Form 3160-5 (June 2015)

# UNITED STATES

# RECEIVED

# DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

5. Lease Serial No. NO-G-1404-1963 1965

7. If Unit of CA/Agreement, Name and/or No.

FORM 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 and abandoned well. Use Form 3160-3 (APD) for such proposals nent

6. If Indian, Allottee or Tribe Name

SUBI	MIT IN TRIPLICAT	E - Other instru	uctions on page 2		7. If Unit of CA/Agreemen NMNM135255A	t, Name and/or No.
1. Type of Well						
⊠Oil Well	Gas Well	Other			8. Well Name and No. KIMBETO WASH UNIT	794H
2. Name of Operator	11.0				9. API Well No.	
Enduring Resources IV  3a. Address	LLC		3b. Phone No. (include	area code)	30-045-35821 10. Field and Pool or Explo	ratory Area
200 Energy Court Farm	nington NM 87	401	505-636-9743	area code)	Basin Mancos	ratory raca
4. Location of Well (Footage, S					11. Country or Parish, State	
SHL: 181' FNL & 2397' FWL S BHL: 317' FNL & 1202' FEL S					San Juan, NM	
	2. CHECK THE AF	PROPRIATE B	OX(ES) TO INDICATE	NATURE OF NOT	TICE, REPORT OR OTHER D	DATA
TYPE OF SUBMISSION	1			TYPE OF AC	TION	
Notice of Intent	Acidize		Deepen		oduction (Start/Resume)	☐Water ShutOff
	☐Alter Ca	sing	☐ Hydraulic Fractur	ing □R€	eclamation	☐Well Integrity
Subsequent Report	☐ Casing R	epair	☐ New Construction	n Re	ecomplete	☑Other Name
Final Abandonment Notice		Plans	☐ Plug and Abando	n T	emporarily Abandon	change/
	Convert	to Injection	☐Plug Back	□w	ater Disposal	Change in
e Q						plans
Enduring Resources request	sts a name chan	ge from W L\	/BROOK UNIT 736H	I to KIMBETO W	VASH UNIT 794H and ch	ange in plans per attached
• C102					NMOCD	
<ul> <li>drilling program 8</li> </ul>	casing program	n/Ops plan				
<ul> <li>Target unit &amp; targ</li> </ul>		, -   -		JU	N 11 5 2010	
BHL & POE				Bion	0 0 2019	
<ul><li>Directional plans</li><li>Wellbore</li></ul>	ADHE	RE TO	PREVIOUS I	MOCD	N 0 5 2019 RICT	
	COL	MOLTICIA	SAF APPR	$\Omega V/\Lambda I$		
14. I hereby certify that the forest Lacey Granillo	going is true and cor	rect Name (Pri				
	- /		Title	Permit Specialist		
Signature	COA		Date :	5/9/19		
	(1)	THE SPACE	FOR FEDERAL	OR STATE O	FICE USE	
Approved by	NI			2 ( (	_	
	M			letroleum Title	- Engineer Date	4/ Jun 2019
Conditions of approval, if any, a certify that the applicant holds I which would entitle the applican	egal or equitable titl	e to those rights		Office FE	PO	,
Title 18 U.S.C Section 1001 and	Title 43 U.S.C Sect	ion 1212, make i	it a crime for any persor	knowingly and wil	llfully to make to any departme	ent or agency of the United States

any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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

# State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 1, 2011

Submit one copy to Appropriate District Office

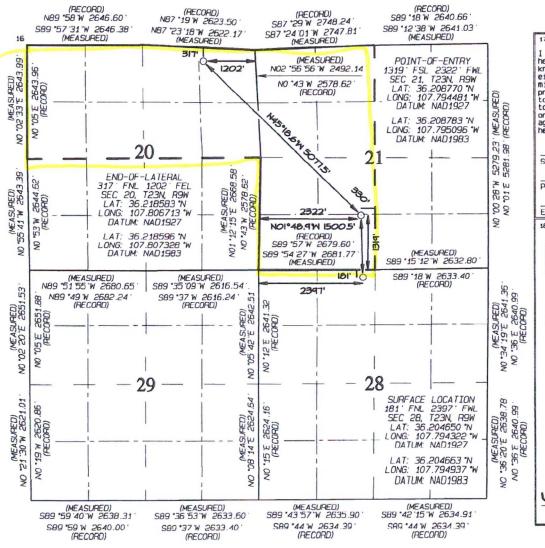
# OIL CONSERVATION DIVISION 1220 South St. Francis Drive Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1,	API Numbe			*Pool Cod		TILAGE BEBI	³Pool Name		
30-194	S-3	1587		97232	-		BASIN MAN		
<sup>4</sup> Property	Code	0001			5Property	Name		6 1	Vell Number
32123	19				KIMBETO W	ASH UNIT			794H
'OGRID !	No.				*Operator	Name		9	Elevation
37228	16			EN	DURING RES	SOURCES, LLC			6534
					<sup>10</sup> Surface	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	28	23N	9W		181	NORTH	2397	WEST	SAN JUAN
		1	<sup>1</sup> Botto	m Hole	Location I	f Different	From Surfac	е	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	20	23N	9W		317	NORTH	1202	EAST	SAN JUAN
Dedicated Acres		/2 - Se /2 - Se	ction a		13 Joint or Infill	<sup>14</sup> Consolidation Code	55 Order No.		

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



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 an owner of such a mineral on working interest, or the a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. E-mail Address 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: MAY 6, 2019 Survey Date: OCTOBER 2, 2015 Signature and Seal of Professional Surveyor EDWARDS JASON C. MEXICO XEW REGISTERED **EYOR** 15269 80 POFESSIONAL JASON **DWARDS** Certificate Number 15269



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

DRILLING PLAN:

Drill, complete, and equip single lateral in the Mancos-Cms formation

WELL INFORMATION:

Name: KIMBETO WASH UNIT 794H

API Number: 30-045-State: New Mexico

County: San Juan

Surface Elevation:

6.534 ft ASL (GL)

6,562 ft ASL (KB)

Surface Location: 28-23N-09W Sec-Twn-Rng

181 ft FNL

2.397 ft FWL

36.204663 ° N latitude

107.794937 ° W longitude

(NAD 83)

BH Location: 20-23N-09W Sec-Twn-Rng

417 ft FNL

1,102 ft FEL

36.218321 ° N latitude

107.806989 ° W longitude

(NAD 83)

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM: South on US Hwy 550 for 37.8 miles

to MM 113.4; Right (SW) on CR 7890 for 0.8 miles to fork; Left (S) remaining on 7890 for 1.3 miles to 4-way

intersection; Left (SE) on 7890 for 0.6 miles to fork; Right (SW) remaining on 7890 for 0.5 miles; Right (W) on access road for W Lybrook Unit 720H location for 0.6 miles to fork; Left (W) on access road for W Lybrook Unit 726H location for 0.7 miles to fork; Left (W) on access road for W Lybrook Unit 730H location for 1.9 miles; Right (N) on

access road for 0.4 miles to Kimbeto Wash Unit 736H Pad (Wells: KWU 772H, 774H, 793H, 794H, 795H).

#### GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,488	74	74	W	normal
Kirtland	6,391	171	171	W	normal
Fruitland	6,131	431	431	G, W	sub
Pictured Cliffs	5,781	781	781	G, W	sub
Lewis	5,576	986	987	G, W	normal
Chacra	5,391	1,171	1,176	G, W	normal
Cliff House	4,386	2,176	2,235	G, W	sub
Menefee	4,371	2,191	2,251	G, W	normal
Point Lookout	3,381	3,181	3,295	G, W	normal
Mancos	3,105	3,457	3,586	O,G	sub (~0.38)
Gallup (MNCS_A)	2,869	3,693	3,841	O,G	sub (~0.38)
P.O.E. TARGET	2,530	4,032	4,697	O,G	sub (~0.38)
B.H.L. TARGET	2,490	4,072	9,633	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

Maximum anticipated surface pressure, assuming partially evacuated hole:

Evacuated hole gradient:

0.22

psi/ft

Maximum anticipated BH pressure, assuming maximum pressure gradient:

psi/ft

1,760 870

psi psi

Temperature: Maximum anticipated BHT is 125° F or less

H<sub>2</sub>S INFORMATION:

H<sub>2</sub>S 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; gas detection from drill out of 13-3/8" casing to TD; remote geo-steering from drill out of 9-5/8"

casing to TD.

MWD / LWD: MWD surveys with inclination and azimuth in 100' stations (minimum) from drill out of 13-3/8" casing to TD;

Gamma Ray from drill out of 9-5/8" casing to TD; Gamma Ray optional in 12-1/4" intermediate hole

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: Ensign Rig No.: 773

Draw Works: Pacific Rim 1500AC

Mast: ADR 1500S Cantilever Triple (142 ft. 800,000 lbs. 12 lines)

Top Drive: Tesco 500-ESI-1350 (500 ton, 1,350 hp)

Prime Movers: 3 - CAT 3512 (1,475 hp)

Pumps: 3 - Gardner-Denver PZ11 (7,500 psi)

BOPE 1: Cameron single gate ram & double gate ram (13-5/8", 10,000 psi)

BOPE 2: Cameron annular (13-5/8", 10,000 psi)

Choke 3", 10,000 psi

KB-GL (ft): 28

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

#### **BOPE REQUIREMENTS:**

See attached diagram for details regarding BOPE specifications and configuration.

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

#### FLUIDS AND SOLIDS CONTROL PROGRAM:

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

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimimize 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	300 ft (MD)	Hole Section Length:	300 ft
0 ft (TVD)	to	300 ft (TVD)	Casing Required:	300 ft

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

			FL		YP		
Fluid:	Туре	MW (ppg)	(mL/30 min)	PV (cp)	(lb/100 sqft)	рН	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: Specs

> Loadina Min. S.F.

						Tens. Body	Tens. Conn
	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
				131	542	114,258	114,258
				8.62	5.04	7.47	7.96

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):

Minumum:

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:

			Yield	Water	Hole Cap.		Planned TOC	<b>Total Cmt</b>
:	Туре	Weight (ppg)	(cuft/sk)	(gal/sk)	(cuft/ft)	% Excess	(ft MD)	(sx)
	Class G	15.8	1.180	5.24	0.6946	100%	0	353

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 (estimated minimum WOC time is 6 hours).

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

300 ft (MD)	to	2,577 ft (MD)	<b>Hole Section Length:</b>	2,277 ft
300 ft (TVD)	to	2,500 ft (TVD)	Casing Required:	2,577 ft

FL YP Fluid: Type MW (ppg) (mL/30 min) PV (cp) (lb/100 sqft) рΗ Comments LSND 20 8 - 14 8 - 14 9.0 - 9.58.8 - 9.5OBM as contingency

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (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.

Tens. Body Tens. Conn Collapse (psi) Casing Specs: Wt (lb/ft) Grade Conn. Burst (psi) (lbs) (lbs) 9.625 36.0 J-55 LTC 564,000 453,000 Specs 2,020 3,520 Loadina 1,092 1,013 180,902 180,902 Min. S.F. 1.85 3.47 3.12 2.50

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

Maximum:

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): Minumum: 3,900 Optimum:

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

5,200

			Yield	Water		Planned TOC	Total Cmt	
Cement:	Type	Weight (ppg)	(cuft/sk)	(gal/sk)	% Excess	(ft MD)	(sx)	
Lead	G:POZ Blend	12.3	1.960	10.12	70%	0	577	
Tail	Class G	15.8	1.148	4.98	20%	2,077	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 ECONOCEM & HALCEM cementing blend

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out (estimated minimum WOC time for tail slurry is 6 hours).

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

_			3.		
	2,577 ft (MD)	to	9,633 ft (MD)	Hole Section Length:	7,056 ft
	2,500 ft (TVD)	to	4,072 ft (TVD)	Casing Required:	9,633 ft

Estimated KOP:	3,685 ft (MD)	3,550 ft (TVD)
Estimated Landing Point (P.O.E.):	4,697 ft (MD)	4,032 ft (TVD)
Estimated Lateral Length:	4,936 ft (MD)	

YΡ Fluid: (lb/100 sqft) Type MW (ppg) FL (mL/30') PV (cp) рН Comments LSND 8.8 - 9.59.0 - 9.520 8 - 14 8 - 14 OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum) before KOP, every joint from KOP to POE,

every 100' (minimum) from POE to TD; Gamma Ray from drill out of 9-5/8" shoe to TD

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

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

Tens. Conn Tens. Body Grade Collapse (psi) (lbs) Casing Specs: Wt (lb/ft) Conn Burst (psi) (lbs) Size (in) 7,460 10,640 546,000 445.000 Specs 5.500 17.0 P-110 LTC Loadina 2,012 8,881 241,311 241,311 Min. S.F. 3.71 1.20 2.26 1.84

> 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): Minumum: 3,400

Optimum: 4,530 Maximum:

Casing Details: Float shoe, float collar, 2 jts 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'. Place Floatation Sub at KOP.

Continue running 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

POE to KOP: 1 centralizer per joint from landing point to KOP

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

**Planned TOC Total Cmt** Yield Water (cuft/sk) (ft MD) Cement: Type Weight (ppg) (gal/sk) % Excess (sx) Lead G:POZ blend 12.3 1.960 10.11 50% 0 752 Tail G:POZ blend 13.3 1.354 5.94 10% 3.841 1,078

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). Kimbeto Wash Unit Order Number is R-14084.

FINISH WELL: ND BOP. RDMO Drilling Rig.

#### **COMPLETION AND PRODUCTION PLAN:**

Frac: 30 plug-and-perf stages with 120,000 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 assitance)

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

#### **ESTIMATED START DATES:**

Drilling: 7/1/2019 Completion: 8/15/2019 Production: 9/14/2019

Prepared by:

**Alec Bridge** 

5/6/2019



# Enduring Resources LLC

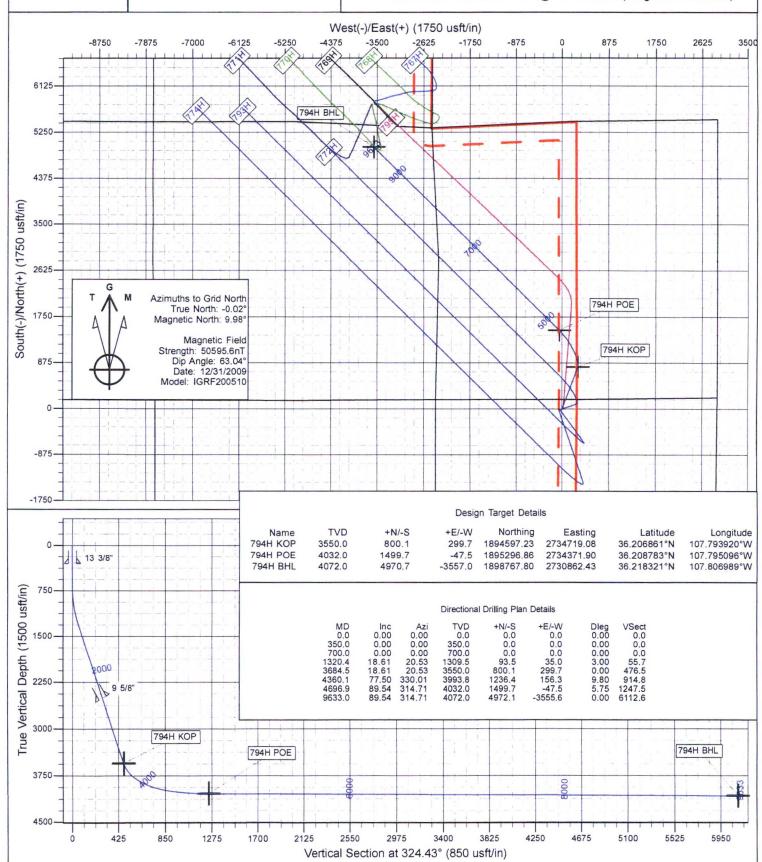
Directional Drilling Plan Plan View & Section View

## Kimbeto Wash Unit 794H

San Juan County, New Mexico T23N-R09W-Sec.28-Lot C Surface Latitude: 36.204663°N Surface Longitude: 107.794937°W

Ground Level: 6534.0

Reference Elevation: KB @ 6562.0usft (Original Well Elev)





# **Enduring Resources LLC**

San Juan Basin - Kimbeto Wash Unit 736H Pad 794H

Wellbore #1

Plan: Design #1

# **Standard Planning Report**

06 May, 2019



**TVD Reference:** 

North Reference:

MD Reference:

Database: Company:

EDM

Enduring Resources LLC

Project:

San Juan Basin - Kimbeto Wash Unit

Site:

736H Pad Well: 794H

Wellbore: Design:

Wellbore #1 Design #1

Project

San Juan Basin - Kimbeto Wash Unit

Map System:

US State Plane 1983

Geo Datum: Map Zone:

North American Datum 1983 New Mexico Western Zone

System Datum:

Mean Sea Level

Minimum Curvature

Well 794H

Grid

KB @ 6562.0usft (Original Well Elev)

KB @ 6562.0usft (Original Well Elev)

Site

736H Pad, San Juan County, New Mexico

0.0 usft

Site Position:

From:

Lat/Long

Northing: Easting:

1,893,797.11 usft 2,734,399.63 usft

Local Co-ordinate Reference:

Survey Calculation Method:

Latitude:

Longitude:

36.204663°N

Position Uncertainty:

Slot Radius:

13-3/16 "

Grid Convergence:

107.795004°W

0.02°

Well

794H

Well Position

+N/-S +E/-W 0.0 usft

19.8 usft

Northing: Easting:

1,893,797.11 usft 2,734,419.40 usft Latitude: Longitude: 36.204663°N

Position Uncertainty

0.0 usft

Wellhead Elevation:

Ground Level:

107.794937°W 6,534.0 usft

Wellbore

Wellbore #1

Magnetics

**Model Name** 

Sample Date

Declination (°)

**Dip Angle** (°)

**Field Strength** 

(nT)

IGRF200510

12/31/2009

10.00

63.04

50,595.60823515

Design

Design #1

**Audit Notes:** 

Version:

Phase:

PROTOTYPE

Tie On Depth:

0.0

**Vertical Section:** 

Depth From (TVD) (usft) 0.0

+N/-S (usft) 0.0

+E/-W (usft) 0.0

Direction (°)

324.43

Plan Survey Tool Program

Date 5/6/2019

Depth From (usft)

Depth To

(usft) Survey (Wellbore) **Tool Name** 

Remarks

0.0

9,633.0 Design #1 (Wellbore #1)

MWD

OWSG MWD - Standard

an 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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,320.4	18.61	20.53	1,309.5	93.5	35.0	3.00	3.00	0.00	20.53	
3,684.5	18.61	20.53	3,550.0	800.1	299.7	0.00	0.00	0.00	0.00	794H KOP
4,360.1	77.50	330.01	3,993.8	1,236.4	156.3	9.80	8.72	-7.48	-55.44	
4,696.9	89.54	314.71	4,032.0	1,499.7	-47.5	5.75	3.57	-4.54	-52.72	794H POE
9,633.0	89.54	314.71	4,072.0	4,972.1	-3,555.6	0.00	0.00	0.00	0.00	794H BHL



1

Database: Company: Project: EDM

Enduring Resources LLC

San Juan Basin - Kimbeto Wash Unit 736H Pad

Site: Well: Wellbore: Design:

794H Wellbore #1 Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well 794H

KB @ 6562.0usft (Original Well Elev) KB @ 6562.0usft (Original Well Elev)

Grid

esign:	Design #1								
lanned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
74.0	0.00	0.00	74.0	0.0	0.0	0.0	0.00	0.00	0.00
Ojo Alamo									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
171.0	0.00	0.00	171.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland									
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
13 3/8"									
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
431.0	0.00	0.00	431.0	0.0	0.0	0.0	0.00	0.00	0.00
Fruitland									
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
	0.00	0.00	600.0		0.0	0.0	0.00	0.00	
600.0 700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
781.0	2.43	20.53	781.0	1.6	0.6	1.0	3.00	3.00	0.00
Pictured Clif		20.55	701.0	1.0	0.0	1.0	3.00	3.00	0.00
800.0	3.00	20.53	800.0	2.5	0.9	1.5	3.00	3.00	0.00
900.0	6.00	20.53	899.6	9.8	3.7	5.8	3.00	3.00	0.00
987.1	8.61	20.53	986.0	20.2	7.6	12.0	3.00	3.00	0.00
Lewis									
1,000.0	9.00	20.53	998.8	22.0	8.2	13.1	3.00	3.00	0.00
1,100.0	12.00	20.53	1,097.1	39.1	14.6	23.3	3.00	3.00	0.00
1,175.9	14.28	20.53	1,171.0	55.2	20.7	32.9	3.00	3.00	0.00
Chacra									
1,200.0	15.00	20.53	1,194.3	60.9	22.8	36.3	3.00	3.00	0.00
1,300.0	18.00	20.53	1,290.2	87.5	32.8	52.1	3.00	3.00	0.00
1,320.4	18.61	20.53	1,309.5	93.5	35.0	55.7	3.00	3.00	0.00
1,400.0	18.61	20.53	1,385.0	117.3	43.9	69.9	0.00	0.00	0.00
1,500.0	18.61	20.53	1,479.8	147.2	55.1	87.7	0.00	0.00	0.00
1,600.0	18.61	20.53	1,574.5	177.1	66.3	105.5	0.00	0.00	0.00
1,700.0	18.61	20.53	1,669.3	207.0	77.5	123.3	0.00	0.00	0.00
1,700.0	18.61	20.53	1,764.1	236.9	77.5 88.7	123.3	0.00	0.00	0.00
1,900.0	18.61	20.53	1,858.8	266.8	99.9	158.9	0.00	0.00	0.00
2,000.0	18.61	20.53	1,953.6	296.7	111.1	176.7	0.00	0.00	0.00
2,100.0	18.61	20.53	2,048.4	326.5	122.3	194.5	0.00	0.00	0.00
2,200.0	18.61	20.53	2,143.1	356.4	133.5	212.3	0.00	0.00	0.00
2,234.7	18.61	20.53	2,176.0	366.8	137.4	218.4	0.00	0.00	0.00
Cliff House	49.04	20.52	2 404 0	274 5	120.0	204.2	0.00	0.00	0.00
2,250.5	18.61	20.53	2,191.0	371.5	139.2	221.3	0.00	0.00	0.00
Menefee	10.0:		0.007.0	0000	222-				
2,300.0	18.61	20.53	2,237.9	386.3	144.7	230.1	0.00	0.00	0.00
2,400.0	18.61	20.53	2,332.7	416.2	155.9	247.9	0.00	0.00	0.00
2,500.0	18.61	20.53	2,427.5	446.1	167.1	265.7	0.00	0.00	0.00
2,576.5	18.61	20.53	2,500.0	469.0	175.7	279.3	0.00	0.00	0.00
9 5/8"									
2,600.0	18.61	20.53	2,522.2	476.0	178.3	283.5	0.00	0.00	0.00
2,700.0	18.61	20.53	2,617.0	505.9	189.5	301.3	0.00	0.00	0.00
2,800.0	18.61	20.53	2,711.8	535.8	200.7	319.1	0.00	0.00	0.00
2,900.0	18.61	20.53	2,806.5	565.6		336.9	0.00		
3,000.0	18.61	20.53	2,806.5	595.5	211.9 223.1	354.7	0.00	0.00	0.00
3,100.0	18.61	20.53	2,996.1	625.4	234.3	372.5	0.00	0.00	0.00



Database: Company: EDM

Enduring Resources LLC

Project:

San Juan Basin - Kimbeto Wash Unit

Site: Well: 736H Pad 794H

Wellbore: Design: 794H Wellbore #1 Design #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Well 794H

KB @ 6562.0usft (Original Well Elev) KB @ 6562.0usft (Original Well Elev)

Grid

Planned	Survey
---------	--------

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
3,200.0	18.61	20.53	3,090.8	655.3	245.4	390.3	0.00	0.00	0.00
3,295.1	18.61	20.53	3,181.0	683.7	256.1	407.2	0.00	0.00	0.00
Point Looko	ut								
3,300.0	18.61	20.53	3,185.6	685.2	256.6	408.1	0.00	0.00	0.00
3,400.0	18.61	20.53	3,280.4	715.1	267.8	425.9	0.00	0.00	0.00
3,500.0	18.61	20.53	3,375.2	745.0	279.0	443.7	0.00	0.00	0.00
3,586.4	18.61	20.53	3,457.0	770.8	288.7	459.0	0.00	0.00	0.00
Mancos	10.01	20.00	3,437.0	770.0	200.7	400.0	0.00	0.00	0.00
3,600.0	18.61	20.53	3,469.9	774.9	290.2	461.5	0.00	0.00	0.00
3,684.5	18.61	20.53	3,550.0	800.1	299.7	476.5	0.00	0.00	0.00
3,700.0	19.51	16.78	3,564.7	804.9	301.3	479.5	9.80	5.81	-24.18
3,800.0	26.66	359.41	3,656.7	843.4	305.9	508.1	9.80	7.14	-17.37
3,841.2	30.02	354.67	3,693.0	863.0	304.8	524.6	9.80	8.15	-11.48
Gallup (MNC	The state of the s								
3,900.0	35.04	349.41	3,742.5	894.2	300.4	552.6	9.80	8.54	-8.97
3,978.6	42.01	344.15	3,804.0	941.7	289.0	597.9	9.80	8.88	-6.69
MNCS_B									
4,000.0	43.95	342.96	3,819.7	955.7	284.9	611.7	9.80	9.04	-5.55
4,100.0	53.12	338.34	3,885.8	1,026.3	259.9	683.6	9.80	9.17	-4.62
4,165.0	59.16	335.90	3,922.0	1,075.9	238.9	736.2	9.80	9.30	-3.74
MNCS_Cms									
4,200.0	62.44	334.72	3,939.1	1,103.7	226.1	766.2	9.80	9.35	-3.38
4.200.0	74.00	204.07	0.077.0	4.405.0	404.5	057.0	0.00	0.00	0.05
4,300.0	71.83	331.67	3,977.9	1,185.8	184.5	857.2	9.80 9.80	9.39	-3.05
4,360.1	77.50	330.01	3,993.8	1,236.4	156.3	914.8		9.43	-2.77
4,400.0	78.89	328.15	4,002.0	1,269.9	136.2	953.7	5.75	3.50	-4.66
4,500.0	82.44	323.56	4,018.2	1,351.5	80.9	1,052.3	5.75	3.55	-4.59
4,600.0	86.03	319.04	4,028.3	1,429.1	18.7	1,151.6	5.75	3.59	-4.51
4,696.9	89.54	314.71	4,032.0	1,499.7	-47.5	1,247.5	5.75	3.62	-4.48
4,700.0	89.54	314.71	4,032.0	1,501.9	-49.7	1,250.6	0.00	0.00	0.00
4,800.0	89.54	314.71	4,032.8	1,572.3	-120.8	1,349.2	0.00	0.00	0.00
4,900.0	89.54	314.71	4,033.6	1,642.6	-191.8	1,447.7	0.00	0.00	0.00
5,000.0	89.54	314.71	4,034.5	1,713.0	-262.9	1,546.3	0.00	0.00	0.00
5,100.0	89.54	314.71	4,035.3	1,783.3	-334.0	1,644.8	0.00	0.00	0.00
5,200.0	89.54	314.71	4,036.1	1,853.7	-405.1	1,743.4	0.00	0.00	0.00
5,300.0	89.54	314.71	4,036.9	1,924.0	-476.1	1,842.0	0.00	0.00	0.00
5,400.0	89.54	314.71	4,037.7	1,994.3	-547.2	1,940.5	0.00	0.00	0.00
5,500.0	89.54	314.71	4,038.5	2,064.7	-618.3	2,039.1	0.00	0.00	0.00
5,600.0	89.54	314.71	4,039.3	2,135.0	-689.3	2,137.6	0.00	0.00	0.00
5,700.0	89.54	314.71	4,040.1	2,205.4	-760.4	2,236.2	0.00	0.00	0.00
5,800.0	89.54	314.71	4,040.9	2,275.7	-831.5	2,334.8	0.00	0.00	0.00
5,900.0	89.54	314.71	4,041.7	2,346.1	-902.5	2,433.3	0.00	0.00	0.00
6,000.0	89.54	314.71	4,042.6	2,416.4	-973.6	2,531.9	0.00	0.00	0.00
6,100.0	89.54	314.71	4,043.4	2,486.8	-1,044.7	2,630.4	0.00	0.00	0.00
6,200.0	89.54	314.71	4,044.2	2,557.1	-1,115.7	2,729.0	0.00	0.00	0.00
6,300.0	89.54	314.71	4,045.0	2,627.4	-1,186.8	2,827.6	0.00	0.00	0.00
6,400.0	89.54	314.71	4,045.8	2,697.8	-1,257.9	2,926.1	0.00	0.00	0.00
6,500.0	89.54	314.71	4,046.6	2,768.1	-1,329.0	3,024.7	0.00	0.00	0.00
6,600.0	89.54	314.71	4,047.4	2,838.5	-1,400.0	3,123.2	0.00	0.00	0.00
6,700.0	89.54	314.71	4,048.2	2,908.8	-1,471.1	3,221.8	0.00	0.00	0.00
6,800.0	89.54	314.71	4,049.0	2,979.2	-1,542.2	3,320.4	0.00	0.00	0.00
6,900.0	89.54	314.71	4,049.9	3,049.5	-1,613.2	3,418.9	0.00	0.00	0.00
7,000.0	89.54	314.71	4,050.7	3,119.9	-1,684.3	3,517.5	0.00	0.00	0.00
.,000.0	00.04	Q 17.7 I	1,000.7	0,.10.0	1,504.5	0,017.0	0.00	0.00	0.00





Database: Company: EDM

Enduring Resources LLC

Project: Site: San Juan Basin - Kimbeto Wash Unit

736H Pad

Well: Wellbore: 794H Wellbore #1 Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well 794H

KB @ 6562.0usft (Original Well Elev) KB @ 6562.0usft (Original Well Elev)

Grid

Design:	Design #1								
Planned Survey	mg i								
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
7,200.0	89.54	314.71	4,052.3	3,260.6	-1,826.4	3,714.6	0.00	0.00	0.00
7,300.0	89.54	314.71	4,053.1	3,330.9	-1,897.5	3,813.2	0.00	0.00	0.00
7,400.0	89.54	314.71	4,053.9	3,401.2	-1,968.6	3,911.7	0.00	0.00	0.00
7,500.0	89.54	314.71	4,054.7	3,471.6	-2,039.7	4,010.3	0.00	0.00	0.00
7,600.0	89.54	314.71	4,055.5	3,541.9	-2,110.7	4,108.8	0.00	0.00	0.00
7,700.0	89.54	314.71	4,056.3	3,612.3	-2,181.8	4,207.4	0.00	0.00	0.00
7,800.0	89.54	314.71	4,057.1	3,682.6	-2,252.9	4,306.0	0.00	0.00	0.00
7,900.0	89.54	314.71	4,058.0	3,753.0	-2,323.9	4,404.5	0.00	0.00	0.00
8,000.0	89.54	314.71	4,058.8	3,823.3	-2,395.0	4,503.1	0.00	0.00	0.00
8,100.0	89.54	314.71	4,059.6	3,893.7	-2,466.1	4,601.6	0.00	0.00	0.00
8,200.0	89.54	314.71	4,060.4	3,964.0	-2,537.1	4,700.2	0.00	0.00	0.00
8,300.0	89.54	314.71	4,061.2	4,034.4	-2,608.2	4,798.8	0.00	0.00	0.00
8,400.0	89.54	314.71	4,062.0	4,104.7	-2,679.3	4,897.3	0.00	0.00	0.00
8,500.0	89.54	314.71	4,062.8	4,175.0	-2,750.3	4,995.9	0.00	0.00	0.00
8,600.0	89.54	314.71	4,063.6	4,245.4	-2,821.4	5,094.4	0.00	0.00	0.00
8,700.0	89.54	314.71	4,064.4	4,315.7	-2,892.5	5,193.0	0.00	0.00	0.00
8,800.0	89.54	314.71	4,065.2	4,386.1	-2,963.6	5,291.6	0.00	0.00	0.00
8,900.0	89.54	314.71	4,066.1	4,456.4	-3,034.6	5,390.1	0.00	0.00	0.00
9,000.0	89.54	314.71	4,066.9	4,526.8	-3,105.7	5,488.7	0.00	0.00	0.00
9,100.0	89.54	314.71	4,067.7	4,597.1	-3,176.8	5,587.2	0.00	0.00	0.00
9,200.0	89.54	314.71	4,068.5	4,667.5	-3,247.8	5,685.8	0.00	0.00	0.00
9,300.0	89.54	314.71	4,069.3	4,737.8	-3,318.9	5,784.4	0.00	0.00	0.00
9,400.0	89.54	314.71	4,070.1	4,808.2	-3,390.0	5,882.9	0.00	0.00	0.00
9,500.0	89.54	314.71	4,070.9	4,878.5	-3,461.0	5,981.5	0.00	0.00	0.00
9,600.0	89.54	314.71	4,071.7	4,948.8	-3,532.1	6,080.0	0.00	0.00	0.00
9,633.0	89.54	314.71	4,072.0	4,972.1	-3,555.6	6,112.6	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
794H KOP - plan hits target co - Point	0.00 enter	359.98	3,550.0	800.1	299.7	1,894,597.23	2,734,719.08	36.206861°N	107.793920°W
794H POE - plan hits target co - Point	0.00 enter	359.98	4,032.0	1,499.7	-47.5	1,895,296.86	2,734,371.90	36.208783°N	107.795096°W
794H BHL - plan misses targe - Point	0.00 et center by 2.0u	359.98 usft at 9633.0	4,072.0 ousft MD (407	4,970.7 72.0 TVD, 497	-3,557.0 72.1 N, -3555.	1,898,767.81 6 E)	2,730,862.43	36.218321°N	107.806989°W

Casing Points						
	Measured Depth (usft)	Vertical Depth (usft)		Name	Casing Diameter (")	Hole Diameter (")
	300.0	300.0	13 3/8"		13-3/8	17-1/2
	2,576.5	2,500.0	9 5/8"		9-5/8	12-1/4



Database: Company: EDM

Enduring Resources LLC

Project: San Juan Basin - Kimbeto Wash Unit Site: 736H Pad

736H Pad 794H

 Well:
 794H

 Wellbore:
 Wellbore #1

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well 794H

KB @ 6562.0usft (Original Well Elev) KB @ 6562.0usft (Original Well Elev)

Grid

ormations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	74.0	74.0	Ojo Alamo		0.00	
	171.0	171.0	Kirtland		0.00	
	431.0	431.0	Fruitland		0.00	
	781.0	781.0	Pictured Cliffs		0.00	
	987.1	986.0	Lewis		0.00	
	1,175.9	1,171.0	Chacra		0.00	
	2,234.7	2,176.0	Cliff House		0.00	
	2,250.5	2,191.0	Menefee		0.00	
	3,295.1	3,181.0	Point Lookout		0.00	
	3,586.4	3,457.0	Mancos		0.00	
	3,841.2	3,693.0	Gallup (MNCS_A)		0.00	
	3,978.6	3,804.0	MNCS_B		0.00	
	4,165.0	3,922.0	MNCS_Cms		0.00	

WELL NAME: KIMBETO WASH UNIT 794H

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

API Number: 30-045-

State: New Mexico County: San Juan

Surface Elev.: 6,534

Surface Location: 28-23N-09W Sec-Twn- Rng

ft ASL (GL)

6,562 181 417

ft ASL (KB) ft FNL ft FNL

2.397 ft FWL 1102 ft FEL

BH Location: 20-23N-09W Sec-Twn- Rng

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM: South on US Hwy 550 for 37.8 miles to MM 113.4; Right (SW) on CR 7890 for 0.8 miles to fork; Left (S) remaining on 7890 for 1.3 miles to 4-way intersection; Left (SE) on 7890 for 0.6 miles to fork; Right (SW) remaining on 7890 for 0.5 miles; Right (W) on access road for W Lybrook Unit 720H location for 0.6 miles to fork; Left (W) on access road for W Lybrook Unit 726H location for 0.7 miles to fork; Left (W) on access road for W Lybrook Unit 730H location for 1.9 miles; Right (N) on access road for 0.4 miles to Kimbeto Wash Unit

736H Pad (Wells: KWU 772H, 774H, 793H, 794H, 795H).

QUIC	CK REFERENCE
Sur TD (MD)	300 ft
Int TD (MD)	2,577 ft
KOP (MD)	3,685 ft
KOP (TVD)	3,550 ft
Target (TVD)	4,032 ft
Curve BUR	10 °/100 ft
POE (MD)	4,697 ft
TD (MD)	9,633 ft
Lat Len (ft)	4,936 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	300	13.375	54.5	J-55	BTC	0	300
Intermediate	12.250	2,577	9.625	36.0	J-55	LTC	0	2,577
Production	8.500	9,633	5.500	17.0	P-110	LTC	0	9,633

#### **CEMENT PROPERTIES SUMMARY:**

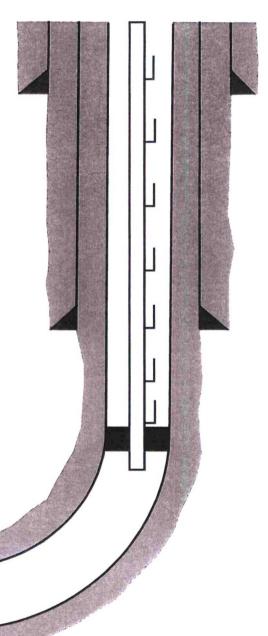
		Туре	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
	Surface	Class G	15.8	1.18	5.24	0.6946	100%	0	353
Γ	Inter. (Lead)	G:POZ Blend	12.3	1.96	10.12	0.3627	70%	0	577
	Inter. (Tail)	Class G	15.8	1.148	4.98	0.3132	20%	2,077	164
ſ	Prod. (Lead)	G:POZ blend	12.3	1.960	10.11	0.2691	50%	0	752
	Prod. (Tail)	G:POZ blend	13.3	1.354	5.94	0.2291	10%	3,841	1,078

#### COMPLETION / PRODUCTION SUMMARY:

Frac: 30 plug-and-perf stages with 120,000 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 assitance)

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



# <u>Directions from the Intersection of US Hwy 550 & US Hwy 64</u> in Bloomfield, NM to Enduring Resources, LLC Kimbeto Wash Unit #794H 181' FNL & 2397' FWL, Section 28, T23N, R9W, N.M.P.M., San Juan County, NM

# Latitude: 36.204663°N Longitude: 107.794937°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 37.8 miles to Mile Marker 113.4;

Go Right (South-westerly) on County Road #7890 for 0.8 miles to fork in roadway;

Go Left (Southerly) remaining on County Road #7890 for 1.3 miles to four-way intersection;

Go Left (South-easterly) remaining on County Road #7890 for 0.6 miles to fork in roadway;

Go Right (South-westerly) remaining on County Road #7890 for 0.5 miles to begin Enduring W Lybrook Unit #720H existing access on right-hand side of County Road;

Go Right (Westerly) exiting County Road #7890 onto Enduring W Lybrook Unit #720H existing access for 0.6 miles to fork in roadway;

Go Left (Westerly) which is straight, onto Enduring W Lybrook Unit #726H existing access for 0.7 miles to fork in roadway;

Go Left (Westerly) which is straight, onto Enduring W Lybrook Unit #730H existing access for 1.9 miles to proposed access on right-hand side of roadway which continues for 2093.2' to staked Enduring Kimbeto Wash Unit #794H location.