

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018UNITED 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		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30-039-31464
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

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

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

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

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 06/07/2024

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 393-6161 Fax: (575) 393-0720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

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

Signature Heather Huntington Date 10/23/23

Printed Name
Heather Huntington

E-mail Address
hhuntington@enduringresources.com

18 SURVEYOR CERTIFICATION

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

Date Revised: JULY 31, 2023
Date of Survey: JUNE 17, 2018

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31464	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 319957	⁵ Property Name RINCON UNIT	⁶ Well Number 817H
⁷ OGRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6538'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	21	27N	6W		1187	NORTH	1320	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	27N	6W		2030	NORTH	330	EAST	RIO ARriba

¹² Dedicated Acres 960.00	N/2 - Section 21 N/2 - Section 22 N/2 - Section 23	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-87
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION
1187' FNL 1320' FEL
SECTION 21, T27N, R6W

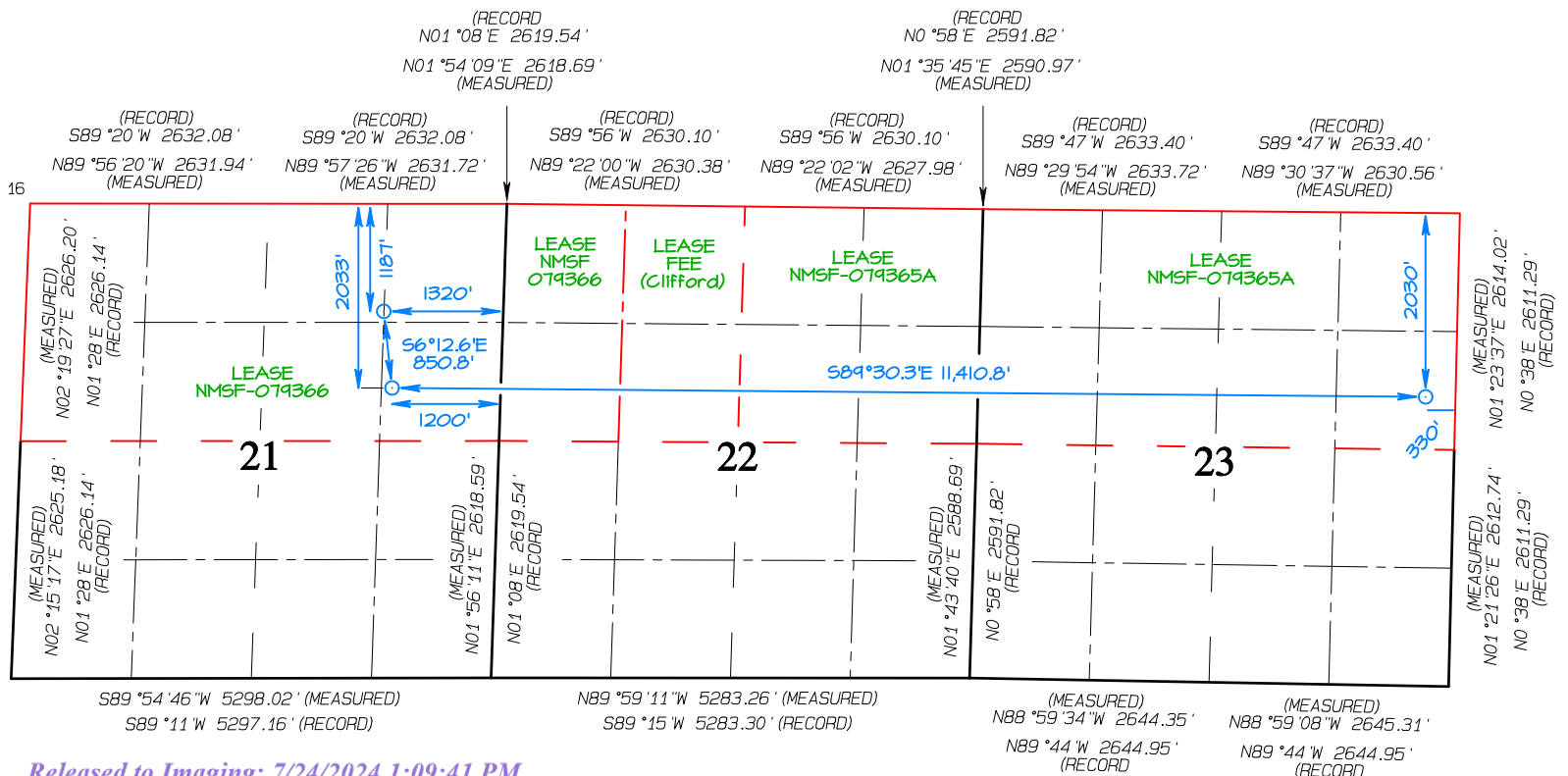
LAT 36.563831°N
LONG -107.468052°W
DATUM: NAD1983

FIRST TAKE POINT
2033' FNL 1200' FEL
SECTION 21, T27N, R6W

LAT 36.561511°N
LONG -107.467703°W
DATUM: NAD1983

END-OF-LATERAL
2030' FNL 330' FEL
SECTION 23, T27N, R6W

LAT 36.561631°N
LONG -107.428853°W
DATUM: NAD1983



State of New Mexico
Energy, Minerals and Natural Resources DepartmentSubmit Electronically
Via E-permittingOil 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:** 06 / 26 / 2024**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
RINCON UNIT 815H	TBD	A-21-27N-6W	1164 FNL x 1289 FEL	30	5000	300
RINCON UNIT 817H	TBD	B-21-27N-6W	1187 FNL x 1320 DEL	30	5000	300
RINCON UNIT 915H	TBD	A-21-27N-6W	1175 FNL x 1304 FEL	30	5000	300
RINCON UNIT 917H	TBD	B-21-27N-6W	1199 FNL x 1336 FEL	30	5000	300

IV. Central Delivery Point Name: Chaco Processing Plant [See 19.15.27.9(D)(1) NMAC]**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
RINCON UNIT 815H	TBD	2/1/2025	2/11/2025	3/1/2025	3/13/2025	3/23/2025
RINCON UNIT 817H	TBD	2/2/2025	2/12/2025	3/1/2025	3/13/2025	3/23/2025
RINCON UNIT 915H	TBD	2/3/2025	2/13/2025	3/1/2025	3/13/2025	3/23/2025
RINCON UNIT 917H	TBD	2/4/2025	2/14/2025	3/1/2025	3/13/2025	3/23/2025

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: 06/26/2024
Phone: 505-716-3297
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



ENDURING RESOURCES, LLC.
OGRID NO: 372286
NATURAL GAS MANAGEMENT PLAN
Rincon Unit 815H, 817H, 915H, 917H

SEPARATION EQUIPMENT

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

Separation equipment will be set as follows:

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

Heater treaters will be set as follows:

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

Vapor Recovery Equipment will be set as follows:

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

Production storage tanks will be set as follows:

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



ENDURING RESOURCES, LLC.
OGRID NO: 372286
NATURAL GAS MANAGEMENT PLAN
Rincon Unit 815H, 817H, 915H, 917H

VENTING and FLARING

Enduring Resources, LLC (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

OPERATIONAL PRACTICES

19.15.27.8 A. Venting and Flaring of Natural Gas

Enduring Resources, LLC (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.



ENDURING RESOURCES, LLC.
OGRID NO: 372286
NATURAL GAS MANAGEMENT PLAN
Rincon Unit 815H, 817H, 915H, 917H

- 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 tall 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:



ENDURING RESOURCES, LLC.
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Rincon Unit 815H, 817H, 915H, 917H

- 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.



ENDURING RESOURCES, LLC.
OGRID NO: 372286
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Rincon Unit 815H, 817H, 915H, 917H

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.

BEST MANAGEMENT PRACTICES

Enduring Resources, LLC (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 RESOURCES, LLC.
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Rincon Unit 815H, 817H, 915H, 917H

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

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

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

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

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

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



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

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

WELL INFORMATION:

Name: Rincon Unit 817H

API Number: Not yet assigned

AFE Number: Not yet assigned

ER Well Number: Not yet assigned

State: New Mexico

County: Rio Arriba

Surface Elevation: 6,538 ft ASL (GL) 6,563 ft ASL (KB)

Surface Location: 21-27-6 Sec-Twn-Rng 1,187 ft FNL 1,320 ft FEL

36.563831 ° N latitude 107.468052 ° W longitude (NAD 83)

BH Location: 23-27-6 Sec-Twn-Rng 2,030 ft FNL 330 ft FEL

36.561631 ° N latitude 107.428853 ° W longitude (NAD 83)

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

East on Hwy 64 for 36.8 miles to General American Road (GAR/Cty Rd 366) just past MM 101, right (S) on GAR for 1.2 miles to fork, continue right (SW) on GAR/366 for 3.4 miles to 4-way intersection, straight (S) on GAR/366 for 1.2 miles to fork, right (SW) leaving 366 follow along Munoz Wash for 4.3 miles to 4-way intersection, straight (SW) across Carrizo Wash for 0.3 mile to fork, left (SE) onto CR #492 for 1.8 miles to three way, right (N) uphill on existing road for 0.6 miles to three way, left (SW) for 0.8 miles to fork, left (SE) for 0.1 miles to location to staked location which overlaps existing roadway. There are 2 existing wells on this location. From South West to North East: Rincon Unit 917H (proposed), 817H (proposed), 915H (proposed), 815H (proposed), 715H (existing), 615H (existing), 713H (existing), 613H (existing)

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	4,015	2,548	2,574	W	normal
	Kirtland	3,920	2,643	2,671	W	normal
	Fruitland	3,641	2,922	2,958	G, W	sub
	Pictured Cliffs	3,386	3,177	3,219	G, W	sub
	Lewis	3,121	3,442	3,490	G, W	normal
	Chacra_A	2,821	3,742	3,797	G, W	normal
	Cliff House	1,716	4,847	4,929	G, W	sub
	Menefee	1,591	4,972	5,057	G, W	sub
	Point Lookout	1,157	5,406	5,502	G, W	sub
	Mancos	747	5,816	5,921	O,G	sub
	Gallup (MNCS_A)	192	6,371	6,479	O,G	sub (~.41)
	MNCS_B	82	6,481	6,596	O,G	sub (~.41)
	MNCS_C	11	6,552	6,678	O,G	sub (~.41)
	MNCS_Cms	0	NA	0	0	0
	MNCS_D	0	NA	0	0	0
	MNCS_E	-67	6,630	6,780	O,G	sub (~.41)
	MNCS_F	-139	6,702	6,894	O,G	sub (~.41)
	MNCS_G	-199	6,762	7,013	O,G	sub (~.41)
	MNCS_G_Ash	-230	6,793	7,088	O,G	sub (~.41)
	MNCS_H	-245	6,808	7,137	O,G	sub (~.41)
	G_Ash @ OVS	-230	6,793	0	O,G	sub (~.41)
	G_Ash @ BHL	-270	6,833	0	O,G	sub (~.41)
	FTP Target	-245	6,808	7,137	O,G	sub (~.41)
	PROJECTED TD (BHL)	-305	6,868	18,699	O,G	sub (~.41)

Surface: Nacimiento

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

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

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

Maximum anticipated BH pressure, assuming maximum pressure gradient: 2,960 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,450 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

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

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

LOGGING, CORING, AND TESTING:

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

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

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

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

DRILLING RIG INFORMATION:

Contractor: Aztec

Rig No.: 1000

Draw Works: E80 AC 1,500 hp

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

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

Prime Movers: 4 - GE Jenbacher Natural Gas Generator

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

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

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

Choke 3", 5,000 psi

KB-GL (ft): 25

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

STATE AND FEDERAL NOTIFICATIONS

	BLM	State
Construction and Reclamation:	BLM is to be notified minimum of 48 hours prior to start of construction or reclamation. Grazing permittee is to be notified 10 days in advance.	(505) 564-7600
Spud	BLM and state are to be notified minimum of 24 hours prior to spud.	(505) 564-7750 (505) 334-6178
BOP	BLM is to be notified minimum of 24 hours prior to BOPE testing.	(505) 564-7750 see note
Casing / cementing	BLM and state are to be notified minimum of 24 hours prior to running casing and cementing.	(505) 564-7750 (505) 334-6178
Plugging	BLM and state are to be notified minimum of 24 hours prior to plugging ops.	(505) 564-7750 see note
<u>All notifications are to be recorded in the WellView report with time, date, name or number that notifications were made to.</u>		
<u>Note:</u> Monica Keuhling with the OCD requests state notifications 24 hrs in advance for spud, BOP tests, casing & cementing and any plugging be given to her in both phone message and email: (505) 320-0243, monica.keuhling@emnrd.nm.gov		

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.

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

DETAILED DRILLING PLAN:

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

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

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

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

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Procedure: Drill to TD. Use 12-1/4" bit and open to 17-1/2" if unable to drill with 17-1/2" bit. Run inclination survey in 100' stations from TD to surface. Condition hole and fluid for casing running as required. TOO. Run casing. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface. Install cellar and wellhead.

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	1,520	116,634	116,634
Min. S.F.					7.39	1.80	7.31	7.79

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

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

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

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

Make-up as per API Buttress Connection running procedure.

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

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	TYPE III	14.6	1.39	6.686	0.6946	100%	0	364
Annular Capacity	0.6946	cuft/ft	13-3/8" casing x 17-1/2" hole annulus			Csg capacity	0.8680	ft3/ft
Drake Energy Services: Calculated cement volumes assume gauge hole and the excess noted in table								Cu Ft Slurry

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

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

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

350 ft (MD)	to	6,021 ft (MD)	Hole Section Length:	5,671 ft
350 ft (TVD)	to	5,916 ft (TVD)	Casing Required:	6,021 ft

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

Interm Hole Mud:

Losses may occur around 5,400' TVD. Maintain minimum mud weights. Pre-treat with gilsonite and medium LCM products, 60% fibrous, 20% platey, 20% granular. If needed, reduce gpm. Losses occurred in the RINU 615H offset at 4,974' MD with completed loss of returns, but was cured by shutting in the direct producing well and spotting 30 ppb LCM. Losses occurred on the RINU 715H at 5,020' MD and were cured with 20 ppb LCM. Pretreat the mud system prior to drilling into the loss zones with constant additions of 15 ppb LCM and by-passing shakers if full losses occur. Rent a large premix pit prior to drill out of surface pipe. Have 30 ppb pill mixed and ready prior to drilling the loss zones and immediately pump once losses occur.

Hole Size: 12-1/4"

Bit / Motor: 12-1/4" PDC bit w/mud motor

Bit / Motor: MOTOR: NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 6-BLADE PDC w/16 mm or 19 mm cutters, TFA = 0.67 sq-in (range 0.65 - 0.90 max), jet with 6 - 12s

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

Logging: None

Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to 1,500 psi for 30 minutes.

Procedure: Drill to TD following directional plan (20' rat-hole past casing setting depth). Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10', when possible. Take surveys every stand, at a minimum. Target flow-rates of 750 GPM (higher if able to control return rates). Minimum desired flow-rate is 650 GPM. At TD, condition hole and fluid for casing running. TOOH. Run casing using a CRT and washing / circulating as required. Land casing. ND BOPE. Walk rig to next well. Perform off-line cement job. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface.

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					1,283	1,788	285,725	285,725
Min. S.F.					1.57	1.97	1.97	1.59

Assumptions:

Collapse: evacuated casing with 8.4 ppg equivalent external pressure gradient and .22 psi/ft backup
 Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling production hole and 8.4 ppg equivalent external pressure gradient
 Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar, casing to 4,852' MD, 9-5/8" casing packer, 10' casing pup, DV stage tool, casing to surface (**FLOAT EQUIPMENT FROM WEATHERFORD**)

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

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per jt (floating) to KOP ; 1 centralizer per 3 jts (floating) to surface (**Centralizers from Scepter Supply - SLIP'N'SLIDE 9-5/8" x 11.75" SOLID BODY POLYMER**)

Casing Contingency:

Hole conditions encountered during the drilling of the 12-1/4" intermediate hole section may warrant the use of an ECP and/or a DV Tool to ensure that cement can be successfully circulated to surface. Anticipated placement tool placement is ~650' above the Point Lookout top (Lead slurry top depth is depth of DV stage cementing tool). Actual drilling conditions will determine if a tools are needed and their exact placement.

	Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)	Total Cmt (cu ft)	
Stage 1	Spacer	IntegraGuard EZ II	11		32.2		3,956	50 bbls		
	Lead	ASTM type I/II	12.5	2.220	12.5	70%	4,852	160	356.2	
	Tail	Type III	14.6	1.37	6.6	20%	5,521	151	207.0	
	Displacement	462	est bbls							
Stage 2	Spacer	IntegraGuard EZ II	11		32.2		0	50 bbls		
	Tail	ASTM type I/II	12.5	2.210	12.4	70%	0	1,142	2524.0	
	Displacement	375	est bbls							
Annular Capacity		0.3627	cuft/ft	9-5/8" casing x 13-3/8" casing annulus					9-5/8" 36# ID	
		0.3132	cuft/ft	9-5/8" casing x 12-1/4" hole annulus					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										
Stage 1	Spacer	Fly Ash 187.355 lb/bbl	IntegraGuard GW86 viscosifier 0.9 lb/bbl	FP24 Defoamer .5 lb/bbl	ResCare CS2 Clay Inhibitor 0.1 gal/bbl	SS201 Surfactant 0.5 gal/bbl				
	Lead	ASTM Type I/II	BA90 Bonding Agent 5.0 lb/sx	IntegraSeal POLI LCM 0.13 lb/sx	FL66 Fluid Loss .2% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder .3% BWOB	FP24 Defoamer 0.3% BWOB	KCl Clay Inhibition 3.0% BWOW	
	Tail	ASTM Type I/II	Dipersant CD32A 0.0% BWOB							
Stage 2	Spacer	Fly Ash 187.355 lb/bbl	IntegraGuard GW86 viscosifier 0.9 lb/bbl	FP24 Defoamer .5 lb/bbl	ResCare CS2 Clay Inhibitor 0.1 gal/bbl	SS201 Surfactant 0.5 gal/bbl				
	Tail	ASTM Type I/II	BA90 Bonding Agent 5.0 lb/sx	IntegraSeal POLI LCM 0.13 lb/sx	FL66 Fluid Loss .2% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	R3 Retarder .3% BWOB	FP24 Defoamer 0.3% BWOB	KCl Clay Inhibition 3.0% BWOW	

American Cementing Liner & Production Blend

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

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

6,021 ft (MD)	to	18,699 ft (MD)	Hole Section Length:	12,678 ft
5,916 ft (TVD)	to	6,868 ft (TVD)	Casing Required:	18,699 ft

Estimated KOP:	6,350 ft (MD)	6,244 ft (TVD)
Estimated Landing Point (FTP):	7,137 ft (MD)	6,793 ft (TVD)
Estimated Lateral Length:	11,562 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

Fluids / Solids Notes: Newpark OptiDrill OBM system. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details. No asphalt products are to be added to the OBM system. **Any changes to the mud systems are to be discussed with engineering prior to application.**

Hole Size: 8-1/2"

Bit / Motor: 8-1/2" PDC bit w/mud motor

Bit / Motor: **MOTOR:** NOV 077857 - 6.5" 7/8, 5.0 stage, 0.23 rev/gal, 1.83 or 1.5 deg, 750 GPM, 1,580 DIFF PSIG (or similar); on demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

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

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

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

Procedure: Drill to KOP following directional plan. Target flow-rate is 650 - 700 GPM. Target differential is pressure is 700 - 1,000 psig. Target ROP 500 - 600 ft/hr. Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10' until KOP, when feasible. Take surveys every stand, at a minimum. Confirm landing target, planned BUR for curve, and KOP with Geology and Engineering. Drill curve following directional plan and updated landing target. Take survey every joint during curve. Land curve. Continue drilling in lateral section, steering as needed to keep well on plan and in the target window. Keep DLS < 2 deg/100' and keep slide length < 20', when feasible. Take surveys every stand, at a minimum. **Target rotating parameters / performance: flow-rate is 650 - 700 GPM, differential is pressure is 700 - 1,000 psig, ROP 500 - 600 ft/hr, torque 38K ft-lbs (MAX drill pipe MUT).** After reaching TD, perform no more than one clean-up cycle to condition hole for casing running unless shakers indicate additional cleaning needed. TOO H & LD drill pipe (ROOH, if required; should NOT be required with OBM system). When pumping hole cleaning sweeps, fine LCM product is to be used -**Do not use barite for sweeps**. Run casing as described below. Use CRT for casing running only if necessary (should NOT be required with OBM but check drill pipe drag at or close to TD and please **log drag daily in WellView reports**). Verify make up torque when running casing. Space out casing getting the toe sleeve as close to LTP as possible. Land casing and test pack-off. Open floatation sub, fill casing, and circulate as required. Pump cement as detailed below. Note cement volume circulated to surface. Nipple down BOPE. Clean pits. RDMO to next pad.

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	20.0	HCP-110	LTC	12,200	12,640	641,000	548,000
Loading					3,393	9,143	422,711	422,711
Min. S.F.					3.60	1.38	1.52	1.30

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)

Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 9.0 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minimum: 4,270 Optimum: 5,690 Maximum: 7,110

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

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher (**Weatherford (WFT) float equipment**), 20' marker joint, toe-initiation sleeve (**WFT RD 10,500 psi**), casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub (**NCS Air-Lock 5,500 psi from WFT**), casing to surface. **The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the maximum depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as required for necessary rat-hole and shoe-track length to place the toe sleeve as close to (but not past) the planned LTP as possible.**

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

Lateral: 1 centralizer per 3 joints (purchase centralizers from Scepter Supply)

Top of curve to 9-5/8" shoe: 1 centralizer per 5 joints

9-5/8" shoe to surface: 1 centralizer per 5 joints

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Open hole % 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	0%	0	674	1,597
Tail	G:POZ blend	13.3	1.570	7.70	10%	5,921	2,056	3,228
Displacement	413	est bbls						
Annular Capacity	0.2691	cuft/ft	5-1/2" casing x 9-5/8" casing annulus					5-1/2" 20# ID
	0.2291	cuft/ft	5-1/2" casing x 8-1/2" hole annulus					4.778
	0.1245	cuft/ft	5-1/2" casing vol				est shoe jt ft 65	

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

American Cementing Liner & Production Blend

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

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

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

Note: This well will not be considered an unorthodox well location as defined by NMAC19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. **Neither the toe-initiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.**

FINISH WELL: ND BOP, cap well, RDMO.

Procedure: ND BOP. Install BPV in WH if available. Install cap with pressure gauge on WH. Frac stack to be installed at later date. RDMO.

COMPLETION AND PRODUCTION PLAN:

Est Lateral Length: 18,599

Est Frac Inform: 77 Frac Stages 298,000 bbls slick water 24,180,000 lbs proppant

Flowback: Flow back through production tubing as pressures allow

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

ESTIMATED START DATES:

Drilling: 11/1/2023

Completion: 12/31/2023

Production: 2/14/2024

Prepared by: Alec Bridge 12/20/2021

Updated: Greg Olson 2/20/2023

Greg Olson 3/27/2023

G Olson 8/25/2023

WELL NAME: Rincon Unit 817H

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

API Number: Not yet assigned

AFE Number: Not yet assigned

ER Well Number: Not yet assigned

State: New Mexico

County: Rio Arriba

Surface Elev.: 6,538 ft ASL (GL) 6,563 ft ASL (KB)

Surface Location: 21-27-6 Sec-Twn- Rng 1,187 ft FNL 1,320 ft FEL

BH Location: 23-27-6 Sec-Twn- Rng 2030 ft FNL 330 ft FEL

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

East on Hwy 64 for 36.8 miles to General American Road (GAR/Cty Rd 366) just past MM 101, right (S) on GAR for 1.2 miles to fork, continue right (SW) on GAR/366 for 3.4 miles to 4-way intersection, straight (S) on GAR/366 for 1.2 miles to fork, right (SW) leaving 366 follow along Munoz Wash for 4.3 miles to 4-way intersection, straight (SW) across Carrizo Wash for 0.3 mile to fork, left (SE) onto CR #492 for 1.8 miles to three way, right (N) uphill on existing road for 0.6 miles to three way, left (SW) for 0.8 miles to fork, left (SE) for 0.1 miles to location to staked location which overlans existing roadway. There are 2 existing wells on this location. From South West to North East: Rincon Unit 917H

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	6,021	9.625	36.0	J-55	LTC	0	6,021
Production	8.500	18,699	5.500	20.0	HCP-110	LTC	0	18,699

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	% Excess	TOC (ft MD)	Total (sx)	Slurry Vol Cu ft
Surface	TYPE III	14.6	1.39	6.686	100%	0	364	505
Inter. (Lead Stg 1)	ASTM type I/II	12.5	2.22	12.5	70%	4852	160	356
Inter. (Tail Stg 1)	Type III	14.6	1.37	6.6	20%	5521	151	207
Inter. (Tail Stg 2)	ASTM type I/II	12.5	2.21	12.4	70%	0	1142	2524
Prod. (Lead)	ASTM type I/II	12.4	2.370	13.4	0%	0	674	1597
Prod. (Tail)	G:POZ blend	13.3	1.570	7.7	10%	5921	2056	3228

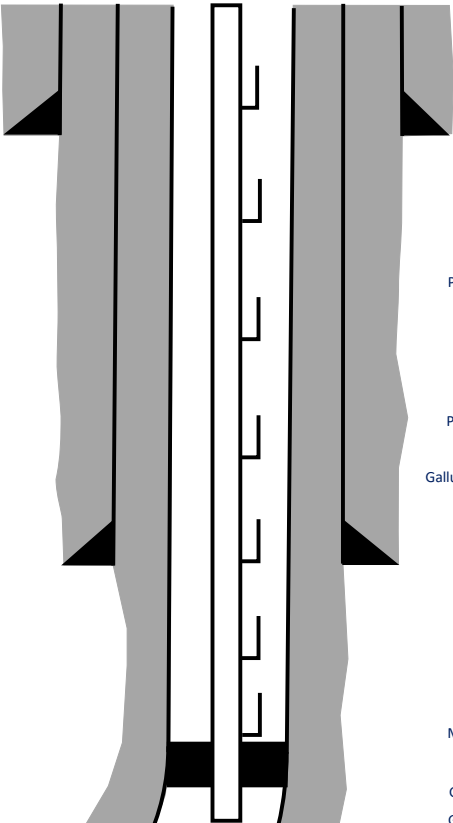
COMPLETION / PRODUCTION SUMMARY:

Frac: 185W9

Flowback: Flow back through production tubing as pressures allow

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

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	6,021 ft
KOP (MD)	6,350 ft
KOP (TVD)	6,244 ft
Target (TVD)	6,793 ft
Curve BUR	10 °/100 ft
POE (MD)	7,137 ft
TD (MD)	18,699 ft
Lat Len (ft)	11,562 ft



	Tops	TVD (ft KB)	MD (ft KB)
	Ojo Alamo	2,548	2,574
	Kirtland	2,643	2,671
	Fruitland	2,922	2,958
	Pictured Cliffs	3,177	3,219
	Lewis	3,442	3,490
	Chacra_A	3,742	3,797
	Cliff House	4,847	4,929
	Menefee	4,972	5,057
	Point Lookout	5,406	5,502
	Mancos	5,816	5,921
	Gallup (MNCS_A)	6,371	6,479
	MNCS_B	6,481	6,596
	MNCS_C	6,552	6,678
	MNCS_Cms	NA	0
	MNCS_D	NA	0
	MNCS_E	6,630	6,780
	MNCS_F	6,702	6,894
	MNCS_G	6,762	7,013
	MNCS_G_Ash	6,793	7,088
	MNCS_H	6,808	7,137
	G_Ash @ OVS	6,793	0
	G_Ash @ BHL	6,833	0
	FTP Target	6,808	7,137
	PROJECTED TD (BHL)	6,868	18,699

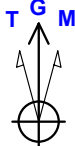


Well: Rincon Unit 817H
Site: Rincon pad (613, 615, 713, 715, 815, 817, 915 & 917)
Project: Rio Arriba County, New Mexico NAD83 NM W
Design: rev1
Rig:

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6538+25 @ 6563.00ft
Surface location:

Northing: 2024746.889 Easting: 2830363.156 Latitude: 36.563831000 Longitude: -107.468052000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.28°



Azimuths to Grid North
True North: -0.22°
Magnetic North: 8.28°
Magnetic Field
Strength: 49320.2nT
Dip Angle: 63.03°
Date: 7/21/2023
Model: IGRF2020

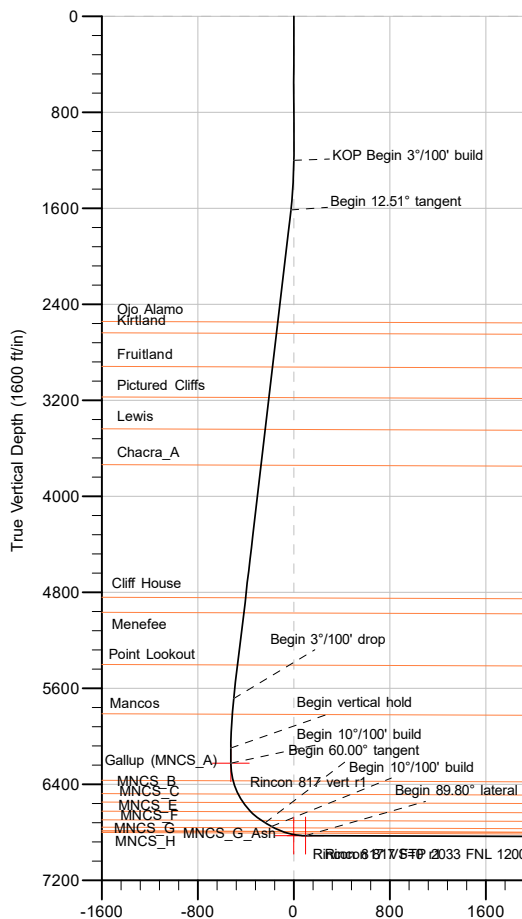


CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
5123.00	5211.68	9 5/8" Csg

West(-)/East(+) (2400 ft/in)

-3600 -2400 -1200 0 1200 2400 3600 4800 6000 7200 8400 9600 10800 12000



7:16, July 21 2023

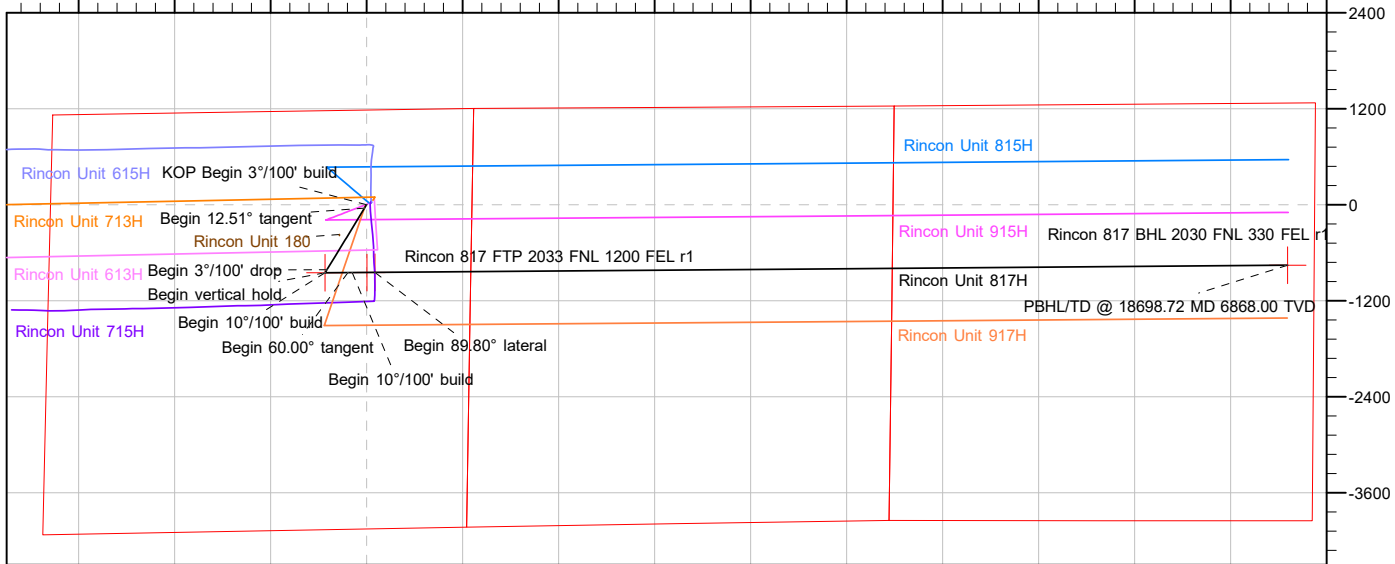
Vertical Section at 89.551° (1600 ft/in)

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	1200.00	0.00	0.000	1200.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1617.07	12.51	211.348	1613.76	-38.74	-23.60	3.00	211.35	-23.90	Begin 12.51° tangent
4	5787.36	12.51	211.348	5685.01	-810.33	-493.61	0.00	0.00	-499.95	Begin 3°/100' drop
5	6204.43	0.00	0.000	6098.77	-849.07	-517.21	3.00	180.00	-523.85	Begin vertical hold
6	6331.05	0.00	0.000	6225.39	-849.07	-517.21	0.00	0.00	-523.85	Begin 10°/100' build
7	6931.05	60.00	89.551	6721.59	-846.83	-230.74	10.00	89.55	-237.37	Begin 60.00° tangent
8	6991.05	60.00	89.551	6751.59	-846.42	-178.78	0.00	0.00	-185.41	Begin 10°/100' build
9	7289.06	89.80	89.551	6828.34	-844.19	105.70	10.00	0.00	99.08	Begin 89.80° lateral
10	18698.72	89.80	89.551	6868.00	-754.831	1514.94	0.00	0.0011508	67	PBHL/TD @ 18698.72 MD 6868.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rincon 817 BHL 2030 FNL 330 FEL r1	6868.00	-754.83	11514.94	2023992.057	2841878.074	36.561631000	-107.428853000
Rincon 817 FTP 2033 FNL 1200 FEL r1	6828.34	-844.19	105.70	2023902.696	2830468.857	36.561511000	-107.467703000
Rincon 817 vert r1	6225.39	-849.07	-517.21	2023897.821	2829845.947	36.561504094	-107.469624097
Rincon 817 VS=0 r1	6828.00	-844.97	6.62	2023901.921	2830369.776	36.561509904	-107.468040386

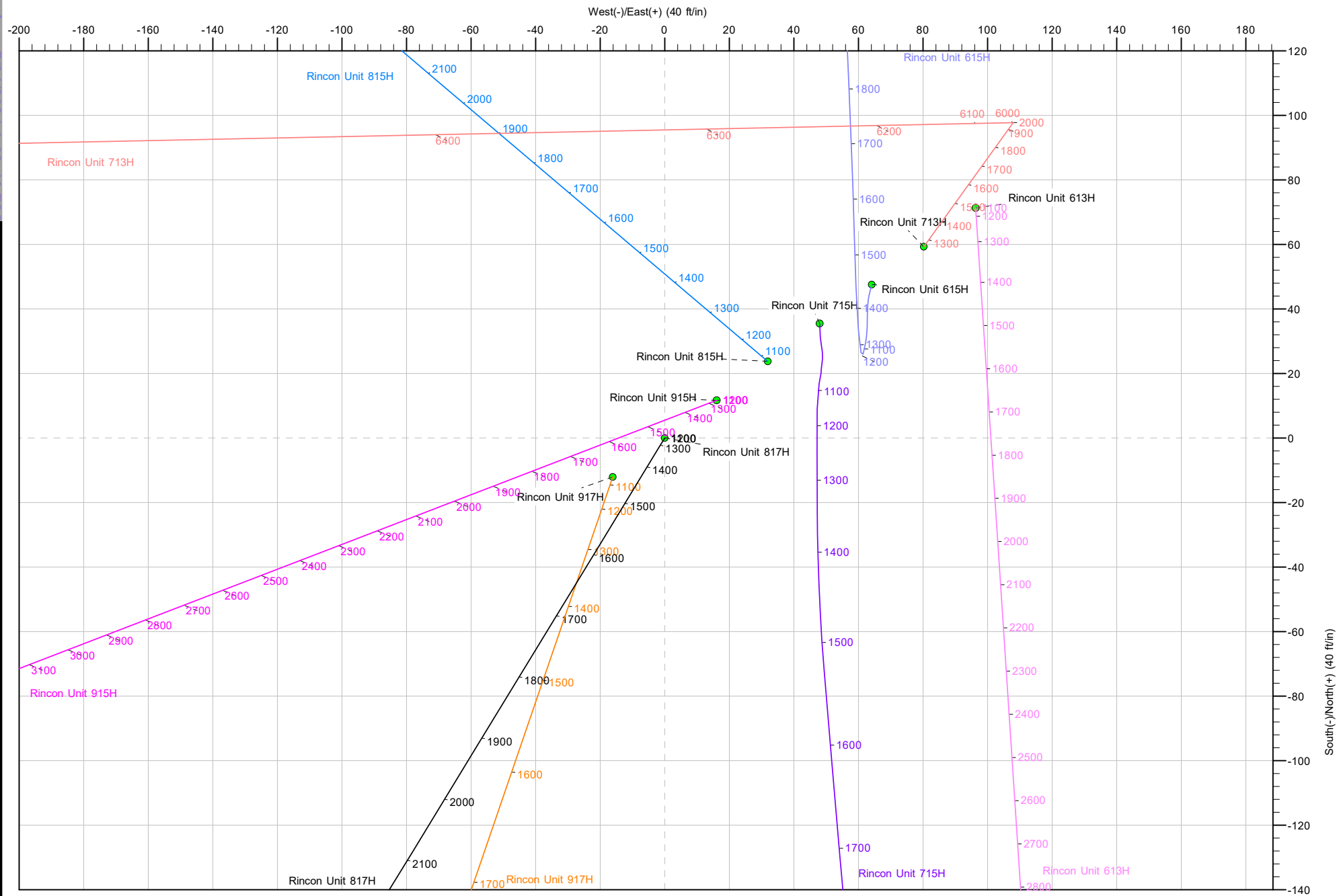


South(-)/North(+) (2400 ft/in)

PBHL/TD @ 18698.72 MD 6868.00 TVD
Rincon 817 BHL 2030 FNL 330 FEL r1



Well: Rincon Unit 817H
 Site: Rincon pad (613, 615, 713, 715, 815, 817, 915 & 917)
 Project: Rio Arriba County, New Mexico NAD83 NM W
 Design: rev1
 Rig:





Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project	Rio Arriba 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	Rincon pad (613, 615, 713, 715,815,817,915 & 917)		
Site Position:		Northing:	2,024,818.244 usft
From:	Lat/Long	Easting:	2,830,459.503 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.564026000
		Longitude:	-107.467723000

Well	Rincon Unit 817H, Surf loc: 1187 FNL 1320 FEL Section 21-T27N-R06W		
Well Position	+N/-S	0.00 ft	Northing: 2,024,746.889 usft
	+E/-W	0.00 ft	Easting: 2,830,363.155 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.22 °	Ground Level:	6,538.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/21/2023	8.50	63.03	49,320.22663498

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	89.551

Plan Survey Tool Program	Date	7/21/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,698.72 rev1 (Original Hole)	MWD	
			OWSG MWD - Standard	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,617.07	12.51	211.348	1,613.76	-38.74	-23.60	3.00	3.00	0.00	211.35	
5,787.36	12.51	211.348	5,685.01	-810.33	-493.61	0.00	0.00	0.00	0.00	
6,204.43	0.00	0.000	6,098.77	-849.07	-517.21	3.00	-3.00	0.00	180.00	
6,331.05	0.00	0.000	6,225.39	-849.07	-517.21	0.00	0.00	0.00	0.00	Rincon 817 vert r1
6,931.05	60.00	89.551	6,721.59	-846.83	-230.74	10.00	10.00	0.00	89.55	
6,991.05	60.00	89.551	6,751.59	-846.42	-178.78	0.00	0.00	0.00	0.00	
7,289.06	89.80	89.551	6,828.34	-844.19	105.70	10.00	10.00	0.00	0.00	
18,698.72	89.80	89.551	6,868.00	-754.83	11,514.94	0.00	0.00	0.00	0.00	Rincon 817 BHL 203C



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
1,300.00	3.00	211.348	1,299.95	-2.24	-1.36	-1.38	3.00	3.00	0.00
1,400.00	6.00	211.348	1,399.63	-8.94	-5.44	-5.51	3.00	3.00	0.00
1,500.00	9.00	211.348	1,498.77	-20.08	-12.23	-12.39	3.00	3.00	0.00
1,600.00	12.00	211.348	1,597.08	-35.64	-21.71	-21.99	3.00	3.00	0.00
1,617.07	12.51	211.348	1,613.76	-38.74	-23.60	-23.90	3.00	3.00	0.00
Begin 12.51° tangent									
1,700.00	12.51	211.348	1,694.72	-54.08	-32.94	-33.37	0.00	0.00	0.00
1,800.00	12.51	211.348	1,792.35	-72.58	-44.21	-44.78	0.00	0.00	0.00
1,900.00	12.51	211.348	1,889.97	-91.09	-55.48	-56.20	0.00	0.00	0.00
2,000.00	12.51	211.348	1,987.60	-109.59	-66.76	-67.61	0.00	0.00	0.00
2,100.00	12.51	211.348	2,085.22	-128.09	-78.03	-79.03	0.00	0.00	0.00
2,200.00	12.51	211.348	2,182.85	-146.59	-89.30	-90.44	0.00	0.00	0.00
2,300.00	12.51	211.348	2,280.47	-165.09	-100.57	-101.86	0.00	0.00	0.00
2,400.00	12.51	211.348	2,378.10	-183.60	-111.84	-113.27	0.00	0.00	0.00
2,500.00	12.51	211.348	2,475.72	-202.10	-123.11	-124.69	0.00	0.00	0.00
2,573.56	12.51	211.348	2,547.54	-215.71	-131.40	-133.09	0.00	0.00	0.00
Ojo Alamo									
2,600.00	12.51	211.348	2,573.35	-220.60	-134.38	-136.10	0.00	0.00	0.00
2,670.83	12.51	211.348	2,642.50	-233.71	-142.36	-144.19	0.00	0.00	0.00
Kirtland									
2,700.00	12.51	211.348	2,670.97	-239.10	-145.65	-147.52	0.00	0.00	0.00
2,800.00	12.51	211.348	2,768.60	-257.61	-156.92	-158.93	0.00	0.00	0.00
2,900.00	12.51	211.348	2,866.22	-276.11	-168.19	-170.35	0.00	0.00	0.00
2,957.53	12.51	211.348	2,922.38	-286.75	-174.67	-176.92	0.00	0.00	0.00
Fruitland									
3,000.00	12.51	211.348	2,963.85	-294.61	-179.46	-181.76	0.00	0.00	0.00
3,100.00	12.51	211.348	3,061.47	-313.11	-190.73	-193.18	0.00	0.00	0.00
3,200.00	12.51	211.348	3,159.10	-331.61	-202.00	-204.59	0.00	0.00	0.00
3,218.62	12.51	211.348	3,177.28	-335.06	-204.10	-206.72	0.00	0.00	0.00
Pictured Cliffs									
3,300.00	12.51	211.348	3,256.72	-350.12	-213.27	-216.01	0.00	0.00	0.00
3,400.00	12.51	211.348	3,354.35	-368.62	-224.54	-227.43	0.00	0.00	0.00
3,489.96	12.51	211.348	3,442.17	-385.26	-234.68	-237.69	0.00	0.00	0.00
Lewis									
3,500.00	12.51	211.348	3,451.97	-387.12	-235.81	-238.84	0.00	0.00	0.00
3,600.00	12.51	211.348	3,549.60	-405.62	-247.08	-250.26	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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)	
3,700.00	12.51	211.348	3,647.22	-424.13	-258.36	-261.67	0.00	0.00	0.00	
3,797.13	12.51	211.348	3,742.05	-442.10	-269.30	-272.76	0.00	0.00	0.00	
Chacra_A										
3,800.00	12.51	211.348	3,744.85	-442.63	-269.63	-273.09	0.00	0.00	0.00	
3,900.00	12.51	211.348	3,842.47	-461.13	-280.90	-284.50	0.00	0.00	0.00	
4,000.00	12.51	211.348	3,940.10	-479.63	-292.17	-295.92	0.00	0.00	0.00	
4,100.00	12.51	211.348	4,037.72	-498.13	-303.44	-307.33	0.00	0.00	0.00	
4,200.00	12.51	211.348	4,135.35	-516.64	-314.71	-318.75	0.00	0.00	0.00	
4,300.00	12.51	211.348	4,232.97	-535.14	-325.98	-330.16	0.00	0.00	0.00	
4,400.00	12.51	211.348	4,330.60	-553.64	-337.25	-341.58	0.00	0.00	0.00	
4,500.00	12.51	211.348	4,428.22	-572.14	-348.52	-352.99	0.00	0.00	0.00	
4,600.00	12.51	211.348	4,525.85	-590.65	-359.79	-364.41	0.00	0.00	0.00	
4,700.00	12.51	211.348	4,623.47	-609.15	-371.06	-375.82	0.00	0.00	0.00	
4,800.00	12.51	211.348	4,721.10	-627.65	-382.33	-387.24	0.00	0.00	0.00	
4,900.00	12.51	211.348	4,818.72	-646.15	-393.60	-398.65	0.00	0.00	0.00	
4,928.55	12.51	211.348	4,846.60	-651.43	-396.82	-401.91	0.00	0.00	0.00	
Cliff House										
5,000.00	12.51	211.348	4,916.35	-664.65	-404.87	-410.07	0.00	0.00	0.00	
5,056.54	12.51	211.348	4,971.55	-675.12	-411.25	-416.52	0.00	0.00	0.00	
Menefee										
5,100.00	12.51	211.348	5,013.97	-683.16	-416.14	-421.48	0.00	0.00	0.00	
5,200.00	12.51	211.348	5,111.60	-701.66	-427.41	-432.90	0.00	0.00	0.00	
5,211.68	12.51	211.348	5,123.00	-703.82	-428.73	-434.23	0.00	0.00	0.00	
9 5/8" Csg										
5,300.00	12.51	211.348	5,209.22	-720.16	-438.68	-444.32	0.00	0.00	0.00	
5,400.00	12.51	211.348	5,306.85	-738.66	-449.96	-455.73	0.00	0.00	0.00	
5,500.00	12.51	211.348	5,404.47	-757.16	-461.23	-467.15	0.00	0.00	0.00	
5,501.94	12.51	211.348	5,406.37	-757.52	-461.45	-467.37	0.00	0.00	0.00	
Point Lookout										
5,600.00	12.51	211.348	5,502.10	-775.67	-472.50	-478.56	0.00	0.00	0.00	
5,700.00	12.51	211.348	5,599.72	-794.17	-483.77	-489.98	0.00	0.00	0.00	
5,787.36	12.51	211.348	5,685.01	-810.33	-493.61	-499.95	0.00	0.00	0.00	
Begin 3°/100' drop										
5,800.00	12.13	211.348	5,697.36	-812.64	-495.02	-501.37	3.00	-3.00	0.00	
5,900.00	9.13	211.348	5,795.63	-828.39	-504.61	-511.09	3.00	-3.00	0.00	
5,920.83	8.51	211.348	5,816.21	-831.12	-506.28	-512.77	3.00	-3.00	0.00	
Mancos										
6,000.00	6.13	211.348	5,894.73	-839.74	-511.52	-518.09	3.00	-3.00	0.00	
6,100.00	3.13	211.348	5,994.39	-846.63	-515.73	-522.34	3.00	-3.00	0.00	
6,204.43	0.00	0.000	6,098.77	-849.07	-517.21	-523.85	3.00	-3.00	0.00	
Begin vertical hold										
6,300.00	0.00	0.000	6,194.34	-849.07	-517.21	-523.85	0.00	0.00	0.00	
6,331.05	0.00	0.000	6,225.39	-849.07	-517.21	-523.85	0.00	0.00	0.00	
Begin 10°/100' build										
6,350.00	1.90	89.551	6,244.34	-849.07	-516.90	-523.53	10.00	10.00	0.00	
6,400.00	6.90	89.551	6,294.18	-849.04	-513.07	-519.70	10.00	10.00	0.00	
6,450.00	11.90	89.551	6,343.49	-848.97	-504.91	-511.54	10.00	10.00	0.00	
6,478.52	14.75	89.551	6,371.24	-848.92	-498.34	-504.97	10.00	10.00	0.00	
Gallup (MNCS_A)										
6,500.00	16.90	89.551	6,391.90	-848.88	-492.48	-499.12	10.00	10.00	0.00	
6,550.00	21.90	89.551	6,439.05	-848.75	-475.88	-482.52	10.00	10.00	0.00	
6,596.43	26.54	89.551	6,481.38	-848.60	-456.84	-463.48	10.00	10.00	0.00	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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_B									
6,600.00	26.90	89.551	6,484.57	-848.58	-455.24	-461.87	10.00	10.00	0.00
6,650.00	31.90	89.551	6,528.12	-848.39	-430.71	-437.34	10.00	10.00	0.00
6,678.01	34.70	89.551	6,551.53	-848.27	-415.33	-421.97	10.00	10.00	0.00
MNCS_C									
6,700.00	36.90	89.551	6,569.37	-848.17	-402.47	-409.10	10.00	10.00	0.00
6,750.00	41.90	89.551	6,607.99	-847.92	-370.75	-377.38	10.00	10.00	0.00
6,779.95	44.89	89.551	6,629.76	-847.76	-350.17	-356.81	10.00	10.00	0.00
MNCS_E									
6,800.00	46.90	89.551	6,643.71	-847.65	-335.78	-342.41	10.00	10.00	0.00
6,850.00	51.90	89.551	6,676.24	-847.35	-297.83	-304.46	10.00	10.00	0.00
6,894.05	56.30	89.551	6,702.06	-847.07	-262.16	-268.79	10.00	10.00	0.00
MNCS_F									
6,900.00	56.90	89.551	6,705.34	-847.03	-257.19	-263.82	10.00	10.00	0.00
6,931.05	60.00	89.551	6,721.59	-846.83	-230.74	-237.37	10.00	10.00	0.00
Begin 60.00° tangent									
6,991.05	60.00	89.551	6,751.59	-846.42	-178.78	-185.41	0.00	0.00	0.00
Begin 10°/100' build									
7,000.00	60.90	89.551	6,756.00	-846.36	-170.99	-177.62	10.00	10.00	0.00
7,013.49	62.24	89.551	6,762.42	-846.26	-159.13	-165.76	10.00	10.00	0.00
MNCS_G									
7,050.00	65.90	89.551	6,778.39	-846.01	-126.30	-132.93	10.00	10.00	0.00
7,087.76	69.67	89.551	6,792.66	-845.73	-91.36	-97.98	10.00	10.00	0.00
MNCS_G_Ash - G_Ash @ 0VS									
7,100.00	70.90	89.551	6,796.79	-845.64	-79.83	-86.46	10.00	10.00	0.00
7,137.23	74.62	89.551	6,807.82	-845.36	-44.28	-50.91	10.00	10.00	0.00
MNCS_H									
7,150.00	75.90	89.551	6,811.07	-845.27	-31.93	-38.56	10.00	10.00	0.00
7,200.00	80.90	89.551	6,821.13	-844.88	17.03	10.41	10.00	10.00	0.00
7,250.00	85.90	89.551	6,826.88	-844.49	66.68	60.06	10.00	10.00	0.00
7,289.06	89.80	89.551	6,828.34	-844.19	105.70	99.08	10.00	10.00	0.00
Begin 89.80° lateral									
7,300.00	89.80	89.551	6,828.38	-844.10	116.64	110.02	0.00	0.00	0.00
7,400.00	89.80	89.551	6,828.73	-843.32	216.64	210.02	0.00	0.00	0.00
7,500.00	89.80	89.551	6,829.08	-842.54	316.63	310.02	0.00	0.00	0.00
7,600.00	89.80	89.551	6,829.43	-841.75	416.63	410.02	0.00	0.00	0.00
7,700.00	89.80	89.551	6,829.77	-840.97	516.63	510.02	0.00	0.00	0.00
7,800.00	89.80	89.551	6,830.12	-840.19	616.62	610.02	0.00	0.00	0.00
7,900.00	89.80	89.551	6,830.47	-839.40	716.62	710.02	0.00	0.00	0.00
8,000.00	89.80	89.551	6,830.82	-838.62	816.62	810.02	0.00	0.00	0.00
8,100.00	89.80	89.551	6,831.16	-837.84	916.61	910.02	0.00	0.00	0.00
8,200.00	89.80	89.551	6,831.51	-837.06	1,016.61	1,010.02	0.00	0.00	0.00
8,300.00	89.80	89.551	6,831.86	-836.27	1,116.61	1,110.02	0.00	0.00	0.00
8,400.00	89.80	89.551	6,832.21	-835.49	1,216.60	1,210.02	0.00	0.00	0.00
8,500.00	89.80	89.551	6,832.55	-834.71	1,316.60	1,310.02	0.00	0.00	0.00
8,600.00	89.80	89.551	6,832.90	-833.92	1,416.59	1,410.02	0.00	0.00	0.00
8,700.00	89.80	89.551	6,833.25	-833.14	1,516.59	1,510.01	0.00	0.00	0.00
8,800.00	89.80	89.551	6,833.60	-832.36	1,616.59	1,610.01	0.00	0.00	0.00
8,900.00	89.80	89.551	6,833.94	-831.57	1,716.58	1,710.01	0.00	0.00	0.00
9,000.00	89.80	89.551	6,834.29	-830.79	1,816.58	1,810.01	0.00	0.00	0.00
9,100.00	89.80	89.551	6,834.64	-830.01	1,916.58	1,910.01	0.00	0.00	0.00
9,200.00	89.80	89.551	6,834.99	-829.22	2,016.57	2,010.01	0.00	0.00	0.00



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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)	
9,300.00	89.80	89.551	6,835.33	-828.44	2,116.57	2,110.01	0.00	0.00	0.00	
9,400.00	89.80	89.551	6,835.68	-827.66	2,216.56	2,210.01	0.00	0.00	0.00	
9,500.00	89.80	89.551	6,836.03	-826.87	2,316.56	2,310.01	0.00	0.00	0.00	
9,600.00	89.80	89.551	6,836.38	-826.09	2,416.56	2,410.01	0.00	0.00	0.00	
9,700.00	89.80	89.551	6,836.72	-825.31	2,516.55	2,510.01	0.00	0.00	0.00	
9,800.00	89.80	89.551	6,837.07	-824.52	2,616.55	2,610.01	0.00	0.00	0.00	
9,900.00	89.80	89.551	6,837.42	-823.74	2,716.55	2,710.01	0.00	0.00	0.00	
10,000.00	89.80	89.551	6,837.77	-822.96	2,816.54	2,810.01	0.00	0.00	0.00	
10,100.00	89.80	89.551	6,838.11	-822.18	2,916.54	2,910.01	0.00	0.00	0.00	
10,200.00	89.80	89.551	6,838.46	-821.39	3,016.54	3,010.01	0.00	0.00	0.00	
10,300.00	89.80	89.551	6,838.81	-820.61	3,116.53	3,110.01	0.00	0.00	0.00	
10,400.00	89.80	89.551	6,839.16	-819.83	3,216.53	3,210.00	0.00	0.00	0.00	
10,500.00	89.80	89.551	6,839.50	-819.04	3,316.52	3,310.00	0.00	0.00	0.00	
10,600.00	89.80	89.551	6,839.85	-818.26	3,416.52	3,410.00	0.00	0.00	0.00	
10,700.00	89.80	89.551	6,840.20	-817.48	3,516.52	3,510.00	0.00	0.00	0.00	
10,800.00	89.80	89.551	6,840.55	-816.69	3,616.51	3,610.00	0.00	0.00	0.00	
10,900.00	89.80	89.551	6,840.89	-815.91	3,716.51	3,710.00	0.00	0.00	0.00	
11,000.00	89.80	89.551	6,841.24	-815.13	3,816.51	3,810.00	0.00	0.00	0.00	
11,100.00	89.80	89.551	6,841.59	-814.34	3,916.50	3,910.00	0.00	0.00	0.00	
11,200.00	89.80	89.551	6,841.94	-813.56	4,016.50	4,010.00	0.00	0.00	0.00	
11,300.00	89.80	89.551	6,842.29	-812.78	4,116.50	4,110.00	0.00	0.00	0.00	
11,400.00	89.80	89.551	6,842.63	-811.99	4,216.49	4,210.00	0.00	0.00	0.00	
11,500.00	89.80	89.551	6,842.98	-811.21	4,316.49	4,310.00	0.00	0.00	0.00	
11,600.00	89.80	89.551	6,843.33	-810.43	4,416.48	4,410.00	0.00	0.00	0.00	
11,700.00	89.80	89.551	6,843.68	-809.64	4,516.48	4,510.00	0.00	0.00	0.00	
11,800.00	89.80	89.551	6,844.02	-808.86	4,616.48	4,610.00	0.00	0.00	0.00	
11,900.00	89.80	89.551	6,844.37	-808.08	4,716.47	4,710.00	0.00	0.00	0.00	
12,000.00	89.80	89.551	6,844.72	-807.29	4,816.47	4,810.00	0.00	0.00	0.00	
12,100.00	89.80	89.551	6,845.07	-806.51	4,916.47	4,909.99	0.00	0.00	0.00	
12,200.00	89.80	89.551	6,845.41	-805.73	5,016.46	5,009.99	0.00	0.00	0.00	
12,300.00	89.80	89.551	6,845.76	-804.95	5,116.46	5,109.99	0.00	0.00	0.00	
12,400.00	89.80	89.551	6,846.11	-804.16	5,216.45	5,209.99	0.00	0.00	0.00	
12,500.00	89.80	89.551	6,846.46	-803.38	5,316.45	5,309.99	0.00	0.00	0.00	
12,600.00	89.80	89.551	6,846.80	-802.60	5,416.45	5,409.99	0.00	0.00	0.00	
12,700.00	89.80	89.551	6,847.15	-801.81	5,516.44	5,509.99	0.00	0.00	0.00	
12,800.00	89.80	89.551	6,847.50	-801.03	5,616.44	5,609.99	0.00	0.00	0.00	
12,900.00	89.80	89.551	6,847.85	-800.25	5,716.44	5,709.99	0.00	0.00	0.00	
13,000.00	89.80	89.551	6,848.19	-799.46	5,816.43	5,809.99	0.00	0.00	0.00	
13,100.00	89.80	89.551	6,848.54	-798.68	5,916.43	5,909.99	0.00	0.00	0.00	
13,200.00	89.80	89.551	6,848.89	-797.90	6,016.43	6,009.99	0.00	0.00	0.00	
13,300.00	89.80	89.551	6,849.24	-797.11	6,116.42	6,109.99	0.00	0.00	0.00	
13,400.00	89.80	89.551	6,849.58	-796.33	6,216.42	6,209.99	0.00	0.00	0.00	
13,500.00	89.80	89.551	6,849.93	-795.55	6,316.41	6,309.99	0.00	0.00	0.00	
13,600.00	89.80	89.551	6,850.28	-794.76	6,416.41	6,409.99	0.00	0.00	0.00	
13,700.00	89.80	89.551	6,850.63	-793.98	6,516.41	6,509.98	0.00	0.00	0.00	
13,800.00	89.80	89.551	6,850.97	-793.20	6,616.40	6,609.98	0.00	0.00	0.00	
13,900.00	89.80	89.551	6,851.32	-792.41	6,716.40	6,709.98	0.00	0.00	0.00	
14,000.00	89.80	89.551	6,851.67	-791.63	6,816.40	6,809.98	0.00	0.00	0.00	
14,100.00	89.80	89.551	6,852.02	-790.85	6,916.39	6,909.98	0.00	0.00	0.00	
14,200.00	89.80	89.551	6,852.36	-790.07	7,016.39	7,009.98	0.00	0.00	0.00	
14,300.00	89.80	89.551	6,852.71	-789.28	7,116.38	7,109.98	0.00	0.00	0.00	
14,400.00	89.80	89.551	6,853.06	-788.50	7,216.38	7,209.98	0.00	0.00	0.00	
14,500.00	89.80	89.551	6,853.41	-787.72	7,316.38	7,309.98	0.00	0.00	0.00	



Planning Report

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Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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)
14,600.00	89.80	89.551	6,853.75	-786.93	7,416.37	7,409.98	0.00	0.00	0.00
14,700.00	89.80	89.551	6,854.10	-786.15	7,516.37	7,509.98	0.00	0.00	0.00
14,800.00	89.80	89.551	6,854.45	-785.37	7,616.37	7,609.98	0.00	0.00	0.00
14,900.00	89.80	89.551	6,854.80	-784.58	7,716.36	7,709.98	0.00	0.00	0.00
15,000.00	89.80	89.551	6,855.14	-783.80	7,816.36	7,809.98	0.00	0.00	0.00
15,100.00	89.80	89.551	6,855.49	-783.02	7,916.36	7,909.98	0.00	0.00	0.00
15,200.00	89.80	89.551	6,855.84	-782.23	8,016.35	8,009.98	0.00	0.00	0.00
15,300.00	89.80	89.551	6,856.19	-781.45	8,116.35	8,109.98	0.00	0.00	0.00
15,400.00	89.80	89.551	6,856.54	-780.67	8,216.34	8,209.97	0.00	0.00	0.00
15,500.00	89.80	89.551	6,856.88	-779.88	8,316.34	8,309.97	0.00	0.00	0.00
15,600.00	89.80	89.551	6,857.23	-779.10	8,416.34	8,409.97	0.00	0.00	0.00
15,700.00	89.80	89.551	6,857.58	-778.32	8,516.33	8,509.97	0.00	0.00	0.00
15,800.00	89.80	89.551	6,857.93	-777.53	8,616.33	8,609.97	0.00	0.00	0.00
15,900.00	89.80	89.551	6,858.27	-776.75	8,716.33	8,709.97	0.00	0.00	0.00
16,000.00	89.80	89.551	6,858.62	-775.97	8,816.32	8,809.97	0.00	0.00	0.00
16,100.00	89.80	89.551	6,858.97	-775.19	8,916.32	8,909.97	0.00	0.00	0.00
16,200.00	89.80	89.551	6,859.32	-774.40	9,016.32	9,009.97	0.00	0.00	0.00
16,300.00	89.80	89.551	6,859.66	-773.62	9,116.31	9,109.97	0.00	0.00	0.00
16,400.00	89.80	89.551	6,860.01	-772.84	9,216.31	9,209.97	0.00	0.00	0.00
16,500.00	89.80	89.551	6,860.36	-772.05	9,316.30	9,309.97	0.00	0.00	0.00
16,600.00	89.80	89.551	6,860.71	-771.27	9,416.30	9,409.97	0.00	0.00	0.00
16,700.00	89.80	89.551	6,861.05	-770.49	9,516.30	9,509.97	0.00	0.00	0.00
16,800.00	89.80	89.551	6,861.40	-769.70	9,616.29	9,609.97	0.00	0.00	0.00
16,900.00	89.80	89.551	6,861.75	-768.92	9,716.29	9,709.97	0.00	0.00	0.00
17,000.00	89.80	89.551	6,862.10	-768.14	9,816.29	9,809.97	0.00	0.00	0.00
17,100.00	89.80	89.551	6,862.44	-767.35	9,916.28	9,909.96	0.00	0.00	0.00
17,200.00	89.80	89.551	6,862.79	-766.57	10,016.28	10,009.96	0.00	0.00	0.00
17,300.00	89.80	89.551	6,863.14	-765.79	10,116.27	10,109.96	0.00	0.00	0.00
17,400.00	89.80	89.551	6,863.49	-765.00	10,216.27	10,209.96	0.00	0.00	0.00
17,500.00	89.80	89.551	6,863.83	-764.22	10,316.27	10,309.96	0.00	0.00	0.00
17,600.00	89.80	89.551	6,864.18	-763.44	10,416.26	10,409.96	0.00	0.00	0.00
17,700.00	89.80	89.551	6,864.53	-762.65	10,516.26	10,509.96	0.00	0.00	0.00
17,800.00	89.80	89.551	6,864.88	-761.87	10,616.26	10,609.96	0.00	0.00	0.00
17,900.00	89.80	89.551	6,865.22	-761.09	10,716.25	10,709.96	0.00	0.00	0.00
18,000.00	89.80	89.551	6,865.57	-760.31	10,816.25	10,809.96	0.00	0.00	0.00
18,100.00	89.80	89.551	6,865.92	-759.52	10,916.25	10,909.96	0.00	0.00	0.00
18,200.00	89.80	89.551	6,866.27	-758.74	11,016.24	11,009.96	0.00	0.00	0.00
18,300.00	89.80	89.551	6,866.61	-757.96	11,116.24	11,109.96	0.00	0.00	0.00
18,400.00	89.80	89.551	6,866.96	-757.17	11,216.23	11,209.96	0.00	0.00	0.00
18,500.00	89.80	89.551	6,867.31	-756.39	11,316.23	11,309.96	0.00	0.00	0.00
18,600.00	89.80	89.551	6,867.66	-755.61	11,416.23	11,409.96	0.00	0.00	0.00
18,698.72	89.80	89.551	6,868.00	-754.83	11,514.94	11,508.67	0.00	0.00	0.00
PBHL/TD @ 18698.72 MD 6868.00 TVD									



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rincon 817 vert r1 - plan hits target center - Point	0.00	0.000	6,225.39	-849.07	-517.21	2,023,897.820	2,829,845.946	36.561504094	-107.469824098
Rincon 817 VS=0 r1 - plan misses target center by 8.51ft at 7191.18ft MD (6819.67 TVD, -844.95 N, 8.33 E) - Point	0.00	0.000	6,828.00	-844.97	6.62	2,023,901.920	2,830,369.775	36.561509904	-107.468040386
Rincon 817 FTP 2033 FI - plan misses target center by 0.01ft at 7289.06ft MD (6828.34 TVD, -844.19 N, 105.70 E) - Point	0.00	0.000	6,828.34	-844.19	105.70	2,023,902.696	2,830,468.856	36.561511000	-107.467703000
Rincon 817 BHL 2030 FI - plan hits target center - Point	0.00	0.000	6,868.00	-754.83	11,514.94	2,023,992.057	2,841,878.074	36.561631000	-107.428853000

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	
5,211.68	5,123.00	9 5/8" Csg	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,573.56	2,547.54	Ojo Alamo		0.20	89.580	
2,670.83	2,642.50	Kirtland		0.20	89.580	
2,957.53	2,922.38	Fruitland		0.20	89.580	
3,218.62	3,177.28	Pictured Cliffs		0.20	89.580	
3,489.96	3,442.17	Lewis		0.20	89.580	
3,797.13	3,742.05	Chacra_A		0.20	89.580	
4,928.55	4,846.60	Cliff House		0.20	89.580	
5,056.54	4,971.55	Menefee		0.20	89.580	
5,501.94	5,406.37	Point Lookout		0.20	89.580	
5,920.83	5,816.21	Mancos		0.20	89.580	
6,478.52	6,371.24	Gallup (MNCS_A)		0.20	89.580	
6,596.43	6,481.38	MNCS_B		0.20	89.580	
6,678.01	6,551.53	MNCS_C		0.20	89.580	
6,779.95	6,629.76	MNCS_E		0.20	89.580	
6,894.05	6,702.06	MNCS_F		0.20	89.580	
7,013.49	6,762.42	MNCS_G		0.20	89.580	
7,087.76	6,792.66	MNCS_G_Ash		0.20	89.580	
7,087.76	6,792.66	G_Ash @ 0VS		0.20	89.580	
7,137.23	6,807.82	MNCS_H		0.20	89.580	



Planning Report

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' build
1,617.07	1,613.76	-38.74	-23.60	Begin 12.51° tangent
5,787.36	5,685.01	-810.33	-493.61	Begin 3°/100' drop
6,204.43	6,098.77	-849.07	-517.21	Begin vertical hold
6,331.05	6,225.39	-849.07	-517.21	Begin 10°/100' build
6,931.05	6,721.59	-846.83	-230.74	Begin 60.00° tangent
6,991.05	6,751.59	-846.42	-178.78	Begin 10°/100' build
7,289.06	6,828.34	-844.19	105.70	Begin 89.80° lateral
18,698.72	6,868.00	-754.83	11,514.94	PBHL/TD @ 18698.72 MD 6868.00 TVD



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project	Rio Arriba 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	Rincon pad (613, 615, 713, 715,815,817,915 & 917)				
Site Position:		Northing:	2,024,818.244 usft	Latitude:	36.564026000
From:	Lat/Long	Easting:	2,830,459.503 usft	Longitude:	-107.467723000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Rincon Unit 817H, Surf loc: 1187 FNL 1320 FEL Section 21-T27N-R06W					
Well Position	+N/-S	0.00 ft	Northing:	2,024,746.889 usft	Latitude:	36.563831000
	+E/-W	0.00 ft	Easting:	2,830,363.155 usft	Longitude:	-107.468052000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,538.00 ft
Grid Convergence:		0.22 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/21/2023	8.50	63.03	49,320.22663498

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	89.551	

Plan Survey Tool Program	Date	7/21/2023			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	18,698.72 rev1 (Original Hole)	MWD		
			OWSG MWD - Standard		



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,617.07	12.51	211.348	1,613.76	-38.74	-23.60	3.00	3.00	0.00	211.35	
5,787.36	12.51	211.348	5,685.01	-810.33	-493.61	0.00	0.00	0.00	0.00	
6,204.43	0.00	0.000	6,098.77	-849.07	-517.21	3.00	-3.00	0.00	180.00	
6,331.05	0.00	0.000	6,225.39	-849.07	-517.21	0.00	0.00	0.00	0.00	Rincon 817 vert r1
6,931.05	60.00	89.551	6,721.59	-846.83	-230.74	10.00	10.00	0.00	89.55	
6,991.05	60.00	89.551	6,751.59	-846.42	-178.78	0.00	0.00	0.00	0.00	
7,289.06	89.80	89.551	6,828.34	-844.19	105.70	10.00	10.00	0.00	0.00	
18,698.72	89.80	89.551	6,868.00	-754.83	11,514.94	0.00	0.00	0.00	0.00	Rincon 817 BHL 203C



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
100.00	0.00	0.000	100.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
200.00	0.00	0.000	200.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
300.00	0.00	0.000	300.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
350.00	0.00	0.000	350.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
13 3/8" Csg									
400.00	0.00	0.000	400.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
500.00	0.00	0.000	500.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
600.00	0.00	0.000	600.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
700.00	0.00	0.000	700.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
800.00	0.00	0.000	800.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
900.00	0.00	0.000	900.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
1,000.00	0.00	0.000	1,000.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
1,100.00	0.00	0.000	1,100.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
1,200.00	0.00	0.000	1,200.00	0.00	0.00	2,024,746.889	2,830,363.155	36.563831000	-107.468052000
KOP Begin 3°/100' build									
1,300.00	3.00	211.348	1,299.95	-2.24	-1.36	2,024,744.653	2,830,361.794	36.563824874	-107.468056666
1,400.00	6.00	211.348	1,399.63	-8.94	-5.44	2,024,737.954	2,830,357.712	36.563806513	-107.468070650
1,500.00	9.00	211.348	1,498.77	-20.08	-12.23	2,024,726.808	2,830,350.923	36.563775967	-107.468093913
1,600.00	12.00	211.348	1,597.08	-35.64	-21.71	2,024,711.246	2,830,341.443	36.563733320	-107.468126393
1,617.07	12.51	211.348	1,613.76	-38.74	-23.60	2,024,708.151	2,830,339.558	36.563724838	-107.468132853
Begin 12.51° tangent									
1,700.00	12.51	211.348	1,694.72	-54.08	-32.94	2,024,692.807	2,830,330.212	36.563682789	-107.468164877
1,800.00	12.51	211.348	1,792.35	-72.58	-44.21	2,024,674.305	2,830,318.941	36.563632083	-107.468203494
1,900.00	12.51	211.348	1,889.97	-91.09	-55.48	2,024,655.803	2,830,307.671	36.563581378	-107.468242111
2,000.00	12.51	211.348	1,987.60	-109.59	-66.76	2,024,637.301	2,830,296.400	36.563530672	-107.468280728
2,100.00	12.51	211.348	2,085.22	-128.09	-78.03	2,024,618.799	2,830,285.129	36.563479966	-107.468319345
2,200.00	12.51	211.348	2,182.85	-146.59	-89.30	2,024,600.297	2,830,273.859	36.563429261	-107.468357961
2,300.00	12.51	211.348	2,280.47	-165.09	-100.57	2,024,581.794	2,830,262.588	36.563378555	-107.468396578
2,400.00	12.51	211.348	2,378.10	-183.60	-111.84	2,024,563.292	2,830,251.318	36.563327849	-107.468435195
2,500.00	12.51	211.348	2,475.72	-202.10	-123.11	2,024,544.790	2,830,240.047	36.563277143	-107.468473812
2,573.56	12.51	211.348	2,547.54	-215.71	-131.40	2,024,531.180	2,830,231.757	36.563239844	-107.468502218
Ojo Alamo									
2,600.00	12.51	211.348	2,573.35	-220.60	-134.38	2,024,526.288	2,830,228.777	36.563226437	-107.468512428
2,670.83	12.51	211.348	2,642.50	-233.71	-142.36	2,024,513.183	2,830,220.793	36.563190522	-107.468539781
Kirtland									
2,700.00	12.51	211.348	2,670.97	-239.10	-145.65	2,024,507.786	2,830,217.506	36.563175732	-107.468551045
2,800.00	12.51	211.348	2,768.60	-257.61	-156.92	2,024,489.284	2,830,206.235	36.563125026	-107.468589661
2,900.00	12.51	211.348	2,866.22	-276.11	-168.19	2,024,470.781	2,830,194.965	36.563074320	-107.468628278
2,957.53	12.51	211.348	2,922.38	-286.75	-174.67	2,024,460.138	2,830,188.481	36.563045151	-107.468650492
Fruitland									
3,000.00	12.51	211.348	2,963.85	-294.61	-179.46	2,024,452.279	2,830,183.694	36.563023614	-107.468666894
3,100.00	12.51	211.348	3,061.47	-313.11	-190.73	2,024,433.777	2,830,172.424	36.562972908	-107.468705510
3,200.00	12.51	211.348	3,159.10	-331.61	-202.00	2,024,415.275	2,830,161.153	36.562922203	-107.468744127
3,218.62	12.51	211.348	3,177.28	-335.06	-204.10	2,024,411.829	2,830,159.054	36.562912760	-107.468751318
Pictured Cliffs									
3,300.00	12.51	211.348	3,256.72	-350.12	-213.27	2,024,396.773	2,830,149.883	36.562871497	-107.468782743
3,400.00	12.51	211.348	3,354.35	-368.62	-224.54	2,024,378.271	2,830,138.612	36.562820791	-107.468821359
3,489.96	12.51	211.348	3,442.17	-385.26	-234.68	2,024,361.626	2,830,128.473	36.562775176	-107.468856098
Lewis									
3,500.00	12.51	211.348	3,451.97	-387.12	-235.81	2,024,359.768	2,830,127.341	36.562770085	-107.468859975
3,600.00	12.51	211.348	3,549.60	-405.62	-247.08	2,024,341.266	2,830,116.071	36.562719379	-107.468898591
3,700.00	12.51	211.348	3,647.22	-424.13	-258.36	2,024,322.764	2,830,104.800	36.562668673	-107.468937207



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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
3,797.13	12.51	211.348	3,742.05	-442.10	-269.30	2,024,304.793	2,830,093.853	36.562619421	-107.468974716
Chacra_A									
3,800.00	12.51	211.348	3,744.85	-442.63	-269.63	2,024,304.262	2,830,093.530	36.562617967	-107.468975823
3,900.00	12.51	211.348	3,842.47	-461.13	-280.90	2,024,285.760	2,830,082.259	36.562567261	-107.469014439
4,000.00	12.51	211.348	3,940.10	-479.63	-292.17	2,024,267.258	2,830,070.989	36.562516555	-107.469053055
4,100.00	12.51	211.348	4,037.72	-498.13	-303.44	2,024,248.756	2,830,059.718	36.562465849	-107.469091671
4,200.00	12.51	211.348	4,135.35	-516.64	-314.71	2,024,230.253	2,830,048.447	36.562415143	-107.469130287
4,300.00	12.51	211.348	4,232.97	-535.14	-325.98	2,024,211.751	2,830,037.177	36.562364437	-107.469168903
4,400.00	12.51	211.348	4,330.60	-553.64	-337.25	2,024,193.249	2,830,025.906	36.562313731	-107.469207518
4,500.00	12.51	211.348	4,428.22	-572.14	-348.52	2,024,174.747	2,830,014.636	36.562263025	-107.469246134
4,600.00	12.51	211.348	4,525.85	-590.65	-359.79	2,024,156.245	2,830,003.365	36.562212319	-107.469284749
4,700.00	12.51	211.348	4,623.47	-609.15	-371.06	2,024,137.743	2,829,992.095	36.562161613	-107.469323365
4,800.00	12.51	211.348	4,721.10	-627.65	-382.33	2,024,119.240	2,829,980.824	36.562110907	-107.469361980
4,900.00	12.51	211.348	4,818.72	-646.15	-393.60	2,024,100.738	2,829,969.553	36.562060201	-107.469400596
4,928.55	12.51	211.348	4,846.60	-651.43	-396.82	2,024,095.455	2,829,966.335	36.562045723	-107.469411622
Cliff House									
5,000.00	12.51	211.348	4,916.35	-664.65	-404.87	2,024,082.236	2,829,958.283	36.562009495	-107.469439211
5,056.54	12.51	211.348	4,971.55	-675.12	-411.25	2,024,071.775	2,829,951.910	36.561980825	-107.469461045
Menefee									
5,100.00	12.51	211.348	5,013.97	-683.16	-416.14	2,024,063.734	2,829,947.012	36.561958789	-107.469477827
5,200.00	12.51	211.348	5,111.60	-701.66	-427.41	2,024,045.232	2,829,935.742	36.561908082	-107.469516442
5,211.68	12.51	211.348	5,123.00	-703.82	-428.73	2,024,043.071	2,829,934.425	36.561902161	-107.469520952
9 5/8" Csg									
5,300.00	12.51	211.348	5,209.22	-720.16	-438.68	2,024,026.730	2,829,924.471	36.561857376	-107.469555057
5,400.00	12.51	211.348	5,306.85	-738.66	-449.96	2,024,008.227	2,829,913.201	36.561806670	-107.469593672
5,500.00	12.51	211.348	5,404.47	-757.16	-461.23	2,023,989.725	2,829,901.930	36.561755964	-107.469632287
5,501.94	12.51	211.348	5,406.37	-757.52	-461.45	2,023,989.366	2,829,901.711	36.561754979	-107.469633037
Point Lookout									
5,600.00	12.51	211.348	5,502.10	-775.67	-472.50	2,023,971.223	2,829,890.659	36.561705258	-107.469670902
5,700.00	12.51	211.348	5,599.72	-794.17	-483.77	2,023,952.721	2,829,879.389	36.561654552	-107.469709517
5,787.36	12.51	211.348	5,685.01	-810.33	-493.61	2,023,936.558	2,829,869.543	36.561610257	-107.469743250
Begin 3°/100' drop									
5,800.00	12.13	211.348	5,697.36	-812.64	-495.02	2,023,934.254	2,829,868.140	36.561603941	-107.469748060
5,900.00	9.13	211.348	5,795.63	-828.39	-504.61	2,023,918.497	2,829,858.542	36.561560760	-107.469780944
5,920.83	8.51	211.348	5,816.21	-831.12	-506.28	2,023,915.770	2,829,856.880	36.561553285	-107.469786636
Mancos									
6,000.00	6.13	211.348	5,894.73	-839.74	-511.52	2,023,907.155	2,829,851.633	36.561529676	-107.469804615
6,100.00	3.13	211.348	5,994.39	-846.63	-515.73	2,023,900.258	2,829,847.431	36.561510774	-107.469819010
6,204.43	0.00	0.000	6,098.77	-849.07	-517.21	2,023,897.820	2,829,845.946	36.561504094	-107.469824098
Begin vertical hold									
6,300.00	0.00	0.000	6,194.34	-849.07	-517.21	2,023,897.820	2,829,845.946	36.561504094	-107.469824098
6,331.05	0.00	0.000	6,225.39	-849.07	-517.21	2,023,897.820	2,829,845.946	36.561504094	-107.469824098
Begin 10°/100' build									
6,350.00	1.90	89.551	6,244.34	-849.07	-516.90	2,023,897.823	2,829,846.260	36.561504097	-107.469823030
6,400.00	6.90	89.551	6,294.18	-849.04	-513.07	2,023,897.853	2,829,850.090	36.561504140	-107.469809987
6,450.00	11.90	89.551	6,343.49	-848.97	-504.91	2,023,897.917	2,829,858.249	36.561504231	-107.469782204
6,478.52	14.75	89.551	6,371.24	-848.92	-498.34	2,023,897.968	2,829,864.820	36.561504304	-107.469759831
Gallup (MNCS_A)									
6,500.00	16.90	89.551	6,391.90	-848.88	-492.48	2,023,898.014	2,829,870.675	36.561504369	-107.469739891
6,550.00	21.90	89.551	6,439.05	-848.75	-475.88	2,023,898.144	2,829,887.274	36.561504554	-107.469683372
6,596.43	26.54	89.551	6,481.38	-848.60	-456.84	2,023,898.293	2,829,906.313	36.561504766	-107.469618541
MNCS_B									



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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	
6,600.00	26.90	89.551	6,484.57	-848.58	-455.24	2,023,898.306	2,829,907.918	36.561504784	-107.469613075	
6,650.00	31.90	89.551	6,528.12	-848.39	-430.71	2,023,898.498	2,829,932.451	36.561505057	-107.469529537	
6,678.01	34.70	89.551	6,551.53	-848.27	-415.33	2,023,898.619	2,829,947.823	36.561505229	-107.469477193	
MNCS_C										
6,700.00	36.90	89.551	6,569.37	-848.17	-402.47	2,023,898.720	2,829,960.686	36.561505372	-107.469433393	
6,750.00	41.90	89.551	6,607.99	-847.92	-370.75	2,023,898.968	2,829,992.408	36.561505725	-107.469325374	
6,779.95	44.89	89.551	6,629.76	-847.76	-350.17	2,023,899.129	2,830,012.981	36.561505954	-107.469255319	
MNCS_E										
6,800.00	46.90	89.551	6,643.71	-847.65	-335.78	2,023,899.242	2,830,027.376	36.561506114	-107.469206304	
6,850.00	51.90	89.551	6,676.24	-847.35	-297.83	2,023,899.540	2,830,065.324	36.561506536	-107.469077087	
6,894.05	56.30	89.551	6,702.06	-847.07	-262.16	2,023,899.819	2,830,100.991	36.561506933	-107.468955634	
MNCS_F										
6,900.00	56.90	89.551	6,705.34	-847.03	-257.19	2,023,899.858	2,830,105.962	36.561506988	-107.468938708	
6,931.05	60.00	89.551	6,721.59	-846.83	-230.74	2,023,900.065	2,830,132.416	36.561507282	-107.468848628	
Begin 60.00° tangent										
6,991.05	60.00	89.551	6,751.59	-846.42	-178.78	2,023,900.473	2,830,184.376	36.561507860	-107.468671698	
Begin 10°/100' build										
7,000.00	60.90	89.551	6,756.00	-846.36	-170.99	2,023,900.534	2,830,192.163	36.561507946	-107.468645182	
7,013.49	62.24	89.551	6,762.42	-846.26	-159.13	2,023,900.627	2,830,204.024	36.561508078	-107.468604793	
MNCS_G										
7,050.00	65.90	89.551	6,778.39	-846.01	-126.30	2,023,900.884	2,830,236.853	36.561508443	-107.468493006	
7,087.76	69.67	89.551	6,792.66	-845.73	-91.36	2,023,901.158	2,830,271.798	36.561508831	-107.468374011	
MNCS_G_Ash - G_Ash @ 0VS										
7,100.00	70.90	89.551	6,796.79	-845.64	-79.83	2,023,901.248	2,830,283.324	36.561508959	-107.468334765	
7,137.23	74.62	89.551	6,807.82	-845.36	-44.28	2,023,901.526	2,830,318.871	36.561509353	-107.468213721	
MNCS_H										
7,150.00	75.90	89.551	6,811.07	-845.27	-31.93	2,023,901.623	2,830,331.222	36.561509490	-107.468171665	
7,200.00	80.90	89.551	6,821.13	-844.88	17.03	2,023,902.007	2,830,380.183	36.561510033	-107.468004947	
7,250.00	85.90	89.551	6,826.88	-844.49	66.68	2,023,902.396	2,830,429.834	36.561510583	-107.467835879	
7,289.06	89.80	89.551	6,828.34	-844.19	105.70	2,023,902.701	2,830,468.854	36.561511015	-107.467703009	
Begin 89.80° lateral										
7,300.00	89.80	89.551	6,828.38	-844.10	116.64	2,023,902.787	2,830,479.797	36.561511136	-107.467665747	
7,400.00	89.80	89.551	6,828.73	-843.32	216.64	2,023,903.570	2,830,579.793	36.561512243	-107.467325246	
7,500.00	89.80	89.551	6,829.08	-842.54	316.63	2,023,904.353	2,830,679.789	36.561513348	-107.466984745	
7,600.00	89.80	89.551	6,829.43	-841.75	416.63	2,023,905.136	2,830,779.785	36.561514453	-107.466644244	
7,700.00	89.80	89.551	6,829.77	-840.97	516.63	2,023,905.920	2,830,879.781	36.561515556	-107.466303743	
7,800.00	89.80	89.551	6,830.12	-840.19	616.62	2,023,906.703	2,830,979.777	36.561516659	-107.465963243	
7,900.00	89.80	89.551	6,830.47	-839.40	716.62	2,023,907.486	2,831,079.773	36.561517761	-107.465622742	
8,000.00	89.80	89.551	6,830.82	-838.62	816.62	2,023,908.269	2,831,179.770	36.561518861	-107.465282241	
8,100.00	89.80	89.551	6,831.16	-837.84	916.61	2,023,909.052	2,831,279.766	36.561519961	-107.464941740	
8,200.00	89.80	89.551	6,831.51	-837.06	1,016.61	2,023,909.835	2,831,379.762	36.561521060	-107.464601239	
8,300.00	89.80	89.551	6,831.86	-836.27	1,116.61	2,023,910.618	2,831,479.758	36.561522157	-107.464260738	
8,400.00	89.80	89.551	6,832.21	-835.49	1,216.60	2,023,911.402	2,831,579.754	36.561523254	-107.463920237	
8,500.00	89.80	89.551	6,832.55	-834.71	1,316.60	2,023,912.185	2,831,679.750	36.561524350	-107.463579736	
8,600.00	89.80	89.551	6,832.90	-833.92	1,416.59	2,023,912.968	2,831,779.747	36.561525445	-107.463239235	
8,700.00	89.80	89.551	6,833.25	-833.14	1,516.59	2,023,913.751	2,831,879.743	36.561526539	-107.462898734	
8,800.00	89.80	89.551	6,833.60	-832.36	1,616.59	2,023,914.534	2,831,979.740	36.561527632	-107.462558233	
8,900.00	89.80	89.551	6,833.94	-831.57	1,716.58	2,023,915.317	2,832,079.736	36.561528723	-107.462217732	
9,000.00	89.80	89.551	6,834.29	-830.79	1,816.58	2,023,916.101	2,832,179.732	36.561529814	-107.461877231	
9,100.00	89.80	89.551	6,834.64	-830.01	1,916.58	2,023,916.884	2,832,279.728	36.561530904	-107.461536730	
9,200.00	89.80	89.551	6,834.99	-829.22	2,016.57	2,023,917.667	2,832,379.724	36.561531993	-107.461196229	
9,300.00	89.80	89.551	6,835.33	-828.44	2,116.57	2,023,918.450	2,832,479.720	36.561533081	-107.460855728	
9,400.00	89.80	89.551	6,835.68	-827.66	2,216.56	2,023,919.233	2,832,579.716	36.561534168	-107.460515227	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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
9,500.00	89.80	89.551	6,836.03	-826.87	2,316.56	2,023,920.016	2,832,679.712	36.561535255	-107.460174726
9,600.00	89.80	89.551	6,836.38	-826.09	2,416.56	2,023,920.800	2,832,779.709	36.561536340	-107.459834225
9,700.00	89.80	89.551	6,836.72	-825.31	2,516.55	2,023,921.583	2,832,879.705	36.561537424	-107.459493724
9,800.00	89.80	89.551	6,837.07	-824.52	2,616.55	2,023,922.366	2,832,979.701	36.561538507	-107.459153223
9,900.00	89.80	89.551	6,837.42	-823.74	2,716.55	2,023,923.149	2,833,079.697	36.561539589	-107.458812722
10,000.00	89.80	89.551	6,837.77	-822.96	2,816.54	2,023,923.932	2,833,179.693	36.561540670	-107.458472221
10,100.00	89.80	89.551	6,838.11	-822.18	2,916.54	2,023,924.715	2,833,279.689	36.561541751	-107.458131721
10,200.00	89.80	89.551	6,838.46	-821.39	3,016.54	2,023,925.499	2,833,379.685	36.561542830	-107.457791220
10,300.00	89.80	89.551	6,838.81	-820.61	3,116.53	2,023,926.282	2,833,479.681	36.561543908	-107.457450719
10,400.00	89.80	89.551	6,839.16	-819.83	3,216.53	2,023,927.065	2,833,579.678	36.561544985	-107.457110218
10,500.00	89.80	89.551	6,839.50	-819.04	3,316.52	2,023,927.848	2,833,679.674	36.561546062	-107.456769717
10,600.00	89.80	89.551	6,839.85	-818.26	3,416.52	2,023,928.631	2,833,779.670	36.561547137	-107.456429216
10,700.00	89.80	89.551	6,840.20	-817.48	3,516.52	2,023,929.414	2,833,879.666	36.561548212	-107.456088715
10,800.00	89.80	89.551	6,840.55	-816.69	3,616.51	2,023,930.197	2,833,979.662	36.561549285	-107.455748214
10,900.00	89.80	89.551	6,840.89	-815.91	3,716.51	2,023,930.981	2,834,079.658	36.561550357	-107.455407713
11,000.00	89.80	89.551	6,841.24	-815.13	3,816.51	2,023,931.764	2,834,179.654	36.561551429	-107.455067212
11,100.00	89.80	89.551	6,841.59	-814.34	3,916.50	2,023,932.547	2,834,279.650	36.561552499	-107.454726711
11,200.00	89.80	89.551	6,841.94	-813.56	4,016.50	2,023,933.330	2,834,379.647	36.561553569	-107.454386210
11,300.00	89.80	89.551	6,842.29	-812.78	4,116.50	2,023,934.113	2,834,479.643	36.561554638	-107.454045709
11,400.00	89.80	89.551	6,842.63	-811.99	4,216.49	2,023,934.896	2,834,579.639	36.561555705	-107.453705208
11,500.00	89.80	89.551	6,842.98	-811.21	4,316.49	2,023,935.680	2,834,679.635	36.561556772	-107.453364707
11,600.00	89.80	89.551	6,843.33	-810.43	4,416.48	2,023,936.463	2,834,779.631	36.561557837	-107.453024206
11,700.00	89.80	89.551	6,843.68	-809.64	4,516.48	2,023,937.246	2,834,879.627	36.561558902	-107.452683705
11,800.00	89.80	89.551	6,844.02	-808.86	4,616.48	2,023,938.029	2,834,979.623	36.561559966	-107.452343204
11,900.00	89.80	89.551	6,844.37	-808.08	4,716.47	2,023,938.812	2,835,079.619	36.561561028	-107.452002703
12,000.00	89.80	89.551	6,844.72	-807.29	4,816.47	2,023,939.595	2,835,179.616	36.561562090	-107.451662202
12,100.00	89.80	89.551	6,845.07	-806.51	4,916.47	2,023,940.379	2,835,279.612	36.561563151	-107.451321701
12,200.00	89.80	89.551	6,845.41	-805.73	5,016.46	2,023,941.162	2,835,379.608	36.561564211	-107.450981200
12,300.00	89.80	89.551	6,845.76	-804.95	5,116.46	2,023,941.945	2,835,479.604	36.561565270	-107.450640699
12,400.00	89.80	89.551	6,846.11	-804.16	5,216.45	2,023,942.728	2,835,579.600	36.561566328	-107.450300198
12,500.00	89.80	89.551	6,846.46	-803.38	5,316.45	2,023,943.511	2,835,679.596	36.561567384	-107.449959697
12,600.00	89.80	89.551	6,846.80	-802.60	5,416.45	2,023,944.294	2,835,779.592	36.561568440	-107.449619196
12,700.00	89.80	89.551	6,847.15	-801.81	5,516.44	2,023,945.077	2,835,879.588	36.561569495	-107.449278695
12,800.00	89.80	89.551	6,847.50	-801.03	5,616.44	2,023,945.861	2,835,979.585	36.561570549	-107.448938194
12,900.00	89.80	89.551	6,847.85	-800.25	5,716.44	2,023,946.644	2,836,079.581	36.561571602	-107.448597693
13,000.00	89.80	89.551	6,848.19	-799.46	5,816.43	2,023,947.427	2,836,179.577	36.561572654	-107.448257192
13,100.00	89.80	89.551	6,848.54	-798.68	5,916.43	2,023,948.210	2,836,279.573	36.561573705	-107.447916691
13,200.00	89.80	89.551	6,848.89	-797.90	6,016.43	2,023,948.993	2,836,379.569	36.561574756	-107.447576190
13,300.00	89.80	89.551	6,849.24	-797.11	6,116.42	2,023,949.776	2,836,479.565	36.561575805	-107.447235689
13,400.00	89.80	89.551	6,849.58	-796.33	6,216.42	2,023,950.560	2,836,579.561	36.561576853	-107.446895188
13,500.00	89.80	89.551	6,849.93	-795.55	6,316.41	2,023,951.343	2,836,679.557	36.561577900	-107.446554687
13,600.00	89.80	89.551	6,850.28	-794.76	6,416.41	2,023,952.126	2,836,779.554	36.561578946	-107.446214186
13,700.00	89.80	89.551	6,850.63	-793.98	6,516.41	2,023,952.909	2,836,879.550	36.561579991	-107.445873685
13,800.00	89.80	89.551	6,850.97	-793.20	6,616.40	2,023,953.692	2,836,979.546	36.561581036	-107.445533184
13,900.00	89.80	89.551	6,851.32	-792.41	6,716.40	2,023,954.475	2,837,079.542	36.561582079	-107.445192683
14,000.00	89.80	89.551	6,851.67	-791.63	6,816.40	2,023,955.259	2,837,179.538	36.561583121	-107.444852182
14,100.00	89.80	89.551	6,852.02	-790.85	6,916.39	2,023,956.042	2,837,279.534	36.561584163	-107.444511681
14,200.00	89.80	89.551	6,852.36	-790.07	7,016.39	2,023,956.825	2,837,379.530	36.561585203	-107.444171180
14,300.00	89.80	89.551	6,852.71	-789.28	7,116.38	2,023,957.608	2,837,479.526	36.561586242	-107.443830679
14,400.00	89.80	89.551	6,853.06	-788.50	7,216.38	2,023,958.391	2,837,579.523	36.561587281	-107.443490178
14,500.00	89.80	89.551	6,853.41	-787.72	7,316.38	2,023,959.174	2,837,679.519	36.561588318	-107.443149677
14,600.00	89.80	89.551	6,853.75	-786.93	7,416.37	2,023,959.957	2,837,779.515	36.561589355	-107.442809176
14,700.00	89.80	89.551	6,854.10	-786.15	7,516.37	2,023,960.741	2,837,879.511	36.561590390	-107.442468675
14,800.00	89.80	89.551	6,854.45	-785.37	7,616.37	2,023,961.524	2,837,979.507	36.561591425	-107.442128174



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	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
14,900.00	89.80	89.551	6,854.80	-784.58	7,716.36	2,023,962.307	2,838,079.503	36.561592458	-107.441787673
15,000.00	89.80	89.551	6,855.14	-783.80	7,816.36	2,023,963.090	2,838,179.499	36.561593491	-107.441447172
15,100.00	89.80	89.551	6,855.49	-783.02	7,916.36	2,023,963.873	2,838,279.495	36.561594522	-107.441106671
15,200.00	89.80	89.551	6,855.84	-782.23	8,016.35	2,023,964.656	2,838,379.492	36.561595553	-107.440766170
15,300.00	89.80	89.551	6,856.19	-781.45	8,116.35	2,023,965.440	2,838,479.488	36.561596583	-107.440425669
15,400.00	89.80	89.551	6,856.54	-780.67	8,216.34	2,023,966.223	2,838,579.484	36.561597611	-107.440085168
15,500.00	89.80	89.551	6,856.88	-779.88	8,316.34	2,023,967.006	2,838,679.480	36.561598639	-107.439744667
15,600.00	89.80	89.551	6,857.23	-779.10	8,416.34	2,023,967.789	2,838,779.476	36.561599666	-107.439404166
15,700.00	89.80	89.551	6,857.58	-778.32	8,516.33	2,023,968.572	2,838,879.472	36.561600692	-107.439063665
15,800.00	89.80	89.551	6,857.93	-777.53	8,616.33	2,023,969.355	2,838,979.468	36.561601716	-107.438723164
15,900.00	89.80	89.551	6,858.27	-776.75	8,716.33	2,023,970.139	2,839,079.464	36.561602740	-107.438382663
16,000.00	89.80	89.551	6,858.62	-775.97	8,816.32	2,023,970.922	2,839,179.461	36.561603763	-107.438042162
16,100.00	89.80	89.551	6,858.97	-775.19	8,916.32	2,023,971.705	2,839,279.457	36.561604785	-107.437701661
16,200.00	89.80	89.551	6,859.32	-774.40	9,016.32	2,023,972.488	2,839,379.453	36.561605806	-107.437361160
16,300.00	89.80	89.551	6,859.66	-773.62	9,116.31	2,023,973.271	2,839,479.449	36.561606826	-107.437020659
16,400.00	89.80	89.551	6,860.01	-772.84	9,216.31	2,023,974.054	2,839,579.445	36.561607845	-107.436680158
16,500.00	89.80	89.551	6,860.36	-772.05	9,316.30	2,023,974.837	2,839,679.441	36.561608863	-107.436339657
16,600.00	89.80	89.551	6,860.71	-771.27	9,416.30	2,023,975.621	2,839,779.437	36.561609880	-107.435999157
16,700.00	89.80	89.551	6,861.05	-770.49	9,516.30	2,023,976.404	2,839,879.433	36.561610896	-107.435658656
16,800.00	89.80	89.551	6,861.40	-769.70	9,616.29	2,023,977.187	2,839,979.430	36.561611911	-107.435318155
16,900.00	89.80	89.551	6,861.75	-768.92	9,716.29	2,023,977.970	2,840,079.426	36.561612925	-107.434977655
17,000.00	89.80	89.551	6,862.10	-768.14	9,816.29	2,023,978.753	2,840,179.422	36.561613938	-107.434637154
17,100.00	89.80	89.551	6,862.44	-767.35	9,916.28	2,023,979.536	2,840,279.418	36.561614950	-107.434296653
17,200.00	89.80	89.551	6,862.79	-766.57	10,016.28	2,023,980.320	2,840,379.414	36.561615962	-107.433956152
17,300.00	89.80	89.551	6,863.14	-765.79	10,116.27	2,023,981.103	2,840,479.410	36.561616972	-107.433615651
17,400.00	89.80	89.551	6,863.49	-765.00	10,216.27	2,023,981.886	2,840,579.406	36.561617981	-107.433275150
17,500.00	89.80	89.551	6,863.83	-764.22	10,316.27	2,023,982.669	2,840,679.402	36.561618989	-107.432934649
17,600.00	89.80	89.551	6,864.18	-763.44	10,416.26	2,023,983.452	2,840,779.399	36.561619997	-107.432594148
17,700.00	89.80	89.551	6,864.53	-762.65	10,516.26	2,023,984.235	2,840,879.395	36.561621003	-107.432253647
17,800.00	89.80	89.551	6,864.88	-761.87	10,616.26	2,023,985.019	2,840,979.391	36.561622008	-107.431913146
17,900.00	89.80	89.551	6,865.22	-761.09	10,716.25	2,023,985.802	2,841,079.387	36.561623013	-107.431572645
18,000.00	89.80	89.551	6,865.57	-760.31	10,816.25	2,023,986.585	2,841,179.383	36.561624016	-107.431232144
18,100.00	89.80	89.551	6,865.92	-759.52	10,916.25	2,023,987.368	2,841,279.379	36.561625019	-107.430891643
18,200.00	89.80	89.551	6,866.27	-758.74	11,016.24	2,023,988.151	2,841,379.375	36.561626020	-107.430551142
18,300.00	89.80	89.551	6,866.61	-757.96	11,116.24	2,023,988.934	2,841,479.371	36.561627021	-107.430210641
18,400.00	89.80	89.551	6,866.96	-757.17	11,216.23	2,023,989.718	2,841,579.368	36.561628020	-107.429870140
18,500.00	89.80	89.551	6,867.31	-756.39	11,316.23	2,023,990.501	2,841,679.364	36.561629019	-107.429529639
18,600.00	89.80	89.551	6,867.66	-755.61	11,416.23	2,023,991.284	2,841,779.360	36.561630016	-107.429189138
18,698.72	89.80	89.551	6,868.00	-754.83	11,514.94	2,023,992.057	2,841,878.074	36.561631000	-107.428853000
PBHL/TD @ 18698.72 MD 6868.00 TVD									



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rincon 817 vert r1 - plan hits target center - Point	0.00	0.000	6,225.39	-849.07	-517.21	2,023,897.820	2,829,845.946	36.561504094	-107.469824098
Rincon 817 VS=0 r1 - plan misses target center by 8.51ft at 7191.18ft MD (6819.67 TVD, -844.95 N, 8.33 E) - Point	0.00	0.000	6,828.00	-844.97	6.62	2,023,901.920	2,830,369.775	36.561509904	-107.468040386
Rincon 817 FTP 2033 FI - plan misses target center by 0.01ft at 7289.06ft MD (6828.34 TVD, -844.19 N, 105.70 E) - Point	0.00	0.000	6,828.34	-844.19	105.70	2,023,902.696	2,830,468.856	36.561511000	-107.467703000
Rincon 817 BHL 2030 FI - plan hits target center - Point	0.00	0.000	6,868.00	-754.83	11,514.94	2,023,992.057	2,841,878.074	36.561631000	-107.428853000

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	
5,211.68	5,123.00	9 5/8" Csg	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,573.56	2,547.54	Ojo Alamo		0.20	89.580	
2,670.83	2,642.50	Kirtland		0.20	89.580	
2,957.53	2,922.38	Fruitland		0.20	89.580	
3,218.62	3,177.28	Pictured Cliffs		0.20	89.580	
3,489.96	3,442.17	Lewis		0.20	89.580	
3,797.13	3,742.05	Chacra_A		0.20	89.580	
4,928.55	4,846.60	Cliff House		0.20	89.580	
5,056.54	4,971.55	Menefee		0.20	89.580	
5,501.94	5,406.37	Point Lookout		0.20	89.580	
5,920.83	5,816.21	Mancos		0.20	89.580	
6,478.52	6,371.24	Gallup (MNCS_A)		0.20	89.580	
6,596.43	6,481.38	MNCS_B		0.20	89.580	
6,678.01	6,551.53	MNCS_C		0.20	89.580	
6,779.95	6,629.76	MNCS_E		0.20	89.580	
6,894.05	6,702.06	MNCS_F		0.20	89.580	
7,013.49	6,762.42	MNCS_G		0.20	89.580	
7,087.76	6,792.66	MNCS_G_Ash		0.20	89.580	
7,087.76	6,792.66	G_Ash @ 0VS		0.20	89.580	
7,137.23	6,807.82	MNCS_H		0.20	89.580	



Planning Report - Geographic

Database:	DB_Decv0422v16	Local Co-ordinate Reference:	Well Rincon Unit 817H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6538+25 @ 6563.00ft
Project:	Rio Arriba County, New Mexico NAD83 NM W	MD Reference:	RKB=6538+25 @ 6563.00ft
Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	North Reference:	Grid
Well:	Rincon Unit 817H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' build
1,617.07	1,613.76	-38.74	-23.60	Begin 12.51° tangent
5,787.36	5,685.01	-810.33	-493.61	Begin 3°/100' drop
6,204.43	6,098.77	-849.07	-517.21	Begin vertical hold
6,331.05	6,225.39	-849.07	-517.21	Begin 10°/100' build
6,931.05	6,721.59	-846.83	-230.74	Begin 60.00° tangent
6,991.05	6,751.59	-846.42	-178.78	Begin 10°/100' build
7,289.06	6,828.34	-844.19	105.70	Begin 89.80° lateral
18,698.72	6,868.00	-754.83	11,514.94	PBHL/TD @ 18698.72 MD 6868.00 TVD



Anticollision Report

Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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 2,069.87ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	7/21/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,698.72	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						
Rincon pad (613, 615, 713, 715,815,817,915 & 917)						
Rincon Unit 613H - Original Hole - rev0	1,319.14	1,326.08	116.70	107.75	13.045	CC, ES
Rincon Unit 613H - Original Hole - rev0	6,935.05	6,921.62	277.36	227.13	5.522	SF
Rincon Unit 615H - Original Hole - Surveys Original Hole	1,209.97	1,198.49	66.28	58.58	8.602	CC, ES
Rincon Unit 615H - Original Hole - Surveys Original Hole	1,300.00	1,286.57	69.19	60.89	8.335	SF
Rincon Unit 713H - Original Hole - rev0	1,200.00	1,200.00	99.76	91.61	12.233	CC, ES
Rincon Unit 713H - Original Hole - rev0	1,300.00	1,295.02	104.57	95.74	11.843	SF
Rincon Unit 715H - Original Hole - Surveys Original Hole	1,217.25	1,206.55	47.25	39.45	6.056	CC, ES
Rincon Unit 715H - Original Hole - Surveys Original Hole	1,300.00	1,288.17	49.70	41.29	5.910	SF
Rincon Unit 815H - Original Hole - rev1	1,184.58	1,184.86	38.79	30.75	4.824	CC
Rincon Unit 815H - Original Hole - rev1	1,200.00	1,200.20	38.82	30.67	4.763	ES
Rincon Unit 815H - Original Hole - rev1	18,698.72	18,618.70	1,320.01	716.12	2.186	SF
Rincon Unit 915H - Original Hole - rev1	1,297.41	1,298.37	19.85	11.03	2.251	CC
Rincon Unit 915H - Original Hole - rev1	1,300.00	1,300.99	19.85	11.01	2.247	ES
Rincon Unit 915H - Original Hole - rev1	18,698.72	18,376.35	698.93	188.20	1.368	Level 2<1.50, SF
Rincon Unit 917H - Original Hole - rev1	1,000.00	1,000.00	20.13	13.41	2.995	CC, ES
Rincon Unit 917H - Original Hole - rev1	18,698.72	18,638.04	704.07	194.41	1.381	Level 2<1.50, SF
Section 21-T27N-R06W						
Rincon Unit 180 - Original Hole - Inc only surveys	3,676.55	3,620.72	95.08	-138.19	0.408	Level 1<1.00, CC
Rincon Unit 180 - Original Hole - Inc only surveys	3,700.00	3,643.61	95.22	-138.66	0.407	Level 1<1.00, ES, SF

Offset Design:	Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 613H - Original Hole - rev0										Offset Site Error:	0.00 ft
Survey Program:	0-MWD										Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum	Separation	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Tooface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	
0.00	0.00	0.00	0.00	0.00	0.00	53.48	71.36	96.35	119.89			
100.00	100.00	100.00	100.00	0.13	0.13	53.48	71.36	96.35	119.89	119.62	0.27	445.944
200.00	200.00	200.00	200.00	0.49	0.49	53.48	71.36	96.35	119.89	118.91	0.99	121.621
300.00	300.00	300.00	300.00	0.85	0.85	53.48	71.36	96.35	119.89	118.19	1.70	70.412
400.00	400.00	400.00	400.00	1.21	1.21	53.48	71.36	96.35	119.89	117.47	2.42	49.549
500.00	500.00	500.00	500.00	1.57	1.57	53.48	71.36	96.35	119.89	116.76	3.14	38.224
600.00	600.00	600.00	600.00	1.93	1.93	53.48	71.36	96.35	119.89	116.04	3.85	31.112

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 613H - 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)	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
700.00	700.00	700.00	700.00	2.29	2.29	53.48	71.36	96.35	119.89	115.32	4.57	26.232	
800.00	800.00	800.00	800.00	2.64	2.64	53.48	71.36	96.35	119.89	114.61	5.29	22.675	
900.00	900.00	900.00	900.00	3.00	3.00	53.48	71.36	96.35	119.89	113.89	6.00	19.968	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	53.48	71.36	96.35	119.89	113.17	6.72	17.838	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	53.48	71.36	96.35	119.89	112.46	7.44	16.118	
1,200.00	1,200.00	1,203.41	1,203.36	4.08	4.07	54.62	68.56	96.53	118.45	110.30	8.15	14.541	
1,300.00	1,299.95	1,306.42	1,306.02	4.42	4.41	-153.78	60.24	97.08	116.75	107.93	8.82	13.239	
1,319.14	1,319.07	1,326.08	1,325.55	4.48	4.48	-153.07	58.02	97.23	116.70	107.75	8.95	13.045 CC, ES	
1,400.00	1,399.63	1,407.49	1,406.27	4.75	4.75	-149.98	47.43	97.92	117.92	108.44	9.49	12.430	
1,500.00	1,498.77	1,507.16	1,505.06	5.09	5.10	-147.33	34.20	98.80	123.75	113.57	10.17	12.162	
1,600.00	1,597.08	1,606.59	1,603.60	5.45	5.46	-146.11	21.01	99.66	134.11	123.23	10.88	12.328	
1,700.00	1,694.72	1,705.71	1,701.84	5.83	5.83	-145.94	7.86	100.53	147.32	135.72	11.60	12.703	
1,800.00	1,792.35	1,804.82	1,800.07	6.24	6.20	-145.85	-5.29	101.40	160.59	148.27	12.33	13.027	
1,900.00	1,889.97	1,903.94	1,898.31	6.65	6.58	-145.77	-18.45	102.26	173.87	160.80	13.07	13.301	
2,000.00	1,987.60	2,003.05	1,996.54	7.08	6.97	-145.71	-31.60	103.13	187.15	173.32	13.83	13.535	
2,100.00	2,085.22	2,102.17	2,094.78	7.52	7.36	-145.65	-44.75	104.00	200.42	185.83	14.59	13.735	
2,200.00	2,182.85	2,201.28	2,193.01	7.97	7.75	-145.60	-57.90	104.86	213.70	198.34	15.37	13.908	
2,300.00	2,280.47	2,300.40	2,291.24	8.42	8.14	-145.55	-71.05	105.73	226.98	210.83	16.15	14.058	
2,400.00	2,378.10	2,399.51	2,389.48	8.88	8.54	-145.51	-84.20	106.60	240.25	223.32	16.93	14.189	
2,500.00	2,475.72	2,498.63	2,487.71	9.35	8.93	-145.47	-97.36	107.46	253.53	235.81	17.72	14.305	
2,600.00	2,573.35	2,597.74	2,585.95	9.82	9.33	-145.44	-110.51	108.33	266.81	248.29	18.52	14.407	
2,700.00	2,670.97	2,696.86	2,684.18	10.29	9.74	-145.41	-123.66	109.20	280.09	260.77	19.32	14.497	
2,800.00	2,768.60	2,795.97	2,782.42	10.77	10.14	-145.39	-136.81	110.06	293.36	273.24	20.12	14.578	
2,900.00	2,866.22	2,895.08	2,880.65	11.25	10.54	-145.36	-149.96	110.93	306.64	285.71	20.93	14.651	
3,000.00	2,963.85	2,994.20	2,978.88	11.73	10.95	-145.34	-163.12	111.80	319.92	298.18	21.74	14.716	
3,100.00	3,061.47	3,093.31	3,077.12	12.21	11.35	-145.32	-176.27	112.66	333.20	310.65	22.55	14.775	
3,200.00	3,159.10	3,192.43	3,175.35	12.70	11.76	-145.30	-189.42	113.53	346.47	323.11	23.37	14.828	
3,300.00	3,256.72	3,291.54	3,273.59	13.19	12.17	-145.28	-202.57	114.40	359.75	335.57	24.18	14.877	
3,400.00	3,354.35	3,390.66	3,371.82	13.68	12.58	-145.27	-215.72	115.26	373.03	348.03	25.00	14.921	
3,500.00	3,451.97	3,489.77	3,470.06	14.17	12.99	-145.25	-228.87	116.13	386.31	360.49	25.82	14.962	
3,600.00	3,549.60	3,588.89	3,568.29	14.66	13.40	-145.24	-242.03	117.00	399.59	372.95	26.64	14.999	
3,700.00	3,647.22	3,688.00	3,666.52	15.16	13.81	-145.22	-255.18	117.86	412.86	385.40	27.46	15.034	
3,800.00	3,744.85	3,787.12	3,764.76	15.65	14.22	-145.21	-268.33	118.73	426.14	397.86	28.29	15.065	
3,900.00	3,842.47	3,886.23	3,862.99	16.15	14.63	-145.20	-281.48	119.60	439.42	410.31	29.11	15.094	
4,000.00	3,940.10	3,985.34	3,961.23	16.64	15.04	-145.19	-294.63	120.46	452.70	422.76	29.94	15.122	
4,100.00	4,037.72	4,084.46	4,059.46	17.14	15.45	-145.18	-307.79	121.33	465.98	435.21	30.76	15.147	
4,200.00	4,135.35	4,183.57	4,157.69	17.64	15.87	-145.17	-320.94	122.20	479.25	447.66	31.59	15.170	
4,300.00	4,232.97	4,282.69	4,255.93	18.14	16.28	-145.16	-334.09	123.06	492.53	460.11	32.42	15.192	
4,400.00	4,330.60	4,381.80	4,354.16	18.63	16.69	-145.15	-347.24	123.93	505.81	472.56	33.25	15.213	
4,500.00	4,428.22	4,480.92	4,452.40	19.13	17.11	-145.14	-360.39	124.80	519.09	485.01	34.08	15.232	
4,600.00	4,525.85	4,580.03	4,550.63	19.63	17.52	-145.13	-373.54	125.66	532.37	497.46	34.91	15.250	
4,700.00	4,623.47	4,679.15	4,648.87	20.13	17.93	-145.12	-386.70	126.53	545.64	509.90	35.74	15.267	
4,800.00	4,721.10	4,778.26	4,747.10	20.64	18.35	-145.12	-399.85	127.40	558.92	522.35	36.57	15.282	
4,900.00	4,818.72	4,877.38	4,845.33	21.14	18.76	-145.11	-413.00	128.26	572.20	534.79	37.41	15.297	
5,000.00	4,916.35	4,976.49	4,943.57	21.64	19.18	-145.10	-426.15	129.13	585.48	547.24	38.24	15.311	
5,100.00	5,013.97	5,075.60	5,041.80	22.14	19.59	-145.10	-439.30	130.00	598.75	559.68	39.07	15.325	
5,200.00	5,111.60	5,174.72	5,140.04	22.64	20.01	-145.09	-452.46	130.86	612.03	572.13	39.91	15.337	
5,300.00	5,209.22	5,273.83	5,238.27	23.15	20.42	-145.09	-465.61	131.73	625.31	584.57	40.74	15.349	
5,400.00	5,306.85	5,372.95	5,336.51	23.65	20.84	-145.08	-478.76	132.60	638.59	597.02	41.57	15.360	
5,500.00	5,404.47	5,472.06	5,434.74	24.15	21.25	-145.08	-491.91	133.46	651.87	609.46	42.41	15.371	
5,600.00	5,502.10	5,571.18	5,532.97	24.66	21.67	-145.07	-505.06	134.33	665.15	621.90	43.24	15.381	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 613H - Original Hole - rev0													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,700.00	5,599.72	5,670.29	5,631.21	25.16	22.08	-145.07	-518.21	135.20	678.42	634.34	44.08	15.391		
5,800.00	5,697.36	5,769.41	5,729.45	25.66	22.50	-145.09	-531.37	136.06	691.67	646.75	44.92	15.399		
5,900.00	5,795.63	5,868.82	5,827.97	26.13	22.92	-145.11	-544.56	136.93	702.28	656.52	45.75	15.350		
6,000.00	5,894.73	5,957.53	5,916.13	26.55	23.27	-145.03	-554.39	137.58	709.37	662.90	46.47	15.264		
6,100.00	5,994.39	6,046.14	6,004.54	26.92	23.60	-145.00	-560.13	137.96	713.78	666.66	47.13	15.146		
6,200.00	6,094.34	6,135.96	6,094.34	27.22	23.90	-145.02	-561.79	138.07	715.48	667.78	47.70	14.999		
6,300.00	6,194.34	7,225.82	6,786.99	27.48	28.86	-1.97	-575.63	-526.64	652.75	620.86	31.89	20.468		
6,400.00	6,294.18	7,221.05	6,787.02	27.73	28.80	-103.52	-575.53	-521.87	563.72	529.44	34.27	16.447		
6,500.00	6,391.90	7,199.85	6,787.15	27.91	28.54	-113.78	-575.09	-500.67	480.88	443.63	37.26	12.908		
6,600.00	6,484.57	7,131.42	6,784.64	28.03	27.77	-112.43	-573.67	-432.34	407.61	367.00	40.61	10.037		
6,700.00	6,569.37	7,061.17	6,773.71	28.10	27.10	-107.97	-572.22	-363.01	345.63	300.84	44.79	7.717		
6,800.00	6,643.71	6,999.05	6,757.03	28.11	26.61	-102.05	-570.98	-303.21	300.75	252.06	48.69	6.177		
6,900.00	6,705.34	6,940.88	6,735.63	28.08	26.26	-94.09	-569.85	-249.15	278.95	228.57	50.37	5.538		
6,935.05	6,724.12	6,921.62	6,727.35	28.06	26.17	-90.78	-569.49	-231.77	277.36	227.13	50.22	5.522 SF		
7,000.00	6,756.00	6,888.09	6,711.56	28.02	26.02	-84.92	-568.88	-202.20	282.74	233.72	49.02	5.768		
7,100.00	6,796.79	6,829.74	6,682.39	27.98	25.82	-72.96	-567.82	-151.68	308.92	263.10	45.82	6.742		
7,200.00	6,821.13	6,775.82	6,653.57	27.94	25.66	-62.32	-566.88	-106.14	347.18	303.35	43.84	7.920		
7,300.00	6,828.38	6,723.19	6,621.44	28.00	25.52	-53.57	-566.01	-64.49	391.11	347.76	43.35	9.022		
7,400.00	6,828.73	6,675.36	6,589.04	28.61	25.41	-49.53	-565.28	-29.34	441.89	398.15	43.74	10.103		
7,500.00	6,829.08	6,634.41	6,559.05	29.81	25.31	-46.19	-564.70	-1.47	501.30	456.80	44.50	11.265		
7,600.00	6,829.43	6,600.00	6,532.36	31.23	25.23	-43.50	-564.25	20.24	567.79	522.36	45.44	12.496		
7,700.00	6,829.77	6,569.07	6,507.30	32.79	25.15	-41.20	-563.87	38.35	639.94	593.65	46.29	13.824		
7,800.00	6,830.12	6,550.00	6,491.37	34.47	25.10	-39.84	-563.65	48.84	716.67	669.32	47.35	15.137		
7,900.00	6,830.47	6,520.15	6,465.76	36.25	25.02	-37.80	-563.33	64.17	796.82	748.98	47.84	16.657		
8,000.00	6,830.82	6,500.00	6,448.04	38.12	24.97	-36.50	-563.13	73.75	879.92	831.47	48.44	18.163		
8,100.00	6,831.16	6,482.65	6,432.52	40.06	24.92	-35.42	-562.97	81.51	965.33	916.36	48.97	19.712		
8,200.00	6,831.51	6,467.09	6,418.41	42.06	24.88	-34.48	-562.84	88.05	1,052.65	1,003.23	49.42	21.300		
8,300.00	6,831.86	6,450.00	6,402.71	44.12	24.83	-33.49	-562.69	94.80	1,141.53	1,091.79	49.74	22.948		
8,400.00	6,832.21	6,450.00	6,402.71	46.23	24.83	-33.49	-562.69	94.80	1,231.79	1,181.56	50.24	24.519		
8,500.00	6,832.55	6,429.64	6,383.75	48.37	24.77	-32.36	-562.54	102.23	1,322.95	1,272.56	50.39	26.253		
8,600.00	6,832.90	6,419.54	6,374.25	50.56	24.74	-31.81	-562.47	105.66	1,415.13	1,364.50	50.63	27.950		
8,700.00	6,833.25	6,400.00	6,355.71	52.78	24.69	-30.80	-562.34	111.82	1,508.23	1,457.49	50.74	29.727		
8,800.00	6,833.60	6,400.00	6,355.71	55.02	24.69	-30.80	-562.34	111.82	1,601.75	1,550.75	51.00	31.407		
8,900.00	6,833.94	6,400.00	6,355.71	57.29	24.69	-30.80	-562.34	111.82	1,696.01	1,644.79	51.22	33.112		
9,000.00	6,834.29	6,400.00	6,355.71	59.59	24.69	-30.80	-562.34	111.82	1,790.89	1,739.49	51.41	34.838		
9,100.00	6,834.64	6,380.87	6,337.37	61.90	24.63	-29.86	-562.23	117.24	1,885.89	1,834.45	51.44	36.659		
9,200.00	6,834.99	6,374.90	6,331.60	64.23	24.61	-29.57	-562.20	118.81	1,981.47	1,929.91	51.56	38.433		

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 615H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 385-MWD, 4923-MWD, 16695-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
+N/-S (ft)	+E/-W (ft)												
0.00	0.00	0.00	0.00	0.00	0.00	53.43	47.57	64.13	80.75				
100.00	100.00	88.26	88.26	0.13	0.15	53.52	47.39	64.09	79.71	79.42	0.29	276.770	
200.00	200.00	188.54	188.54	0.49	0.33	53.82	46.76	63.93	79.21	78.38	0.82	96.514	
300.00	300.00	288.82	288.81	0.85	0.50	54.35	45.66	63.65	78.34	76.99	1.35	57.890	
400.00	400.00	389.08	389.06	1.21	0.68	55.11	44.11	63.26	77.13	75.24	1.89	40.734	
500.00	500.00	489.15	489.11	1.57	1.05	56.24	42.09	62.97	75.75	73.14	2.61	29.000	
600.00	600.00	589.09	589.02	1.93	1.41	57.75	39.61	62.79	74.24	70.91	3.33	22.292	
700.00	700.00	688.97	688.87	2.29	1.77	59.31	37.26	62.78	73.01	68.96	4.05	18.031	
800.00	800.00	788.95	788.82	2.64	2.13	60.90	34.94	62.76	71.83	67.07	4.77	15.066	
900.00	900.00	889.10	888.95	3.00	2.49	62.46	32.65	62.60	70.61	65.13	5.49	12.867	
1,000.00	1,000.00	989.20	989.02	3.36	2.85	64.14	30.18	62.26	69.19	62.98	6.21	11.146	
1,100.00	1,100.00	1,089.25	1,089.03	3.72	3.21	65.92	27.62	61.81	67.70	60.78	6.93	9.773	
1,200.00	1,200.00	1,188.68	1,188.44	4.08	3.57	67.42	25.47	61.23	66.31	58.68	7.64	8.682	
1,209.97	1,209.97	1,198.49	1,198.25	4.11	3.60	-143.99	25.49	61.16	66.28	58.58	7.71	8.602 CC, ES	
1,300.00	1,299.95	1,286.57	1,286.24	4.42	3.89	-147.92	28.79	60.46	69.19	60.89	8.30	8.335 SF	
1,400.00	1,399.63	1,382.26	1,381.33	4.75	4.20	-157.58	39.25	59.63	81.22	72.29	8.92	9.101	
1,500.00	1,498.77	1,476.51	1,474.35	5.09	4.52	-167.25	54.43	59.00	103.83	94.29	9.54	10.881	
1,600.00	1,597.08	1,570.71	1,567.17	5.45	4.85	-173.95	70.50	58.55	134.27	124.08	10.19	13.182	
1,700.00	1,694.72	1,664.19	1,659.29	5.83	5.19	-178.34	86.34	57.96	168.91	158.08	10.83	15.590	
1,800.00	1,792.35	1,757.70	1,751.47	6.24	5.55	-178.76	102.05	57.34	204.06	192.58	11.48	17.770	
1,900.00	1,889.97	1,851.89	1,844.37	6.65	5.91	-176.74	117.61	56.71	239.31	227.16	12.15	19.696	
2,000.00	1,987.60	1,946.85	1,938.11	7.08	6.28	-175.26	132.76	56.01	274.24	261.41	12.83	21.372	
2,100.00	2,085.22	2,039.83	2,029.95	7.52	6.65	-174.16	147.27	55.21	308.95	295.45	13.50	22.882	
2,200.00	2,182.85	2,131.59	2,120.48	7.97	7.02	-173.28	162.18	54.67	344.39	330.22	14.17	24.310	
2,300.00	2,280.47	2,227.09	2,214.73	8.42	7.40	-172.56	177.56	54.26	379.83	364.96	14.87	25.545	
2,400.00	2,378.10	2,320.08	2,306.62	8.88	7.78	-172.04	191.85	53.92	414.70	399.15	15.55	26.662	
2,500.00	2,475.72	2,409.50	2,394.85	9.35	8.15	-171.64	206.38	54.18	450.59	434.38	16.21	27.796	
2,600.00	2,573.35	2,504.51	2,488.59	9.82	8.54	-171.29	221.87	54.59	486.60	469.68	16.92	28.759	
2,700.00	2,670.97	2,601.22	2,584.09	10.29	8.94	-171.00	237.08	54.92	522.10	504.46	17.65	29.589	
2,800.00	2,768.60	2,698.21	2,679.98	10.77	9.34	-170.79	251.64	55.39	557.02	538.65	18.37	30.317	
2,900.00	2,866.22	2,797.11	2,777.86	11.25	9.74	-170.61	265.86	55.65	591.33	572.21	19.12	30.931	
3,000.00	2,963.85	2,890.28	2,870.15	11.73	10.12	-170.47	278.58	55.73	624.93	605.11	19.82	31.535	
3,100.00	3,061.47	2,982.19	2,961.10	12.21	10.50	-170.34	291.88	56.08	659.35	638.84	20.51	32.151	
3,200.00	3,159.10	3,073.94	3,051.93	12.70	10.88	-170.22	304.80	56.30	693.40	672.20	21.20	32.708	
3,300.00	3,256.72	3,158.02	3,134.99	13.19	11.23	-170.12	317.84	56.89	728.83	707.00	21.83	33.386	
3,400.00	3,354.35	3,254.60	3,230.37	13.68	11.64	-170.02	332.96	57.79	764.50	741.93	22.57	33.878	
3,500.00	3,451.97	3,355.21	3,329.84	14.17	12.06	-169.94	348.11	58.58	799.60	776.27	23.33	34.269	
3,600.00	3,549.60	3,462.82	3,436.40	14.66	12.50	-169.86	363.03	58.96	833.51	809.35	24.15	34.512	
3,700.00	3,647.22	3,553.54	3,526.39	15.16	12.87	-169.81	374.59	58.98	866.31	841.47	24.84	34.875	
3,800.00	3,744.85	3,639.00	3,610.96	15.65	13.22	-169.73	386.87	59.04	900.52	875.03	25.49	35.327	
3,900.00	3,842.47	3,740.06	3,710.98	16.15	13.64	-169.62	401.26	58.73	934.53	908.26	26.26	35.582	
4,000.00	3,940.10	3,844.97	3,814.91	16.64	14.07	-169.49	415.50	57.78	967.75	940.68	27.06	35.757	
4,100.00	4,037.72	3,929.14	3,898.36	17.14	14.42	-169.39	426.47	56.72	1,000.42	972.71	27.71	36.102	
4,200.00	4,135.35	4,006.19	3,974.54	17.64	14.74	-169.32	438.02	56.49	1,035.04	1,006.74	28.30	36.574	
4,300.00	4,232.97	4,096.53	4,063.81	18.14	15.13	-169.24	451.90	56.46	1,070.14	1,041.15	28.99	36.909	
4,400.00	4,330.60	4,173.90	4,140.12	18.63	15.46	-169.18	464.58	56.83	1,106.31	1,076.72	29.58	37.396	
4,500.00	4,428.22	4,269.03	4,233.88	19.13	15.87	-169.11	480.70	57.46	1,143.04	1,112.72	30.32	37.700	
4,600.00	4,525.85	4,369.37	4,332.87	19.63	16.31	-169.04	497.09	58.03	1,179.19	1,148.09	31.10	37.919	
4,700.00	4,623.47	4,450.00	4,412.33	20.13	16.66	-169.00	510.76	58.77	1,215.98	1,184.26	31.72	38.340	
4,800.00	4,721.10	4,543.03	4,503.93	20.64	17.07	-168.96	526.95	59.86	1,253.28	1,220.85	32.44	38.638	
4,900.00	4,818.72	4,649.80	4,609.23	21.14	17.53	-168.92	544.62	61.08	1,289.83	1,256.57	33.27	38.772	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 615H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 385-MWD, 4923-MWD, 16695-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
							+N/-S (ft)	+E/-W (ft)					
5,000.00	4,916.35	4,761.48	4,719.62	21.64	18.01	168.91	561.41	62.16	1,324.94	1,290.81	34.13	38.821	
5,100.00	5,013.97	4,854.22	4,811.37	22.14	18.35	168.92	574.92	63.33	1,359.77	1,324.97	34.80	39.079	
5,200.00	5,111.60	4,956.10	4,912.23	22.64	18.56	168.96	589.21	65.06	1,394.26	1,358.93	35.33	39.461	
5,300.00	5,209.22	5,052.71	5,007.94	23.15	18.65	169.00	602.24	66.80	1,428.31	1,392.58	35.73	39.973	
5,400.00	5,306.85	5,145.45	5,099.81	23.65	18.75	169.05	614.76	68.75	1,462.48	1,426.36	36.12	40.488	
5,500.00	5,404.47	5,236.48	5,190.00	24.15	18.85	169.10	626.91	70.76	1,496.56	1,460.04	36.51	40.989	
5,600.00	5,502.10	5,318.47	5,271.14	24.66	18.95	169.14	638.56	72.55	1,531.35	1,494.48	36.87	41.534	
5,700.00	5,599.72	5,413.47	5,365.14	25.16	19.08	169.17	652.20	74.43	1,566.24	1,528.95	37.29	41.999	
5,800.00	5,697.36	5,491.22	5,442.00	25.66	19.19	169.22	663.79	76.16	1,601.66	1,564.02	37.64	42.549	
5,900.00	5,795.63	5,596.99	5,546.52	26.13	19.36	169.42	679.75	78.71	1,634.31	1,596.19	38.12	42.875	
6,000.00	5,894.73	5,730.49	5,678.79	26.55	19.56	169.55	697.60	81.42	1,660.29	1,621.59	38.70	42.897	
6,100.00	5,994.39	5,848.83	5,796.29	26.92	19.73	169.61	711.61	83.54	1,679.84	1,640.63	39.21	42.839	
6,200.00	6,094.34	5,972.41	5,919.18	27.22	19.91	169.61	724.48	85.62	1,692.95	1,653.22	39.72	42.620	
6,300.00	6,194.34	6,068.95	6,050.12	27.48	20.84	14.73	747.29	-97.58	1,700.22	1,659.00	41.22	41.246	
6,400.00	6,294.18	6,163.35	6,145.30	27.73	21.49	-82.36	748.52	-257.61	1,674.83	1,632.16	42.67	39.248	
6,500.00	6,391.90	6,229.54	6,233.35	27.91	21.66	-86.27	748.62	-288.98	1,648.74	1,605.21	43.53	37.880	
6,600.00	6,484.57	6,351.82	6,344.33	28.03	21.79	-89.31	748.61	-308.37	1,626.79	1,582.62	44.17	36.833	
6,700.00	6,569.37	6,442.87	6,439.95	28.10	21.74	-90.65	748.62	-300.55	1,610.42	1,566.00	44.43	36.250	
6,800.00	6,643.71	6,515.97	6,512.58	28.11	21.60	-90.74	748.60	-277.22	1,600.14	1,555.70	44.44	36.008	
6,900.00	6,705.34	6,586.36	6,582.01	28.08	21.37	-89.56	748.33	-234.13	1,595.55	1,551.30	44.25	36.055	
6,947.55	6,730.65	6,639.30	6,638.09	28.05	21.26	-88.72	748.00	-210.92	1,595.02	1,550.83	44.19	36.096	
7,000.00	6,756.00	6,681.00	6,675.74	28.02	21.18	-88.01	747.69	-192.36	1,595.65	1,551.48	44.17	36.126	
7,100.00	6,796.79	6,778.54	6,772.51	27.98	21.06	-86.33	747.15	-161.72	1,600.37	1,556.05	44.33	36.105	
7,200.00	6,821.13	6,754.00	6,746.49	27.94	20.99	-84.72	746.89	-143.14	1,609.10	1,564.33	44.77	35.943	
7,300.00	6,828.38	6,723.00	6,715.05	28.00	20.91	-82.82	746.86	-120.75	1,621.13	1,575.77	45.36	35.739	
7,400.00	6,828.73	6,691.00	6,681.66	28.61	20.84	-82.00	747.26	-98.93	1,637.12	1,591.01	46.11	35.504	
7,500.00	6,829.08	6,660.00	6,657.85	29.81	20.79	-81.16	748.02	-79.10	1,657.89	1,610.90	47.00	35.277	
7,600.00	6,829.43	6,621.13	6,616.74	31.23	20.73	-80.07	749.18	-55.82	1,683.17	1,635.23	47.94	35.112	
7,700.00	6,829.77	6,586.81	6,580.20	32.79	20.68	-79.08	750.03	-36.78	1,712.71	1,663.75	48.96	34.981	
7,800.00	6,830.12	6,552.91	6,547.37	34.47	20.64	-78.09	750.76	-18.97	1,746.38	1,696.37	50.02	34.916	
7,900.00	6,830.47	6,534.00	6,530.04	36.25	20.62	-77.53	751.18	-9.46	1,784.23	1,733.10	51.13	34.896	
8,000.00	6,830.82	6,502.00	6,494.89	38.12	20.58	-76.57	751.86	5.75	1,826.07	1,773.89	52.17	34.999	
8,100.00	6,831.16	6,478.36	6,473.71	40.06	20.56	-75.86	752.24	16.23	1,871.75	1,818.54	53.21	35.175	
8,200.00	6,831.51	6,454.10	6,449.64	42.06	20.53	-75.12	752.45	26.30	1,921.02	1,866.82	54.20	35.444	
8,300.00	6,831.86	6,430.57	6,426.91	44.12	20.51	-74.39	752.34	35.33	1,973.65	1,918.52	55.12	35.804	
8,400.00	6,832.21	6,408.00	6,404.78	46.23	20.48	-73.68	751.81	43.24	2,029.42	1,973.43	55.98	36.250	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 713H - 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 Reference (ft)	Major Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
+N/-S (ft)	+E/-W (ft)												
0.00	0.00	0.00	0.00	0.00	0.00	53.54	59.28	80.24	99.76				
100.00	100.00	100.00	100.00	0.13	0.13	53.54	59.28	80.24	99.76	99.50	0.27	371.072	
200.00	200.00	200.00	200.00	0.49	0.49	53.54	59.28	80.24	99.76	98.78	0.99	101.202	
300.00	300.00	300.00	300.00	0.85	0.85	53.54	59.28	80.24	99.76	98.06	1.70	58.590	
400.00	400.00	400.00	400.00	1.21	1.21	53.54	59.28	80.24	99.76	97.34	2.42	41.230	
500.00	500.00	500.00	500.00	1.57	1.57	53.54	59.28	80.24	99.76	96.63	3.14	31.806	
600.00	600.00	600.00	600.00	1.93	1.93	53.54	59.28	80.24	99.76	95.91	3.85	25.889	
700.00	700.00	700.00	700.00	2.29	2.29	53.54	59.28	80.24	99.76	95.19	4.57	21.828	
800.00	800.00	800.00	800.00	2.64	2.64	53.54	59.28	80.24	99.76	94.48	5.29	18.868	
900.00	900.00	900.00	900.00	3.00	3.00	53.54	59.28	80.24	99.76	93.76	6.00	16.615	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	53.54	59.28	80.24	99.76	93.04	6.72	14.843	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	53.54	59.28	80.24	99.76	92.33	7.44	13.412	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	53.54	59.28	80.24	99.76	91.61	8.16	12.233 CC, ES	
1,300.00	1,299.95	1,295.02	1,294.98	4.42	4.42	-158.66	61.20	81.62	104.57	95.74	8.83	11.843 SF	
1,400.00	1,399.63	1,391.73	1,391.47	4.75	4.76	-160.80	66.43	85.39	118.31	108.81	9.50	12.457	
1,500.00	1,498.77	1,489.68	1,489.18	5.09	5.11	-163.16	72.10	89.47	137.60	127.41	10.18	13.514	
1,600.00	1,597.08	1,586.45	1,585.70	5.45	5.46	-165.36	77.69	93.50	162.02	151.15	10.86	14.912	
1,700.00	1,694.72	1,682.31	1,681.31	5.83	5.81	-167.33	83.24	97.50	189.87	178.33	11.54	16.447	
1,800.00	1,792.35	1,778.15	1,776.91	6.24	6.16	-168.84	88.78	101.49	217.96	205.74	12.22	17.835	
1,900.00	1,889.97	1,875.26	1,873.77	6.65	6.51	-170.01	94.37	105.52	246.13	233.22	12.91	19.064	
2,000.00	1,987.60	1,987.13	1,985.55	7.08	6.91	-171.00	97.72	107.93	271.10	257.41	13.68	19.810	
2,100.00	2,085.22	2,086.80	2,085.22	7.52	7.27	-171.68	97.76	107.96	292.58	278.18	14.39	20.326	
2,200.00	2,182.85	2,184.43	2,182.85	7.97	7.62	-172.25	97.76	107.96	314.04	298.94	15.10	20.800	
2,300.00	2,280.47	2,282.05	2,280.47	8.42	7.96	-172.75	97.76	107.96	335.53	319.72	15.80	21.229	
2,400.00	2,378.10	2,379.68	2,378.10	8.88	8.31	-173.19	97.76	107.96	357.04	340.52	16.51	21.621	
2,500.00	2,475.72	2,477.30	2,475.72	9.35	8.66	-173.58	97.76	107.96	378.56	361.34	17.22	21.978	
2,600.00	2,573.35	2,574.93	2,573.35	9.82	9.01	-173.93	97.76	107.96	400.10	382.17	17.94	22.306	
2,700.00	2,670.97	2,672.55	2,670.97	10.29	9.36	-174.24	97.76	107.96	421.66	403.01	18.65	22.608	
2,800.00	2,768.60	2,770.18	2,768.60	10.77	9.71	-174.52	97.76	107.96	443.22	423.86	19.37	22.886	
2,900.00	2,866.22	2,867.80	2,866.22	11.25	10.06	-174.77	97.76	107.96	464.80	444.72	20.08	23.144	
3,000.00	2,963.85	2,965.43	2,963.85	11.73	10.40	-175.01	97.76	107.96	486.38	465.58	20.80	23.383	
3,100.00	3,061.47	3,063.05	3,061.47	12.21	10.75	-175.22	97.76	107.96	507.97	486.45	21.52	23.605	
3,200.00	3,159.10	3,160.68	3,159.10	12.70	11.10	-175.41	97.76	107.96	529.57	507.33	22.24	23.813	
3,300.00	3,256.72	3,258.30	3,256.72	13.19	11.45	-175.59	97.76	107.96	551.17	528.21	22.96	24.007	
3,400.00	3,354.35	3,355.93	3,354.35	13.68	11.80	-175.76	97.76	107.96	572.77	549.09	23.68	24.188	
3,500.00	3,451.97	3,453.55	3,451.97	14.17	12.15	-175.91	97.76	107.96	594.38	569.98	24.40	24.358	
3,600.00	3,549.60	3,551.18	3,549.60	14.66	12.50	-176.06	97.76	107.96	616.00	590.87	25.12	24.518	
3,700.00	3,647.22	3,648.80	3,647.22	15.16	12.85	-176.19	97.76	107.96	637.62	611.77	25.85	24.669	
3,800.00	3,744.85	3,746.43	3,744.85	15.65	13.20	-176.32	97.76	107.96	659.24	632.67	26.57	24.811	
3,900.00	3,842.47	3,844.05	3,842.47	16.15	13.55	-176.43	97.76	107.96	680.86	653.56	27.29	24.945	
4,000.00	3,940.10	3,941.68	3,940.10	16.64	13.90	-176.54	97.76	107.96	702.49	674.47	28.02	25.071	
4,100.00	4,037.72	4,039.30	4,037.72	17.14	14.25	-176.65	97.76	107.96	724.11	695.37	28.74	25.192	
4,200.00	4,135.35	4,136.93	4,135.35	17.64	14.60	-176.74	97.76	107.96	745.74	716.27	29.47	25.306	
4,300.00	4,232.97	4,234.55	4,232.97	18.14	14.94	-176.84	97.76	107.96	767.38	737.18	30.19	25.414	
4,400.00	4,330.60	4,332.18	4,330.60	18.63	15.29	-176.92	97.76	107.96	789.01	758.09	30.92	25.517	
4,500.00	4,428.22	4,429.80	4,428.22	19.13	15.64	-177.01	97.76	107.96	810.65	779.00	31.65	25.615	
4,600.00	4,525.85	4,527.43	4,525.85	19.63	15.99	-177.08	97.76	107.96	832.28	799.91	32.37	25.709	
4,700.00	4,623.47	4,625.05	4,623.47	20.13	16.34	-177.16	97.76	107.96	853.92	820.82	33.10	25.798	
4,800.00	4,721.10	4,722.68	4,721.10	20.64	16.69	-177.23	97.76	107.96	875.56	841.73	33.83	25.883	
4,900.00	4,818.72	4,820.30	4,818.72	21.14	17.04	-177.29	97.76	107.96	897.20	862.65	34.56	25.964	
5,000.00	4,916.35	4,917.93	4,916.35	21.64	17.39	-177.36	97.76	107.96	918.85	883.56	35.28	26.042	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 713H - Original Hole - rev0												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,013.97	5,015.55	5,013.97	22.14	17.74	-177.42	97.76	107.96	940.49	904.48	36.01	26.117	
5,200.00	5,111.60	5,113.18	5,111.60	22.64	18.09	-177.48	97.76	107.96	962.13	925.39	36.74	26.188	
5,300.00	5,209.22	5,210.80	5,209.22	23.15	18.44	-177.53	97.76	107.96	983.78	946.31	37.47	26.257	
5,400.00	5,306.85	5,308.43	5,306.85	23.65	18.79	-177.59	97.76	107.96	1,005.42	967.23	38.20	26.323	
5,500.00	5,404.47	5,406.05	5,404.47	24.15	19.14	-177.64	97.76	107.96	1,027.07	988.15	38.92	26.386	
5,600.00	5,502.10	5,503.68	5,502.10	24.66	19.49	-177.69	97.76	107.96	1,048.72	1,009.06	39.65	26.447	
5,700.00	5,599.72	5,601.30	5,599.72	25.16	19.84	-177.73	97.76	107.96	1,070.37	1,029.98	40.38	26.505	
5,800.00	5,697.36	5,698.93	5,697.36	25.66	20.19	-177.78	97.76	107.96	1,091.97	1,050.86	41.11	26.561	
5,900.00	5,795.63	5,797.21	5,795.63	26.13	20.54	-177.84	97.76	107.96	1,110.41	1,068.57	41.84	26.541	
6,000.00	5,894.73	5,896.31	5,894.73	26.55	20.90	-177.88	97.76	107.96	1,123.68	1,081.13	42.56	26.404	
6,100.00	5,994.39	6,967.61	6,586.86	26.92	27.47	148.24	84.29	-538.82	1,103.71	1,058.36	45.35	24.339	
6,200.00	6,094.34	6,968.52	6,586.86	27.22	27.48	147.31	84.27	-539.73	1,055.55	1,008.29	47.26	22.333	
6,300.00	6,194.34	6,967.89	6,586.86	27.48	27.48	-1.34	84.29	-539.10	1,012.77	963.76	49.00	20.667	
6,400.00	6,294.18	6,963.12	6,586.89	27.73	27.41	-93.00	84.38	-534.33	978.47	928.02	50.46	19.392	
6,500.00	6,391.90	6,938.17	6,586.94	27.91	27.09	-94.03	84.90	-509.38	954.08	902.85	51.23	18.625	
6,600.00	6,484.57	6,894.42	6,584.70	28.03	26.55	-92.95	85.81	-465.72	939.81	888.53	51.27	18.330	
6,700.00	6,569.37	6,848.62	6,578.80	28.10	26.01	-90.86	86.76	-420.32	935.15	884.26	50.89	18.378	
6,701.47	6,570.54	6,847.94	6,578.68	28.10	26.01	-90.83	86.77	-419.65	935.15	884.27	50.88	18.380	
6,800.00	6,643.71	6,800.00	6,568.59	28.11	25.48	-87.88	87.75	-372.81	939.14	888.97	50.17	18.719	
6,900.00	6,705.34	6,750.00	6,553.92	28.08	24.98	-84.28	88.74	-325.03	950.37	901.05	49.33	19.267	
7,000.00	6,756.00	6,708.18	6,538.49	28.02	24.60	-81.64	89.55	-286.18	967.73	919.08	48.65	19.891	
7,100.00	6,796.79	6,664.85	6,519.57	27.98	24.24	-77.40	90.36	-247.23	990.44	942.37	48.08	20.601	
7,200.00	6,821.13	6,603.70	6,489.27	27.94	23.78	-72.52	91.47	-194.12	1,015.61	968.12	47.50	21.383	
7,300.00	6,828.38	6,550.00	6,461.48	28.00	23.43	-68.70	92.43	-148.20	1,040.12	992.71	47.41	21.939	
7,400.00	6,828.73	6,500.00	6,432.05	28.61	23.15	-67.16	93.27	-107.80	1,067.62	1,020.04	47.57	22.441	
7,500.00	6,829.08	6,465.19	6,409.54	29.81	22.97	-66.00	93.82	-81.26	1,100.50	1,052.45	48.05	22.904	
7,600.00	6,829.43	6,430.04	6,385.21	31.23	22.81	-64.78	94.35	-55.90	1,138.81	1,090.28	48.54	23.464	
7,700.00	6,829.77	6,400.00	6,363.23	32.79	22.68	-63.70	94.77	-35.44	1,182.40	1,133.30	49.10	24.084	
7,800.00	6,830.12	6,371.05	6,341.06	34.47	22.56	-62.62	95.16	-16.85	1,230.99	1,181.35	49.64	24.796	
7,900.00	6,830.47	6,350.00	6,324.35	36.25	22.47	-61.83	95.43	-4.04	1,284.29	1,234.03	50.26	25.552	
8,000.00	6,830.82	6,324.23	6,303.28	38.12	22.38	-60.84	95.74	10.80	1,341.89	1,291.13	50.75	26.439	
8,100.00	6,831.16	6,300.00	6,282.88	40.06	22.29	-59.91	96.01	23.87	1,403.45	1,352.24	51.21	27.404	
8,200.00	6,831.51	6,300.00	6,282.88	42.06	22.29	-59.91	96.01	23.87	1,468.72	1,416.83	51.89	28.303	
8,300.00	6,831.86	6,270.54	6,257.36	44.12	22.18	-58.76	96.32	38.57	1,536.85	1,484.68	52.18	29.456	
8,400.00	6,832.21	6,250.00	6,239.14	46.23	22.11	-57.96	96.51	48.05	1,608.07	1,555.56	52.50	30.629	
8,500.00	6,832.55	6,250.00	6,239.14	48.37	22.11	-57.96	96.51	48.05	1,681.82	1,628.84	52.98	31.745	
8,600.00	6,832.90	6,230.70	6,221.71	50.56	22.04	-57.20	96.69	56.35	1,757.80	1,704.57	53.23	33.025	
8,700.00	6,833.25	6,219.66	6,211.63	52.78	22.01	-56.77	96.78	60.83	1,835.87	1,782.37	53.50	34.315	
8,800.00	6,833.60	6,200.00	6,193.46	55.02	21.94	-56.01	96.94	68.32	1,915.85	1,862.18	53.67	35.696	
8,900.00	6,833.94	6,200.00	6,193.46	57.29	21.94	-56.01	96.94	68.32	1,997.28	1,943.31	53.96	37.013	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 715H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 385-MWD, 6028-MWD, 16578-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	53.53	35.50	48.03	60.91				
100.00	100.00	88.16	88.16	0.13	0.15	53.70	35.28	48.04	59.60	59.31	0.29	206.896	
200.00	200.00	188.34	188.33	0.49	0.33	54.31	34.53	48.07	59.19	58.36	0.82	72.094	
300.00	300.00	288.50	288.49	0.85	0.50	55.37	33.23	48.12	58.48	57.13	1.35	43.198	
400.00	400.00	388.63	388.60	1.21	0.68	56.92	31.39	48.19	57.52	55.62	1.89	30.378	
500.00	500.00	488.57	488.52	1.57	1.05	58.87	29.29	48.48	56.65	54.03	2.61	21.686	
600.00	600.00	588.55	588.47	1.93	1.41	61.07	26.97	48.79	55.75	52.42	3.33	16.735	
700.00	700.00	688.64	688.54	2.29	1.77	63.04	24.86	48.89	54.85	50.80	4.05	13.541	
800.00	800.00	788.65	788.53	2.64	2.13	64.77	22.96	48.73	53.87	49.10	4.77	11.295	
900.00	900.00	888.57	888.43	3.00	2.49	66.36	21.24	48.53	52.97	47.49	5.49	9.655	
1,000.00	1,000.00	988.88	988.73	3.36	2.85	67.99	19.53	48.32	52.12	45.92	6.21	8.398	
1,100.00	1,100.00	1,089.76	1,089.48	3.72	3.22	72.88	14.63	47.49	49.72	42.78	6.93	7.170	
1,200.00	1,200.00	1,189.46	1,188.56	4.08	3.60	85.43	3.77	47.20	47.36	39.68	7.68	6.170	
1,217.25	1,217.25	1,206.55	1,205.48	4.14	3.67	-123.02	1.31	47.19	47.25	39.45	7.80	6.056 CC, ES	
1,300.00	1,299.95	1,288.17	1,285.89	4.42	4.00	-109.10	-12.65	47.19	49.70	41.29	8.41	5.910 SF	
1,400.00	1,399.63	1,385.78	1,381.20	4.75	4.42	-95.61	-33.64	47.43	58.72	49.61	9.11	6.446	
1,500.00	1,498.77	1,482.04	1,474.02	5.09	4.87	-87.04	-59.11	48.46	73.28	63.49	9.79	7.486	
1,600.00	1,597.08	1,578.79	1,566.26	5.45	5.37	-83.00	-88.18	50.70	91.42	80.89	10.53	8.684	
1,700.00	1,694.72	1,677.15	1,659.90	5.83	5.89	-82.23	-118.21	53.31	109.87	98.52	11.36	9.674	
1,800.00	1,792.35	1,775.75	1,753.86	6.24	6.43	-81.88	-147.99	55.85	128.07	115.84	12.22	10.478	
1,900.00	1,889.97	1,874.58	1,848.17	6.65	6.98	-81.78	-177.41	58.48	146.04	132.92	13.11	11.136	
2,000.00	1,987.60	1,973.67	1,942.91	7.08	7.53	-81.87	-206.30	61.11	163.62	149.59	14.03	11.664	
2,100.00	2,085.22	2,072.66	2,037.75	7.52	8.08	-82.11	-234.58	63.75	180.83	165.88	14.95	12.094	
2,200.00	2,182.85	2,171.62	2,132.68	7.97	8.64	-82.44	-262.37	66.50	197.82	181.93	15.89	12.450	
2,300.00	2,280.47	2,271.33	2,228.45	8.42	9.20	-82.77	-289.99	69.12	214.46	197.62	16.85	12.731	
2,400.00	2,378.10	2,371.11	2,324.49	8.88	9.75	-83.17	-316.99	71.58	230.58	212.77	17.81	12.947	
2,500.00	2,475.72	2,470.12	2,419.93	9.35	10.30	-83.63	-343.20	74.09	246.40	227.63	18.77	13.127	
2,600.00	2,573.35	2,569.78	2,516.17	9.82	10.85	-84.19	-368.92	76.83	262.01	242.26	19.75	13.269	
2,700.00	2,670.97	2,669.35	2,612.46	10.29	11.39	-84.78	-394.12	79.56	277.33	256.61	20.72	13.383	
2,800.00	2,768.60	2,769.54	2,709.47	10.77	11.93	-85.37	-419.01	82.20	292.32	270.61	21.71	13.464	
2,900.00	2,866.22	2,869.54	2,806.44	11.25	12.47	-85.94	-443.34	84.46	306.73	284.02	22.70	13.511	
3,000.00	2,963.85	2,966.64	2,900.19	11.73	13.00	-86.14	-468.60	86.01	321.58	297.93	23.66	13.592	
3,100.00	3,061.47	3,066.56	2,996.51	12.21	13.56	-86.17	-495.14	86.99	336.26	311.60	24.66	13.639	
3,200.00	3,159.10	3,165.02	3,091.16	12.70	14.12	-86.03	-522.26	87.55	351.16	325.53	25.63	13.700	
3,300.00	3,256.72	3,262.66	3,185.09	13.19	14.68	-85.93	-548.88	87.94	365.78	339.17	26.61	13.746	
3,400.00	3,354.35	3,356.30	3,274.62	13.68	15.23	-85.61	-576.32	88.60	381.82	354.28	27.54	13.866	
3,500.00	3,451.97	3,456.26	3,370.07	14.17	15.82	-85.27	-606.00	89.53	398.30	369.76	28.54	13.956	
3,600.00	3,549.60	3,559.12	3,468.73	14.66	16.42	-85.13	-635.05	90.54	413.97	384.39	29.58	13.995	
3,700.00	3,647.22	3,655.58	3,561.53	15.16	16.98	-85.12	-661.36	91.53	429.11	398.55	30.55	14.045	
3,800.00	3,744.85	3,752.21	3,654.04	15.65	17.54	-84.95	-689.24	92.71	445.32	413.80	31.52	14.128	
3,900.00	3,842.47	3,854.01	3,751.84	16.15	18.13	-84.94	-717.47	94.39	461.23	428.68	32.55	14.169	
4,000.00	3,940.10	3,950.01	3,844.27	16.64	18.68	-85.03	-743.32	96.20	476.85	443.33	33.52	14.224	
4,100.00	4,037.72	4,047.89	3,938.10	17.14	19.25	-84.95	-771.15	97.84	493.20	458.68	34.51	14.290	
4,200.00	4,135.35	4,151.80	4,038.03	17.64	19.85	-85.00	-799.57	99.78	509.05	473.48	35.57	14.311	
4,300.00	4,232.97	4,248.30	4,131.06	18.14	20.40	-85.11	-825.13	101.60	524.41	487.85	36.55	14.347	
4,400.00	4,330.60	4,347.64	4,226.44	18.63	20.98	-85.06	-852.88	102.84	540.11	502.55	37.56	14.380	
4,500.00	4,428.22	4,448.36	4,323.11	19.13	21.56	-84.97	-881.12	103.67	555.53	516.95	38.58	14.398	
4,600.00	4,525.85	4,551.65	4,422.46	19.63	22.16	-84.94	-909.38	104.33	570.39	530.76	39.63	14.391	
4,700.00	4,623.47	4,652.75	4,519.91	20.13	22.73	-84.95	-936.27	104.65	584.55	543.89	40.66	14.376	
4,800.00	4,721.10	4,744.56	4,608.16	20.64	23.26	-84.89	-961.61	105.00	599.34	557.75	41.59	14.411	
4,900.00	4,818.72	4,848.16	4,707.72	21.14	23.86	-84.83	-990.22	105.61	614.33	571.68	42.65	14.405	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 715H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 385-MWD, 6028-MWD, 16578-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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		
5,000.00	4,916.35	4,952.71	4,808.63	21.64	24.45	-84.88	-1,017.57	105.93	628.20	584.49	43.71	14.372		
5,100.00	5,013.97	5,052.35	4,904.67	22.14	25.01	-84.86	-1,044.13	105.75	641.99	597.27	44.72	14.356		
5,200.00	5,111.60	5,160.80	5,009.46	22.64	25.61	-84.89	-1,072.06	105.09	654.90	609.08	45.81	14.295		
5,300.00	5,209.22	5,266.79	5,112.49	23.15	26.17	-85.10	-1,096.89	104.44	666.40	619.52	46.88	14.216		
5,400.00	5,306.85	5,371.91	5,215.09	23.65	26.70	-85.43	-1,119.76	104.08	677.17	629.24	47.93	14.129		
5,500.00	5,404.47	5,480.88	5,321.85	24.15	27.24	-85.89	-1,141.59	103.55	686.84	637.83	49.00	14.016		
5,600.00	5,502.10	5,584.04	5,423.22	24.66	27.72	-86.42	-1,160.71	102.84	695.52	645.48	50.03	13.901		
5,700.00	5,599.72	5,713.06	5,550.59	25.16	28.28	-87.26	-1,181.12	101.34	702.47	651.30	51.17	13.729		
5,800.00	5,697.36	5,839.64	5,676.67	25.66	28.72	-88.67	-1,191.74	98.71	704.49	652.27	52.21	13.493		
5,900.00	5,795.63	5,944.19	5,781.06	26.13	29.05	-89.79	-1,196.98	96.30	704.96	651.83	53.13	13.268		
6,000.00	5,894.73	6,051.35	5,888.12	26.55	29.19	-90.56	-1,200.87	93.65	704.76	650.99	53.76	13.109		
6,100.00	5,994.39	6,148.11	6,000.00	26.92	29.75	-74.48	-1,215.43	-206.29	690.83	654.21	36.62	18.863		
6,200.00	6,094.34	6,202.47	6,053.24	27.22	30.76	-39.00	-1,222.20	-467.75	610.69	580.67	30.02	20.343		
6,300.00	6,194.34	6,260.90	6,106.54	27.48	30.88	175.70	-1,222.93	-489.12	535.38	502.19	33.19	16.132		
6,400.00	6,294.18	6,318.92	6,154.54	27.73	30.88	92.00	-1,222.93	-489.14	469.14	431.55	37.59	12.480		
6,500.00	6,391.90	6,372.62	6,203.36	27.91	30.75	94.84	-1,222.18	-466.89	416.73	374.16	42.57	9.789		
6,600.00	6,484.57	6,465.38	6,296.80	28.03	30.56	93.12	-1,220.90	-430.85	383.17	336.22	46.96	8.160		
6,700.00	6,569.37	6,550.78	6,383.39	28.10	30.38	88.68	-1,219.59	-391.81	371.60	322.42	49.17	7.557		
6,701.83	6,570.83	6,551.94	6,384.55	28.10	30.38	88.57	-1,219.57	-391.08	371.59	322.41	49.19	7.555		
6,800.00	6,643.71	6,624.06	6,457.62	28.11	30.21	81.95	-1,218.42	-350.24	381.37	332.47	48.90	7.799		
6,900.00	6,705.34	6,686.63	6,530.80	28.08	30.06	74.04	-1,217.53	-309.82	407.99	360.69	47.30	8.626		
7,000.00	6,756.00	6,737.01	6,621.01	28.02	29.93	68.00	-1,216.81	-272.41	447.17	401.41	45.75	9.773		
7,100.00	6,796.79	6,777.85	6,661.82	27.98	29.83	59.28	-1,216.08	-237.92	495.12	450.21	44.91	11.025		
7,200.00	6,821.13	6,792.54	6,686.58	27.94	29.70	50.25	-1,215.11	-186.13	544.39	499.90	44.49	12.235		
7,300.00	6,828.38	6,799.03	6,693.01	28.00	29.62	44.48	-1,214.36	-148.22	590.36	545.03	45.33	13.024		
7,400.00	6,828.73	6,799.76	6,693.98	28.61	29.55	42.60	-1,213.37	-117.58	639.72	593.03	46.69	13.702		
7,500.00	6,829.08	6,799.00	6,694.04	29.81	29.49	40.46	-1,212.15	-85.70	695.90	648.00	47.90	14.529		
7,600.00	6,829.43	6,799.50	6,694.34	31.23	29.45	38.97	-1,211.46	-64.61	757.93	708.57	49.37	15.353		
7,700.00	6,829.77	6,799.99	6,694.78	32.79	29.42	37.88	-1,211.09	-49.74	824.94	774.08	50.86	16.220		
7,800.00	6,830.12	6,799.00	6,694.78	34.47	29.40	36.60	-1,210.66	-32.45	896.05	844.03	52.02	17.224		
7,900.00	6,830.47	6,799.00	6,694.98	36.25	29.38	35.55	-1,210.33	-18.88	970.68	917.57	53.10	18.279		
8,000.00	6,830.82	6,799.00	6,694.98	38.12	29.36	34.64	-1,210.10	-7.39	1,048.40	994.34	54.05	19.395		
8,100.00	6,831.16	6,799.00	6,694.98	40.06	29.35	33.84	-1,209.88	2.40	1,128.69	1,073.81	54.88	20.566		
8,200.00	6,831.51	6,799.00	6,694.98	42.06	29.34	33.32	-1,209.71	8.55	1,211.17	1,155.51	55.66	21.760		
8,300.00	6,831.86	6,799.00	6,694.98	44.12	29.32	32.03	-1,209.09	23.12	1,295.49	1,239.39	56.10	23.093		
8,400.00	6,832.21	6,799.00	6,694.98	46.23	29.32	32.03	-1,209.09	23.12	1,381.29	1,324.50	56.80	24.320		
8,500.00	6,832.55	6,799.00	6,694.98	48.37	29.31	31.20	-1,208.54	31.95	1,468.46	1,411.26	57.20	25.673		
8,600.00	6,832.90	6,799.00	6,694.98	50.56	29.30	30.73	-1,208.19	36.72	1,556.84	1,499.23	57.62	27.020		
8,700.00	6,833.25	6,799.00	6,694.98	52.78	29.30	30.22	-1,207.77	41.88	1,646.26	1,588.28	57.97	28.397		
8,800.00	6,833.60	6,799.00	6,694.98	55.02	29.29	29.49	-1,207.17	48.91	1,736.64	1,678.41	58.23	29.823		
8,900.00	6,833.94	6,799.00	6,694.98	57.29	29.29	29.49	-1,207.17	48.91	1,827.70	1,769.12	58.58	31.201		
9,000.00	6,834.29	6,799.00	6,694.98	59.59	29.28	29.05	-1,206.79	53.08	1,919.52	1,860.70	58.81	32.637		
9,100.00	6,834.64	6,799.00	6,694.98	61.90	29.27	28.36	-1,206.23	59.42	2,012.05	1,953.05	59.00	34.102		

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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:		Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 815H - Original Hole - rev1											Offset Site Error:		0.00 ft	
Survey Program:		0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:		0.00 ft
Measured Depth	Vertical Reference	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)					
0.00	0.00	0.00	0.00	0.00	0.00	53.31	23.78	31.92	39.81							
100.00	100.00	100.00	100.00	0.13	0.13	53.31	23.78	31.92	39.81	39.54	0.27	148.062				
200.00	200.00	200.00	200.00	0.49	0.49	53.31	23.78	31.92	39.81	38.82	0.99	40.381				
300.00	300.00	300.00	300.00	0.85	0.85	53.31	23.78	31.92	39.81	38.10	1.70	23.378				
400.00	400.00	400.00	400.00	1.21	1.21	53.31	23.78	31.92	39.81	37.39	2.42	16.451				
500.00	500.00	500.00	500.00	1.57	1.57	53.31	23.78	31.92	39.81	36.67	3.14	12.691				
600.00	600.00	600.00	600.00	1.93	1.93	53.31	23.78	31.92	39.81	35.95	3.85	10.330				
700.00	700.00	700.00	700.00	2.29	2.29	53.31	23.78	31.92	39.81	35.24	4.57	8.710				
800.00	800.00	800.00	800.00	2.64	2.64	53.31	23.78	31.92	39.81	34.52	5.29	7.529				
900.00	900.00	900.00	900.00	3.00	3.00	53.31	23.78	31.92	39.81	33.80	6.00	6.630				
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	53.31	23.78	31.92	39.81	33.09	6.72	5.922				
1,100.00	1,100.00	1,100.38	1,100.33	3.72	3.72	49.56	25.49	29.91	39.30	31.86	7.44	5.285				
1,184.58	1,184.58	1,184.86	1,184.58	4.02	4.02	40.33	29.57	25.10	38.79	30.75	8.04	4.824	CC			
1,200.00	1,200.00	1,200.20	1,199.84	4.08	4.08	38.05	30.57	23.93	38.82	30.67	8.15	4.763	ES			
1,300.00	1,299.95	1,299.05	1,297.86	4.42	4.44	169.46	38.78	14.26	43.94	35.09	8.85	4.966				
1,400.00	1,399.63	1,397.55	1,395.37	4.75	4.80	157.44	47.81	3.62	57.62	48.09	9.54	6.042				
1,500.00	1,498.77	1,495.40	1,492.22	5.09	5.18	151.93	56.79	-6.95	77.33	67.09	10.24	7.554				
1,600.00	1,597.08	1,592.31	1,588.16	5.45	5.56	150.01	65.67	-17.42	101.80	90.85	10.95	9.300				
1,700.00	1,694.72	1,688.49	1,683.37	5.83	5.94	149.79	74.49	-27.81	129.18	117.52	11.66	11.077				
1,800.00	1,792.35	1,784.65	1,778.56	6.24	6.32	149.71	83.31	-38.20	156.62	144.24	12.38	12.651				
1,900.00	1,889.97	1,880.81	1,873.75	6.65	6.70	149.65	92.13	-48.58	184.06	170.95	13.11	14.042				
2,000.00	1,987.60	1,976.98	1,968.94	7.08	7.09	149.61	100.95	-58.97	211.51	197.66	13.84	15.277				
2,100.00	2,085.22	2,073.14	2,064.13	7.52	7.48	149.58	109.77	-69.36	238.95	224.36	14.59	16.381				
2,200.00	2,182.85	2,169.30	2,159.32	7.97	7.87	149.56	118.59	-79.75	266.39	251.06	15.34	17.370				
2,300.00	2,280.47	2,265.46	2,254.51	8.42	8.27	149.54	127.40	-90.13	293.83	277.74	16.09	18.262				
2,400.00	2,378.10	2,361.62	2,349.70	8.88	8.66	149.52	136.22	-100.52	321.28	304.43	16.85	19.070				
2,500.00	2,475.72	2,457.78	2,444.90	9.35	9.06	149.50	145.04	-110.91	348.72	331.11	17.61	19.803				
2,600.00	2,573.35	2,553.94	2,540.09	9.82	9.46	149.49	153.86	-121.30	376.16	357.79	18.37	20.473				
2,700.00	2,670.97	2,650.10	2,635.28	10.29	9.85	149.48	162.68	-131.68	403.61	384.46	19.14	21.085				
2,800.00	2,768.60	2,746.26	2,730.47	10.77	10.25	149.47	171.50	-142.07	431.05	411.14	19.91	21.647				
2,900.00	2,866.22	2,842.42	2,825.66	11.25	10.65	149.46	180.32	-152.46	458.49	437.81	20.69	22.165				
3,000.00	2,963.85	2,938.58	2,920.85	11.73	11.05	149.46	189.13	-162.85	485.94	464.48	21.46	22.644				
3,100.00	3,061.47	3,034.74	3,016.04	12.21	11.45	149.45	197.95	-173.23	513.38	491.14	22.24	23.087				
3,200.00	3,159.10	3,130.90	3,111.23	12.70	11.86	149.44	206.77	-183.62	540.82	517.81	23.01	23.499				
3,300.00	3,256.72	3,227.06	3,206.42	13.19	12.26	149.44	215.59	-194.01	568.27	544.47	23.79	23.882				
3,400.00	3,354.35	3,323.22	3,301.61	13.68	12.66	149.43	224.41	-204.40	595.71	571.13	24.58	24.240				
3,500.00	3,451.97	3,419.39	3,396.80	14.17	13.06	149.43	233.23	-214.78	623.15	597.79	25.36	24.574				
3,600.00	3,549.60	3,515.55	3,491.99	14.66	13.47	149.43	242.05	-225.17	650.59	624.45	26.14	24.888				
3,700.00	3,647.22	3,611.71	3,587.18	15.16	13.87	149.42	250.86	-235.56	678.04	651.11	26.93	25.182				
3,800.00	3,744.85	3,707.87	3,682.37	15.65	14.27	149.42	259.68	-245.94	705.48	677.77	27.71	25.458				
3,900.00	3,842.47	3,804.03	3,777.56	16.15	14.68	149.42	268.50	-256.33	732.92	704.43	28.50	25.719				
4,000.00	3,940.10	3,900.19	3,872.75	16.64	15.08	149.41	277.32	-266.72	760.37	731.08	29.28	25.965				
4,100.00	4,037.72	3,996.35	3,967.94	17.14	15.49	149.41	286.14	-277.11	787.81	757.74	30.07	26.197				
4,200.00	4,135.35	4,092.51	4,063.13	17.64	15.89	149.41	294.96	-287.49	815.25	784.39	30.86	26.417				
4,300.00	4,232.97	4,188.67	4,158.32	18.14	16.30	149.41	303.77	-297.88	842.70	811.05	31.65	26.625				
4,400.00	4,330.60	4,284.83	4,253.51	18.63	16.70	149.40	312.59	-308.27	870.14	837.70	32.44	26.823				
4,500.00	4,428.22	4,380.99	4,348.70	19.13	17.11	149.40	321.41	-318.66	897.58	864.35	33.23	27.011				
4,600.00	4,525.85	4,477.15	4,443.89	19.63	17.51	149.40	330.23	-329.04	925.03	891.00	34.02	27.189				
4,700.00	4,623.47	4,573.31	4,539.08	20.13	17.92	149.40	339.05	-339.43	952.47	917.66	34.81	27.359				
4,800.00	4,721.10	4,669.47	4,634.27	20.64	18.32	149.40	347.87	-349.82	979.91	944.31	35.61	27.522				
4,900.00	4,818.72	4,765.63	4,729.46	21.14	18.73	149.39	356.69	-360.21	1,007.36	970.96	36.40	27.677				

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 815H - 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)	Reference	Offset	Semi Major Axis (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
5,000.00	4,916.35	4,861.79	4,824.65	21.64	19.13	149.39	149.39	365.50	-370.59	1,034.80	997.61	37.19	27.824	
5,100.00	5,013.97	4,957.96	4,919.85	22.14	19.54	149.39	149.39	374.32	-380.98	1,062.24	1,024.26	37.98	27.966	
5,200.00	5,111.60	5,054.12	5,015.04	22.64	19.95	149.39	149.39	383.14	-391.37	1,089.69	1,050.91	38.78	28.101	
5,300.00	5,209.22	5,150.28	5,110.23	23.15	20.35	149.39	149.39	391.96	-401.75	1,117.13	1,077.56	39.57	28.231	
5,400.00	5,306.85	5,246.44	5,205.42	23.65	20.76	149.39	149.39	400.78	-412.14	1,144.57	1,104.21	40.37	28.355	
5,500.00	5,404.47	5,342.60	5,300.61	24.15	21.17	149.39	149.39	409.60	-422.53	1,172.02	1,130.86	41.16	28.475	
5,600.00	5,502.10	5,438.76	5,395.80	24.66	21.57	149.38	149.38	418.42	-432.92	1,199.46	1,157.50	41.95	28.589	
5,700.00	5,599.72	5,534.92	5,490.99	25.16	21.98	149.38	149.38	427.23	-443.30	1,226.90	1,184.15	42.75	28.700	
5,800.00	5,697.36	5,631.09	5,586.19	25.66	22.39	149.44	149.44	436.05	-453.69	1,254.31	1,210.76	43.55	28.805	
5,900.00	5,795.63	5,727.96	5,682.08	26.13	22.79	149.75	149.75	444.94	-464.16	1,279.02	1,234.69	44.33	28.850	
6,000.00	5,894.73	5,825.77	5,778.90	26.55	23.21	149.86	149.86	453.91	-474.72	1,299.34	1,254.23	45.11	28.804	
6,100.00	5,994.39	5,960.91	5,912.92	26.92	23.76	149.73	149.73	465.11	-487.92	1,314.56	1,268.43	46.13	28.495	
6,200.00	6,094.34	6,138.22	6,089.92	27.22	24.39	149.62	149.62	471.04	-494.90	1,320.30	1,273.05	47.25	27.941	
6,300.00	6,194.34	6,242.64	6,194.34	27.48	24.72	0.97	0.97	471.05	-494.92	1,320.31	1,272.41	47.90	27.564	
6,400.00	6,294.18	6,339.51	6,291.13	27.73	25.01	-88.64	-88.64	471.08	-492.20	1,320.28	1,271.81	48.47	27.238	
6,500.00	6,391.90	6,434.49	6,384.46	27.91	25.22	-88.76	-88.76	471.21	-475.19	1,320.22	1,271.32	48.90	26.997	
6,600.00	6,484.57	6,529.94	6,474.14	28.03	25.37	-88.91	-88.91	471.46	-442.81	1,320.15	1,270.92	49.23	26.818	
6,700.00	6,569.37	6,626.00	6,557.71	28.10	25.48	-89.10	-89.10	471.83	-395.67	1,320.07	1,270.58	49.49	26.673	
6,800.00	6,643.71	6,722.79	6,632.76	28.11	25.56	-89.32	-89.32	472.31	-334.75	1,320.00	1,270.23	49.78	26.518	
6,900.00	6,705.34	6,820.41	6,696.99	28.08	25.64	-89.55	-89.55	472.88	-261.40	1,319.95	1,269.76	50.19	26.297	
7,000.00	6,756.00	6,919.38	6,749.44	28.02	25.79	-89.67	-89.67	473.54	-177.55	1,319.93	1,269.08	50.86	25.955	
7,100.00	6,796.79	7,018.65	6,794.73	27.98	26.09	-89.90	-89.90	474.23	-89.32	1,319.91	1,268.06	51.85	25.457	
7,136.59	6,807.65	7,055.09	6,807.60	27.96	26.26	-90.00	-90.00	474.50	-55.23	1,319.91	1,267.59	52.32	25.227	
7,200.00	6,821.13	7,118.60	6,824.76	27.94	26.63	-90.16	-90.16	474.98	5.88	1,319.91	1,266.71	53.21	24.807	
7,300.00	6,828.38	7,219.61	6,837.85	28.00	27.41	-90.41	-90.41	475.76	105.90	1,319.94	1,265.03	54.92	24.035	
7,400.00	6,828.73	7,319.98	6,838.63	28.61	28.40	-90.43	-90.43	476.55	206.26	1,319.95	1,262.97	56.98	23.166	
7,500.00	6,829.08	7,419.98	6,838.97	29.81	29.58	-90.43	-90.43	477.33	306.26	1,319.95	1,260.56	59.39	22.225	
7,600.00	6,829.43	7,519.98	6,839.32	31.23	30.93	-90.43	-90.43	478.12	406.25	1,319.95	1,257.82	62.13	21.245	
7,700.00	6,829.77	7,619.98	6,839.67	32.79	32.43	-90.43	-90.43	478.90	506.25	1,319.95	1,254.79	65.16	20.258	
7,800.00	6,830.12	7,719.98	6,840.02	34.47	34.06	-90.43	-90.43	479.68	606.24	1,319.95	1,251.52	68.43	19.289	
7,900.00	6,830.47	7,819.98	6,840.37	36.25	35.79	-90.43	-90.43	480.47	706.24	1,319.95	1,248.04	71.92	18.354	
8,000.00	6,830.82	7,919.98	6,840.71	38.12	37.62	-90.43	-90.43	481.25	806.24	1,319.95	1,244.37	75.59	17.463	
8,100.00	6,831.16	8,019.98	6,841.06	40.06	39.53	-90.43	-90.43	482.04	906.23	1,319.95	1,240.54	79.42	16.621	
8,200.00	6,831.51	8,119.98	6,841.41	42.06	41.50	-90.43	-90.43	482.82	1,006.23	1,319.95	1,236.57	83.38	15.830	
8,300.00	6,831.86	8,219.98	6,841.76	44.12	43.54	-90.43	-90.43	483.60	1,106.23	1,319.95	1,232.49	87.47	15.091	
8,400.00	6,832.21	8,319.98	6,842.11	46.23	45.63	-90.43	-90.43	484.39	1,206.22	1,319.95	1,228.30	91.65	14.402	
8,500.00	6,832.55	8,419.98	6,842.45	48.37	47.76	-90.43	-90.43	485.17	1,306.22	1,319.95	1,224.03	95.93	13.760	
8,600.00	6,832.90	8,519.98	6,842.80	50.56	49.93	-90.43	-90.43	485.95	1,406.22	1,319.95	1,219.67	100.28	13.162	
8,700.00	6,833.25	8,619.98	6,843.15	52.78	52.14	-90.43	-90.43	486.74	1,506.21	1,319.96	1,215.25	104.70	12.607	
8,800.00	6,833.60	8,719.98	6,843.50	55.02	54.38	-90.43	-90.43	487.52	1,606.21	1,319.96	1,210.77	109.18	12.089	
8,900.00	6,833.94	8,819.98	6,843.84	57.29	56.64	-90.43	-90.43	488.31	1,706.20	1,319.96	1,206.24	113.72	11.607	
9,000.00	6,834.29	8,919.98	6,844.19	59.59	58.92	-90.43	-90.43	489.09	1,806.20	1,319.96	1,201.66	118.30	11.158	
9,100.00	6,834.64	9,019.98	6,844.54	61.90	61.23	-90.43	-90.43	489.87	1,906.20	1,319.96	1,197.04	122.92	10.738	
9,200.00	6,834.99	9,119.98	6,844.89	64.23	63.56	-90.43	-90.43	490.66	2,006.19	1,319.96	1,192.38	127.58	10.346	
9,300.00	6,835.33	9,219.98	6,845.24	66.58	65.90	-90.43	-90.43	491.44	2,106.19	1,319.96	1,187.69	132.27	9.979	
9,400.00	6,835.68	9,319.98	6,845.58	68.94	68.26	-90.43	-90.43	492.22	2,206.19	1,319.96	1,182.97	136.99	9.635	
9,500.00	6,836.03	9,419.98	6,845.93	71.31	70.63	-90.43	-90.43	493.01	2,306.18	1,319.96	1,178.22	141.74	9.313	
9,600.00	6,836.38	9,519.98	6,846.28	73.70	73.01	-90.43	-90.43	493.79	2,406.18	1,319.96	1,173.45	146.51	9.009	
9,700.00	6,836.72	9,619.98	6,846.63	76.09	75.41	-90.43	-90.43	494.57	2,506.17	1,319.96	1,168.66	151.30	8.724	
9,800.00	6,837.07	9,719.98	6,846.97	78.50	77.81	-90.43	-90.43	495.36	2,606.17	1,319.96	1,163.85	156.11	8.455	
9,900.00	6,837.42	9,819.98	6,847.32	80.92	80.22	-90.43	-90.43	496.14	2,706.17	1,319.96	1,159.02	160.95	8.201	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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:		Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 815H - Original Hole - rev1											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				
10,000.00	6,837.77	9,919.98	6,847.67	83.34	82.65	-90.43	496.93	2,806.16	1,319.96	1,154.17	165.79	7.962				
10,100.00	6,838.11	10,019.98	6,848.02	85.77	85.08	-90.43	497.71	2,906.16	1,319.96	1,149.31	170.66	7.735				
10,200.00	6,838.46	10,119.98	6,848.37	88.21	87.51	-90.43	498.49	3,006.16	1,319.96	1,144.43	175.53	7.520				
10,300.00	6,838.81	10,219.98	6,848.71	90.65	89.96	-90.43	499.28	3,106.15	1,319.96	1,139.54	180.42	7.316				
10,400.00	6,839.16	10,319.98	6,849.06	93.10	92.40	-90.43	500.06	3,206.15	1,319.96	1,134.64	185.32	7.123				
10,500.00	6,839.50	10,419.98	6,849.41	95.55	94.86	-90.43	500.84	3,306.15	1,319.97	1,129.73	190.23	6.939				
10,600.00	6,839.85	10,519.98	6,849.76	98.01	97.32	-90.43	501.63	3,406.14	1,319.97	1,124.81	195.15	6.764				
10,700.00	6,840.20	10,619.98	6,850.11	100.48	99.78	-90.43	502.41	3,506.14	1,319.97	1,119.88	200.08	6.597				
10,800.00	6,840.55	10,719.98	6,850.45	102.94	102.25	-90.43	503.20	3,606.13	1,319.97	1,114.95	205.02	6.438				
10,900.00	6,840.89	10,819.98	6,850.80	105.42	104.72	-90.43	503.98	3,706.13	1,319.97	1,110.00	209.97	6.287				
11,000.00	6,841.24	10,919.98	6,851.15	107.89	107.20	-90.43	504.76	3,806.13	1,319.97	1,105.05	214.92	6.142				
11,100.00	6,841.59	11,019.98	6,851.50	110.37	109.68	-90.43	505.55	3,906.12	1,319.97	1,100.09	219.88	6.003				
11,200.00	6,841.94	11,119.98	6,851.84	112.85	112.16	-90.43	506.33	4,006.12	1,319.97	1,095.12	224.85	5.870				
11,300.00	6,842.29	11,219.98	6,852.19	115.34	114.64	-90.43	507.11	4,106.12	1,319.97	1,090.15	229.82	5.743				
11,400.00	6,842.63	11,319.98	6,852.54	117.83	117.13	-90.43	507.90	4,206.11	1,319.97	1,085.17	234.80	5.622				
11,500.00	6,842.98	11,419.98	6,852.89	120.32	119.62	-90.43	508.68	4,306.11	1,319.97	1,080.18	239.79	5.505				
11,600.00	6,843.33	11,519.98	6,853.24	122.81	122.12	-90.43	509.47	4,406.11	1,319.97	1,075.19	244.78	5.393				
11,700.00	6,843.68	11,619.98	6,853.58	125.31	124.61	-90.43	510.25	4,506.10	1,319.97	1,070.20	249.77	5.285				
11,800.00	6,844.02	11,719.98	6,853.93	127.81	127.11	-90.43	511.03	4,606.10	1,319.97	1,065.20	254.77	5.181				
11,900.00	6,844.37	11,819.98	6,854.28	130.31	129.61	-90.43	511.82	4,706.09	1,319.97	1,060.20	259.77	5.081				
12,000.00	6,844.72	11,919.98	6,854.63	132.81	132.12	-90.43	512.60	4,806.09	1,319.97	1,055.20	264.78	4.985				
12,100.00	6,845.07	12,019.98	6,854.97	135.31	134.62	-90.43	513.38	4,906.09	1,319.97	1,050.19	269.79	4.893				
12,200.00	6,845.41	12,119.98	6,855.32	137.82	137.13	-90.43	514.17	5,006.08	1,319.97	1,045.17	274.80	4.803				
12,300.00	6,845.76	12,219.98	6,855.67	140.33	139.63	-90.43	514.95	5,106.08	1,319.97	1,040.16	279.82	4.717				
12,400.00	6,846.11	12,319.98	6,856.02	142.84	142.14	-90.43	515.74	5,206.08	1,319.98	1,035.14	284.84	4.634				
12,500.00	6,846.46	12,419.98	6,856.37	145.35	144.65	-90.43	516.52	5,306.07	1,319.98	1,030.12	289.86	4.554				
12,600.00	6,846.80	12,519.98	6,856.71	147.86	147.17	-90.43	517.30	5,406.07	1,319.98	1,025.09	294.89	4.476				
12,700.00	6,847.15	12,619.98	6,857.06	150.37	149.68	-90.43	518.09	5,506.06	1,319.98	1,020.06	299.91	4.401				
12,800.00	6,847.50	12,719.98	6,857.41	152.89	152.20	-90.43	518.87	5,606.06	1,319.98	1,015.03	304.94	4.329				
12,900.00	6,847.85	12,819.98	6,857.76	155.40	154.71	-90.43	519.65	5,706.06	1,319.98	1,010.00	309.98	4.258				
13,000.00	6,848.19	12,919.98	6,858.11	157.92	157.23	-90.43	520.44	5,806.05	1,319.98	1,004.97	315.01	4.190				
13,100.00	6,848.54	13,019.98	6,858.45	160.44	159.75	-90.43	521.22	5,906.05	1,319.98	999.93	320.05	4.124				
13,200.00	6,848.89	13,119.98	6,858.80	162.96	162.27	-90.43	522.00	6,006.05	1,319.98	994.89	325.09	4.060				
13,300.00	6,849.24	13,219.98	6,859.15	165.48	164.79	-90.43	522.79	6,106.04	1,319.98	989.85	330.13	3.998				
13,400.00	6,849.58	13,319.98	6,859.50	168.00	167.31	-90.43	523.57	6,206.04	1,319.98	984.80	335.18	3.938				
13,500.00	6,849.93	13,419.98	6,859.84	170.52	169.83	-90.43	524.36	6,306.04	1,319.98	979.76	340.22	3.880				
13,600.00	6,850.28	13,519.98	6,860.19	173.04	172.35	-90.43	525.14	6,406.03	1,319.98	974.71	345.27	3.823				
13,700.00	6,850.63	13,619.98	6,860.54	175.57	174.88	-90.43	525.92	6,506.03	1,319.98	969.66	350.32	3.768				
13,800.00	6,850.97	13,719.98	6,860.89	178.09	177.40	-90.43	526.71	6,606.02	1,319.98	964.61	355.37	3.714				
13,900.00	6,851.32	13,819.98	6,861.24	180.62	179.93	-90.43	527.49	6,706.02	1,319.98	959.56	360.42	3.662				
14,000.00	6,851.67	13,919.98	6,861.58	183.14	182.46	-90.43	528.27	6,806.02	1,319.98	954.51	365.47	3.612				
14,100.00	6,852.02	14,019.98	6,861.93	185.67	184.98	-90.43	529.06	6,906.01	1,319.98	949.46	370.53	3.562				
14,200.00	6,852.36	14,119.98	6,862.28	188.20	187.51	-90.43	529.84	7,006.01	1,319.99	944.40	375.58	3.514				
14,300.00	6,852.71	14,219.98	6,862.63	190.72	190.04	-90.43	530.63	7,106.01	1,319.99	939.34	380.64	3.468				
14,400.00	6,853.06	14,319.98	6,862.97	193.25	192.57	-90.43	531.41	7,206.00	1,319.99	934.29	385.70	3.422				
14,500.00	6,853.41	14,419.98	6,863.32	195.78	195.10	-90.43	532.19	7,306.00	1,319.99	929.23	390.76	3.378				
14,600.00	6,853.75	14,519.98	6,863.67	198.31	197.63	-90.43	532.98	7,405.99	1,319.99	924.17	395.82	3.335				
14,700.00	6,854.10	14,619.98	6,864.02	200.84	200.16	-90.43	533.76	7,505.99	1,319.99	919.10	400.88	3.293				
14,800.00	6,854.45	14,719.98	6,864.37	203.37	202.69	-90.43	534.54	7,605.99	1,319.99	914.04	405.95	3.252				
14,900.00	6,854.80	14,819.98	6,864.71	205.91	205.22	-90.43	535.33	7,705.98	1,319.99	908.98	411.01	3.212				
15,000.00	6,855.14	14,919.98	6,865.06	208.44	207.76	-90.43	536.11	7,805.98	1,319.99	903.91	416.08	3.172				

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 815H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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		
15,100.00	6,855.49	15,019.98	6,865.41	210.97	210.29	-90.43	536.90	7,905.98	1,319.99	898.85	421.14	3.134		
15,200.00	6,855.84	15,119.98	6,865.76	213.50	212.82	-90.43	537.68	8,005.97	1,319.99	893.78	426.21	3.097		
15,300.00	6,856.19	15,219.98	6,866.11	216.04	215.36	-90.43	538.46	8,105.97	1,319.99	888.71	431.28	3.061		
15,400.00	6,856.54	15,319.98	6,866.45	218.57	217.89	-90.43	539.25	8,205.97	1,319.99	883.65	436.35	3.025		
15,500.00	6,856.88	15,419.98	6,866.80	221.11	220.42	-90.43	540.03	8,305.96	1,319.99	878.58	441.42	2.990		
15,600.00	6,857.23	15,519.98	6,867.15	223.64	222.96	-90.43	540.81	8,405.96	1,319.99	873.51	446.49	2.956		
15,700.00	6,857.58	15,619.98	6,867.50	226.18	225.50	-90.43	541.60	8,505.95	1,319.99	868.44	451.56	2.923		
15,800.00	6,857.93	15,719.98	6,867.84	228.71	228.03	-90.43	542.38	8,605.95	1,319.99	863.36	456.63	2.891		
15,900.00	6,858.27	15,819.98	6,868.19	231.25	230.57	-90.43	543.17	8,705.95	1,319.99	858.29	461.70	2.859		
16,000.00	6,858.62	15,919.98	6,868.54	233.78	233.10	-90.43	543.95	8,805.94	1,320.00	853.22	466.78	2.828		
16,100.00	6,858.97	16,019.98	6,868.89	236.32	235.64	-90.43	544.73	8,905.94	1,320.00	848.15	471.85	2.797		
16,200.00	6,859.32	16,119.98	6,869.24	238.86	238.18	-90.43	545.52	9,005.94	1,320.00	843.07	476.92	2.768		
16,300.00	6,859.66	16,219.98	6,869.58	241.39	240.72	-90.43	546.30	9,105.93	1,320.00	838.00	482.00	2.739		
16,400.00	6,860.01	16,319.98	6,869.93	243.93	243.25	-90.43	547.08	9,205.93	1,320.00	832.92	487.08	2.710		
16,500.00	6,860.36	16,419.98	6,870.28	246.47	245.79	-90.43	547.87	9,305.93	1,320.00	827.85	492.15	2.682		
16,600.00	6,860.71	16,519.98	6,870.63	249.01	248.33	-90.43	548.65	9,405.92	1,320.00	822.77	497.23	2.655		
16,700.00	6,861.05	16,619.98	6,870.98	251.55	250.87	-90.43	549.43	9,505.92	1,320.00	817.69	502.31	2.628		
16,800.00	6,861.40	16,719.98	6,871.32	254.08	253.41	-90.43	550.22	9,605.91	1,320.00	812.61	507.39	2.602		
16,900.00	6,861.75	16,819.98	6,871.67	256.62	255.95	-90.43	551.00	9,705.91	1,320.00	807.54	512.46	2.576		
17,000.00	6,862.10	16,919.98	6,872.02	259.16	258.49	-90.43	551.79	9,805.91	1,320.00	802.46	517.54	2.551		
17,100.00	6,862.44	17,019.98	6,872.37	261.70	261.03	-90.43	552.57	9,905.90	1,320.00	797.38	522.62	2.526		
17,200.00	6,862.79	17,119.98	6,872.71	264.24	263.57	-90.43	553.35	10,005.90	1,320.00	792.30	527.70	2.501		
17,300.00	6,863.14	17,219.98	6,873.06	266.78	266.11	-90.43	554.14	10,105.90	1,320.00	787.22	532.78	2.478		
17,400.00	6,863.49	17,319.98	6,873.41	269.32	268.65	-90.43	554.92	10,205.89	1,320.00	782.14	537.86	2.454		
17,500.00	6,863.83	17,419.98	6,873.76	271.86	271.19	-90.43	555.70	10,305.89	1,320.00	777.06	542.95	2.431		
17,600.00	6,864.18	17,519.98	6,874.11	274.40	273.73	-90.43	556.49	10,405.88	1,320.00	771.98	548.03	2.409		
17,700.00	6,864.53	17,619.98	6,874.45	276.94	276.27	-90.43	557.27	10,505.88	1,320.00	766.90	553.11	2.387		
17,800.00	6,864.88	17,719.98	6,874.80	279.49	278.81	-90.43	558.06	10,605.88	1,320.01	761.81	558.19	2.365		
17,900.00	6,865.22	17,819.98	6,875.15	282.03	281.35	-90.43	558.84	10,705.87	1,320.01	756.73	563.27	2.343		
18,000.00	6,865.57	17,919.98	6,875.50	284.57	283.90	-90.43	559.62	10,805.87	1,320.01	751.65	568.36	2.322		
18,100.00	6,865.92	18,019.98	6,875.84	287.11	286.44	-90.43	560.41	10,905.87	1,320.01	746.57	573.44	2.302		
18,200.00	6,866.27	18,119.98	6,876.19	289.65	288.98	-90.43	561.19	11,005.86	1,320.01	741.48	578.53	2.282		
18,300.00	6,866.61	18,219.98	6,876.54	292.19	291.52	-90.43	561.97	11,105.86	1,320.01	736.40	583.61	2.262		
18,400.00	6,866.96	18,319.98	6,876.89	294.74	294.06	-90.43	562.76	11,205.86	1,320.01	731.31	588.69	2.242		
18,500.00	6,867.31	18,419.98	6,877.24	297.28	296.61	-90.43	563.54	11,305.85	1,320.01	726.23	593.78	2.223		
18,600.00	6,867.66	18,519.98	6,877.58	299.82	299.15	-90.43	564.33	11,405.85	1,320.01	721.14	598.87	2.204		
18,698.72	6,868.00	18,618.70	6,877.93	302.33	301.66	-90.43	565.10	11,504.56	1,320.01	716.12	603.89	2.186 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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 915H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	53.98	11.71	16.11	19.91				
100.00	100.00	100.00	100.00	0.13	0.13	53.98	11.71	16.11	19.91	19.65	0.27	74.073	
200.00	200.00	200.00	200.00	0.49	0.49	53.98	11.71	16.11	19.91	18.93	0.99	20.202	
300.00	300.00	300.00	300.00	0.85	0.85	53.98	11.71	16.11	19.91	18.21	1.70	11.696	
400.00	400.00	400.00	400.00	1.21	1.21	53.98	11.71	16.11	19.91	17.50	2.42	8.230	
500.00	500.00	500.00	500.00	1.57	1.57	53.98	11.71	16.11	19.91	16.78	3.14	6.349	
600.00	600.00	600.00	600.00	1.93	1.93	53.98	11.71	16.11	19.91	16.06	3.85	5.168	
700.00	700.00	700.00	700.00	2.29	2.29	53.98	11.71	16.11	19.91	15.34	4.57	4.357	
800.00	800.00	800.00	800.00	2.64	2.64	53.98	11.71	16.11	19.91	14.63	5.29	3.766	
900.00	900.00	900.00	900.00	3.00	3.00	53.98	11.71	16.11	19.91	13.91	6.00	3.317	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	53.98	11.71	16.11	19.91	13.19	6.72	2.963	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	53.98	11.71	16.11	19.91	12.48	7.44	2.677	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	53.98	11.71	16.11	19.91	11.76	8.16	2.442	
1,297.41	1,297.37	1,298.37	1,298.33	4.41	4.42	-162.05	10.80	13.74	19.85	11.03	8.82	2.251 CC	
1,300.00	1,299.95	1,300.99	1,300.94	4.42	4.43	-162.30	10.75	13.62	19.85	11.01	8.84	2.247 ES	
1,400.00	1,399.63	1,401.80	1,401.42	4.75	4.77	-176.75	7.89	6.17	20.52	11.04	9.48	2.165	
1,500.00	1,498.77	1,501.82	1,500.69	5.09	5.12	165.08	3.48	-5.29	24.64	14.47	10.17	2.423	
1,600.00	1,597.08	1,601.17	1,599.23	5.45	5.48	156.10	-1.06	-17.09	34.95	24.07	10.89	3.210	
1,700.00	1,694.72	1,700.19	1,697.45	5.83	5.85	153.24	-5.59	-28.86	48.74	37.13	11.61	4.199	
1,800.00	1,792.35	1,799.21	1,795.66	6.24	6.22	151.69	-10.11	-40.62	62.66	50.32	12.34	5.079	
1,900.00	1,889.97	1,898.23	1,893.87	6.65	6.59	150.70	-14.64	-52.38	76.61	63.53	13.08	5.859	
2,000.00	1,987.60	1,997.24	1,992.08	7.08	6.97	150.02	-19.16	-64.14	90.57	76.75	13.83	6.551	
2,100.00	2,085.22	2,096.26	2,090.29	7.52	7.36	149.52	-23.69	-75.91	104.54	89.96	14.59	7.168	
2,200.00	2,182.85	2,195.27	2,188.50	7.97	7.74	149.14	-28.22	-87.67	118.52	103.17	15.35	7.721	
2,300.00	2,280.47	2,294.29	2,286.71	8.42	8.13	148.84	-32.74	-99.43	132.51	116.38	16.12	8.218	
2,400.00	2,378.10	2,393.30	2,384.92	8.88	8.52	148.60	-37.27	-111.20	146.49	129.59	16.90	8.667	
2,500.00	2,475.72	2,492.32	2,483.13	9.35	8.92	148.40	-41.79	-122.96	160.48	142.79	17.68	9.074	
2,600.00	2,573.35	2,591.33	2,581.34	9.82	9.31	148.23	-46.32	-134.72	174.47	156.00	18.47	9.445	
2,700.00	2,670.97	2,690.35	2,679.55	10.29	9.71	148.08	-50.84	-146.48	188.46	169.20	19.26	9.784	
2,800.00	2,768.60	2,789.37	2,777.76	10.77	10.10	147.96	-55.37	-158.25	202.45	182.39	20.06	10.094	
2,900.00	2,866.22	2,888.38	2,875.97	11.25	10.50	147.85	-59.89	-170.01	216.44	195.59	20.85	10.379	
3,000.00	2,963.85	2,987.40	2,974.18	11.73	10.90	147.76	-64.42	-181.77	230.43	208.78	21.65	10.642	
3,100.00	3,061.47	3,086.41	3,072.39	12.21	11.30	147.67	-68.94	-193.54	244.43	221.97	22.45	10.885	
3,200.00	3,159.10	3,185.43	3,170.60	12.70	11.71	147.60	-73.47	-205.30	258.42	235.16	23.26	11.111	
3,300.00	3,256.72	3,284.44	3,268.81	13.19	12.11	147.53	-78.00	-217.06	272.42	248.35	24.06	11.320	
3,400.00	3,354.35	3,383.46	3,367.02	13.68	12.51	147.47	-82.52	-228.82	286.41	261.54	24.87	11.515	
3,500.00	3,451.97	3,482.47	3,465.23	14.17	12.91	147.42	-87.05	-240.59	300.40	274.72	25.68	11.697	
3,600.00	3,549.60	3,581.49	3,563.44	14.66	13.32	147.37	-91.57	-252.35	314.40	287.91	26.49	11.868	
3,700.00	3,647.22	3,680.50	3,661.65	15.16	13.72	147.32	-96.10	-264.11	328.39	301.09	27.30	12.028	
3,800.00	3,744.85	3,779.52	3,759.86	15.65	14.13	147.28	-100.62	-275.88	342.39	314.27	28.12	12.178	
3,900.00	3,842.47	3,878.54	3,858.07	16.15	14.53	147.24	-105.15	-287.64	356.39	327.46	28.93	12.319	
4,000.00	3,940.10	3,977.55	3,956.28	16.64	14.94	147.20	-109.67	-299.40	370.38	340.64	29.75	12.452	
4,100.00	4,037.72	4,076.57	4,054.49	17.14	15.35	147.17	-114.20	-311.17	384.38	353.82	30.56	12.577	
4,200.00	4,135.35	4,175.58	4,152.70	17.64	15.75	147.14	-118.73	-322.93	398.37	367.00	31.38	12.696	
4,300.00	4,232.97	4,274.60	4,250.91	18.14	16.16	147.11	-123.25	-334.69	412.37	380.17	32.20	12.808	
4,400.00	4,330.60	4,373.61	4,349.12	18.63	16.57	147.08	-127.78	-346.45	426.37	393.35	33.01	12.915	
4,500.00	4,428.22	4,472.63	4,447.33	19.13	16.97	147.06	-132.30	-358.22	440.36	406.53	33.83	13.016	
4,600.00	4,525.85	4,571.64	4,545.54	19.63	17.38	147.04	-136.83	-369.98	454.36	419.71	34.65	13.112	
4,700.00	4,623.47	4,670.66	4,643.75	20.13	17.79	147.01	-141.35	-381.74	468.36	432.88	35.47	13.204	
4,800.00	4,721.10	4,769.68	4,741.96	20.64	18.20	146.99	-145.88	-393.51	482.35	446.06	36.29	13.291	
4,900.00	4,818.72	4,868.69	4,840.17	21.14	18.61	146.97	-150.40	-405.27	496.35	459.24	37.11	13.374	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 915H - Original Hole - rev1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,916.35	4,967.71	4,938.38	21.64	19.02	146.95	-154.93	-417.03	510.35	472.41	37.93	13.453		
5,100.00	5,013.97	5,066.72	5,036.59	22.14	19.42	146.94	-159.46	-428.79	524.34	485.59	38.76	13.529		
5,200.00	5,111.60	5,165.74	5,134.80	22.64	19.83	146.92	-163.98	-440.56	538.34	498.76	39.58	13.602		
5,300.00	5,209.22	5,264.75	5,233.01	23.15	20.24	146.90	-168.51	-452.32	552.34	511.93	40.40	13.671		
5,400.00	5,306.85	5,363.77	5,331.22	23.65	20.65	146.89	-173.03	-464.08	566.33	525.11	41.22	13.738		
5,500.00	5,404.47	5,462.78	5,429.43	24.15	21.06	146.87	-177.56	-475.85	580.33	538.28	42.05	13.802		
5,600.00	5,502.10	5,561.80	5,527.64	24.66	21.47	146.86	-182.08	-487.61	594.33	551.45	42.87	13.863		
5,700.00	5,599.72	5,654.05	5,619.26	25.16	21.84	146.94	-185.93	-497.61	608.71	565.08	43.62	13.953		
5,800.00	5,697.36	5,742.83	5,707.81	25.66	22.17	147.40	-188.21	-503.53	624.57	580.28	44.29	14.102		
5,900.00	5,795.63	5,831.16	5,796.10	26.13	22.48	148.24	-189.01	-505.61	639.39	594.50	44.88	14.245		
6,000.00	5,894.73	5,929.79	5,894.73	26.55	22.79	149.03	-189.01	-505.61	650.75	605.24	45.51	14.299		
6,100.00	5,994.39	6,029.32	5,994.27	26.92	23.10	149.50	-189.01	-505.59	657.70	611.56	46.15	14.253		
6,200.00	6,094.34	6,125.36	6,089.79	27.22	23.35	150.43	-188.94	-496.76	660.46	613.85	46.61	14.171		
6,300.00	6,194.34	6,216.10	6,177.49	27.48	23.53	3.75	-188.76	-473.88	661.94	615.12	46.83	14.136		
6,400.00	6,294.18	6,300.00	6,254.45	27.73	23.66	-82.93	-188.50	-440.65	665.68	618.86	46.83	14.216		
6,500.00	6,391.90	6,379.14	6,321.86	27.91	23.76	-80.16	-188.18	-399.33	670.90	624.22	46.68	14.372		
6,600.00	6,484.57	6,456.24	6,381.47	28.03	23.86	-77.64	-187.79	-350.51	676.94	630.49	46.45	14.574		
6,700.00	6,569.37	6,531.32	6,432.71	28.10	23.98	-75.43	-187.36	-295.71	683.18	637.00	46.19	14.791		
6,800.00	6,643.71	6,604.85	6,475.52	28.11	24.14	-73.58	-186.90	-236.00	689.08	643.09	46.00	14.981		
6,900.00	6,705.34	6,693.57	6,520.11	28.08	24.44	-72.23	-186.30	-159.30	693.16	646.93	46.23	14.995		
7,000.00	6,756.00	6,765.93	6,551.22	28.02	24.80	-71.65	-185.78	-94.02	695.86	649.23	46.63	14.923		
7,100.00	6,796.79	6,837.26	6,573.59	27.98	25.25	-70.78	-185.25	-26.34	699.14	651.88	47.26	14.794		
7,200.00	6,821.13	6,908.18	6,587.33	27.94	25.80	-70.34	-184.71	43.19	700.84	652.53	48.31	14.508		
7,300.00	6,828.38	6,982.22	6,592.40	28.00	26.47	-70.32	-184.13	117.00	700.89	651.10	49.79	14.077		
7,336.39	6,828.51	7,014.02	6,592.53	28.13	26.80	-70.32	-183.88	148.80	700.87	650.40	50.47	13.886		
7,400.00	6,828.73	7,077.64	6,592.78	28.61	27.50	-70.33	-183.38	212.41	700.86	649.11	51.76	13.542		
7,500.00	6,829.08	7,177.64	6,593.18	29.81	28.76	-70.33	-182.60	312.41	700.84	646.76	54.08	12.959		
7,600.00	6,829.43	7,277.64	6,593.58	31.23	30.18	-70.33	-181.82	412.40	700.83	644.10	56.72	12.356		
7,700.00	6,829.77	7,377.64	6,593.98	32.79	31.74	-70.34	-181.03	512.40	700.81	641.18	59.63	11.753		
7,800.00	6,830.12	7,477.64	6,594.38	34.47	33.43	-70.34	-180.25	612.40	700.79	638.03	62.77	11.165		
7,900.00	6,830.47	7,577.64	6,594.78	36.25	35.22	-70.35	-179.47	712.39	700.77	634.67	66.10	10.602		
8,000.00	6,830.82	7,677.64	6,595.18	38.12	37.10	-70.35	-178.68	812.39	700.76	631.15	69.60	10.068		
8,100.00	6,831.16	7,777.64	6,595.58	40.06	39.06	-70.36	-177.90	912.38	700.74	627.49	73.25	9.567		
8,200.00	6,831.51	7,877.64	6,595.98	42.06	41.08	-70.36	-177.11	1,012.38	700.72	623.71	77.02	9.098		
8,300.00	6,831.86	7,977.64	6,596.38	44.12	43.16	-70.36	-176.33	1,112.38	700.71	619.82	80.89	8.663		
8,400.00	6,832.21	8,077.64	6,596.78	46.23	45.29	-70.37	-175.55	1,212.37	700.69	615.84	84.85	8.258		
8,500.00	6,832.55	8,177.64	6,597.18	48.37	47.46	-70.37	-174.76	1,312.37	700.67	611.78	88.89	7.883		
8,600.00	6,832.90	8,277.64	6,597.58	50.56	49.66	-70.38	-173.98	1,412.36	700.65	607.66	92.99	7.535		
8,700.00	6,833.25	8,377.64	6,597.98	52.78	51.90	-70.38	-173.20	1,512.36	700.64	603.48	97.15	7.212		
8,800.00	6,833.60	8,477.64	6,598.38	55.02	54.17	-70.38	-172.41	1,612.36	700.62	599.26	101.36	6.912		
8,900.00	6,833.94	8,577.64	6,598.78	57.29	56.46	-70.39	-171.63	1,712.35	700.60	594.98	105.62	6.633		
9,000.00	6,834.29	8,677.64	6,599.18	59.59	58.77	-70.39	-170.85	1,812.35	700.58	590.68	109.91	6.374		
9,100.00	6,834.64	8,777.64	6,599.58	61.90	61.10	-70.40	-170.06	1,912.34	700.57	586.34	114.23	6.133		
9,200.00	6,834.99	8,877.64	6,599.98	64.23	63.44	-70.40	-169.28	2,012.34	700.55	581.97	118.58	5.908		
9,300.00	6,835.33	8,977.64	6,600.38	66.58	65.81	-70.40	-168.50	2,112.34	700.53	577.58	122.95	5.698		
9,400.00	6,835.68	9,077.64	6,600.78	68.94	68.18	-70.41	-167.71	2,212.33	700.52	573.16	127.35	5.501		
9,500.00	6,836.03	9,177.64	6,601.18	71.31	70.57	-70.41	-166.93	2,312.33	700.50	568.73	131.77	5.316		
9,600.00	6,836.38	9,277.64	6,601.58	73.70	72.97	-70.42	-166.15	2,412.33	700.48	564.29	136.20	5.143		
9,700.00	6,836.72	9,377.64	6,601.98	76.09	75.38	-70.42	-165.36	2,512.32	700.46	559.82	140.64	4.981		
9,800.00	6,837.07	9,477.64	6,602.38	78.50	77.80	-70.42	-164.58	2,612.32	700.45	555.35	145.10	4.827		
9,900.00	6,837.42	9,577.64	6,602.78	80.92	80.23	-70.43	-163.80	2,712.31	700.43	550.87	149.56	4.683		

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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:		Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 915H - Original Hole - rev1											Offset Site Error:		0.00 ft	
Survey Program:		0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:		0.00 ft
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	Warning			
10,000.00	6,837.77	9,677.64	6,603.18	83.34	82.66	-70.43	-163.01	2,812.31	700.41	546.37	154.04	4.547				
10,100.00	6,838.11	9,777.64	6,603.58	85.77	85.11	-70.44	-162.23	2,912.31	700.39	541.87	158.52	4.418				
10,200.00	6,838.46	9,877.64	6,603.98	88.21	87.55	-70.44	-161.45	3,012.30	700.38	537.37	163.01	4.297				
10,300.00	6,838.81	9,977.64	6,604.38	90.65	90.01	-70.44	-160.66	3,112.30	700.36	532.86	167.50	4.181				
10,400.00	6,839.16	10,077.64	6,604.78	93.10	92.47	-70.45	-159.88	3,212.29	700.34	528.34	172.00	4.072				
10,500.00	6,839.50	10,177.64	6,605.18	95.55	94.93	-70.45	-159.10	3,312.29	700.33	523.82	176.50	3.968				
10,600.00	6,839.85	10,277.64	6,605.58	98.01	97.40	-70.46	-158.31	3,412.29	700.31	519.30	181.01	3.869				
10,700.00	6,840.20	10,377.64	6,605.98	100.48	99.87	-70.46	-157.53	3,512.28	700.29	514.78	185.51	3.775				
10,800.00	6,840.55	10,477.64	6,606.38	102.94	102.35	-70.46	-156.74	3,612.28	700.27	510.26	190.02	3.685				
10,900.00	6,840.89	10,577.64	6,606.78	105.42	104.83	-70.47	-155.96	3,712.28	700.26	505.74	194.52	3.600				
11,000.00	6,841.24	10,677.64	6,607.18	107.89	107.31	-70.47	-155.18	3,812.27	700.24	501.21	199.03	3.518				
11,100.00	6,841.59	10,777.64	6,607.58	110.37	109.80	-70.48	-154.39	3,912.27	700.22	496.69	203.53	3.440				
11,200.00	6,841.94	10,877.64	6,607.98	112.85	112.29	-70.48	-153.61	4,012.26	700.21	492.18	208.03	3.366				
11,300.00	6,842.29	10,977.64	6,608.38	115.34	114.78	-70.48	-152.83	4,112.26	700.19	487.66	212.53	3.295				
11,400.00	6,842.63	11,077.64	6,608.78	117.83	117.28	-70.49	-152.04	4,212.26	700.17	483.15	217.02	3.226				
11,500.00	6,842.98	11,177.64	6,609.18	120.32	119.77	-70.49	-151.26	4,312.25	700.15	478.64	221.52	3.161				
11,600.00	6,843.33	11,277.64	6,609.58	122.81	122.27	-70.50	-150.48	4,412.25	700.14	474.13	226.01	3.098				
11,700.00	6,843.68	11,377.64	6,609.98	125.31	124.78	-70.50	-149.69	4,512.24	700.12	469.63	230.49	3.038				
11,800.00	6,844.02	11,477.64	6,610.38	127.81	127.28	-70.50	-148.91	4,612.24	700.10	465.13	234.97	2.980				
11,900.00	6,844.37	11,577.64	6,610.78	130.31	129.78	-70.51	-148.13	4,712.24	700.09	460.64	239.44	2.924				
12,000.00	6,844.72	11,677.64	6,611.18	132.81	132.29	-70.51	-147.34	4,812.23	700.07	456.15	243.91	2.870				
12,100.00	6,845.07	11,777.64	6,611.58	135.31	134.80	-70.52	-146.56	4,912.23	700.05	451.67	248.38	2.819				
12,200.00	6,845.41	11,877.64	6,611.98	137.82	137.31	-70.52	-145.78	5,012.22	700.03	447.20	252.83	2.769				
12,300.00	6,845.76	11,977.64	6,612.38	140.33	139.82	-70.52	-144.99	5,112.22	700.02	442.73	257.28	2.721				
12,400.00	6,846.11	12,077.64	6,612.78	142.84	142.34	-70.53	-144.21	5,212.22	700.00	438.27	261.73	2.675				
12,500.00	6,846.46	12,177.64	6,613.18	145.35	144.85	-70.53	-143.43	5,312.21	699.98	433.82	266.16	2.630				
12,600.00	6,846.80	12,277.64	6,613.58	147.86	147.37	-70.54	-142.64	5,412.21	699.97	429.38	270.59	2.587				
12,700.00	6,847.15	12,377.64	6,613.98	150.37	149.89	-70.54	-141.86	5,512.21	699.95	424.94	275.01	2.545				
12,800.00	6,847.50	12,477.64	6,614.38	152.89	152.41	-70.54	-141.08	5,612.20	699.93	420.51	279.42	2.505				
12,900.00	6,847.85	12,577.64	6,614.78	155.40	154.93	-70.55	-140.29	5,712.20	699.91	416.09	283.82	2.466				
13,000.00	6,848.19	12,677.64	6,615.18	157.92	157.45	-70.55	-139.51	5,812.19	699.90	411.68	288.21	2.428				
13,100.00	6,848.54	12,777.64	6,615.58	160.44	159.97	-70.56	-138.72	5,912.19	699.88	407.28	292.60	2.392				
13,200.00	6,848.89	12,877.64	6,615.98	162.96	162.49	-70.56	-137.94	6,012.19	699.86	402.89	296.97	2.357				
13,300.00	6,849.24	12,977.64	6,616.38	165.48	165.02	-70.57	-137.16	6,112.18	699.85	398.51	301.33	2.322				
13,400.00	6,849.58	13,077.64	6,616.78	168.00	167.54	-70.57	-136.37	6,212.18	699.83	394.14	305.68	2.289				
13,500.00	6,849.93	13,177.64	6,617.17	170.52	170.07	-70.57	-135.59	6,312.17	699.81	389.79	310.03	2.257				
13,600.00	6,850.28	13,277.64	6,617.57	173.04	172.59	-70.58	-134.81	6,412.17	699.79	385.44	314.36	2.226				
13,700.00	6,850.63	13,377.64	6,617.97	175.57	175.12	-70.58	-134.02	6,512.17	699.78	381.10	318.67	2.196				
13,800.00	6,850.97	13,477.64	6,618.37	178.09	177.65	-70.59	-133.24	6,612.16	699.76	376.78	322.98	2.167				
13,900.00	6,851.32	13,577.64	6,618.77	180.62	180.17	-70.59	-132.46	6,712.16	699.74	372.47	327.27	2.138				
14,000.00	6,851.67	13,677.64	6,619.17	183.14	182.70	-70.59	-131.67	6,812.15	699.73	368.18	331.55	2.110				
14,100.00	6,852.02	13,777.64	6,619.57	185.67	185.23	-70.60	-130.89	6,912.15	699.71	363.89	335.82	2.084				
14,200.00	6,852.36	13,877.64	6,619.97	188.20	187.76	-70.60	-130.11	7,012.15	699.69	359.62	340.07	2.057				
14,300.00	6,852.71	13,977.64	6,620.37	190.72	190.29	-70.61	-129.32	7,112.14	699.68	355.37	344.31	2.032				
14,400.00	6,853.06	14,077.64	6,620.77	193.25	192.83	-70.61	-128.54	7,212.14	699.66	351.13	348.53	2.007				
14,500.00	6,853.41	14,177.64	6,621.17	195.78	195.36	-70.61	-127.76	7,312.14	699.64	346.90	352.74	1.983	Level 3<2.00			
14,600.00	6,853.75	14,277.64	6,621.57	198.31	197.89	-70.62	-126.97	7,412.13	699.62	342.69	356.93	1.960	Level 3<2.00			
14,700.00	6,854.10	14,377.64	6,621.97	200.84	200.42	-70.62	-126.19	7,512.13	699.61	338.49	361.11	1.937	Level 3<2.00			
14,800.00	6,854.45	14,477.64	6,622.37	203.37	202.96	-70.63	-125.41	7,612.12	699.59	334.32	365.27	1.915	Level 3<2.00			
14,900.00	6,854.80	14,577.64	6,622.77	205.91	205.49	-70.63	-124.62	7,712.12	699.57	330.15	369.42	1.894	Level 3<2.00			
15,000.00	6,855.14	14,677.64	6,623.17	208.44	208.03	-70.63	-123.84	7,812.12	699.56	326.01	373.55	1.873	Level 3<2.00			

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 915H - 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		Distance		Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
15,100.00	6,855.49	14,777.64	6,623.57	210.97	210.56	-70.64	-123.06	7,912.11	699.54	321.88	377.66	1.852	Level 3<2.00	
15,200.00	6,855.84	14,877.64	6,623.97	213.50	213.10	-70.64	-122.27	8,012.11	699.52	317.77	381.75	1.832	Level 3<2.00	
15,300.00	6,856.19	14,977.64	6,624.37	216.04	215.63	-70.65	-121.49	8,112.10	699.50	313.68	385.83	1.813	Level 3<2.00	
15,400.00	6,856.54	15,077.64	6,624.77	218.57	218.17	-70.65	-120.70	8,212.10	699.49	309.60	389.88	1.794	Level 3<2.00	
15,500.00	6,856.88	15,177.64	6,625.17	221.11	220.70	-70.65	-119.92	8,312.10	699.47	305.55	393.92	1.776	Level 3<2.00	
15,600.00	6,857.23	15,277.64	6,625.57	223.64	223.24	-70.66	-119.14	8,412.09	699.45	301.52	397.94	1.758	Level 3<2.00	
15,700.00	6,857.58	15,377.64	6,625.97	226.18	225.78	-70.66	-118.35	8,512.09	699.44	297.50	401.93	1.740	Level 3<2.00	
15,800.00	6,857.93	15,477.64	6,626.37	228.71	228.32	-70.67	-117.57	8,612.08	699.42	293.51	405.91	1.723	Level 3<2.00	
15,900.00	6,858.27	15,577.64	6,626.77	231.25	230.85	-70.67	-116.79	8,712.08	699.40	289.53	409.87	1.706	Level 3<2.00	
16,000.00	6,858.62	15,677.64	6,627.17	233.78	233.39	-70.67	-116.00	8,812.08	699.39	285.58	413.80	1.690	Level 3<2.00	
16,100.00	6,858.97	15,777.64	6,627.57	236.32	235.93	-70.68	-115.22	8,912.07	699.37	281.65	417.72	1.674	Level 3<2.00	
16,200.00	6,859.32	15,877.64	6,627.97	238.86	238.47	-70.68	-114.44	9,012.07	699.35	277.74	421.61	1.659	Level 3<2.00	
16,300.00	6,859.66	15,977.64	6,628.37	241.39	241.01	-70.69	-113.65	9,112.07	699.33	273.86	425.48	1.644	Level 3<2.00	
16,400.00	6,860.01	16,077.64	6,628.77	243.93	243.55	-70.69	-112.87	9,212.06	699.32	269.99	429.32	1.629	Level 3<2.00	
16,500.00	6,860.36	16,177.64	6,629.17	246.47	246.09	-70.69	-112.09	9,312.06	699.30	266.15	433.15	1.614	Level 3<2.00	
16,600.00	6,860.71	16,277.64	6,629.57	249.01	248.63	-70.70	-111.30	9,412.05	699.28	262.34	436.95	1.600	Level 3<2.00	
16,700.00	6,861.05	16,377.64	6,629.97	251.55	251.17	-70.70	-110.52	9,512.05	699.27	258.54	440.72	1.587	Level 3<2.00	
16,800.00	6,861.40	16,477.64	6,630.37	254.08	253.71	-70.71	-109.74	9,612.05	699.25	254.78	444.47	1.573	Level 3<2.00	
16,900.00	6,861.75	16,577.64	6,630.77	256.62	256.25	-70.71	-108.95	9,712.04	699.23	251.03	448.20	1.560	Level 3<2.00	
17,000.00	6,862.10	16,677.64	6,631.17	259.16	258.79	-70.71	-108.17	9,812.04	699.22	247.31	451.90	1.547	Level 3<2.00	
17,100.00	6,862.44	16,777.64	6,631.57	261.70	261.33	-70.72	-107.39	9,912.03	699.20	243.62	455.58	1.535	Level 3<2.00	
17,200.00	6,862.79	16,877.64	6,631.97	264.24	263.87	-70.72	-106.60	10,012.03	699.18	239.95	459.23	1.523	Level 3<2.00	
17,300.00	6,863.14	16,977.64	6,632.37	266.78	266.41	-70.73	-105.82	10,112.03	699.16	236.31	462.85	1.511	Level 3<2.00	
17,400.00	6,863.49	17,077.63	6,632.77	269.32	268.95	-70.73	-105.04	10,212.02	699.15	232.70	466.45	1.499	Level 2<1.50	
17,500.00	6,863.83	17,177.63	6,633.17	271.86	271.50	-70.74	-104.25	10,312.02	699.13	229.11	470.02	1.487	Level 2<1.50	
17,600.00	6,864.18	17,277.63	6,633.57	274.40	274.04	-70.74	-103.47	10,412.02	699.11	225.55	473.57	1.476	Level 2<1.50	
17,700.00	6,864.53	17,377.63	6,633.97	276.94	276.58	-70.74	-102.69	10,512.01	699.10	222.01	477.09	1.465	Level 2<1.50	
17,800.00	6,864.88	17,477.63	6,634.37	279.49	279.12	-70.75	-101.90	10,612.01	699.08	218.50	480.58	1.455	Level 2<1.50	
17,900.00	6,865.22	17,577.63	6,634.77	282.03	281.66	-70.75	-101.12	10,712.00	699.06	215.02	484.04	1.444	Level 2<1.50	
18,000.00	6,865.57	17,677.63	6,635.17	284.57	284.21	-70.76	-100.33	10,812.00	699.05	211.57	487.48	1.434	Level 2<1.50	
18,100.00	6,865.92	17,777.63	6,635.57	287.11	286.75	-70.76	-99.55	10,912.00	699.03	208.14	490.89	1.424	Level 2<1.50	
18,200.00	6,866.27	17,877.63	6,635.97	289.65	289.29	-70.76	-98.77	11,011.99	699.01	204.74	494.27	1.414	Level 2<1.50	
18,300.00	6,866.61	17,977.63	6,636.37	292.19	291.84	-70.77	-97.98	11,111.99	699.00	201.37	497.63	1.405	Level 2<1.50	
18,400.00	6,866.96	18,077.63	6,636.77	294.74	294.38	-70.77	-97.20	11,211.98	698.98	198.03	500.95	1.395	Level 2<1.50	
18,500.00	6,867.31	18,177.63	6,637.17	297.28	296.92	-70.78	-96.42	11,311.98	698.96	194.71	504.25	1.386	Level 2<1.50	
18,600.00	6,867.66	18,277.63	6,637.57	299.82	299.47	-70.78	-95.63	11,411.98	698.94	191.42	507.53	1.377	Level 2<1.50	
18,698.72	6,868.00	18,376.35	6,637.96	302.33	301.98	-70.78	-94.86	11,510.69	698.93	188.20	510.73	1.368	Level 2<1.50, 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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 917H - 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 Reference (ft)	Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-126.86	-12.07	-16.11	20.13				
100.00	100.00	100.00	100.00	0.13	0.13	-126.86	-12.07	-16.11	20.13	19.86	0.27	74.873	
200.00	200.00	200.00	200.00	0.49	0.49	-126.86	-12.07	-16.11	20.13	19.14	0.99	20.420	
300.00	300.00	300.00	300.00	0.85	0.85	-126.86	-12.07	-16.11	20.13	18.43	1.70	11.822	
400.00	400.00	400.00	400.00	1.21	1.21	-126.86	-12.07	-16.11	20.13	17.71	2.42	8.319	
500.00	500.00	500.00	500.00	1.57	1.57	-126.86	-12.07	-16.11	20.13	16.99	3.14	6.418	
600.00	600.00	600.00	600.00	1.93	1.93	-126.86	-12.07	-16.11	20.13	16.28	3.85	5.224	
700.00	700.00	700.00	700.00	2.29	2.29	-126.86	-12.07	-16.11	20.13	15.56	4.57	4.404	
800.00	800.00	800.00	800.00	2.64	2.64	-126.86	-12.07	-16.11	20.13	14.84	5.29	3.807	
900.00	900.00	900.00	900.00	3.00	3.00	-126.86	-12.07	-16.11	20.13	14.13	6.00	3.353	
1,000.00	1,000.00	1,000.00	1,000.00	3.36	3.36	-126.86	-12.07	-16.11	20.13	13.41	6.72	2.995 CC, ES	
1,100.00	1,100.00	1,099.05	1,099.00	3.72	3.70	-130.57	-14.50	-16.94	22.32	14.91	7.41	3.012	
1,200.00	1,200.00	1,197.56	1,197.21	4.08	4.03	-138.23	-21.73	-19.41	29.27	21.20	8.07	3.627	
1,300.00	1,299.95	1,295.38	1,294.20	4.42	4.36	3.80	-33.64	-23.49	38.85	30.16	8.69	4.471	
1,400.00	1,399.63	1,392.67	1,389.91	4.75	4.71	-1.42	-50.13	-29.14	48.51	39.24	9.27	5.233	
1,500.00	1,498.77	1,489.42	1,484.08	5.09	5.09	-5.91	-71.08	-36.31	58.28	48.44	9.83	5.926	
1,600.00	1,597.08	1,585.64	1,576.51	5.45	5.51	-9.95	-96.36	-44.97	68.20	57.81	10.38	6.569	
1,700.00	1,694.72	1,681.13	1,666.79	5.83	5.96	-13.45	-125.77	-55.04	80.05	69.12	10.93	7.326	
1,800.00	1,792.35	1,779.61	1,758.93	6.24	6.48	-16.03	-158.65	-66.29	94.93	83.29	11.64	8.155	
1,900.00	1,889.97	1,878.42	1,851.37	6.65	7.02	-17.91	-191.65	-77.59	109.96	97.58	12.39	8.878	
2,000.00	1,987.60	1,977.22	1,943.82	7.08	7.59	-19.34	-224.65	-88.89	125.09	111.94	13.15	9.515	
2,100.00	2,085.22	2,076.03	2,036.26	7.52	8.17	-20.46	-257.65	-100.19	140.27	126.35	13.92	10.079	
2,200.00	2,182.85	2,174.84	2,128.71	7.97	8.77	-21.37	-290.65	-111.49	155.49	140.79	14.70	10.577	
2,300.00	2,280.47	2,273.65	2,221.15	8.42	9.38	-22.11	-323.66	-122.79	170.75	155.26	15.49	11.022	
2,400.00	2,378.10	2,372.45	2,313.60	8.88	10.00	-22.73	-356.66	-134.09	186.03	169.73	16.29	11.418	
2,500.00	2,475.72	2,471.26	2,406.04	9.35	10.62	-23.25	-389.66	-145.39	201.32	184.22	17.10	11.774	
2,600.00	2,573.35	2,570.07	2,498.49	9.82	11.25	-23.70	-422.66	-156.69	216.63	198.72	17.91	12.094	
2,700.00	2,670.97	2,668.88	2,590.93	10.29	11.89	-24.10	-455.66	-167.99	231.96	213.23	18.73	12.384	
2,800.00	2,768.60	2,767.68	2,683.38	10.77	12.53	-24.44	-488.66	-179.29	247.29	227.73	19.55	12.647	
2,900.00	2,866.22	2,866.49	2,775.82	11.25	13.17	-24.74	-521.67	-190.59	262.63	242.25	20.38	12.886	
3,000.00	2,963.85	2,965.30	2,868.27	11.73	13.82	-25.01	-554.67	-201.89	277.97	256.76	21.21	13.105	
3,100.00	3,061.47	3,064.11	2,960.72	12.21	14.47	-25.25	-587.67	-213.19	293.32	271.28	22.05	13.306	
3,200.00	3,159.10	3,162.91	3,053.16	12.70	15.13	-25.47	-620.67	-224.49	308.68	285.80	22.88	13.490	
3,300.00	3,256.72	3,261.72	3,145.61	13.19	15.78	-25.67	-653.67	-235.79	324.04	300.32	23.72	13.660	
3,400.00	3,354.35	3,360.53	3,238.05	13.68	16.44	-25.85	-686.67	-247.09	339.40	314.84	24.56	13.817	
3,500.00	3,451.97	3,459.34	3,330.50	14.17	17.10	-26.01	-719.68	-258.39	354.77	329.36	25.41	13.963	
3,600.00	3,549.60	3,558.14	3,422.94	14.66	17.76	-26.16	-752.68	-269.69	370.13	343.88	26.25	14.098	
3,700.00	3,647.22	3,656.95	3,515.39	15.16	18.42	-26.30	-785.68	-280.99	385.50	358.40	27.10	14.225	
3,800.00	3,744.85	3,755.76	3,607.83	15.65	19.08	-26.42	-818.68	-292.29	400.88	372.93	27.95	14.342	
3,900.00	3,842.47	3,854.57	3,700.28	16.15	19.75	-26.54	-851.68	-303.59	416.25	387.45	28.80	14.452	
4,000.00	3,940.10	3,953.38	3,792.72	16.64	20.41	-26.65	-884.68	-314.89	431.63	401.97	29.65	14.556	
4,100.00	4,037.72	4,052.18	3,885.17	17.14	21.08	-26.75	-917.69	-326.19	447.01	416.50	30.51	14.653	
4,200.00	4,135.35	4,150.99	3,977.61	17.64	21.75	-26.85	-950.69	-337.49	462.38	431.02	31.36	14.744	
4,300.00	4,232.97	4,249.80	4,070.06	18.14	22.42	-26.94	-983.69	-348.79	477.76	445.55	32.22	14.830	
4,400.00	4,330.60	4,348.61	4,162.51	18.63	23.08	-27.02	-1,016.69	-360.09	493.14	460.07	33.07	14.910	
4,500.00	4,428.22	4,447.41	4,254.95	19.13	23.75	-27.10	-1,049.69	-371.39	508.53	474.60	33.93	14.987	
4,600.00	4,525.85	4,546.22	4,347.40	19.63	24.42	-27.17	-1,082.69	-382.69	523.91	489.12	34.79	15.059	
4,700.00	4,623.47	4,645.03	4,439.84	20.13	25.09	-27.24	-1,115.69	-393.99	539.29	503.64	35.65	15.128	
4,800.00	4,721.10	4,743.84	4,532.29	20.64	25.76	-27.31	-1,148.70	-405.29	554.68	518.17	36.51	15.193	
4,900.00	4,818.72	4,842.64	4,624.73	21.14	26.43	-27.37	-1,181.70	-416.59	570.06	532.69	37.37	15.255	
5,000.00	4,916.35	4,941.45	4,717.18	21.64	27.10	-27.43	-1,214.70	-427.89	585.45	547.22	38.23	15.314	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 917H - 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)	Reference (ft)	Offset (ft)	Semi Major Axis (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
5,100.00	5,013.97	5,040.26	4,809.62	22.14	27.78	-27.49	-27.49	-1,247.70	-439.19	600.83	561.74	39.09	15.370	
5,200.00	5,111.60	5,139.07	4,902.07	22.64	28.45	-27.54	-27.54	-1,280.70	-450.49	616.22	576.27	39.95	15.423	
5,300.00	5,209.22	5,237.87	4,994.51	23.15	29.12	-27.59	-27.59	-1,313.70	-461.79	631.61	590.79	40.82	15.474	
5,400.00	5,306.85	5,336.68	5,086.96	23.65	29.79	-27.64	-27.64	-1,346.71	-473.09	647.00	605.32	41.68	15.523	
5,500.00	5,404.47	5,435.49	5,179.40	24.15	30.47	-27.68	-27.68	-1,379.71	-484.39	662.38	619.84	42.54	15.569	
5,600.00	5,502.10	5,565.16	5,301.45	24.66	31.32	-27.79	-27.79	-1,421.11	-498.57	676.41	632.69	43.73	15.469	
5,700.00	5,599.72	5,716.80	5,447.41	25.16	32.20	-28.16	-28.16	-1,459.88	-511.84	683.49	638.54	44.95	15.205	
5,800.00	5,697.36	5,868.96	5,596.66	25.66	32.91	-28.79	-28.79	-1,487.65	-521.35	682.99	637.06	45.93	14.871	
5,900.00	5,795.63	6,020.31	5,746.98	26.13	33.48	-29.44	-29.44	-1,504.04	-526.96	677.76	631.13	46.63	14.534	
6,000.00	5,894.73	6,170.42	5,896.96	26.55	33.87	-30.03	-30.03	-1,509.12	-528.70	669.61	622.59	47.02	14.240	
6,100.00	5,994.39	6,267.99	5,994.53	26.92	34.06	-30.26	-30.26	-1,509.13	-528.69	662.63	614.89	47.74	13.880	
6,200.00	6,094.34	6,369.70	6,095.63	27.22	34.24	-31.20	-31.20	-1,509.06	-518.94	660.00	611.52	48.48	13.615	
6,244.24	6,138.58	6,413.01	6,137.86	27.33	34.30	-32.03	-32.03	-1,508.98	-509.38	659.90	611.02	48.88	13.500	
6,300.00	6,194.34	6,465.19	6,187.60	27.48	34.35	-177.96	-177.96	-1,508.86	-493.66	660.24	610.77	49.48	13.345	
6,400.00	6,294.18	6,550.00	6,264.78	27.73	34.42	85.46	85.46	-1,508.59	-458.68	662.44	611.81	50.63	13.083	
6,500.00	6,391.90	6,634.48	6,335.69	27.91	34.43	82.44	82.44	-1,508.23	-412.90	666.51	614.98	51.53	12.934	
6,600.00	6,484.57	6,713.74	6,395.43	28.03	34.42	79.71	79.71	-1,507.82	-360.91	671.89	619.79	52.10	12.896	
6,700.00	6,569.37	6,790.50	6,445.92	28.10	34.39	77.24	77.24	-1,507.37	-303.17	677.97	625.59	52.38	12.944	
6,800.00	6,643.71	6,865.83	6,487.53	28.11	34.33	75.10	75.10	-1,506.88	-240.44	684.15	631.66	52.49	13.035	
6,900.00	6,705.34	6,950.00	6,529.09	28.08	34.26	73.62	73.62	-1,506.30	-167.26	688.32	635.57	52.76	13.047	
7,000.00	6,756.00	7,027.72	6,560.05	28.02	34.19	72.73	72.73	-1,505.74	-96.03	691.96	638.82	53.14	13.022	
7,100.00	6,796.79	7,100.00	6,579.94	27.98	34.12	71.51	71.51	-1,505.20	-26.60	696.33	642.62	53.71	12.964	
7,200.00	6,821.13	7,170.97	6,590.83	27.94	34.05	70.73	70.73	-1,504.65	43.48	699.31	644.66	54.64	12.797	
7,300.00	6,828.38	7,249.99	6,593.33	28.00	33.99	70.40	70.40	-1,504.03	122.42	700.57	644.49	56.08	12.493	
7,400.00	6,828.73	7,349.99	6,593.59	28.61	33.96	70.39	70.39	-1,503.25	222.42	700.59	642.48	58.12	12.055	
7,500.00	6,829.08	7,449.99	6,593.85	29.81	34.00	70.38	70.38	-1,502.47	322.41	700.62	640.16	60.46	11.588	
7,600.00	6,829.43	7,549.99	6,594.11	31.23	34.22	70.38	70.38	-1,501.68	422.41	700.65	637.57	63.08	11.107	
7,700.00	6,829.77	7,649.99	6,594.37	32.79	34.86	70.37	70.37	-1,500.90	522.41	700.68	634.73	65.95	10.624	
7,800.00	6,830.12	7,749.99	6,594.63	34.47	36.05	70.36	70.36	-1,500.12	622.40	700.71	631.68	69.03	10.151	
7,900.00	6,830.47	7,849.99	6,594.89	36.25	37.61	70.36	70.36	-1,499.34	722.40	700.74	628.45	72.30	9.693	
8,000.00	6,830.82	7,949.99	6,595.15	38.12	39.36	70.35	70.35	-1,498.55	822.40	700.77	625.05	75.72	9.255	
8,100.00	6,831.16	8,049.99	6,595.41	40.06	41.23	70.34	70.34	-1,497.77	922.39	700.80	621.51	79.29	8.839	
8,200.00	6,831.51	8,149.99	6,595.67	42.06	43.18	70.34	70.34	-1,496.99	1,022.39	700.83	617.86	82.97	8.447	
8,300.00	6,831.86	8,249.99	6,595.93	44.12	45.20	70.33	70.33	-1,496.20	1,122.39	700.86	614.10	86.76	8.078	
8,400.00	6,832.21	8,349.99	6,596.19	46.23	47.27	70.32	70.32	-1,495.42	1,222.38	700.89	610.25	90.64	7.732	
8,500.00	6,832.55	8,449.99	6,596.45	48.37	49.39	70.32	70.32	-1,494.64	1,322.38	700.92	606.32	94.60	7.409	
8,600.00	6,832.90	8,549.99	6,596.72	50.56	51.55	70.31	70.31	-1,493.86	1,422.38	700.95	602.32	98.63	7.107	
8,700.00	6,833.25	8,649.99	6,596.98	52.78	53.74	70.30	70.30	-1,493.07	1,522.37	700.98	598.26	102.72	6.824	
8,800.00	6,833.60	8,749.99	6,597.24	55.02	55.96	70.30	70.30	-1,492.29	1,622.37	701.01	594.15	106.86	6.560	
8,900.00	6,833.94	8,849.99	6,597.50	57.29	58.21	70.29	70.29	-1,491.51	1,722.37	701.04	589.99	111.04	6.313	
9,000.00	6,834.29	8,949.99	6,597.76	59.59	60.48	70.28	70.28	-1,490.72	1,822.36	701.07	585.80	115.27	6.082	
9,100.00	6,834.64	9,049.99	6,598.02	61.90	62.78	70.28	70.28	-1,489.94	1,922.36	701.10	581.57	119.53	5.865	
9,200.00	6,834.99	9,149.99	6,598.28	64.23	65.09	70.27	70.27	-1,489.16	2,022.36	701.13	577.31	123.82	5.662	
9,300.00	6,835.33	9,249.99	6,598.54	66.58	67.42	70.26	70.26	-1,488.38	2,122.35	701.16	573.02	128.14	5.472	
9,400.00	6,835.68	9,349.99	6,598.80	68.94	69.76	70.26	70.26	-1,487.59	2,222.35	701.19	568.71	132.48	5.293	
9,500.00	6,836.03	9,449.99	6,599.06	71.31	72.12	70.25	70.25	-1,486.81	2,322.35	701.22	564.38	136.84	5.124	
9,600.00	6,836.38	9,549.99	6,599.32	73.70	74.49	70.24	70.24	-1,486.03	2,422.34	701.25	560.03	141.22	4.966	
9,700.00	6,836.72	9,649.99	6,599.58	76.09	76.88	70.24	70.24	-1,485.24	2,522.34	701.28	555.66	145.61	4.816	
9,800.00	6,837.07	9,749.99	6,599.84	78.50	79.27	70.23	70.23	-1,484.46	2,622.33	701.30	551.28	150.02	4.675	
9,900.00	6,837.42	9,849.99	6,600.10	80.92	81.67	70.22	70.22	-1,483.68	2,722.33	701.33	546.89	154.44	4.541	
10,000.00	6,837.77	9,949.99	6,600.36	83.34	84.08	70.22	70.22	-1,482.90	2,822.33	701.36	542.49	158.87	4.415	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 917H - Original Hole - rev1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
				(ft)	(ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
10,100.00	6,838.11	10,049.99	6,600.62	85.77	86.50	70.21	-1,482.11	2,922.32	701.39	538.08	163.31	4.295	
10,200.00	6,838.46	10,149.99	6,600.88	88.21	88.93	70.20	-1,481.33	3,022.32	701.42	533.67	167.76	4.181	
10,300.00	6,838.81	10,249.99	6,601.14	90.65	91.36	70.20	-1,480.55	3,122.32	701.45	529.24	172.21	4.073	
10,400.00	6,839.16	10,349.99	6,601.41	93.10	93.80	70.19	-1,479.76	3,222.31	701.48	524.82	176.67	3.971	
10,500.00	6,839.50	10,449.99	6,601.67	95.55	96.24	70.18	-1,478.98	3,322.31	701.51	520.39	181.13	3.873	
10,600.00	6,839.85	10,549.99	6,601.93	98.01	98.69	70.18	-1,478.20	3,422.31	701.54	515.95	185.59	3.780	
10,700.00	6,840.20	10,649.99	6,602.19	100.48	101.15	70.17	-1,477.42	3,522.30	701.57	511.52	190.06	3.691	
10,800.00	6,840.55	10,749.99	6,602.45	102.94	103.61	70.16	-1,476.63	3,622.30	701.60	507.08	194.52	3.607	
10,900.00	6,840.89	10,849.99	6,602.71	105.42	106.07	70.16	-1,475.85	3,722.30	701.63	502.65	198.99	3.526	
11,000.00	6,841.24	10,949.99	6,602.97	107.89	108.54	70.15	-1,475.07	3,822.29	701.66	498.21	203.45	3.449	
11,100.00	6,841.59	11,049.99	6,603.23	110.37	111.01	70.14	-1,474.28	3,922.29	701.69	493.77	207.92	3.375	
11,200.00	6,841.94	11,149.99	6,603.49	112.85	113.49	70.14	-1,473.50	4,022.29	701.72	489.34	212.38	3.304	
11,300.00	6,842.29	11,249.99	6,603.75	115.34	115.96	70.13	-1,472.72	4,122.28	701.75	484.91	216.84	3.236	
11,400.00	6,842.63	11,349.99	6,604.01	117.83	118.44	70.12	-1,471.94	4,222.28	701.78	480.48	221.30	3.171	
11,500.00	6,842.98	11,449.99	6,604.27	120.32	120.93	70.12	-1,471.15	4,322.28	701.81	476.06	225.75	3.109	
11,600.00	6,843.33	11,549.99	6,604.53	122.81	123.42	70.11	-1,470.37	4,422.27	701.84	471.64	230.20	3.049	
11,700.00	6,843.68	11,649.99	6,604.79	125.31	125.91	70.10	-1,469.59	4,522.27	701.87	467.23	234.65	2.991	
11,800.00	6,844.02	11,749.99	6,605.05	127.81	128.40	70.09	-1,468.80	4,622.27	701.90	462.82	239.09	2.936	
11,900.00	6,844.37	11,849.99	6,605.31	130.31	130.89	70.09	-1,468.02	4,722.26	701.93	458.41	243.52	2.882	
12,000.00	6,844.72	11,949.99	6,605.57	132.81	133.39	70.08	-1,467.24	4,822.26	701.96	454.01	247.95	2.831	
12,100.00	6,845.07	12,049.99	6,605.83	135.31	135.89	70.07	-1,466.46	4,922.26	701.99	449.62	252.37	2.782	
12,200.00	6,845.41	12,149.99	6,606.10	137.82	138.39	70.07	-1,465.67	5,022.25	702.02	445.24	256.79	2.734	
12,300.00	6,845.76	12,249.99	6,606.36	140.33	140.89	70.06	-1,464.89	5,122.25	702.05	440.86	261.19	2.688	
12,400.00	6,846.11	12,349.99	6,606.62	142.84	143.39	70.05	-1,464.11	5,222.25	702.08	436.49	265.59	2.643	
12,500.00	6,846.46	12,449.99	6,606.88	145.35	145.90	70.05	-1,463.32	5,322.24	702.11	432.13	269.98	2.601	
12,600.00	6,846.80	12,549.99	6,607.14	147.86	148.40	70.04	-1,462.54	5,422.24	702.14	427.77	274.37	2.559	
12,700.00	6,847.15	12,649.99	6,607.40	150.37	150.91	70.03	-1,461.76	5,522.24	702.17	423.43	278.74	2.519	
12,800.00	6,847.50	12,749.99	6,607.66	152.89	153.42	70.03	-1,460.98	5,622.23	702.20	419.10	283.10	2.480	
12,900.00	6,847.85	12,849.99	6,607.92	155.40	155.93	70.02	-1,460.19	5,722.23	702.23	414.77	287.46	2.443	
13,000.00	6,848.19	12,949.99	6,608.18	157.92	158.45	70.01	-1,459.41	5,822.22	702.26	410.46	291.80	2.407	
13,100.00	6,848.54	13,049.99	6,608.44	160.44	160.96	70.01	-1,458.63	5,922.22	702.29	406.15	296.14	2.372	
13,200.00	6,848.89	13,149.99	6,608.70	162.96	163.48	70.00	-1,457.84	6,022.22	702.32	401.86	300.46	2.337	
13,300.00	6,849.24	13,249.99	6,608.96	165.48	165.99	69.99	-1,457.06	6,122.21	702.35	397.58	304.77	2.305	
13,400.00	6,849.58	13,349.99	6,609.22	168.00	168.51	69.99	-1,456.28	6,222.21	702.38	393.31	309.07	2.273	
13,500.00	6,849.93	13,449.99	6,609.48	170.52	171.03	69.98	-1,455.50	6,322.21	702.41	389.05	313.36	2.242	
13,600.00	6,850.28	13,549.99	6,609.74	173.04	173.55	69.98	-1,454.71	6,422.20	702.44	384.81	317.63	2.211	
13,700.00	6,850.63	13,649.99	6,610.00	175.57	176.07	69.97	-1,453.93	6,522.20	702.47	380.58	321.89	2.182	
13,800.00	6,850.97	13,749.99	6,610.26	178.09	178.59	69.96	-1,453.15	6,622.20	702.50	376.36	326.14	2.154	
13,900.00	6,851.32	13,849.99	6,610.52	180.62	181.11	69.96	-1,452.36	6,722.19	702.53	372.16	330.37	2.126	
14,000.00	6,851.67	13,949.99	6,610.79	183.14	183.63	69.95	-1,451.58	6,822.19	702.56	367.97	334.59	2.100	
14,100.00	6,852.02	14,049.99	6,611.05	185.67	186.16	69.94	-1,450.80	6,922.19	702.59	363.79	338.80	2.074	
14,200.00	6,852.36	14,149.99	6,611.31	188.20	188.68	69.94	-1,450.02	7,022.18	702.62	359.63	342.99	2.049	
14,300.00	6,852.71	14,249.99	6,611.57	190.72	191.20	69.93	-1,449.23	7,122.18	702.65	355.49	347.16	2.024	
14,400.00	6,853.06	14,349.99	6,611.83	193.25	193.73	69.92	-1,448.45	7,222.18	702.68	351.36	351.32	2.000	
14,500.00	6,853.41	14,449.99	6,612.09	195.78	196.26	69.92	-1,447.67	7,322.17	702.71	347.25	355.46	1.977 Level 3<2.00	
14,600.00	6,853.75	14,549.99	6,612.35	198.31	198.78	69.91	-1,446.88	7,422.17	702.74	343.16	359.59	1.954 Level 3<2.00	
14,700.00	6,854.10	14,649.99	6,612.61	200.84	201.31	69.90	-1,446.10	7,522.17	702.77	339.08	363.69	1.932 Level 3<2.00	
14,800.00	6,854.45	14,749.99	6,612.87	203.37	203.84	69.90	-1,445.32	7,622.16	702.80	335.02	367.78	1.911 Level 3<2.00	
14,900.00	6,854.80	14,849.99	6,613.13	205.91	206.37	69.89	-1,444.54	7,722.16	702.83	330.98	371.85	1.890 Level 3<2.00	
15,000.00	6,855.14	14,949.99	6,613.39	208.44	208.90	69.88	-1,443.75	7,822.16	702.86	326.96	375.91	1.870 Level 3<2.00	
15,100.00	6,855.49	15,049.99	6,613.65	210.97	211.43	69.88	-1,442.97	7,922.15	702.89	322.95	379.94	1.850 Level 3<2.00	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Rincon pad (613, 615, 713, 715,815,817,915 & 917) - Rincon Unit 917H - 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)	Reference	Offset	Semi Major Axis (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
15,200.00	6,855.84	15,149.99	6,613.91	213.50	213.96	69.87	69.87	-1,442.19	8,022.15	702.92	318.97	383.95	1.831	Level 3<2.00
15,300.00	6,856.19	15,249.99	6,614.17	216.04	216.49	69.86	69.86	-1,441.40	8,122.15	702.95	315.00	387.95	1.812	Level 3<2.00
15,400.00	6,856.54	15,349.99	6,614.43	218.57	219.02	69.86	69.86	-1,440.62	8,222.14	702.98	311.06	391.92	1.794	Level 3<2.00
15,500.00	6,856.88	15,449.99	6,614.69	221.11	221.55	69.85	69.85	-1,439.84	8,322.14	703.01	307.14	395.88	1.776	Level 3<2.00
15,600.00	6,857.23	15,549.99	6,614.95	223.64	224.08	69.84	69.84	-1,439.06	8,422.14	703.04	303.24	399.81	1.758	Level 3<2.00
15,700.00	6,857.58	15,649.99	6,615.21	226.18	226.62	69.84	69.84	-1,438.27	8,522.13	703.07	299.36	403.72	1.742	Level 3<2.00
15,800.00	6,857.93	15,749.99	6,615.48	228.71	229.15	69.83	69.83	-1,437.49	8,622.13	703.10	295.50	407.60	1.725	Level 3<2.00
15,900.00	6,858.27	15,849.99	6,615.74	231.25	231.68	69.82	69.82	-1,436.71	8,722.13	703.13	291.67	411.47	1.709	Level 3<2.00
16,000.00	6,858.62	15,949.99	6,616.00	233.78	234.22	69.82	69.82	-1,435.92	8,822.12	703.16	287.85	415.31	1.693	Level 3<2.00
16,100.00	6,858.97	16,049.99	6,616.26	236.32	236.75	69.81	69.81	-1,435.14	8,922.12	703.19	284.07	419.13	1.678	Level 3<2.00
16,200.00	6,859.32	16,149.99	6,616.52	238.86	239.29	69.80	69.80	-1,434.36	9,022.11	703.23	280.30	422.92	1.663	Level 3<2.00
16,300.00	6,859.66	16,249.99	6,616.78	241.39	241.82	69.80	69.80	-1,433.57	9,122.11	703.26	276.56	426.69	1.648	Level 3<2.00
16,400.00	6,860.01	16,349.99	6,617.04	243.93	244.36	69.79	69.79	-1,432.79	9,222.11	703.29	272.85	430.44	1.634	Level 3<2.00
16,500.00	6,860.36	16,449.99	6,617.30	246.47	246.89	69.78	69.78	-1,432.01	9,322.10	703.32	269.15	434.16	1.620	Level 3<2.00
16,600.00	6,860.71	16,549.99	6,617.56	249.01	249.43	69.78	69.78	-1,431.23	9,422.10	703.35	265.49	437.86	1.606	Level 3<2.00
16,700.00	6,861.05	16,649.99	6,617.82	251.55	251.97	69.77	69.77	-1,430.44	9,522.10	703.38	261.85	441.53	1.593	Level 3<2.00
16,800.00	6,861.40	16,749.99	6,618.08	254.08	254.50	69.76	69.76	-1,429.66	9,622.09	703.41	258.24	445.17	1.580	Level 3<2.00
16,900.00	6,861.75	16,849.99	6,618.34	256.62	257.04	69.76	69.76	-1,428.88	9,722.09	703.44	254.65	448.79	1.567	Level 3<2.00
17,000.00	6,862.10	16,949.99	6,618.60	259.16	259.58	69.75	69.75	-1,428.09	9,822.09	703.47	251.09	452.38	1.555	Level 3<2.00
17,100.00	6,862.44	17,049.99	6,618.86	261.70	262.12	69.74	69.74	-1,427.31	9,922.08	703.50	247.56	455.94	1.543	Level 3<2.00
17,200.00	6,862.79	17,149.99	6,619.12	264.24	264.65	69.74	69.74	-1,426.53	10,022.08	703.53	244.05	459.48	1.531	Level 3<2.00
17,300.00	6,863.14	17,249.99	6,619.38	266.78	267.19	69.73	69.73	-1,425.75	10,122.08	703.56	240.57	462.98	1.520	Level 3<2.00
17,400.00	6,863.49	17,349.99	6,619.64	269.32	269.73	69.72	69.72	-1,424.96	10,222.07	703.59	237.12	466.47	1.508	Level 3<2.00
17,500.00	6,863.83	17,449.99	6,619.90	271.86	272.27	69.72	69.72	-1,424.18	10,322.07	703.62	233.70	469.92	1.497	Level 2<1.50
17,600.00	6,864.18	17,549.99	6,620.17	274.40	274.81	69.71	69.71	-1,423.40	10,422.07	703.65	230.31	473.34	1.487	Level 2<1.50
17,700.00	6,864.53	17,649.99	6,620.43	276.94	277.35	69.70	69.70	-1,422.61	10,522.06	703.68	226.94	476.74	1.476	Level 2<1.50
17,800.00	6,864.88	17,749.99	6,620.69	279.49	279.89	69.70	69.70	-1,421.83	10,622.06	703.71	223.60	480.11	1.466	Level 2<1.50
17,900.00	6,865.22	17,849.99	6,620.95	282.03	282.43	69.69	69.69	-1,421.05	10,722.06	703.74	220.30	483.45	1.456	Level 2<1.50
18,000.00	6,865.57	17,949.99	6,621.21	284.57	284.97	69.68	69.68	-1,420.27	10,822.05	703.77	217.01	486.76	1.446	Level 2<1.50
18,100.00	6,865.92	18,049.99	6,621.47	287.11	287.51	69.68	69.68	-1,419.48	10,922.05	703.80	213.76	490.04	1.436	Level 2<1.50
18,200.00	6,866.27	18,149.99	6,621.73	289.65	290.05	69.67	69.67	-1,418.70	11,022.05	703.83	210.54	493.29	1.427	Level 2<1.50
18,300.00	6,866.61	18,249.99	6,621.99	292.19	292.59	69.66	69.66	-1,417.92	11,122.04	703.86	207.34	496.52	1.418	Level 2<1.50
18,400.00	6,866.96	18,349.99	6,622.25	294.74	295.13	69.66	69.66	-1,417.13	11,222.04	703.89	204.18	499.72	1.409	Level 2<1.50
18,500.00	6,867.31	18,449.99	6,622.51	297.28	297.67	69.65	69.65	-1,416.35	11,322.04	703.92	201.04	502.88	1.400	Level 2<1.50
18,600.00	6,867.66	18,549.99	6,622.77	299.82	300.21	69.64	69.64	-1,415.57	11,422.03	703.96	197.93	506.02	1.391	Level 2<1.50
18,605.83	6,867.68	18,555.81	6,622.79	299.97	300.36	69.64	69.64	-1,415.52	11,427.86	703.96	197.75	506.21	1.391	Level 2<1.50
18,698.72	6,868.00	18,638.04	6,623.00	302.33	302.45	69.64	69.64	-1,414.88	11,510.08	704.07	194.41	509.65	1.381	Level 2<1.50, 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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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:		Section 21-T27N-R06W - Rincon Unit 180 - Original Hole - Inc only surveys											Offset Site Error:		0.00 ft
Survey Program:		335-INC-ONLY				Rule Assigned:				Offset Well Error:		0.00 ft			
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Warning			
Measured Depth	Vertical	Measured Depth	Vertical	Reference	Offset	Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
0.00	0.00	0.00	0.00	0.00	0.00	-137.70	-370.32	-336.92	500.66						
100.00	100.00	96.00	96.00	0.13	1.25	-137.70	-370.32	-336.92	500.65	499.26	1.39	360.965			
200.00	200.00	196.00	196.00	0.49	2.56	-137.70	-370.32	-336.92	500.65	497.60	3.05	164.137			
300.00	300.00	296.00	296.00	0.85	3.86	-137.70	-370.32	-336.92	500.65	495.94	4.71	106.218			
400.00	400.00	396.00	396.00	1.21	9.42	-137.70	-370.32	-336.92	500.65	490.01	10.63	47.081			
500.00	500.00	496.00	496.00	1.57	17.71	-137.70	-370.32	-336.92	500.65	481.37	19.28	25.973			
600.00	600.00	596.00	596.00	1.93	25.99	-137.70	-370.32	-336.92	500.65	472.73	27.92	17.933			
700.00	700.00	696.00	696.00	2.29	34.27	-137.70	-370.32	-336.92	500.65	464.09	36.56	13.694			
800.00	800.00	796.00	796.00	2.64	42.56	-137.70	-370.32	-336.92	500.65	455.45	45.20	11.076			
900.00	900.00	896.00	896.00	3.00	50.84	-137.70	-370.32	-336.92	500.65	446.81	53.84	9.298			
1,000.00	1,000.00	996.00	996.00	3.36	59.12	-137.70	-370.32	-336.92	500.65	438.16	62.48	8.012			
1,100.00	1,100.00	1,096.00	1,096.00	3.72	67.41	-137.70	-370.32	-336.92	500.65	429.52	71.13	7.039			
1,200.00	1,200.00	1,196.00	1,196.00	4.08	75.69	-137.70	-370.32	-336.92	500.65	420.88	79.77	6.276			
1,300.00	1,299.95	1,295.96	1,295.95	4.42	83.97	11.02	-370.32	-336.92	498.08	409.69	88.39	5.635			
1,400.00	1,399.63	1,395.64	1,395.63	4.75	92.23	11.24	-370.32	-336.92	490.38	393.40	96.98	5.057			
1,500.00	1,498.77	1,494.77	1,494.77	5.09	100.44	11.62	-370.32	-336.92	477.58	372.06	105.53	4.526			
1,600.00	1,597.08	1,593.02	1,593.00	5.45	108.58	12.42	-367.71	-336.92	457.85	343.84	114.00	4.016			
1,700.00	1,694.72	1,690.55	1,690.54	5.83	116.66	13.05	-367.75	-336.92	436.79	314.37	122.42	3.568			
1,800.00	1,792.35	1,788.09	1,788.07	6.24	124.73	13.72	-367.82	-336.92	415.74	284.90	130.84	3.177			
1,900.00	1,889.97	1,885.64	1,885.62	6.65	132.81	14.45	-367.93	-336.92	394.77	255.50	139.27	2.835			
2,000.00	1,987.60	1,983.20	1,983.18	7.08	140.90	15.26	-368.07	-336.92	373.90	226.19	147.71	2.531			
2,100.00	2,085.22	2,080.77	2,080.75	7.52	148.98	16.16	-368.25	-336.92	353.13	196.98	156.15	2.261			
2,200.00	2,182.85	2,178.36	2,178.34	7.97	157.06	17.17	-368.46	-336.92	332.48	167.88	164.60	2.020			
2,300.00	2,280.47	2,275.96	2,275.94	8.42	165.15	18.31	-368.71	-336.92	311.96	138.91	173.06	1.803 Level 3<2.00			
2,400.00	2,378.10	2,373.58	2,373.55	8.88	173.23	19.60	-368.99	-336.92	291.60	110.08	181.52	1.606 Level 3<2.00			
2,500.00	2,475.72	2,471.21	2,471.18	9.35	181.32	21.07	-369.31	-336.92	271.43	81.43	189.99	1.429 Level 2<1.50			
2,600.00	2,573.35	2,568.85	2,568.82	9.82	189.41	22.78	-369.66	-336.92	251.47	53.00	198.47	1.267 Level 2<1.50			
2,700.00	2,670.97	2,666.51	2,666.47	10.29	197.50	24.77	-370.04	-336.92	231.79	24.82	206.97	1.120 Level 2<1.50			
2,800.00	2,768.60	2,764.90	2,764.60	10.77	203.33	27.15	-370.32	-336.92	212.37	-0.70	213.08	0.997 Level 1<1.00			
2,900.00	2,866.22	2,862.52	2,862.22	11.25	204.55	30.07	-370.32	-336.92	193.25	-20.99	214.24	0.902 Level 1<1.00			
3,000.00	2,963.85	2,959.96	2,959.65	11.73	205.76	33.88	-369.37	-336.92	174.30	-41.81	216.12	0.807 Level 1<1.00			
3,100.00	3,061.47	3,057.35	3,057.02	12.21	206.97	38.06	-369.91	-336.92	156.83	-61.44	218.27	0.719 Level 1<1.00			
3,200.00	3,159.10	3,155.49	3,155.10	12.70	208.65	43.33	-370.32	-336.92	140.36	-78.14	218.50	0.642 Level 1<1.00			
3,300.00	3,256.72	3,253.11	3,252.72	13.19	210.68	50.05	-370.32	-336.92	125.28	-95.60	220.88	0.567 Level 1<1.00			
3,400.00	3,354.35	3,350.74	3,350.35	13.68	212.71	58.40	-370.32	-336.92	112.39	-112.43	224.82	0.500 Level 1<1.00			
3,500.00	3,451.97	3,448.36	3,447.97	14.17	214.73	68.56	-370.32	-336.92	102.49	-125.81	228.30	0.449 Level 1<1.00			
3,600.00	3,549.60	3,545.99	3,545.60	14.66	216.76	80.34	-370.32	-336.92	96.52	-134.85	231.36	0.417 Level 1<1.00			
3,676.55	3,624.33	3,620.72	3,620.33	15.04	218.31	90.00	-370.32	-336.92	95.08	-138.19	233.28	0.408 Level 1<1.00, CC			
3,700.00	3,647.22	3,643.61	3,643.22	15.16	218.79	92.99	-370.32	-336.92	95.22	-138.66	233.88	0.407 Level 1<1.00, ES, SF			
3,800.00	3,744.85	3,741.24	3,740.85	15.65	220.81	105.36	-370.32	-336.92	98.77	-137.43	236.20	0.418 Level 1<1.00			
3,900.00	3,842.47	3,838.86	3,838.47	16.15	222.84	116.43	-370.32	-336.92	106.70	-130.36	237.06	0.450 Level 1<1.00			
4,000.00	3,940.10	3,936.50	3,936.06	16.64	224.87	126.53	-365.79	-336.92	122.32	-115.17	237.49	0.515 Level 1<1.00			
4,100.00	4,037.72	4,034.31	4,033.87	17.14	226.90	133.77	-365.87	-336.92	136.44	-103.98	240.42	0.568 Level 1<1.00			
4,200.00	4,135.35	4,132.18	4,131.73	17.64	228.93	139.60	-366.06	-336.92	152.20	-91.64	243.84	0.624 Level 1<1.00			
4,300.00	4,232.97	4,230.10	4,229.65	18.14	230.96	144.32	-366.39	-336.92	169.11	-77.90	247.00	0.685 Level 1<1.00			
4,400.00	4,330.60	4,328.08	4,327.61	18.63	233.00	148.18	-366.84	-336.92	186.81	-62.66	249.47	0.749 Level 1<1.00			
4,500.00	4,428.22	4,426.10	4,425.62	19.13	235.03	151.36	-367.41	-336.92	205.07	-46.70	251.77	0.815 Level 1<1.00			
4,600.00	4,525.85	4,524.17	4,523.68	19.63	237.07	154.03	-368.11	-336.92	223.71	-30.37	254.08	0.880 Level 1<1.00			
4,700.00	4,623.47	4,622.30	4,621.80	20.13	239.11	156.29	-368.94	-336.92	242.63	-13.78	256.41	0.946 Level 1<1.00			
4,800.00	4,721.10	4,720.47	4,719.96	20.64	241.14	158.23	-369.90	-336.92	261.74	2.98	258.75	1.012 Level 2<1.50			
4,900.00	4,818.72	4,815.32	4,814.72	21.14	242.41	159.82	-370.32	-336.92	281.60	21.33	260.26	1.082 Level 2<1.50			

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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: Section 21-T27N-R06W - Rincon Unit 180 - Original Hole - Inc only surveys												Offset Site Error:	0.00 ft
Survey Program: 335-INC-ONLY												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,916.35	4,913.63	4,913.04	21.64	243.21	161.24	-370.16	-336.92	302.23	40.76	261.47	1.156	Level 2<1.50
5,100.00	5,013.97	5,010.57	5,009.97	22.14	243.96	162.47	-370.32	-336.92	322.71	60.17	262.54	1.229	Level 2<1.50
5,200.00	5,111.60	5,108.20	5,107.60	22.64	244.69	163.56	-370.32	-336.92	343.48	79.85	263.62	1.303	Level 2<1.50
5,300.00	5,209.22	5,205.83	5,205.22	23.15	245.45	164.52	-370.32	-336.92	364.34	99.60	264.74	1.376	Level 2<1.50
5,400.00	5,306.85	5,303.89	5,303.28	23.65	246.21	165.36	-369.72	-336.92	385.87	120.00	265.87	1.451	Level 2<1.50
5,500.00	5,404.47	5,402.86	5,402.25	24.15	246.99	166.15	-370.00	-336.92	406.63	139.61	267.02	1.523	Level 3<2.00
5,600.00	5,502.10	5,498.72	5,498.10	24.66	248.62	166.84	-370.32	-336.92	427.42	158.43	268.99	1.589	Level 3<2.00
5,700.00	5,599.72	5,596.34	5,595.72	25.16	251.60	167.47	-370.32	-336.92	448.57	176.23	272.34	1.647	Level 3<2.00
5,800.00	5,697.36	5,693.98	5,693.36	25.66	254.59	168.06	-370.32	-336.92	469.72	194.03	275.70	1.704	Level 3<2.00
5,900.00	5,795.63	5,792.25	5,791.63	26.13	257.60	168.62	-370.32	-336.92	487.81	208.74	279.07	1.748	Level 3<2.00
6,000.00	5,894.73	5,891.35	5,890.73	26.55	260.63	168.99	-370.32	-336.92	500.84	218.38	282.46	1.773	Level 3<2.00
6,100.00	5,994.39	5,991.01	5,990.39	26.92	263.68	169.21	-370.32	-336.92	508.77	222.91	285.86	1.780	Level 3<2.00
6,200.00	6,094.34	6,090.96	6,090.34	27.22	266.74	169.29	-370.32	-336.92	511.57	222.33	289.24	1.769	Level 3<2.00
6,300.00	6,194.34	6,190.96	6,190.34	27.48	269.80	20.64	-370.32	-336.92	511.57	218.96	292.62	1.748	Level 3<2.00
6,400.00	6,294.18	6,290.79	6,290.18	27.73	272.86	-69.49	-370.32	-336.92	510.10	214.11	295.99	1.723	Level 3<2.00
6,500.00	6,391.90	6,388.52	6,387.90	27.91	275.85	-72.29	-370.32	-336.92	503.21	203.89	299.31	1.681	Level 3<2.00
6,600.00	6,484.57	6,481.19	6,480.57	28.03	278.69	-77.15	-370.32	-336.92	492.68	190.17	302.52	1.629	Level 3<2.00
6,700.00	6,569.37	6,565.99	6,565.37	28.10	281.28	-83.38	-370.32	-336.92	482.33	176.76	305.57	1.578	Level 3<2.00
6,800.00	6,643.71	6,640.33	6,639.71	28.11	283.56	-89.79	-370.32	-336.92	477.33	168.89	308.44	1.548	Level 3<2.00
6,803.56	6,646.13	6,642.75	6,642.13	28.10	283.63	-90.00	-370.32	-336.92	477.32	168.78	308.54	1.547	Level 3<2.00
6,900.00	6,705.34	6,701.96	6,701.34	28.08	285.44	-94.97	-370.32	-336.92	483.33	172.25	311.08	1.554	Level 3<2.00
7,000.00	6,756.00	6,752.62	6,752.00	28.02	286.99	-99.38	-370.32	-336.92	504.13	190.69	313.44	1.608	Level 3<2.00
7,100.00	6,796.79	6,793.41	6,792.79	27.98	288.24	-99.86	-370.32	-336.92	540.39	224.99	315.40	1.713	Level 3<2.00
7,200.00	6,821.13	6,817.75	6,817.13	27.94	288.99	-96.62	-370.32	-336.92	592.02	275.35	316.67	1.870	Level 3<2.00
7,300.00	6,828.38	6,825.00	6,824.38	28.00	289.21	-90.19	-370.32	-336.92	655.89	338.68	317.20	2.068	
7,400.00	6,828.73	6,825.35	6,824.73	28.61	289.22	-90.23	-370.32	-336.92	728.12	410.74	317.38	2.294	
7,500.00	6,829.08	6,825.70	6,825.08	29.81	289.23	-90.27	-370.32	-336.92	806.30	488.82	317.48	2.540	
7,600.00	6,829.43	6,826.04	6,825.43	31.23	289.24	-90.31	-370.32	-336.92	888.87	571.34	317.53	2.799	
7,700.00	6,829.77	6,826.39	6,825.77	32.79	289.25	-90.35	-370.32	-336.92	974.70	657.15	317.55	3.069	
7,800.00	6,830.12	6,826.74	6,826.12	34.47	289.26	-90.40	-370.32	-336.92	1,063.02	745.47	317.56	3.348	
7,900.00	6,830.47	6,827.09	6,826.47	36.25	289.27	-90.44	-370.32	-336.92	1,153.25	835.70	317.55	3.632	
8,000.00	6,830.82	6,827.43	6,826.82	38.12	289.28	-90.48	-370.32	-336.92	1,244.97	927.43	317.54	3.921	
8,100.00	6,831.16	6,827.78	6,827.16	40.06	289.29	-90.52	-370.32	-336.92	1,337.87	1,020.34	317.53	4.213	
8,200.00	6,831.51	6,828.13	6,827.51	42.06	289.31	-90.56	-370.32	-336.92	1,431.74	1,114.22	317.52	4.509	
8,300.00	6,831.86	6,828.48	6,827.86	44.12	289.32	-90.60	-370.32	-336.92	1,526.38	1,208.87	317.51	4.807	
8,400.00	6,832.21	6,828.82	6,828.21	46.23	289.33	-90.65	-370.32	-336.92	1,621.67	1,304.16	317.51	5.108	
8,500.00	6,832.55	6,829.17	6,828.55	48.37	289.34	-90.69	-370.32	-336.92	1,717.49	1,399.99	317.50	5.409	
8,600.00	6,832.90	6,829.52	6,828.90	50.56	289.35	-90.73	-370.32	-336.92	1,813.76	1,496.26	317.50	5.713	
8,700.00	6,833.25	6,829.87	6,829.25	52.78	289.36	-90.77	-370.32	-336.92	1,910.42	1,592.92	317.50	6.017	
8,800.00	6,833.60	6,830.21	6,829.60	55.02	289.37	-90.81	-370.32	-336.92	2,007.40	1,689.90	317.50	6.323	

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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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=6538+25 @ 6563.00ft

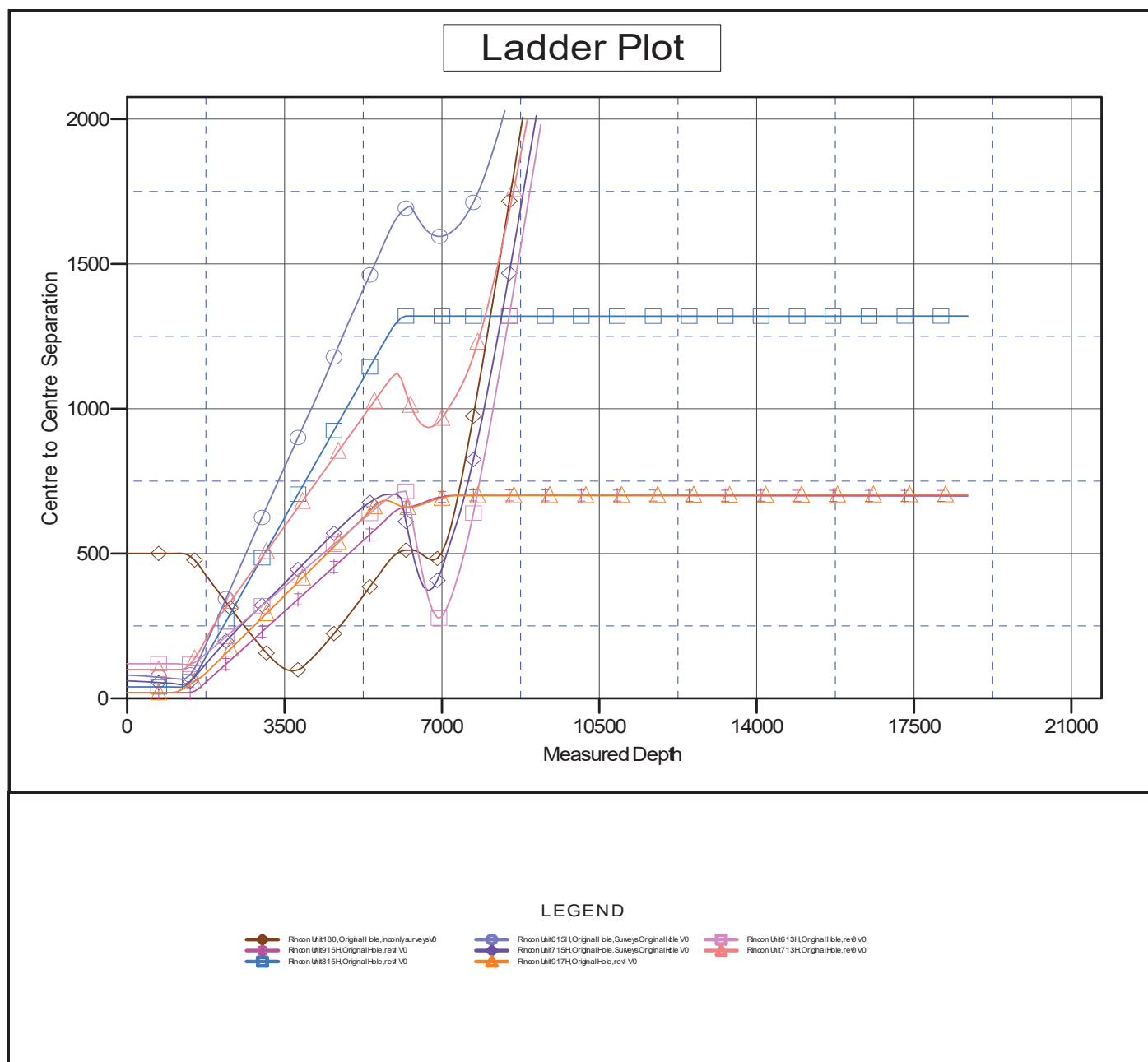
Offset Depths are relative to Offset Datum

Central Meridian is -107.833333333

Coordinates are relative to: Rincon Unit 817H

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

Grid Convergence at Surface is: 0.22°



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 Rincon Unit 817H
Project:	Rio Arriba County, New Mexico NAD83 NM W	TVD Reference:	RKB=6538+25 @ 6563.00ft
Reference Site:	Rincon pad (613, 615, 713, 715,815,817,915 & 917)	MD Reference:	RKB=6538+25 @ 6563.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Rincon Unit 817H	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=6538+25 @ 6563.00ft

Offset Depths are relative to Offset Datum

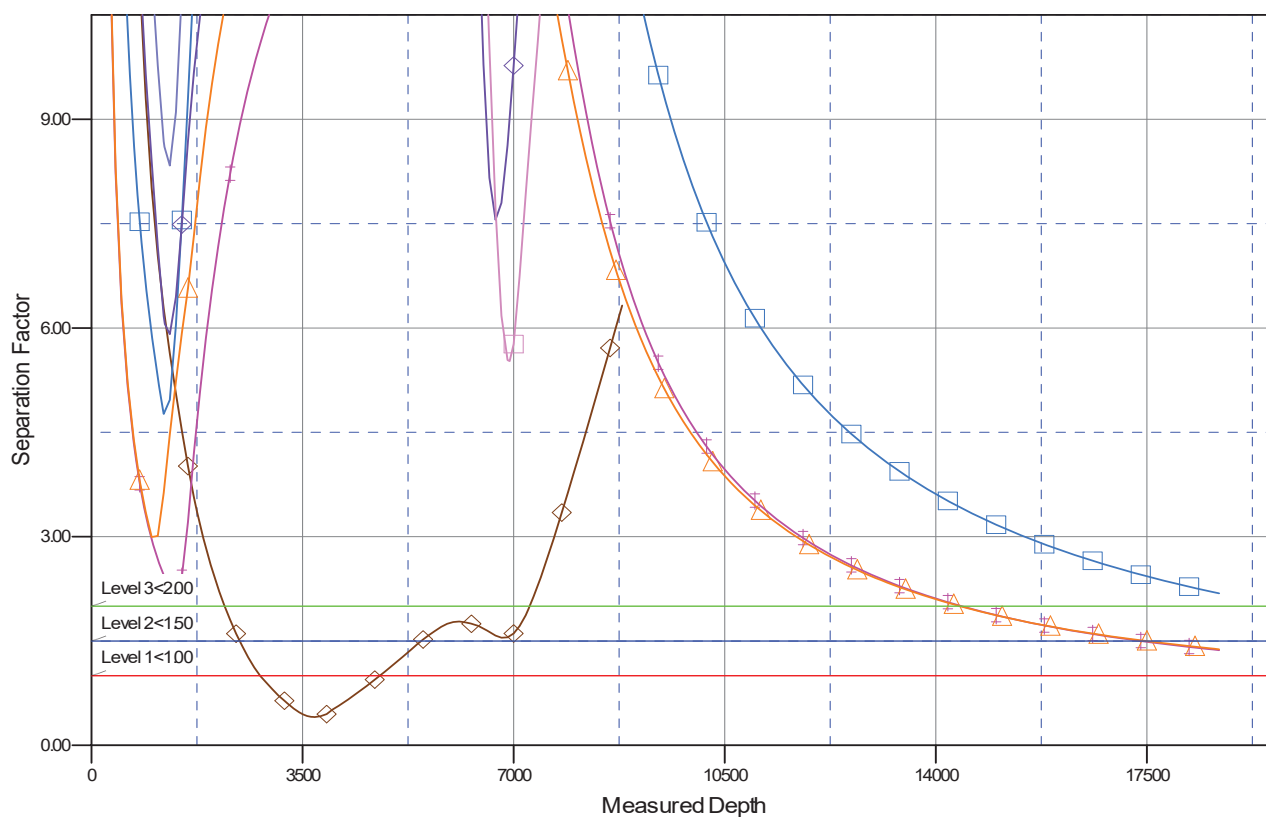
Central Meridian is -107.833333333

Coordinates are relative to: Rincon Unit 817H

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

Grid Convergence at Surface is: 0.22°

Separation Factor Plot



LEGEND

Rincon Unit180,OriginalHole,InonlysurveysV0	Rincon Unit815H,OriginalHole,SurveysOriginalHole,V0	Rincon Unit813H,OriginalHole,revV0
Rincon Unit915H,OriginalHole,revV0	Rincon Unit715H,OriginalHole,SurveysOriginalHole,V0	Rincon Unit713H,OriginalHole,revV0
Rincon Unit815H,OriginalHole,revV0	Rincon Unit917H,OriginalHole,revV0	

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

#817H RINCON UNIT

Lease: NMSF079366 / Agreement: NMNM078406X
SH: NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 21, T. 27N., R. 6W.
Rio Arriba County, New Mexico
BH: SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 23, T. 27N., R. 6W.
Rio Arriba 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 two years, approval of the Application for Permit to Drill will expire. A written request for a two-year extension may be granted if submitted prior to expiration.
- 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.

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 or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

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

V. SAFETY

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

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required 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.

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

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

CONDITIONS

Action 357817

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way Centennial, CO 80111	OGRID:
	372286
	Action Number:
	357817
Action Type:	
[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	7/24/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/24/2024
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	7/24/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	7/24/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	7/24/2024
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	7/24/2024