

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: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> 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. 30-045-38428
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)



Additional Operator Remarks

Location of Well

0. SHL: SENE / 2371 FNL / 1292 FEL / TWSP: 24N / RANGE: 8W / SECTION: 25 / LAT: 36.285848 / LONG: -107.628844 (TVD: 0 feet, MD: 0 feet)
PPP: SWNW / 2383 FNL / 1201 FWL / TWSP: 24N / RANGE: 8W / SECTION: 25 / LAT: 36.285915 / LONG: -107.638117 (TVD: 5548 feet, MD: 6235 feet)
PPP: SENE / 0 FSL / 0 FEL / TWSP: 24N / RANGE: 8W / SECTION: 26 / LAT: 36.289274 / LONG: -107.642249 (TVD: 5713 feet, MD: 17001 feet)
PPP: SESE / 0 FSL / 0 FEL / TWSP: 24N / RANGE: 8W / SECTION: 22 / LAT: 36.30308 / LONG: -107.66073 (TVD: 5713 feet, MD: 17001 feet)
PPP: SENE / 0 FNL / 0 FEL / TWSP: 24N / RANGE: 8W / SECTION: 22 / LAT: 36.292498 / LONG: -107.646216 (TVD: 5713 feet, MD: 17001 feet)
BHL: NENE / 237 FNL / 732 FEL / TWSP: 24N / RANGE: 8W / SECTION: 22 / LAT: 36.306188 / LONG: -107.663066 (TVD: 5713 feet, MD: 17001 feet)

CONFIDENTIAL

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION

API Number 30-045-38428	Pool Code 42289	Pool Name LYBROOK GALLUP
Property Code 336777	Property Name RIDGE UNIT	Well Number 129H
OGRID No. 372286	Operator Name ENDURING RESOURCES, LLC	Ground Level Elevation 6923'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL H	Section 25	Township 24N	Range 8W	Lot	Feet from N/S Line 2371' NORTH	Feet from E/W Line 1292' EAST	Latitude 36.285848 °N	Longitude -107.628844 °W	County SAN JUAN
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Bottom Hole Location

UL A	Section 22	Township 24N	Range 8W	Lot	Feet from N/S Line 237' NORTH	Feet from E/W Line 732' EAST	Latitude 36.306188 °N	Longitude -107.663066 °W	County SAN JUAN
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Dedicated Acres 680.00	Penetrated Spacing Unit: E/2 NE/4 - Section 22 W/2 NW/4, SE/4 NW/4, N/2 SW/4 SE/4 SW/4, W/2 SE/4, SE/4 SE/4 - Section 23 W/2 NW/4, SE/4 NW/4 - Section 25 N/2 NE/4, SE/4 NE/4 - Section 26	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit <input type="checkbox"/> Yes <input type="checkbox"/> No	Consolidation Code UNIT
Order Numbers R-20594	Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

Kick Off Point (KOP)

UL H	Section 25	Township 24N	Range 8W	Lot	Feet from N/S Line 2371' NORTH	Feet from E/W Line 1292' EAST	Latitude 36.285848 °N	Longitude -107.628844 °W	County SAN JUAN
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First Take Point (FTP)

UL E	Section 25	Township 24N	Range 8W	Lot	Feet from N/S Line 2383' NORTH	Feet from E/W Line 1201' WEST	Latitude 36.285915 °N	Longitude -107.638117 °W	County SAN JUAN
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Last Take Point (LTP)

UL A	Section 22	Township 24N	Range 8W	Lot	Feet from N/S Line 237' NORTH	Feet from E/W Line 732' EAST	Latitude 36.306188 °N	Longitude -107.663066 °W	County SAN JUAN
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Unitized Area or Area of Uniform Interest RIDGE UNIT	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Directional	Ground Floor Elevation
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<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</p> <p><u>Shaw-Marie Ford</u> 1/13/2025 Signature Date</p> <p>Shaw-Marie Ford Printed Name</p> <p>sford@enduringresources.com E-mail Address</p>	<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <div></div> <p>JASON C. EDWARDS</p> <p>Signature and Seal of Professional Surveyor</p> <table><tr><td>Certificate Number 15269</td><td>Date of Survey OCTOBER 29, 2021</td></tr></table>	Certificate Number 15269	Date of Survey OCTOBER 29, 2021
Certificate Number 15269	Date of Survey OCTOBER 29, 2021		



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:** 1/14/2025

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Ridge Unit 124H	TBD	H-25-24N-8W	2371 FNL x 1232 FEL	595	2381	238
Ridge Unit 127H	TBD	H-25-24N-8W	2371 FNL x 1252 FEL	608	2432	243
Ridge Unit 128H	TBD	H-25-24N-8W	2371 FNL x 1272 FEL	544	2177	218
Ridge Unit 129H	TBD	H-25-24N-8W	2371 FNL x 1292 FEL	510	2041	204
				3-year Decline	3-year Decline	3-year Decline
Ridge Unit 124H	TBD	H-25-24N-8W	2371 FNL x 1232 FEL	134	538	54
Ridge Unit 127H	TBD	H-25-24N-8W	2371 FNL x 1252 FEL	137	549	55
Ridge Unit 128H	TBD	H-25-24N-8W	2371 FNL x 1272 FEL	123	492	49
Ridge Unit 129H	TBD	H-25-24N-8W	2371 FNL x 1292 FEL	115	461	46

IV. Central Delivery Point Name: Ridge Unit CDP [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
Ridge Unit 124H	TBD	9/22/2025	10/2/2025	11/5/2025	11/20/2025	11/22/2025
Ridge Unit 127H	TBD	10/3/2025	10/13/2025	11/5/2025	11/25/2025	11/27/2025
Ridge Unit 128H	TBD	10/14/2025	10/23/2025	11/5/2025	11/30/2025	12/2/2025
Ridge Unit 129H	TBD	10/24/2025	11/2/2025	11/5/2025	12/5/2025	12/7/2025

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: 1/14/2025
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



Enduring Resources, LLC.
NATURAL GAS MANAGEMENT and WASTE MINIMIZATION PLAN
Ridge Unit 124H 127H 128H and 129H

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
Ridge Unit 124H 127H 128H and 129H

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
Ridge Unit 124H 127H 128H and 129H

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
Ridge Unit 124H 127H 128H and 129H

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 80111

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

WELL INFORMATION:

Name: RIDGE UNIT 129H

API Number: not yet assigned

State: New Mexico

County: San Juan

Surface Elevation: 6,923 ft ASL (GL)

6,948 ft ASL (KB)

Surface Location: 25-24N-08W Sec-Twn-Rng

2,371 ft FNL

1,292 ft FEL

36.285848 ° N latitude

107.628844 ° W longitude

(NAD 83)

BH Location: 22-24N-08W Sec-Twn-Rng

237 ft FNL

732 ft FEL

36.306188 ° N latitude

107.663066 ° 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 43.5 miles to County Road 7998, Left (North) on CR 7998 for 1.0 miles to fork in road, Left (North-West) on lease road for 0.2 miles to fork in road, Right (Straight)(West) for 0.4 miles to fork, Right (North-East) for 0.6 miles to access road, right on access road for 0.4 miles to Ridge Unit 127H Pad. The 129H well is the furthest West well and closest to the location entrance

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	5,590	1,358	1,379	W	normal
	Kirtland	5,475	1,473	1,507	W	normal
	Fruitland	5,230	1,718	1,786	G, W	sub
	Pictured Cliffs	4,935	2,013	2,122	G, W	sub
	Lewis	4,810	2,138	2,265	G, W	normal
	Chacra	4,500	2,448	2,618	G, W	normal
	Cliff House	3,400	3,548	3,872	G, W	sub
	Menefee	3,385	3,563	3,889	G, W	normal
	Point Lookout	2,555	4,393	4,836	G, W	normal
	Mancos	2,350	4,598	5,070	O,G	sub (~0.38)
	Gallup (MNCS_A)	1,985	4,963	5,486	O,G	sub (~0.38)
	MNCS_B	1,900	5,048	5,583	O,G	sub (~0.38)
	MNCS_C	1,770	5,178	5,731	O,G	sub (~0.38)
	MNCS_Cms	1,695	5,253	5,817	O,G	sub (~0.38)
	MNCS_D	1,620	5,328	5,907	O,G	sub (~0.38)
	MNCS_E	1,540	5,408	6,010	O,G	sub (~0.38)
	MNCS_F	1,495	5,453	6,073	O,G	sub (~0.38)
	MNCS_G	1,400	5,548	6,235	O,G	sub (~0.38)
	MNCS_H	1,360	5,588	6,316	O,G	sub (~0.38)
	MNCS_I	1,320	5,628	6,424	O,G	sub (~0.38)
	P.O.E. TARGET	1,400	5,548	6,235	O,G	sub (~0.38)
	PROJECTED TD	1,235	5,713	17,001	O,G	sub (~0.38)

Surface: Nacimienta

Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup

Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations

Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft

Maximum anticipated BH pressure, assuming maximum pressure gradient: 2,460 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,210 psi

Temperature: Maximum anticipated BHT is 135° F or less

H₂S INFORMATION:

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

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

LOGGING, CORING, AND TESTING:

Mud Logs: None planned; remote geo-steering from drill out of 9-5/8" casing to TD; gas detection from drillout of 13-3/8" casing to TD.

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

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

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

DRILLING RIG INFORMATION:

Contractor: Aztec

Rig No.: 1000

Draw Works: E80 AC 1,500 hp

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

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

Prime Movers: 4 - GE Jenbacher Natural Gas Generator

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

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

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

Choke 3", 5,000 psi

KB-GL (ft): 25

Note: A different rig may be used to drill the well depending on rig availability at the time the well is 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 installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

- Fluid Measurement:** Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).
- Closed-Loop System:** A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal.
- Fluid Disposal:** Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).
- Solids Disposal:** Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).
- Fluid Program:** See "Detailed Drilling Plan" section for specifics.

DETAILED DRILLING PLAN:

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

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

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

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

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	800	116,634	116,634
Min. S.F.					7.39	3.41	7.31	7.79

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

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling

intermediate hole and 8.4 ppg equivalent external pressure gradient

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	TYPE III	14.6	1.39	6.686	0.6946	100%	0	364

Annular Capacity 0.6946 cuft/ft 13-3/8" casing x 17-1/2" hole annulus Csg capacity 0.8680 ft3/ft

Drake Energy Services: Calculated cement volumes assume gauge hole and the excess noted in table

Tail				
ASTM Type III	Calcium Chloride	D-CD2 .3% BWOC	.25 lbs/sx Cello	
Blend	2% BWOC	Dispersant/Friction	Flake - seepage	
	Accelerator	reducer		

Cu Ft Slurry
505.3

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

350 ft (MD)	to	4,049 ft (MD)	Hole Section Length:	3,699 ft
350 ft (TVD)	to	3,713 ft (TVD)	Casing Required:	4,049 ft

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCl)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

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

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,622	1,422	227,113	227,113
Min. S.F.					1.25	2.47	2.48	1.99

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

Stage 1	Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
	Spacer	D-Mud Breaker	8.5				0	10 bbls	
		90:10 Type							
	Lead	III:POZ	12.5	2.140	12.05	70%	0	883	1,890
	Tail	Type III	14.6	1.380	6.61	20%	3,549	150	207
	Displacement	-3	est bbls						

Annular Capacity	0.3627	cuft/ft	9-5/8" casing x 13-3/8" casing annulus	
	0.3132	cuft/ft	9-5/8" casing x 12-1/4" hole annulus	9-5/8" 36# ID 8.921
	0.4341	cuft/ft	9-5/8" casing vol	est shoe jt ft 44

Calculated cement volumes assume gauge hole and the excess (open hole only) noted in table

Spacer	D-Mud Breaker	SAPP						
Lead	ASTM Type III 90/10 Poz	D-CSE 1 5.0% BWOC Strength Enhancer	D-MPA-1 .4% BWOC Fluid Loss & Gas Migration Control	D-SA 1 1.4% BWOC Na Metasilicate	D-CD 2 .4% BWOC Dispersant	Cello Flace LCM .25 lb/sx	D-FP1 0.5% BWOC Defoamer	D-R1 .5% Retarder
Tail	ASTM Type III Blend		BWOC Fluid Loss & Gas Migration Control		D-CD 2 .5% BWOC Dispersant	Cello Flace LCM .25 lb/sx		D-R1 .2% Retarder

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

4,049 ft (MD)	to	17,001 ft (MD)	Hole Section Length:	12,952 ft
3,713 ft (TVD)	to	5,713 ft (TVD)	Casing Required:	17,001 ft

Estimated KOP:	5,747 ft (MD)	5,189 ft (TVD)
Estimated Landing Point (P.O.E.):	6,235 ft (MD)	5,548 ft (TVD)
Estimated Lateral Length:	10,766 ft (MD)	

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

Hole Size: 8-1/2"

Bit / Motor: PDC 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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,822	9,035	349,395	349,395
Min. S.F.					2.64	1.18	1.56	1.27

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)
Spacer	IntegraGuard Star	11		31.6		0	60 bbls	
Lead	ASTM type I/II	12.4	2.370	13.40	50%	0	608	1,440
Tail	G:POZ blend	13.3	1.570	7.70	10%	5,070	1,923	3,019
Displacement	375	est bbls						
Annular Capacity	0.2691	cuft/ft	5-1/2" casing x 9-5/8" casing annulus					
	0.2291	cuft/ft	5-1/2" casing x 8-1/2" hole annulus					
	0.1245	cuft/ft	5-1/2" casing vol					

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	ASTM Type I/II	BA90 Bonding Agent 5.0 lb/sx	Bentonite Viscosifier 8% BWOB	FL24 Fluid Loss .5% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R7C Retarder .2% BWOB	FP24 Defoamer 0.3% BWOB, Anti- Static .01 lb/sx
Tail	Type G 50%	Pozzolan Fly Ash Extender 50%	BA90 Bonding Agent 3.0 lb/sx	Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	FP24 Defoamer .3% BWOB, IntegraSeal 0.25 lb/sx

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

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 10,666
Est Frac Inform: 44 Frac Stages 171,000 bbls slick water 13,870,000 lbs proppant
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 3/3/2023
Completion: 4/17/2023
Production: 5/17/2023

Prepared by: Alec Bridge 10/17/2019
Updated by: G Olson 7/15/2022
G Olson 8/17/2023

WELL NAME: RIDGE UNIT 129H

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

API Number: not yet assigned

State: New Mexico

County: San Juan

Surface Elev.: 6,923 ft ASL (GL) 6,948 ft ASL (KB)

Surface Location: 25-24N-08W Sec-Twn- Rng 2,371 ft FNL 1,292 ft FEL

BH Location: 22-24N-08W Sec-Twn- Rng 237 ft FNL 732 ft FEL

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM: South on US Hwy 550 for 43.5 miles to County Road 7998, Left (North) on CR 7998 for 1.0 miles to fork in road, Left (North-West) on lease road for 0.2 miles to fork in road, Right (Straight)(West) for 0.4 miles to fork, Right (North-East) for 0.6 miles to access road, right on access road for 0.4 miles to Ridge Unit 127H Pad. The 129H well is the furthest West well and closest to the location entrance

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	4,049 ft
KOP (MD)	5,747 ft
KOP (TVD)	5,189 ft
Target (TVD)	5,548 ft
Curve BUR	10 °/100 ft
POE (MD)	6,235 ft
TD (MD)	17,001 ft
Lat Len (ft)	10,766 ft

WELL CONSTRUCTION SUMMARY:

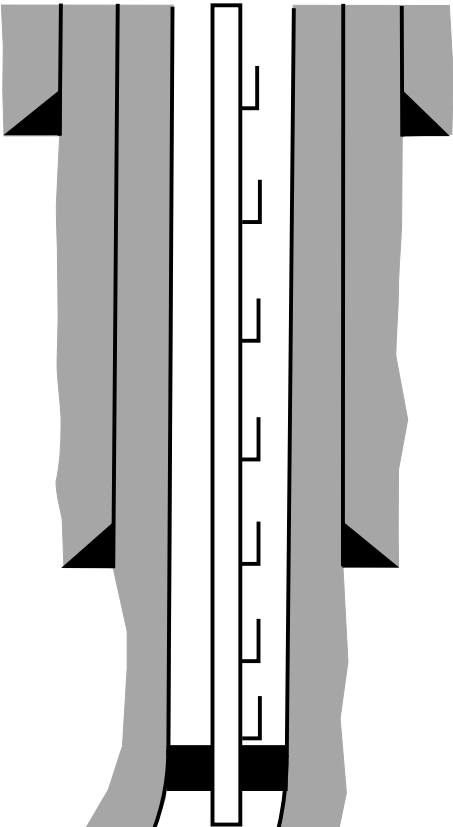
	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	4,049	9.625	36.0	J-55	LTC	0	4,049
Production	8.500	17,001	5.500	17.0	P-110	LTC	0	17,001

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)	Total Cu Ft
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	364	505
Inter. (Lead)	90:10 Type III:POZ	12.5	2.14	12.05	0.3132	70%	0	883	1,890
Inter. (Tail)	Type III	14.6	1.38	6.61	0.3132	20%	3,549	150	207
Prod. (Lead)	ASTM type I/II	12.4	2.37	13.4	0.2291	50%	0	608	1,440
Prod. (Tail)	G:POZ blend	13.3	1.57	7.7	0.2291	10%	5,070	1,923	3,019

COMPLETION / PRODUCTION SUMMARY:

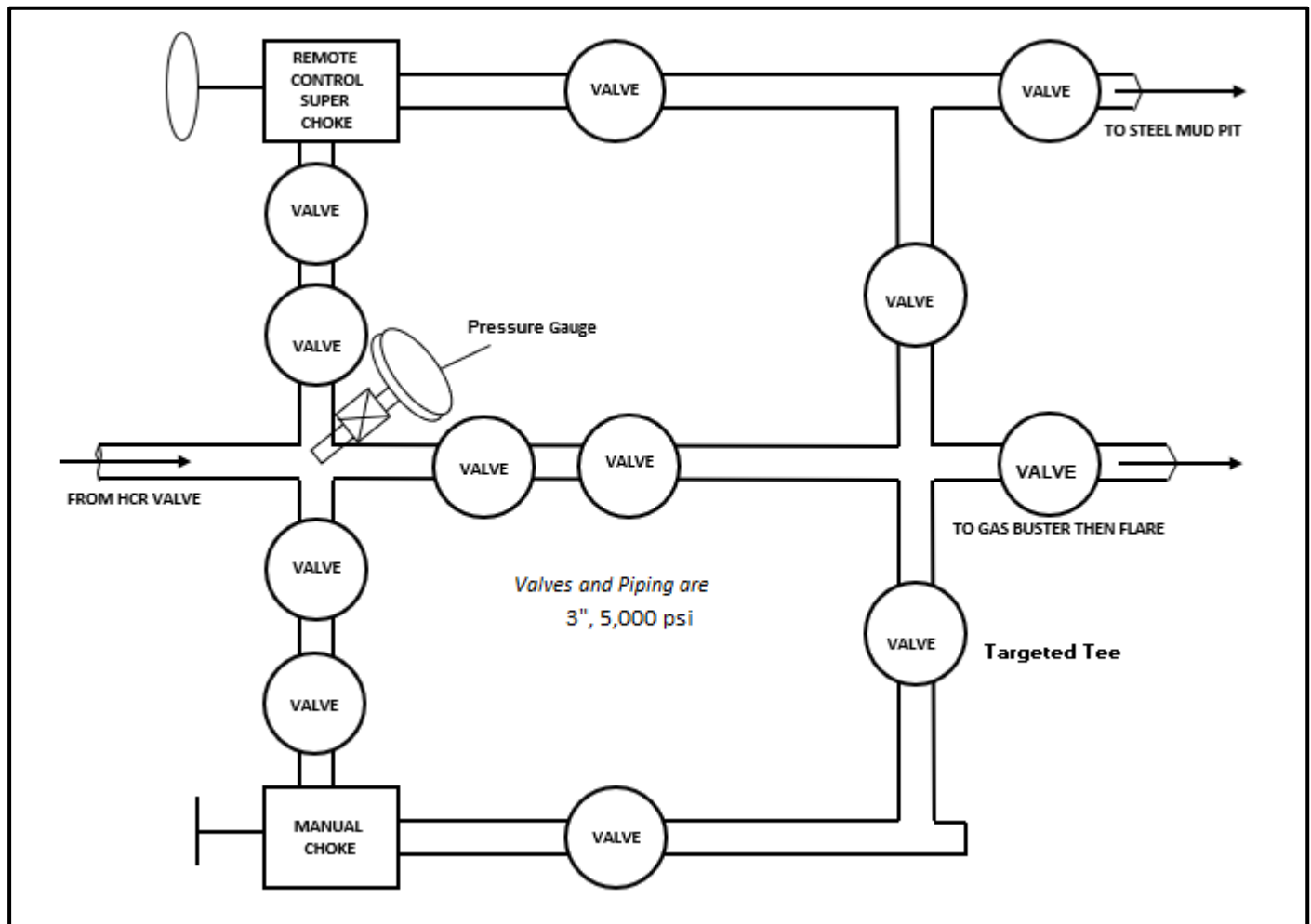
Frac: 10666
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)
Production: Produce through production tubing via gas-lift into permanent production and storage facilities



Tops	TVD (ft KB)
Ojo Alamo	1,358
Kirtland	1,473
Fruitland	1,718
Pictured Cliffs	2,013
Lewis	2,138
Chacra	2,448
Cliff House	3,548
Menefee	3,563
Point Lookout	4,393
Mancos	4,598
Gallup (MNCS_A)	4,963
MNCS_B	5,048
MNCS_C	5,178
MNCS_Cms	5,253
MNCS_D	5,328
MNCS_E	5,408
MNCS_F	5,453
MNCS_G	5,548
MNCS_H	5,588
MNCS_I	5,628
P.O.E. TARGET	5,548
PROJECTED TD	5,713

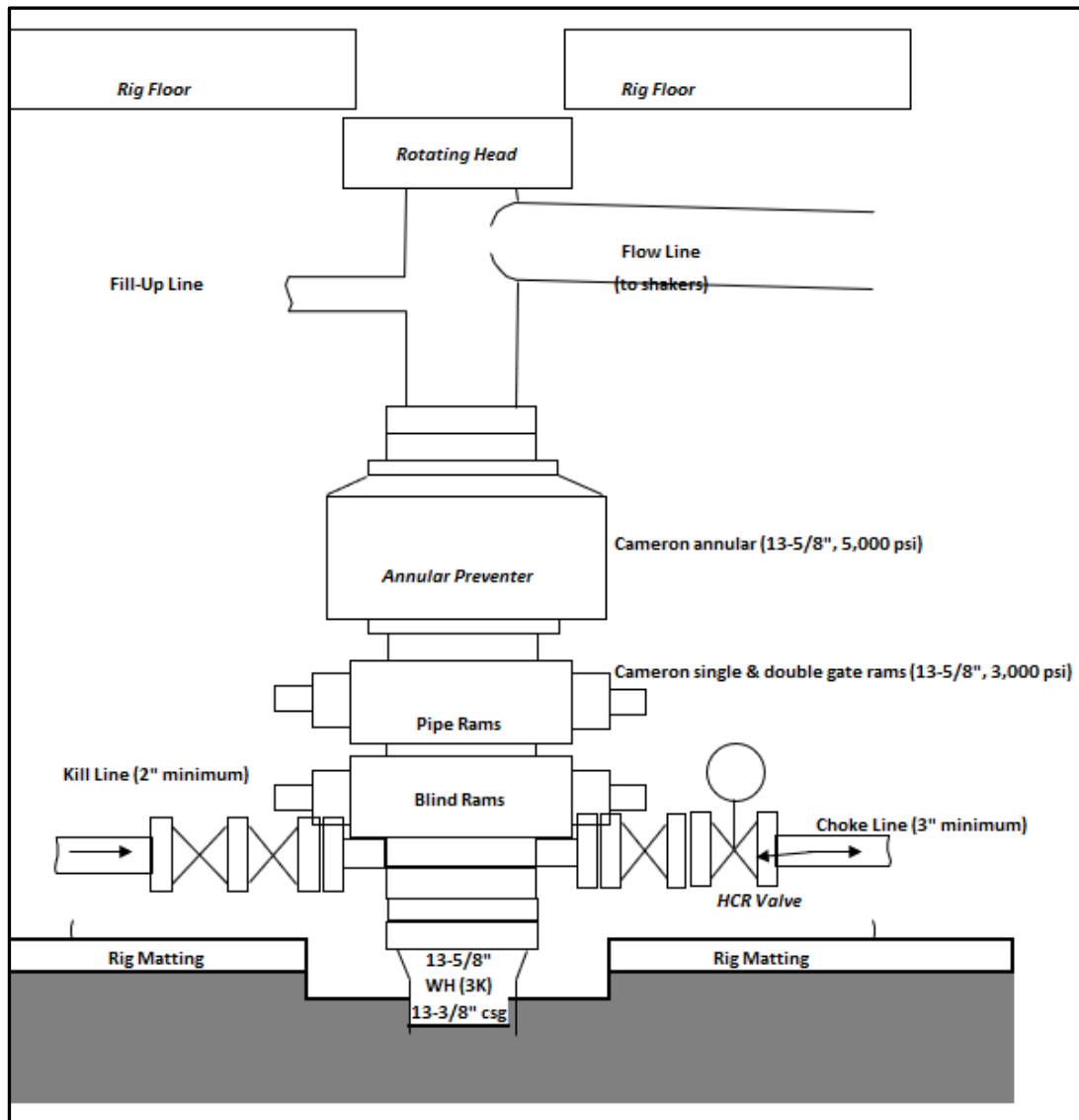


Enduring Resources IV, LLC CHOKE MANIFOLD





Enduring Resources IV, LLC BOPE Diagram





Well: Ridge Unit No. 129H
Site: Ridge Unit (124, 127, 128 & 129)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev1
Rig:

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Ridge 129H FTP 2383 FNL 1201 FWL r1	5651.00	18.75	-2732.96	1923430.439	2780625.079	36.285915000	-107.638117000
Ridge 129H LTP 237 FNL 732 FEL 330 perp r1	5713.00	7384.79	-10098.84	1930796.463	2773259.215	36.306188000	-107.663066000

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=6923+25 @ 6948.00ft

Surface location:
Northing: 1923411.691
Easting: 2783358.037
Latitude: 36.285848000
Longitude: -107.628844000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.41°

CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
3713.00	4060.49	9 5/8" Csg

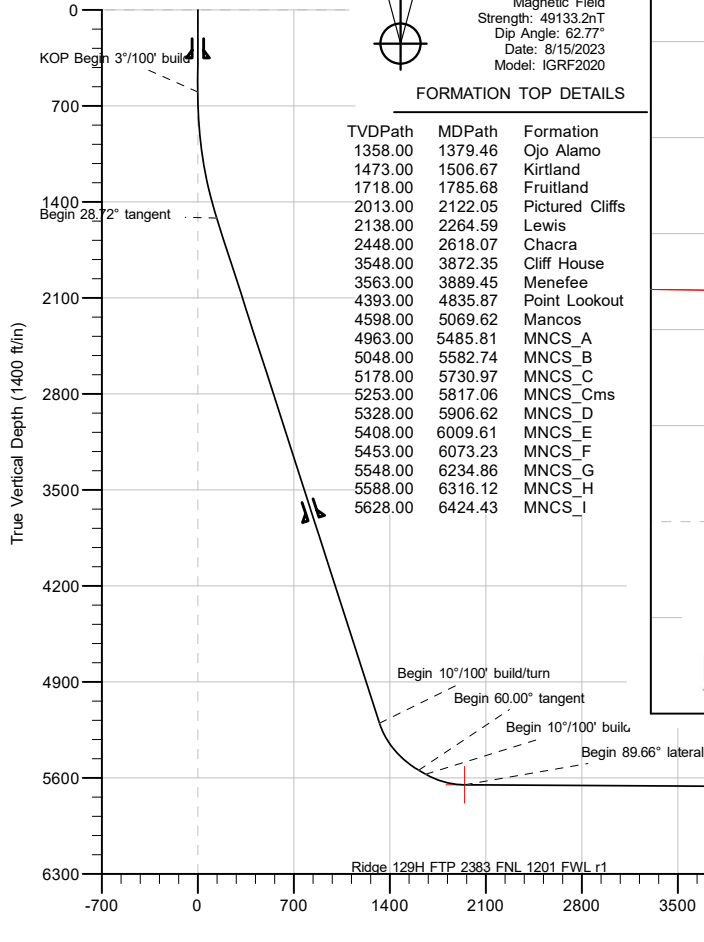


Azimuths to Grid North
True North: -0.12°
Magnetic North: 8.41°

Magnetic Field
Strength: 49133.2nT
Dip Angle: 62.77°
Date: 8/15/2023
Model: IGRF2020

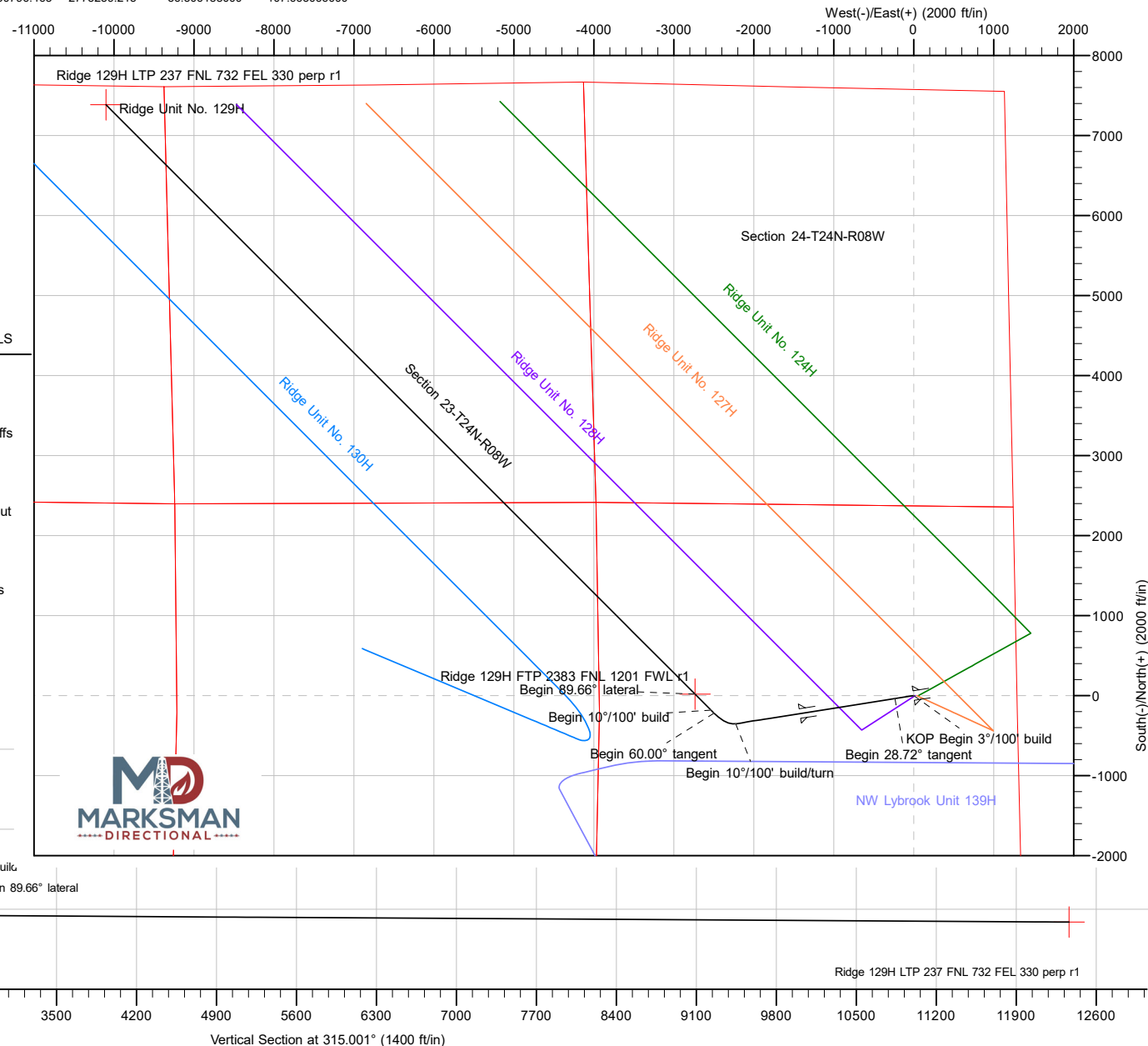
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1358.00	1379.46	Ojo Alamo
1473.00	1506.67	Kirtland
1718.00	1785.68	Fruitland
2013.00	2122.05	Pictured Cliffs
2138.00	2264.59	Lewis
2448.00	2618.07	Chacra
3548.00	3872.35	Cliff House
3563.00	3889.45	Menefee
4393.00	4835.87	Point Lookout
4598.00	5069.62	Mancos
4963.00	5485.81	MNCS_A
5048.00	5582.74	MNCS_B
5178.00	5730.97	MNCS_C
5253.00	5817.06	MNCS_Cms
5328.00	5906.62	MNCS_D
5408.00	6009.61	MNCS_E
5453.00	6073.23	MNCS_F
5548.00	6234.86	MNCS_G
5588.00	6316.12	MNCS_H
5628.00	6424.43	MNCS_I



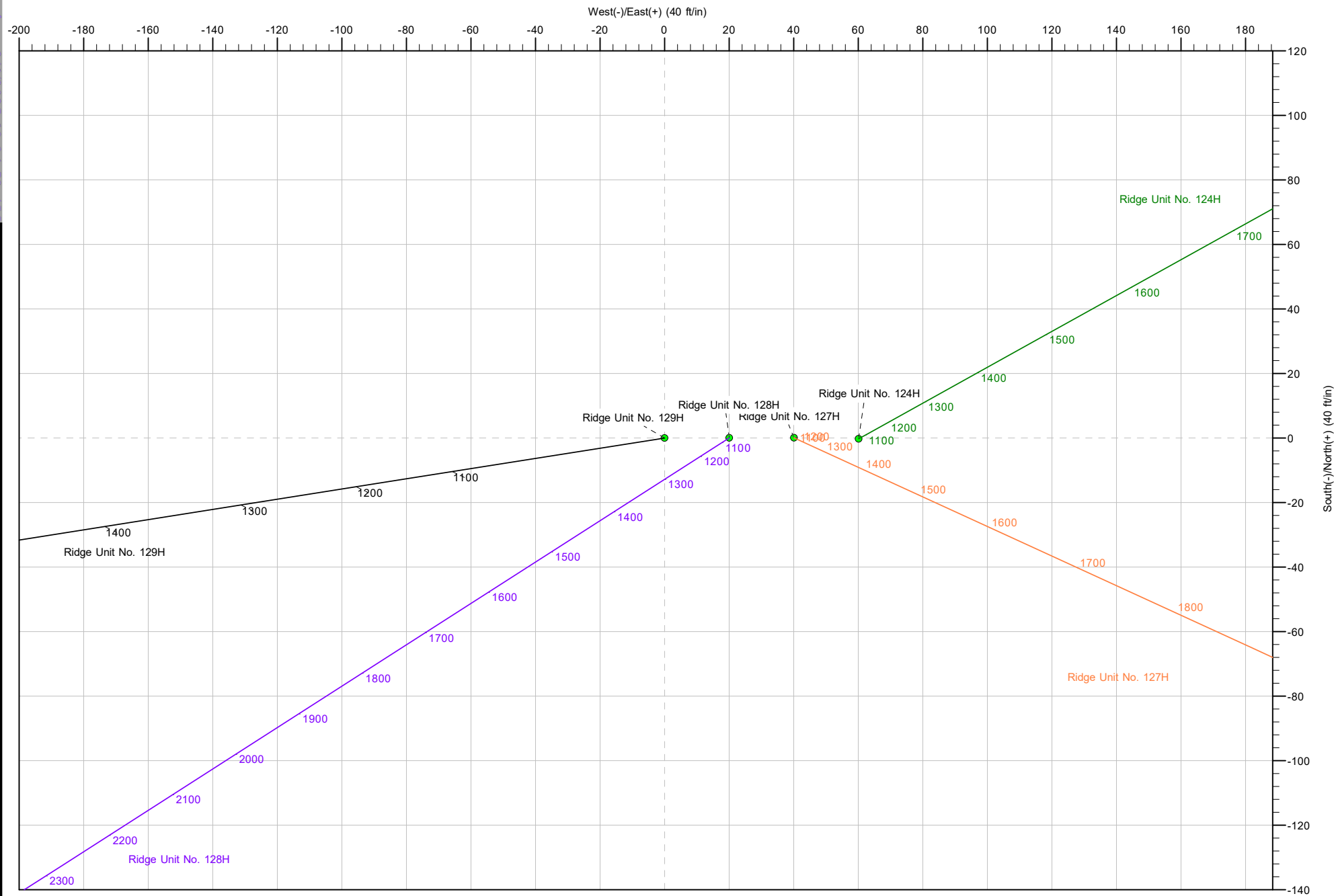
Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1557.27	28.72	261.022	1517.69	-36.66	-232.05	3.00	261.02	138.15	Begin 28.72° tangent
4	5758.31	28.72	261.022	5201.98	-351.69	-2225.92	0.00	0.00	1325.25	Begin 10°/100' build/turn
5	6227.36	60.00	315.001	5544.25	-218.11	-2496.10	10.00	73.58	1610.75	Begin 60.00° tangent
6	6287.36	60.00	315.001	5574.25	-181.37	-2532.84	0.00	0.00	1662.71	Begin 10°/100' build
7	6583.95	89.66	315.001	5651.00	18.79	-2733.00	10.00	0.00	1945.78	Begin 89.66° lateral
8	17001.12	89.66	315.001	5713.00	7384.79	10098.84	0.00	0.00	12362.76	PBHL/TD





Well: Ridge Unit No. 129H
Site: Ridge Unit (124, 127, 128 & 129)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev1
Rig:



9:56, August 16 2023



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	Ridge Unit (124, 127, 128 & 129)		
Site Position:		Northing:	1,923,411.454 usft
From:	Lat/Long	Easting:	2,783,418.160 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.285847000
		Longitude:	-107.628640000

Well	Ridge Unit No. 129H, Surf loc: 2371 FNL 1292 FEL Section 25-T24N-R08W		
Well Position	+N/-S	0.00 ft	Northing: 1,923,411.691 usft
	+E/-W	0.00 ft	Easting: 2,783,358.037 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.12 °	Ground Level:	6,923.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/15/2023	8.53	62.77	49,133.20084693

Design	rev1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	315.001	

Plan Survey Tool Program	Date	8/16/2023			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	17,000.25	rev1 (Original Hole)	MWD	
				OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,557.27	28.72	261.022	1,517.69	-36.66	-232.05	3.00	3.00	0.00	261.02	
5,758.31	28.72	261.022	5,201.98	-351.69	-2,225.92	0.00	0.00	0.00	0.00	
6,227.36	60.00	315.001	5,544.25	-218.11	-2,496.10	10.00	6.67	11.51	73.58	
6,287.36	60.00	315.001	5,574.25	-181.37	-2,532.84	0.00	0.00	0.00	0.00	
6,583.95	89.66	315.001	5,651.00	18.79	-2,733.00	10.00	10.00	0.00	0.00	
17,001.12	89.66	315.001	5,713.00	7,384.79	-10,098.84	0.00	0.00	0.00	0.00	Ridge 129H LTP 237



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.000	350.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8" Csg									
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
700.00	3.00	261.022	699.95	-0.41	-2.59	1.54	3.00	3.00	0.00
800.00	6.00	261.022	799.63	-1.63	-10.33	6.15	3.00	3.00	0.00
900.00	9.00	261.022	898.77	-3.67	-23.23	13.83	3.00	3.00	0.00
1,000.00	12.00	261.022	997.08	-6.51	-41.22	24.54	3.00	3.00	0.00
1,100.00	15.00	261.022	1,094.31	-10.16	-64.28	38.27	3.00	3.00	0.00
1,200.00	18.00	261.022	1,190.18	-14.59	-92.33	54.97	3.00	3.00	0.00
1,300.00	21.00	261.022	1,284.43	-19.80	-125.30	74.60	3.00	3.00	0.00
1,379.46	23.38	261.022	1,358.00	-24.48	-154.94	92.25	3.00	3.00	0.00
Ojo Alamo									
1,400.00	24.00	261.022	1,376.81	-25.77	-163.09	97.10	3.00	3.00	0.00
1,500.00	27.00	261.022	1,467.06	-32.49	-205.61	122.42	3.00	3.00	0.00
1,506.67	27.20	261.022	1,473.00	-32.96	-208.62	124.20	3.00	3.00	0.00
Kirtland									
1,557.27	28.72	261.022	1,517.69	-36.66	-232.05	138.15	3.00	3.00	0.00
Begin 28.72° tangent									
1,600.00	28.72	261.022	1,555.16	-39.87	-252.33	150.23	0.00	0.00	0.00
1,700.00	28.72	261.022	1,642.86	-47.37	-299.79	178.48	0.00	0.00	0.00
1,785.68	28.72	261.022	1,718.00	-53.79	-340.45	202.69	0.00	0.00	0.00
Fruitland									
1,800.00	28.72	261.022	1,730.56	-54.86	-347.25	206.74	0.00	0.00	0.00
1,900.00	28.72	261.022	1,818.26	-62.36	-394.71	235.00	0.00	0.00	0.00
2,000.00	28.72	261.022	1,905.96	-69.86	-442.17	263.26	0.00	0.00	0.00
2,100.00	28.72	261.022	1,993.66	-77.36	-489.63	291.51	0.00	0.00	0.00
2,122.05	28.72	261.022	2,013.00	-79.01	-500.10	297.74	0.00	0.00	0.00
Pictured Cliffs									
2,200.00	28.72	261.022	2,081.36	-84.86	-537.09	319.77	0.00	0.00	0.00
2,264.59	28.72	261.022	2,138.00	-89.70	-567.75	338.02	0.00	0.00	0.00
Lewis									
2,300.00	28.72	261.022	2,169.06	-92.36	-584.55	348.03	0.00	0.00	0.00
2,400.00	28.72	261.022	2,256.76	-99.86	-632.02	376.28	0.00	0.00	0.00
2,500.00	28.72	261.022	2,344.46	-107.36	-679.48	404.54	0.00	0.00	0.00
2,600.00	28.72	261.022	2,432.16	-114.85	-726.94	432.80	0.00	0.00	0.00
2,618.07	28.72	261.022	2,448.00	-116.21	-735.51	437.90	0.00	0.00	0.00
Chacra									
2,700.00	28.72	261.022	2,519.86	-122.35	-774.40	461.06	0.00	0.00	0.00
2,800.00	28.72	261.022	2,607.56	-129.85	-821.86	489.31	0.00	0.00	0.00
2,900.00	28.72	261.022	2,695.26	-137.35	-869.32	517.57	0.00	0.00	0.00
3,000.00	28.72	261.022	2,782.95	-144.85	-916.78	545.83	0.00	0.00	0.00
3,100.00	28.72	261.022	2,870.65	-152.35	-964.25	574.08	0.00	0.00	0.00
3,200.00	28.72	261.022	2,958.35	-159.85	-1,011.71	602.34	0.00	0.00	0.00
3,300.00	28.72	261.022	3,046.05	-167.35	-1,059.17	630.60	0.00	0.00	0.00
3,400.00	28.72	261.022	3,133.75	-174.85	-1,106.63	658.85	0.00	0.00	0.00
3,500.00	28.72	261.022	3,221.45	-182.34	-1,154.09	687.11	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,600.00	28.72	261.022	3,309.15	-189.84	-1,201.55	715.37	0.00	0.00	0.00	
3,700.00	28.72	261.022	3,396.85	-197.34	-1,249.01	743.63	0.00	0.00	0.00	
3,800.00	28.72	261.022	3,484.55	-204.84	-1,296.47	771.88	0.00	0.00	0.00	
3,872.35	28.72	261.022	3,548.00	-210.27	-1,330.81	792.33	0.00	0.00	0.00	
Cliff House										
3,889.45	28.72	261.022	3,563.00	-211.55	-1,338.93	797.16	0.00	0.00	0.00	
Menefee										
3,900.00	28.72	261.022	3,572.25	-212.34	-1,343.94	800.14	0.00	0.00	0.00	
4,000.00	28.72	261.022	3,659.95	-219.84	-1,391.40	828.40	0.00	0.00	0.00	
4,060.49	28.72	261.022	3,713.00	-224.37	-1,420.11	845.49	0.00	0.00	0.00	
9 5/8" Csg										
4,100.00	28.72	261.022	3,747.65	-227.34	-1,438.86	856.65	0.00	0.00	0.00	
4,200.00	28.72	261.022	3,835.35	-234.84	-1,486.32	884.91	0.00	0.00	0.00	
4,300.00	28.72	261.022	3,923.05	-242.33	-1,533.78	913.17	0.00	0.00	0.00	
4,400.00	28.72	261.022	4,010.75	-249.83	-1,581.24	941.43	0.00	0.00	0.00	
4,500.00	28.72	261.022	4,098.45	-257.33	-1,628.70	969.68	0.00	0.00	0.00	
4,600.00	28.72	261.022	4,186.15	-264.83	-1,676.16	997.94	0.00	0.00	0.00	
4,700.00	28.72	261.022	4,273.84	-272.33	-1,723.63	1,026.20	0.00	0.00	0.00	
4,800.00	28.72	261.022	4,361.54	-279.83	-1,771.09	1,054.45	0.00	0.00	0.00	
4,835.87	28.72	261.022	4,393.00	-282.52	-1,788.11	1,064.59	0.00	0.00	0.00	
Point Lookout										
4,900.00	28.72	261.022	4,449.24	-287.33	-1,818.55	1,082.71	0.00	0.00	0.00	
5,000.00	28.72	261.022	4,536.94	-294.83	-1,866.01	1,110.97	0.00	0.00	0.00	
5,069.62	28.72	261.022	4,598.00	-300.05	-1,899.05	1,130.64	0.00	0.00	0.00	
Mancos										
5,100.00	28.72	261.022	4,624.64	-302.32	-1,913.47	1,139.23	0.00	0.00	0.00	
5,200.00	28.72	261.022	4,712.34	-309.82	-1,960.93	1,167.48	0.00	0.00	0.00	
5,300.00	28.72	261.022	4,800.04	-317.32	-2,008.39	1,195.74	0.00	0.00	0.00	
5,400.00	28.72	261.022	4,887.74	-324.82	-2,055.86	1,224.00	0.00	0.00	0.00	
5,485.81	28.72	261.022	4,963.00	-331.26	-2,096.58	1,248.25	0.00	0.00	0.00	
MNCS_A										
5,500.00	28.72	261.022	4,975.44	-332.32	-2,103.32	1,252.25	0.00	0.00	0.00	
5,582.74	28.72	261.022	5,048.00	-338.52	-2,142.58	1,275.63	0.00	0.00	0.00	
MNCS_B										
5,600.00	28.72	261.022	5,063.14	-339.82	-2,150.78	1,280.51	0.00	0.00	0.00	
5,700.00	28.72	261.022	5,150.84	-347.32	-2,198.24	1,308.77	0.00	0.00	0.00	
5,730.97	28.72	261.022	5,178.00	-349.64	-2,212.94	1,317.52	0.00	0.00	0.00	
MNCS_C										
5,758.31	28.72	261.022	5,201.98	-351.69	-2,225.92	1,325.25	0.00	0.00	0.00	
Begin 10°/100' build/turn										
5,800.00	30.14	269.004	5,238.30	-353.44	-2,246.28	1,338.41	10.00	3.41	19.15	
5,817.06	30.85	272.059	5,253.00	-353.35	-2,254.94	1,344.59	10.00	4.18	17.91	
MNCS_Cms										
5,850.00	32.42	277.587	5,281.05	-351.88	-2,272.13	1,357.79	10.00	4.76	16.78	
5,900.00	35.21	285.054	5,322.61	-346.37	-2,299.36	1,380.94	10.00	5.58	14.94	
5,906.62	35.61	285.963	5,328.00	-345.34	-2,303.05	1,384.28	10.00	6.06	13.73	
MNCS_D										
5,950.00	38.39	291.496	5,362.65	-336.93	-2,327.74	1,407.68	10.00	6.42	12.75	
6,000.00	41.88	297.056	5,400.89	-323.64	-2,357.07	1,437.82	10.00	6.98	11.12	
6,009.61	42.58	298.036	5,408.00	-320.65	-2,362.79	1,443.98	10.00	7.28	10.20	
MNCS_E										
6,050.00	45.61	301.886	5,437.01	-306.60	-2,387.12	1,471.12	10.00	7.49	9.53	
6,073.23	47.40	303.922	5,453.00	-297.44	-2,401.26	1,487.59	10.00	7.72	8.76	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
MNCS_F									
6,100.00	49.51	306.126	5,470.76	-285.94	-2,417.66	1,507.32	10.00	7.88	8.23
6,150.00	53.55	309.891	5,501.86	-261.82	-2,448.47	1,546.16	10.00	8.08	7.53
6,200.00	57.69	313.278	5,530.10	-234.42	-2,479.30	1,587.34	10.00	8.29	6.77
6,227.36	60.00	315.001	5,544.25	-218.11	-2,496.10	1,610.75	10.00	8.43	6.30
Begin 60.00° tangent									
6,234.86	60.00	315.001	5,548.00	-213.52	-2,500.69	1,617.24	0.00	0.00	0.00
MNCS_G									
6,287.36	60.00	315.001	5,574.25	-181.37	-2,532.84	1,662.71	0.00	0.00	0.00
Begin 10°/100' build									
6,300.00	61.26	315.001	5,580.45	-173.58	-2,540.63	1,673.72	10.00	10.00	0.00
6,316.12	62.88	315.001	5,588.00	-163.51	-2,550.70	1,687.97	10.00	10.00	0.00
MNCS_H									
6,350.00	66.26	315.001	5,602.54	-141.88	-2,572.33	1,718.56	10.00	10.00	0.00
6,400.00	71.26	315.001	5,620.65	-108.93	-2,605.27	1,765.15	10.00	10.00	0.00
6,424.43	73.71	315.001	5,628.00	-92.46	-2,621.74	1,788.44	10.00	10.00	0.00
MNCS_I									
6,450.00	76.26	315.001	5,634.63	-75.00	-2,639.21	1,813.14	10.00	10.00	0.00
6,500.00	81.26	315.001	5,644.36	-40.33	-2,673.87	1,862.16	10.00	10.00	0.00
6,550.00	86.26	315.001	5,649.79	-5.20	-2,709.01	1,911.85	10.00	10.00	0.00
6,583.95	89.66	315.001	5,651.00	18.79	-2,733.00	1,945.78	10.00	10.00	0.00
Begin 89.66° lateral									
6,600.00	89.66	315.001	5,651.10	30.14	-2,744.35	1,961.82	0.00	0.00	0.00
6,700.00	89.66	315.001	5,651.69	100.85	-2,815.05	2,061.82	0.00	0.00	0.00
6,800.00	89.66	315.001	5,652.29	171.56	-2,885.76	2,161.82	0.00	0.00	0.00
6,900.00	89.66	315.001	5,652.88	242.27	-2,956.47	2,261.82	0.00	0.00	0.00
7,000.00	89.66	315.001	5,653.48	312.98	-3,027.18	2,361.82	0.00	0.00	0.00
7,100.00	89.66	315.001	5,654.07	383.69	-3,097.89	2,461.82	0.00	0.00	0.00
7,200.00	89.66	315.001	5,654.67	454.40	-3,168.60	2,561.81	0.00	0.00	0.00
7,300.00	89.66	315.001	5,655.26	525.11	-3,239.31	2,661.81	0.00	0.00	0.00
7,400.00	89.66	315.001	5,655.86	595.82	-3,310.01	2,761.81	0.00	0.00	0.00
7,500.00	89.66	315.001	5,656.45	666.53	-3,380.72	2,861.81	0.00	0.00	0.00
7,600.00	89.66	315.001	5,657.05	737.24	-3,451.43	2,961.81	0.00	0.00	0.00
7,700.00	89.66	315.001	5,657.64	807.95	-3,522.14	3,061.80	0.00	0.00	0.00
7,800.00	89.66	315.001	5,658.24	878.66	-3,592.85	3,161.80	0.00	0.00	0.00
7,900.00	89.66	315.001	5,658.83	949.37	-3,663.56	3,261.80	0.00	0.00	0.00
8,000.00	89.66	315.001	5,659.43	1,020.08	-3,734.27	3,361.80	0.00	0.00	0.00
8,100.00	89.66	315.001	5,660.02	1,090.79	-3,804.98	3,461.80	0.00	0.00	0.00
8,200.00	89.66	315.001	5,660.62	1,161.50	-3,875.68	3,561.80	0.00	0.00	0.00
8,300.00	89.66	315.001	5,661.21	1,232.21	-3,946.39	3,661.79	0.00	0.00	0.00
8,400.00	89.66	315.001	5,661.81	1,302.92	-4,017.10	3,761.79	0.00	0.00	0.00
8,500.00	89.66	315.001	5,662.41	1,373.63	-4,087.81	3,861.79	0.00	0.00	0.00
8,600.00	89.66	315.001	5,663.00	1,444.34	-4,158.52	3,961.79	0.00	0.00	0.00
8,700.00	89.66	315.001	5,663.60	1,515.05	-4,229.23	4,061.79	0.00	0.00	0.00
8,800.00	89.66	315.001	5,664.19	1,585.76	-4,299.94	4,161.79	0.00	0.00	0.00
8,900.00	89.66	315.001	5,664.79	1,656.47	-4,370.65	4,261.78	0.00	0.00	0.00
9,000.00	89.66	315.001	5,665.38	1,727.18	-4,441.35	4,361.78	0.00	0.00	0.00
9,100.00	89.66	315.001	5,665.98	1,797.89	-4,512.06	4,461.78	0.00	0.00	0.00
9,200.00	89.66	315.001	5,666.57	1,868.60	-4,582.77	4,561.78	0.00	0.00	0.00
9,300.00	89.66	315.001	5,667.17	1,939.31	-4,653.48	4,661.78	0.00	0.00	0.00
9,400.00	89.66	315.001	5,667.76	2,010.02	-4,724.19	4,761.77	0.00	0.00	0.00
9,500.00	89.66	315.001	5,668.36	2,080.73	-4,794.90	4,861.77	0.00	0.00	0.00
9,600.00	89.66	315.001	5,668.95	2,151.44	-4,865.61	4,961.77	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.00	89.66	315.001	5,669.55	2,222.16	-4,936.32	5,061.77	0.00	0.00	0.00
9,800.00	89.66	315.001	5,670.14	2,292.87	-5,007.02	5,161.77	0.00	0.00	0.00
9,900.00	89.66	315.001	5,670.74	2,363.58	-5,077.73	5,261.77	0.00	0.00	0.00
10,000.00	89.66	315.001	5,671.33	2,434.29	-5,148.44	5,361.76	0.00	0.00	0.00
10,100.00	89.66	315.001	5,671.93	2,505.00	-5,219.15	5,461.76	0.00	0.00	0.00
10,200.00	89.66	315.001	5,672.52	2,575.71	-5,289.86	5,561.76	0.00	0.00	0.00
10,300.00	89.66	315.001	5,673.12	2,646.42	-5,360.57	5,661.76	0.00	0.00	0.00
10,400.00	89.66	315.001	5,673.71	2,717.13	-5,431.28	5,761.76	0.00	0.00	0.00
10,500.00	89.66	315.001	5,674.31	2,787.84	-5,501.98	5,861.76	0.00	0.00	0.00
10,600.00	89.66	315.001	5,674.90	2,858.55	-5,572.69	5,961.75	0.00	0.00	0.00
10,700.00	89.66	315.001	5,675.50	2,929.26	-5,643.40	6,061.75	0.00	0.00	0.00
10,800.00	89.66	315.001	5,676.09	2,999.97	-5,714.11	6,161.75	0.00	0.00	0.00
10,900.00	89.66	315.001	5,676.69	3,070.68	-5,784.82	6,261.75	0.00	0.00	0.00
11,000.00	89.66	315.001	5,677.28	3,141.39	-5,855.53	6,361.75	0.00	0.00	0.00
11,100.00	89.66	315.001	5,677.88	3,212.10	-5,926.24	6,461.74	0.00	0.00	0.00
11,200.00	89.66	315.001	5,678.47	3,282.81	-5,996.95	6,561.74	0.00	0.00	0.00
11,300.00	89.66	315.001	5,679.07	3,353.52	-6,067.65	6,661.74	0.00	0.00	0.00
11,400.00	89.66	315.001	5,679.66	3,424.23	-6,138.36	6,761.74	0.00	0.00	0.00
11,500.00	89.66	315.001	5,680.26	3,494.94	-6,209.07	6,861.74	0.00	0.00	0.00
11,600.00	89.66	315.001	5,680.86	3,565.65	-6,279.78	6,961.74	0.00	0.00	0.00
11,700.00	89.66	315.001	5,681.45	3,636.36	-6,350.49	7,061.73	0.00	0.00	0.00
11,800.00	89.66	315.001	5,682.05	3,707.07	-6,421.20	7,161.73	0.00	0.00	0.00
11,900.00	89.66	315.001	5,682.64	3,777.78	-6,491.91	7,261.73	0.00	0.00	0.00
12,000.00	89.66	315.001	5,683.24	3,848.49	-6,562.62	7,361.73	0.00	0.00	0.00
12,100.00	89.66	315.001	5,683.83	3,919.20	-6,633.32	7,461.73	0.00	0.00	0.00
12,200.00	89.66	315.001	5,684.43	3,989.91	-6,704.03	7,561.73	0.00	0.00	0.00
12,300.00	89.66	315.001	5,685.02	4,060.62	-6,774.74	7,661.72	0.00	0.00	0.00
12,400.00	89.66	315.001	5,685.62	4,131.33	-6,845.45	7,761.72	0.00	0.00	0.00
12,500.00	89.66	315.001	5,686.21	4,202.04	-6,916.16	7,861.72	0.00	0.00	0.00
12,600.00	89.66	315.001	5,686.81	4,272.75	-6,986.87	7,961.72	0.00	0.00	0.00
12,700.00	89.66	315.001	5,687.40	4,343.46	-7,057.58	8,061.72	0.00	0.00	0.00
12,800.00	89.66	315.001	5,688.00	4,414.17	-7,128.29	8,161.71	0.00	0.00	0.00
12,900.00	89.66	315.001	5,688.59	4,484.88	-7,198.99	8,261.71	0.00	0.00	0.00
13,000.00	89.66	315.001	5,689.19	4,555.59	-7,269.70	8,361.71	0.00	0.00	0.00
13,100.00	89.66	315.001	5,689.78	4,626.30	-7,340.41	8,461.71	0.00	0.00	0.00
13,200.00	89.66	315.001	5,690.38	4,697.01	-7,411.12	8,561.71	0.00	0.00	0.00
13,300.00	89.66	315.001	5,690.97	4,767.72	-7,481.83	8,661.71	0.00	0.00	0.00
13,400.00	89.66	315.001	5,691.57	4,838.43	-7,552.54	8,761.70	0.00	0.00	0.00
13,500.00	89.66	315.001	5,692.16	4,909.14	-7,623.25	8,861.70	0.00	0.00	0.00
13,600.00	89.66	315.001	5,692.76	4,979.85	-7,693.95	8,961.70	0.00	0.00	0.00
13,700.00	89.66	315.001	5,693.35	5,050.56	-7,764.66	9,061.70	0.00	0.00	0.00
13,800.00	89.66	315.001	5,693.95	5,121.27	-7,835.37	9,161.70	0.00	0.00	0.00
13,900.00	89.66	315.001	5,694.54	5,191.98	-7,906.08	9,261.69	0.00	0.00	0.00
14,000.00	89.66	315.001	5,695.14	5,262.69	-7,976.79	9,361.69	0.00	0.00	0.00
14,100.00	89.66	315.001	5,695.73	5,333.40	-8,047.50	9,461.69	0.00	0.00	0.00
14,200.00	89.66	315.001	5,696.33	5,404.11	-8,118.21	9,561.69	0.00	0.00	0.00
14,300.00	89.66	315.001	5,696.92	5,474.82	-8,188.92	9,661.69	0.00	0.00	0.00
14,400.00	89.66	315.001	5,697.52	5,545.53	-8,259.62	9,761.69	0.00	0.00	0.00
14,500.00	89.66	315.001	5,698.11	5,616.24	-8,330.33	9,861.68	0.00	0.00	0.00
14,600.00	89.66	315.001	5,698.71	5,686.95	-8,401.04	9,961.68	0.00	0.00	0.00
14,700.00	89.66	315.001	5,699.30	5,757.66	-8,471.75	10,061.68	0.00	0.00	0.00
14,800.00	89.66	315.001	5,699.90	5,828.37	-8,542.46	10,161.68	0.00	0.00	0.00
14,900.00	89.66	315.001	5,700.50	5,899.08	-8,613.17	10,261.68	0.00	0.00	0.00
15,000.00	89.66	315.001	5,701.09	5,969.79	-8,683.88	10,361.68	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,100.00	89.66	315.001	5,701.69	6,040.50	-8,754.59	10,461.67	0.00	0.00	0.00
15,200.00	89.66	315.001	5,702.28	6,111.21	-8,825.29	10,561.67	0.00	0.00	0.00
15,300.00	89.66	315.001	5,702.88	6,181.92	-8,896.00	10,661.67	0.00	0.00	0.00
15,400.00	89.66	315.001	5,703.47	6,252.63	-8,966.71	10,761.67	0.00	0.00	0.00
15,500.00	89.66	315.001	5,704.07	6,323.34	-9,037.42	10,861.67	0.00	0.00	0.00
15,600.00	89.66	315.001	5,704.66	6,394.05	-9,108.13	10,961.66	0.00	0.00	0.00
15,700.00	89.66	315.001	5,705.26	6,464.76	-9,178.84	11,061.66	0.00	0.00	0.00
15,800.00	89.66	315.001	5,705.85	6,535.47	-9,249.55	11,161.66	0.00	0.00	0.00
15,900.00	89.66	315.001	5,706.45	6,606.18	-9,320.26	11,261.66	0.00	0.00	0.00
16,000.00	89.66	315.001	5,707.04	6,676.89	-9,390.96	11,361.66	0.00	0.00	0.00
16,100.00	89.66	315.001	5,707.64	6,747.60	-9,461.67	11,461.66	0.00	0.00	0.00
16,200.00	89.66	315.001	5,708.23	6,818.31	-9,532.38	11,561.65	0.00	0.00	0.00
16,300.00	89.66	315.001	5,708.83	6,889.02	-9,603.09	11,661.65	0.00	0.00	0.00
16,400.00	89.66	315.001	5,709.42	6,959.73	-9,673.80	11,761.65	0.00	0.00	0.00
16,500.00	89.66	315.001	5,710.02	7,030.44	-9,744.51	11,861.65	0.00	0.00	0.00
16,600.00	89.66	315.001	5,710.61	7,101.16	-9,815.22	11,961.65	0.00	0.00	0.00
16,700.00	89.66	315.001	5,711.21	7,171.87	-9,885.92	12,061.65	0.00	0.00	0.00
16,800.00	89.66	315.001	5,711.80	7,242.58	-9,956.63	12,161.64	0.00	0.00	0.00
16,900.00	89.66	315.001	5,712.40	7,313.29	-10,027.34	12,261.64	0.00	0.00	0.00
17,001.12	89.66	315.001	5,713.00	7,384.79	-10,098.84	12,362.76	0.00	0.00	0.00
PBHL/TD @ 17001.12 MD 5713.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Ridge 129H FTP 2383 F	0.00	0.000	5,651.00	18.75	-2,732.96	1,923,430.439	2,780,625.079	36.285915000	-107.638117000
- plan misses target center by 0.01ft at 6583.90ft MD (5651.00 TVD, 18.75 N, -2732.96 E)									
- Point									
Ridge 129H LTP 237 FN	0.00	0.000	5,713.00	7,384.79	-10,098.84	1,930,796.463	2,773,259.216	36.306188000	-107.663066000
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	13 3/8" Csg	13-3/8	17-1/2	
4,060.49	3,713.00	9 5/8" Csg	9-5/8	12-1/4	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,379.46	1,358.00	Ojo Alamo				
1,506.67	1,473.00	Kirtland				
1,785.68	1,718.00	Fruitland				
2,122.05	2,013.00	Pictured Cliffs				
2,264.59	2,138.00	Lewis				
2,618.07	2,448.00	Chacra				
3,872.35	3,548.00	Cliff House				
3,889.45	3,563.00	Menefee				
4,835.87	4,393.00	Point Lookout				
5,069.62	4,598.00	Mancos				
5,485.81	4,963.00	MNCS_A				
5,582.74	5,048.00	MNCS_B				
5,730.97	5,178.00	MNCS_C				
5,817.06	5,253.00	MNCS_Cms				
5,906.62	5,328.00	MNCS_D				
6,009.61	5,408.00	MNCS_E				
6,073.23	5,453.00	MNCS_F				
6,234.86	5,548.00	MNCS_G				
6,316.12	5,588.00	MNCS_H				
6,424.43	5,628.00	MNCS_I				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
600.00	600.00	0.00	0.00	KOP Begin 3°/100' build	
1,557.27	1,517.69	-36.66	-232.05	Begin 28.72° tangent	
5,758.31	5,201.98	-351.69	-2,225.92	Begin 10°/100' build/turn	
6,227.36	5,544.25	-218.11	-2,496.10	Begin 60.00° tangent	
6,287.36	5,574.25	-181.37	-2,532.84	Begin 10°/100' build	
6,583.95	5,651.00	18.79	-2,733.00	Begin 89.66° lateral	
17,001.12	5,713.00	7,384.79	-10,098.84	PBHL/TD @ 17001.12 MD 5713.00 TVD	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	Ridge Unit (124, 127, 128 & 129)				
Site Position:		Northing:	1,923,411.454 usft	Latitude:	36.285847000
From:	Lat/Long	Easting:	2,783,418.160 usft	Longitude:	-107.628640000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Ridge Unit No. 129H, Surf loc: 2371 FNL 1292 FEL Section 25-T24N-R08W						
Well Position	+N/-S	0.00 ft	Northing:	1,923,411.691	usft	Latitude:	36.285848000
	+E/-W	0.00 ft	Easting:	2,783,358.037	usft	Longitude:	-107.628844000
Position Uncertainty		0.00 ft	Wellhead Elevation:		ft	Ground Level:	6,923.00 ft
Grid Convergence:		0.12 °					

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/15/2023	8.53	62.77	49,133.20084693

Design	rev1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	315.001

Plan Survey Tool Program	Date	8/16/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,000.25 rev1 (Original Hole)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,557.27	28.72	261.022	1,517.69	-36.66	-232.05	3.00	3.00	0.00	261.02	
5,758.31	28.72	261.022	5,201.98	-351.69	-2,225.92	0.00	0.00	0.00	0.00	
6,227.36	60.00	315.001	5,544.25	-218.11	-2,496.10	10.00	6.67	11.51	73.58	
6,287.36	60.00	315.001	5,574.25	-181.37	-2,532.84	0.00	0.00	0.00	0.00	
6,583.95	89.66	315.001	5,651.00	18.79	-2,733.00	10.00	10.00	0.00	0.00	
17,001.12	89.66	315.001	5,713.00	7,384.79	-10,098.84	0.00	0.00	0.00	0.00	Ridge 129H LTP 237



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
100.00	0.00	0.000	100.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
200.00	0.00	0.000	200.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
300.00	0.00	0.000	300.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
350.00	0.00	0.000	350.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
13 3/8" Csg									
400.00	0.00	0.000	400.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
500.00	0.00	0.000	500.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
600.00	0.00	0.000	600.00	0.00	0.00	1,923,411.691	2,783,358.037	36.285848000	-107.628844000
KOP Begin 3°/100' build									
700.00	3.00	261.022	699.95	-0.41	-2.59	1,923,411.282	2,783,355.451	36.285846893	-107.628852775
800.00	6.00	261.022	799.63	-1.63	-10.33	1,923,410.058	2,783,347.702	36.285843575	-107.628879076
900.00	9.00	261.022	898.77	-3.67	-23.23	1,923,408.021	2,783,334.811	36.285838055	-107.628922832
1,000.00	12.00	261.022	997.08	-6.51	-41.22	1,923,405.178	2,783,316.813	36.285830347	-107.628983921
1,100.00	15.00	261.022	1,094.31	-10.16	-64.28	1,923,401.535	2,783,293.757	36.285820474	-107.629062177
1,200.00	18.00	261.022	1,190.18	-14.59	-92.33	1,923,397.103	2,783,265.707	36.285808462	-107.629157386
1,300.00	21.00	261.022	1,284.43	-19.80	-125.30	1,923,391.894	2,783,232.739	36.285794344	-107.629269285
1,379.46	23.38	261.022	1,358.00	-24.48	-154.94	1,923,387.211	2,783,203.097	36.285781650	-107.629369898
Ojo Alamo									
1,400.00	24.00	261.022	1,376.81	-25.77	-163.09	1,923,385.923	2,783,194.944	36.285778159	-107.629397569
1,500.00	27.00	261.022	1,467.06	-32.49	-205.61	1,923,379.205	2,783,152.425	36.285759950	-107.629541886
1,506.67	27.20	261.022	1,473.00	-32.96	-208.62	1,923,378.730	2,783,149.422	36.285758664	-107.629552080
Kirtland									
1,557.27	28.72	261.022	1,517.69	-36.66	-232.05	1,923,375.028	2,783,125.992	36.285748630	-107.629631606
Begin 28.72° tangent									
1,600.00	28.72	261.022	1,555.16	-39.87	-252.33	1,923,371.824	2,783,105.712	36.285739945	-107.629700440
1,700.00	28.72	261.022	1,642.86	-47.37	-299.79	1,923,364.325	2,783,058.251	36.285719620	-107.629861533
1,785.68	28.72	261.022	1,718.00	-53.79	-340.45	1,923,357.901	2,783,017.587	36.285702206	-107.629999552
Fruitland									
1,800.00	28.72	261.022	1,730.56	-54.86	-347.25	1,923,356.827	2,783,010.790	36.285699294	-107.630022626
1,900.00	28.72	261.022	1,818.26	-62.36	-394.71	1,923,349.328	2,782,963.328	36.285678969	-107.630183718
2,000.00	28.72	261.022	1,905.96	-69.86	-442.17	1,923,341.829	2,782,915.867	36.285658643	-107.630344810
2,100.00	28.72	261.022	1,993.66	-77.36	-489.63	1,923,334.330	2,782,868.406	36.285638316	-107.630505903
2,122.05	28.72	261.022	2,013.00	-79.01	-500.10	1,923,332.677	2,782,857.939	36.285633834	-107.630541429
Pictured Cliffs									
2,200.00	28.72	261.022	2,081.36	-84.86	-537.09	1,923,326.831	2,782,820.945	36.285617990	-107.630666995
2,264.59	28.72	261.022	2,138.00	-89.70	-567.75	1,923,321.988	2,782,790.292	36.285604862	-107.630771037
Lewis									
2,300.00	28.72	261.022	2,169.06	-92.36	-584.55	1,923,319.333	2,782,773.483	36.285597663	-107.630828087
2,400.00	28.72	261.022	2,256.76	-99.86	-632.02	1,923,311.834	2,782,726.022	36.285577336	-107.630989179
2,500.00	28.72	261.022	2,344.46	-107.36	-679.48	1,923,304.335	2,782,678.561	36.285557009	-107.631150271
2,600.00	28.72	261.022	2,432.16	-114.85	-726.94	1,923,296.836	2,782,631.100	36.285536682	-107.631311363
2,618.07	28.72	261.022	2,448.00	-116.21	-735.51	1,923,295.482	2,782,622.526	36.285533010	-107.631340465
Chacra									
2,700.00	28.72	261.022	2,519.86	-122.35	-774.40	1,923,289.338	2,782,583.638	36.285516354	-107.631472455
2,800.00	28.72	261.022	2,607.56	-129.85	-821.86	1,923,281.839	2,782,536.177	36.285496026	-107.631633547
2,900.00	28.72	261.022	2,695.26	-137.35	-869.32	1,923,274.340	2,782,488.716	36.285475698	-107.631794638
3,000.00	28.72	261.022	2,782.95	-144.85	-916.78	1,923,266.841	2,782,441.255	36.285455370	-107.631955730
3,100.00	28.72	261.022	2,870.65	-152.35	-964.25	1,923,259.342	2,782,393.794	36.285435042	-107.632116822
3,200.00	28.72	261.022	2,958.35	-159.85	-1,011.71	1,923,251.844	2,782,346.332	36.285414713	-107.632277913
3,300.00	28.72	261.022	3,046.05	-167.35	-1,059.17	1,923,244.345	2,782,298.871	36.285394384	-107.632439004
3,400.00	28.72	261.022	3,133.75	-174.85	-1,106.63	1,923,236.846	2,782,251.410	36.285374055	-107.632600096
3,500.00	28.72	261.022	3,221.45	-182.34	-1,154.09	1,923,229.347	2,782,203.949	36.285353726	-107.632761187



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,600.00	28.72	261.022	3,309.15	-189.84	-1,201.55	1,923,221.849	2,782,156.487	36.285333397	-107.632922278	
3,700.00	28.72	261.022	3,396.85	-197.34	-1,249.01	1,923,214.350	2,782,109.026	36.285313067	-107.633083369	
3,800.00	28.72	261.022	3,484.55	-204.84	-1,296.47	1,923,206.851	2,782,061.565	36.285292737	-107.633244460	
3,872.35	28.72	261.022	3,548.00	-210.27	-1,330.81	1,923,201.426	2,782,027.227	36.285278028	-107.633361008	
Cliff House										
3,889.45	28.72	261.022	3,563.00	-211.55	-1,338.93	1,923,200.143	2,782,019.109	36.285274551	-107.633388561	
Menefee										
3,900.00	28.72	261.022	3,572.25	-212.34	-1,343.94	1,923,199.352	2,782,014.104	36.285272407	-107.633405551	
4,000.00	28.72	261.022	3,659.95	-219.84	-1,391.40	1,923,191.853	2,781,966.642	36.285252076	-107.633566641	
4,060.49	28.72	261.022	3,713.00	-224.37	-1,420.11	1,923,187.317	2,781,937.932	36.285239778	-107.633664089	
9 5/8" Csg										
4,100.00	28.72	261.022	3,747.65	-227.34	-1,438.86	1,923,184.355	2,781,919.181	36.285231746	-107.633727732	
4,200.00	28.72	261.022	3,835.35	-234.84	-1,486.32	1,923,176.856	2,781,871.720	36.285211415	-107.633888823	
4,300.00	28.72	261.022	3,923.05	-242.33	-1,533.78	1,923,169.357	2,781,824.259	36.285191084	-107.634049913	
4,400.00	28.72	261.022	4,010.75	-249.83	-1,581.24	1,923,161.858	2,781,776.798	36.285170753	-107.634211004	
4,500.00	28.72	261.022	4,098.45	-257.33	-1,628.70	1,923,154.359	2,781,729.336	36.285150421	-107.634372094	
4,600.00	28.72	261.022	4,186.15	-264.83	-1,676.16	1,923,146.861	2,781,681.875	36.285130090	-107.634533184	
4,700.00	28.72	261.022	4,273.84	-272.33	-1,723.63	1,923,139.362	2,781,634.414	36.285109758	-107.634694275	
4,800.00	28.72	261.022	4,361.54	-279.83	-1,771.09	1,923,131.863	2,781,586.953	36.285089426	-107.634855365	
4,835.87	28.72	261.022	4,393.00	-282.52	-1,788.11	1,923,129.174	2,781,569.929	36.285082133	-107.634913144	
Point Lookout										
4,900.00	28.72	261.022	4,449.24	-287.33	-1,818.55	1,923,124.364	2,781,539.491	36.285069093	-107.635016455	
5,000.00	28.72	261.022	4,536.94	-294.83	-1,866.01	1,923,116.866	2,781,492.030	36.285048761	-107.635177545	
5,069.62	28.72	261.022	4,598.00	-300.05	-1,899.05	1,923,111.645	2,781,458.987	36.285034605	-107.635289696	
Mancos										
5,100.00	28.72	261.022	4,624.64	-302.32	-1,913.47	1,923,109.367	2,781,444.569	36.285028428	-107.635338634	
5,200.00	28.72	261.022	4,712.34	-309.82	-1,960.93	1,923,101.868	2,781,397.108	36.285008095	-107.635499724	
5,300.00	28.72	261.022	4,800.04	-317.32	-2,008.39	1,923,094.369	2,781,349.646	36.284987762	-107.635660814	
5,400.00	28.72	261.022	4,887.74	-324.82	-2,055.86	1,923,086.870	2,781,302.185	36.284967428	-107.635821904	
5,485.81	28.72	261.022	4,963.00	-331.26	-2,096.58	1,923,080.435	2,781,261.456	36.284949979	-107.635960142	
MNCS_A										
5,500.00	28.72	261.022	4,975.44	-332.32	-2,103.32	1,923,079.372	2,781,254.724	36.284947095	-107.635982993	
5,582.74	28.72	261.022	5,048.00	-338.52	-2,142.58	1,923,073.167	2,781,215.456	36.284930271	-107.636116273	
MNCS_B										
5,600.00	28.72	261.022	5,063.14	-339.82	-2,150.78	1,923,071.873	2,781,207.263	36.284926761	-107.636144083	
5,700.00	28.72	261.022	5,150.84	-347.32	-2,198.24	1,923,064.374	2,781,159.802	36.284906427	-107.636305172	
5,730.97	28.72	261.022	5,178.00	-349.64	-2,212.94	1,923,062.052	2,781,145.103	36.284900129	-107.636355062	
MNCS_C										
5,758.31	28.72	261.022	5,201.98	-351.69	-2,225.92	1,923,060.001	2,781,132.126	36.284894569	-107.636399106	
Begin 10°/100' build/turn										
5,800.00	30.14	269.004	5,238.30	-353.44	-2,246.28	1,923,058.256	2,781,111.760	36.284889888	-107.636468222	
5,817.06	30.85	272.059	5,253.00	-353.35	-2,254.94	1,923,058.338	2,781,103.106	36.284890163	-107.636497584	
MNCS_Cms										
5,850.00	32.42	277.587	5,281.05	-351.88	-2,272.13	1,923,059.808	2,781,085.907	36.284894296	-107.636555930	
5,900.00	35.21	285.054	5,322.61	-346.37	-2,299.36	1,923,065.325	2,781,058.686	36.284909603	-107.636648255	
5,906.62	35.61	285.963	5,328.00	-345.34	-2,303.05	1,923,066.350	2,781,054.992	36.284912439	-107.636660779	
MNCS_D										
5,950.00	38.39	291.496	5,362.65	-336.93	-2,327.74	1,923,074.764	2,781,030.303	36.284935690	-107.636744494	
6,000.00	41.88	297.056	5,400.89	-323.64	-2,357.07	1,923,088.053	2,781,000.974	36.284972360	-107.636843915	
6,009.61	42.58	298.036	5,408.00	-320.65	-2,362.79	1,923,091.040	2,780,995.249	36.284980597	-107.636863320	
MNCS_E										
6,050.00	45.61	301.886	5,437.01	-306.60	-2,387.12	1,923,105.092	2,780,970.924	36.285019334	-107.636945760	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,073.23	47.40	303.922	5,453.00	-297.44	-2,401.26	1,923,114.247	2,780,956.782	36.285044563	-107.636993681
MNCS_F									
6,100.00	49.51	306.126	5,470.76	-285.94	-2,417.66	1,923,125.750	2,780,940.380	36.285076254	-107.637049256
6,150.00	53.55	309.891	5,501.86	-261.82	-2,448.47	1,923,149.871	2,780,909.574	36.285142686	-107.637153613
6,200.00	57.69	313.278	5,530.10	-234.42	-2,479.30	1,923,177.270	2,780,878.742	36.285218126	-107.637258039
6,227.36	60.00	315.001	5,544.25	-218.11	-2,496.10	1,923,193.578	2,780,861.943	36.285263018	-107.637314927
Begin 60.00° tangent									
6,234.86	60.00	315.001	5,548.00	-213.52	-2,500.69	1,923,198.171	2,780,857.351	36.285275660	-107.637330479
MNCS_G									
6,287.36	60.00	315.001	5,574.25	-181.37	-2,532.84	1,923,230.321	2,780,825.202	36.285364157	-107.637439341
Begin 10°/100' build									
6,300.00	61.26	315.001	5,580.45	-173.58	-2,540.63	1,923,238.110	2,780,817.414	36.285385595	-107.637465712
6,316.12	62.88	315.001	5,588.00	-163.51	-2,550.70	1,923,248.183	2,780,807.341	36.285413322	-107.637499820
MNCS_H									
6,350.00	66.26	315.001	5,602.54	-141.88	-2,572.33	1,923,269.813	2,780,785.711	36.285472862	-107.637573063
6,400.00	71.26	315.001	5,620.65	-108.93	-2,605.27	1,923,302.757	2,780,752.768	36.285563545	-107.637684616
6,424.43	73.71	315.001	5,628.00	-92.46	-2,621.74	1,923,319.227	2,780,736.298	36.285608880	-107.637740385
MNCS_I									
6,450.00	76.26	315.001	5,634.63	-75.00	-2,639.21	1,923,336.692	2,780,718.834	36.285656954	-107.637799524
6,500.00	81.26	315.001	5,644.36	-40.33	-2,673.87	1,923,371.359	2,780,684.168	36.285752378	-107.637916911
6,550.00	86.26	315.001	5,649.79	-5.20	-2,709.01	1,923,406.495	2,780,649.033	36.285849091	-107.638035884
6,583.95	89.66	315.001	5,651.00	18.79	-2,733.00	1,923,430.484	2,780,625.045	36.285915123	-107.638117114
Begin 89.66° lateral									
6,600.00	89.66	315.001	5,651.10	30.14	-2,744.35	1,923,441.831	2,780,613.697	36.285946359	-107.638155540
6,700.00	89.66	315.001	5,651.69	100.85	-2,815.05	1,923,512.541	2,780,542.989	36.286140994	-107.638394977
6,800.00	89.66	315.001	5,652.29	171.56	-2,885.76	1,923,583.251	2,780,472.280	36.286335628	-107.638634415
6,900.00	89.66	315.001	5,652.88	242.27	-2,956.47	1,923,653.961	2,780,401.572	36.286530263	-107.638873854
7,000.00	89.66	315.001	5,653.48	312.98	-3,027.18	1,923,724.671	2,780,330.863	36.286724896	-107.639113294
7,100.00	89.66	315.001	5,654.07	383.69	-3,097.89	1,923,795.381	2,780,260.154	36.286919529	-107.639352735
7,200.00	89.66	315.001	5,654.67	454.40	-3,168.60	1,923,866.091	2,780,189.446	36.287114162	-107.639592178
7,300.00	89.66	315.001	5,655.26	525.11	-3,239.31	1,923,936.801	2,780,118.737	36.287308794	-107.639831622
7,400.00	89.66	315.001	5,655.86	595.82	-3,310.01	1,924,007.511	2,780,048.029	36.287503426	-107.640071067
7,500.00	89.66	315.001	5,656.45	666.53	-3,380.72	1,924,078.221	2,779,977.320	36.287698057	-107.640310513
7,600.00	89.66	315.001	5,657.05	737.24	-3,451.43	1,924,148.931	2,779,906.612	36.287892688	-107.640549960
7,700.00	89.66	315.001	5,657.64	807.95	-3,522.14	1,924,219.641	2,779,835.903	36.288087318	-107.640789409
7,800.00	89.66	315.001	5,658.24	878.66	-3,592.85	1,924,290.351	2,779,765.195	36.288281948	-107.641028858
7,900.00	89.66	315.001	5,658.83	949.37	-3,663.56	1,924,361.061	2,779,694.486	36.288476577	-107.641268309
8,000.00	89.66	315.001	5,659.43	1,020.08	-3,734.27	1,924,431.771	2,779,623.777	36.288671206	-107.641507761
8,100.00	89.66	315.001	5,660.02	1,090.79	-3,804.98	1,924,502.481	2,779,553.069	36.288865834	-107.641747215
8,200.00	89.66	315.001	5,660.62	1,161.50	-3,875.68	1,924,573.191	2,779,482.360	36.289060462	-107.641986669
8,300.00	89.66	315.001	5,661.21	1,232.21	-3,946.39	1,924,643.901	2,779,411.652	36.289255090	-107.642226125
8,400.00	89.66	315.001	5,661.81	1,302.92	-4,017.10	1,924,714.611	2,779,340.943	36.289449717	-107.642465582
8,500.00	89.66	315.001	5,662.41	1,373.63	-4,087.81	1,924,785.321	2,779,270.235	36.289644343	-107.642705040
8,600.00	89.66	315.001	5,663.00	1,444.34	-4,158.52	1,924,856.031	2,779,199.526	36.289838969	-107.642944499
8,700.00	89.66	315.001	5,663.60	1,515.05	-4,229.23	1,924,926.741	2,779,128.817	36.290033594	-107.643183959
8,800.00	89.66	315.001	5,664.19	1,585.76	-4,299.94	1,924,997.451	2,779,058.109	36.290228219	-107.643423421
8,900.00	89.66	315.001	5,664.79	1,656.47	-4,370.65	1,925,068.161	2,778,987.400	36.290422844	-107.643662884
9,000.00	89.66	315.001	5,665.38	1,727.18	-4,441.35	1,925,138.871	2,778,916.692	36.290617468	-107.643902348
9,100.00	89.66	315.001	5,665.98	1,797.89	-4,512.06	1,925,209.581	2,778,845.983	36.290812091	-107.644141813
9,200.00	89.66	315.001	5,666.57	1,868.60	-4,582.77	1,925,280.291	2,778,775.275	36.291006714	-107.644381279
9,300.00	89.66	315.001	5,667.17	1,939.31	-4,653.48	1,925,351.001	2,778,704.566	36.291201337	-107.644620747
9,400.00	89.66	315.001	5,667.76	2,010.02	-4,724.19	1,925,421.711	2,778,633.857	36.291395959	-107.644860215
9,500.00	89.66	315.001	5,668.36	2,080.73	-4,794.90	1,925,492.421	2,778,563.149	36.291590581	-107.645099685
9,600.00	89.66	315.001	5,668.95	2,151.44	-4,865.61	1,925,563.131	2,778,492.440	36.291785202	-107.645339156



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude		Longitude
9,700.00	89.66	315.001	5,669.55	2,222.16	-4,936.32	1,925,633.841	2,778,421.732	36.291979822		-107.645578629
9,800.00	89.66	315.001	5,670.14	2,292.87	-5,007.02	1,925,704.551	2,778,351.023	36.292174442		-107.645818102
9,900.00	89.66	315.001	5,670.74	2,363.58	-5,077.73	1,925,775.261	2,778,280.315	36.292369062		-107.646057577
10,000.00	89.66	315.001	5,671.33	2,434.29	-5,148.44	1,925,845.971	2,778,209.606	36.292563681		-107.646297053
10,100.00	89.66	315.001	5,671.93	2,505.00	-5,219.15	1,925,916.681	2,778,138.898	36.292758300		-107.646536530
10,200.00	89.66	315.001	5,672.52	2,575.71	-5,289.86	1,925,987.391	2,778,068.189	36.292952918		-107.646776008
10,300.00	89.66	315.001	5,673.12	2,646.42	-5,360.57	1,926,058.101	2,777,997.480	36.293147536		-107.647015488
10,400.00	89.66	315.001	5,673.71	2,717.13	-5,431.28	1,926,128.811	2,777,926.772	36.293342153		-107.647254968
10,500.00	89.66	315.001	5,674.31	2,787.84	-5,501.98	1,926,199.521	2,777,856.063	36.293536770		-107.647494450
10,600.00	89.66	315.001	5,674.90	2,858.55	-5,572.69	1,926,270.231	2,777,785.355	36.293731386		-107.647733933
10,700.00	89.66	315.001	5,675.50	2,929.26	-5,643.40	1,926,340.941	2,777,714.646	36.293926002		-107.647973417
10,800.00	89.66	315.001	5,676.09	2,999.97	-5,714.11	1,926,411.651	2,777,643.938	36.294120617		-107.648212903
10,900.00	89.66	315.001	5,676.69	3,070.68	-5,784.82	1,926,482.362	2,777,573.229	36.294315232		-107.648452388
11,000.00	89.66	315.001	5,677.28	3,141.39	-5,855.53	1,926,553.072	2,777,502.520	36.294509847		-107.648691876
11,100.00	89.66	315.001	5,677.88	3,212.10	-5,926.24	1,926,623.782	2,777,431.812	36.294704460		-107.648931365
11,200.00	89.66	315.001	5,678.47	3,282.81	-5,996.95	1,926,694.492	2,777,361.103	36.294899074		-107.649170855
11,300.00	89.66	315.001	5,679.07	3,353.52	-6,067.65	1,926,765.202	2,777,290.395	36.295093687		-107.649410347
11,400.00	89.66	315.001	5,679.66	3,424.23	-6,138.36	1,926,835.912	2,777,219.686	36.295288298		-107.649649839
11,500.00	89.66	315.001	5,680.26	3,494.94	-6,209.07	1,926,906.622	2,777,148.978	36.295482910		-107.649889333
11,600.00	89.66	315.001	5,680.86	3,565.65	-6,279.78	1,926,977.332	2,777,078.269	36.295677522		-107.650128828
11,700.00	89.66	315.001	5,681.45	3,636.36	-6,350.49	1,927,048.042	2,777,007.561	36.295872133		-107.650368324
11,800.00	89.66	315.001	5,682.05	3,707.07	-6,421.20	1,927,118.752	2,776,936.852	36.296066743		-107.650607821
11,900.00	89.66	315.001	5,682.64	3,777.78	-6,491.91	1,927,189.462	2,776,866.143	36.296261353		-107.650847320
12,000.00	89.66	315.001	5,683.24	3,848.49	-6,562.62	1,927,260.172	2,776,795.435	36.296455963		-107.651086819
12,100.00	89.66	315.001	5,683.83	3,919.20	-6,633.32	1,927,330.882	2,776,724.726	36.296650572		-107.651326320
12,200.00	89.66	315.001	5,684.43	3,989.91	-6,704.03	1,927,401.592	2,776,654.018	36.296845180		-107.651565822
12,300.00	89.66	315.001	5,685.02	4,060.62	-6,774.74	1,927,472.302	2,776,583.309	36.297039788		-107.651805325
12,400.00	89.66	315.001	5,685.62	4,131.33	-6,845.45	1,927,543.012	2,776,512.601	36.297234396		-107.652044830
12,500.00	89.66	315.001	5,686.21	4,202.04	-6,916.16	1,927,613.722	2,776,441.892	36.297429003		-107.652284336
12,600.00	89.66	315.001	5,686.81	4,272.75	-6,986.87	1,927,684.432	2,776,371.183	36.297623610		-107.652523842
12,700.00	89.66	315.001	5,687.40	4,343.46	-7,057.58	1,927,755.142	2,776,300.475	36.297818216		-107.652763350
12,800.00	89.66	315.001	5,688.00	4,414.17	-7,128.29	1,927,825.852	2,776,229.766	36.298012821		-107.653002860
12,900.00	89.66	315.001	5,688.59	4,484.88	-7,198.99	1,927,896.562	2,776,159.058	36.298207427		-107.653242370
13,000.00	89.66	315.001	5,689.19	4,555.59	-7,269.70	1,927,967.272	2,776,088.349	36.298402031		-107.653481882
13,100.00	89.66	315.001	5,689.78	4,626.30	-7,340.41	1,928,037.982	2,776,017.641	36.298596635		-107.653721394
13,200.00	89.66	315.001	5,690.38	4,697.01	-7,411.12	1,928,108.692	2,775,946.932	36.298791239		-107.653960908
13,300.00	89.66	315.001	5,690.97	4,767.72	-7,481.83	1,928,179.402	2,775,876.224	36.298985842		-107.654200423
13,400.00	89.66	315.001	5,691.57	4,838.43	-7,552.54	1,928,250.112	2,775,805.515	36.299180445		-107.654439940
13,500.00	89.66	315.001	5,692.16	4,909.14	-7,623.25	1,928,320.822	2,775,734.806	36.299375048		-107.654679457
13,600.00	89.66	315.001	5,692.76	4,979.85	-7,693.95	1,928,391.532	2,775,664.098	36.299569649		-107.654918976
13,700.00	89.66	315.001	5,693.35	5,050.56	-7,764.66	1,928,462.242	2,775,593.389	36.299764251		-107.655158496
13,800.00	89.66	315.001	5,693.95	5,121.27	-7,835.37	1,928,532.952	2,775,522.681	36.299958851		-107.655398017
13,900.00	89.66	315.001	5,694.54	5,191.98	-7,906.08	1,928,603.662	2,775,451.972	36.300153452		-107.655637539
14,000.00	89.66	315.001	5,695.14	5,262.69	-7,976.79	1,928,674.372	2,775,381.264	36.300348052		-107.655877063
14,100.00	89.66	315.001	5,695.73	5,333.40	-8,047.50	1,928,745.082	2,775,310.555	36.300542651		-107.656116587
14,200.00	89.66	315.001	5,696.33	5,404.11	-8,118.21	1,928,815.792	2,775,239.846	36.300737250		-107.656356113
14,300.00	89.66	315.001	5,696.92	5,474.82	-8,188.92	1,928,886.502	2,775,169.138	36.300931848		-107.656595640
14,400.00	89.66	315.001	5,697.52	5,545.53	-8,259.62	1,928,957.212	2,775,098.429	36.301126446		-107.656835168
14,500.00	89.66	315.001	5,698.11	5,616.24	-8,330.33	1,929,027.922	2,775,027.721	36.301321044		-107.657074698
14,600.00	89.66	315.001	5,698.71	5,686.95	-8,401.04	1,929,098.632	2,774,957.012	36.301515641		-107.657314228
14,700.00	89.66	315.001	5,699.30	5,757.66	-8,471.75	1,929,169.342	2,774,886.304	36.301710237		-107.657553760
14,800.00	89.66	315.001	5,699.90	5,828.37	-8,542.46	1,929,240.052	2,774,815.595	36.301904833		-107.657793293
14,900.00	89.66	315.001	5,700.50	5,899.08	-8,613.17	1,929,310.762	2,774,744.886	36.302099429		-107.658032827
15,000.00	89.66	315.001	5,701.09	5,969.79	-8,683.88	1,929,381.472	2,774,674.178	36.302294024		-107.658272363
15,100.00	89.66	315.001	5,701.69	6,040.50	-8,754.59	1,929,452.182	2,774,603.469	36.302488618		-107.658511899



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,200.00	89.66	315.001	5,702.28	6,111.21	-8,825.29	1,929,522.892	2,774,532.761	36.302683212	-107.658751437	
15,300.00	89.66	315.001	5,702.88	6,181.92	-8,896.00	1,929,593.602	2,774,462.052	36.302877806	-107.658990976	
15,400.00	89.66	315.001	5,703.47	6,252.63	-8,966.71	1,929,664.312	2,774,391.344	36.303072399	-107.659230516	
15,500.00	89.66	315.001	5,704.07	6,323.34	-9,037.42	1,929,735.022	2,774,320.635	36.303266992	-107.659470058	
15,600.00	89.66	315.001	5,704.66	6,394.05	-9,108.13	1,929,805.732	2,774,249.927	36.303461584	-107.659709600	
15,700.00	89.66	315.001	5,705.26	6,464.76	-9,178.84	1,929,876.442	2,774,179.218	36.303656176	-107.659949144	
15,800.00	89.66	315.001	5,705.85	6,535.47	-9,249.55	1,929,947.152	2,774,108.509	36.303850767	-107.660188689	
15,900.00	89.66	315.001	5,706.45	6,606.18	-9,320.26	1,930,017.862	2,774,037.801	36.304045357	-107.660428235	
16,000.00	89.66	315.001	5,707.04	6,676.89	-9,390.96	1,930,088.572	2,773,967.092	36.304239948	-107.660667782	
16,100.00	89.66	315.001	5,707.64	6,747.60	-9,461.67	1,930,159.282	2,773,896.384	36.304434537	-107.660907330	
16,200.00	89.66	315.001	5,708.23	6,818.31	-9,532.38	1,930,229.992	2,773,825.675	36.304629127	-107.661146880	
16,300.00	89.66	315.001	5,708.83	6,889.02	-9,603.09	1,930,300.702	2,773,754.967	36.304823715	-107.661386431	
16,400.00	89.66	315.001	5,709.42	6,959.73	-9,673.80	1,930,371.412	2,773,684.258	36.305018304	-107.661625983	
16,500.00	89.66	315.001	5,710.02	7,030.44	-9,744.51	1,930,442.122	2,773,613.549	36.305212891	-107.661865536	
16,600.00	89.66	315.001	5,710.61	7,101.16	-9,815.22	1,930,512.832	2,773,542.841	36.305407479	-107.662105091	
16,700.00	89.66	315.001	5,711.21	7,171.87	-9,885.92	1,930,583.542	2,773,472.132	36.305602066	-107.662344646	
16,800.00	89.66	315.001	5,711.80	7,242.58	-9,956.63	1,930,654.252	2,773,401.424	36.305796652	-107.662584203	
16,900.00	89.66	315.001	5,712.40	7,313.29	-10,027.34	1,930,724.962	2,773,330.715	36.305991238	-107.662823761	
17,001.12	89.66	315.001	5,713.00	7,384.79	-10,098.84	1,930,796.463	2,773,259.216	36.306188000	-107.663066000	
PBHL/TD @ 17001.12 MD 5713.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Ridge 129H FTP 2383 F	0.00	0.000	5,651.00	18.75	-2,732.96	1,923,430.439	2,780,625.079	36.285915000	-107.638117000	
- plan misses target center by 0.01ft at 6583.90ft MD (5651.00 TVD, 18.75 N, -2732.96 E)										
- Point										
Ridge 129H LTP 237 FN	0.00	0.000	5,713.00	7,384.79	-10,098.84	1,930,796.463	2,773,259.216	36.306188000	-107.663066000	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")	
350.00	350.00	13 3/8" Csg		13-3/8	17-1/2	
4,060.49	3,713.00	9 5/8" Csg		9-5/8	12-1/4	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6923+25 @ 6948.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6923+25 @ 6948.00ft
Site:	Ridge Unit (124, 127, 128 & 129)	North Reference:	Grid
Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,379.46	1,358.00	Ojo Alamo				
1,506.67	1,473.00	Kirtland				
1,785.68	1,718.00	Fruitland				
2,122.05	2,013.00	Pictured Cliffs				
2,264.59	2,138.00	Lewis				
2,618.07	2,448.00	Chacra				
3,872.35	3,548.00	Cliff House				
3,889.45	3,563.00	Menefee				
4,835.87	4,393.00	Point Lookout				
5,069.62	4,598.00	Mancos				
5,485.81	4,963.00	MNCS_A				
5,582.74	5,048.00	MNCS_B				
5,730.97	5,178.00	MNCS_C				
5,817.06	5,253.00	MNCS_Cms				
5,906.62	5,328.00	MNCS_D				
6,009.61	5,408.00	MNCS_E				
6,073.23	5,453.00	MNCS_F				
6,234.86	5,548.00	MNCS_G				
6,316.12	5,588.00	MNCS_H				
6,424.43	5,628.00	MNCS_I				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
600.00	600.00	0.00	0.00	KOP Begin 3°/100' build	
1,557.27	1,517.69	-36.66	-232.05	Begin 28.72° tangent	
5,758.31	5,201.98	-351.69	-2,225.92	Begin 10°/100' build/turn	
6,227.36	5,544.25	-218.11	-2,496.10	Begin 60.00° tangent	
6,287.36	5,574.25	-181.37	-2,532.84	Begin 10°/100' build	
6,583.95	5,651.00	18.79	-2,733.00	Begin 89.66° lateral	
17,001.12	5,713.00	7,384.79	-10,098.84	PBHL/TD @ 17001.12 MD 5713.00 TVD	



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference	rev1		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,900.11ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/16/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	17,000.25	rev1 (Original Hole)	MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NW Lybrook (138, 139, 140 & 141)						
NW Lybrook Unit 139H - Original Hole - rev0	6,021.34	7,726.32	552.44	458.17	5.860	CC, ES
NW Lybrook Unit 139H - Original Hole - rev0	6,100.00	7,678.58	561.19	463.47	5.743	SF
Ridge Unit (124, 127, 128 & 129)						
Ridge Unit No. 124H - Original Hole - rev1	600.00	600.00	60.12	56.27	15.602	CC, ES
Ridge Unit No. 124H - Original Hole - rev1	800.00	799.63	70.47	65.20	13.376	SF
Ridge Unit No. 127H - Original Hole - rev1	600.00	600.00	40.08	36.23	10.401	CC, ES
Ridge Unit No. 127H - Original Hole - rev1	700.00	699.95	42.67	38.11	9.354	SF
Ridge Unit No. 128H - Original Hole - rev1	600.00	600.00	20.04	16.19	5.201	CC, ES
Ridge Unit No. 128H - Original Hole - rev1	15,847.56	16,534.20	1,156.35	653.56	2.300	SF
Ridge Unit (130, 135, 136 & 137)						
Ridge Unit No. 130H - Original Hole - rev1	17,001.12	16,222.20	1,156.44	651.85	2.292	CC, ES, SF

Offset Design:	NW Lybrook (138, 139, 140 & 141) - NW Lybrook Unit 139H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program:	0-MWD												Offset Well Error:	0.00 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,300.00	3,923.05	8,553.41	5,573.94	32.54	72.08	-142.16	-825.03	-1,547.30	1,822.61	1,771.87	50.73	35.925		
4,400.00	4,010.75	8,506.50	5,573.68	33.51	70.97	-140.95	-824.73	-1,594.22	1,736.89	1,685.57	51.31	33.848		
4,500.00	4,098.45	8,459.58	5,573.41	34.47	69.87	-139.64	-824.43	-1,641.13	1,651.44	1,599.47	51.97	31.775		
4,600.00	4,186.15	8,412.66	5,573.15	35.44	68.77	-138.22	-824.12	-1,688.05	1,566.31	1,513.59	52.72	29.709		
4,700.00	4,273.84	8,365.75	5,572.88	36.41	67.67	-136.66	-823.82	-1,734.96	1,481.55	1,427.97	53.58	27.650		
4,800.00	4,361.54	8,318.83	5,572.62	37.38	66.57	-134.96	-823.52	-1,781.87	1,397.24	1,342.67	54.57	25.605		
4,900.00	4,449.24	8,271.92	5,572.35	38.35	65.48	-133.11	-823.21	-1,828.79	1,313.45	1,257.74	55.70	23.579		
5,000.00	4,536.94	8,225.00	5,572.09	39.32	64.39	-131.07	-822.91	-1,875.70	1,230.29	1,173.27	57.02	21.576		
5,100.00	4,624.64	8,178.08	5,571.82	40.29	63.31	-128.83	-822.60	-1,922.62	1,147.90	1,089.35	58.55	19.605		
5,200.00	4,712.34	8,131.17	5,571.56	41.26	62.22	-126.37	-822.30	-1,969.53	1,066.46	1,006.12	60.35	17.673		
5,300.00	4,800.04	8,084.25	5,571.29	42.23	61.14	-123.66	-822.00	-2,016.44	986.20	923.74	62.46	15.789		
5,400.00	4,887.74	8,037.34	5,571.03	43.20	60.07	-120.67	-821.69	-2,063.36	907.45	842.48	64.96	13.968		
5,500.00	4,975.44	7,990.42	5,570.76	44.17	59.00	-117.38	-821.39	-2,110.27	830.61	762.67	67.94	12.225		
5,600.00	5,063.14	7,943.51	5,570.50	45.14	57.94	-113.77	-821.09	-2,157.19	756.29	684.79	71.49	10.579		
5,700.00	5,150.84	7,896.59	5,570.23	46.11	56.87	-109.81	-820.78	-2,204.10	685.29	609.58	75.71	9.052		
5,800.00	5,238.30	7,849.08	5,569.97	47.09	55.81	-112.47	-820.48	-2,251.61	619.96	539.23	80.73	7.680		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: NW Lybrook (138, 139, 140 & 141) - NW Lybrook Unit 139H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program:		0-MWD						Rule Assigned:				Offset Well Error:	0.00 ft	
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,900.00	5,322.61	7,796.44	5,569.67	48.14	54.63	-121.66	-820.14	-2,304.25	573.45	486.56	86.90	6.599		
6,000.00	5,400.89	7,739.03	5,569.34	49.25	53.35	-126.47	-819.76	-2,361.66	553.10	459.99	93.11	5.941		
6,021.34	5,416.58	7,726.32	5,569.27	49.48	53.07	-127.00	-819.68	-2,374.37	552.44	458.17	94.27	5.860	CC, ES	
6,100.00	5,470.76	7,678.58	5,569.00	50.37	52.02	-127.65	-819.37	-2,422.10	561.19	463.47	97.72	5.743	SF	
6,200.00	5,530.10	7,616.95	5,568.66	51.49	50.67	-125.81	-818.97	-2,483.73	595.69	495.62	100.07	5.953		
6,300.00	5,580.45	7,555.52	5,568.31	52.60	49.34	-120.79	-818.58	-2,545.16	648.16	547.39	100.78	6.432		
6,400.00	5,620.65	7,490.68	5,567.94	53.80	47.95	-109.83	-818.16	-2,610.00	709.62	608.95	100.67	7.049		
6,500.00	5,644.36	7,421.77	5,567.55	55.11	46.50	-98.45	-817.71	-2,678.90	777.40	677.00	100.40	7.743		
6,600.00	5,651.10	7,350.89	5,567.15	56.49	45.02	-89.58	-817.25	-2,749.78	847.45	747.20	100.24	8.454		
6,700.00	5,651.69	7,279.73	5,566.75	57.92	43.56	-89.55	-816.79	-2,820.94	917.70	817.54	100.16	9.162		
6,800.00	5,652.29	7,208.57	5,566.35	59.40	42.14	-89.53	-816.33	-2,892.10	987.96	887.84	100.12	9.868		
6,900.00	5,652.88	7,137.41	5,565.95	60.93	40.75	-89.50	-815.87	-2,963.26	1,058.22	958.10	100.12	10.569		
7,000.00	5,653.48	7,066.25	5,565.55	62.51	39.41	-89.49	-815.41	-3,034.41	1,128.48	1,028.32	100.16	11.267		
7,100.00	5,654.07	6,995.09	5,565.14	64.13	38.13	-89.47	-814.95	-3,105.57	1,198.74	1,098.51	100.23	11.960		
7,200.00	5,654.67	6,929.31	5,564.77	65.79	37.04	-89.45	-814.55	-3,171.34	1,269.03	1,168.60	100.43	12.636		
7,300.00	5,655.26	6,881.03	5,564.50	67.48	36.30	-89.45	-814.85	-3,219.62	1,340.19	1,239.32	100.86	13.287		
7,400.00	5,655.86	6,834.37	5,564.24	69.22	35.67	-89.44	-815.91	-3,266.27	1,412.50	1,311.23	101.27	13.948		
7,500.00	5,656.45	6,800.00	5,564.04	70.98	35.29	-89.43	-817.18	-3,300.62	1,485.96	1,384.24	101.72	14.608		
7,600.00	5,657.05	6,745.68	5,563.73	72.78	34.81	-89.43	-820.02	-3,354.86	1,560.35	1,458.33	102.03	15.293		
7,700.00	5,657.64	6,700.00	5,563.48	74.60	34.57	-89.42	-823.21	-3,400.43	1,635.80	1,533.44	102.36	15.980		
7,800.00	5,658.24	6,662.80	5,563.26	76.45	34.42	-89.42	-826.35	-3,437.49	1,712.18	1,609.45	102.72	16.668		
7,900.00	5,658.83	6,623.41	5,563.04	78.33	34.33	-89.41	-830.19	-3,476.70	1,789.45	1,686.40	103.05	17.364		
8,000.00	5,659.43	6,600.00	5,562.91	80.23	34.30	-89.41	-832.73	-3,499.97	1,867.68	1,764.31	103.37	18.068		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 124H - Original Hole - rev1												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	90.23	-0.24	60.12	60.12				
100.00	100.00	100.00	100.00	0.13	0.13	90.23	-0.24	60.12	60.12	59.85	0.27	223.629	
200.00	200.00	200.00	200.00	0.49	0.49	90.23	-0.24	60.12	60.12	59.14	0.99	60.990	
300.00	300.00	300.00	300.00	0.85	0.85	90.23	-0.24	60.12	60.12	58.42	1.70	35.310	
400.00	400.00	400.00	400.00	1.21	1.21	90.23	-0.24	60.12	60.12	57.70	2.42	24.848	
500.00	500.00	500.00	500.00	1.57	1.57	90.23	-0.24	60.12	60.12	56.99	3.14	19.168	
600.00	600.00	600.00	600.00	1.93	1.93	90.23	-0.24	60.12	60.12	56.27	3.85	15.602 CC, ES	
700.00	699.95	699.95	699.95	2.28	2.29	-171.17	-0.24	60.12	62.71	58.15	4.56	13.747	
800.00	799.63	799.63	799.63	2.63	2.64	-172.11	-0.24	60.12	70.47	65.20	5.27	13.376 SF	
900.00	898.77	898.77	898.77	2.99	3.00	-173.30	-0.24	60.12	83.42	77.44	5.98	13.950	
1,000.00	997.08	997.08	997.08	3.39	3.35	-174.44	-0.24	60.12	101.54	94.85	6.69	15.171	
1,100.00	1,094.31	1,088.95	1,088.92	3.83	3.68	-175.78	0.77	61.93	126.80	119.42	7.38	17.172	
1,200.00	1,190.18	1,176.66	1,176.41	4.32	3.99	-177.37	3.73	67.26	161.23	153.18	8.04	20.041	
1,300.00	1,284.43	1,259.38	1,258.58	4.87	4.29	-178.86	8.30	75.50	204.39	195.72	8.67	23.579	
1,400.00	1,376.81	1,336.36	1,334.62	5.51	4.57	179.86	14.11	85.95	255.72	246.46	9.25	27.638	
1,500.00	1,467.06	1,407.11	1,404.03	6.23	4.84	178.78	20.76	97.91	314.53	304.74	9.79	32.120	
1,600.00	1,555.16	1,471.63	1,466.85	7.03	5.11	177.91	27.90	110.77	379.77	369.48	10.29	36.893	
1,700.00	1,642.86	1,532.11	1,525.25	7.89	5.37	177.22	35.53	124.50	448.02	437.28	10.74	41.718	
1,800.00	1,730.56	1,589.19	1,579.89	8.77	5.63	176.63	43.55	138.94	518.43	507.27	11.16	46.465	
1,900.00	1,818.26	1,643.07	1,630.99	9.66	5.89	176.12	51.85	153.87	590.81	579.25	11.56	51.113	
2,000.00	1,905.96	1,700.00	1,684.43	10.57	6.18	175.62	61.37	171.01	665.05	653.04	12.00	55.407	
2,100.00	1,993.66	1,741.93	1,723.41	11.49	6.41	175.27	68.88	184.52	740.88	728.58	12.30	60.234	
2,200.00	2,081.36	1,800.00	1,776.81	12.42	6.74	174.81	79.96	204.46	818.42	805.64	12.78	64.039	
2,300.00	2,169.06	1,830.11	1,804.22	13.36	6.93	174.59	86.01	215.35	897.09	884.12	12.97	69.169	
2,400.00	2,256.76	1,870.62	1,840.78	14.30	7.19	174.30	94.48	230.60	977.20	963.92	13.28	73.580	
2,500.00	2,344.46	1,908.94	1,875.01	15.24	7.44	174.03	102.84	245.65	1,058.50	1,044.92	13.58	77.967	
2,600.00	2,432.16	1,953.93	1,914.82	16.19	7.75	173.73	113.02	263.96	1,140.81	1,126.85	13.96	81.732	
2,700.00	2,519.86	2,010.31	1,964.65	17.14	8.16	173.40	125.83	287.03	1,223.31	1,208.83	14.47	84.517	
2,800.00	2,607.56	2,066.69	2,014.47	18.10	8.58	173.10	138.65	310.09	1,305.82	1,290.82	15.00	87.067	
2,900.00	2,695.26	2,123.07	2,064.30	19.05	9.01	172.85	151.47	333.16	1,388.34	1,372.81	15.53	89.418	
3,000.00	2,782.95	2,179.45	2,114.12	20.01	9.45	172.62	164.28	356.22	1,470.87	1,454.81	16.06	91.583	
3,100.00	2,870.65	2,235.83	2,163.95	20.97	9.89	172.42	177.10	379.29	1,553.40	1,536.80	16.60	93.579	
3,200.00	2,958.35	2,292.21	2,213.77	21.93	10.34	172.23	189.91	402.36	1,635.94	1,618.80	17.14	95.431	
3,300.00	3,046.05	2,348.59	2,263.60	22.89	10.80	172.07	202.73	425.42	1,718.49	1,700.80	17.69	97.140	
3,400.00	3,133.75	2,404.97	2,313.42	23.85	11.26	171.92	215.54	448.49	1,801.04	1,782.79	18.24	98.733	
3,500.00	3,221.45	2,461.35	2,363.25	24.81	11.73	171.78	228.36	471.55	1,883.59	1,864.79	18.80	100.209	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 127H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.88	0.08	40.08	40.08				
100.00	100.00	100.00	100.00	0.13	0.13	89.88	0.08	40.08	40.08	39.81	0.27	149.083	
200.00	200.00	200.00	200.00	0.49	0.49	89.88	0.08	40.08	40.08	39.10	0.99	40.659	
300.00	300.00	300.00	300.00	0.85	0.85	89.88	0.08	40.08	40.08	38.38	1.70	23.540	
400.00	400.00	400.00	400.00	1.21	1.21	89.88	0.08	40.08	40.08	37.66	2.42	16.565	
500.00	500.00	500.00	500.00	1.57	1.57	89.88	0.08	40.08	40.08	36.95	3.14	12.779	
600.00	600.00	600.00	600.00	1.93	1.93	89.88	0.08	40.08	40.08	36.23	3.85	10.401 CC, ES	
700.00	699.95	699.95	699.95	2.28	2.29	-171.67	0.08	40.08	42.67	38.11	4.56	9.354 SF	
800.00	799.63	799.63	799.63	2.63	2.64	-172.93	0.08	40.08	50.45	45.18	5.27	9.575	
900.00	898.77	898.77	898.77	2.99	3.00	-174.35	0.08	40.08	63.42	57.44	5.98	10.606	
1,000.00	997.08	997.08	997.08	3.39	3.35	-175.56	0.08	40.08	81.57	74.88	6.69	12.188	
1,100.00	1,094.31	1,094.31	1,094.31	3.83	3.70	-176.51	0.08	40.08	104.86	97.46	7.41	14.158	
1,200.00	1,190.18	1,185.03	1,185.01	4.32	4.01	-176.73	-0.70	41.80	134.95	126.86	8.09	16.684	
1,300.00	1,284.43	1,271.21	1,270.98	4.87	4.31	-176.19	-3.11	47.05	173.68	164.94	8.73	19.885	
1,400.00	1,376.81	1,352.23	1,351.50	5.51	4.59	-175.36	-6.85	55.20	220.57	211.22	9.35	23.600	
1,500.00	1,467.06	1,427.49	1,425.89	6.23	4.86	-174.44	-11.59	65.54	275.05	265.13	9.92	27.719	
1,600.00	1,555.16	1,500.00	1,497.08	7.03	5.13	-173.61	-17.31	78.02	336.17	325.67	10.49	32.034	
1,700.00	1,642.86	1,562.24	1,557.74	7.89	5.38	-172.99	-23.12	90.68	400.37	389.41	10.96	36.538	
1,800.00	1,730.56	1,624.28	1,617.72	8.77	5.64	-172.36	-29.73	105.08	466.87	455.44	11.43	40.856	
1,900.00	1,818.26	1,683.09	1,674.08	9.66	5.91	-171.76	-36.74	120.36	535.48	523.61	11.88	45.088	
2,000.00	1,905.96	1,745.55	1,733.40	10.57	6.20	-171.15	-44.87	138.10	605.90	593.52	12.38	48.926	
2,100.00	1,993.66	1,816.07	1,800.30	11.49	6.55	-170.58	-54.18	158.39	676.66	663.66	12.99	52.079	
2,200.00	2,081.36	1,886.59	1,867.19	12.42	6.92	-170.12	-63.49	178.69	747.44	733.83	13.61	54.908	
2,300.00	2,169.06	1,957.11	1,934.08	13.36	7.30	-169.73	-72.80	198.98	818.24	804.00	14.24	57.451	
2,400.00	2,256.76	2,027.63	2,000.98	14.30	7.68	-169.41	-82.10	219.27	889.06	874.18	14.88	59.748	
2,500.00	2,344.46	2,098.15	2,067.87	15.24	8.08	-169.14	-91.41	239.57	959.89	944.37	15.52	61.829	
2,600.00	2,432.16	2,168.67	2,134.77	16.19	8.48	-168.90	-100.72	259.86	1,030.73	1,014.56	16.18	63.715	
2,700.00	2,519.86	2,239.19	2,201.66	17.14	8.89	-168.69	-110.03	280.15	1,101.58	1,084.75	16.83	65.435	
2,800.00	2,607.56	2,309.72	2,268.55	18.10	9.30	-168.51	-119.34	300.44	1,172.44	1,154.94	17.50	67.007	
2,900.00	2,695.26	2,380.24	2,335.45	19.05	9.72	-168.35	-128.64	320.74	1,243.29	1,225.13	18.16	68.445	
3,000.00	2,782.95	2,450.76	2,402.34	20.01	10.14	-168.21	-137.95	341.03	1,314.16	1,295.32	18.84	69.766	
3,100.00	2,870.65	2,521.28	2,469.23	20.97	10.57	-168.08	-147.26	361.32	1,385.03	1,365.51	19.51	70.984	
3,200.00	2,958.35	2,591.80	2,536.13	21.93	11.00	-167.96	-156.57	381.62	1,455.90	1,435.71	20.19	72.108	
3,300.00	3,046.05	2,662.32	2,603.02	22.89	11.43	-167.86	-165.88	401.91	1,526.77	1,505.90	20.87	73.147	
3,400.00	3,133.75	2,732.84	2,669.91	23.85	11.87	-167.76	-175.18	422.20	1,597.65	1,576.09	21.56	74.112	
3,500.00	3,221.45	2,803.36	2,736.81	24.81	12.30	-167.67	-184.49	442.50	1,668.52	1,646.28	22.24	75.009	
3,600.00	3,309.15	2,873.88	2,803.70	25.78	12.74	-167.59	-193.80	462.79	1,739.40	1,716.47	22.93	75.843	
3,700.00	3,396.85	2,944.40	2,870.59	26.74	13.18	-167.52	-203.11	483.08	1,810.29	1,786.66	23.63	76.621	
3,800.00	3,484.55	3,014.92	2,937.49	27.71	13.62	-167.45	-212.41	503.38	1,881.17	1,856.85	24.32	77.350	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 128H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.88	0.04	20.04	20.04				
100.00	100.00	100.00	100.00	0.13	0.13	89.88	0.04	20.04	20.04	19.77	0.27	74.542	
200.00	200.00	200.00	200.00	0.49	0.49	89.88	0.04	20.04	20.04	19.06	0.99	20.330	
300.00	300.00	300.00	300.00	0.85	0.85	89.88	0.04	20.04	20.04	18.34	1.70	11.770	
400.00	400.00	400.00	400.00	1.21	1.21	89.88	0.04	20.04	20.04	17.62	2.42	8.282	
500.00	500.00	500.00	500.00	1.57	1.57	89.88	0.04	20.04	20.04	16.90	3.14	6.389	
600.00	600.00	600.00	600.00	1.93	1.93	89.88	0.04	20.04	20.04	16.19	3.85	5.201 CC, ES	
700.00	699.95	699.95	699.95	2.28	2.29	-172.15	0.04	20.04	22.63	18.07	4.56	4.961	
800.00	799.63	799.63	799.63	2.63	2.64	-174.15	0.04	20.04	30.42	25.15	5.27	5.775	
900.00	898.77	898.77	898.77	2.99	3.00	-175.87	0.04	20.04	43.43	37.45	5.98	7.263	
1,000.00	997.08	997.08	997.08	3.39	3.35	-177.07	0.04	20.04	61.61	54.92	6.69	9.206	
1,100.00	1,094.31	1,098.16	1,098.11	3.83	3.70	-177.09	-1.32	17.92	82.76	75.36	7.40	11.190	
1,200.00	1,190.18	1,200.23	1,199.86	4.32	4.05	-175.89	-5.62	11.21	104.38	96.29	8.09	12.902	
1,300.00	1,284.43	1,303.16	1,301.89	4.87	4.41	-174.07	-12.92	-0.17	126.52	117.73	8.80	14.385	
1,400.00	1,376.81	1,406.91	1,403.83	5.51	4.80	-171.91	-23.27	-16.31	149.27	139.75	9.52	15.678	
1,500.00	1,467.06	1,505.71	1,500.12	6.23	5.19	-169.91	-35.22	-34.96	173.84	163.55	10.30	16.886	
1,600.00	1,555.16	1,601.33	1,593.26	7.03	5.60	-168.67	-46.91	-53.19	202.86	191.77	11.10	18.278	
1,700.00	1,642.86	1,696.72	1,686.16	7.89	6.02	-167.86	-58.57	-71.38	232.74	220.83	11.91	19.539	
1,800.00	1,730.56	1,792.10	1,779.07	8.77	6.45	-167.23	-70.23	-89.57	262.66	249.91	12.74	20.609	
1,900.00	1,818.26	1,887.49	1,871.98	9.66	6.89	-166.73	-81.89	-107.75	292.59	279.00	13.59	21.523	
2,000.00	1,905.96	1,982.87	1,964.89	10.57	7.33	-166.32	-93.55	-125.94	322.55	308.09	14.46	22.308	
2,100.00	1,993.66	2,078.26	2,057.80	11.49	7.79	-165.99	-105.21	-144.13	352.51	337.18	15.33	22.988	
2,200.00	2,081.36	2,173.65	2,150.70	12.42	8.24	-165.70	-116.87	-162.31	382.48	366.26	16.22	23.581	
2,300.00	2,169.06	2,269.03	2,243.61	13.36	8.71	-165.46	-128.54	-180.50	412.47	395.35	17.11	24.101	
2,400.00	2,256.76	2,364.42	2,336.52	14.30	9.17	-165.25	-140.20	-198.68	442.45	424.44	18.02	24.559	
2,500.00	2,344.46	2,459.81	2,429.43	15.24	9.64	-165.07	-151.86	-216.87	472.45	453.52	18.92	24.966	
2,600.00	2,432.16	2,555.19	2,522.33	16.19	10.12	-164.90	-163.52	-235.06	502.44	482.61	19.84	25.329	
2,700.00	2,519.86	2,650.58	2,615.24	17.14	10.59	-164.76	-175.18	-253.24	532.44	511.69	20.75	25.655	
2,800.00	2,607.56	2,745.96	2,708.15	18.10	11.07	-164.63	-186.84	-271.43	562.44	540.77	21.68	25.949	
2,900.00	2,695.26	2,841.35	2,801.06	19.05	11.55	-164.52	-198.50	-289.61	592.45	569.85	22.60	26.214	
3,000.00	2,782.95	2,936.74	2,893.96	20.01	12.03	-164.41	-210.16	-307.80	622.45	598.92	23.53	26.456	
3,100.00	2,870.65	3,032.12	2,986.87	20.97	12.51	-164.32	-221.82	-325.99	652.46	628.00	24.46	26.676	
3,200.00	2,958.35	3,127.51	3,079.78	21.93	13.00	-164.23	-233.48	-344.17	682.47	657.08	25.39	26.877	
3,300.00	3,046.05	3,222.90	3,172.69	22.89	13.48	-164.15	-245.14	-362.36	712.48	686.15	26.33	27.061	
3,400.00	3,133.75	3,318.28	3,265.59	23.85	13.97	-164.08	-256.80	-380.55	742.49	715.23	27.27	27.231	
3,500.00	3,221.45	3,413.67	3,358.50	24.81	14.45	-164.01	-268.46	-398.73	772.51	744.30	28.21	27.388	
3,600.00	3,309.15	3,509.05	3,451.41	25.78	14.94	-163.95	-280.12	-416.92	802.52	773.37	29.15	27.533	
3,700.00	3,396.85	3,604.44	3,544.32	26.74	15.43	-163.89	-291.78	-435.10	832.53	802.44	30.09	27.667	
3,800.00	3,484.55	3,699.83	3,637.22	27.71	15.92	-163.84	-303.44	-453.29	862.55	831.51	31.04	27.793	
3,900.00	3,572.25	3,795.21	3,730.13	28.67	16.41	-163.79	-315.10	-471.48	892.56	860.58	31.98	27.909	
4,000.00	3,659.95	3,890.60	3,823.04	29.64	16.90	-163.74	-326.76	-489.66	922.58	889.65	32.93	28.018	
4,100.00	3,747.65	3,985.98	3,915.95	30.60	17.39	-163.70	-338.42	-507.85	952.60	918.72	33.88	28.120	
4,200.00	3,835.35	4,081.37	4,008.85	31.57	17.88	-163.66	-350.08	-526.04	982.61	947.79	34.82	28.216	
4,300.00	3,923.05	4,176.76	4,101.76	32.54	18.37	-163.62	-361.74	-544.22	1,012.63	976.86	35.77	28.306	
4,400.00	4,010.75	4,272.14	4,194.67	33.51	18.86	-163.59	-373.40	-562.41	1,042.65	1,005.93	36.73	28.391	
4,500.00	4,098.45	4,367.53	4,287.58	34.47	19.36	-163.55	-385.06	-580.59	1,072.67	1,034.99	37.68	28.471	
4,600.00	4,186.15	4,462.92	4,380.49	35.44	19.85	-163.52	-396.72	-598.78	1,102.69	1,064.06	38.63	28.546	
4,700.00	4,273.84	4,542.78	4,458.34	36.41	20.25	-163.50	-406.33	-613.76	1,133.04	1,093.61	39.44	28.730	
4,800.00	4,361.54	4,600.00	4,514.46	37.38	20.53	-163.55	-412.34	-623.14	1,165.65	1,125.64	40.01	29.137	
4,900.00	4,449.24	4,670.28	4,583.82	38.35	20.84	-163.67	-418.48	-632.71	1,200.64	1,160.00	40.63	29.548	
5,000.00	4,536.94	4,732.05	4,645.07	39.32	21.10	-163.85	-422.73	-639.34	1,238.05	1,196.91	41.14	30.096	
5,100.00	4,624.64	4,800.00	4,712.72	40.29	21.36	-164.10	-426.17	-644.71	1,277.83	1,236.18	41.66	30.675	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 128H - Original Hole - rev1												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)			
5,200.00	4,712.34	6,487.17	5,663.10	41.26	32.97	155.07	282.62	-1,361.17	1,270.69	1,222.43	48.25	26.333	
5,300.00	4,800.04	6,515.91	5,663.26	42.23	33.44	153.72	302.94	-1,381.49	1,234.05	1,182.60	51.44	23.988	
5,400.00	4,887.74	6,544.65	5,663.42	43.20	33.91	152.37	323.26	-1,401.81	1,203.93	1,149.27	54.67	22.024	
5,500.00	4,975.44	6,573.38	5,663.57	44.17	34.39	151.01	343.58	-1,422.13	1,180.84	1,123.01	57.83	20.419	
5,600.00	5,063.14	6,602.12	5,663.73	45.14	34.87	149.65	363.90	-1,442.45	1,165.18	1,104.32	60.86	19.146	
5,700.00	5,150.84	6,630.86	5,663.89	46.11	35.36	148.29	384.21	-1,462.77	1,157.27	1,093.60	63.66	18.178	
5,768.13	5,210.33	6,651.98	5,664.00	46.78	35.73	142.53	399.15	-1,477.71	1,155.93	1,090.49	65.44	17.664	
5,800.00	5,238.30	6,660.98	5,664.05	47.09	35.88	139.86	405.51	-1,484.07	1,156.82	1,090.61	66.21	17.473	
5,900.00	5,322.61	6,703.97	5,664.29	48.14	36.63	124.13	435.91	-1,514.47	1,159.63	1,090.89	68.74	16.869	
6,000.00	5,400.89	6,761.28	5,664.60	49.25	37.66	112.08	476.43	-1,554.99	1,163.18	1,091.79	71.38	16.295	
6,100.00	5,470.76	6,831.16	5,664.98	50.37	38.93	103.07	525.84	-1,604.41	1,165.38	1,091.21	74.17	15.713	
6,200.00	5,530.10	6,911.50	5,665.42	51.49	40.42	96.58	582.65	-1,661.21	1,164.12	1,086.99	77.13	15.094	
6,300.00	5,580.45	6,998.16	5,665.89	52.60	42.06	93.72	643.93	-1,722.49	1,159.73	1,079.51	80.22	14.458	
6,400.00	5,620.65	7,089.80	5,666.39	53.80	43.83	92.15	708.72	-1,787.29	1,157.48	1,073.99	83.49	13.864	
6,500.00	5,644.36	7,186.95	5,666.92	55.11	45.74	91.11	777.41	-1,855.99	1,156.79	1,069.74	87.05	13.289	
6,600.00	5,651.10	7,286.64	5,667.47	56.49	47.73	90.81	847.91	-1,926.48	1,156.68	1,065.85	90.83	12.735	
6,700.00	5,651.69	7,386.64	5,668.02	57.92	49.75	90.81	918.62	-1,997.19	1,156.68	1,061.96	94.72	12.212	
6,800.00	5,652.29	7,486.64	5,668.56	59.40	51.79	90.81	989.32	-2,067.90	1,156.67	1,058.01	98.67	11.723	
6,900.00	5,652.88	7,586.64	5,669.11	60.93	53.86	90.80	1,060.03	-2,138.62	1,156.67	1,054.00	102.67	11.266	
7,000.00	5,653.48	7,686.64	5,669.65	62.51	55.94	90.80	1,130.74	-2,209.33	1,156.67	1,049.95	106.72	10.838	
7,100.00	5,654.07	7,786.64	5,670.20	64.13	58.04	90.80	1,201.45	-2,280.04	1,156.66	1,045.85	110.81	10.438	
7,200.00	5,654.67	7,886.64	5,670.75	65.79	60.16	90.80	1,272.16	-2,350.75	1,156.66	1,041.72	114.94	10.063	
7,300.00	5,655.26	7,986.64	5,671.29	67.48	62.28	90.79	1,342.87	-2,421.46	1,156.66	1,037.55	119.10	9.711	
7,400.00	5,655.86	8,086.64	5,671.84	69.22	64.42	90.79	1,413.57	-2,492.17	1,156.65	1,033.36	123.30	9.381	
7,500.00	5,656.45	8,186.64	5,672.39	70.98	66.57	90.79	1,484.28	-2,562.88	1,156.65	1,029.13	127.52	9.071	
7,600.00	5,657.05	8,286.64	5,672.93	72.78	68.73	90.79	1,554.99	-2,633.59	1,156.64	1,024.88	131.76	8.778	
7,700.00	5,657.64	8,386.64	5,673.48	74.60	70.90	90.78	1,625.70	-2,704.30	1,156.64	1,020.61	136.03	8.503	
7,800.00	5,658.24	8,486.64	5,674.03	76.45	73.08	90.78	1,696.41	-2,775.01	1,156.64	1,016.32	140.31	8.243	
7,900.00	5,658.83	8,586.64	5,674.57	78.33	75.26	90.78	1,767.12	-2,845.73	1,156.63	1,012.01	144.62	7.998	
8,000.00	5,659.43	8,686.64	5,675.12	80.23	77.45	90.78	1,837.82	-2,916.44	1,156.63	1,007.69	148.94	7.766	
8,100.00	5,660.02	8,786.64	5,675.66	82.15	79.64	90.77	1,908.53	-2,987.15	1,156.63	1,003.34	153.28	7.546	
8,200.00	5,660.62	8,886.64	5,676.21	84.09	81.85	90.77	1,979.24	-3,057.86	1,156.62	998.99	157.63	7.337	
8,300.00	5,661.21	8,986.64	5,676.76	86.04	84.05	90.77	2,049.95	-3,128.57	1,156.62	994.62	162.00	7.140	
8,400.00	5,661.81	9,086.64	5,677.30	88.02	86.26	90.77	2,120.66	-3,199.28	1,156.62	990.24	166.38	6.952	
8,500.00	5,662.41	9,186.64	5,677.85	90.01	88.48	90.77	2,191.36	-3,269.99	1,156.61	985.85	170.76	6.773	
8,600.00	5,663.00	9,286.64	5,678.40	92.01	90.70	90.76	2,262.07	-3,340.70	1,156.61	981.45	175.16	6.603	
8,700.00	5,663.60	9,386.64	5,678.94	94.03	92.92	90.76	2,332.78	-3,411.41	1,156.60	977.04	179.57	6.441	
8,800.00	5,664.19	9,486.64	5,679.49	96.06	95.15	90.76	2,403.49	-3,482.12	1,156.60	972.62	183.99	6.286	
8,900.00	5,664.79	9,586.64	5,680.04	98.10	97.37	90.76	2,474.20	-3,552.84	1,156.60	968.19	188.41	6.139	
9,000.00	5,665.38	9,686.64	5,680.58	100.16	99.61	90.75	2,544.91	-3,623.55	1,156.59	963.75	192.84	5.998	
9,100.00	5,665.98	9,786.64	5,681.13	102.22	101.84	90.75	2,615.61	-3,694.26	1,156.59	959.31	197.28	5.863	
9,200.00	5,666.57	9,886.64	5,681.67	104.30	104.08	90.75	2,686.32	-3,764.97	1,156.59	954.86	201.73	5.733	
9,300.00	5,667.17	9,986.64	5,682.22	106.39	106.32	90.75	2,757.03	-3,835.68	1,156.58	950.40	206.18	5.610	
9,400.00	5,667.76	10,086.64	5,682.77	108.48	108.56	90.74	2,827.74	-3,906.39	1,156.58	945.94	210.64	5.491	
9,500.00	5,668.36	10,186.64	5,683.31	110.58	110.81	90.74	2,898.45	-3,977.10	1,156.58	941.48	215.10	5.377	
9,600.00	5,668.95	10,286.64	5,683.86	112.69	113.05	90.74	2,969.16	-4,047.81	1,156.57	937.00	219.57	5.267	
9,700.00	5,669.55	10,386.64	5,684.41	114.81	115.30	90.74	3,039.86	-4,118.52	1,156.57	932.53	224.04	5.162	
9,800.00	5,670.14	10,486.64	5,684.95	116.93	117.55	90.73	3,110.57	-4,189.23	1,156.57	928.05	228.52	5.061	
9,900.00	5,670.74	10,586.64	5,685.50	119.06	119.81	90.73	3,181.28	-4,259.94	1,156.56	923.56	233.00	4.964	
10,000.00	5,671.33	10,686.64	5,686.05	121.20	122.06	90.73	3,251.99	-4,330.66	1,156.56	919.07	237.48	4.870	
10,100.00	5,671.93	10,786.64	5,686.59	123.35	124.31	90.73	3,322.70	-4,401.37	1,156.55	914.58	241.97	4.780	
10,200.00	5,672.52	10,886.64	5,687.14	125.49	126.57	90.72	3,393.41	-4,472.08	1,156.55	910.09	246.47	4.693	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 128H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Rule Assigned:													Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	5,673.12	10,986.64	5,687.68	127.65	128.83	90.72	3,464.11	-4,542.79	1,156.55	905.59	250.96	4.608		
10,400.00	5,673.71	11,086.64	5,688.23	129.81	131.09	90.72	3,534.82	-4,613.50	1,156.54	901.08	255.46	4.527		
10,500.00	5,674.31	11,186.64	5,688.78	131.97	133.35	90.72	3,605.53	-4,684.21	1,156.54	896.58	259.96	4.449		
10,600.00	5,674.90	11,286.64	5,689.32	134.14	135.61	90.71	3,676.24	-4,754.92	1,156.54	892.07	264.47	4.373		
10,700.00	5,675.50	11,386.64	5,689.87	136.31	137.87	90.71	3,746.95	-4,825.63	1,156.53	887.56	268.97	4.300		
10,800.00	5,676.09	11,486.64	5,690.42	138.49	140.14	90.71	3,817.65	-4,896.34	1,156.53	883.05	273.48	4.229		
10,900.00	5,676.69	11,586.64	5,690.96	140.67	142.40	90.71	3,888.36	-4,967.05	1,156.53	878.53	278.00	4.160		
11,000.00	5,677.28	11,686.64	5,691.51	142.85	144.67	90.70	3,959.07	-5,037.77	1,156.52	874.01	282.51	4.094		
11,100.00	5,677.88	11,786.64	5,692.05	145.04	146.93	90.70	4,029.78	-5,108.48	1,156.52	869.49	287.03	4.029		
11,200.00	5,678.47	11,886.64	5,692.60	147.23	149.20	90.70	4,100.49	-5,179.19	1,156.52	864.97	291.55	3.967		
11,300.00	5,679.07	11,986.64	5,693.15	149.43	151.47	90.70	4,171.20	-5,249.90	1,156.51	860.44	296.07	3.906		
11,400.00	5,679.66	12,086.64	5,693.69	151.62	153.74	90.70	4,241.90	-5,320.61	1,156.51	855.92	300.59	3.847		
11,500.00	5,680.26	12,186.64	5,694.24	153.83	156.01	90.69	4,312.61	-5,391.32	1,156.51	851.39	305.11	3.790		
11,600.00	5,680.86	12,286.64	5,694.79	156.03	158.28	90.69	4,383.32	-5,462.03	1,156.50	846.86	309.64	3.735		
11,700.00	5,681.45	12,386.64	5,695.33	158.23	160.55	90.69	4,454.03	-5,532.74	1,156.50	842.33	314.17	3.681		
11,800.00	5,682.05	12,486.64	5,695.88	160.44	162.82	90.69	4,524.74	-5,603.45	1,156.49	837.80	318.70	3.629		
11,900.00	5,682.64	12,586.64	5,696.43	162.65	165.10	90.68	4,595.45	-5,674.16	1,156.49	833.26	323.23	3.578		
12,000.00	5,683.24	12,686.64	5,696.97	164.87	167.37	90.68	4,666.15	-5,744.88	1,156.49	828.73	327.76	3.528		
12,100.00	5,683.83	12,786.64	5,697.52	167.08	169.64	90.68	4,736.86	-5,815.59	1,156.48	824.19	332.29	3.480		
12,200.00	5,684.43	12,886.64	5,698.06	169.30	171.92	90.68	4,807.57	-5,886.30	1,156.48	819.65	336.83	3.433		
12,300.00	5,685.02	12,986.64	5,698.61	171.52	174.19	90.67	4,878.28	-5,957.01	1,156.48	815.11	341.37	3.388		
12,400.00	5,685.62	13,086.64	5,699.16	173.74	176.47	90.67	4,948.99	-6,027.72	1,156.47	810.57	345.90	3.343		
12,500.00	5,686.21	13,186.64	5,699.70	175.97	178.74	90.67	5,019.69	-6,098.43	1,156.47	806.03	350.44	3.300		
12,600.00	5,686.81	13,286.64	5,700.25	178.19	181.02	90.67	5,090.40	-6,169.14	1,156.47	801.49	354.98	3.258		
12,700.00	5,687.40	13,386.64	5,700.80	180.42	183.30	90.66	5,161.11	-6,239.85	1,156.46	796.94	359.52	3.217		
12,800.00	5,688.00	13,486.64	5,701.34	182.65	185.57	90.66	5,231.82	-6,310.56	1,156.46	792.40	364.06	3.177		
12,900.00	5,688.59	13,586.64	5,701.89	184.88	187.85	90.66	5,302.53	-6,381.27	1,156.46	787.85	368.60	3.137		
13,000.00	5,689.19	13,686.64	5,702.44	187.11	190.13	90.66	5,373.24	-6,451.99	1,156.45	783.30	373.15	3.099		
13,100.00	5,689.78	13,786.64	5,702.98	189.35	192.41	90.65	5,443.94	-6,522.70	1,156.45	778.76	377.69	3.062		
13,200.00	5,690.38	13,886.64	5,703.53	191.58	194.69	90.65	5,514.65	-6,593.41	1,156.45	774.21	382.24	3.025		
13,300.00	5,690.97	13,986.64	5,704.07	193.82	196.97	90.65	5,585.36	-6,664.12	1,156.44	769.66	386.78	2.990		
13,400.00	5,691.57	14,086.64	5,704.62	196.06	199.24	90.65	5,656.07	-6,734.83	1,156.44	765.11	391.33	2.955		
13,500.00	5,692.16	14,186.64	5,705.17	198.30	201.52	90.64	5,726.78	-6,805.54	1,156.44	760.56	395.88	2.921		
13,600.00	5,692.76	14,286.64	5,705.71	200.54	203.80	90.64	5,797.49	-6,876.25	1,156.43	756.01	400.43	2.888		
13,700.00	5,693.35	14,386.64	5,706.26	202.78	206.09	90.64	5,868.19	-6,946.96	1,156.43	751.45	404.98	2.856		
13,800.00	5,693.95	14,486.64	5,706.81	205.02	208.37	90.64	5,938.90	-7,017.67	1,156.42	746.90	409.53	2.824		
13,900.00	5,694.54	14,586.64	5,707.35	207.27	210.65	90.63	6,009.61	-7,088.38	1,156.42	742.35	414.08	2.793		
14,000.00	5,695.14	14,686.64	5,707.90	209.51	212.93	90.63	6,080.32	-7,159.09	1,156.42	737.79	418.63	2.762		
14,100.00	5,695.73	14,786.64	5,708.44	211.76	215.21	90.63	6,151.03	-7,229.81	1,156.41	733.24	423.18	2.733		
14,200.00	5,696.33	14,886.64	5,708.99	214.01	217.49	90.63	6,221.74	-7,300.52	1,156.41	728.68	427.73	2.704		
14,300.00	5,696.92	14,986.64	5,709.54	216.26	219.77	90.62	6,292.44	-7,371.23	1,156.41	724.13	432.28	2.675		
14,400.00	5,697.52	15,086.64	5,710.08	218.50	222.06	90.62	6,363.15	-7,441.94	1,156.40	719.57	436.83	2.647		
14,500.00	5,698.11	15,186.64	5,710.63	220.76	224.34	90.62	6,433.86	-7,512.65	1,156.40	715.01	441.39	2.620		
14,600.00	5,698.71	15,286.64	5,711.18	223.01	226.62	90.62	6,504.57	-7,583.36	1,156.40	710.45	445.94	2.593		
14,700.00	5,699.30	15,386.64	5,711.72	225.26	228.91	90.62	6,575.28	-7,654.07	1,156.39	705.90	450.50	2.567		
14,800.00	5,699.90	15,486.64	5,712.27	227.51	231.19	90.61	6,645.98	-7,724.78	1,156.39	701.34	455.05	2.541		
14,900.00	5,700.50	15,586.64	5,712.82	229.77	233.47	90.61	6,716.69	-7,795.49	1,156.39	696.78	459.61	2.516		
15,000.00	5,701.09	15,686.64	5,713.36	232.02	235.76	90.61	6,787.40	-7,866.20	1,156.38	692.22	464.16	2.491		
15,100.00	5,701.69	15,786.64	5,713.91	234.28	238.04	90.61	6,858.11	-7,936.92	1,156.38	687.66	468.72	2.467		
15,200.00	5,702.28	15,886.64	5,714.45	236.53	240.33	90.60	6,928.82	-8,007.63	1,156.38	683.10	473.28	2.443		
15,300.00	5,702.88	15,986.64	5,715.00	238.79	242.61	90.60	6,999.53	-8,078.34	1,156.37	678.54	477.83	2.420		
15,400.00	5,703.47	16,086.64	5,715.55	241.05	244.90	90.60	7,070.23	-8,149.05	1,156.37	673.98	482.39	2.397		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (124, 127, 128 & 129) - Ridge Unit No. 128H - Original Hole - rev1													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)				
15,500.00	5,704.07	16,186.64	5,716.09	243.31	247.18	90.60	7,140.94	-8,219.76	1,156.37	669.42	486.95	2.375		
15,600.00	5,704.66	16,286.64	5,716.64	245.57	249.47	90.59	7,211.65	-8,290.47	1,156.36	664.85	491.51	2.353		
15,700.00	5,705.26	16,386.64	5,717.19	247.83	251.75	90.59	7,282.36	-8,361.18	1,156.36	660.29	496.07	2.331		
15,800.00	5,705.85	16,486.64	5,717.73	250.09	254.04	90.59	7,353.07	-8,431.89	1,156.36	655.73	500.62	2.310		
15,847.56	5,706.13	16,534.20	5,717.99	251.16	255.12	90.59	7,386.69	-8,465.52	1,156.35	653.56	502.79	2.300 SF		
15,900.00	5,706.45	16,535.96	5,718.00	252.35	255.16	90.59	7,387.94	-8,466.76	1,157.46	657.41	500.05	2.315		
16,000.00	5,707.04	16,535.96	5,718.00	254.61	255.16	90.59	7,387.94	-8,466.76	1,166.13	676.20	489.93	2.380		
16,100.00	5,707.64	16,535.96	5,718.00	256.87	255.16	90.59	7,387.94	-8,466.76	1,183.21	708.57	474.64	2.493		
16,200.00	5,708.23	16,535.96	5,718.00	259.14	255.16	90.59	7,387.94	-8,466.76	1,208.35	752.77	455.58	2.652		
16,300.00	5,708.83	16,535.96	5,718.00	261.40	255.16	90.59	7,387.94	-8,466.76	1,241.06	806.85	434.22	2.858		
16,400.00	5,709.42	16,535.96	5,718.00	263.66	255.16	90.59	7,387.94	-8,466.76	1,280.77	868.96	411.81	3.110		
16,500.00	5,710.02	16,535.96	5,718.00	265.93	255.16	90.59	7,387.94	-8,466.76	1,326.84	937.50	389.34	3.408		
16,600.00	5,710.61	16,535.96	5,718.00	268.19	255.16	90.59	7,387.94	-8,466.76	1,378.63	1,011.16	367.47	3.752		
16,700.00	5,711.21	16,535.96	5,718.00	270.46	255.16	90.59	7,387.94	-8,466.76	1,435.53	1,088.90	346.63	4.141		
16,800.00	5,711.80	16,535.96	5,718.00	272.73	255.16	90.59	7,387.94	-8,466.76	1,496.96	1,169.90	327.06	4.577		
16,900.00	5,712.40	16,535.96	5,718.00	274.99	255.16	90.59	7,387.94	-8,466.76	1,562.37	1,253.53	308.84	5.059		
17,000.00	5,712.99	16,535.96	5,718.00	277.26	255.16	90.59	7,387.94	-8,466.76	1,631.30	1,339.29	292.01	5.587		
17,001.12	5,713.00	16,535.96	5,718.00	277.29	255.16	90.59	7,387.94	-8,466.76	1,632.09	1,340.26	291.83	5.593		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (130, 135, 136 & 137) - Ridge Unit No. 130H - Original Hole - rev1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,700.00	5,150.84	6,179.31	5,125.09	46.11	65.09	5.26	-491.04	-4,044.79	1,853.29	1,794.06	59.23	31.292	
5,800.00	5,238.30	6,200.00	5,143.87	47.09	65.08	-3.58	-482.36	-4,045.06	1,803.39	1,743.95	59.45	30.336	
5,900.00	5,322.61	6,229.07	5,169.87	48.14	65.05	-22.42	-469.41	-4,046.37	1,752.43	1,692.72	59.71	29.350	
6,000.00	5,400.89	6,250.00	5,188.26	49.25	65.03	-37.59	-459.57	-4,047.98	1,700.72	1,640.50	60.23	28.239	
6,100.00	5,470.76	6,300.00	5,230.97	50.37	64.97	-49.86	-434.34	-4,054.11	1,649.88	1,589.16	60.72	27.173	
6,200.00	5,530.10	6,300.00	5,230.97	51.49	64.97	-59.72	-434.34	-4,054.11	1,601.03	1,538.82	62.21	25.734	
6,300.00	5,580.45	6,350.00	5,271.68	52.60	64.89	-63.12	-406.86	-4,063.39	1,555.84	1,492.26	63.58	24.471	
6,400.00	5,620.65	6,370.86	5,288.00	53.80	64.86	-68.14	-394.78	-4,068.17	1,510.03	1,444.10	65.93	22.905	
6,500.00	5,644.36	6,400.00	5,310.08	55.11	64.81	-73.90	-377.34	-4,075.75	1,462.20	1,393.39	68.81	21.251	
6,600.00	5,651.10	6,425.17	5,328.44	56.49	64.77	-79.10	-361.78	-4,083.11	1,414.06	1,341.59	72.48	19.511	
6,700.00	5,651.69	6,450.00	5,345.87	57.92	64.74	-79.84	-346.01	-4,091.10	1,368.99	1,292.20	76.79	17.828	
6,800.00	5,652.29	6,482.78	5,367.79	59.40	64.69	-80.79	-324.60	-4,102.74	1,328.40	1,247.00	81.40	16.319	
6,900.00	5,652.88	6,516.31	5,388.86	60.93	64.65	-81.71	-302.07	-4,115.88	1,292.47	1,206.03	86.44	14.953	
7,000.00	5,653.48	6,550.00	5,408.58	62.51	64.62	-82.58	-278.88	-4,130.30	1,261.29	1,169.47	91.82	13.737	
7,100.00	5,654.07	6,595.61	5,432.83	64.13	64.59	-83.67	-246.72	-4,151.67	1,234.85	1,137.93	96.91	12.742	
7,200.00	5,654.67	6,667.50	5,468.68	65.79	64.56	-85.32	-195.42	-4,187.05	1,211.83	1,110.93	100.90	12.010	
7,300.00	5,655.26	6,714.97	5,489.96	67.48	64.57	-86.32	-161.09	-4,211.94	1,192.65	1,086.52	106.13	11.237	
7,400.00	5,655.86	6,766.46	5,509.24	69.22	64.59	-87.23	-123.35	-4,241.16	1,177.85	1,066.71	111.14	10.598	
7,500.00	5,656.45	6,821.59	5,525.29	70.98	64.65	-87.99	-82.71	-4,274.74	1,167.16	1,051.25	115.91	10.070	
7,600.00	5,657.05	6,879.63	5,536.93	72.78	64.74	-88.54	-40.07	-4,312.33	1,160.26	1,039.82	120.45	9.633	
7,700.00	5,657.64	6,939.57	5,543.14	74.60	64.86	-88.83	3.35	-4,353.14	1,156.94	1,032.12	124.82	9.269	
7,800.00	5,658.24	7,021.09	5,544.36	76.45	65.07	-88.87	61.13	-4,410.62	1,156.56	1,028.40	128.16	9.024	
7,813.26	5,658.32	7,034.35	5,544.45	76.70	65.11	-88.87	70.51	-4,420.00	1,156.56	1,028.06	128.50	9.001	
7,900.00	5,658.83	7,121.09	5,545.04	78.33	65.39	-88.87	131.84	-4,481.33	1,156.56	1,025.83	130.73	8.847	
8,000.00	5,659.43	7,221.09	5,545.72	80.23	65.77	-88.87	202.55	-4,552.03	1,156.56	1,023.16	133.40	8.670	
8,100.00	5,660.02	7,321.09	5,546.40	82.15	66.23	-88.88	273.26	-4,622.74	1,156.56	1,020.39	136.16	8.494	
8,200.00	5,660.62	7,421.09	5,547.08	84.09	66.76	-88.88	343.97	-4,693.45	1,156.55	1,017.55	139.01	8.320	
8,300.00	5,661.21	7,521.09	5,547.76	86.04	67.36	-88.89	414.68	-4,764.16	1,156.55	1,014.61	141.94	8.148	
8,400.00	5,661.81	7,621.09	5,548.44	88.02	68.03	-88.89	485.39	-4,834.87	1,156.55	1,011.60	144.95	7.979	
8,500.00	5,662.41	7,721.09	5,549.12	90.01	68.77	-88.90	556.10	-4,905.58	1,156.55	1,008.51	148.04	7.812	
8,600.00	5,663.00	7,821.09	5,549.80	92.01	69.58	-88.90	626.81	-4,976.28	1,156.55	1,005.34	151.21	7.649	
8,700.00	5,663.60	7,921.09	5,550.48	94.03	70.45	-88.90	697.52	-5,046.99	1,156.55	1,002.11	154.44	7.489	
8,800.00	5,664.19	8,021.09	5,551.16	96.06	71.38	-88.91	768.22	-5,117.70	1,156.54	998.80	157.74	7.332	
8,900.00	5,664.79	8,121.09	5,551.84	98.10	72.38	-88.91	838.93	-5,188.41	1,156.54	995.44	161.10	7.179	
9,000.00	5,665.38	8,221.09	5,552.52	100.16	73.44	-88.92	909.64	-5,259.12	1,156.54	992.01	164.53	7.029	
9,100.00	5,665.98	8,321.09	5,553.20	102.22	74.56	-88.92	980.35	-5,329.83	1,156.54	988.53	168.01	6.884	
9,200.00	5,666.57	8,421.09	5,553.88	104.30	75.74	-88.93	1,051.06	-5,400.54	1,156.54	984.99	171.55	6.742	
9,300.00	5,667.17	8,521.09	5,554.56	106.39	76.97	-88.93	1,121.77	-5,471.24	1,156.54	981.41	175.13	6.604	
9,400.00	5,667.76	8,621.09	5,555.24	108.48	78.25	-88.93	1,192.48	-5,541.95	1,156.54	977.77	178.76	6.470	
9,500.00	5,668.36	8,721.09	5,555.92	110.58	79.58	-88.94	1,263.19	-5,612.66	1,156.53	974.09	182.44	6.339	
9,600.00	5,668.95	8,821.09	5,556.60	112.69	80.96	-88.94	1,333.90	-5,683.37	1,156.53	970.37	186.17	6.212	
9,700.00	5,669.55	8,921.09	5,557.28	114.81	82.39	-88.95	1,404.61	-5,754.08	1,156.53	966.60	189.93	6.089	
9,800.00	5,670.14	9,021.09	5,557.96	116.93	83.85	-88.95	1,475.32	-5,824.79	1,156.53	962.80	193.73	5.970	
9,900.00	5,670.74	9,121.09	5,558.64	119.06	85.36	-88.95	1,546.03	-5,895.49	1,156.53	958.97	197.56	5.854	
10,000.00	5,671.33	9,221.09	5,559.32	121.20	86.91	-88.96	1,616.74	-5,966.20	1,156.53	955.10	201.43	5.742	
10,100.00	5,671.93	9,321.09	5,560.00	123.35	88.49	-88.96	1,687.45	-6,036.91	1,156.53	951.19	205.33	5.632	
10,200.00	5,672.52	9,421.09	5,560.68	125.49	90.10	-88.97	1,758.16	-6,107.62	1,156.52	947.26	209.27	5.527	
10,300.00	5,673.12	9,521.09	5,561.36	127.65	91.75	-88.97	1,828.87	-6,178.33	1,156.52	943.30	213.23	5.424	
10,400.00	5,673.71	9,621.09	5,562.04	129.81	93.43	-88.98	1,899.58	-6,249.04	1,156.52	939.31	217.21	5.324	
10,500.00	5,674.31	9,721.09	5,562.72	131.97	95.14	-88.98	1,970.29	-6,319.74	1,156.52	935.30	221.22	5.228	
10,600.00	5,674.90	9,821.09	5,563.40	134.14	96.87	-88.98	2,041.00	-6,390.45	1,156.52	931.26	225.26	5.134	
10,700.00	5,675.50	9,921.09	5,564.08	136.31	98.63	-88.99	2,111.71	-6,461.16	1,156.52	927.20	229.32	5.043	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (130, 135, 136 & 137) - Ridge Unit No. 130H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		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)	Separation (ft)		
10,800.00	5,676.09	10,021.09	5,564.76	138.49	100.41	-88.99	2,182.42	-6,531.87	1,156.52	923.12	233.40	4.955	
10,900.00	5,676.69	10,121.09	5,565.44	140.67	102.21	-89.00	2,253.13	-6,602.58	1,156.51	919.01	237.50	4.870	
11,000.00	5,677.28	10,221.09	5,566.12	142.85	104.04	-89.00	2,323.84	-6,673.29	1,156.51	914.89	241.62	4.786	
11,100.00	5,677.88	10,321.09	5,566.80	145.04	105.88	-89.01	2,394.55	-6,744.00	1,156.51	910.75	245.76	4.706	
11,200.00	5,678.47	10,421.09	5,567.48	147.23	107.75	-89.01	2,465.26	-6,814.70	1,156.51	906.60	249.91	4.628	
11,300.00	5,679.07	10,521.09	5,568.16	149.43	109.63	-89.01	2,535.97	-6,885.41	1,156.51	902.42	254.09	4.552	
11,400.00	5,679.66	10,621.09	5,568.84	151.62	111.53	-89.02	2,606.68	-6,956.12	1,156.51	898.24	258.27	4.478	
11,500.00	5,680.26	10,721.09	5,569.52	153.83	113.45	-89.02	2,677.38	-7,026.83	1,156.51	894.03	262.47	4.406	
11,600.00	5,680.86	10,821.09	5,570.20	156.03	115.38	-89.03	2,748.09	-7,097.54	1,156.51	889.82	266.69	4.337	
11,700.00	5,681.45	10,921.09	5,570.88	158.23	117.32	-89.03	2,818.80	-7,168.25	1,156.50	885.59	270.92	4.269	
11,800.00	5,682.05	11,021.09	5,571.56	160.44	119.28	-89.03	2,889.51	-7,238.95	1,156.50	881.34	275.16	4.203	
11,900.00	5,682.64	11,121.09	5,572.24	162.65	121.25	-89.04	2,960.22	-7,309.66	1,156.50	877.09	279.41	4.139	
12,000.00	5,683.24	11,221.09	5,572.92	164.87	123.23	-89.04	3,030.93	-7,380.37	1,156.50	872.82	283.68	4.077	
12,100.00	5,683.83	11,321.09	5,573.60	167.08	125.22	-89.05	3,101.64	-7,451.08	1,156.50	868.55	287.95	4.016	
12,200.00	5,684.43	11,421.09	5,574.28	169.30	127.23	-89.05	3,172.35	-7,521.79	1,156.50	864.26	292.24	3.957	
12,300.00	5,685.02	11,521.09	5,574.96	171.52	129.24	-89.06	3,243.06	-7,592.50	1,156.50	859.96	296.53	3.900	
12,400.00	5,685.62	11,621.09	5,575.64	173.74	131.27	-89.06	3,313.77	-7,663.20	1,156.50	855.66	300.84	3.844	
12,500.00	5,686.21	11,721.09	5,576.32	175.97	133.30	-89.06	3,384.48	-7,733.91	1,156.49	851.34	305.15	3.790	
12,600.00	5,686.81	11,821.09	5,577.00	178.19	135.34	-89.07	3,455.19	-7,804.62	1,156.49	847.02	309.47	3.737	
12,700.00	5,687.40	11,921.09	5,577.68	180.42	137.39	-89.07	3,525.90	-7,875.33	1,156.49	842.69	313.80	3.685	
12,800.00	5,688.00	12,021.09	5,578.36	182.65	139.45	-89.08	3,596.61	-7,946.04	1,156.49	838.35	318.14	3.635	
12,900.00	5,688.59	12,121.09	5,579.04	184.88	141.52	-89.08	3,667.32	-8,016.75	1,156.49	834.00	322.49	3.586	
13,000.00	5,689.19	12,221.09	5,579.72	187.11	143.59	-89.08	3,738.03	-8,087.45	1,156.49	829.65	326.84	3.538	
13,100.00	5,689.78	12,321.09	5,580.40	189.35	145.68	-89.09	3,808.74	-8,158.16	1,156.49	825.29	331.20	3.492	
13,200.00	5,690.38	12,421.09	5,581.08	191.58	147.76	-89.09	3,879.45	-8,228.87	1,156.49	820.92	335.57	3.446	
13,300.00	5,690.97	12,521.09	5,581.76	193.82	149.86	-89.10	3,950.16	-8,299.58	1,156.48	816.54	339.94	3.402	
13,400.00	5,691.57	12,621.09	5,582.43	196.06	151.96	-89.10	4,020.87	-8,370.29	1,156.48	812.16	344.32	3.359	
13,500.00	5,692.16	12,721.09	5,583.11	198.30	154.06	-89.11	4,091.58	-8,441.00	1,156.48	807.78	348.70	3.317	
13,600.00	5,692.76	12,821.09	5,583.79	200.54	156.17	-89.11	4,162.29	-8,511.71	1,156.48	803.39	353.09	3.275	
13,700.00	5,693.35	12,921.08	5,584.47	202.78	158.29	-89.11	4,233.00	-8,582.41	1,156.48	798.99	357.49	3.235	
13,800.00	5,693.95	13,021.08	5,585.15	205.02	160.41	-89.12	4,303.71	-8,653.12	1,156.48	794.59	361.89	3.196	
13,900.00	5,694.54	13,121.08	5,585.83	207.27	162.54	-89.12	4,374.42	-8,723.83	1,156.48	790.18	366.30	3.157	
14,000.00	5,695.14	13,221.08	5,586.51	209.51	164.67	-89.13	4,445.13	-8,794.54	1,156.48	785.77	370.71	3.120	
14,100.00	5,695.73	13,321.08	5,587.19	211.76	166.81	-89.13	4,515.84	-8,865.25	1,156.48	781.36	375.12	3.083	
14,200.00	5,696.33	13,421.08	5,587.87	214.01	168.95	-89.14	4,586.55	-8,935.96	1,156.47	776.93	379.54	3.047	
14,300.00	5,696.92	13,521.08	5,588.55	216.26	171.09	-89.14	4,657.25	-9,006.66	1,156.47	772.51	383.96	3.012	
14,400.00	5,697.52	13,621.08	5,589.23	218.50	173.24	-89.14	4,727.96	-9,077.37	1,156.47	768.08	388.39	2.978	
14,500.00	5,698.11	13,721.08	5,589.91	220.76	175.39	-89.15	4,798.67	-9,148.08	1,156.47	763.65	392.82	2.944	
14,600.00	5,698.71	13,821.08	5,590.59	223.01	177.55	-89.15	4,869.38	-9,218.79	1,156.47	759.21	397.26	2.911	
14,700.00	5,699.30	13,921.08	5,591.27	225.26	179.71	-89.16	4,940.09	-9,289.50	1,156.47	754.77	401.69	2.879	
14,800.00	5,699.90	14,021.08	5,591.95	227.51	181.87	-89.16	5,010.80	-9,360.21	1,156.47	750.33	406.14	2.847	
14,900.00	5,700.50	14,121.08	5,592.63	229.77	184.04	-89.16	5,081.51	-9,430.91	1,156.47	745.88	410.58	2.817	
15,000.00	5,701.09	14,221.08	5,593.31	232.02	186.21	-89.17	5,152.22	-9,501.62	1,156.47	741.43	415.03	2.786	
15,100.00	5,701.69	14,321.08	5,593.99	234.28	188.38	-89.17	5,222.93	-9,572.33	1,156.46	736.98	419.48	2.757	
15,200.00	5,702.28	14,421.08	5,594.67	236.53	190.55	-89.18	5,293.64	-9,643.04	1,156.46	732.53	423.94	2.728	
15,300.00	5,702.88	14,521.08	5,595.35	238.79	192.73	-89.18	5,364.35	-9,713.75	1,156.46	728.07	428.39	2.700	
15,400.00	5,703.47	14,621.08	5,596.03	241.05	194.91	-89.19	5,435.06	-9,784.46	1,156.46	723.61	432.85	2.672	
15,500.00	5,704.07	14,721.08	5,596.71	243.31	197.10	-89.19	5,505.77	-9,855.16	1,156.46	719.14	437.32	2.644	
15,600.00	5,704.66	14,821.08	5,597.39	245.57	199.28	-89.19	5,576.48	-9,925.87	1,156.46	714.68	441.78	2.618	
15,700.00	5,705.26	14,921.08	5,598.07	247.83	201.47	-89.20	5,647.19	-9,996.58	1,156.46	710.21	446.25	2.591	
15,800.00	5,705.85	15,021.08	5,598.75	250.09	203.66	-89.20	5,717.90	-10,067.29	1,156.46	705.73	450.72	2.566	
15,900.00	5,706.45	15,121.08	5,599.43	252.35	205.85	-89.21	5,788.61	-10,138.00	1,156.46	701.26	455.20	2.541	

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Offset Design: Ridge Unit (130, 135, 136 & 137) - Ridge Unit No. 130H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
16,000.00	5,707.04	15,221.08	5,600.11	254.61	208.05	-89.21	5,859.32	-10,208.71	1,156.45	696.78	459.67	2.516		
16,100.00	5,707.64	15,321.08	5,600.79	256.87	210.25	-89.21	5,930.03	-10,279.42	1,156.45	692.30	464.15	2.492		
16,200.00	5,708.23	15,421.08	5,601.47	259.14	212.45	-89.22	6,000.74	-10,350.12	1,156.45	687.82	468.63	2.468		
16,300.00	5,708.83	15,521.08	5,602.15	261.40	214.65	-89.22	6,071.45	-10,420.83	1,156.45	683.34	473.11	2.444		
16,400.00	5,709.42	15,621.08	5,602.83	263.66	216.85	-89.23	6,142.16	-10,491.54	1,156.45	678.85	477.60	2.421		
16,500.00	5,710.02	15,721.08	5,603.51	265.93	219.06	-89.23	6,212.87	-10,562.25	1,156.45	674.37	482.08	2.399		
16,600.00	5,710.61	15,821.08	5,604.19	268.19	221.27	-89.24	6,283.58	-10,632.96	1,156.45	669.88	486.57	2.377		
16,700.00	5,711.21	15,921.08	5,604.87	270.46	223.48	-89.24	6,354.29	-10,703.67	1,156.45	665.39	491.06	2.355		
16,800.00	5,711.80	16,021.08	5,605.55	272.73	225.69	-89.24	6,425.00	-10,774.37	1,156.45	660.89	495.55	2.334		
16,900.00	5,712.40	16,121.08	5,606.23	274.99	227.90	-89.25	6,495.71	-10,845.08	1,156.45	656.40	500.05	2.313		
17,000.00	5,712.99	16,221.08	5,606.91	277.26	230.11	-89.25	6,566.42	-10,915.79	1,156.44	651.90	504.54	2.292		
17,001.12	5,713.00	16,222.20	5,606.92	277.29	230.14	-89.25	6,567.21	-10,916.58	1,156.44	651.85	504.59	2.292 CC, ES, SF		

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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6923+25 @ 6948.00ft

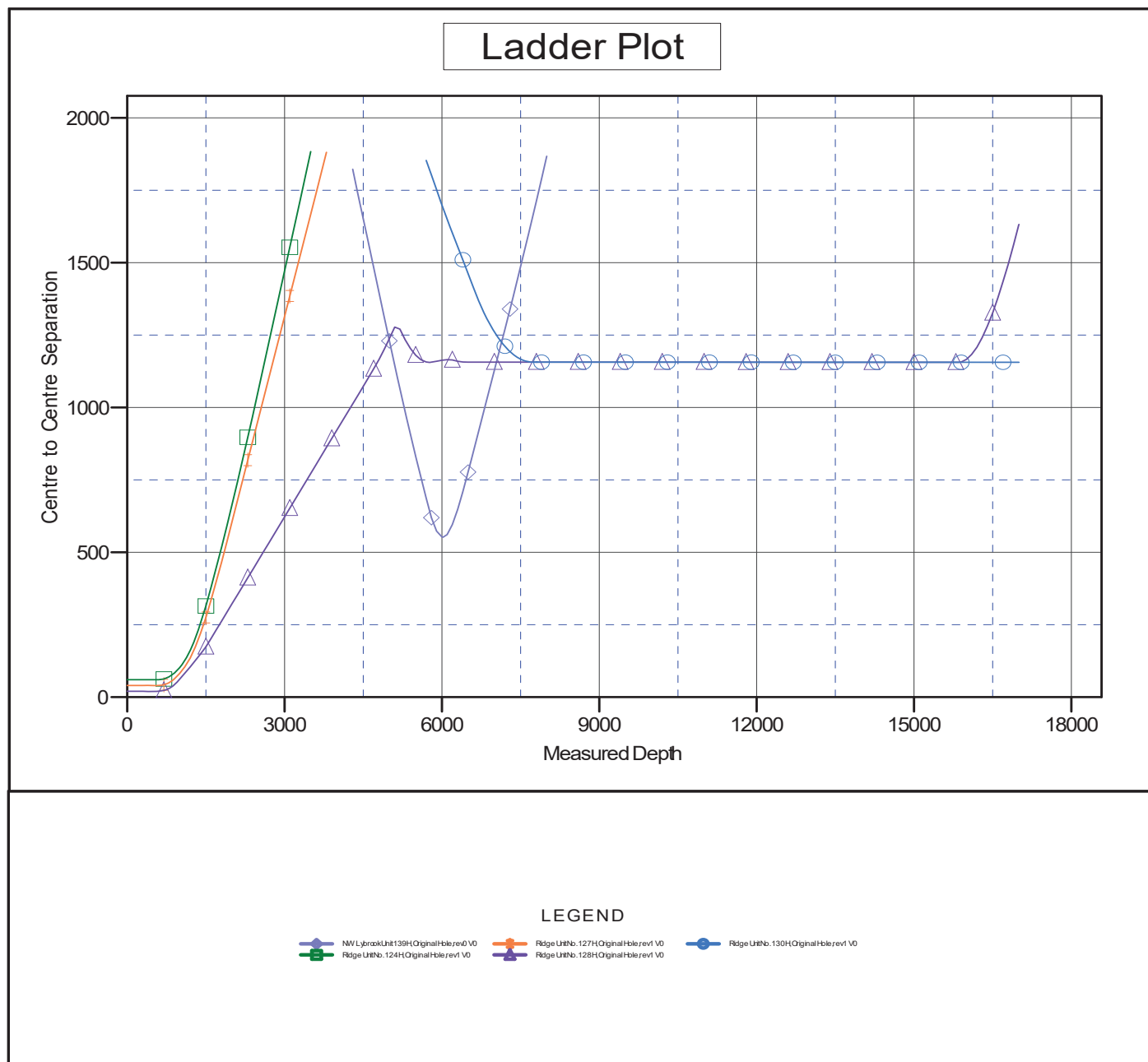
Offset Depths are relative to Offset Datum

Central Meridian is -107.833333333

Coordinates are relative to: Ridge Unit No. 129H

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

Grid Convergence at Surface is: 0.12°



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



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Ridge Unit No. 129H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6923+25 @ 6948.00ft
Reference Site:	Ridge Unit (124, 127, 128 & 129)	MD Reference:	RKB=6923+25 @ 6948.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Ridge Unit No. 129H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	rev1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6923+25 @ 6948.00ft

Offset Depths are relative to Offset Datum

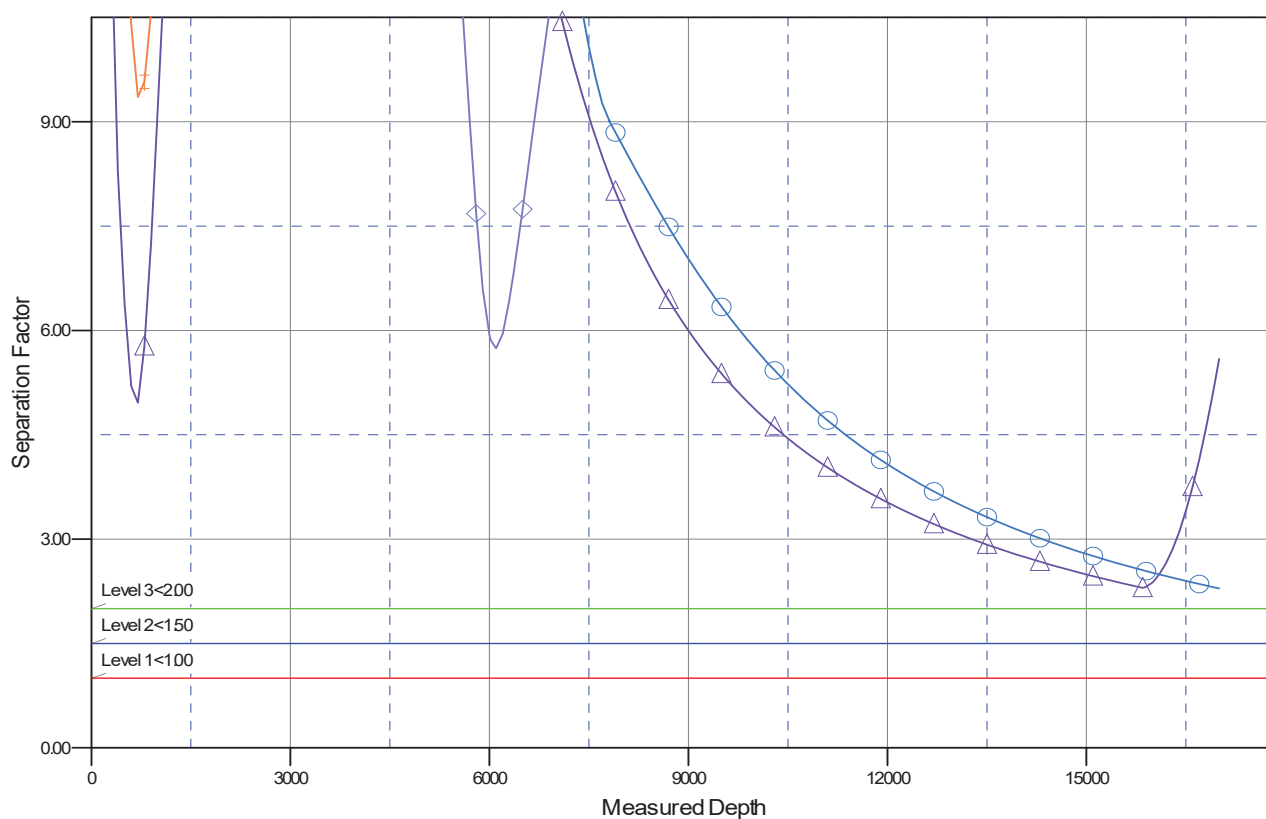
Central Meridian is -107.833333333

Coordinates are relative to: Ridge Unit No. 129H

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

Grid Convergence at Surface is: 0.12°

Separation Factor Plot



LEGEND



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



United States Department of the Interior

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



In Reply Refer To:
3162.3-1(NMF0110)

* ENDURING RESOURCES LLC

#129H RIDGE UNIT

Lease: NMNM138391 Agreement: NMNM14047X

SH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 25, T. 24N., R. 8W.
San Juan County, New Mexico

BH: NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 22, T. 24N., R. 8W.
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/oed/contact-us>

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

CONDITIONS

Action 420441

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID: 372286
	Action Number: 420441
	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.	1/14/2025
sford	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	1/14/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	2/6/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	2/6/2025
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.	2/6/2025
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.	2/6/2025