

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. N0G13121826
2. Name of Operator ENDURING RESOURCES LLC		6. If Indian, Allottee or Tribe Name EASTERN NAVAJO
Contact: LACEY GRANILLO E-Mail: lgranillo@enduringresources.com		7. If Unit or CA/Agreement, Name and/or No. NMNM130812A
3a. Address 1050 17TH STREET SUITE 2500 DENVER, CO 80265	3b. Phone No. (include area code) Ph: 505-636-9743	8. Well Name and No. S ESCAVADA UNIT 350H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T22N R7W NESE 2091FSL 436FEL 36.108440 N Lat, 107.555679 W Lon		9. API Well No. 30-043-21318-00-S1
		10. Field and Pool or Exploratory Area BASIN MANCOS RUSTY GALLUP
		11. County or Parish, State SANDOVAL COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

change in plans

A summary of the requested changes to the approved APD is outlined below. Please reference the attachments for additional details.

C102
Moved BHL from section 22 to section 22
Moved POE from section 27 to section 27
Drilling Program
Directional plan updated based on new POE and BHL
Casing program change
Surface: 9-5/8" to 13-3/8"

**ADHERE TO PREVIOUS NMO
CONDITIONS OF APPROVAL**
NONSL

NMOC

FEB 26 2020

DISTRICT III

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #501379 verified by the BLM Well Information System For ENDURING RESOURCES LLC, sent to the Farmington Committed to AFMSS for processing by JOE KILLINS on 02/24/2020 (20JK0133SE)	
Name (Printed/Typed) LACEY GRANILLO	Title PERMITTING SPECIALIST
Signature (Electronic Submission)	Date 01/29/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS	Title PETROLEUM ENGINEER	Date 02/24/2020
Conditions of approval, if any, are attached. Approval of this notice 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.		Office Farmington

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOC

Additional data for EC transaction #501379 that would not fit on the form

32. Additional remarks, continued

Intermediate: 7? to 9-5/8?

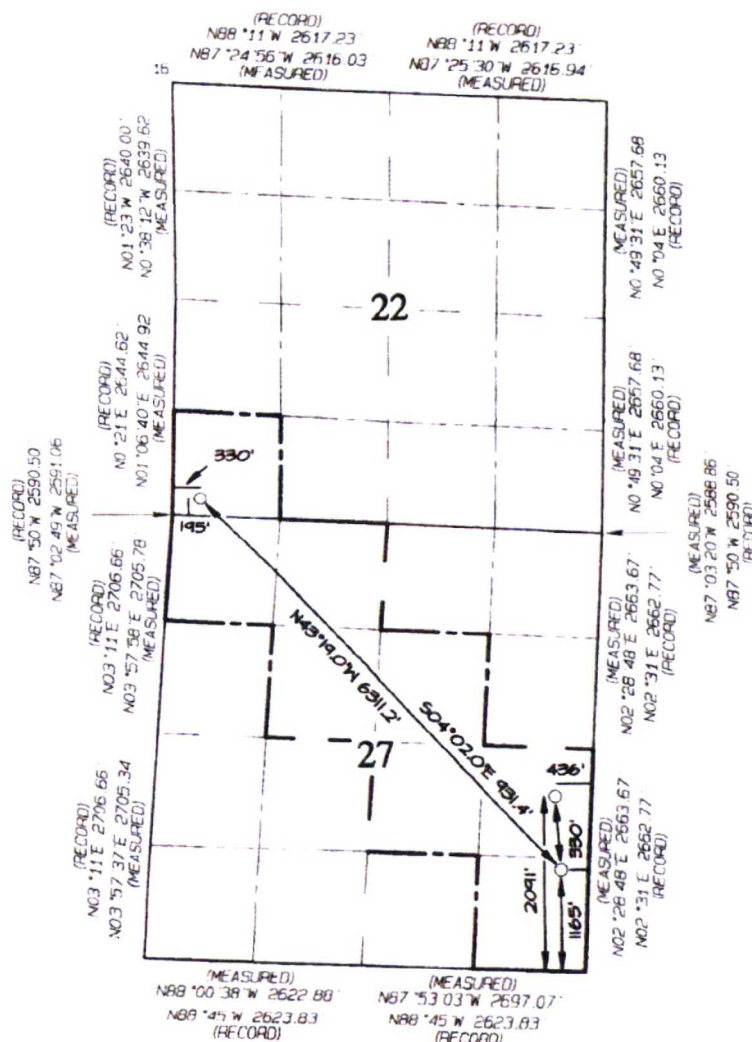
Production: 4-1/2? liner to 5-1/2? long-string

Frac Program

Fluid type: change from nitrogen foam to slick-water

Water volume: increase from not provided bbls to 210,000 bbls (estimated)

Sand weight: increase from 6.4 million lbs to 10.0 million lbs (estimated)





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

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

WELL INFORMATION:

Name: S ESCAVADA UNIT 350H

API Number: 30-043-21318

AFE Number: not yet assigned

ER Well Number: not yet assigned

State: New Mexico

County: Sandoval

Surface Elevation: 6,749 ft ASL (GL)

6,774 ft ASL (KB)

Surface Location: 27-22N-07W Sec-Twn-Rng

2,091 ft FSL

436 ft FEL

36.108441 ° N latitude

107.555677 ° W longitude

(NAD 83)

BH Location: 22-22N-07W Sec-Twn-Rng

195 ft FSL

330 ft FWL

36.118342 ° N latitude

107.570277 ° W longitude

(NAD 83)

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

South on US Hwy 550 for 48.9 miles to MM 103; Right (South) on Atkins Road for 3.2 miles to fork; Left (South) continuing on Atkins Road for 1.1 miles to 4-way intersection; Straight (south) for 1.6 miles to 4-way intersection; Straight (South) for 1.9 miles to fork; Left (South) for 0.4 miles to fork; Right (South) for 0.3 miles to S Escavada Unit 350H access road; Left (South) along 350H access road for 0.7 miles to S Escavada Unit 350H Pad (Wells: 350H & 351H).

GEOLOGIC AND RESERVOIR INFORMATION:

<i>Prognosis:</i>	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,290	484	484	W	normal
	Kirtland	6,180	594	594	W	normal
	Fruitland	6,055	719	720	G, W	sub
	Pictured Cliffs	5,705	1,069	1,081	G, W	sub
	Lewis	5,610	1,164	1,184	G, W	normal
	Chacra	5,335	1,439	1,496	G, W	normal
	Cliff House	4,290	2,484	2,698	G, W	sub
	Menefee	4,270	2,504	2,721	G, W	normal
	Point Lookout	3,330	3,444	3,790	G, W	normal
	Mancos	3,145	3,629	3,983	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,870	3,904	4,261	O,G	sub (~0.38)
	MNCS_B	2,760	4,014	4,371	O,G	sub (~0.38)
	MNCS_C	2,665	4,109	4,466	O,G	sub (~0.38)
	MNCS_Cms	2,635	4,139	4,496	O,G	sub (~0.38)
	MNCS_D	2,490	4,284	4,648	O,G	sub (~0.38)
	MNCS_E	2,350	4,424	4,814	O,G	sub (~0.38)
	MNCS_F	2,310	4,464	4,868	O,G	sub (~0.38)
	MNCS_G	2,235	4,539	4,989	O,G	sub (~0.38)
	MNCS_H	2,180	4,594	5,114	O,G	sub (~0.38)
	P.O.E. TARGET	2,138	4,636	5,399	O,G	sub (~0.38)
	PROJECTED TD	2,075	4,699	11,710	O,G	sub (~0.38)

Surface: Nacimiento

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

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

Max. pressure gradient:	0.43	psi/ft	Evacuated hole gradient:	0.22	psi/ft
Maximum anticipated BH pressure, assuming maximum pressure gradient:			2,030 psi		
Maximum anticipated surface pressure, assuming partially evacuated hole:			1,000 psi		

Temperature: Maximum anticipated BHT is 130° 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 double & single gate rams (13-5/8", 3,000 psi)

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

Choke: Cameron (4", 10,000 psi)

KB-GL (ft): 25

NOTE: A different rig may be used to drill the well depending on rig availability

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

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

FLUIDS AND SOLIDS CONTROL PROGRAM:

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

DETAILED DRILLING PLAN:

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

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

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

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

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	567	116,634	116,634
Min. S.F.					7.39	4.82	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)
	Class G	15.8	1.174	5.15	0.6946	100%	0	414

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.

350 ft (MD)	to	2,824 ft (MD)	Hole Section Length:	2,474 ft
350 ft (TVD)	to	2,604 ft (TVD)	Casing Required:	2,824 ft

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

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

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

Logging: None

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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,137	1,149	188,656	188,656
Min. S.F.					1.78	3.06	2.99	2.40

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

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

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

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

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

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)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	G:POZ Blend	12.3	1.987	10.16	70%	0	638
Tail	Class G	15.8	1.148	4.98	20%	2,324	164

Annular Capacity 0.3627 cuft/ft 9-5/8" casing x 13-3/8" casing annulus

0.3132 cuft/ft 9-5/8" casing x 12-1/4" hole annulus

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

Halliburton ECONOCHEM & HALCEM cementing 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.

2,824 ft (MD)	to	11,710 ft (MD)	Hole Section Length:	8,886 ft
2,604 ft (TVD)	to	4,699 ft (TVD)	Casing Required:	11,710 ft

Estimated KOP:	4,407 ft (MD)	4,050 ft (TVD)
Estimated Landing Point (P.O.E.):	5,399 ft (MD)	4,636 ft (TVD)
Estimated Lateral Length:	6,311 ft (MD)	

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (FW)	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

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,321	8,940	271,779	271,779
Min. S.F.					3.21	1.19	2.01	1.64

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

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

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

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

Casing Summary: Float shoe, 1 jt casing, float collar, 1 jt casing, float collar, 1 jt casing, toe-initiation sleeve, 20' marker joint, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every 2,000', floatation sub, casing to surface. **The toe-initiation sleeves must be positioned INSIDE the 330' unit setback.**

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

Lateral: 1 centralizer per joint

Curve: 1 centralizer per joint from landing point to KOP

KOP to surf: 1 centralizer per 2 joints

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	G:POZ blend	12.4	1.907	9.981	50%	0	857
Tail	G:POZ blend	13.3	1.360	5.999	10%	4,261	1,380

Annular Capacity 0.2691 cuft/ft 5-1/2" casing x 9-5/8" casing annulus

0.2291 cuft/ft 5-1/2" casing x 8-1/2" hole annulus

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 outside the applicable unit setback to maximize the length of the completed interval and to maximize resource recovery. If the well is drilled outside the setback, the toe initiation sleeve(s) 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) . S Escavada Unit Order Number is R-14347.

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: 35 plug-and-perf stages with 210,000 bbls slickwater fluid and 10,000,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)

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

ESTIMATED START DATES:

Drilling: TBD

Completion: TBD

Production: TBD

Prepared by: Alec Bridge 1/28/2020

WELL NAME: S ESCAVADA UNIT 350H**OBJECTIVE:** Drill, complete, and equip single lateral in the Mancos-H formation**API Number:** 30-043-21318**AFE Number:** not yet assigned**ER Well Number:** not yet assigned**State:** New Mexico**County:** Sandoval**Surface Elev.:** 6,749 ft ASL (GL) 6,774 ft ASL (KB)**Surface Location:** 27-22N-07W Sec-Twn-Rng 2,091 ft FSL 436 ft FEL**BH Location:** 22-22N-07W Sec-Twn-Rng 195 ft FSL 330 ft FWL**Driving Directions:** FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:

South on US Hwy 550 for 48.9 miles to MM 103; Right (South) on Atkins Road for 3.2 miles to fork; Left (South) continuing on Atkins Road for 1.1 miles to 4-way intersection; Straight (south) for 1.6 miles to 4-way intersection; Straight (South) for 1.9 miles to fork; Left (South) for 0.4 miles to fork; Right (South) for 0.3 miles to S Escavada Unit 350H access road. Left (South) along 350H access road for 0.7 miles to S Escavada Unit 350H Pad (Wells: 350H & 351H).

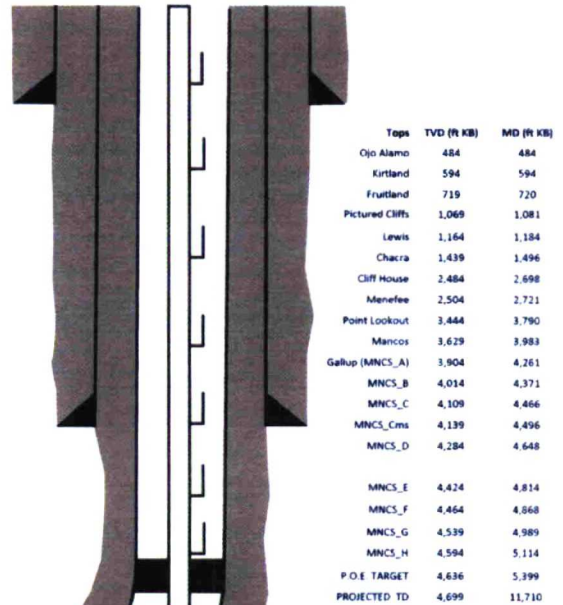
QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	2,824 ft
KOP (MD)	4,407 ft
KOP (TVD)	4,050 ft
Target (TVD)	4,636 ft
Curve BUR	10 °/100 ft
POE (MD)	5,399 ft
TD (MD)	11,710 ft
Lat Len (ft)	6,311 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	2,824	9.625	36.0	J-55	LTC	0	2,824
Production	8.500	11,710	5.500	17.0	P-110	LTC	0	11,710

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	414
Inter. (Lead)	G-POZ Blend	12.3	1.987	10.16	0.3627	70%	0	638
Inter. (Tail)	Class G	15.8	1.148	4.98	0.3132	20%	2,324	164
Prod. (Lead)	G-POZ blend	12.4	1.907	9.981	0.2691	50%	0	857
Prod. (Tail)	G-POZ blend	13.3	1.360	5.999	0.2291	10%	4,261	1,380

COMPLETION / PRODUCTION SUMMARY:**Frac:** 35 plug-and-perf stages with 210,000 bbls slickwater fluid and 10,000,000 lbs of proppant (estimated)**Flowback:** Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)**Production:** Produce through production tubing via gas-lift into permanent production and storage facilities

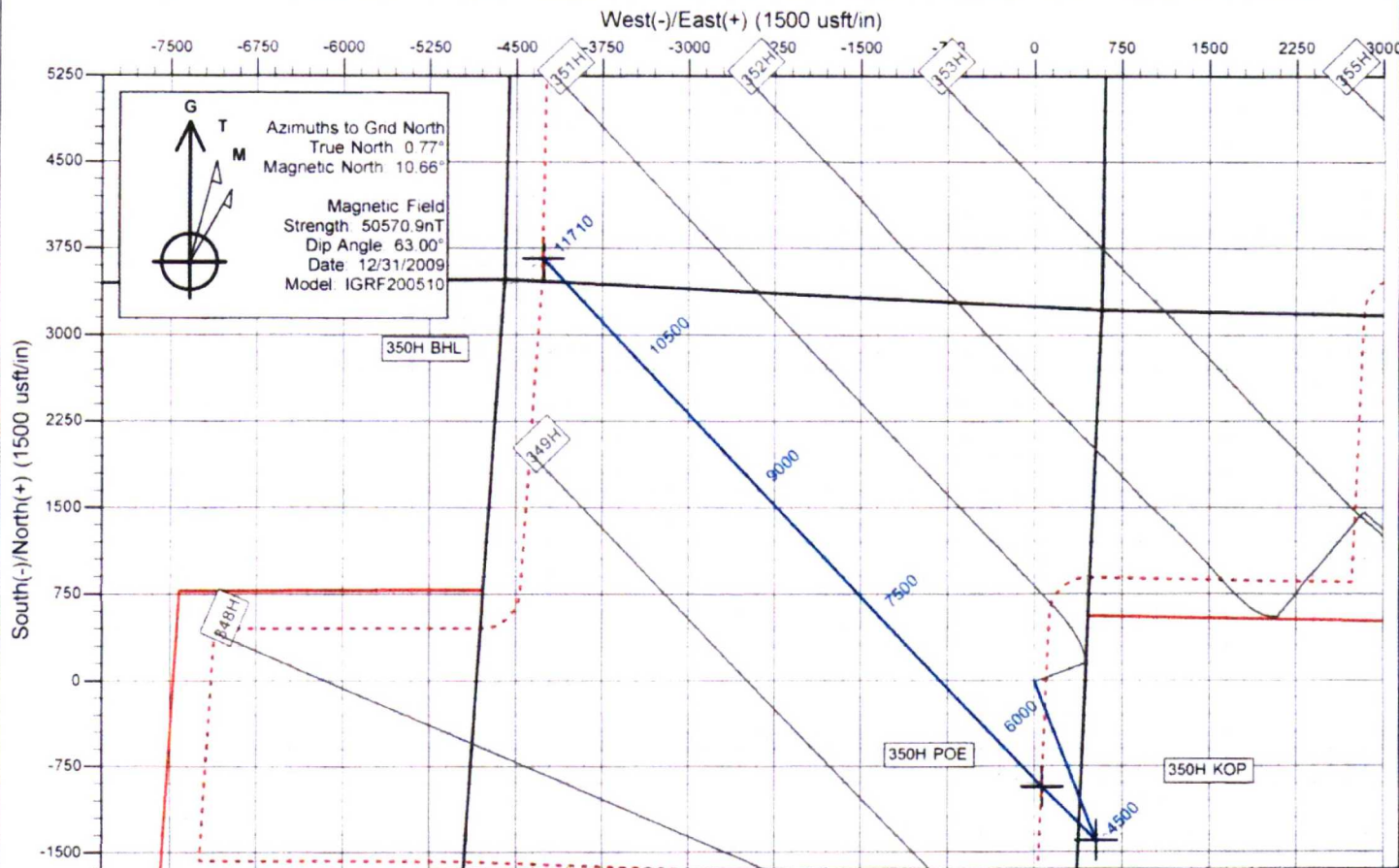


Enduring Resources LLC

Directional Drilling Plan
Plan View & Section View

S Escavada Unit 350H

Sandoval County, New Mexico
T22N - R07W - Sec.27 - Lot I
Surface Latitude: 36.108441°N
Surface Longitude: 107.555677°W
Ground Level: 6749.0
Reference Elevation: KB @ 6774.0usft (Original Well Elev)

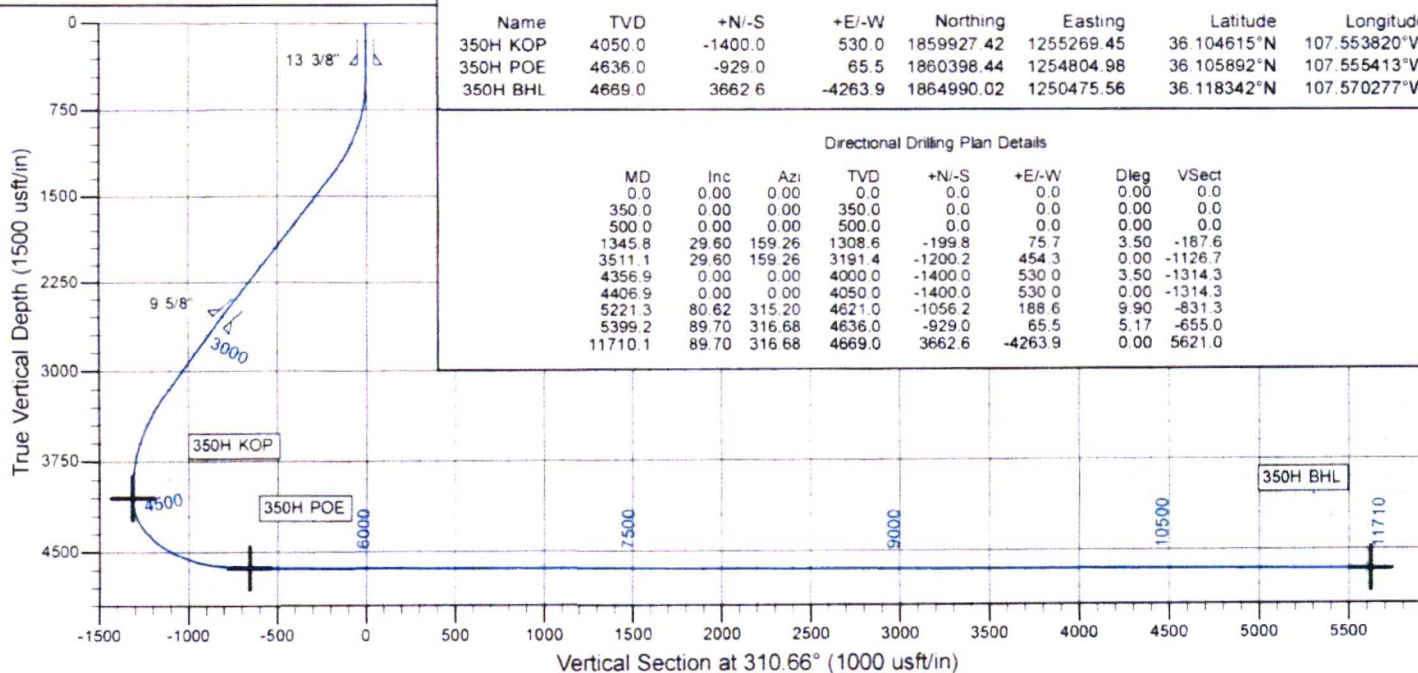


Design Target Details

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
350H KOP	4050.0	-1400.0	530.0	1859927.42	1255269.45	36.104615°N	107.553820°W
350H POE	4636.0	-929.0	65.5	1860398.44	1254804.98	36.105892°N	107.555413°W
350H BHL	4669.0	3662.6	-4263.9	1864990.02	1250475.56	36.118342°N	107.570277°W

Directional Drilling Plan Details

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
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.0
1345.8	29.60	159.26	1308.6	-199.8	75.7	3.50	-187.6
3511.1	29.60	159.26	3191.4	-1200.2	454.3	0.00	-1126.7
4356.9	0.00	0.00	4000.0	-1400.0	530.0	3.50	-1314.3
4406.9	0.00	0.00	4050.0	-1400.0	530.0	0.00	-1314.3
5221.3	80.62	315.20	4621.0	-1056.2	188.6	9.90	-831.3
5399.2	89.70	316.68	4636.0	-929.0	65.5	5.17	-655.0
11710.1	89.70	316.68	4669.0	3662.6	-4263.9	0.00	5621.0





Enduring Resources LLC

**San Juan Basin - S Escavada Unit & Terra Wash CA
350H Pad
350H**

Wellbore #1

Plan: Design #1

Standard Planning Report

28 January, 2020



Planning Report

Database: EDM
Company: Enduring Resources LLC
Project: San Juan Basin - S Escavada Unit & Terra Wash CA
Site: 350H Pad
Well: 350H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 350H
TVD Reference: KB @ 6774.0usft (Original Well Elev)
MD Reference: KB @ 6774.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project San Juan Basin - S Escavada Unit & Terra Wash CA

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Central Zone
System Datum: Mean Sea Level

Site 350H Pad, Sandoval County, New Mexico

Site Position:
From: Lat/Long
Position Uncertainty: 0.0 usft
Northing: 1,861,327.42 usft
Easting: 1,254,739.45 usft
Slot Radius: 13-3/16"
Latitude: 36.108441°N
Longitude: 107.555677°W
Grid Convergence: -0.77°

Well 350H

Well Position +N/-S 0.0 usft
+E/-W 0.0 usft
Position Uncertainty 0.0 usft
Wellhead Elevation: 6,749.0 usft
Northing: 1,861,327.42 usft
Easting: 1,254,739.45 usft
Latitude: 36.108441°N
Longitude: 107.555677°W
Ground Level: 6,749.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.89	63.00	50,570.92039609

Design Design #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	310.66

Plan Survey Tool Program Date 1/28/2020

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	11,710.1	Design #1 (Wellbore #1)	MWD OWSG MWD - Standard



Planning Report

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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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,345.8	29.60	159.26	1,308.6	-199.8	75.7	3.50	3.50	0.00	159.26	
3,511.1	29.60	159.26	3,191.4	-1,200.2	454.3	0.00	0.00	0.00	0.00	
4,356.9	0.00	0.00	4,000.0	-1,400.0	530.0	3.50	-3.50	0.00	180.00	
4,406.9	0.00	0.00	4,050.0	-1,400.0	530.0	0.00	0.00	0.00	0.00	350H KOP
5,221.3	80.62	315.20	4,621.0	-1,056.2	188.6	9.90	9.90	0.00	315.20	
5,399.2	89.70	316.68	4,636.0	-929.0	65.5	5.17	5.10	0.83	9.31	350H POE
11,710.1	89.70	316.68	4,669.0	3,662.6	-4,263.9	0.00	0.00	0.00	0.00	350H BHL



Planning Report

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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)
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00
100 0	0 00	0 00	100 0	0 0	0 0	0 0	0 00	0 00	0 00
200 0	0 00	0 00	200 0	0 0	0 0	0 0	0 00	0 00	0 00
300 0	0 00	0 00	300 0	0 0	0 0	0 0	0 00	0 00	0 00
350 0	0 00	0 00	350 0	0 0	0 0	0 0	0 00	0 00	0 00
13 3/8"									
400 0	0 00	0 00	400 0	0 0	0 0	0 0	0 00	0 00	0 00
484 0	0 00	0 00	484 0	0 0	0 0	0 0	0 00	0 00	0 00
Ojo Alamo									
500 0	0 00	0 00	500 0	0 0	0 0	0 0	0 00	0 00	0 00
594 1	3 29	159 26	594 0	-2 5	1 0	-2 4	3 50	3 50	0 00
Kirtland									
600 0	3 50	159 26	599 9	-2 9	1 1	-2 7	3 50	3 50	0 00
700 0	7 00	159 26	699 5	-11 4	4 3	-10 7	3 50	3 50	0 00
719 7	7 69	159 26	719 0	-13 8	5 2	-12 9	3 50	3 50	0 00
Fruitland									
800 0	10 50	159 26	798 3	-25 6	9 7	-24 1	3 50	3 50	0 00
900 0	14 00	159 26	896 0	-45 5	17 2	-42 7	3 50	3 50	0 00
1 000 0	17 50	159 26	992 3	-70 9	26 8	-66 5	3 50	3 50	0 00
1 081 1	20 34	159 26	1 069 0	-95 5	36 1	-89 6	3 50	3 50	0 00
Pictured Cliffs									
1 100 0	21 00	159 26	1 086 7	-101 7	38 5	-95 5	3 50	3 50	0 00
1 183 7	23 93	159 26	1 164 0	-131 6	49 8	-123 5	3 50	3 50	0 00
Lewis									
1 200 0	24 50	159 26	1 178 9	-137 8	52 2	-129 4	3 50	3 50	0 00
1 300 0	28 00	159 26	1 268 5	-179 2	67 8	-168 2	3 50	3 50	0 00
1 345 8	29 60	159 26	1 308 6	-199 8	75 7	-187 6	3 50	3 50	0 00
1 400 0	29 60	159 26	1 355 8	-224 9	85 1	-211 1	0 00	0 00	0 00
1 495 7	29 60	159 26	1 439 0	-269 1	101 9	-252 6	0 00	0 00	0 00
Chacra									
1 500 0	29 60	159 26	1 442 7	-271 1	102 6	-254 5	0 00	0 00	0 00
1 600 0	29 60	159 26	1 529 7	-317 3	120 1	-297 8	0 00	0 00	0 00
1 700 0	29 60	159 26	1 616 6	-363 5	137 6	-341 2	0 00	0 00	0 00
1 800 0	29 60	159 26	1 703 6	-409 7	155 1	-384 6	0 00	0 00	0 00
1 900 0	29 60	159 26	1 790 5	-455 9	172 6	-428 0	0 00	0 00	0 00
2 000 0	29 60	159 26	1 877 5	-502 1	190 1	-471 3	0 00	0 00	0 00
2 100 0	29 60	159 26	1 964 4	-548 3	207 6	-514 7	0 00	0 00	0 00
2 200 0	29 60	159 26	2 051 4	-594 5	225 0	-558 1	0 00	0 00	0 00
2 300 0	29 60	159 26	2 138 3	-640 7	242 5	-601 4	0 00	0 00	0 00
2 400 0	29 60	159 26	2 225 3	-686 9	260 0	-644 8	0 00	0 00	0 00
2 500 0	29 60	159 26	2 312 2	-733 1	277 5	-688 2	0 00	0 00	0 00
2 600 0	29 60	159 26	2 399 2	-779 3	295 0	-731 5	0 00	0 00	0 00
2 697 6	29 60	159 26	2 484 0	-824 3	312 1	-773 9	0 00	0 00	0 00
Menefee									
2 700 0	29 60	159 26	2 486 1	-825 5	312 5	-774 9	0 00	0 00	0 00
2 720 6	29 60	159 26	2 504 0	-835 0	316 1	-783 8	0 00	0 00	0 00
Cliff House									
2 800 0	29 60	159 26	2 573 1	-871 7	330 0	-818 3	0 00	0 00	0 00
2 824 1	29 60	159 26	2 594 0	-882 8	334 2	-828 7	0 00	0 00	0 00
9 5/8"									
2 900 0	29 60	159 26	2 660 0	-917 8	347 5	-861 6	0 00	0 00	0 00
3 000 0	29 60	159 26	2 747 0	-964 0	365 0	-905 0	0 00	0 00	0 00



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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)
3,100.0	29.60	159.26	2,833.9	-1,010.2	382.5	-948.4	0.00	0.00	0.00
3,200.0	29.60	159.26	2,920.8	-1,056.4	399.9	-991.8	0.00	0.00	0.00
3,300.0	29.60	159.26	3,007.8	-1,102.6	417.4	-1,035.1	0.00	0.00	0.00
3,400.0	29.60	159.26	3,094.7	-1,148.8	434.9	-1,078.5	0.00	0.00	0.00
3,500.0	29.60	159.26	3,181.7	-1,195.0	452.4	-1,121.9	0.00	0.00	0.00
3,511.1	29.60	159.26	3,191.4	-1,200.2	454.3	-1,126.7	0.00	0.00	0.00
3,600.0	26.49	159.26	3,269.8	-1,239.3	469.1	-1,163.4	3.50	-3.50	0.00
3,700.0	22.99	159.26	3,360.6	-1,278.4	484.0	-1,200.1	3.50	-3.50	0.00
3,789.6	19.86	159.26	3,444.0	-1,309.0	495.5	-1,228.8	3.50	-3.50	0.00
Point Lookout									
3,800.0	19.49	159.26	3,453.8	-1,312.3	496.8	-1,231.9	3.50	-3.50	0.00
3,900.0	15.99	159.26	3,549.0	-1,340.8	507.6	-1,258.7	3.50	-3.50	0.00
3,982.6	13.10	159.26	3,629.0	-1,360.2	514.9	-1,276.9	3.50	-3.50	0.00
Mancos									
4,000.0	12.49	159.26	3,645.9	-1,363.8	516.3	-1,280.3	3.50	-3.50	0.00
4,100.0	8.99	159.26	3,744.2	-1,381.2	522.9	-1,296.6	3.50	-3.50	0.00
4,200.0	5.49	159.26	3,843.4	-1,393.0	527.3	-1,307.7	3.50	-3.50	0.00
4,260.8	3.36	159.26	3,904.0	-1,397.4	529.0	-1,311.8	3.50	-3.50	0.00
Gallup (MNCS A)									
4,300.0	1.99	159.26	3,943.1	-1,399.1	529.7	-1,313.4	3.50	-3.50	0.00
4,356.9	0.00	0.00	4,000.0	-1,400.0	530.0	-1,314.3	3.50	-3.50	0.00
4,370.9	0.00	0.00	4,014.0	-1,400.0	530.0	-1,314.3	0.00	0.00	0.00
MNCS_B									
4,400.0	0.00	0.00	4,043.1	-1,400.0	530.0	-1,314.3	0.00	0.00	0.00
4,406.9	0.00	0.00	4,050.0	-1,400.0	530.0	-1,314.3	0.00	0.00	0.00
4,466.0	5.85	315.20	4,109.0	-1,397.9	527.9	-1,311.3	9.90	9.90	0.00
MNCS_C									
4,496.2	8.85	315.20	4,139.0	-1,395.1	525.1	-1,307.4	9.90	9.90	0.00
MNCS_Cms									
4,500.0	9.22	315.20	4,142.7	-1,394.7	524.7	-1,306.8	9.90	9.90	0.00
4,600.0	19.12	315.20	4,239.6	-1,377.3	507.5	-1,282.5	9.90	9.90	0.00
4,647.8	23.85	315.20	4,284.0	-1,364.9	495.2	-1,265.0	9.90	9.90	0.00
MNCS_D									
4,700.0	29.02	315.20	4,330.7	-1,348.4	478.8	-1,241.8	9.90	9.90	0.00
4,800.0	38.92	315.20	4,413.6	-1,308.8	439.5	-1,186.2	9.90	9.90	0.00
4,813.5	40.26	315.20	4,424.0	-1,302.7	433.4	-1,177.6	9.90	9.90	0.00
MNCS_E									
4,868.2	45.67	315.20	4,464.0	-1,276.3	407.2	-1,140.5	9.90	9.90	0.00
MNCS_F									
4,900.0	48.82	315.20	4,485.6	-1,259.7	390.7	-1,117.2	9.90	9.90	0.00
4,989.4	57.66	315.20	4,539.0	-1,209.0	340.3	-1,045.9	9.90	9.90	0.00
MNCS_G									
5,000.0	58.72	315.20	4,544.6	-1,202.6	334.0	-1,036.9	9.90	9.90	0.00
5,100.0	68.62	315.20	4,588.9	-1,139.1	270.9	-947.7	9.90	9.90	0.00
5,114.4	70.05	315.20	4,594.0	-1,129.5	261.4	-934.2	9.90	9.90	0.00
MNCS_H									
5,200.0	78.52	315.20	4,617.2	-1,071.1	203.4	-852.2	9.90	9.90	0.00
5,221.3	80.62	315.20	4,621.0	-1,056.2	188.6	-831.3	9.90	9.90	0.00
5,300.0	84.64	315.86	4,631.1	-1,000.5	134.0	-753.6	5.17	5.10	0.84
5,399.2	89.70	316.68	4,636.0	-929.0	65.5	-655.0	5.17	5.10	0.83
5,400.0	89.70	316.68	4,636.0	-928.4	64.9	-654.2	0.00	0.00	0.00
5,500.0	89.70	316.68	4,636.5	-855.6	-3.7	-554.7	0.00	0.00	0.00



Planning Report

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MD Reference:

North Reference:

Survey Calculation Method:

Well 350H

KB @ 6774 0usft (Original Well Elev)

KB @ 6774 0usft (Original Well Elev)

Grid

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)
5.600 0	89.70	316.68	4.637 1	-782.9	-72.3	-455.3	0.00	0.00	0.00
5.700 0	89.70	316.68	4.637 6	-710.1	-140.9	-355.8	0.00	0.00	0.00
5.800 0	89.70	316.68	4.638 1	-637.3	-209.5	-256.4	0.00	0.00	0.00
5.900 0	89.70	316.68	4.638 6	-564.6	-278.1	-156.9	0.00	0.00	0.00
6.000 0	89.70	316.68	4.639 1	-491.8	-346.7	-57.5	0.00	0.00	0.00
6.100 0	89.70	316.68	4.639 7	-419.1	-415.3	41.9	0.00	0.00	0.00
6.200 0	89.70	316.68	4.640 2	-346.3	-483.9	141.4	0.00	0.00	0.00
6.300 0	89.70	316.68	4.640 7	-273.6	-552.5	240.8	0.00	0.00	0.00
6.400 0	89.70	316.68	4.641 2	-200.8	-621.1	340.3	0.00	0.00	0.00
6.500 0	89.70	316.68	4.641 8	-128.0	-689.7	439.7	0.00	0.00	0.00
6.600 0	89.70	316.68	4.642 3	-55.3	-758.3	539.2	0.00	0.00	0.00
6.700 0	89.70	316.68	4.642 8	17.5	-826.9	638.6	0.00	0.00	0.00
6.800 0	89.70	316.68	4.643 3	90.2	-895.5	738.1	0.00	0.00	0.00
6.900 0	89.70	316.68	4.643 8	163.0	-964.1	837.5	0.00	0.00	0.00
7.000 0	89.70	316.68	4.644 4	235.7	-1,032.7	937.0	0.00	0.00	0.00
7.100 0	89.70	316.68	4.644 9	308.5	-1,101.3	1,036.4	0.00	0.00	0.00
7.200 0	89.70	316.68	4.645 4	381.2	-1,169.9	1,135.9	0.00	0.00	0.00
7.300 0	89.70	316.68	4.645 9	454.0	-1,238.5	1,235.3	0.00	0.00	0.00
7.400 0	89.70	316.68	4.646 5	526.8	-1,307.1	1,334.8	0.00	0.00	0.00
7.500 0	89.70	316.68	4.647 0	599.5	-1,375.7	1,434.2	0.00	0.00	0.00
7.600 0	89.70	316.68	4.647 5	672.3	-1,444.3	1,533.6	0.00	0.00	0.00
7.700 0	89.70	316.68	4.648 0	745.0	-1,512.9	1,633.1	0.00	0.00	0.00
7.800 0	89.70	316.68	4.648 6	817.8	-1,581.5	1,732.5	0.00	0.00	0.00
7.900 0	89.70	316.68	4.649 1	890.5	-1,650.1	1,832.0	0.00	0.00	0.00
8.000 0	89.70	316.68	4.649 6	963.3	-1,718.7	1,931.4	0.00	0.00	0.00
8.100 0	89.70	316.68	4.650 1	1,036.1	-1,787.3	2,030.9	0.00	0.00	0.00
8.200 0	89.70	316.68	4.650 6	1,108.8	-1,855.9	2,130.3	0.00	0.00	0.00
8.300 0	89.70	316.68	4.651 2	1,181.6	-1,924.5	2,229.8	0.00	0.00	0.00
8.400 0	89.70	316.68	4.651 7	1,254.3	-1,993.1	2,329.2	0.00	0.00	0.00
8.500 0	89.70	316.68	4.652 2	1,327.1	-2,061.7	2,428.7	0.00	0.00	0.00
8.600 0	89.70	316.68	4.652 7	1,399.8	-2,130.3	2,528.1	0.00	0.00	0.00
8.700 0	89.70	316.68	4.653 3	1,472.6	-2,198.9	2,627.6	0.00	0.00	0.00
8.800 0	89.70	316.68	4.653 8	1,545.3	-2,267.5	2,727.0	0.00	0.00	0.00
8.900 0	89.70	316.68	4.654 3	1,618.1	-2,336.1	2,826.5	0.00	0.00	0.00
9.000 0	89.70	316.68	4.654 8	1,690.9	-2,404.7	2,925.9	0.00	0.00	0.00
9.100 0	89.70	316.68	4.655 4	1,763.6	-2,473.3	3,025.4	0.00	0.00	0.00
9.200 0	89.70	316.68	4.655 9	1,836.4	-2,541.9	3,124.8	0.00	0.00	0.00
9.300 0	89.70	316.68	4.656 4	1,909.1	-2,610.5	3,224.2	0.00	0.00	0.00
9.400 0	89.70	316.68	4.656 9	1,981.9	-2,679.1	3,323.7	0.00	0.00	0.00
9.500 0	89.70	316.68	4.657 4	2,054.6	-2,747.7	3,423.1	0.00	0.00	0.00
9.600 0	89.70	316.68	4.658 0	2,127.4	-2,816.3	3,522.6	0.00	0.00	0.00
9.700 0	89.70	316.68	4.658 5	2,200.2	-2,884.9	3,622.0	0.00	0.00	0.00
9.800 0	89.70	316.68	4.659 0	2,272.9	-2,953.5	3,721.5	0.00	0.00	0.00
9.900 0	89.70	316.68	4.659 5	2,345.7	-3,022.2	3,820.9	0.00	0.00	0.00
10.000 0	89.70	316.68	4.660 1	2,418.4	-3,090.8	3,920.4	0.00	0.00	0.00
10.100 0	89.70	316.68	4.660 6	2,491.2	-3,159.4	4,019.8	0.00	0.00	0.00
10.200 0	89.70	316.68	4.661 1	2,563.9	-3,228.0	4,119.3	0.00	0.00	0.00
10.300 0	89.70	316.68	4.661 6	2,636.7	-3,296.6	4,218.7	0.00	0.00	0.00
10.400 0	89.70	316.68	4.662 1	2,709.4	-3,365.2	4,318.2	0.00	0.00	0.00
10.500 0	89.70	316.68	4.662 7	2,782.2	-3,433.8	4,417.6	0.00	0.00	0.00
10.600 0	89.70	316.68	4.663 2	2,855.0	-3,502.4	4,517.1	0.00	0.00	0.00
10.700 0	89.70	316.68	4.663 7	2,927.7	-3,571.0	4,616.5	0.00	0.00	0.00
10.800 0	89.70	316.68	4.664 2	3,000.5	-3,639.6	4,716.0	0.00	0.00	0.00



Planning Report

Database: EDM
Company: Enduring Resources LLC
Project: San Juan Basin - S Escavada Unit & Terra Wash CA
Site: 350H Pad
Well: 350H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 350H
TVD Reference: KB @ 6774.0usft (Original Well Elev)
MD Reference: KB @ 6774.0usft (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)
10,900.0	89.70	316.68	4,664.8	3,073.2	-3,708.2	4,815.4	0.00	0.00	0.00
11,000.0	89.70	316.68	4,665.3	3,146.0	-3,776.8	4,914.8	0.00	0.00	0.00
11,100.0	89.70	316.68	4,665.8	3,218.7	-3,845.4	5,014.3	0.00	0.00	0.00
11,200.0	89.70	316.68	4,666.3	3,291.5	-3,914.0	5,113.7	0.00	0.00	0.00
11,300.0	89.70	316.68	4,666.9	3,364.3	-3,982.6	5,213.2	0.00	0.00	0.00
11,400.0	89.70	316.68	4,667.4	3,437.0	-4,051.2	5,312.6	0.00	0.00	0.00
11,500.0	89.70	316.68	4,667.9	3,509.8	-4,119.8	5,412.1	0.00	0.00	0.00
11,600.0	89.70	316.68	4,668.4	3,582.5	-4,188.4	5,511.5	0.00	0.00	0.00
11,700.0	89.70	316.68	4,668.9	3,655.3	-4,257.0	5,611.0	0.00	0.00	0.00
11,710.1	89.70	316.68	4,669.0	3,662.6	-4,263.9	5,621.0	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
350H KOP - plan hits target center - Point	0.00	360.00	4,050.0	-1,400.0	530.0	1,859,927.42	1,255,269.45	36 104616"N	107 553820"W
350H POE - plan hits target center - Point	0.00	0.00	4,636.0	-929.0	65.5	1,860,398.44	1,254,804.97	36 105892"N	107 555413"W
350H BHL - plan hits target center - Point	0.00	360.00	4,669.0	3,662.6	-4,263.9	1,864,990.02	1,250,475.56	36 118342"N	107 570277"W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
350.0	350.0	13 3/8"	13-3/8	17-1/2
2,824.1	2,594.0	9 5/8"	9-5/8	12-1/4



Planning Report

Database: EDM
Company: Enduring Resources LLC
Project: San Juan Basin - S Escavada Unit & Terra Wash CA
Site: 350H Pad
Well: 350H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 350H
TVD Reference: KB @ 6774.0usft (Original Well Elev)
MD Reference: KB @ 6774.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
484.0	484.0	Ojo Alamo		0.00	
594.1	594.0	Kirtland		0.00	
719.7	719.0	Fruitland		0.00	
1,081.1	1,069.0	Pictured Cliffs		0.00	
1,183.7	1,164.0	Lewis		0.00	
1,495.7	1,439.0	Chacra		0.00	
2,697.6	2,484.0	Menefee		0.00	
2,720.6	2,504.0	Cliff House		0.00	
3,789.6	3,444.0	Point Lookout		0.00	
3,982.6	3,629.0	Mancos		0.00	
4,260.8	3,904.0	Gallup (MNCS A)		0.00	
4,370.9	4,014.0	MNCS_B		0.00	
4,466.0	4,109.0	MNCS_C		0.00	
4,496.2	4,139.0	MNCS_Cms		0.00	
4,647.8	4,284.0	MNCS_D		0.00	
4,813.5	4,424.0	MNCS_E		0.00	
4,868.2	4,464.0	MNCS_F		0.00	
4,989.4	4,539.0	MNCS_G		0.00	
5,114.4	4,594.0	MNCS_H		0.00	