:	2,749,408.14 usft	Longitude: -107.74410300
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	

Well	Greater Lybrook Unit 065H, Surf loc: 1651 FNL 1522 FWL Section 13-T23N-R09W			
Well Position	+N/-S	0.00 ft	Northing:	1,902,902.05 usft
	+E/-W	0.00 ft	Easting:	2,749,408.14 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
Grid Convergence:		0.05 °	Ground Level:	6,694.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/3/2024	8.49	62.68	49,015.91607116

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	314.999

Plan Survey Tool Program	Date	5/3/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,301.80	rev0 (Original Hole)	MWD
				OWSG MWD - Standard



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,354.99	10.65	150.969	1,352.95	-28.76	15.96	3.00	3.00	0.00	150.97	
2,671.77	10.65	150.969	2,647.05	-241.54	134.06	0.00	0.00	0.00	0.00	
3,026.76	0.00	0.000	3,000.00	-270.30	150.02	3.00	-3.00	0.00	180.00	
3,836.15	0.00	0.000	3,809.39	-270.30	150.02	0.00	0.00	0.00	0.00	
4,536.15	70.00	309.000	4,347.79	-33.05	-142.96	10.00	10.00	0.00	309.00	
4,742.91	89.82	315.001	4,383.86	102.66	-293.19	10.00	9.59	2.90	17.22	
10,301.80	89.82	315.001	4,401.00	4,033.44	-4,223.84	0.00	0.00	0.00	0.00	Greater Lybrook 65 L



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.000	350.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8" Surface Casing									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
498.00	0.00	0.000	498.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
598.00	0.00	0.000	598.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
758.00	0.00	0.000	758.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
1,100.00	3.00	150.969	1,099.95	-2.29	1.27	-2.52	3.00	3.00	0.00
1,138.11	4.14	150.969	1,137.98	-4.36	2.42	-4.80	3.00	3.00	0.00
Pictured Cliffs									
1,200.00	6.00	150.969	1,199.63	-9.15	5.08	-10.06	3.00	3.00	0.00
1,253.69	7.61	150.969	1,252.95	-14.71	8.16	-16.18	3.00	3.00	0.00
Lewis									
1,300.00	9.00	150.969	1,298.77	-20.56	11.41	-22.61	3.00	3.00	0.00
1,354.99	10.65	150.969	1,352.95	-28.76	15.96	-31.63	3.00	3.00	0.00
Begin 10.65° tangent									
1,400.00	10.65	150.969	1,397.18	-36.04	20.00	-39.62	0.00	0.00	0.00
1,492.23	10.65	150.969	1,487.82	-50.94	28.27	-56.01	0.00	0.00	0.00
Chacra_A									
1,500.00	10.65	150.969	1,495.46	-52.19	28.97	-57.39	0.00	0.00	0.00
1,600.00	10.65	150.969	1,593.74	-68.35	37.94	-75.16	0.00	0.00	0.00
1,700.00	10.65	150.969	1,692.02	-84.51	46.91	-92.93	0.00	0.00	0.00
1,800.00	10.65	150.969	1,790.29	-100.67	55.87	-110.69	0.00	0.00	0.00
1,900.00	10.65	150.969	1,888.57	-116.83	64.84	-128.46	0.00	0.00	0.00
2,000.00	10.65	150.969	1,986.85	-132.99	73.81	-146.23	0.00	0.00	0.00
2,100.00	10.65	150.969	2,085.13	-149.15	82.78	-163.99	0.00	0.00	0.00
2,200.00	10.65	150.969	2,183.40	-165.30	91.75	-181.76	0.00	0.00	0.00
2,300.00	10.65	150.969	2,281.68	-181.46	100.71	-199.53	0.00	0.00	0.00
2,400.00	10.65	150.969	2,379.96	-197.62	109.68	-217.30	0.00	0.00	0.00
2,500.00	10.65	150.969	2,478.24	-213.78	118.65	-235.06	0.00	0.00	0.00
2,600.00	10.65	150.969	2,576.51	-229.94	127.62	-252.83	0.00	0.00	0.00
2,605.79	10.65	150.969	2,582.20	-230.87	128.14	-253.86	0.00	0.00	0.00
Cliff House_Basal									
2,615.96	10.65	150.969	2,592.20	-232.52	129.05	-255.67	0.00	0.00	0.00
Menefee									
2,671.77	10.65	150.969	2,647.05	-241.54	134.06	-265.58	0.00	0.00	0.00
Begin 3°/100' build									
2,700.00	9.80	150.969	2,674.83	-245.92	136.49	-270.40	3.00	-3.00	0.00
2,800.00	6.80	150.969	2,773.77	-258.54	143.49	-284.28	3.00	-3.00	0.00
2,900.00	3.80	150.969	2,873.33	-266.62	147.98	-293.17	3.00	-3.00	0.00



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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)
3,000.00	0.80	150.969	2,973.24	-270.14	149.93	-297.03	3.00	-3.00	0.00
3,026.76	0.00	0.000	3,000.00	-270.30	150.02	-297.21	3.00	-3.00	0.00
Begin vertical hold									
3,100.00	0.00	0.000	3,073.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,200.00	0.00	0.000	3,173.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,300.00	0.00	0.000	3,273.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,400.00	0.00	0.000	3,373.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,500.00	0.00	0.000	3,473.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,583.83	0.00	0.000	3,557.07	-270.30	150.02	-297.21	0.00	0.00	0.00
Point Lookout									
3,600.00	0.00	0.000	3,573.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,700.00	0.00	0.000	3,673.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,748.83	0.00	0.000	3,722.07	-270.30	150.02	-297.21	0.00	0.00	0.00
Mancos									
3,800.00	0.00	0.000	3,773.24	-270.30	150.02	-297.21	0.00	0.00	0.00
3,836.15	0.00	0.000	3,809.39	-270.30	150.02	-297.21	0.00	0.00	0.00
Begin 10°/100' build									
3,850.00	1.38	309.000	3,823.24	-270.19	149.89	-297.04	10.00	10.00	0.00
3,900.00	6.38	309.000	3,873.11	-268.06	147.26	-293.68	10.00	10.00	0.00
3,950.00	11.38	309.000	3,922.49	-263.21	141.26	-286.00	10.00	10.00	0.00
4,000.00	16.38	309.000	3,971.01	-255.66	131.94	-274.07	10.00	10.00	0.00
4,050.00	21.38	309.000	4,018.31	-245.48	119.36	-257.98	10.00	10.00	0.00
4,086.93	25.08	309.000	4,052.24	-236.31	108.05	-243.50	10.00	10.00	0.00
MNCS_A									
4,100.00	26.38	309.000	4,064.01	-232.74	103.64	-237.85	10.00	10.00	0.00
4,150.00	31.38	309.000	4,107.78	-217.54	84.87	-213.84	10.00	10.00	0.00
4,197.69	36.15	309.000	4,147.41	-200.87	64.28	-187.48	10.00	10.00	0.00
MNCS_B									
4,200.00	36.38	309.000	4,149.27	-200.01	63.21	-186.12	10.00	10.00	0.00
4,250.00	41.38	309.000	4,188.18	-180.26	38.83	-154.92	10.00	10.00	0.00
4,300.00	46.38	309.000	4,224.20	-158.45	11.90	-120.46	10.00	10.00	0.00
4,327.49	49.13	309.000	4,242.69	-145.65	-3.91	-100.22	10.00	10.00	0.00
MNCS_C									
4,350.00	51.38	309.000	4,257.07	-134.76	-17.36	-83.01	10.00	10.00	0.00
4,388.08	55.19	309.000	4,279.83	-115.55	-41.09	-52.65	10.00	10.00	0.00
MNCS_Cms									
4,400.00	56.38	309.000	4,286.53	-109.34	-48.74	-42.85	10.00	10.00	0.00
4,450.00	61.38	309.000	4,312.36	-82.41	-82.00	-0.29	10.00	10.00	0.00
4,500.00	66.38	309.000	4,334.37	-54.17	-116.88	44.34	10.00	10.00	0.00
4,536.15	70.00	309.000	4,347.79	-33.05	-142.96	77.72	10.00	10.00	0.00
70° inc @ 4536.15 MD 4347.79 TVD									
4,550.00	71.32	309.433	4,352.38	-24.79	-153.08	90.72	10.00	9.56	3.13
4,600.00	76.11	310.944	4,366.40	6.18	-189.73	138.53	10.00	9.57	3.02
4,637.49	79.70	312.035	4,374.25	30.46	-217.18	175.11	10.00	9.59	2.91
7" Intermediate Casing									
4,650.00	80.90	312.393	4,376.36	38.75	-226.32	187.43	10.00	9.59	2.86
4,700.00	85.70	313.805	4,382.19	72.67	-262.56	237.05	10.00	9.60	2.82
4,742.91	89.82	315.001	4,383.86	102.66	-293.19	279.91	10.00	9.60	2.79
Begin 89.82° lateral									
4,800.00	89.82	315.001	4,384.04	143.03	-333.56	337.00	0.00	0.00	0.00
4,900.00	89.82	315.001	4,384.35	213.74	-404.26	437.00	0.00	0.00	0.00
5,000.00	89.82	315.001	4,384.66	284.45	-474.97	537.00	0.00	0.00	0.00
5,100.00	89.82	315.001	4,384.96	355.17	-545.68	637.00	0.00	0.00	0.00



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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)
5,200.00	89.82	315.001	4,385.27	425.88	-616.39	737.00	0.00	0.00	0.00
5,300.00	89.82	315.001	4,385.58	496.59	-687.10	837.00	0.00	0.00	0.00
5,400.00	89.82	315.001	4,385.89	567.30	-757.81	937.00	0.00	0.00	0.00
5,500.00	89.82	315.001	4,386.20	638.01	-828.52	1,037.00	0.00	0.00	0.00
5,600.00	89.82	315.001	4,386.51	708.72	-899.23	1,137.00	0.00	0.00	0.00
5,700.00	89.82	315.001	4,386.81	779.43	-969.94	1,237.00	0.00	0.00	0.00
5,800.00	89.82	315.001	4,387.12	850.15	-1,040.65	1,337.00	0.00	0.00	0.00
5,900.00	89.82	315.001	4,387.43	920.86	-1,111.36	1,436.99	0.00	0.00	0.00
6,000.00	89.82	315.001	4,387.74	991.57	-1,182.07	1,536.99	0.00	0.00	0.00
6,100.00	89.82	315.001	4,388.05	1,062.28	-1,252.77	1,636.99	0.00	0.00	0.00
6,200.00	89.82	315.001	4,388.35	1,132.99	-1,323.48	1,736.99	0.00	0.00	0.00
6,300.00	89.82	315.001	4,388.66	1,203.70	-1,394.19	1,836.99	0.00	0.00	0.00
6,400.00	89.82	315.001	4,388.97	1,274.42	-1,464.90	1,936.99	0.00	0.00	0.00
6,500.00	89.82	315.001	4,389.28	1,345.13	-1,535.61	2,036.99	0.00	0.00	0.00
6,600.00	89.82	315.001	4,389.59	1,415.84	-1,606.32	2,136.99	0.00	0.00	0.00
6,700.00	89.82	315.001	4,389.90	1,486.55	-1,677.03	2,236.99	0.00	0.00	0.00
6,800.00	89.82	315.001	4,390.20	1,557.26	-1,747.74	2,336.99	0.00	0.00	0.00
6,900.00	89.82	315.001	4,390.51	1,627.97	-1,818.45	2,436.99	0.00	0.00	0.00
7,000.00	89.82	315.001	4,390.82	1,698.68	-1,889.16	2,536.99	0.00	0.00	0.00
7,100.00	89.82	315.001	4,391.13	1,769.40	-1,959.87	2,636.99	0.00	0.00	0.00
7,200.00	89.82	315.001	4,391.44	1,840.11	-2,030.58	2,736.99	0.00	0.00	0.00
7,300.00	89.82	315.001	4,391.75	1,910.82	-2,101.28	2,836.99	0.00	0.00	0.00
7,400.00	89.82	315.001	4,392.05	1,981.53	-2,171.99	2,936.99	0.00	0.00	0.00
7,500.00	89.82	315.001	4,392.36	2,052.24	-2,242.70	3,036.99	0.00	0.00	0.00
7,600.00	89.82	315.001	4,392.67	2,122.95	-2,313.41	3,136.99	0.00	0.00	0.00
7,700.00	89.82	315.001	4,392.98	2,193.66	-2,384.12	3,236.99	0.00	0.00	0.00
7,800.00	89.82	315.001	4,393.29	2,264.38	-2,454.83	3,336.99	0.00	0.00	0.00
7,900.00	89.82	315.001	4,393.60	2,335.09	-2,525.54	3,436.99	0.00	0.00	0.00
8,000.00	89.82	315.001	4,393.90	2,405.80	-2,596.25	3,536.98	0.00	0.00	0.00
8,100.00	89.82	315.001	4,394.21	2,476.51	-2,666.96	3,636.98	0.00	0.00	0.00
8,200.00	89.82	315.001	4,394.52	2,547.22	-2,737.67	3,736.98	0.00	0.00	0.00
8,300.00	89.82	315.001	4,394.83	2,617.93	-2,808.38	3,836.98	0.00	0.00	0.00
8,400.00	89.82	315.001	4,395.14	2,688.65	-2,879.09	3,936.98	0.00	0.00	0.00
8,500.00	89.82	315.001	4,395.45	2,759.36	-2,949.80	4,036.98	0.00	0.00	0.00
8,600.00	89.82	315.001	4,395.75	2,830.07	-3,020.50	4,136.98	0.00	0.00	0.00
8,700.00	89.82	315.001	4,396.06	2,900.78	-3,091.21	4,236.98	0.00	0.00	0.00
8,800.00	89.82	315.001	4,396.37	2,971.49	-3,161.92	4,336.98	0.00	0.00	0.00
8,900.00	89.82	315.001	4,396.68	3,042.20	-3,232.63	4,436.98	0.00	0.00	0.00
9,000.00	89.82	315.001	4,396.99	3,112.91	-3,303.34	4,536.98	0.00	0.00	0.00
9,100.00	89.82	315.001	4,397.30	3,183.63	-3,374.05	4,636.98	0.00	0.00	0.00
9,200.00	89.82	315.001	4,397.60	3,254.34	-3,444.76	4,736.98	0.00	0.00	0.00
9,300.00	89.82	315.001	4,397.91	3,325.05	-3,515.47	4,836.98	0.00	0.00	0.00
9,400.00	89.82	315.001	4,398.22	3,395.76	-3,586.18	4,936.98	0.00	0.00	0.00
9,500.00	89.82	315.001	4,398.53	3,466.47	-3,656.89	5,036.98	0.00	0.00	0.00
9,600.00	89.82	315.001	4,398.84	3,537.18	-3,727.60	5,136.98	0.00	0.00	0.00
9,700.00	89.82	315.001	4,399.14	3,607.89	-3,798.31	5,236.98	0.00	0.00	0.00
9,800.00	89.82	315.001	4,399.45	3,678.61	-3,869.01	5,336.98	0.00	0.00	0.00
9,900.00	89.82	315.001	4,399.76	3,749.32	-3,939.72	5,436.98	0.00	0.00	0.00
10,000.00	89.82	315.001	4,400.07	3,820.03	-4,010.43	5,536.98	0.00	0.00	0.00
10,100.00	89.82	315.001	4,400.38	3,890.74	-4,081.14	5,636.97	0.00	0.00	0.00
10,200.00	89.82	315.001	4,400.69	3,961.45	-4,151.85	5,736.97	0.00	0.00	0.00
10,301.80	89.82	315.001	4,401.00	4,033.44	-4,223.84	5,838.78	0.00	0.00	0.00
PBHL/TD @ 10301.80 MD 4401.00 TVD									



Planning Report



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
4,637.49	4,374.25	7" Intermediate Casing	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
498.00	498.00	Ojo Alamo		0.18	314.999
598.00	598.00	Kirtland		0.18	314.999
758.00	758.00	Fruitland		0.18	314.999
1,138.11	1,137.98	Pictured Cliffs		0.18	314.999
1,253.69	1,252.95	Lewis		0.18	314.999
1,492.23	1,487.82	Chacra_A		0.18	314.999
2,605.79	2,582.20	Cliff House_Basal		0.18	314.999
2,615.96	2,592.20	Menefee		0.18	314.999
3,583.83	3,557.07	Point Lookout		0.18	314.999
3,748.83	3,722.07	Mancos		0.18	314.999
4,086.93	4,052.24	MNCS_A		0.18	314.999
4,197.69	4,147.41	MNCS_B		0.18	314.999
4,327.49	4,242.69	MNCS_C		0.18	314.999
4,388.08	4,279.83	MNCS_Cms		0.18	314.999

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build
1,354.99	1,352.95	-28.76	15.96	Begin 10.65° tangent
2,671.77	2,647.05	-241.54	134.06	Begin 3°/100' build
3,026.76	3,000.00	-270.30	150.02	Begin vertical hold
3,836.15	3,809.39	-270.30	150.02	Begin 10°/100' build
4,536.15	4,347.79	-33.05	-142.96	70° inc @ 4536.15 MD 4347.79 TVD
4,742.91	4,383.86	102.66	-293.19	Begin 89.82° lateral
10,301.80	4,401.00	4,033.44	-4,223.84	PBHL/TD @ 10301.80 MD 4401.00 TVD



Planning Report - Geographic



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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 (65, 67, 69, 73, 75 & 77)				
Site Position:		Northing:	1,902,902.05 usft	Latitude:	36.22964800
From:	Lat/Long	Easting:	2,749,408.14 usft	Longitude:	-107.74410300
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Greater Lybrook Unit 065H, Surf loc: 1651 FNL 1522 FWL Section 13-T23N-R09W						
Well Position	+N/-S	0.00 ft	Northing:	1,902,902.05	usft	Latitude:	36.22964800
	+E/-W	0.00 ft	Easting:	2,749,408.14	usft	Longitude:	-107.74410300
Position Uncertainty		0.00 ft	Wellhead Elevation:		ft	Ground Level:	6,694.00 ft
Grid Convergence:		0.05 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/3/2024	8.49	62.68	49,015.91607116

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	314.999

Plan Survey Tool Program	Date	5/3/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,301.80 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report - Geographic



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,354.99	10.65	150.969	1,352.95	-28.76	15.96	3.00	3.00	0.00	150.97	
2,671.77	10.65	150.969	2,647.05	-241.54	134.06	0.00	0.00	0.00	0.00	
3,026.76	0.00	0.000	3,000.00	-270.30	150.02	3.00	-3.00	0.00	180.00	
3,836.15	0.00	0.000	3,809.39	-270.30	150.02	0.00	0.00	0.00	0.00	
4,536.15	70.00	309.000	4,347.79	-33.05	-142.96	10.00	10.00	0.00	309.00	
4,742.91	89.82	315.001	4,383.86	102.66	-293.19	10.00	9.59	2.90	17.22	
10,301.80	89.82	315.001	4,401.00	4,033.44	-4,223.84	0.00	0.00	0.00	0.00	Greater Lybrook 65 L



Planning Report - Geographic



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.000	0.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
100.00	0.00	0.000	100.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
200.00	0.00	0.000	200.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
300.00	0.00	0.000	300.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
350.00	0.00	0.000	350.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
9-5/8" Surface Casing										
400.00	0.00	0.000	400.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
498.00	0.00	0.000	498.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
Ojo Alamo										
500.00	0.00	0.000	500.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
598.00	0.00	0.000	598.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
Kirtland										
600.00	0.00	0.000	600.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
700.00	0.00	0.000	700.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
758.00	0.00	0.000	758.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
Fruitland										
800.00	0.00	0.000	800.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
900.00	0.00	0.000	900.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,902,902.05	2,749,408.14	36.22964800	-107.74410300	
KOP Begin 3°/100' build										
1,100.00	3.00	150.969	1,099.95	-2.29	1.27	1,902,899.76	2,749,409.41	36.22964171	-107.74409871	
1,138.11	4.14	150.969	1,137.98	-4.36	2.42	1,902,897.68	2,749,410.57	36.22963601	-107.74409481	
Pictured Cliffs										
1,200.00	6.00	150.969	1,199.63	-9.15	5.08	1,902,892.90	2,749,413.22	36.22962286	-107.74408582	
1,253.69	7.61	150.969	1,252.95	-14.71	8.16	1,902,887.33	2,749,416.31	36.22960757	-107.74407537	
Lewis										
1,300.00	9.00	150.969	1,298.77	-20.56	11.41	1,902,881.49	2,749,419.56	36.22959149	-107.74406438	
1,354.99	10.65	150.969	1,352.95	-28.76	15.96	1,902,873.28	2,749,424.11	36.22956894	-107.74404897	
Begin 10.65° tangent										
1,400.00	10.65	150.969	1,397.18	-36.04	20.00	1,902,866.01	2,749,428.15	36.22954895	-107.74403530	
1,492.23	10.65	150.969	1,487.82	-50.94	28.27	1,902,851.11	2,749,436.42	36.22950799	-107.74400730	
Chacra_A										
1,500.00	10.65	150.969	1,495.46	-52.19	28.97	1,902,849.85	2,749,437.11	36.22950454	-107.74400494	
1,600.00	10.65	150.969	1,593.74	-68.35	37.94	1,902,833.69	2,749,446.08	36.22946013	-107.74397459	
1,700.00	10.65	150.969	1,692.02	-84.51	46.91	1,902,817.53	2,749,455.05	36.22941572	-107.74394423	
1,800.00	10.65	150.969	1,790.29	-100.67	55.87	1,902,801.38	2,749,464.02	36.22937131	-107.74391387	
1,900.00	10.65	150.969	1,888.57	-116.83	64.84	1,902,785.22	2,749,472.99	36.22932690	-107.74388351	
2,000.00	10.65	150.969	1,986.85	-132.99	73.81	1,902,769.06	2,749,481.95	36.22928249	-107.74385316	
2,100.00	10.65	150.969	2,085.13	-149.15	82.78	1,902,752.90	2,749,490.92	36.22923807	-107.74382280	
2,200.00	10.65	150.969	2,183.40	-165.30	91.75	1,902,736.74	2,749,499.89	36.22919366	-107.74379244	
2,300.00	10.65	150.969	2,281.68	-181.46	100.71	1,902,720.58	2,749,508.86	36.22914925	-107.74376208	
2,400.00	10.65	150.969	2,379.96	-197.62	109.68	1,902,704.42	2,749,517.83	36.22910484	-107.74373173	
2,500.00	10.65	150.969	2,478.24	-213.78	118.65	1,902,688.27	2,749,526.80	36.22906043	-107.74370137	
2,600.00	10.65	150.969	2,576.51	-229.94	127.62	1,902,672.11	2,749,535.76	36.22901602	-107.74367101	
2,605.79	10.65	150.969	2,582.20	-230.87	128.14	1,902,671.17	2,749,536.28	36.22901344	-107.74366926	
Cliff House_Basal										
2,615.96	10.65	150.969	2,592.20	-232.52	129.05	1,902,669.53	2,749,537.19	36.22900893	-107.74366617	
Menefee										
2,671.77	10.65	150.969	2,647.05	-241.54	134.06	1,902,660.51	2,749,542.20	36.22898414	-107.74364923	
Begin 3°/100' build										
2,700.00	9.80	150.969	2,674.83	-245.92	136.49	1,902,656.13	2,749,544.63	36.22897210	-107.74364099	
2,800.00	6.80	150.969	2,773.77	-258.54	143.49	1,902,643.50	2,749,551.64	36.22893740	-107.74361727	
2,900.00	3.80	150.969	2,873.33	-266.62	147.98	1,902,635.42	2,749,556.12	36.22891519	-107.74360210	



Planning Report - Geographic



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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	
3,000.00	0.80	150.969	2,973.24	-270.14	149.93	1,902,631.91	2,749,558.07	36.22890553	-107.74359550	
3,026.76	0.00	0.000	3,000.00	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
Begin vertical hold										
3,100.00	0.00	0.000	3,073.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,200.00	0.00	0.000	3,173.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,300.00	0.00	0.000	3,273.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,400.00	0.00	0.000	3,373.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,500.00	0.00	0.000	3,473.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,583.83	0.00	0.000	3,557.07	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
Point Lookout										
3,600.00	0.00	0.000	3,573.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,700.00	0.00	0.000	3,673.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,748.83	0.00	0.000	3,722.07	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
Mancos										
3,800.00	0.00	0.000	3,773.24	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
3,836.15	0.00	0.000	3,809.39	-270.30	150.02	1,902,631.75	2,749,558.16	36.22890508	-107.74359519	
Begin 10°/100' build										
3,850.00	1.38	309.000	3,823.24	-270.19	149.89	1,902,631.85	2,749,558.03	36.22890537	-107.74359563	
3,900.00	6.38	309.000	3,873.11	-268.06	147.26	1,902,633.98	2,749,555.40	36.22891123	-107.74360454	
3,950.00	11.38	309.000	3,922.49	-263.21	141.26	1,902,638.84	2,749,549.40	36.22892460	-107.74362487	
4,000.00	16.38	309.000	3,971.01	-255.66	131.94	1,902,646.39	2,749,540.08	36.22894536	-107.74365645	
4,050.00	21.38	309.000	4,018.31	-245.48	119.36	1,902,656.57	2,749,527.51	36.22897336	-107.74369905	
4,086.93	25.08	309.000	4,052.24	-236.31	108.05	1,902,665.74	2,749,516.19	36.22899856	-107.74373740	
MNCS_A										
4,100.00	26.38	309.000	4,064.01	-232.74	103.64	1,902,669.31	2,749,511.78	36.22900838	-107.74375234	
4,150.00	31.38	309.000	4,107.78	-217.54	84.87	1,902,684.50	2,749,493.02	36.22905017	-107.74381591	
4,197.69	36.15	309.000	4,147.41	-200.87	64.28	1,902,701.18	2,749,472.42	36.22909604	-107.74388570	
MNCS_B										
4,200.00	36.38	309.000	4,149.27	-200.01	63.21	1,902,702.04	2,749,471.36	36.22909841	-107.74388929	
4,250.00	41.38	309.000	4,188.18	-180.26	38.83	1,902,721.79	2,749,446.97	36.22915271	-107.74397191	
4,300.00	46.38	309.000	4,224.20	-158.45	11.90	1,902,743.59	2,749,420.05	36.22921268	-107.74406314	
4,327.49	49.13	309.000	4,242.69	-145.65	-3.91	1,902,756.40	2,749,404.23	36.22924791	-107.74411673	
MNCS_C										
4,350.00	51.38	309.000	4,257.07	-134.76	-17.36	1,902,767.29	2,749,390.78	36.22927786	-107.74416230	
4,388.08	55.19	309.000	4,279.83	-115.55	-41.09	1,902,786.50	2,749,367.06	36.22933069	-107.74424267	
MNCS_Cms										
4,400.00	56.38	309.000	4,286.53	-109.34	-48.74	1,902,792.70	2,749,359.40	36.22934775	-107.74426862	
4,450.00	61.38	309.000	4,312.36	-82.41	-82.00	1,902,819.63	2,749,326.14	36.22942181	-107.74438129	
4,500.00	66.38	309.000	4,334.37	-54.17	-116.88	1,902,847.88	2,749,291.27	36.22949949	-107.74449947	
4,536.15	70.00	309.000	4,347.79	-33.05	-142.96	1,902,869.00	2,749,265.18	36.22955757	-107.74458783	
70° inc @ 4536.15 MD 4347.79 TVD										
4,550.00	71.32	309.433	4,352.38	-24.79	-153.08	1,902,877.26	2,749,255.06	36.22958029	-107.74462213	
4,600.00	76.11	310.944	4,366.40	6.18	-189.73	1,902,908.22	2,749,218.41	36.22966545	-107.74474629	
4,637.49	79.70	312.035	4,374.25	30.46	-217.18	1,902,932.51	2,749,190.96	36.22973222	-107.74483930	
7" Intermediate Casing										
4,650.00	80.90	312.393	4,376.36	38.75	-226.32	1,902,940.79	2,749,181.83	36.22975501	-107.74487024	
4,700.00	85.70	313.805	4,382.19	72.67	-262.56	1,902,974.71	2,749,145.58	36.22984828	-107.74499304	
4,742.91	89.82	315.001	4,383.86	102.66	-293.19	1,903,004.71	2,749,114.96	36.22993076	-107.74509679	
Begin 89.82° lateral										
4,800.00	89.82	315.001	4,384.04	143.03	-333.56	1,903,045.08	2,749,074.59	36.23004176	-107.74523353	
4,900.00	89.82	315.001	4,384.35	213.74	-404.26	1,903,115.79	2,749,003.88	36.23023618	-107.74547307	
5,000.00	89.82	315.001	4,384.66	284.45	-474.97	1,903,186.50	2,748,933.17	36.23043061	-107.74571260	
5,100.00	89.82	315.001	4,384.96	355.17	-545.68	1,903,257.21	2,748,862.46	36.23062503	-107.74595214	



Planning Report - Geographic



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Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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	
5,200.00	89.82	315.001	4,385.27	425.88	-616.39	1,903,327.92	2,748,791.75	36.23081946	-107.74619168	
5,300.00	89.82	315.001	4,385.58	496.59	-687.10	1,903,398.63	2,748,721.04	36.23101388	-107.74643122	
5,400.00	89.82	315.001	4,385.89	567.30	-757.81	1,903,469.34	2,748,650.34	36.23120831	-107.74667076	
5,500.00	89.82	315.001	4,386.20	638.01	-828.52	1,903,540.06	2,748,579.63	36.23140273	-107.74691030	
5,600.00	89.82	315.001	4,386.51	708.72	-899.23	1,903,610.77	2,748,508.92	36.23159715	-107.74714984	
5,700.00	89.82	315.001	4,386.81	779.43	-969.94	1,903,681.48	2,748,438.21	36.23179158	-107.74738939	
5,800.00	89.82	315.001	4,387.12	850.15	-1,040.65	1,903,752.19	2,748,367.50	36.23198600	-107.74762893	
5,900.00	89.82	315.001	4,387.43	920.86	-1,111.36	1,903,822.90	2,748,296.79	36.23218042	-107.74786848	
6,000.00	89.82	315.001	4,387.74	991.57	-1,182.07	1,903,893.61	2,748,226.08	36.23237484	-107.74810802	
6,100.00	89.82	315.001	4,388.05	1,062.28	-1,252.77	1,903,964.32	2,748,155.37	36.23256926	-107.74834757	
6,200.00	89.82	315.001	4,388.35	1,132.99	-1,323.48	1,904,035.04	2,748,084.66	36.23276368	-107.74858712	
6,300.00	89.82	315.001	4,388.66	1,203.70	-1,394.19	1,904,105.75	2,748,013.95	36.23295810	-107.74882667	
6,400.00	89.82	315.001	4,388.97	1,274.42	-1,464.90	1,904,176.46	2,747,943.25	36.23315252	-107.74906623	
6,500.00	89.82	315.001	4,389.28	1,345.13	-1,535.61	1,904,247.17	2,747,872.54	36.23334694	-107.74930578	
6,600.00	89.82	315.001	4,389.59	1,415.84	-1,606.32	1,904,317.88	2,747,801.83	36.23354136	-107.74954533	
6,700.00	89.82	315.001	4,389.90	1,486.55	-1,677.03	1,904,388.59	2,747,731.12	36.23373578	-107.74978489	
6,800.00	89.82	315.001	4,390.20	1,557.26	-1,747.74	1,904,459.30	2,747,660.41	36.23393019	-107.75002445	
6,900.00	89.82	315.001	4,390.51	1,627.97	-1,818.45	1,904,530.01	2,747,589.70	36.23412461	-107.75026400	
7,000.00	89.82	315.001	4,390.82	1,698.68	-1,889.16	1,904,600.73	2,747,518.99	36.23431903	-107.75050356	
7,100.00	89.82	315.001	4,391.13	1,769.40	-1,959.87	1,904,671.44	2,747,448.28	36.23451344	-107.75074312	
7,200.00	89.82	315.001	4,391.44	1,840.11	-2,030.58	1,904,742.15	2,747,377.57	36.23470786	-107.75098268	
7,300.00	89.82	315.001	4,391.75	1,910.82	-2,101.28	1,904,812.86	2,747,306.86	36.23490227	-107.75122225	
7,400.00	89.82	315.001	4,392.05	1,981.53	-2,171.99	1,904,883.57	2,747,236.15	36.23509669	-107.75146181	
7,500.00	89.82	315.001	4,392.36	2,052.24	-2,242.70	1,904,954.28	2,747,165.45	36.23529110	-107.75170138	
7,600.00	89.82	315.001	4,392.67	2,122.95	-2,313.41	1,905,024.99	2,747,094.74	36.23548551	-107.75194094	
7,700.00	89.82	315.001	4,392.98	2,193.66	-2,384.12	1,905,095.71	2,747,024.03	36.23567993	-107.75218051	
7,800.00	89.82	315.001	4,393.29	2,264.38	-2,454.83	1,905,166.42	2,746,953.32	36.23587434	-107.75242008	
7,900.00	89.82	315.001	4,393.60	2,335.09	-2,525.54	1,905,237.13	2,746,882.61	36.23606875	-107.75265965	
8,000.00	89.82	315.001	4,393.90	2,405.80	-2,596.25	1,905,307.84	2,746,811.90	36.23626316	-107.75289922	
8,100.00	89.82	315.001	4,394.21	2,476.51	-2,666.96	1,905,378.55	2,746,741.19	36.23645757	-107.75313879	
8,200.00	89.82	315.001	4,394.52	2,547.22	-2,737.67	1,905,449.26	2,746,670.48	36.23665198	-107.75337837	
8,300.00	89.82	315.001	4,394.83	2,617.93	-2,808.38	1,905,519.97	2,746,599.77	36.23684639	-107.75361794	
8,400.00	89.82	315.001	4,395.14	2,688.65	-2,879.09	1,905,590.69	2,746,529.06	36.23704080	-107.75385752	
8,500.00	89.82	315.001	4,395.45	2,759.36	-2,949.80	1,905,661.40	2,746,458.36	36.23723521	-107.75409709	
8,600.00	89.82	315.001	4,395.75	2,830.07	-3,020.50	1,905,732.11	2,746,387.65	36.23742962	-107.75433667	
8,700.00	89.82	315.001	4,396.06	2,900.78	-3,091.21	1,905,802.82	2,746,316.94	36.23762403	-107.75457625	
8,800.00	89.82	315.001	4,396.37	2,971.49	-3,161.92	1,905,873.53	2,746,246.23	36.23781844	-107.75481583	
8,900.00	89.82	315.001	4,396.68	3,042.20	-3,232.63	1,905,944.24	2,746,175.52	36.23801284	-107.75505541	
9,000.00	89.82	315.001	4,396.99	3,112.91	-3,303.34	1,906,014.95	2,746,104.81	36.23820725	-107.75529500	
9,100.00	89.82	315.001	4,397.30	3,183.63	-3,374.05	1,906,085.66	2,746,034.10	36.23840166	-107.75553458	
9,200.00	89.82	315.001	4,397.60	3,254.34	-3,444.76	1,906,156.38	2,745,963.39	36.23859606	-107.75577416	
9,300.00	89.82	315.001	4,397.91	3,325.05	-3,515.47	1,906,227.09	2,745,892.68	36.23879047	-107.75601375	
9,400.00	89.82	315.001	4,398.22	3,395.76	-3,586.18	1,906,297.80	2,745,821.97	36.23898487	-107.75625334	
9,500.00	89.82	315.001	4,398.53	3,466.47	-3,656.89	1,906,368.51	2,745,751.26	36.23917928	-107.75649293	
9,600.00	89.82	315.001	4,398.84	3,537.18	-3,727.60	1,906,439.22	2,745,680.56	36.23937368	-107.75673252	
9,700.00	89.82	315.001	4,399.14	3,607.89	-3,798.31	1,906,509.93	2,745,609.85	36.23956808	-107.75697211	
9,800.00	89.82	315.001	4,399.45	3,678.61	-3,869.01	1,906,580.64	2,745,539.14	36.23976249	-107.75721170	
9,900.00	89.82	315.001	4,399.76	3,749.32	-3,939.72	1,906,651.36	2,745,468.43	36.23995689	-107.75745129	
10,000.00	89.82	315.001	4,400.07	3,820.03	-4,010.43	1,906,722.07	2,745,397.72	36.24015129	-107.75769089	
10,100.00	89.82	315.001	4,400.38	3,890.74	-4,081.14	1,906,792.78	2,745,327.01	36.24034569	-107.75793049	
10,200.00	89.82	315.001	4,400.69	3,961.45	-4,151.85	1,906,863.49	2,745,256.30	36.24054009	-107.75817008	
10,301.80	89.82	315.001	4,401.00	4,033.44	-4,223.84	1,906,935.48	2,745,184.32	36.24073800	-107.75841400	
PBHL/TD @ 10301.80 MD 4401.00 TVD										



Planning Report - Geographic



Database:	DT_Mar1724_v17	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Company:	Enduring Resources LLC	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	North Reference:	Grid
Well:	Greater Lybrook Unit 065H	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)		
Greater Lybrook 65 vert	0.00	0.000	3,200.00	-305.30	115.02	1,902,596.75	2,749,523.16	36.22880902	-107.74371397
- plan misses target center by 49.50ft at 3226.76ft MD (3200.00 TVD, -270.30 N, 150.02 E)									
- Point									
Greater Lybrook 65 FTP	0.00	0.000	4,383.25	-38.73	-151.56	1,902,863.32	2,749,256.59	36.22954200	-107.74461700
- plan misses target center by 33.90ft at 4550.00ft MD (4352.38 TVD, -24.79 N, -153.08 E)									
- Point									
Greater Lybrook 65 LTP	0.00	0.000	4,401.00	4,033.44	-4,223.84	1,906,935.48	2,745,184.32	36.24073800	-107.75841400
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(")	(")	
350.00	350.00	9-5/8" Surface Casing	9-5/8	12-1/4	
4,637.49	4,374.25	7" Intermediate Casing	7	8-3/4	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
498.00	498.00	Ojo Alamo		0.18	314.999
598.00	598.00	Kirtland		0.18	314.999
758.00	758.00	Fruitland		0.18	314.999
1,138.11	1,137.98	Pictured Cliffs		0.18	314.999
1,253.69	1,252.95	Lewis		0.18	314.999
1,492.23	1,487.82	Chacra_A		0.18	314.999
2,605.79	2,582.20	Cliff House_Basal		0.18	314.999
2,615.96	2,592.20	Menefee		0.18	314.999
3,583.83	3,557.07	Point Lookout		0.18	314.999
3,748.83	3,722.07	Mancos		0.18	314.999
4,086.93	4,052.24	MNCS_A		0.18	314.999
4,197.69	4,147.41	MNCS_B		0.18	314.999
4,327.49	4,242.69	MNCS_C		0.18	314.999
4,388.08	4,279.83	MNCS_Cms		0.18	314.999

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build	
1,354.99	1,352.95	-28.76	15.96	Begin 10.65° tangent	
2,671.77	2,647.05	-241.54	134.06	Begin 3°/100' build	
3,026.76	3,000.00	-270.30	150.02	Begin vertical hold	
3,836.15	3,809.39	-270.30	150.02	Begin 10°/100' build	
4,536.15	4,347.79	-33.05	-142.96	70° inc @ 4536.15 MD 4347.79 TVD	
4,742.91	4,383.86	102.66	-293.19	Begin 89.82° lateral	
10,301.80	4,401.00	4,033.44	-4,223.84	PBHL/TD @ 10301.80 MD 4401.00 TVD	



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference	rev0		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,230.18ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/3/2024		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	10,301.80	rev0 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
Greater Lybrook (65, 67, 69, 73, 75 & 77)						
Greater Lybrook Unit 067H - Original Hole - rev0	1,000.00	1,000.00	19.78	12.78	2.825	CC, ES, SF
Greater Lybrook Unit 069H - Original Hole - rev0	624.95	625.04	39.62	35.31	9.195	CC
Greater Lybrook Unit 069H - Original Hole - rev0	700.00	699.70	40.13	35.28	8.282	ES
Greater Lybrook Unit 069H - Original Hole - rev0	800.00	798.20	44.10	38.54	7.926	SF
Greater Lybrook Unit 073H - Original Hole - rev0	4,484.68	4,494.80	56.31	23.64	1.724	Level 3<2.00, CC, ES, SF
Greater Lybrook Unit 075H - Original Hole - rev0	1,000.00	1,000.00	79.94	72.94	11.418	CC, ES
Greater Lybrook Unit 075H - Original Hole - rev0	1,100.00	1,098.09	83.61	75.92	10.869	SF
Greater Lybrook Unit 077H - Original Hole - rev0	500.00	500.00	99.99	96.57	29.269	CC
Greater Lybrook Unit 077H - Original Hole - rev0	600.00	598.67	100.64	96.51	24.387	ES
Greater Lybrook Unit 077H - Original Hole - rev0	900.00	889.56	116.76	110.50	18.634	SF

Offset Design:	Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 067H - Original Hole - rev0										Offset Site Error:	0.00 ft
Survey Program:	0-MWD										Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-41.06	14.91	-12.99	19.78			
100.00	100.00	100.00	100.00	0.27	0.27	-41.06	14.91	-12.99	19.78	19.23	0.55	36.060
200.00	200.00	200.00	200.00	0.63	0.63	-41.06	14.91	-12.99	19.78	18.51	1.27	15.629
300.00	300.00	300.00	300.00	0.99	0.99	-41.06	14.91	-12.99	19.78	17.80	1.98	9.977
400.00	400.00	400.00	400.00	1.35	1.35	-41.06	14.91	-12.99	19.78	17.08	2.70	7.327
500.00	500.00	500.00	500.00	1.71	1.71	-41.06	14.91	-12.99	19.78	16.36	3.42	5.789
600.00	600.00	600.00	600.00	2.07	2.07	-41.06	14.91	-12.99	19.78	15.64	4.13	4.785
700.00	700.00	700.00	700.00	2.43	2.43	-41.06	14.91	-12.99	19.78	14.93	4.85	4.078
800.00	800.00	800.00	800.00	2.78	2.78	-41.06	14.91	-12.99	19.78	14.21	5.57	3.553
900.00	900.00	900.00	900.00	3.14	3.14	-41.06	14.91	-12.99	19.78	13.49	6.28	3.147
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-41.06	14.91	-12.99	19.78	12.78	7.00	2.825 CC, ES, SF
1,100.00	1,099.95	1,100.14	1,100.10	3.84	3.86	176.06	16.05	-10.63	21.86	14.17	7.70	2.840
1,200.00	1,199.63	1,199.51	1,199.15	4.18	4.21	-167.80	19.44	-3.61	29.88	21.50	8.38	3.565
1,300.00	1,298.77	1,297.37	1,296.17	4.52	4.56	-155.00	24.96	7.81	45.73	36.66	9.07	5.042
1,400.00	1,397.18	1,393.11	1,390.34	4.88	4.93	-147.17	32.44	23.31	68.90	59.14	9.76	7.060
1,500.00	1,495.46	1,486.88	1,481.62	5.26	5.31	-141.26	41.75	42.59	95.93	85.50	10.43	9.196
1,600.00	1,593.74	1,578.40	1,569.60	5.66	5.71	-136.31	52.71	65.28	126.44	115.34	11.10	11.396

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 067H - 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)				
1,700.00	1,692.02	1,667.36	1,653.86	6.07	6.14	-132.13	65.10	90.94	160.56	148.81	11.75	13.665		
1,800.00	1,790.29	1,753.78	1,734.36	6.48	6.60	-128.58	78.76	119.22	198.34	185.95	12.38	16.014		
1,900.00	1,888.57	1,844.98	1,818.62	6.91	7.13	-125.67	93.93	150.65	238.07	224.92	13.15	18.107		
2,000.00	1,986.85	1,936.18	1,902.88	7.34	7.69	-123.59	109.11	182.07	278.17	264.24	13.93	19.969		
2,100.00	2,085.13	2,027.38	1,987.15	7.77	8.26	-122.03	124.28	213.49	318.51	303.78	14.73	21.623		
2,200.00	2,183.40	2,118.58	2,071.41	8.21	8.85	-120.82	139.45	244.91	359.00	343.46	15.54	23.097		
2,300.00	2,281.68	2,209.78	2,155.67	8.65	9.45	-119.86	154.63	276.33	399.60	383.23	16.37	24.415		
2,400.00	2,379.96	2,300.98	2,239.93	9.10	10.07	-119.07	169.80	307.76	440.27	423.07	17.20	25.596		
2,500.00	2,478.24	2,392.19	2,324.20	9.55	10.69	-118.41	184.97	339.18	481.00	462.96	18.04	26.661		
2,600.00	2,576.51	2,483.39	2,408.46	10.00	11.32	-117.86	200.15	370.60	521.78	502.89	18.89	27.623		
2,700.00	2,674.83	2,574.62	2,492.75	10.45	11.96	-117.70	215.32	402.03	562.51	542.77	19.74	28.496		
2,800.00	2,773.77	2,666.35	2,577.50	10.87	12.61	-118.05	230.59	433.64	601.62	581.06	20.56	29.258		
2,900.00	2,873.33	2,758.53	2,662.67	11.26	13.26	-117.97	245.92	465.40	638.62	617.28	21.34	29.923		
3,000.00	2,973.24	2,850.93	2,748.03	11.61	13.92	-117.55	261.29	497.23	673.61	651.54	22.08	30.513		
3,100.00	3,073.24	2,943.32	2,833.40	11.92	14.59	34.72	276.67	529.06	707.37	684.60	22.77	31.071		
3,200.00	3,173.24	3,035.71	2,918.76	12.23	15.25	36.15	292.04	560.89	741.49	718.03	23.46	31.612		
3,300.00	3,273.24	3,128.10	3,004.12	12.54	15.92	37.46	307.41	592.73	775.99	751.84	24.15	32.138		
3,400.00	3,373.24	3,220.49	3,089.48	12.85	16.60	38.66	322.78	624.56	810.83	786.00	24.84	32.647		
3,500.00	3,473.24	3,312.89	3,174.84	13.17	17.27	39.77	338.15	656.39	845.97	820.44	25.53	33.139		
3,600.00	3,573.24	3,405.28	3,260.21	13.48	17.95	40.79	353.52	688.22	881.37	855.14	26.22	33.613		
3,700.00	3,673.24	3,497.67	3,345.57	13.80	18.62	41.73	368.89	720.05	916.99	890.08	26.92	34.069		
3,800.00	3,773.24	3,590.06	3,430.93	14.13	19.30	42.60	384.27	751.88	952.82	925.21	27.61	34.508		
3,900.00	3,873.11	3,681.75	3,515.64	14.43	19.98	42.12	399.52	783.48	989.05	960.77	28.28	34.978		
4,000.00	3,971.01	3,768.99	3,596.25	14.68	20.62	41.89	414.04	813.53	1,026.41	997.61	28.80	35.641		
4,100.00	4,064.01	3,848.98	3,670.15	14.89	21.21	41.02	427.34	841.09	1,065.21	1,036.02	29.19	36.489		
4,200.00	4,149.27	3,919.27	3,735.09	15.09	21.73	40.14	439.04	865.31	1,106.02	1,076.51	29.51	37.482		
4,300.00	4,224.20	3,990.33	3,800.88	15.34	22.25	41.38	451.38	889.11	1,149.17	1,119.23	29.94	38.380		
4,400.00	4,286.53	4,061.81	3,879.57	15.72	23.70	40.61	463.21	916.29	1,188.74	1,156.64	32.11	37.026		
4,500.00	4,334.37	4,132.37	3,959.26	16.33	24.10	41.70	475.09	943.09	1,228.58	1,197.74	34.84	34.606		
4,600.00	4,366.40	4,191.72	4,012.80	17.19	24.01	42.32	486.63	970.63	1,268.04	1,237.33	36.71	32.905		
4,700.00	4,382.19	4,245.18	4,067.14	18.27	23.94	41.52	499.43	1,003.26	1,307.14	1,276.31	38.82	31.066		
4,800.00	4,384.04	5,055.52	4,417.40	19.51	23.90	41.59	1,017.08	491.52	1,202.42	1,161.49	40.94	29.371		
4,900.00	4,384.35	5,125.97	4,417.67	20.92	23.94	41.59	1,066.06	440.89	1,200.76	1,157.52	43.24	27.769		
4,940.50	4,384.47	5,161.28	4,417.80	21.54	24.00	41.59	1,091.01	415.90	1,200.73	1,156.33	44.40	27.043		
5,000.00	4,384.66	5,220.79	4,418.03	22.47	24.43	41.59	1,133.08	373.82	1,200.72	1,154.56	46.16	26.011		
5,100.00	4,384.96	5,320.79	4,418.40	24.14	25.81	41.60	1,203.79	303.11	1,200.72	1,151.31	49.41	24.300		
5,200.00	4,385.27	5,420.79	4,418.78	25.91	27.48	41.60	1,274.50	232.40	1,200.72	1,147.85	52.88	22.707		
5,300.00	4,385.58	5,520.79	4,419.16	27.75	29.25	41.60	1,345.21	161.69	1,200.72	1,144.23	56.50	21.253		
5,400.00	4,385.89	5,620.79	4,419.53	29.66	31.09	41.61	1,415.92	90.98	1,200.72	1,140.48	60.25	19.930		
5,500.00	4,386.20	5,720.79	4,419.91	31.62	32.99	41.61	1,486.63	20.27	1,200.72	1,136.62	64.10	18.731		
5,600.00	4,386.51	5,820.79	4,420.29	33.62	34.93	41.61	1,557.34	-50.44	1,200.72	1,132.67	68.05	17.645		
5,700.00	4,386.81	5,920.79	4,420.67	35.65	36.91	41.62	1,628.05	-121.15	1,200.72	1,128.65	72.07	16.660		
5,800.00	4,387.12	6,020.79	4,421.04	37.72	38.93	41.62	1,698.76	-191.86	1,200.72	1,124.56	76.16	15.766		
5,900.00	4,387.43	6,120.79	4,421.42	39.81	40.98	41.62	1,769.47	-262.57	1,200.72	1,120.42	80.30	14.953		
6,000.00	4,387.74	6,220.79	4,421.80	41.92	43.04	41.63	1,840.18	-333.28	1,200.72	1,116.24	84.48	14.213		
6,100.00	4,388.05	6,320.79	4,422.17	44.05	45.14	41.63	1,910.89	-403.99	1,200.72	1,112.01	88.71	13.536		
6,200.00	4,388.35	6,420.79	4,422.55	46.19	47.24	41.63	1,981.60	-474.71	1,200.72	1,107.76	92.97	12.916		
6,300.00	4,388.66	6,520.79	4,422.93	48.35	49.37	41.64	2,052.31	-545.42	1,200.72	1,103.47	97.25	12.346		
6,400.00	4,388.97	6,620.79	4,423.30	50.52	51.51	41.64	2,123.02	-616.13	1,200.72	1,099.15	101.57	11.822		
6,500.00	4,389.28	6,720.79	4,423.68	52.71	53.66	41.64	2,193.73	-686.84	1,200.72	1,094.81	105.90	11.338		
6,600.00	4,389.59	6,820.79	4,424.06	54.90	55.82	41.65	2,264.44	-757.55	1,200.72	1,090.46	110.26	10.890		
6,700.00	4,389.90	6,920.79	4,424.43	57.09	57.99	41.65	2,335.15	-828.26	1,200.72	1,086.08	114.64	10.474		

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 067H - 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)			
6,800.00	4,390.20	7,020.79	4,424.81	59.30	60.17	91.65	2,405.86	-898.97	1,200.72	1,081.69	119.03	10.088	
6,900.00	4,390.51	7,120.79	4,425.19	61.51	62.36	91.65	2,476.57	-969.68	1,200.72	1,077.29	123.43	9.728	
7,000.00	4,390.82	7,220.79	4,425.57	63.73	64.56	91.66	2,547.28	-1,040.39	1,200.72	1,072.87	127.85	9.392	
7,100.00	4,391.13	7,320.79	4,425.94	65.95	66.76	91.66	2,617.99	-1,111.10	1,200.72	1,068.44	132.28	9.077	
7,200.00	4,391.44	7,420.79	4,426.32	68.18	68.97	91.66	2,688.70	-1,181.81	1,200.72	1,064.00	136.72	8.783	
7,300.00	4,391.75	7,520.79	4,426.70	70.41	71.18	91.67	2,759.41	-1,252.52	1,200.72	1,059.55	141.17	8.506	
7,400.00	4,392.05	7,620.79	4,427.07	72.65	73.40	91.67	2,830.12	-1,323.23	1,200.72	1,055.09	145.62	8.245	
7,500.00	4,392.36	7,720.79	4,427.45	74.89	75.62	91.67	2,900.83	-1,393.94	1,200.72	1,050.63	150.09	8.000	
7,600.00	4,392.67	7,820.79	4,427.83	77.13	77.85	91.68	2,971.54	-1,464.65	1,200.72	1,046.16	154.56	7.769	
7,700.00	4,392.98	7,920.79	4,428.20	79.38	80.08	91.68	3,042.24	-1,535.37	1,200.72	1,041.68	159.04	7.550	
7,800.00	4,393.29	8,020.79	4,428.58	81.63	82.31	91.68	3,112.95	-1,606.08	1,200.72	1,037.20	163.52	7.343	
7,900.00	4,393.60	8,120.79	4,428.96	83.88	84.55	91.69	3,183.66	-1,676.79	1,200.71	1,032.71	168.01	7.147	
8,000.00	4,393.90	8,220.79	4,429.33	86.13	86.79	91.69	3,254.37	-1,747.50	1,200.71	1,028.21	172.50	6.961	
8,100.00	4,394.21	8,320.79	4,429.71	88.39	89.03	91.69	3,325.08	-1,818.21	1,200.71	1,023.71	177.00	6.784	
8,200.00	4,394.52	8,420.79	4,430.09	90.64	91.28	91.70	3,395.79	-1,888.92	1,200.71	1,019.21	181.51	6.615	
8,300.00	4,394.83	8,520.79	4,430.47	92.90	93.53	91.70	3,466.50	-1,959.63	1,200.71	1,014.70	186.01	6.455	
8,400.00	4,395.14	8,620.79	4,430.84	95.16	95.78	91.70	3,537.21	-2,030.34	1,200.71	1,010.19	190.52	6.302	
8,500.00	4,395.45	8,720.79	4,431.22	97.42	98.03	91.71	3,607.92	-2,101.05	1,200.71	1,005.68	195.04	6.156	
8,600.00	4,395.75	8,820.79	4,431.60	99.69	100.28	91.71	3,678.63	-2,171.76	1,200.71	1,001.16	199.56	6.017	
8,700.00	4,396.06	8,920.79	4,431.97	101.95	102.54	91.71	3,749.34	-2,242.47	1,200.71	996.64	204.08	5.884	
8,800.00	4,396.37	9,020.79	4,432.35	104.22	104.79	91.72	3,820.05	-2,313.18	1,200.71	992.11	208.60	5.756	
8,900.00	4,396.68	9,120.79	4,432.73	106.49	107.05	91.72	3,890.76	-2,383.89	1,200.71	987.59	213.12	5.634	
9,000.00	4,396.99	9,220.79	4,433.10	108.76	109.31	91.72	3,961.47	-2,454.60	1,200.71	983.06	217.65	5.517	
9,100.00	4,397.30	9,320.79	4,433.48	111.03	111.57	91.73	4,032.18	-2,525.31	1,200.71	978.53	222.18	5.404	
9,200.00	4,397.60	9,420.79	4,433.86	113.30	113.84	91.73	4,102.89	-2,596.02	1,200.71	974.00	226.71	5.296	
9,300.00	4,397.91	9,520.79	4,434.23	115.57	116.10	91.73	4,173.60	-2,666.74	1,200.71	969.46	231.25	5.192	
9,400.00	4,398.22	9,620.79	4,434.61	117.84	118.36	91.74	4,244.31	-2,737.45	1,200.71	964.93	235.78	5.092	
9,500.00	4,398.53	9,720.79	4,434.99	120.11	120.63	91.74	4,315.02	-2,808.16	1,200.71	960.39	240.32	4.996	
9,600.00	4,398.84	9,820.79	4,435.37	122.39	122.90	91.74	4,385.73	-2,878.87	1,200.71	955.85	244.86	4.904	
9,700.00	4,399.14	9,920.79	4,435.74	124.66	125.17	91.75	4,456.44	-2,949.58	1,200.71	951.31	249.40	4.814	
9,800.00	4,399.45	10,020.79	4,436.12	126.94	127.44	91.75	4,527.15	-3,020.29	1,200.71	946.77	253.94	4.728	
9,900.00	4,399.76	10,120.79	4,436.50	129.21	129.70	91.75	4,597.86	-3,091.00	1,200.71	942.22	258.49	4.645	
10,000.00	4,400.07	10,220.79	4,436.87	131.49	131.98	91.76	4,668.57	-3,161.71	1,200.71	937.68	263.03	4.565	
10,100.00	4,400.38	10,320.79	4,437.25	133.77	134.25	91.76	4,739.28	-3,232.42	1,200.71	933.13	267.58	4.487	
10,200.00	4,400.69	10,420.79	4,437.63	136.05	136.52	91.76	4,809.99	-3,303.13	1,200.71	928.58	272.13	4.412	
10,300.00	4,400.99	10,520.79	4,438.00	138.32	138.79	91.77	4,880.70	-3,373.84	1,200.71	924.03	276.68	4.340	
10,301.80	4,401.00	10,522.59	4,438.01	138.37	138.83	91.77	4,881.97	-3,375.12	1,200.71	923.95	276.76	4.338	

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 069H - 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)	Semi Major Axis 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	
0.00	0.00	0.00	0.00	0.00	0.00	-40.72	30.19	-25.98	39.83				
100.00	100.00	100.00	100.00	0.27	0.27	-40.72	30.19	-25.98	39.83	39.28	0.55	72.622	
200.00	200.00	200.00	200.00	0.63	0.63	-40.72	30.19	-25.98	39.83	38.57	1.27	31.477	
300.00	300.00	300.00	300.00	0.99	0.99	-40.72	30.19	-25.98	39.83	37.85	1.98	20.093	
400.00	400.00	400.00	400.00	1.35	1.35	-40.72	30.19	-25.98	39.83	37.13	2.70	14.756	
500.00	500.00	500.00	500.00	1.71	1.71	-40.72	30.19	-25.98	39.83	36.41	3.42	11.659	
600.00	600.00	600.12	600.08	2.07	2.06	-36.94	31.69	-23.83	39.65	35.52	4.13	9.599	
624.95	624.95	625.04	624.95	2.16	2.15	-34.82	32.53	-22.62	39.62	35.31	4.31	9.195 CC	
700.00	700.00	699.70	699.33	2.43	2.42	-25.73	36.15	-17.42	40.13	35.28	4.85	8.282 ES	
800.00	800.00	798.20	796.99	2.78	2.79	-9.03	43.46	-6.91	44.10	38.54	5.56	7.926 SF	
900.00	900.00	895.12	892.31	3.14	3.17	7.94	53.45	7.45	54.51	48.24	6.27	8.700	
1,000.00	1,000.00	990.03	984.67	3.50	3.59	21.04	65.89	25.34	72.24	65.31	6.93	10.428	
1,100.00	1,099.95	1,082.41	1,073.42	3.84	4.03	-121.64	80.51	46.36	97.94	90.38	7.55	12.966	
1,200.00	1,199.63	1,171.62	1,157.86	4.18	4.51	-117.59	96.93	69.97	131.18	123.02	8.16	16.082	
1,300.00	1,298.77	1,257.16	1,237.48	4.52	5.01	-115.66	114.77	95.62	170.77	162.01	8.76	19.485	
1,400.00	1,397.18	1,338.72	1,312.02	4.88	5.55	-115.21	133.67	122.79	215.91	206.54	9.38	23.025	
1,500.00	1,495.46	1,416.86	1,382.05	5.26	6.11	-115.24	153.46	151.25	264.78	254.81	9.97	26.562	
1,600.00	1,593.74	1,491.66	1,447.70	5.66	6.69	-115.02	173.93	180.67	316.86	306.31	10.55	30.047	
1,700.00	1,692.02	1,563.13	1,509.07	6.07	7.30	-114.68	194.83	210.72	371.94	360.83	11.11	33.476	
1,800.00	1,790.29	1,631.28	1,566.28	6.48	7.93	-114.27	215.98	241.13	429.85	418.19	11.65	36.883	
1,900.00	1,888.57	1,700.00	1,622.59	6.91	8.59	-113.82	238.47	273.46	490.41	478.18	12.23	40.090	
2,000.00	1,986.85	1,761.15	1,671.51	7.34	9.22	-113.40	259.41	303.57	553.36	540.63	12.73	43.473	
2,100.00	2,085.13	1,838.11	1,732.66	7.77	10.04	-112.94	286.09	341.93	617.11	603.62	13.49	45.759	
2,200.00	2,183.40	1,915.07	1,793.81	8.21	10.88	-112.56	312.78	380.29	680.88	666.63	14.25	47.771	
2,300.00	2,281.68	1,992.03	1,854.96	8.65	11.73	-112.25	339.46	418.65	744.67	729.64	15.03	49.544	
2,400.00	2,379.96	2,068.98	1,916.11	9.10	12.58	-111.99	366.14	457.01	808.46	792.64	15.82	51.111	
2,500.00	2,478.24	2,145.94	1,977.26	9.55	13.45	-111.76	392.82	495.36	872.27	855.66	16.61	52.509	
2,600.00	2,576.51	2,222.90	2,038.41	10.00	14.32	-111.57	419.50	533.72	936.08	918.67	17.41	53.761	
2,700.00	2,674.83	2,299.90	2,099.60	10.45	15.19	-112.03	446.19	572.10	999.84	981.62	18.21	54.894	
2,800.00	2,773.77	2,377.63	2,161.36	10.87	16.08	-113.84	473.14	610.85	1,062.46	1,043.47	18.99	55.947	
2,900.00	2,873.33	2,456.18	2,223.77	11.26	16.98	-115.27	500.37	650.00	1,123.49	1,103.76	19.73	56.950	
3,000.00	2,973.24	2,535.32	2,286.65	11.61	17.89	-116.39	527.81	689.44	1,182.87	1,162.45	20.42	57.913	

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 073H - 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	-40.60	45.47	-38.97	59.88				
100.00	100.00	100.00	100.00	0.27	0.27	-40.60	45.47	-38.97	59.88	59.34	0.55	109.185	
200.00	200.00	200.00	200.00	0.63	0.63	-40.60	45.47	-38.97	59.88	58.62	1.27	47.324	
300.00	300.00	300.00	300.00	0.99	0.99	-40.60	45.47	-38.97	59.88	57.90	1.98	30.209	
400.00	400.00	400.00	400.00	1.35	1.35	-40.60	45.47	-38.97	59.88	57.18	2.70	22.185	
500.00	500.00	500.00	500.00	1.71	1.71	-40.60	45.47	-38.97	59.88	56.47	3.42	17.529	
600.00	600.00	600.00	600.00	2.07	2.07	-40.60	45.47	-38.97	59.88	55.75	4.13	14.489	
700.00	700.00	700.00	700.00	2.43	2.43	-40.60	45.47	-38.97	59.88	55.03	4.85	12.347	
800.00	800.00	800.00	800.00	2.78	2.78	-40.60	45.47	-38.97	59.88	54.32	5.57	10.757	
900.00	900.00	900.00	900.00	3.14	3.14	-40.60	45.47	-38.97	59.88	53.60	6.28	9.530	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-40.60	45.47	-38.97	59.88	52.88	7.00	8.554	
1,100.00	1,099.95	1,097.45	1,097.41	3.84	3.84	167.42	45.86	-41.43	64.40	56.72	7.68	8.383	
1,200.00	1,199.63	1,193.66	1,193.33	4.18	4.18	165.10	47.03	-48.66	77.99	69.65	8.34	9.353	
1,300.00	1,298.77	1,287.44	1,286.36	4.52	4.52	162.59	48.90	-60.29	100.59	91.61	8.98	11.200	
1,400.00	1,397.18	1,379.76	1,377.27	4.88	4.87	160.48	51.45	-76.13	131.49	121.87	9.63	13.659	
1,500.00	1,495.46	1,471.88	1,467.57	5.26	5.23	158.93	54.34	-94.09	165.14	154.87	10.27	16.076	
1,600.00	1,593.74	1,565.97	1,559.80	5.66	5.62	157.87	57.29	-112.44	198.88	187.93	10.95	18.164	
1,700.00	1,692.02	1,660.05	1,652.03	6.07	6.01	157.12	60.24	-130.79	232.66	221.01	11.64	19.984	
1,800.00	1,790.29	1,754.14	1,744.26	6.48	6.42	156.56	63.20	-149.14	266.46	254.12	12.34	21.589	
1,900.00	1,888.57	1,848.22	1,836.49	6.91	6.83	156.13	66.15	-167.49	300.28	287.23	13.05	23.010	
2,000.00	1,986.85	1,942.31	1,928.72	7.34	7.25	155.79	69.10	-185.84	334.12	320.36	13.76	24.274	
2,100.00	2,085.13	2,036.39	2,020.95	7.77	7.67	155.50	72.06	-204.19	367.96	353.48	14.48	25.405	
2,200.00	2,183.40	2,130.47	2,113.18	8.21	8.09	155.27	75.01	-222.54	401.81	386.61	15.21	26.421	
2,300.00	2,281.68	2,224.56	2,205.42	8.65	8.52	155.07	77.96	-240.88	435.67	419.73	15.94	27.338	
2,400.00	2,379.96	2,318.64	2,297.65	9.10	8.95	154.90	80.92	-259.23	469.53	452.86	16.67	28.169	
2,500.00	2,478.24	2,412.73	2,389.88	9.55	9.39	154.75	83.87	-277.58	503.39	485.99	17.40	28.926	
2,600.00	2,576.51	2,506.81	2,482.11	10.00	9.82	154.63	86.82	-295.93	537.26	519.12	18.14	29.616	
2,700.00	2,674.83	2,600.96	2,574.40	10.45	10.26	154.63	89.78	-314.29	570.95	552.07	18.88	30.242	
2,800.00	2,773.77	2,696.19	2,667.75	10.87	10.71	154.76	92.77	-332.86	601.31	581.70	19.61	30.657	
2,900.00	2,873.33	2,792.66	2,762.32	11.26	11.16	154.64	95.79	-351.68	627.16	606.81	20.34	30.827	
3,000.00	2,973.24	2,905.88	2,873.44	11.61	11.69	154.21	99.24	-373.08	648.03	626.82	21.20	30.563	
3,100.00	3,073.24	3,049.33	3,015.57	11.92	12.28	-55.50	102.29	-392.04	660.29	638.07	22.22	29.719	
3,200.00	3,173.24	3,194.94	3,160.89	12.23	12.81	-55.81	103.64	-400.46	665.59	642.47	23.12	28.783	
3,300.00	3,273.24	3,307.29	3,273.24	12.54	13.16	-55.83	103.71	-400.85	665.84	642.01	23.83	27.940	
3,400.00	3,373.24	3,407.29	3,373.24	12.85	13.47	-55.83	103.71	-400.85	665.84	641.34	24.50	27.179	
3,500.00	3,473.24	3,507.29	3,473.24	13.17	13.79	-55.83	103.71	-400.85	665.84	640.67	25.17	26.457	
3,600.00	3,573.24	3,607.29	3,573.24	13.48	14.11	-55.83	103.71	-400.85	665.84	640.00	25.84	25.769	
3,700.00	3,673.24	3,707.29	3,673.24	13.80	14.42	-55.83	103.71	-400.85	665.84	639.33	26.51	25.114	
3,800.00	3,773.24	4,827.77	4,381.32	14.13	19.86	-137.16	-325.77	98.58	612.77	599.66	13.10	46.761	
3,900.00	3,873.11	4,823.77	4,381.34	14.43	19.81	-124.22	-322.94	95.75	513.77	500.41	13.37	38.436	
4,000.00	3,971.01	4,803.71	4,381.43	14.68	19.54	-146.51	-308.75	81.56	416.89	403.30	13.59	30.675	
4,100.00	4,064.01	4,767.05	4,381.60	14.89	19.09	-153.05	-282.83	55.65	325.08	311.25	13.83	23.511	
4,200.00	4,149.27	4,694.09	4,379.11	15.09	18.26	-151.58	-231.87	3.55	239.58	225.22	14.36	16.684	
4,300.00	4,224.20	4,619.01	4,367.45	15.34	17.51	-144.12	-181.90	-51.19	158.27	142.15	16.12	9.818	
4,400.00	4,286.53	4,550.70	4,348.83	15.72	16.92	-125.19	-139.37	-101.25	86.82	65.61	21.21	4.093	
4,484.68	4,328.04	4,494.80	4,328.02	16.23	16.54	-89.96	-106.69	-141.50	56.31	23.64	32.67	1.724 Level 3<2.00, CC, ES, SF	
4,500.00	4,334.37	4,484.96	4,323.84	16.33	16.48	-82.27	-101.07	-148.42	57.50	25.33	32.16	1.788 Level 3<2.00	
4,600.00	4,366.40	4,422.68	4,293.89	17.19	16.17	-43.32	-66.69	-190.81	102.80	79.62	23.18	4.435	
4,700.00	4,382.19	4,363.30	4,259.99	18.27	15.95	-25.66	-36.00	-228.64	167.01	144.41	22.60	7.390	
4,800.00	4,384.04	4,307.31	4,223.56	19.51	15.80	-19.55	-9.23	-261.64	232.61	208.85	23.76	9.791	
4,900.00	4,384.35	4,259.55	4,189.34	20.92	15.70	-17.23	11.75	-287.49	304.08	279.18	24.90	12.210	
5,000.00	4,384.66	4,219.32	4,158.44	22.47	15.63	-15.61	27.97	-307.49	380.80	354.93	25.87	14.722	

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 073H - 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		Rule Assigned:		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)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,384.96	4,185.28	4,130.95	24.14	15.57	-14.42	40.60	-323.06	461.56	434.91	26.65	17.322		
5,200.00	4,385.27	4,150.00	4,101.24	25.91	15.51	-13.33	52.58	-337.83	545.55	518.41	27.13	20.107		
5,300.00	4,385.58	4,131.45	4,085.17	27.75	15.48	-12.81	58.41	-345.02	631.87	604.10	27.78	22.749		
5,400.00	4,385.89	4,100.00	4,057.25	29.66	15.43	-12.00	67.54	-356.28	720.41	692.37	28.04	25.692		
5,500.00	4,386.20	4,100.00	4,057.25	31.62	15.43	-12.00	67.54	-356.28	810.34	781.72	28.62	28.312		
5,600.00	4,386.51	4,074.92	4,034.46	33.62	15.39	-11.41	74.12	-364.38	901.51	872.71	28.80	31.308		
5,700.00	4,386.81	4,050.00	4,011.37	35.65	15.34	-10.86	80.03	-371.67	994.00	965.07	28.94	34.352		
5,800.00	4,387.12	4,050.00	4,011.37	37.72	15.34	-10.86	80.03	-371.67	1,087.10	1,057.87	29.24	37.181		
5,900.00	4,387.43	4,050.00	4,011.37	39.81	15.34	-10.86	80.03	-371.67	1,181.33	1,151.86	29.47	40.079		

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 075H - 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)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.55	60.74	-51.96	79.94				
100.00	100.00	100.00	100.00	0.27	0.27	-40.55	60.74	-51.96	79.94	79.39	0.55	145.749	
200.00	200.00	200.00	200.00	0.63	0.63	-40.55	60.74	-51.96	79.94	78.67	1.27	63.171	
300.00	300.00	300.00	300.00	0.99	0.99	-40.55	60.74	-51.96	79.94	77.96	1.98	40.325	
400.00	400.00	400.00	400.00	1.35	1.35	-40.55	60.74	-51.96	79.94	77.24	2.70	29.614	
500.00	500.00	500.00	500.00	1.71	1.71	-40.55	60.74	-51.96	79.94	76.52	3.42	23.399	
600.00	600.00	600.00	600.00	2.07	2.07	-40.55	60.74	-51.96	79.94	75.80	4.13	19.340	
700.00	700.00	700.00	700.00	2.43	2.43	-40.55	60.74	-51.96	79.94	75.09	4.85	16.482	
800.00	800.00	800.00	800.00	2.78	2.78	-40.55	60.74	-51.96	79.94	74.37	5.57	14.359	
900.00	900.00	900.00	900.00	3.14	3.14	-40.55	60.74	-51.96	79.94	73.65	6.28	12.721	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-40.55	60.74	-51.96	79.94	72.94	7.00	11.418 CC, ES	
1,100.00	1,099.95	1,098.09	1,098.04	3.84	3.85	-170.39	63.03	-50.90	83.61	75.92	7.69	10.869 SF	
1,200.00	1,199.63	1,194.93	1,194.60	4.18	4.20	-175.17	69.75	-47.76	95.10	86.73	8.37	11.363	
1,300.00	1,298.77	1,289.37	1,288.26	4.52	4.54	-179.10	80.58	-42.72	115.19	106.16	9.04	12.749	
1,400.00	1,397.18	1,380.49	1,377.98	4.88	4.88	-173.86	94.99	-36.01	143.78	134.10	9.68	14.849	
1,500.00	1,495.46	1,468.74	1,464.05	5.26	5.23	-169.44	112.62	-27.79	177.12	166.83	10.29	17.209	
1,600.00	1,593.74	1,554.06	1,546.32	5.66	5.60	-165.73	133.08	-18.25	214.43	203.56	10.87	19.720	
1,700.00	1,692.02	1,636.27	1,624.57	6.07	5.97	-162.59	155.93	-7.61	255.60	244.17	11.44	22.352	
1,800.00	1,790.29	1,720.66	1,703.88	6.48	6.38	-159.84	182.05	4.56	300.05	288.01	12.04	24.916	
1,900.00	1,888.57	1,809.12	1,786.89	6.91	6.84	-157.63	209.77	17.48	345.32	332.60	12.72	27.140	
2,000.00	1,986.85	1,897.59	1,869.90	7.34	7.32	-155.93	237.48	30.40	390.91	377.49	13.42	29.134	
2,100.00	2,085.13	1,986.05	1,952.92	7.77	7.81	-154.58	265.20	43.31	436.72	422.60	14.12	30.924	
2,200.00	2,183.40	2,074.52	2,036.93	8.21	8.31	-153.48	292.92	56.23	482.68	467.85	14.84	32.536	
2,300.00	2,281.68	2,162.99	2,118.94	8.65	8.83	-152.58	320.64	69.15	528.76	513.20	15.56	33.991	
2,400.00	2,379.96	2,251.45	2,201.95	9.10	9.35	-151.82	348.36	82.06	574.93	558.65	16.28	35.310	
2,500.00	2,478.24	2,339.92	2,284.97	9.55	9.87	-151.17	376.07	94.98	621.16	604.15	17.01	36.508	
2,600.00	2,576.51	2,428.38	2,367.98	10.00	10.41	-150.61	403.79	107.90	667.45	649.70	17.75	37.601	
2,700.00	2,674.83	2,516.93	2,451.06	10.45	10.95	-150.33	431.54	120.82	713.62	695.13	18.49	38.595	
2,800.00	2,773.77	2,606.84	2,535.43	10.87	11.50	-150.44	459.71	133.95	756.82	737.60	19.23	39.366	
2,900.00	2,873.33	2,698.38	2,621.33	11.26	12.07	-150.34	488.39	147.32	795.96	776.00	19.96	39.886	
3,000.00	2,973.24	2,791.32	2,708.54	11.61	12.65	-150.03	517.51	160.89	831.00	810.32	20.68	40.184	
3,100.00	3,073.24	2,885.11	2,796.55	11.92	13.23	1.72	546.90	174.58	863.11	841.72	21.39	40.346	
3,200.00	3,173.24	2,978.95	2,884.60	12.23	13.82	2.59	576.30	188.28	895.26	873.15	22.11	40.490	
3,300.00	3,273.24	3,072.78	2,972.65	12.54	14.42	3.39	605.70	201.98	927.59	904.76	22.83	40.631	
3,400.00	3,373.24	3,166.62	3,060.71	12.85	15.01	4.15	635.10	215.68	960.07	936.52	23.55	40.770	
3,500.00	3,473.24	3,260.46	3,148.76	13.17	15.61	4.85	664.50	229.38	992.69	968.42	24.27	40.905	
3,600.00	3,573.24	3,354.29	3,236.81	13.48	16.21	5.51	693.90	243.08	1,025.44	1,000.45	24.99	41.036	
3,700.00	3,673.24	3,448.13	3,324.86	13.80	16.81	6.13	723.30	256.78	1,058.30	1,032.59	25.71	41.163	
3,800.00	3,773.24	3,541.96	3,412.91	14.13	17.41	6.72	752.70	270.48	1,091.27	1,064.84	26.43	41.287	
3,900.00	3,873.11	3,635.97	3,501.13	14.43	18.01	56.71	782.15	284.21	1,122.53	1,095.40	27.13	41.370	
4,000.00	3,971.01	3,729.49	3,588.88	14.68	18.61	56.06	811.46	297.86	1,145.55	1,117.79	27.77	41.258	
4,100.00	4,064.01	3,819.81	3,673.63	14.89	19.19	56.68	839.75	311.05	1,160.03	1,131.69	28.33	40.945	
4,200.00	4,149.27	4,807.97	4,403.54	15.09	23.06	97.50	865.73	778.94	1,166.81	1,134.74	32.07	36.384	
4,300.00	4,224.20	4,736.75	4,385.27	15.34	22.83	95.70	731.31	727.42	1,153.08	1,120.60	32.48	35.501	
4,400.00	4,286.53	4,506.16	4,273.12	15.72	22.34	85.94	853.17	569.22	1,143.89	1,111.40	32.50	35.201	
4,500.00	4,334.37	4,404.10	4,201.63	16.33	22.10	81.63	888.56	505.77	1,137.56	1,104.70	32.87	34.612	
4,600.00	4,366.40	4,334.18	4,146.52	17.19	21.90	77.99	905.27	466.20	1,134.44	1,101.00	33.44	33.926	
4,700.00	4,382.19	4,276.16	4,097.67	18.27	21.70	75.14	914.26	436.26	1,130.30	1,096.08	34.22	33.034	
4,800.00	4,384.04	4,226.68	4,054.18	19.51	21.51	72.96	918.36	413.05	1,125.77	1,090.58	35.19	31.988	
4,822.32	4,384.11	4,217.82	4,046.24	19.82	21.47	72.53	918.74	409.14	1,125.58	1,090.12	35.46	31.744	
4,900.00	4,384.35	4,192.05	4,022.92	20.92	21.37	71.29	919.25	398.18	1,127.96	1,091.54	36.42	30.974	
5,000.00	4,384.66	4,167.27	4,000.21	22.47	21.25	70.07	918.89	388.28	1,138.20	1,100.41	37.79	30.116	

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:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design:	Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 075H - Original Hole - rev0											Offset Site Error:	0.00 ft
Survey Program:	0-MWD											Offset Well Error:	0.00 ft
Reference	Rule Assigned:											Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,384.96	4,150.00	3,984.24	24.14	21.17	69.22	918.14	381.74	1,156.56	1,117.31	39.25	29.467	
5,200.00	4,385.27	4,134.34	3,969.67	25.91	21.10	68.44	917.12	376.09	1,182.81	1,142.17	40.65	29.099	
5,300.00	4,385.58	4,122.88	3,958.97	27.75	21.04	67.87	916.16	372.11	1,216.54	1,174.56	41.98	28.976	



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Site Greater Lybrook (65, 67, 69, 73, 75 & 77)
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Reference Site:	Greater Lybrook (65, 67, 69, 73, 75 & 77)	MD Reference:	RKB=6694+23.5 @ 6717.50ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit 065H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook (65, 67, 69, 73, 75 & 77) - Greater Lybrook Unit 077H - 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)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-40.51	76.02	-64.95	99.99				
100.00	100.00	100.00	100.00	0.27	0.27	-40.51	76.02	-64.95	99.99	99.44	0.55	182.312	
200.00	200.00	200.00	200.00	0.63	0.63	-40.51	76.02	-64.95	99.99	98.73	1.27	79.019	
300.00	300.00	300.00	300.00	0.99	0.99	-40.51	76.02	-64.95	99.99	98.01	1.98	50.441	
400.00	400.00	400.00	400.00	1.35	1.35	-40.51	76.02	-64.95	99.99	97.29	2.70	37.043	
500.00	500.00	500.00	500.00	1.71	1.71	-40.51	76.02	-64.95	99.99	96.57	3.42	29.269 CC	
600.00	600.00	598.67	598.63	2.07	2.06	-39.10	78.09	-63.47	100.64	96.51	4.13	24.387 ES	
700.00	700.00	696.83	696.48	2.43	2.42	-35.02	84.26	-59.05	102.95	98.11	4.84	21.280	
800.00	800.00	793.94	792.78	2.78	2.78	-28.76	94.37	-51.80	107.89	102.34	5.55	19.431	
900.00	900.00	889.56	886.86	3.14	3.15	-21.16	108.20	-41.88	116.76	110.50	6.27	18.634 SF	
1,000.00	1,000.00	983.23	978.09	3.50	3.55	-13.24	125.44	-29.52	130.71	123.75	6.96	18.767	
1,100.00	1,099.95	1,074.23	1,065.62	3.84	3.98	-156.96	145.65	-15.03	152.74	145.12	7.63	20.027	
1,200.00	1,199.63	1,161.58	1,148.43	4.18	4.43	-151.27	168.22	1.15	184.65	176.40	8.25	22.375	
1,300.00	1,298.77	1,244.63	1,225.90	4.52	4.91	-147.05	192.50	18.56	225.29	216.43	8.86	25.433	
1,400.00	1,397.18	1,323.03	1,297.80	4.88	5.40	-144.29	217.93	36.79	273.23	263.79	9.45	28.924	
1,500.00	1,495.46	1,400.00	1,367.06	5.26	5.91	-142.44	245.19	56.34	325.08	315.06	10.02	32.438	
1,600.00	1,593.74	1,469.10	1,428.05	5.66	6.43	-140.96	271.59	75.27	380.01	369.48	10.53	36.099	
1,700.00	1,692.02	1,537.05	1,486.83	6.07	6.96	-139.65	299.27	95.12	437.85	426.81	11.04	39.664	
1,800.00	1,790.29	1,600.00	1,540.18	6.48	7.48	-138.55	326.42	114.59	498.41	486.90	11.50	43.322	
1,900.00	1,888.57	1,666.95	1,595.68	6.91	8.07	-137.47	356.85	136.40	561.50	549.44	12.05	46.593	
2,000.00	1,986.85	1,738.04	1,653.91	7.34	8.73	-136.47	389.99	160.17	625.95	613.28	12.68	49.384	
2,100.00	2,085.13	1,814.00	1,716.13	7.77	9.45	-135.60	425.41	185.56	690.54	677.16	13.38	51.625	
2,200.00	2,183.40	1,889.96	1,778.34	8.21	10.17	-134.88	460.83	210.95	755.20	741.11	14.09	53.606	
2,300.00	2,281.68	1,965.92	1,840.56	8.65	10.91	-134.27	496.24	236.35	819.92	805.11	14.81	55.366	
2,400.00	2,379.96	2,041.88	1,902.77	9.10	11.65	-133.74	531.66	261.74	884.69	869.15	15.54	56.941	
2,500.00	2,478.24	2,117.84	1,964.99	9.55	12.40	-133.29	567.07	287.13	949.49	933.22	16.27	58.356	
2,600.00	2,576.51	2,193.80	2,027.21	10.00	13.15	-132.90	602.49	312.52	1,014.33	997.32	17.01	59.630	
2,700.00	2,674.83	2,269.84	2,089.49	10.45	13.91	-133.07	637.94	337.94	1,079.08	1,061.33	17.75	60.782	
2,800.00	2,773.77	2,347.34	2,152.97	10.87	14.68	-134.31	674.07	363.85	1,141.81	1,123.32	18.49	61.768	
2,900.00	2,873.33	2,426.62	2,217.90	11.26	15.48	-135.24	711.03	390.35	1,201.73	1,182.52	19.20	62.581	

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Anticollision Report



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Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DT_Mar1724_v17
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6694+23.5 @ 6717.50ft

Offset Depths are relative to Offset Datum

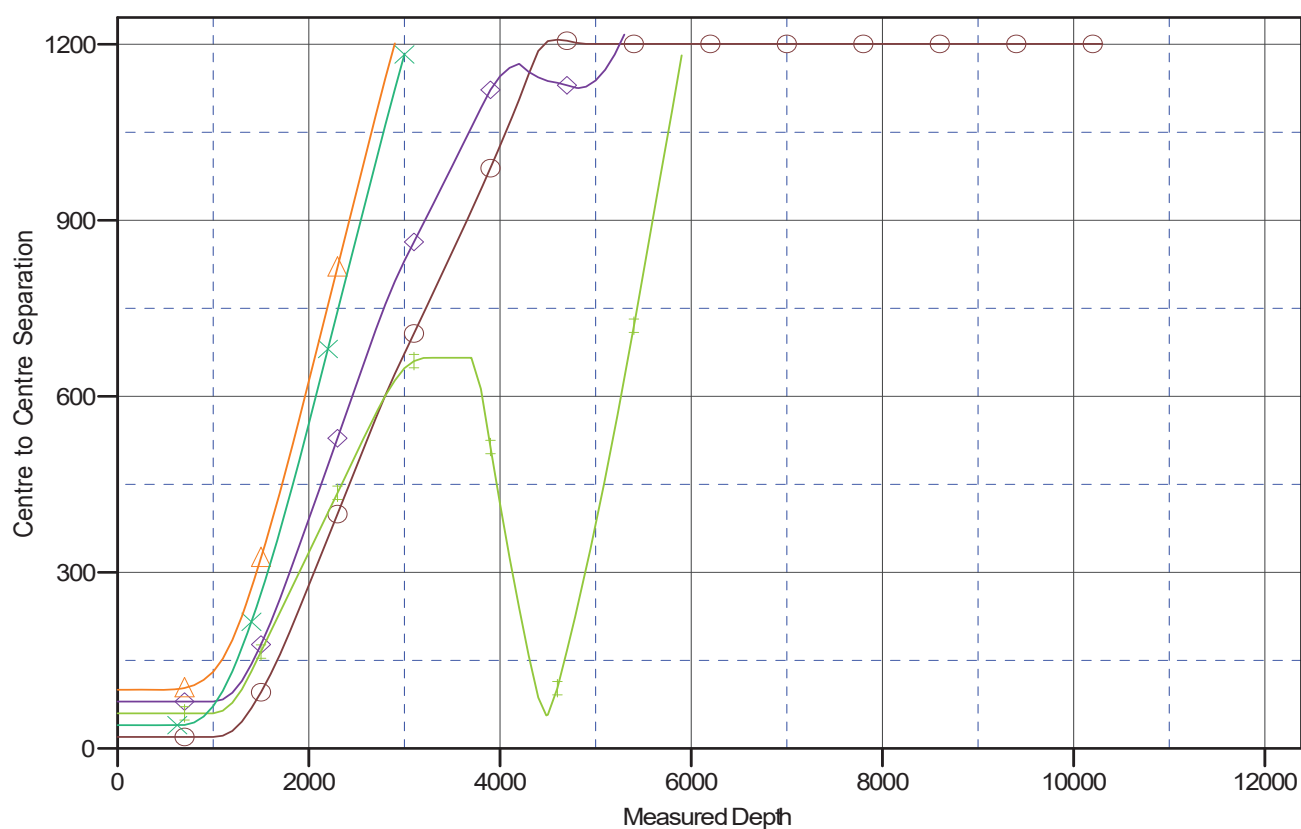
Central Meridian is -107.8333333

Coordinates are relative to: Greater Lybrook (65, 67, 69, 73, 75 & 77)

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

Grid Convergence at Surface is: 0.05°

Ladder Plot



LEGEND

GreaterLybrookUnit077HOriginalHole.rev0 V0
 GreaterLybrookUnit073HOriginalHole.rev0 V0
 GreaterLybrookUnit075HOriginalHole.rev0 V0
 GreaterLybrookUnit069HOriginalHole.rev0 V0

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



Anticollision Report



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Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6694+23.5 @ 6717.50ft
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Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6694+23.5 @ 6717.50ft

Offset Depths are relative to Offset Datum

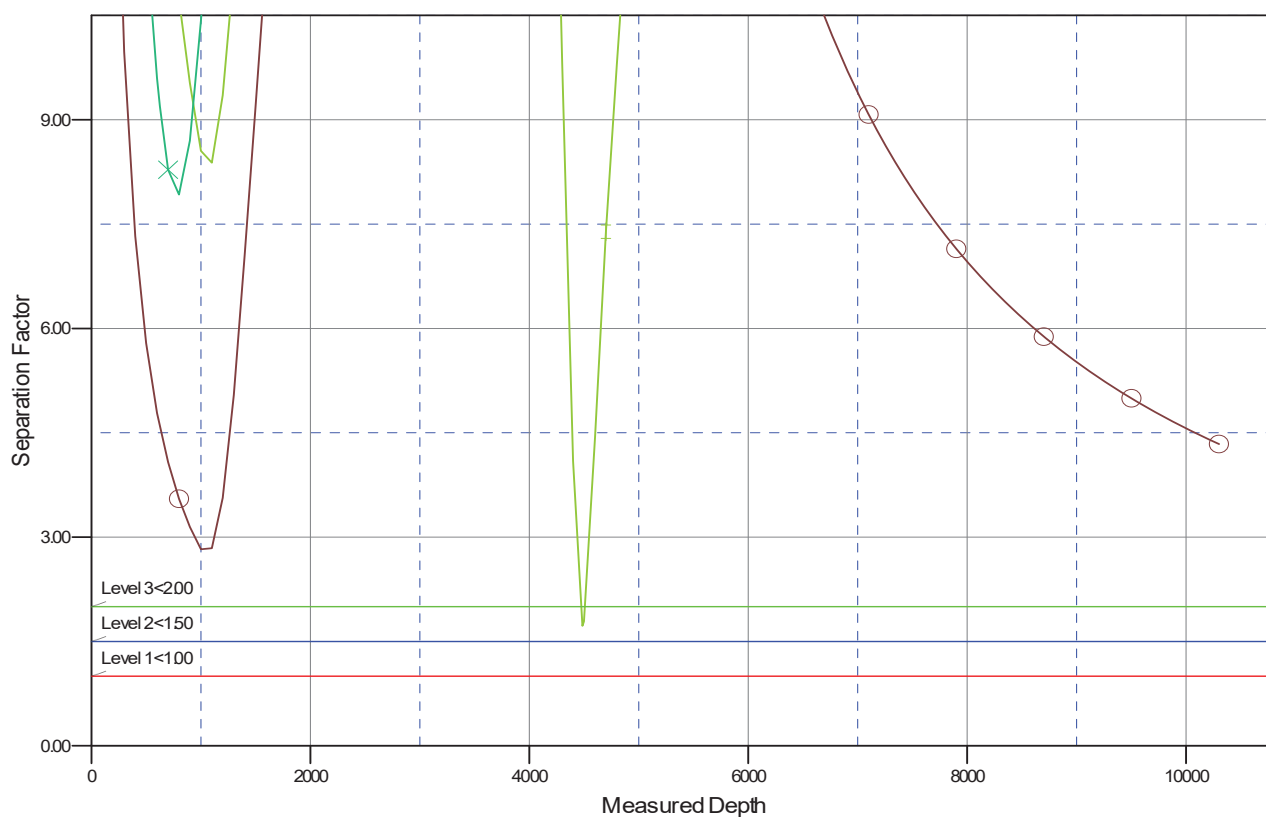
Central Meridian is -107.8333333

Coordinates are relative to: Greater Lybrook (65, 67, 69, 73, 75 & 77)

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

Grid Convergence at Surface is: 0.05°

Separation Factor Plot



LEGEND

GreaterLybrookUnit077H.Originalfile.rev0 V0
 GreaterLybrookUnit073H.Originalfile.rev0 V0
 GreaterLybrookUnit075H.Originalfile.rev0 V0
 GreaterLybrookUnit077H.Originalfile.rev0 V0



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
#065H GREATER LYBROOK UNIT
Lease: NOG13121856 Agreement: NMNM144419X
SH: SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 13, T. 23N., R. 9W.
San Juan County, New Mexico
BH: NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 11, T. 23N., R. 9W.
San Juan County, New Mexico
***Above Data Required on Well Sign**

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

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

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

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

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

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

II. REPORTING REQUIREMENTS

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

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

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

VI. CHANGE OF PLANS OR ABANDONMENT

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

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 503727

ACKNOWLEDGMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 503727
	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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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CONDITIONS

Action 503727

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 503727
	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.	9/8/2025
sford	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	9/8/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	9/17/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/17/2025
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.	9/17/2025
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.	9/17/2025