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

Michelle Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary

**Todd E. Leahy, JD, PhD** Deputy Secretary

Adrienne Sandoval, 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 3160-4 or 3160-5 form.

Operator Signature Date: 5/14/2020

Well information:

#### 30-039-06918 RINCON UNIT #127

ENDURING RESOURCES, LLC

Application Type:
P&A Drilling/Casing Change Location Change
Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)
Other:
Conditions of Approval:

- Notify NMOCD 24 Hours prior to commencing activities
- CBL Required
- In addition to the BLM approved plugs:
- Ensure coverage 6395'-6295'. OCD Gallup pick @ 6345'.
- Ensure coverage 5574'-5474'. OCD Mancos pick @ 5524'.
- Ensure coverage 4100'-4000'. OCD Chacra pick @ 4050'.
- Ensure coverage 2410'-2310'. OCD Ojo alamo pick @ 2360'.
- Ensure coverage 1370'-1270'. OCD Naimiento pick @ 1320'.

NMOCD Approved by Signature

8/14/2020 Date Form 3160-5 (June 2015)

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD Received 8/3/21020

FORM APPROVED OMB NO. 1004-0137 Expires: January 31, 2018

5. Lease Serial No. NMSF079364

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.

abandoned we	II. Use form 3160-3 (APD) for su	ch proposals.		6. If Indian, Allottee or	Tribe Name
SUBMIT IN		7. If Unit or CA/Agree 892000916B	ment, Name and/or No.		
Type of Well     ☐ Oil Well	nar.			8. Well Name and No. RINCON UNIT 12	7
2. Name of Operator	Contact: LACEY	GRANILLO		9. API Well No.	2.00
ENDURING RESOURCES LL				30-039-06918-0	
3a. Address 1050 17TH STREET SUITE 2 DENVER, CO 80265	500 Ph: 50	ne No. (include area code) 5-636-9743		10. Field and Pool or E BASIN DAKOTA BLANCO MESA	
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description)			11. County or Parish, S	tate
Sec 28 T27N R6W NENE 119 36.549301 N Lat, 107.466293				RIO ARRIBA CO	DUNTY, NM
12. CHECK THE AI	PPROPRIATE BOX(ES) TO IND	ICATE NATURE OF	F NOTICE,	REPORT, OR OTH	ER DATA
TYPE OF SUBMISSION		TYPE OF	ACTION		
■ Notice of Intent	☐ Acidize ☐	Deepen	☐ Producti	on (Start/Resume)	☐ Water Shut-Off
_	☐ Alter Casing ☐	Hydraulic Fracturing	☐ Reclama	ation	■ Well Integrity
☐ Subsequent Report	☐ Casing Repair ☐	New Construction	□ Recomp	lete	☐ Other
☐ Final Abandonment Notice	☐ Change Plans	Plug and Abandon	☐ Tempora	arily Abandon	
	☐ Convert to Injection ☐	Plug Back	■ Water D	isposal	
determined that the site is ready for find P&A  Enduring Resources requests wellbore diagram and reclama	to plug and abandon the above m	entioned well per plu	gging proced	dure,	
14. I hereby certify that the foregoing is	Electronic Submission #515403 ve	erified by the BLM Well	I Information	System	
Com	For ENDURING RESOUR imitted to AFMSS for processing by	CESILLC, sent to the I HEATHER PERRY on I	Farmington 05/19/2020 (2	20HCP0008SE)	
Name (Printed/Typed) LACEY G	GRANILLO	Title PERMIT	TING SPEC	CIALIST	
Signature (Electronic S	Submission)	Date 05/14/20	020		
	THIS SPACE FOR FEDI	ERAL OR STATE (	OFFICE US	SE	
Approved By JOE KILLINS		TitleENGINEEF			Date 07/29/2020
Conditions of approval, if any, are attache	d. Approval of this notice does not warran uitable title to those rights in the subject lead act operations thereon.	nt or			
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it a crime for a statements or representations as to any mat	any person knowingly and tter within its jurisdiction.	willfully to ma	ke to any department or a	agency of the United

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT FARMING TON DISTRICT OFFICE 6251 COLLEGE BLVD. FARMING TON, NEW MEXIC O 87402

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment

Well: Rincon 127

#### **CONDITIONS OF APPROVAL**

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease"
- 2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750
- 3. Submit electronic copy of the CBLs for verification to the following addresses: <a href="mailto:jkillins@blm.gov">jkillins@blm.gov</a>, <a href="mailto:jhoffman@blm.gov">jhoffman@blm.gov</a> and <a href="mailto:Brandon.Powell@state.nm.us">Brandon.Powell@state.nm.us</a>. Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Required plug coverage is based on attached BLM geologic report.
- 4. BLM picks top of Gallup at 6560. Ensure coverage of Gallup top 6510-6610
- 5. BLM picks top of Ojo Alamo at 2300. Ensure coverage of Ojo Alamo top 2200-2400
- BLM picks top of Nacimiento at 1260. Ensure coverage of Ojo Alamo top 1210-1310
- 7. Submit a copy of the updated procedure reflecting all COAs to the following email addresses before operations commence: <a href="mailto:jkillins@blm.gov">jkillins@blm.gov</a>, <a href="mailto:jhoffman@blm.gov">jhoffman@blm.gov</a> and Brandon.Powell@state.nm.us

# GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON FIELD OFFICE

- 1.0 The approved plugging plans may contain variances from the following <u>minimum general</u> requirements.
  - 1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.
  - 1.2 Requirements may be added to address specific well conditions.
- 2.0 Materials used must be accurately measured. (densometer/scales)
- 3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.
  - 3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.
- 4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.
  - 4.1 The cement shall be as specified in the approved plugging plan.
  - 4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.3 Surface plugs may be no less than 50' in length.
  - 4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.
  - 4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.
  - 4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

- 5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.
  - 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
  - 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
  - 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
  - 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.
- 6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.
  - 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
  - 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.
- 7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H<sub>2</sub>S.
- 8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.
- 9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

#### BLM FLUID MINERALS Geologic Report

**Date Completed:** 6/29/20

Well No.	Rincon Unit # 127			Location	1190′	FNL	&	890′	FEL
Lease No.	NMSF079364			Sec. 28	T27N			R6W	
Operator	Enduring Resources		County	Rio A	rriba	State	New M	exico	
Total Depth	7700' PBTD 7665'		Formation	MV/Graneros/DK		,			
Elevation (GL) 6554'			Elevation (KI	B) 6566' (est.	)				

<b>Geologic Formations</b>	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	1260′	Surface/Fresh water sands
Nacimiento Fm			1260′	2300′	Fresh water sands
Ojo Alamo Ss			2300′	2604'	Aquifer (fresh water)
Kirtland Shale			2604'	2920'	
Fruitland Fm			2920′	3145′	Coal/Gas/Possible water
Pictured Cliffs Ss			3145′	3395'	Gas
Lewis Shale(main)			3395'	4050′	
Chacra			4050′	4340′	Probable water or dry
Lewis stringer			4340′	4824'	
Cliff House			4824'	4886′	Possible Gas & Water
Menefee			4886′	5310′	Possible Coal, Gas & Water
Pt. Lookout Ss			5310′	5524'	Possible Gas & Water
Mancos Shale (main)			5524'	6560′	Source rock
Gallup			6560′	6810′	O&G/Water
Tocito Ss Lentil			6810′	6930'	Oil
Mancos stringer			6930'	7090′	
Juana Lopez			7090′	7190′	Marker bed
Mancos stringer			7190′	7273′	
Bridge Creek Ls			7273′	7340′	Marker bed
Graneros			7340′	7492'	
Dakota			7492'		Possible Gas & Water
Morrison					Water

Remarks:

P & A

Reference Well:

1) Enduring Resources Fm. Tops Same

- Please ensure that the top of the Fruitland formation as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

Please note that the beds identified as Gallup are not the main Gallup but rather probable discontinuous Ss lenses at a similar or higher stratigraphic level within the Mancos..

Please note that the BLM geologist's picks for several formation tops vary slightly to significantly from the operator's picks. These include the Nacimiento, Ojo Alamo, Chacra, Mancos Shale, Gallup, and the Tocito Ss lentil.

**Prepared by:** Walter Gage

CNTY: Rio Arriba FTG: 1130' FNL, 890' FEL **OPERATOR: ENDURING RESOURCES** STATE: NM **WELL: RINCON UNIT 127** Q-Q: NENE FIELD: RINCON SPUD: 11/15/59 SEC.: 28 TWS: 27N API # 30-039-06918 COMP: 04/26/60 ER WELL #: NM02771.01 STATUS: PROD RGE: 06W WI/NRI: 76.8200% 63.8100% WBD DATE: 04/08/20 BY: ACB **CURRENT WELLBORE DIAGRAM** 6568 KBE: KB: 12 6556 GLE: **CASING RECORD** TD (ft): SIZE (in) WT (lb/ft) GRADE 7700 HOLE (in) TOP (ft) BTM (ft) PBTD (ft): 7665 329 17 1/2 13 3/8 48 H40 10 jts 36 / 40 J-55/N-80 12 1/4 9 5/8 3353 106 jts J-55/N-80 215 jts 17-1/2" Hole 7283 8 3/4 23 J-55 7217 13-3/8" 48# Csg @ 329 ' 6 1/8 15 7698 14 jts Cmt w/230 sxs, circ to surface **TUBING RECORD** COND: YB DATE: 19-Dec-07 SIZE (in) WT (lb/ft) GRADE TOP (ft) TALLY (ft) **JTS** J-55 7546.33 237 2 3/8 4.7 MAKE/MODEL SIZE (in) TALLY (ft) DEPTH (ft) ITEM TBG 4.7# J55 YB 2 3/8 31.70 43.70 4.7# J55 YB 53.80 TBG SUB 2 3/8 10.10 TOC on 7" csg by TS @ 2,100 ' 4.7# J55 YB 7503.00 **TBG** 2 3/8 7556.80 SN 1.78" ID 2 3/8 7557.90 1.10 TOC on 9-5/8" csg by TS @ 2,380 ' 2 3/8 7558.33 NC 0.43 **PERFORATION RECORD** TOP (ft) BTM (ft) SPF **STAGE** STATUS VOL / PROP ZONE MV (Cliffhouse 4844 4912 RC 40,000 water frac MV (Point Lool 5328 5500 29,000 water frac Graneros 7422 40,000 7364 oil frac 7492 7586 49,950 Dakota oil frac 12-1/4" Hole 9-5/8" 40#/36# Csg @ 3353 12 jts 40# N-80 & 94 jts 36# J-55 Cmt w/170 sx, no circ to surf 158,950 **FORMATION TOPS** Nacimiento @ 982 2532 Ojo Alamo @ 2604 Kirtland @ Fruitland @ 2920 Pictured Cliffs @ 3145 3395 Lewis @ 3688 Chacra @ Cliff House @ 4824 Menefee @ 4911 Point Lookout @ 5362 5757 ' Mancos @ 6380 Gallup @ Tocito @ 6910 ' Greenhorn @ 7273 7340 Graneros @ 7369 Dakota @ 8-3/4" Hole 7" 23# Csg @ 7283 60 jts (2428') N-80 & 155 jts (4855') J-55 Cmt w/970sx, no circ to surf 5" 15# Lnr Top @ 7217 TOC on 5" Inr by TS @ 7,217 ' ORIG PBTD @ 7665 ' 5" 15# Csg @ 7698 7700 TD @ Cmt w/100 sxs, no circ to surface

**OPERATOR: ENDURING RESOURCES** CNTY: Rio Arriba FTG: 1130' FNL, 890' FEL STATE: NM Q-Q: NENE **WELL: RINCON UNIT 127** FIELD: RINCON SPUD: 11/15/59 SEC.: 28 API # 30-039-06918 COMP: 04/26/60 TWS: 27N STATUS: PROD ER WELL #: NM02771.01 **RGE: 06W** WI/NRI: 76.8200% 63.8100% BY: ACB WBD DATE: 05/04/20 PROPOSED P&A WELLBORE DIAGRAM KBE: 6568 CASING RECORD HOLE (in) SIZE (in) WT (lb/ft) GRADE KB: 12 TOP (ft) BTM (ft) 6556 GLE: 17 1/2 13 3/8 H40 329 48 36 / 40 J-55/N-80 12 1/4 9 5/8 3353 J-55/N-80 23 7283 8 3/4 0 J-55 7217 TD (ft): 7700 7698 6 1/8 7665 PERFORATION RECORD PBTD (ft): 10 ZONE TOP (ft) BTM (ft) MV (Cliffhouse 4844 4912 MV (Point Lool 5328 5500 7422 Graneros 7364 7492 7586 17-1/2" Hole Dakota 13-3/8" 48# Csg @ 329 ' Cmt w/230 sxs, circ to surface PLUG #10: SURFACE CASING SHOE & SURFACE PLUG 9 **SQZ HOLES** 379 ' 9-5/8" CICR 329 ' CEMENT 0 ' -379 ' **PLUG VOLUME** 298 sx THRU CICR 100% excess required (outside casing) **PLUG VOLUME** 144 sx **ABOVE CICR** 50 'excess required (inside casing) PLUG #9: NACIMIENTO TOP **SQZ HOLES** 1032 8 TOC on 7" csg by TS @ 9-5/8" CICR 982 ' 2,100 ' 932 ' -1032 ' CEMENT TOC on 9-5/8" csg by TS @ 2,380 ' THRU CICR 100% excess required (outside casing) **PLUG VOLUME** 74 sx **ABOVE CICR PLUG VOLUME** 38 sx 50 'excess required (inside casing) 7 PLUG #8: 7" CASING STUB **BALANCED PLUG** CEMENT 2000 ' - 2100 PLUG VOLUME 55 sx 50 'excess required (inside casing) 2050 '(50' ABOVE 7" CASING TOC) 7" CASING CUT @ PLUG #7: KIRTLAND & OJO ALAMO TOPS 6 **BALANCED PLUG** 2482 ' - 2654 ' CEMENT **PLUG VOLUME** 43 sx 50 'excess required (inside casing) 12-1/4" Hole PLUG #6: PICTURED CLIFFS & FRUITLAND TOPS 9-5/8" 40#/36# Csg @ 3353 ' **BALANCED PLUG** 5 12 jts 40# N-80 & 94 jts 36# J-55 CEMENT 2870 ' - 3195 ' Cmt w/170 sx, no circ to surf PLUG VOLUME 73 sx 50 'excess required (inside casing) PLUG #5: 9-5/8" CASING SHOE **BALANCED PLUG** 4 CEMENT 3303 ' -3403 ' FORMATION TOPS PLUG VOLUME 29 sx 50 'excess required (inside casing) 982 ' PLUG #4: CHACRA TOP Nacimiento @ 2532 Ojo Alamo @ **BALANCED PLUG** Kirtland @ 2604 CEMENT 3638 ' - 3738 ' Fruitland @ 2920 ' PLUG VOLUME 29 sx 50 'excess required (inside casing) 3145 ' Pictured Cliffs @ 3 Lewis @ 3395 PLUG #3: POINT LOOKOUT PERFS, CLIFFHOUSE PERFS, CLIFFHOUSE TOP 3688 ' Chacra @ 7" CICR 4794 ' 4824 ' Cliff House @ CEMENT 4694 '- 4794 ' 4911 Menefee @ PLUG VOLUME 29 sx **ABOVE CICR** 50 'excess required (inside casing) 5362 Point Lookout @ 5757 Mancos @ Gallup @ 6380 ' 6910 Tocito @ Greenhorn @ 7273 Graneros @ 7340 7369 ' Dakota @ 2 PLUG #2: GALLUP TOP 7" CICR 6430 8-3/4" Hole CEMENT 6330 ' -6430 ' 7" 23# Csq @ 7283 PLUG VOLUME 29 sx **ABOVE CICR** 50 'excess required (inside casing) 60 jts (2428') N-80 & 155 jts (4855') J-55 Cmt w/970sx, no circ to surf 5" 15# Lnr Top @ PLUG #1: DAKOTA & GRANEROS PERFORATIONS, GRANEROS TOP, LINER TOP 7217 ' TOC on 5" Inr by TS @ 7,217 ' 5" CICR 7314 1 CEMENT 7167 ' - 7314 ' **PLUG VOLUME** 29 sx **ABOVE CICR** 50 'excess required (inside casing) **CEMENT & CASING INFORMATION** · ALL PLUGS ASSUME CLASS G NEAT CEMENT STABILIZNG WELLBORE FLUID IS 8.3 PPG, SUFFICIENT TO BALANCE ALL WELLBORE PRESSURES, UNLESS NOTED OTHERWISE IN PROCEDURE 15.80 PPG CEMENT DENSITY: CBL WILL BE RUN ON 7" CASING AFTER SETTING PLUG #1 TO VERIFY TOC: SUBSEQUENT CEMENT YIELD: 1.15 CUFT / SX CEMENT PLUGS WILL BE ADJUSTED AS REQUIRED DEPENDING ON RESULTS OF CBL. UNTIL MIX WATER REQUIRED: 5.00 GAL / SX VERIFICATION FROM CBL, THE PROCEDURE ASSUMES THAT TOC ON THE 7" CASING IS 2,100' 5" CSG CAPACITY: 0.1059 CUFT / FT (TS). 7" CSG CAPACITY: 0.2210 CUFT / FT 8-3/4" HOLE CAPACITY: 0.4176 CUFT / FT CBL WILL BE RUN ON 9-5/8" CASING AFTER CUTTING THE 7" CASING AND BEFORE SETTING 9-5/8" CSG CAPACITY: 0.4340 CUFT / FT PLUG #8. UNTIL VERIFICATION FROM CBL, THE PROCEDURE ASSUMES THAT TOC ON 9-5/8" 7" CSG x 8-3/4" HOLE CAPACITY: 0.1503 CUFT / FT CASING IS 2,380' (TS). 7" CSG x 9-5/8" CSG CAPACITY: 0.1668 CUFT / FT 0.3132 CUFT / FT 9-5/8" CSG x 12-1/4" HOLE CAPACIT Huerfanito Bentonite @ 3,637'. 9-5/8" CSG x 13-3/8" CSG CAPACITY 0.3765 CUFT / FT ORIG PBTD @ 7665 5" 15# Csg @ 7698 TD @ 7700 Cmt w/100 sxs, no circ to surface

#### **ENDURING RESOURCES IV, LLC**

#### PLUG AND ABANDONMENT PROCEDURE

**WELL: RINCON UNIT 127** 

API: 30-039-06918 ER WELL: 30-039-06918

**LOCATION:** 1130' FNL, 890' FEL, Sec.28, 27N, 06W

COUNTY: Rio Arriba STATE: NM

- **NOTES:** 1) All cement volumes assume 100% excess volume outside pipe and 50' excess inside pipe. Cement will be Class 'G' (15.8 ppg and 1.15 cuft/sx). A stabilizing wellbore fluid with density of 8.3 ppg will be sufficient to balance pressures encountered in the well.
  - 2) Any waste fluids circulated from the well to surface, including excess cement, will be stored in steel tanks and then disposed of at an approved disposal facility.
  - 3) Notify BLM and NMOCD prior to beginning well-work operations. Comply with all BLM and NMOCD regulations. Obtain approval from BLM and NMOCD prior to making any changes or adjustments to the procedure.
  - 4) Plugs will be adjusted as necessary depending on the results of the RCBLs.
  - 5) Wait on cement, tag, and spot additional cement plugs as necessary depending on results of casing pressure tests.
  - 6) Hold safety meetings daily (minimum) with all personnel on location. Record tubing, casing, and bradenhead pressures daily on reports.
  - 7) Test and install rig anchors, if necessary (if rig does not have a base-beam).

#### PROCEDURE:

- 1) MIRU daylight pulling unit and associated equipment.
- 2) Blow down well. Kill well. ND WH. NU BOPE and test.
- 3) TOH and LD production tubing
- 4) PU and TIH with 2-7/8" work-string and 5" casing scraper to 7,364'. TOH. LD scraper.
- 5) PLUG #1: DAKOTA & GRANEROS PERFORATIONS, GRANEROS TOP, LINER TOP

TIH with 5" CICR on 2-7/8" work-string. Set CICR. MIRU Cementers. Pump cement. TOH.

5" CICR: 7,314' Plug Coverage: 7,167' to 7,314 Cement Volume: 29 sx 29 sx **TOTAL** 

- 6) PU and TIH with 2-7/8" work-string and 7" casing scraper to 7,167' (top of cement plug
- 7) MIRU WLU. Run RCBL on 7" casing from 7,167' (top of cement plug #1) to surface. Review RCBL and send copies to BLM and NMOCD before proceeding. RD WL. Note: depending on the fluid column that can be supported by the well, an additional RCBL may need to be run after setting plug #3 or prior to setting plug #3 using an RBP set at 4,819' (RBP will be removed after running CBL and prior to setting plug #3).
- 8) PLUG #2: GALLUP TOP

TIH with 7" CICR on 2-7/8" work-string. Set CICR. Pump cement. TOH.

7" CICR: 4,794' Plug Coverage: 4,694' 4,794' to Cement Volume: 29 sx 29 sx TOTAL

#### 9) PLUG #3: POINT LOOKOUT PERFS, CLIFFHOUSE PERFS, CLIFFHOUSE TOP

TIH with 7" CICR on 2-7/8" work-string. Set CICR. Prior to pumping cement, load hole and pressure test casing to 550 psig for 30 minutes. Pump cement. Pull up hole to for next

7" CICR: 4,794' Plug Coverage: 4,694' 4.794 to Cement Volume: 29 sx 29 sx **TOTAL** 

#### 10) PLUG #4: CHACRA TOP

Spot balanced plug. Pull up hole for next plug.

Plug Coverage: 3,638' to 3,738' Cement Volume: 29 sx 29 sx **TOTAL** 

#### 11) PLUG #5: 9-5/8" CASING SHOE

Spot balanced plug. Pull up hole for next plug.

3,303' 3,403' Plug Coverage: to Cement Volume: 29 sx 29 sx **TOTAL** 

#### 12) PLUG #6: PICTURED CLIFFS & FRUITLAND TOPS

Spot balanced plug. Pull up hole for next plug.

Plug Coverage: 2,870' to 3,195' 73 sx Cement Volume: 73 sx **TOTAL** 

#### 13) PLUG #7: KIRTLAND & OJO ALAMO TOPS

Spot balanced plug. TOH.

Plug Coverage: 2,482' 2,654' to Cement Volume: 43 sx **TOTAL** 43 sx

- 14) MU casing cutting tools and TIH/RIH. Depending on conditions encountered in the well, either a tubingconveyed mechanical cutter or wireline-conveyed chemical cutter may be used to cut the casing. Cut 7" casing at 2,050' (50' above 7" casing's TOC). TOH/POH with cutting tools. MIRU casing crew & casing handling tools. TOH and LD 7" casing. RDMO casing crew.
- 15) TIH with 9-5/8" casing scraper to 2,050' (7" casing stub). TOH. LD scraper.
- 16) RU WL. Run RCBL on 9-5/8" casing from 2,050' (7" casing stub) to surface. Review RCBL and send copies to BLM and NMOCD before proceeding. RD WL.

#### 17) PLUG #8: 7" CASING STUB

TIH with 2-7/8" work-string. Spot balanced plug. TOH.

Plug Coverage: 2,000' to 2,100' Cement Volume: 55 sx 55 sx **TOTAL** 

#### 18) PLUG #9: NACIMIENTO TOP

RIH with WL. Perf squeeze holes. TIH with 9-5/8" CICR on 2-7/8" work-string. Set CICR. Pump cement. TOH.

Squeeze holes: 1,032' 9-5/8" CICR: 982'

Plug Coverage: 932' to 1,032'

Cement Volume: 74 sx THRU CICR

#### 19) PLUG #10: SURFACE CASING SHOE & SURFACE PLUG

RIH with WL. Perf squeeze holes. RDMO WL. TIH with 9-5/8" CICR on 2-7/8" work-string. Set CICR. Establish circulation down work-string and out bradenhead. Pump cement. TOH and LD work-string.

Squeeze holes: 379' 9-5/8" CICR: 329'

Plug Coverage: 0' to 379'

Cement Volume: 298 sx THRU CICR

144 sx *ABOVE CICR* **442 sx** *TOTAL* 

- **20)** ND BOPE. Cut off casing and wellhead (minimum of 3' below finished grade). Top off annulus and casing with cement, if required. RDMO cement equipment. Install below-grade P&A marker (minimum 1/4" thick steel plate with weep hole, welded in place covering the well, well information permanently inscribed). RDMO.
- **21)** Complete surface reclamation as per approved reclamation plan.

**Created by:** A. Bridge 5/4/2020

### **SURFACE RECLAMATION PLAN**

# Rincon Unit 127 API No. 30-039-06918 NMNM-078406C/NMSF-079364

May 2020



## **ENDURING RESOURCES IV, LLC**

200 Energy Court Farmington, New Mexico 87401 Phone: (505) 636-9720

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Operator:	Enduring Resources IV, LLC (Enduring)
Well Name and Number:	Rincon Unit 127
API Number:	30-039-06918
Legal Location:	E ½ of the NE ¼ Sec. 28, T27N, R06W

#### 1 Introduction

This reclamation plan has been prepared to meet the requirements and guidelines of Onshore Oil and Gas Order No. 1 and supplemental guidance there to; including, the BLM's Gold Book. This plan describes the final reclamation procedures, any changes if applicable based on the surface managing agency designated final land use plan, and any mitigation measures associated with final reclamation performed by the operator. Final reclamation is considered complete when the success criteria outlined in this plan has been met and a final abandonment notice (FAN) has been received.

Enduring or their appointed contractor would call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipelines or cables located in proximity to the project area or any other areas anticipated to have ground disturbance at least two working days prior to ground disturbance.

Enduring or their appointed contractor would notify the BLM-FFO by phone or email 48 hours in advance of dirt work reclamation activities.

The Enduring Resources IV, LLC contact person for this reclamation plan is: built

Casey Haga Surface Permitting Specialist Enduring Resources IV, LLC 200 Energy Court Farmington, New Mexico 87401 505-636-9752

#### 2 Pre-Reclamation Site Inspection

A pre-reclamation site inspection for the Rincon Unit 127 was conducted on April 15, 2020 by Casey Haga and David Rogers with Enduring and May 6, 2020 by Casey Haga with Enduring, Randy Mckee with BLM-FFO, and Katie Spearman with Enterprise. During the inspections, an inventory of site conditions and equipment was conducted. Reclamation procedures were discussed, including recontouring, silt trap placement, seed mix selection, weed abatement procedures and any additional requirements needed to assist in reclaiming the area to as close to pre-disturbance conditions as practicable.

#### 2.1 Vegetation Community

The vegetation community that best represents the surrounding project area is sagebrush shrubland.

#### 2.2 Proposed Reclamation Seed Mix

Disturbance will be recontoured and topsoil will be redistributed and prepared for seeding. Ripping, disking, and seeding of the site will be done by Enduring's construction contractor. The seed mix is listed in detail in Table 1 below.

Table 1. Reclamation Seed Mix

Common Name	Scientific Name	Season	Form	PLS lbs/acre <sup>1</sup>
Fourwing Saltbrush	Atriplex canescens	Cool	Shrub	2.0
Winterfat	Krascheninnikovia lanata	Cool	Shrub	2.0
Indian Ricegrass Rimrock	Achnatherum hymenoides	Cool	Bunch	4.0
Blue Grama	Bouteloua gracilis	Warm	Sod	2.0
Sand Dropseed	Sporobolus cryptandrus	Warm	Bunch	0.5
Western wheatgrass	Pascopyrum smithii	Cool	Sod	4.0
Bottle brush squirreltail	Elymus elymoides	Cool	Bunch	3.0
Small burnet	Sanguisorba minor	Cool	Forb	2.0
Blue flax	Linum lewisii	Cool	Forb	0.25

<sup>&</sup>lt;sup>1</sup>Based on 60 pure live seeds (PLS) per square foot, drill seeded; double this rate (120 PLS per square foot) if broadcast or hydro-seeded.

#### 2.3 Pre-Reclamation Weed Survey

A species of Knapweed was identified on the southwestern side of the tank containment berm on location. Please see maps below for location. Enduring will excavate a pit within the cut slope and burry all knapweed plant material and soil surrounding plants potentially containing seed bank within the pit. The pit will then be covered deep within the cut slope when the location is recontoured.

#### 2.4 Contaminated Soil and Soil Amendments

There was no contaminated soil observed on the surface of location. Once equipment is removed, further inspection of the soil under these facilities would be conducted to ensure no leaks had occurred contaminating the soil beneath. Soil tests may occur if determined to be necessary. If contaminated soil is encountered, it will be removed and hauled to an approved landfarm for remediation.

#### 2.5 Equipment and Facility Removal

- All Production equipment including steel tank, below grade pit, separator, two meter runs, and chemical injection skid will be removed from location.
- Ancillary equipment including concrete slabs, fencing, anchors, and flow lines (above ground and/or buried) will also be removed and disposed of appropriately or reused.
- Debris and trash will be removed and disposed of at approved facilities.
- Two well-connect pipelines leave this location. The eastern most line will be abandoned at the dogleg just off location as indicated on the maps below. Removal of the dogleg is not required. The western most pipeline that leaves and goes north needs to be capped off location as indicated on the maps below.
- The cathodic ground bed and power pole that serves this location sits east of the roadway to remain. This power and cathodic ground bed may serve the neighboring location just north. Enduring's I&E team will visit the location the week ending May 22, 2020. If the equipment serves the neighboring Rincon Unit 153 well, it will be left in place and in service. If not, the ground bed will be plugged and abandoned sub grade and the drop pole supplying power would be removed.
- The gravel present on location will be stripped as practicable and spread over nearby roadway. Any remaining gravel that cannot be separated from soil adequately for reuse will be buried in the cut slope.

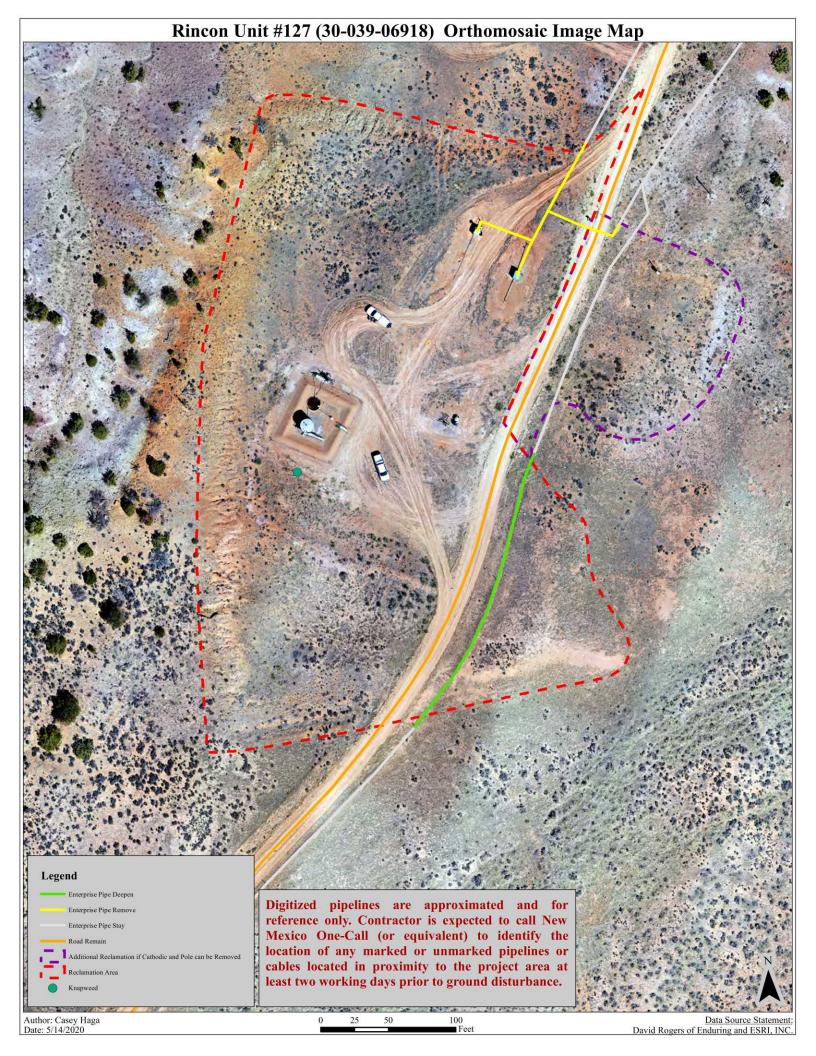
Wellhead will be removed upon plugging and an above ground well monument installed.

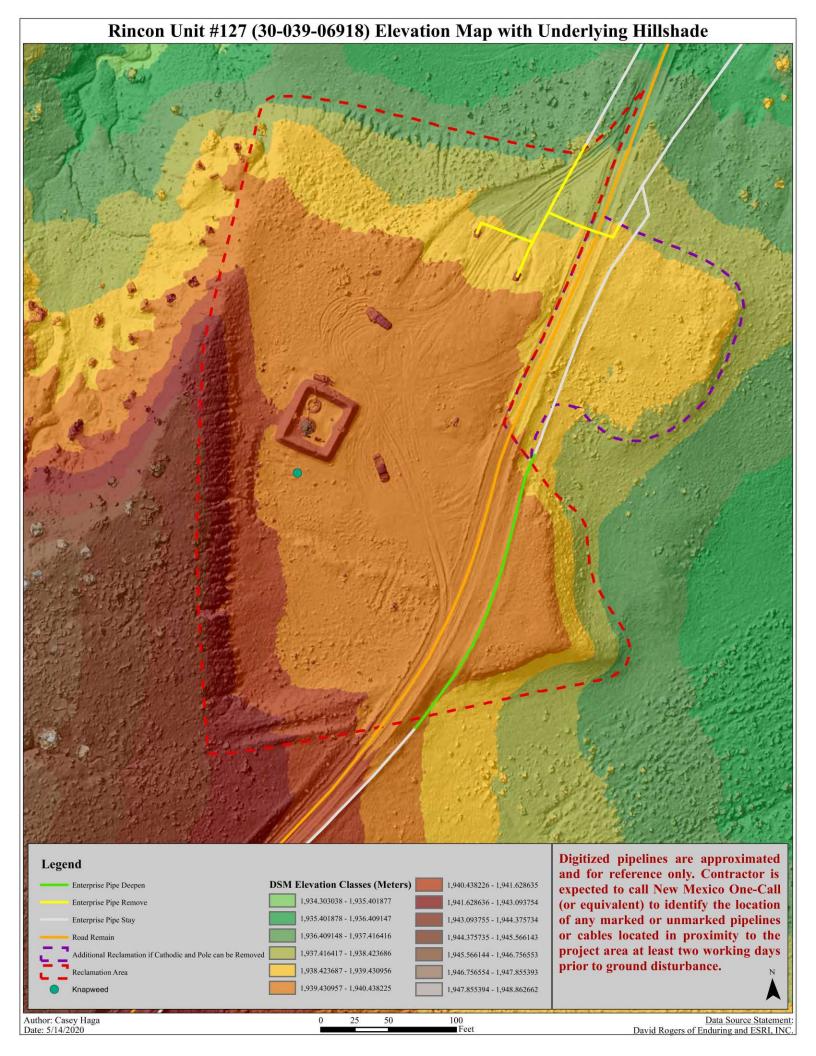
#### 2.6 Equipment and Facilities to Remain

- Please see the project maps provided in section 2.7 to see the approximate locations of the infrastructure described below.
- Enterprise pipe that will continue to serve neighboring locations will remain in place. However. The pipeline serving the Rincon Unit 127R runs through the fill slope of the location to be abandoned and reclaimed. Thus, if the pipeline is not buried to an adequate depth within native ground under the fill slope, it will need to be deepened (i.e. if the pipe is within the fill slope material, it will need to be deepened into native ground).
- As described above in section 2.5 bullet point 5, if the power pole and cathodic ground bed serve the neighboring location, they will remain in place and in service.

#### 2.7 Project Area Maps

See project area maps on the following two pages.





#### 3 Reclamation Techniques

All activities associated with the abandonment of the Rincon Unit 127 well are limited to areas approved in the Application for Permit to Drill (APDs) and/or the Right-of-Way (ROW) Grants.

#### 3.1 P&A Marker

An above grade steel pipe well monument will be fixed to the top of the wellbore with all information required per regulation legibly welded on the pipe.

#### 3.2 Vegetation and Site Clearing

Vegetation that has re-established within the interim reclaimed portions of the disturbance area will be mulched and incorporated into the topsoil as additional organic matter.

#### 3.3 Topsoil Stripping, Storage, and Replacement

The upper 6 inches of topsoil (if available) will be stripped following vegetation and site clearing. Topsoil will not be mixed with the underlying subsoil horizons and will be temporarily stockpiled separate from subsoil or other excavated material during recontouring. Topsoil will be spread evenly over sub-soils upon completion of recontouring operations and prior to final seedbed preparation. Spreading shall not be done when the ground or topsoil is to wet to adequately support construction equipment.

#### 3.4 Recontouring

All disturbed areas related to the Rincon Unit 127 will be recontoured to blend with the surrounding landscape, emphasizing, restoration of the existing drainage patterns and landforms to preconstruction condition to the extent practicable. If the power pole and cathodic ground bed are determined to be needed to serve the Rincon Unit 153 well to the north, they will remain in place along with the surrounding fill material. See the maps above showing this area.

#### 3.4.1 Well Pad

Prior to recontouring the location, any gravel that can be removed will be spread over surrounding roadways. The well pad will be contoured to blend with the surrounding landforms removing signs of cut/fill slopes. The fill slope on the southeast corner will be pushed (dozer)/excavated (excavator)/ or carried (belly scraper) and placed within the cut slope on the western side of location. If the power pole is removed and cathodic ground bed plugged, the fill slope on the northeastern side of location will also be pushed (dozer)/excavated (excavator)/ or carried (belly scraper) and placed within the cut slope on the western side of location. If the power pole and cathodic ground bed remain in service, this area will left in its current stabilized state. See the maps above. Natural rolling contours will be implemented to break up the surface and aid in removing signs of the well pad once vegetation establishes. Storm water entering the western side of location will be collected in a series of silt traps. These silt traps will help slow the velocity of storm water through location and allow settling of suspended materials. The exact location and size of these silt traps will be determined during reclamation to best fit the recontoured terrain. Excelsior waddles or other biodegradable material may be used to prevent cutting and sediment transportation if needed within diversions and spillways. The roadway through location the Rincon Unit 127R will remain in place. Culverts may be added to this roadway as needed per the recontoured location or existing culverts relocated as needed.

#### 3.4.2 Access Road

A roadway was constructed through this location to access the Rincon Unit 127R. Thus there is no longer a roadway associated with only the Rincon 127. The roadway through location to the Rincon 127R will remain in place and be reclaimed at a later date.

#### 3.4.3 Pipeline Corridor

There are two well-connect pipelines leave this location. The eastern most line will be abandoned at the dogleg just off location as indicated on the maps above. Removal of the dogleg is not required. The western most pipeline that leaves and goes north needs to be capped off location as indicated on the maps above. Enterprise pipe that will continue to serve neighboring locations will remain in place. However. The pipeline serving the Rincon Unit 127R runs through the fill slope of the location to be abandoned and reclaimed. Thus, if the pipeline is not buried to an adequate depth within native ground under the fill slope, it will need to be deepened (i.e. if the pipe is within the fill slope material, it will need to be deepened into native ground).

#### 3.5 Water Management/Erosion Control Features

Multiple silt traps will be incorporated into the reclamation. At least one of these silt traps will be established on the southern end of location adjacent to the roadway to remain through location. The exact location and size of silt traps will be determined during reclamation to best fit the recontoured terrain. As practical, water shed from west of the reclamation area will be diverted to silt traps. Diversions will be via rolling berms as opposed to cut diversion ditches. Excelsior waddles or other biodegradable material may be used to prevent cutting and sediment transportation if needed within diversions and spillways. If additional diversions or silt traps are found to be necessary during reclamation dirt work, they will be installed at that time. Ripping and disking would be conducted perpendicular to the recontoured slopes to promote water retention and provide terracing to prevent erosion and rills. Additional erosion control or water management features that may be used, if needed, include (but are not limited to) water bars or rolling dips, check dams, erosion control blankets or geotextiles, and straw wattles.

#### 3.6 Seedbed Preparation

Seedbed will be prepped after the location has been contoured and topsoil has been evenly redistributed. Seedbed preparation within compacted areas will include ripping to a minimum depth of 18 inches, unless bed rock is encountered at a shallower depth, and spacing furrows 2 feet apart. Ripping will be conducted perpendicularly in two phases, where practicable. If large clumps/clods result from the ripping process, disking will be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. Final seedbed preparation will consist of raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting.

#### 3.7 Seeding

Prior to seeding, the contractor is to notify Enduring resources that dirt work is complete. The BLM and Enduring will inspect the recontoured location and silt traps prior to seeding. The seed mix chosen for this project area is listed in Table 1. Seeding will occur immediately following recontouring and seedbed preparation. A disc-type seed drill with two boxes for various seed sizes will be utilized for seeding. Enduring or its reclamation subcontractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 0.5 inch, larger seeds (such as Indian ricegrass) will be planted at a depth of 1 to 2 inches, and small seeds (such as sand dropseed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable with

the equipment being used, the entire mix will be planted no deeper than 0.25 inch. A drag, packer, or roller will follow the seeder to ensure uniform seed coverage and adequate compaction. Seeding will be run perpendicular to slopes in order to minimize runoff and erosion.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where tractors and drills can safely operate. Where drill seeding is not practical, the contractor will hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Galleta and seeds the like may also be broadcast; due to the light fluffy nature of these seeds, they do not seed well through a drill seeder. Broadcast application of seed requires a doubling of the drill-seeding rate. The seed will then be raked into the ground so the seed is planted no deeper than 0.25 inch below the surface.

#### 3.8 Vegetation Reclamation Standards

Reclamation will be deemed successful when a self-sustaining, vigorous, diverse, native (or otherwise accepted) plant community is established on site, with a density meeting required foliar cover in table 2 below. Erosion control will be deemed successful when the aforementioned vegetation has established and there is no gullying, headcutting, deep or excessive rilling, and slumping (unless intentionally depressed (silt trap) for velocity and volume control).

	Table 2.	Reclamation	Goal for	Sagebrush/	Grass	Community
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Functional Group	Percent (%)	Common Species
	Foliar Cover	
Trees/Shrubs/Grasses/Forbs	>35	Utah juniper, Piñon pine; big sagebrush, four-wing
		saltbush, antelope bitterbrush, alkali sacaton, Western
		wheatgrass, Indian ricegrass, galleta, sand dropseed,
		scarlet globemallow, wooly Indian wheat, fleabane,
		Penstemon spp., buckwheat, threadleaf groundsel.
Invasive/undesirables	≤10	Plants that have the potential to become a dominant
10% allowed toward		species on a site where its presence is a detriment to
meeting standard of 35%.		revegetation efforts or the native plant community.
		Examples of invasive species include cheatgrass, Russian
		thistle, kochia.

#### 3.9 Noxious and Invasive Weed Control

Should any noxious or invasive weeds be documented on any portions of the action area after earthwork and seeding activities, the BLM-FFO weed coordinator would provide Enduring with specific requirements and instructions for weed treatments, including the period of treatment, list of approved herbicides, required documentation to be submitted to the BLM-FFO after treatment, and any other site-specific instructions that may be applicable.

#### 4 Monitoring Requirements

Enduring will complete a site assessment of reclamation success on an annual basis to track and confirm successful reclamation of the site in accordance with the success criteria outlined in Table 2 above. When vegetation on the reclaimed site appears to meet the success criteria, Enduring will document that standards have been obtained and submit a Final Abandonment Notice (FAN).

#### 5 Pre-Reclamation Site Photographs



Figure 1. Well sign.



Figure 2. Access Road entering location looking southwesterly.



Figure 3. Roadway to remain through location looking north-northeast.



Figure 4. Enterprise doglegs to remain. Well-connect pipeline to dogleg in the background will be removed.



Figure 5. Power drop pole to potentially remain if it serves the neighboring Rincon Unit 153 location. Photograph looking east-northeast. The cathodic ground bed sits southeast of pole outside of photograph.



Figure 6. Cathodic ground bed and ancillary boxes in the background to potentially remain if it serves the neighboring Rincon Unit 153 location.



Figure 7. Production equipment to be removed.



Figure 8. Production equipment to be removed.



Figure 9. Production equipment to be removed.



Figure 10. Well to be plugged and production equipment to be removed.



Figure 11. Measurement equipment to be removed.



Figure 12. Abandoned measurement equipment to be removed.



Figure 13. Measurement equipment to be removed and pipeline to be cut and capped in foreground.



Figure 14. North end of location looking westerly.



Figure 15. Cut slope looking south near northwestern corner of location.



Figure 16. Cut slope looking south from mid-way western side of location.



Figure 17. Cut slope on southwest corner and erosion looking west within location.



Figure 18. Fill slope looking northeast at southeast corner of location. Area where Enterprise may need to deepen their pipeline.

#### 6 References

- 43 CFR Part 3160, "Onshore Oil and Gas Order No. 1; Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Approval of Operations," 72 Federal Register 44 (March 2007), pp. 10328-1033
- BLM. 2013a. Farmington Field Office Bare Soil Reclamation Procedures. Available at: http://www.emnrd.state.nm.us/MMD/AML/documents/FFOBareSoilReclamationProcedures 2-1-13.pdf. Accessed October 2019.
- U.S. Department of the Interior U.S. Department of Agriculture (USDI-USDA). 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+307/REV 07. Bureau of Land Management. Denver, Colorado. 84 pp.