

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 9/11/2018

Well information;

Operator Enduring, Well Name and Number Rincon Unit 615H

API# 30-039-31372, Section 21, Township 27NS, Range 6 EW

Conditions of Approval: (See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
 - ☐ Hold C-104 for NSL, NSP, DHC
 - ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
 - ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
 - ☐ 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
 - ☐ Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
 - ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
 - ☒ 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.
 - ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles D. Sayer
NMOCD Approved by Signature


10-22-2018
Date

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF0079366
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" 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 checked="" type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. RINCON / NMNM078406X
2. Name of Operator ENDURING RESOURCES LLC		8. Lease Name and Well No. RINCON UNIT 615H
3a. Address 1050 17TH ST STE 2500 DENVER CO 80265	3b. Phone No. (include area code) (505)386-8205	9. API Well No. 20-039-31372
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface A NENE / 1141 FNL / 1257 FEL / LAT 36.563961 / LONG -107.467833 At proposed prod. zone D NWNW / 750 FNL / 500 FWL / LAT 36.564423 / LONG -107.497656		10. Field and Pool, or Exploratory BASIN MANCOS / MANCOS
11. Sec., T, R, M. or Blk. and Survey or Area SEC 21 / T27N / R6W / NMP		
14. Distance in miles and direction from nearest town or post office* 37 miles		12. County or Parish RIO ARRIBA
		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 20 feet	16. No of acres in lease 2558.72	17. Spacing Unit dedicated to this well 640
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1141 feet	19. Proposed Depth 6746 feet / 16189 feet	20. BLM/BIA Bond No. in file FED: NMB001492
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6538 feet	22. Approximate date work will start* 10/01/2018	23. Estimated duration 30 days
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 (Electronic Submission)	Name (Printed/Typed) Lacey Granillo / Ph: (505)636-9743	Date 09/11/2018
Title Permitting Specialist		
Approved by (Signature) 	Name (Printed/Typed) Richard A Fields	Date OCT 12 2018
Title Field Manager		
Office FARMINGTON		

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.

DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

BLM'S APPROVAL OR ACCEPTANCE OF
THIS ACTION DOES NOT RELIEVE THE
LESSEE AND OPERATOR FROM
OBTAINING ANY OTHER AUTHORIZATION
REQUIRED FOR OPERATIONS ON
FEDERAL AND INDIAN LANDS

This action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4

Submit one copy to
Appropriate District Office

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31372	*Pool Code 97232	*Pool Name Basin Mancos
*Property Code 319957	*Property Name RINCON UNIT	*Well Number 615H
*OGRID No. 372286	*Operator Name ENDURING RESOURCES, LLC	*Elevation 6538'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
A	21	27N	6W		1141	NORTH	1257	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
D	20	27N	6W		750	NORTH	500	WEST	RIO ARriba

12. Dedicated Acres 640.00	N/2 - Section 20 N/2 - Section 21	13. Joint or Infill	14. Consolidation Code	15. Order No. R-12984
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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

END-OF-LATERAL
750' FNI 500' FWL
SEC 20, T27N, R6W
LAT: 36.564414° N
LONG: 107.497052° W
DATUM: NAD1927

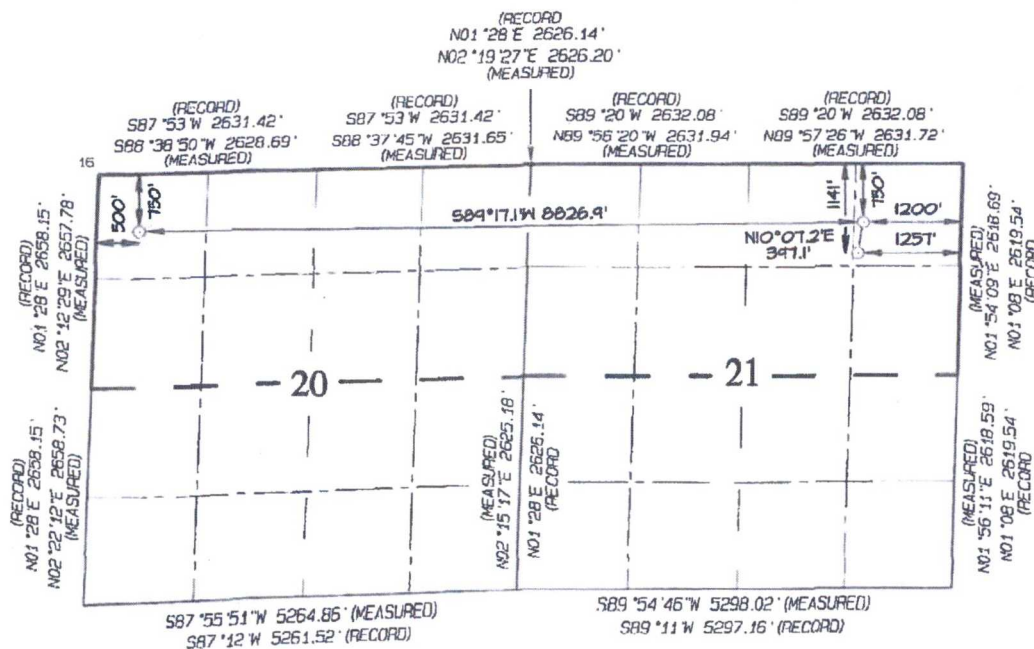
LAT: 36.564423° N
LONG: 107.497656° W
DATUM: NAD1983

POINT-OF-ENTRY
750' FNL 1200' FEL
SEC 21, T27N, R6W
LAT: 36.565028N
LONG: 107.467008 W
DATUM: NAD1927

LAT: 36.565037 N
LONG: 107.467612 W
DATUM: NAD1983

SURFACE LOCATION
1141' FNL 1257' FEL
SEC 21, T27N, R6W
LAT: 36.563952°N
LONG: 107.467229°W
DATUM: NAD1927

LAT: 36.563961°N
LONG: 107.467833°W
DATUM: NAD1983



17 OPERATOR CERTIFICATION

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 the owner of such a mineral working interest, or a voluntary pooling agreement or a compulsory pooling order applicable to the well in the division.

9/11/18

Signature
Lacey Granillo

Printed Name
lgranillo@enduringreosources.com

E-mail Address

13 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: AUGUST 20, 2018

Date of Survey: JUNE 17, 2018

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269



ENDURING RESOURCES IV, LLC
1050 SEVENTEENTH STREET, SUITE 2500
DENVER, COLORADO 80265

DRILLING PLAN: *Drill pilot hole, run logs, plug pilot hole. Sidetrack, drill, complete, and equip single lateral in the Mancos-G formation.*

WELL INFORMATION:

Name: Rincon Unit 615H

API Number: 30-039

State: New Mexico

County: Rio Arriba

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

Surface Location: 21-27N-06W Sec-Twn-Rng 1,141 ft FNL 1,257 ft FEL
36.563961 ° N latitude 107.467833 ° W longitude (NAD 83)

BH Location: 17-27N-06W Sec-Twn-Rng 750 ft FNL 500 ft FWL
36.565037 ° N latitude 107.467512 ° W longitude (NAD 83)

Driving Directions: From intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM: east on Hwy 64 for 36.8 miles to General American Road (GAR) just past MM 101, right (S) on GAR for 1.2 miles to fork, continue right (SW) on GAR for 3.4 miles to 4-way intersection, straight (S) on GAR for 1.1 miles to fork, right (SW) 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 0.4 miles to fork, straight (S) on 492 for 1.4 miles to fork, right (N) uphill on existing road for 0.6 miles to fork, left (SW) for 0.8 miles to fork, left (SE) for 0.1 miles to fork, right (SW) to location to staked location which overlaps existing roadway.

GEOLOGIC AND RESERVOIR INFORMATION:

Pilot-Hole Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	4,200	2,363	2,382	W	normal
	Kirtland	3,900	2,663	2,688	W	normal
	Fruitland	3,560	3,003	3,035	G, W	sub
	Pictured Cliffs	3,390	3,173	3,208	G, W	sub
	Lewis	3,150	3,413	3,453	G, W	normal
	Chacra	2,400	4,163	4,217	G, W	normal
	Cliff House	1,715	4,848	4,916	G, W	sub
	Menefee	1,700	4,863	4,931	G, W	normal
	Point Lookout	1,155	5,408	5,487	G, W	normal
	Mancos	725	5,838	5,925	O,G	normal
	Gallup (MNCS. A)	225	6,338	6,441	O,G	normal
	MNCS_B	160	6,403	6,493	O,G	normal
	MNCS_C	0	6,563	6,653	O,G	normal
	MNCS_E	-75	6,638	6,728	O,G	normal
	MNCS_F	-144	6,707	6,797	O,G	normal
	MNCS_G	-205	6,768	6,858	O,G	normal
	MNCS_H	-245	6,808	6,898	O,G	normal
	MNCS_I	-285	6,848	6,938	O,G	normal
	Basal Niobrara Unconf.	-420	6,983	7,073	O,G	normal
	Juana Lopez	-430	6,993	7,083	O,G	normal
	PROJECTED TD	-680	7,243	7,333	O,G	normal

Surface:

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

Pressure: Normal pressure gradient (0.43 psi/ft) 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: 3,010 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,480 psi

Temperature: Maximum anticipated BHT is 200° F or less

Lateral Prognosis:	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	4,200	2,363	2,382	W	normal
	Kirtland	3,900	2,663	2,688	W	normal
	Fruitland	3,560	3,003	3,035	G, W	sub
	Pictured Cliffs	3,390	3,173	3,208	G, W	sub
	Lewis	3,150	3,413	3,453	G, W	normal
	Chacra	2,400	4,163	4,217	G, W	normal
	Cliff House	1,715	4,848	4,916	G, W	sub
	Menefee	1,700	4,863	4,931	G, W	normal
	Point Lookout	1,155	5,408	5,487	G, W	normal
	Mancos	725	5,838	5,925	O,G	normal
	Gallup (MNCS. A)	225	6,338	6,441	O,G	normal
	MNCS. G TARGET	-240	6,803	7,351	O,G	normal
	PROJECTED WELL TD	-183	6,746	16,189	O,G	normal

Surface:

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

Pressure: Normal pressure gradient (0.43 psi/ft) 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: 2,930 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 1,440 psi

Temperature: Maximum anticipated BHT is 185° 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 chromatograph 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: Schlumberger CMR log from TD of pilot hole to Mancos top, Schlumberger Quad-Combo log from TD of pilot hole to 9-5/8" casing shoe.

Testing: None planned

Coring: Possible side-wall coring

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 double gate ram (13-5/8", 10,000 psi)

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

Choke Cameron (4", 10,000 psi)

KB-GL (ft): 25

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 10 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
- 4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 5) Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

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

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

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

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

Fluid Program: See "Detailed Drilling Plan" section for specifics.

DETAILED DRILLING PLAN:

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

0 ft (MD)	to	320 ft (MD)	Hole Section Length:	320 ft
0 ft (TVD)	to	320 ft (TVD)	Casing Required:	320 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, run deviation survey after drilling

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					70	1,518	115,209	115,209
Min. S.F.					16.17	1.80	7.40	7.89

Assumptions: Collapse: partially evacuated casing with 8.4 ppg fluid outside casing

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 Details: 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)
	Class G	15.8	1.174	5.15	0.6946	100%	0	379

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

Halliburton HALCEM surface cementing blend

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

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

320 ft (MD)	to	5,033 ft (MD)	Hole Section Length:	4,713 ft
320 ft (TVD)	to	4,963 ft (TVD)	Casing Required:	5,033 ft

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

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

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

Logging: None

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

Note: The intermediate hole section may be drilled with annular preventer and blind rams only (no pipe rams).

Maximum anticipated surface pressure while drilling intermediate hole section is 1,050 psi

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
Loading					1,368	1,784	258,005
Min. S.F.					1.48	1.97	2.19

Assumptions: Collapse: partially evacuated casing with 9.5 ppg fluid outside casing

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 Details: 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)
Lead	G:POZ Blend	12.3	1.987	10.16	0.3132	40%	0	1,000
Tail	Class G	15.8	1.148	4.98	0.3132	10%	4,533	150

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

Halliburton ECONOCEM & HALCEM cementing blend

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

PILOT HOLE: Drill pilot hole, run open-hole logs as directed by Geology, plug back

5,033 ft (MD)	to	7,333 ft (MD)	Hole Section Length:	2,300 ft
4,963 ft (TVD)	to	7,243 ft (TVD)	Casing Required:	N/A

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	WBM	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

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

Logging: GR MWD for entire section, OH WL logs as directed by Operations Geologist

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Gallup (MNCS_A)	Class G	15.8	1.148	4.98	0.3941	50%	6,441	129

*Plug length: 250 ft with excess noted above

PRODUCTION: Perform sidetrack, drill to TD following directional plan, run casing, cement casing to surface.

5,850 ft (MD)	to	16,189 ft (MD)	Hole Section Length:	10,339 ft
5,764 ft (TVD)	to	6,746 ft (TVD)	Casing Required:	16,189 ft

Estimated KOP:	5,850 ft (MD)	5,764 ft (TVD)
Estimated Landing Point (P.O.E.):	7,351 ft (MD)	6,803 ft (TVD)
Estimated Lateral Length:	8,838 ft (MD)	

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	WBM	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

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

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					3,333	9,131	337,484	337,484
Min. S.F.					2.24	1.17	1.62	1.32

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

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

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

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

Casing Details: Float shoe, float collar, 2 jts casing, float collar, 1 jt casing, toe-initiation sleeve, 1 jt casing, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every 2,000'. Place Floatation Sub at KOP (+/-). Continue running casing to surface. **The toe-initiation sleeves must be positioned INSIDE any unit setbacks.**

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

Lateral: estimated 1 centralizer per joints

Curve: estimated 1 centralizer per joint from landing point to KOP

Vertical: estimated 1 centralizer per 2 joints from KOP to 9-5/8" shoe, 1 per 3 joints from 9-5/8" shoe to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	G:POZ blend	12.3	1.987	10.16	0.2691	40%	0	1,072
Tail	G:POZ blend	13.3	1.354	5.94	0.2291	10%	5,764	1,940

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

Halliburton ECONOCEM & EXTENDACEM cementing blend

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

Note: The lateral may be drilled past applicable setback to maximize the length of the completed interval and to maximize resource recovery. If the well is drilled past the setback, the toe Initiation sleeve and all perforations will be placed inside the setback. An unorthodox location application is not required because the completed interval will be entirely within the setback as defined and allowed by NMAC 19.15.16.7B(1), NMAC 19.15.16.14B(2), NMAC 19.15.16.15B(2).

FINISH WELL: ND BOP, NU WH with BPV and cap, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: Lateral will be fracture-stimulated in approximately 50 plug-and-perf stages with approximately 250,000 bbls slickwater fluid and 16,000,000 lbs of proppant.

Flowback: Depending on well pressures, flow back may be either up 5-1/2" casing or 2-7/8" production tubing. Well will be flowed back until proppant volumes are low enough that the well can safely be produced through permanent production facilities.

Production: Well will produce up production tubing via gas-lift into permanent production and storage facilities.

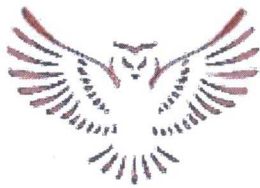
ESTIMATED START DATES:

Drilling: 11/15/2018

Completion: 1/15/2019

Production: 2/28/2019

Prepared by: Alec Bridge 9/4/2018



Enduring Resources LLC

San Juan Basin - Rincon Unit

613H Pad

615H

Wellbore #1

Plan: Design #1

Standard Planning Report

05 September, 2018



Planning Report

Database: EDM
Company: Enduring Resources LLC
Project: San Juan Basin - Rincon Unit
Site: 613H Pad
Well: 615H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 615H
TVD Reference: KB @ 6563.0usft (Original Well Elev)
MD Reference: KB @ 6563.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	San Juan Basin - Rincon Unit		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	613H Pad, Rio Arriba Co., New Mexico				
Site Position:		Northing:	2,026,844.45 usft	Latitude:	36.564026°N
From:	Lat/Long	Easting:	1,282,809.90 usft	Longitude:	107.467723°W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.73 °

Well	615H					
Well Position	+N/-S	-23.3 usft	Northing:	2,026,821.19 usft	Latitude:	36.563961°N
	+E/-W	-32.6 usft	Easting:	1,282,777.30 usft	Longitude:	107.467833°W
Position Uncertainty	0.0 usft		Wellhead Elevation:	Ground Level:		6,538.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.91	63.42	50,847.03958061

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	5,850.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	271.83	

Plan Survey Tool Program		Date	9/5/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	5,850.0	16,188.4	Design #1 (Wellbore #1)	MWD	
			OWSG MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
5,850.0	11.23	71.57	5,764.4	281.4	844.1	0.00	0.00	0.00	0.00	
5,908.0	14.98	63.69	5,820.9	286.5	856.1	7.15	6.47	-13.57	-29.32	
7,361.4	90.37	269.28	6,803.0	390.9	69.9	7.15	5.19	-10.62	-153.58	615H - POE
16,188.4	90.37	269.28	6,746.0	280.5	-8,756.3	0.00	0.00	0.00	0.00	615H - BHL



Planning Report

Database: EDM
 Company: Enduring Resources LLC
 Project: San Juan Basin - Rincon Unit
 Site: 613H Pad
 Well: 615H
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well 615H
 TVD Reference: KB @ 6563.0usft (Original Well Elev)
 MD Reference: KB @ 6563.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,850.0	11.23	71.57	5,764.4	281.4	844.1	-834.6	0.00	0.00	0.00
5,900.0	14.45	64.54	5,813.1	285.6	854.3	-844.7	7.15	6.44	-14.05
5,908.0	14.98	63.69	5,820.9	286.5	856.1	-846.5	7.15	6.62	-10.57
6,000.0	9.54	45.80	5,910.7	297.1	872.3	-862.3	7.15	-5.91	-19.45
6,100.0	6.61	357.22	6,009.9	308.6	878.0	-867.6	7.15	-2.93	-48.58
6,200.0	9.90	310.89	6,108.9	320.0	871.2	-860.5	7.15	3.29	-46.32
6,300.0	15.93	293.25	6,206.4	331.0	852.0	-841.0	7.15	6.04	-17.65
6,400.0	22.62	285.46	6,300.7	341.6	820.9	-809.5	7.15	6.68	-7.79
6,500.0	29.51	281.13	6,390.5	351.5	778.1	-766.4	7.15	6.89	-4.33
6,600.0	36.49	278.33	6,474.3	360.6	724.4	-712.5	7.15	6.98	-2.80
6,700.0	43.52	276.33	6,550.9	368.7	660.7	-648.6	7.15	7.03	-2.00
6,800.0	50.58	274.79	6,619.0	375.7	587.9	-575.6	7.15	7.06	-1.54
6,900.0	57.65	273.53	6,677.6	381.5	507.2	-494.7	7.15	7.07	-1.26
7,000.0	64.73	272.46	6,725.7	386.1	419.7	-407.1	7.15	7.08	-1.07
7,100.0	71.82	271.50	6,762.7	389.3	326.9	-314.3	7.15	7.09	-0.95
7,200.0	78.92	270.63	6,788.0	391.1	230.3	-217.6	7.15	7.09	-0.88
7,300.0	86.01	269.79	6,801.1	391.4	131.2	-118.6	7.15	7.10	-0.84
7,361.4	90.37	269.28	6,803.0	390.9	69.9	-57.3	7.15	7.10	-0.82
7,400.0	90.37	269.28	6,802.8	390.4	31.2	-18.7	0.00	0.00	0.00
7,500.0	90.37	269.28	6,802.1	389.2	-68.8	81.2	0.00	0.00	0.00
7,600.0	90.37	269.28	6,801.5	387.9	-168.7	181.1	0.00	0.00	0.00
7,700.0	90.37	269.28	6,800.8	386.7	-268.7	281.0	0.00	0.00	0.00
7,800.0	90.37	269.28	6,800.2	385.4	-368.7	380.9	0.00	0.00	0.00
7,900.0	90.37	269.28	6,799.5	384.2	-468.7	480.8	0.00	0.00	0.00
8,000.0	90.37	269.28	6,798.9	382.9	-568.7	580.7	0.00	0.00	0.00
8,100.0	90.37	269.28	6,798.2	381.7	-668.7	680.6	0.00	0.00	0.00
8,200.0	90.37	269.28	6,797.6	380.4	-768.7	780.5	0.00	0.00	0.00
8,300.0	90.37	269.28	6,796.9	379.2	-868.7	880.4	0.00	0.00	0.00
8,400.0	90.37	269.28	6,796.3	377.9	-968.7	980.3	0.00	0.00	0.00
8,500.0	90.37	269.28	6,795.6	376.7	-1,068.7	1,080.2	0.00	0.00	0.00
8,600.0	90.37	269.28	6,795.0	375.4	-1,168.6	1,180.1	0.00	0.00	0.00
8,700.0	90.37	269.28	6,794.4	374.2	-1,268.6	1,280.0	0.00	0.00	0.00
8,800.0	90.37	269.28	6,793.7	372.9	-1,368.6	1,379.9	0.00	0.00	0.00
8,900.0	90.37	269.28	6,793.1	371.7	-1,468.6	1,479.8	0.00	0.00	0.00
9,000.0	90.37	269.28	6,792.4	370.4	-1,568.6	1,579.7	0.00	0.00	0.00
9,100.0	90.37	269.28	6,791.8	369.2	-1,668.6	1,679.6	0.00	0.00	0.00
9,200.0	90.37	269.28	6,791.1	367.9	-1,768.6	1,779.5	0.00	0.00	0.00
9,300.0	90.37	269.28	6,790.5	366.7	-1,868.6	1,879.4	0.00	0.00	0.00
9,400.0	90.37	269.28	6,789.8	365.4	-1,968.6	1,979.3	0.00	0.00	0.00
9,500.0	90.37	269.28	6,789.2	364.2	-2,068.6	2,079.1	0.00	0.00	0.00
9,600.0	90.37	269.28	6,788.5	362.9	-2,168.5	2,179.0	0.00	0.00	0.00
9,700.0	90.37	269.28	6,787.9	361.6	-2,268.5	2,278.9	0.00	0.00	0.00
9,800.0	90.37	269.28	6,787.3	360.4	-2,368.5	2,378.8	0.00	0.00	0.00
9,900.0	90.37	269.28	6,786.6	359.1	-2,468.5	2,478.7	0.00	0.00	0.00
10,000.0	90.37	269.28	6,786.0	357.9	-2,568.5	2,578.6	0.00	0.00	0.00
10,100.0	90.37	269.28	6,785.3	356.6	-2,668.5	2,678.5	0.00	0.00	0.00
10,200.0	90.37	269.28	6,784.7	355.4	-2,768.5	2,778.4	0.00	0.00	0.00
10,300.0	90.37	269.28	6,784.0	354.1	-2,868.5	2,878.3	0.00	0.00	0.00
10,400.0	90.37	269.28	6,783.4	352.9	-2,968.5	2,978.2	0.00	0.00	0.00
10,500.0	90.37	269.28	6,782.7	351.6	-3,068.5	3,078.1	0.00	0.00	0.00
10,600.0	90.37	269.28	6,782.1	350.4	-3,168.4	3,178.0	0.00	0.00	0.00
10,700.0	90.37	269.28	6,781.4	349.1	-3,268.4	3,277.9	0.00	0.00	0.00
10,800.0	90.37	269.28	6,780.8	347.9	-3,368.4	3,377.8	0.00	0.00	0.00
10,900.0	90.37	269.28	6,780.1	346.6	-3,468.4	3,477.7	0.00	0.00	0.00



Planning Report

Database: EDM
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Project: San Juan Basin - Rincon Unit
Site: 613H Pad
Well: 615H
Wellbore: 615H
Design: Design #1

Local Co-ordinate Reference: Well 615H
TVD Reference: KB @ 6563.0usft (Original Well Elev)
MD Reference: KB @ 6563.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,000.0	90.37	269.28	6,779.5	345.4	-3,568.4	3,577.6	0.00	0.00	0.00
11,100.0	90.37	269.28	6,778.9	344.1	-3,668.4	3,677.5	0.00	0.00	0.00
11,200.0	90.37	269.28	6,778.2	342.9	-3,768.4	3,777.4	0.00	0.00	0.00
11,300.0	90.37	269.28	6,777.6	341.6	-3,868.4	3,877.3	0.00	0.00	0.00
11,400.0	90.37	269.28	6,776.9	340.4	-3,968.4	3,977.2	0.00	0.00	0.00
11,500.0	90.37	269.28	6,776.3	339.1	-4,068.4	4,077.1	0.00	0.00	0.00
11,600.0	90.37	269.28	6,775.6	337.9	-4,168.3	4,177.0	0.00	0.00	0.00
11,700.0	90.37	269.28	6,775.0	336.6	-4,268.3	4,276.9	0.00	0.00	0.00
11,800.0	90.37	269.28	6,774.3	335.4	-4,368.3	4,376.8	0.00	0.00	0.00
11,900.0	90.37	269.28	6,773.7	334.1	-4,468.3	4,476.7	0.00	0.00	0.00
12,000.0	90.37	269.28	6,773.0	332.9	-4,568.3	4,576.6	0.00	0.00	0.00
12,100.0	90.37	269.28	6,772.4	331.6	-4,668.3	4,676.5	0.00	0.00	0.00
12,200.0	90.37	269.28	6,771.8	330.4	-4,768.3	4,776.4	0.00	0.00	0.00
12,300.0	90.37	269.28	6,771.1	329.1	-4,868.3	4,876.3	0.00	0.00	0.00
12,400.0	90.37	269.28	6,770.5	327.9	-4,968.3	4,976.2	0.00	0.00	0.00
12,500.0	90.37	269.28	6,769.8	326.6	-5,068.3	5,076.1	0.00	0.00	0.00
12,600.0	90.37	269.28	6,769.2	325.4	-5,168.2	5,176.0	0.00	0.00	0.00
12,700.0	90.37	269.28	6,768.5	324.1	-5,268.2	5,275.9	0.00	0.00	0.00
12,800.0	90.37	269.28	6,767.9	322.9	-5,368.2	5,375.8	0.00	0.00	0.00
12,900.0	90.37	269.28	6,767.2	321.6	-5,468.2	5,475.7	0.00	0.00	0.00
13,000.0	90.37	269.28	6,766.6	320.4	-5,568.2	5,575.6	0.00	0.00	0.00
13,100.0	90.37	269.28	6,765.9	319.1	-5,668.2	5,675.5	0.00	0.00	0.00
13,200.0	90.37	269.28	6,765.3	317.9	-5,768.2	5,775.4	0.00	0.00	0.00
13,300.0	90.37	269.28	6,764.7	316.6	-5,868.2	5,875.3	0.00	0.00	0.00
13,400.0	90.37	269.28	6,764.0	315.4	-5,968.2	5,975.2	0.00	0.00	0.00
13,500.0	90.37	269.28	6,763.4	314.1	-6,068.2	6,075.1	0.00	0.00	0.00
13,600.0	90.37	269.28	6,762.7	312.9	-6,168.1	6,175.0	0.00	0.00	0.00
13,700.0	90.37	269.28	6,762.1	311.6	-6,268.1	6,274.9	0.00	0.00	0.00
13,800.0	90.37	269.28	6,761.4	310.4	-6,368.1	6,374.8	0.00	0.00	0.00
13,900.0	90.37	269.28	6,760.8	309.1	-6,468.1	6,474.7	0.00	0.00	0.00
14,000.0	90.37	269.28	6,760.1	307.9	-6,568.1	6,574.6	0.00	0.00	0.00
14,100.0	90.37	269.28	6,759.5	306.6	-6,668.1	6,674.5	0.00	0.00	0.00
14,200.0	90.37	269.28	6,758.8	305.3	-6,768.1	6,774.4	0.00	0.00	0.00
14,300.0	90.37	269.28	6,758.2	304.1	-6,868.1	6,874.3	0.00	0.00	0.00
14,400.0	90.37	269.28	6,757.5	302.8	-6,968.1	6,974.2	0.00	0.00	0.00
14,500.0	90.37	269.28	6,756.9	301.6	-7,068.1	7,074.1	0.00	0.00	0.00
14,600.0	90.37	269.28	6,756.3	300.3	-7,168.0	7,174.0	0.00	0.00	0.00
14,700.0	90.37	269.28	6,755.6	299.1	-7,268.0	7,273.9	0.00	0.00	0.00
14,800.0	90.37	269.28	6,755.0	297.8	-7,368.0	7,373.8	0.00	0.00	0.00
14,900.0	90.37	269.28	6,754.3	296.6	-7,468.0	7,473.7	0.00	0.00	0.00
15,000.0	90.37	269.28	6,753.7	295.3	-7,568.0	7,573.6	0.00	0.00	0.00
15,100.0	90.37	269.28	6,753.0	294.1	-7,668.0	7,673.5	0.00	0.00	0.00
15,200.0	90.37	269.28	6,752.4	292.8	-7,768.0	7,773.4	0.00	0.00	0.00
15,300.0	90.37	269.28	6,751.7	291.6	-7,868.0	7,873.3	0.00	0.00	0.00
15,400.0	90.37	269.28	6,751.1	290.3	-7,968.0	7,973.2	0.00	0.00	0.00
15,500.0	90.37	269.28	6,750.4	289.1	-8,068.0	8,073.1	0.00	0.00	0.00
15,600.0	90.37	269.28	6,749.8	287.8	-8,167.9	8,173.0	0.00	0.00	0.00
15,700.0	90.37	269.28	6,749.2	286.6	-8,267.9	8,272.9	0.00	0.00	0.00
15,800.0	90.37	269.28	6,748.5	285.3	-8,367.9	8,372.8	0.00	0.00	0.00
15,900.0	90.37	269.28	6,747.9	284.1	-8,467.9	8,472.7	0.00	0.00	0.00
16,000.0	90.37	269.28	6,747.2	282.8	-8,567.9	8,572.6	0.00	0.00	0.00
16,100.0	90.37	269.28	6,746.6	281.6	-8,667.9	8,672.5	0.00	0.00	0.00
16,188.4	90.37	269.28	6,746.0	280.5	-8,756.3	8,760.8	0.00	0.00	0.00

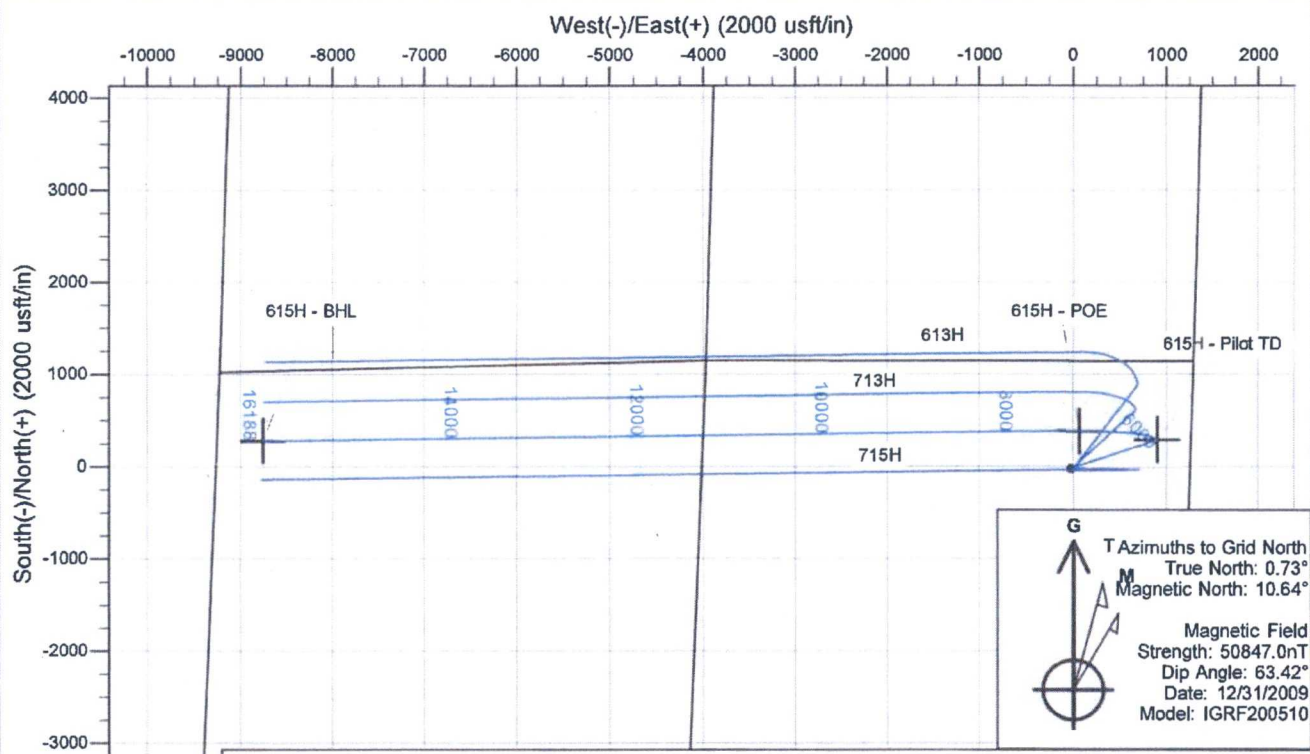


Enduring Resources LLC

Directional Drilling Plan
Plan View & Section View

Rincon Unit 615H

Rio Arriba Co., New Mexico
T27N-R06W-Sec.21-Lot A
Surface Latitude: 36.563961°N
Surface Longitude: 107.467833°W
Ground Level: 6538.0
Reference Elevation: KB @ 6563.0usft (Original Well Elev)



Design Target Details

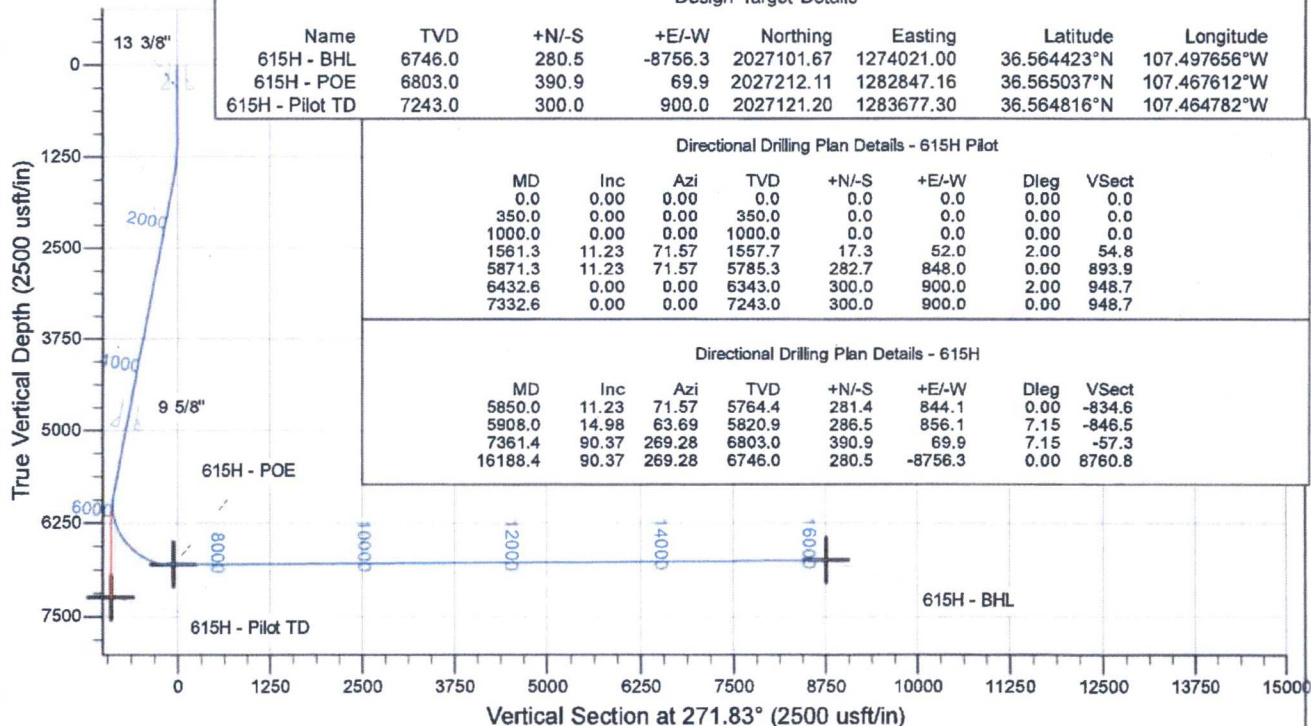
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
615H - BHL	6746.0	280.5	-8756.3	2027101.67	1274021.00	36.564423°N	107.497656°W
615H - POE	6803.0	390.9	69.9	2027212.11	1282847.16	36.565037°N	107.467612°W
615H - Pilot TD	7243.0	300.0	900.0	2027121.20	1283677.30	36.564816°N	107.464782°W

Directional Drilling Plan Details - 615H Pilot

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.0
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.0
1561.3	11.23	71.57	1557.7	17.3	52.0	2.00	54.8
5871.3	11.23	71.57	5785.3	282.7	848.0	0.00	893.9
6432.6	0.00	0.00	6343.0	300.0	900.0	2.00	948.7
7332.6	0.00	0.00	7243.0	300.0	900.0	0.00	948.7

Directional Drilling Plan Details - 615H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
5850.0	11.23	71.57	5764.4	281.4	844.1	0.00	-834.6
5908.0	14.98	63.69	5820.9	286.5	856.1	7.15	-846.5
7361.4	90.37	269.28	6803.0	390.9	69.9	7.15	-57.3
16188.4	90.37	269.28	6746.0	280.5	-8756.3	0.00	8760.8



WELL NAME: Rincon Unit 615H**OBJECTIVE:** Drill pilot hole, run logs, plug pilot hole. Sidetrack, drill, complete, and equip**API Number:** 30-039**State:** New Mexico**County:** Rio Arriba**Surface Elev.:** 6,538 ft ASL (GL) 6,563 ft ASL (KB)**Surface Location:** 21-27N-06W Sec-Twn- Rng 1,141 ft FNL 1,257 ft FEL**BH Location:** 17-27N-06W Sec-Twn- Rng 750 ft FNL 500 ft FWL

Driving Directions: From intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM: east on Hwy 64 for 36.8 miles to General American Road (GAR) just past MM 101, right (S) on GAR for 1.2 miles to fork, continue right (SW) on GAR for 3.4 miles to 4-way intersection, straight (S) on GAR for 1.1 miles to fork, right (SW) 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 0.4 miles to fork, straight (S) on 492 for 1.4 miles to fork, right (N) uphill on existing road for 0.6 miles to fork, left (SW) for 0.6 miles to fork, left (SE) for 0.1 miles to fork, right (SW) to location to staked location which overlaps existing roadway.

QUICK REFERENCE

Sur TD (MD)	320 ft
Int TD (MD)	5,033 ft
KOP (MD)	5,850 ft
KOP (TVD)	5,764 ft
Target (TVD)	6,803 ft
Curve BUR	10°/100 ft
POE (MD)	7,351 ft
TD (MD)	16,189 ft
Lat Len (ft)	8,838 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	320	13.375	54.5	J-55	BTC	0	300
Intermediate	12.250	5,033	9.625	36.0	J-55	LTC	0	5,033
Production	8.500	16,189	5.500	17.0	P-110	LTC	0	16,189

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	Class G	15.8	1.174	5.15	0.6946	100%	0	379
Inter. (Lead)	G:POZ Blend	12.3	1.987	10.16	0.3132	40%	0	1,000
Inter. (Tail)	Class G	15.8	1.148	4.98	0.3132	10%	4,533	150
Prod. (Lead)	G:POZ blend	12.3	1.987	10.16	0.2691	40%	0	1,072
Prod. (Tail)	G:POZ blend	13.3	1.354	5.94	0.2291	10%	5,764	1,940

COMPLETION / PRODUCTION SUMMARY:

Frac: 50-stage (+/-) plug-and-perf frac with slick water and 16,000,000 lbs (+/-) proppant

Flowback: Flow up 5-1/2" casing or 2-7/8" tubing until returns are free of sand

Production: 2-7/8" tubing with packer set in 5-1/2" casing and gas-lift mandrels as needed

PILOT HOLE:

An 8-1/2" pilot hole will be drilled into the Juana Lopez to run OH logs. The pilot hole will NOT be cased, and it will NOT be completed. A 250' cement plug will be spotted in the pilot from ~6,441 MD - 6,691' MD (to serve as pilot-hole isolation plug at the Gallup top). An OH sidetrack will be performed at ~5,850' to drill the production hole.

PILOT HOLE TOPS:

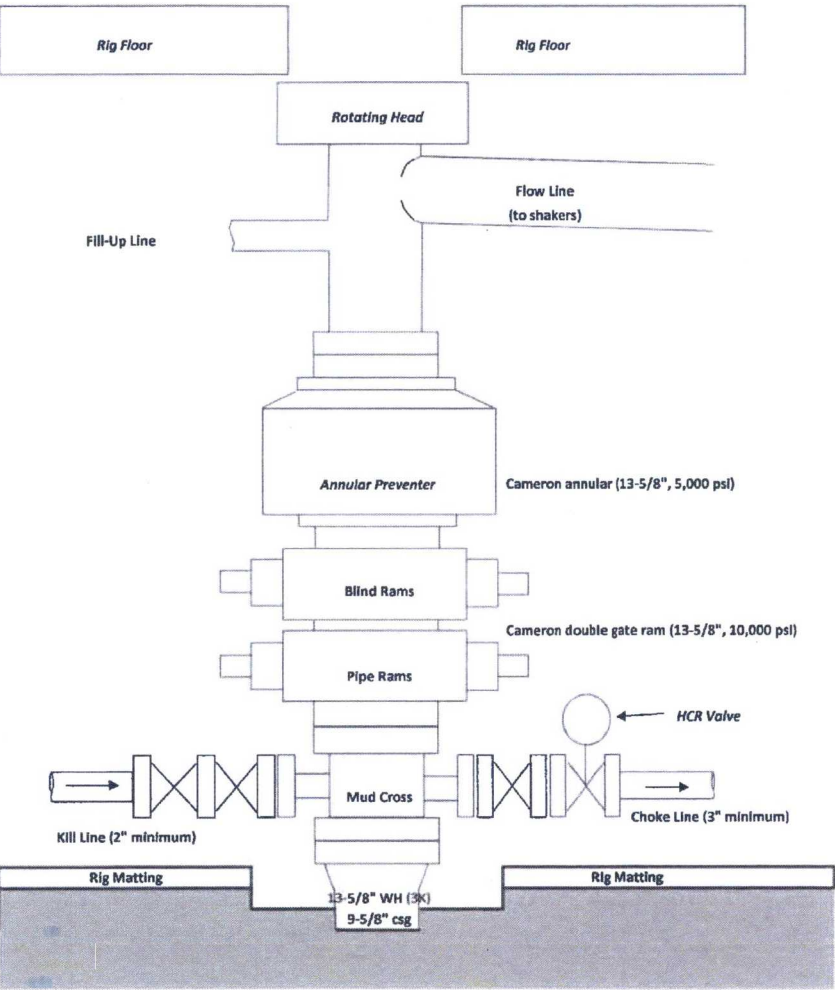
Formation Tops	TVD (ft KB)	MD (ft KB)
Mancos	5,838	5,925
Gallup (MNCS_A)	6,338	6,441
MNCS_B	6,403	6,493
MNCS_C	6,563	6,653
MNCS_E	6,638	6,728
MNCS_F	6,707	6,797
MNCS_G	6,768	6,858
MNCS_H	6,808	6,898
MNCS_I	6,848	6,938
Basal Niobrara Unconf.	6,983	7,073
Juana Lopez	6,993	7,083
PROJECTED TD	7,243	7,333

NMOCD**OCT 22 2018****DISTRICT III****PILOT HOLE CEMENT PLUG:**

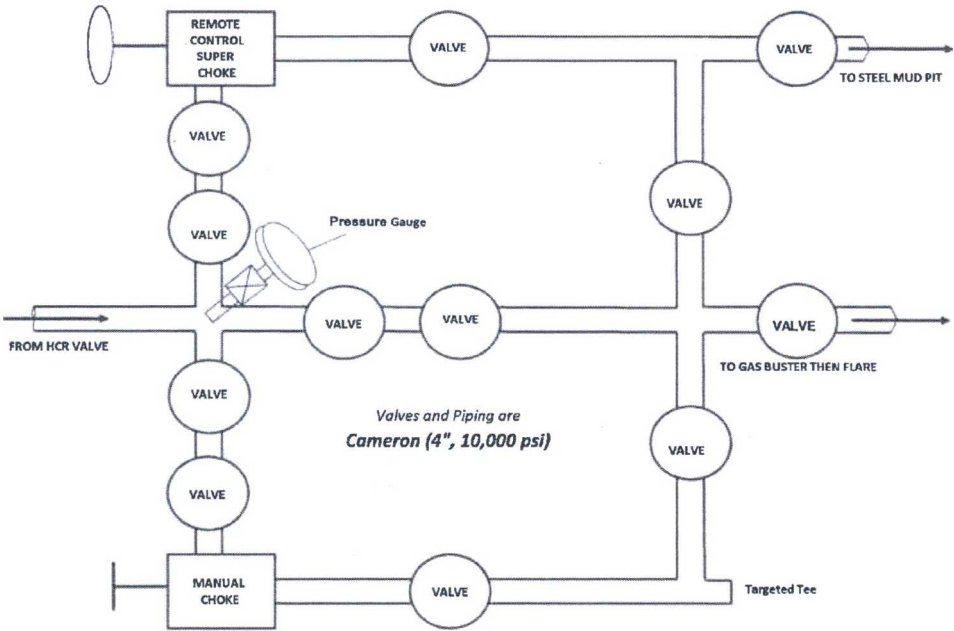
Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Class G	15.8	1.148	4.98	0.3941	0.5	6441	129

BOPE & CHOKE MANIFOLD DIAGRAMS

BOPE



CHOKE MANIFOLD



Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to Enduring Resources, LLC Rincon Unit #615H

1141' FNL & 1257' FEL, Section 21, T27N, R6W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.563961°N Longitude: 107.467833°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Easterly on US Hwy 64 for 36.8 miles to General American Road just beyond Gobernador School at Mile Marker 101;

Go Right (Southerly) on General American Road for 1.2 miles to fork in roadway;

Go Right (South-westerly) continuing on General American Road for 3.4 miles to 4-way intersection;

Go Straight (Southerly) continuing on General American Road for 1.1 miles to fork in roadway;

Go Right (South-westerly) along Munoz Wash for 4.3 miles to 4-way intersection;

Go Straight (South-westerly) continuing across Carrizo Wash for 0.3 miles to fork in roadway;

Go Left (South-easterly) which is straight onto County Road #492 for 0.4 miles to fork in roadway;

Go Right (Southerly) continuing on County Road #492 for 1.4 miles to fork in roadway;

Go Right (Northerly) exiting County Road #492 continuing uphill on existing roadway for 0.6 miles to fork in roadway;

Go Left (South-westerly) for 0.8 miles to fork in roadway;

Go Left (South-easterly) for 0.1 mile to fork in roadway;

Go Right (South-westerly) to staked Rincon Unit #615H which overlaps existing roadway.