Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-045-38322 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

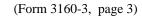
0. SHL: SENE / 1461 FNL / 425 FEL / TWSP: 23N / RANGE: 9W / SECTION: 25 / LAT: 36.201051 / LONG: -107.732966 (TVD: 0 feet, MD: 0 feet)
PPP: LOT 1 / 380 FNL / 100 FWL / TWSP: 23N / RANGE: 8W / SECTION: 30 / LAT: 36.204011 / LONG: -107.731191 (TVD: 4889 feet, MD: 5417 feet)
PPP: NWNW / 399 FNL / 0 FWL / TWSP: 23N / RANGE: 8W / SECTION: 29 / LAT: 36.20405 / LONG: -107.713544 (TVD: 4913 feet, MD: 10700 feet)
BHL: NWNE / 380 FNL / 1977 FEL / TWSP: 23N / RANGE: 8W / SECTION: 29 / LAT: 36.204073 / LONG: -107.702299 (TVD: 4929 feet, MD: 13941 feet)

BLM Point of Contact

Name: JEFFREY J TAFOYA Title: Assistant Field Manager

Phone: (505) 564-7672

Email: JTAFOYA@BLM.GOV



Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



Conditions of Approval

Operator: Enduring Resources IV, LLC

Well Names: Enduring's Rodeo Unit 508 Well Pad Expansion Project

Legal Location: Sec 25, Twn 23N, R09W, San Juan County, NM

NEPA Log Number: DOI-BLM-NM-F010-2023-0020-EA

Inspection Date: November 17, 2021 Lease Number: NMNM036949

The following conditions of approval will apply to Enduring's Rodeo Unit 508 Well Pad Expansion Project, and other associated facilities, unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in an assessment or civil penalties pursuant to 43 CFR 3163.1 or 3163.2.

Disclaimers: BLM's approval of the APD does not relieve the lessee and operator from obtaining any other authorizations that may be required by the BIA, Navajo Tribe, State, or other jurisdictional entities.

Copy of Plans: A complete copy of the APD package, including Surface Use Plan of Operations, Bare Soil Reclamation Plan, Plan of Development (if required), Conditions of Approval, Cultural Resource Record of Review, Cultural Resources Compliance Form (if required), and Project Stipulations (if required) shall be at the project area at all times and available to all persons.

Review of NEPA documents: It is the responsibility of the operator to follow all the design features, best management practices, and mitigation measures as contained in the Environmental Assessment DOI-BLM-NM-F010-2023-0020-EA, which contains additional design features and best management practices that must be followed. Copies of the EA, Decision Record, and Finding of No Significant Impact may be obtained from the BLM FFO public room, or online at: EplanningUi (blm.gov).

Best Management Practices (BMPs): Farmington Field Office established environmental Best Management Practices (BMP's) will be followed during construction and reclamation of well site pads, access roads, pipeline ties, facility placement or any other surface disturbing activity associated with this project. Bureau wide standard BMP's are found in the Gold Book, Fourth Edition-Revised 2007 and at

http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html. Farmington Field Office BMPs are integrated into the Environmental Assessment, Surface Use Plan of Operations, Bare Soil Reclamation Plan, and COAs.

Construction, Production, Facilties, Reclamation & Maintenance

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project.

Production Facilities: design and layout of facilities will be deferred until an onsite with BLM-FFO surface protection staff is conducted to determine the best location. Enduring or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface, and Environmental Protection Staff (505) 564-7600 to schedule a facility layout onsite.

Staking: The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the authorized officer to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts more than 6 inches deep, the soil shall be deemed too wet.

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks, and roots. The stockpiled soil material will be spread on the reclaimed portions of the pad [including the reserve pit, cut and fill slopes] prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

Storage Tanks: All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted, or otherwise covered to protect migratory birds and other wildlife from access.

Compressors: Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a 12-inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the Authorized Officer (AO). Noise mitigation may be required at the time of compressor installation.

Culverts: Silt Traps/Bell Holes will be built upstream of all culvert locations.

Driving Surface Area: All activities associated within the construction, operation, maintenance, and abandonment of the well location is limited to areas approved in the APD or ROW permit. During the production of the well, vehicular traffic is limited to the daily driving surface area established during interim reclamation construction operations. This area typically forms a keyhole or teardrop driving surface from which all production facilities may be serviced or

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inspected. A v-type ditch will be constructed on the outside of the driving surface to further define the driving surface and to deter vehicular traffic from entering onto the interim reclamation areas.

Contouring of Cut and Fill Slopes: The interim cut and fill slope grade shall be as close to the original contour as possible. To obtain this ratio, pits and slopes shall be back sloped into the pad during interim reclamation. Only subsurface soil and material shall be utilized in the contouring of the cut and fill slopes. Under no circumstances shall topsoil be utilized as substrate material for contouring of cut and fill slopes.

Maintenance: In order to perform subsequent well operations, right-of-way (ROW) operations, or install new/additional equipment, it may be necessary to drive, park, and operate on restored, interim vegetation within the previously disturbed area. This is generally acceptable provided damage is promptly repaired and reclaimed following use. Where vehicular travel has occurred as a "convenience" and interim reclamation/vegetation has been compromised, immediate remediation of the affected areas is required. Additionally, where erosion has occurred and compromised the reclamation of the well location, the affected area must be promptly remediated so that future erosion is prevented, and the landform is stabilized.

Cultural Resources Stipulations

1. ARCHAEOLOGICAL MONITORING IS REQUIRED:

A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that a site protection barrier is located as indicated on the attached map in the vicinity of LA188434, LA188435, LA201607, LA201608, LA201609, & LA201610.
- Inform BLM-FFO archaeologists that monitoring will be occurring within 24 hours of the scheduled monitoring.
- Observe all construction within 100' of LA188434, LA188435, LA201607, LA201608, LA201609, & LA201610.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

2. SITE PROTECTION BARRIER:

- The temporary site protection barrier will be erected prior to the start of construction. The barrier will consist of metal T-Post and wire fencing spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barrier will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barrier will be placed as indicated on the attached map.
- There will be no surface-disturbing activities or vehicle traffic past the barrier.

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Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

Additional Cultural Resources Stipulations

Non-Permitted Disturbance: Construction, construction maintenance or any other activity outside the areas permitted by the APD will require additional approval and may require a new cultural survey and clearance.

Employee Education: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

Discovery of Cultural Resources in the Absence of Monitoring: Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws.

Discovery of Cultural Resources during Monitoring: If monitoring confirms the presence of previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. **If there is an approved**

"discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed.

Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare a BLM approved damage assessment and/or data recovery plan. The operator/holder agrees at his/her expense to implement a mitigation that the agency finds appropriate given the significance of the site, which the agency determines in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property. This mitigation may entail execution of the data recovery plan by a permitted cultural resources consultant and/or alternative mitigations. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws.

Noxious Weeds

Inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly check for any changes. Invasive species may or may not be listed as a noxious weed but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO). There are numerous invasive species on the FFO such as Russian thistle (*Salsola spp.*) and field bindweed (*Convolvulus arvensis*).

Russian Knapweed (Centaurea repens)	Musk Thistle (Carduss nutans)
Bull Thistle (Cirsium vulgare)	Canada Thistle (Cirsium arvense)
Scotch Thistle (Onopordum acanthium)	Hoary Cress (Cardaria draba)
Perennial Pepperweed (Lepdium latiofolfium)	Halogeton (Halogeton glomeratus)
Spotted Knapweed (Centaurea maculosa)	Dalmation Toadflax (Linaria genistifolia)

Yellow Toadflax (Linaria vulgaris)	Camelthorn (Alhagi pseudalhagi)
African Rue (Penganum harmala)	Salt Cedar (<i>Tamarix spp.</i>)
Diffuse Knapweed (Centaurea diffusa)	Leafy Spurge (Euphorbia esula)

- a. Identified weeds will be treated prior to new surface disturbance if determined by the FFO Noxious Weed Coordinator. A Pesticide Use Proposal (PUP) must be submitted to and approved by the FFO Noxious Weed Coordinator prior to application of pesticide. The FFO Noxious Weeds Coordinator (505-564-7600) can provide assistance in the development of the PUP.
- b. Vehicles and equipment should be inspected and cleaned prior to coming onto the work site. This is especially important on vehicles from out of state or if coming from a weed-infested site.
- c. Fill dirt or gravel may be needed for excavation, road construction/repair, or for spill remediation. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the FFO Noxious Weed Coordinator.
- d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found the FFO Coordinator shall be notified at (505) 564-7600 and provided with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP). The FFO Coordinator can provide assistance developing the Weed Management Plan and/or the Pesticide Use Proposal.
- e. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. Enduring's weed-control contractor would contact the BLM-FFO prior to using these chemicals.
- f. Noxious/invasive weed treatments must be reported to the FFO Noxious Weed Coordinator. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological, or cultural treatments used to eradicate, and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Bare ground vegetation trim-out: If bare ground vegetation treatment (trim-out) is desired around facility structures, the operator will submit a bare ground/trim-out design included in their Surface Use Plan of Operations (SUPO). The design will address vegetation safety concerns of the operator and BLM while minimizing impacts to interim reclamation efforts. The design must include what structures to be treated and buffer distances of trim-out. Pesticide use for vegetation control around anchor structures is not approved. If pesticides are used for bare ground trim-out, the trim-out will not exceed three feet from the edge of any eligible permanent

structure (i.e., well heads, fences, tanks). Additional distance/areas may be requested and must be approved by the FFO authorized officer. The additional information below must also be provided to the FFO:

- a. Pesticide use for trim out will require a Pesticide Use Proposal (PUP). A PUP is required *prior* to any treatment and must be approved by the FFO Noxious Weed Coordinator. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. Enduring's weed-control contractor would contact the BLM-FFO prior to using these chemicals and provide Pesticide Use Reports (PURs) post treatment.
- b. A Pesticide Use Report (PUR) or a Biological Use Report (BUR) is required to report any chemical, or biological treatments used to eradicate, or control vegetation on site. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Paleontology

Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

Visual Resources

Dark Sky COAs need to be applied to existing lighting, which is not dark sky friendly and to any additional lights added as part of pad expansion. All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source). All permanent lighting will be pointed straight down at the ground in order to prevent light spill to the sides. All permanent lighting will be 4000° Kelvin or less with 3000° Kelvin preferred. Warmer light colors are less noticeable by humans and cause less impact to wildlife. All permanent lighting will be controlled by a switch and/or timer which allows the lights to be turned on when workers are on location during dark periods but will keep the lights off the majority of the time.

Wildlife

Migratory Bird: The BLM/FFO migratory bird policy requires a bird nest survey between May 15-July 31 for any projects that would remove 4.0 or more acres or vegetation. The proposed project is estimated to disturb more than four acres of vegetation, a survey will be required.

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Threatened, Endangered or Sensitive Species: If, in operations the operator/holder discovers any Threatened, Endangered, or Sensitive species, work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM-FFO T&E specialist at (505) 564-7600. The BLM-FFO will then specify what action is to be taken. Failure to notify the BLM-FFO about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

Nesting: If a bird nest containing eggs or young is encountered in the path of construction the operator will cease construction and consult with BLM to determine appropriate actions.

Raptors: No construction, drilling, or completion activities shall be conducted within one third of a mile of active or historic raptor nest sites between the following time periods. Exceptions may be considered on a case-by-case basis and would require written approval from the BLM FFO biologist after determining that project activities would not impact nesting activities. Biological monitoring may be required to document nesting behavior if project activities are allowed to occur within these time periods.

- Golden Eagle February 1 to June 30
- Ferruginous Hawk, Prairie Falcon March 1 to June 30
- Peregrine falcon Mitigation for nest sites will be determined on a site-specific basis using the principle of designating sensitive zones in which disturbance is seasonally restricted as delineated in Johnson (1994).

Hazards: Wildlife hazards associated with the proposed project would be fenced, covered, and/or contained in storage tanks, as necessary.

Livestock Grazing: If going thru existing fences, needs to be repaired after construction. If putting access road through fence, a cattleguard needs to be put in.

Soil, Air, Water

Land Farming: No excavation, remediation or closure activities will be authorized without prior approval, on any federal or Indian mineral estate, federal surface, or federal ROW. A Sundry Notice (DOI, BLM Form 3160-5) must be submitted with an explanation of the remediation or closure plan for on-lease actions.

Emission Control Standard: Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NOx at 2 grams per horsepower hour or less to comply with the New Mexico Environmental Department, Air Quality Bureau's guidance.

Waste Disposal: All fluids (i.e., scrubber cleaners) used during washing of production equipment, including compressors, will be properly disposed of to avoid ground contamination, or hazard to livestock or wildlife.



BLM Report Number: 2023(I)012F USGS Map: Lybrook NW, NM

Activity Code: 1310 NMCRIS No: 150989

CULTURAL RESOURCE RECORD OF REVIEW

BUREAU OF LAND MANAGEMENT FARMINGTON FIELD OFFICE

1. Description of Report/Project:

Project Name: Rodeo Unit No 503H Well Pad Expansion and Layflat Waterline.

Project Sponsor: Enduring Resources.

Arch. Firm & Report No.: Division of Conservation Archaeology; DCA Report No. 21-DCA-015.

Location: T23N R8W Section 19.

T23N R9W Sections 24, & 25.

Well Footages: 1,461 FNL; 425 FEL

Split Estate: No

<u>Project Dimensions</u>: 2,359 ft x 10 ft – layflat waterline.

3.45 acre – L shaped pad expansion area.

Note: Also surveyed was an abandoned stand alone well pad.

The layflat was originally surveyed during NMCRIS No 138871; BLM No 2017(IV)018F.

Sites Located: LA201607/NM-210-49468 (NRHP: Not Determined; Avoided).

LA201608/NM-210-49469 (NRHP: Not Determined; Avoided).

LA201609/NM-210-49470 (NRHP: Not Determined; Avoided; No Further Work). LA201610/NM-210-49471 (NRHP: Not Determined; Avoided; No Further Work).

Determination: No Effect to Historic Properties.

Field Check: none.
 Cultural ACEC: No.

4. Sensitive Cultural Area: No.

5. Recommendation: PROCEED WITH ACTION: X STIPULATIONS ATTACHED: X

6. Reviewer / Archaeologist: Kim Adams **Date**: 1/5/2023

Report Summary	BLM	Other	Total
Acres Inventoried	19.9	0.00	19.9
Sites Recorded	4	0	4
Prev. Recorded Sites	0	0	0
Sites Avoided	4	0	4
Sites Treated	0	0	0

Discovery of Cultural Resources in the Presence or Absence of Monitoring: If any previously unidentified historic or prehistoric cultural resources are discovered during construction or project operations, work in the vicinity of the discovery will be suspended and the discovery will promptly be reported to the BLM Field Manager.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

CULTURAL RESOURCE STIPULATIONS Farmington Field Office BLM Report Number: 2023(I)012F

Project Name: Rodeo Unit No 503H Well Pad Expansion and Layflat Waterline.

Project Sponsor: Enduring Resources.

1. SITE PROTECTION AND EMPLOYEE EDUCATION:

All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

2. ARCHAEOLOGICAL MONITORING IS REQUIRED:

A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that site protection barriers are located as indicated on the attached maps in the vicinity of LA201607, & LA201608.
- Inform BLM-FFO archaeologists that monitoring will be occurring within 24 hours of the scheduled monitoring.
- Observe all construction within 100' of LA201607, & LA201608.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

3. SITE PROTECTION BARRIER:

- The temporary site protection barriers will be erected prior to the placement of the layflat line. The barriers will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barriers will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barriers will be placed as indicated on the attached map.
- There will be no surface-disturbing activities or vehicle traffic past the barriers.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)

CULTURAL RESOURCE STIPULATIONS Farmington Field Office BLM Report Number: 2023(I)012F

Project Name: Rodeo Unit No 503H Well Pad Expansion and Layflat Waterline.

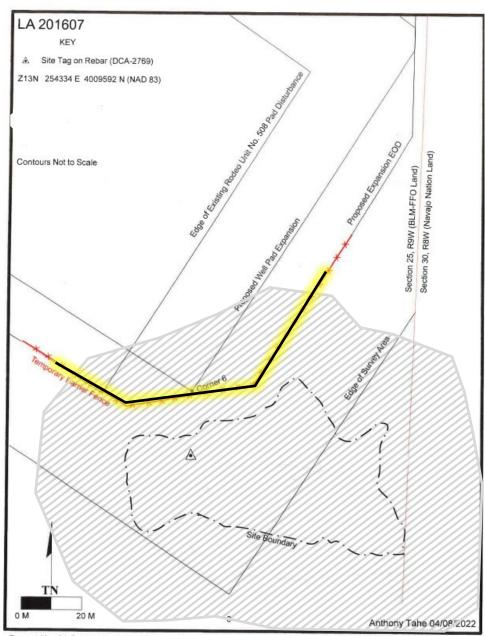
Project Sponsor: Enduring Resources.

MONITOR ZONE =



SITE PROTECTION BARRIER =





Report No. 21-DCA-015

Figure 3. Plan map of site LA 201607.

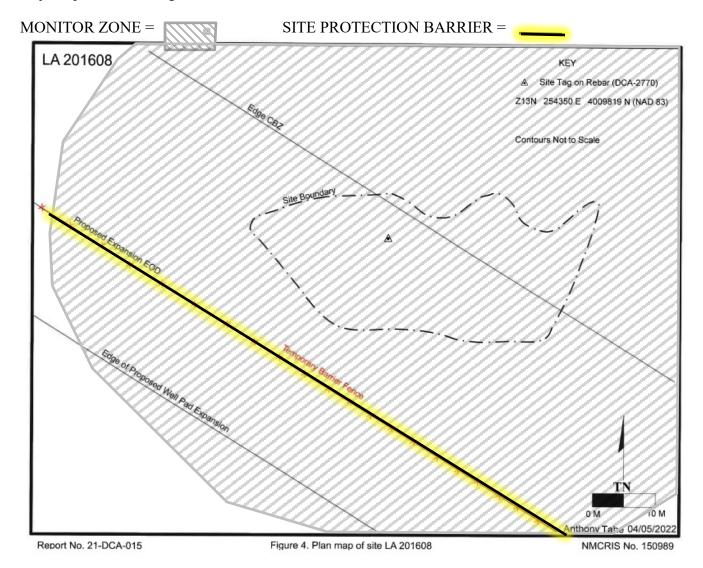
NMCRIS No. 150989

For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)

CULTURAL RESOURCE STIPULATIONS
Farmington Field Office
BLM Report Number: 2023(I)012F

Project Name: Rodeo Unit No 503H Well Pad Expansion and Layflat Waterline.

Project Sponsor: Enduring Resources.



4



BLM Report Number: 2023(I)012.1F USGS Map: Lybrook NW, NM

Activity Code: 1310 NMCRIS No: 152773

CULTURAL RESOURCE RECORD OF REVIEW

BUREAU OF LAND MANAGEMENT FARMINGTON FIELD OFFICE

1. Description of Report/Project:

Project Name: Rodeo Unit No 503H Well Expansion No 2.

Project Sponsor: Enduring Resources.

Arch. Firm & Report No.: Division of Conservation Archaeology; DCA Report No. 21-DCA-015A.

Location: T23N R8W Section 19.

T23N R9W Sections 24, & 25.

Well Footages: See plats

Split Estate: No

<u>Project Dimensions</u>: 540 ft x 150 ft – irregular shaped pad expansion area.

Note: The rest of the pad and the previous expansion was previously inventoried. Please see NMCRIS No 150989; 2023(I)012F, & NMCRIS No 138871; 2017(IV)018F.

Sites Located: LA201607/NM-210-49468 (NRHP: Not Determined; Avoided).

Determination: No Effect to Historic Properties.

Field Check: none.
 Cultural ACEC: No.

4. Sensitive Cultural Area: No.

5. Recommendation: PROCEED WITH ACTION: X STIPULATIONS ATTACHED: X

6. Reviewer / Archaeologist: Kim Adams **Date**: 4/26/2023

Report Summary	BLM	Other	Total
Acres Inventoried	5.48	0.00	5.48
Sites Recorded	0	0	0
Prev. Recorded Sites	1	0	1
Sites Avoided	1	0	1
Sites Treated	0	0	0

Discovery of Cultural Resources in the Presence or Absence of Monitoring: If any previously unidentified historic or prehistoric cultural resources are discovered during construction or project operations, work in the vicinity of the discovery will be suspended and the discovery will promptly be reported to the BLM Field Manager.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

CULTURAL RESOURCE STIPULATIONS Farmington Field Office

BLM Report Number: 2023(I)012.1F

Project Name: Rodeo Unit No 503H Well Expansion No 2.

Project Sponsor: Enduring Resources.

1. SITE PROTECTION AND EMPLOYEE EDUCATION:

All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

2. ARCHAEOLOGICAL MONITORING IS REQUIRED:

A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that a site protection barrier is located as indicated on the attached map in the vicinity of LA201607.
- Inform BLM-FFO archaeologists that monitoring will be occurring within 24 hours of the scheduled monitoring.
- Observe all construction within 100' of LA201607.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

3. SITE PROTECTION BARRIER:

- The temporary site protection barrier will be erected prior to the start of construction. The barrier will consist of metal T-Post and wire fencing spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barrier will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barrier will be placed as indicated on the attached map.
- There will be no surface-disturbing activities or vehicle traffic past the barrier.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)

CULTURAL RESOURCE STIPULATIONS Farmington Field Office

BLM Report Number: 2023(I)012.1F

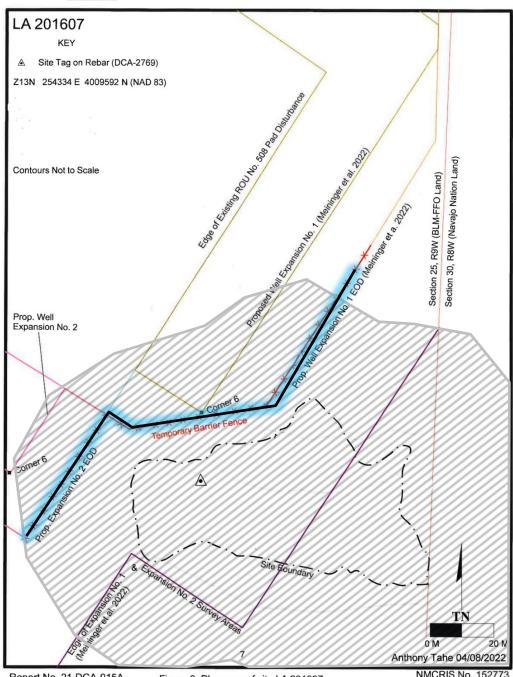
Project Name: Rodeo Unit No 503H Well Expansion No 2.

Project Sponsor: Enduring Resources.

MONITOR ZONE =



T-POST AND WIRE PROTECTION BARRIER =



Report No. 21-DCA-015A

Figure 3. Plan map of site LA 201607.

NMCRIS No. 152773



BLM Report Number: 2017(IV)018F

USGS Map: Lybrook NW, NM

Activity Code: 1310 NMCRIS No: 138871

CULTURAL RESOURCE RECORD OF REVIEW

BUREAU OF LAND MANAGEMENT FARMINGTON FIELD OFFICE

1. Description of Report/Project:

Project Name: Rodeo Unit Number 508H-510H Dual Well Pad, Access Road, and Pipeline.

Project Sponsor: WPX Energy Production LLC.

Arch. Firm & Report No.: La Plata Archaeological Consultants; LAC Report

No. 2017-2k.

Location: T23N R9W Sections 24, & 25. Well Footages: 508H; 1,491 FNL/443 FEL 510H; 1,511 FNL/409 FEL

Split Estate: Yes.

Project Dimensions: 490 ft x 315 ft – well pad (590 ft x 415 ft w/ 50 foot construction zone)

2,484 ft x 40 ft – pipeline right-of-way.

2,170 ft x 30 ft – access road. 0.02 acre– temporary use area. 100 ft x 20 ft – 2X Road pullouts

Sites Located: LA188434/NM-210-48990 (NRHP-Not Determined; Avoided).

LA188435/NM-210-48988 (NRHP-Not Determined; Avoided).

Determination: No Effect to Historic Properties.

Field Check: No.
 Cultural ACEC: No.

4. Sensitive Cultural Area: No.

5. Recommendation: PROCEED WITH ACTION: X STIPULATIONS ATTACHED: X

6. Reviewer / Archaeologist: Kim Adams **Date**: 12/7/2017

Report Summary	BLM	Other	Total
Acres Inventoried	20.22	0.00	20.22
Sites Recorded	2	0	2
Prev. Recorded Sites	0	0	0
Sites Avoided	2	0	2
Sites Treated	0	0	0

Discovery of Cultural Resources in the Presence or Absence of Monitoring: If any previously unidentified historic or prehistoric cultural resources are discovered during construction or project operations, work in the vicinity of the discovery will be suspended and the discovery will promptly be reported to the BLM Field Manager.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov. Or Geoffrey Haymes (BLM) at 505.564.7684 or ghaymes@blm.gov.

CULTURAL RESOURCE STIPULATIONS Farmington Field Office BLM Report Number: 2017(IV)019F

<u>Project Name: Rodeo Unit Number 508H-510H Dual Well Pad, Access Road, and Pipeline.</u> <u>Project Sponsor: WPX Energy Production LLC.</u>

1. SITE PROTECTION AND EMPLOYEE EDUCATION:

All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

2. ARCHAEOLOGICAL MONITORING IS REQUIRED:

A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that site protection barriers are located as indicated on the attached maps in the vicinity of LA188434, & LA188435.
- Observe all surface disturbing activities within 100' of LA188434, & LA188435.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

3. SITE PROTECTION BARRIER:

- Temporary site protection barriers will be erected prior to construction. The barriers will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barriers will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barriers will be placed as indicated on the attached maps.
- There will be no surface-disturbing activities or vehicle traffic past the barriers.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov. Or Geoffrey Haymes (BLM) at 505.564.7684 or ghaymes@blm.gov.

Approval Date: 09/12/2023

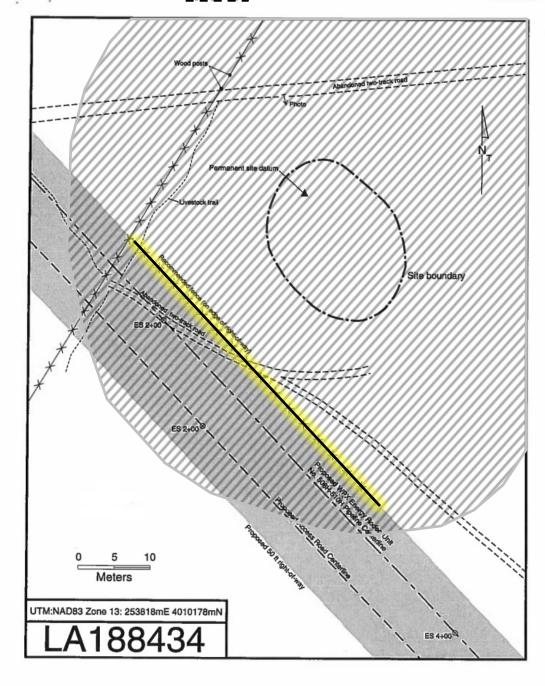
For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)

CULTURAL RESOURCE STIPULATIONS
Farmington Field Office
BLM Report Number: 2017(IV)018F

Project Name: Rodeo Unit Number 508H-510H Dual Well Pad, Access Road, and Pipeline.

Project Sponsor: WPX Energy Production LLC.

MONITOR CONSTRUCTION = SITE PROTECTION BARRIER = ----



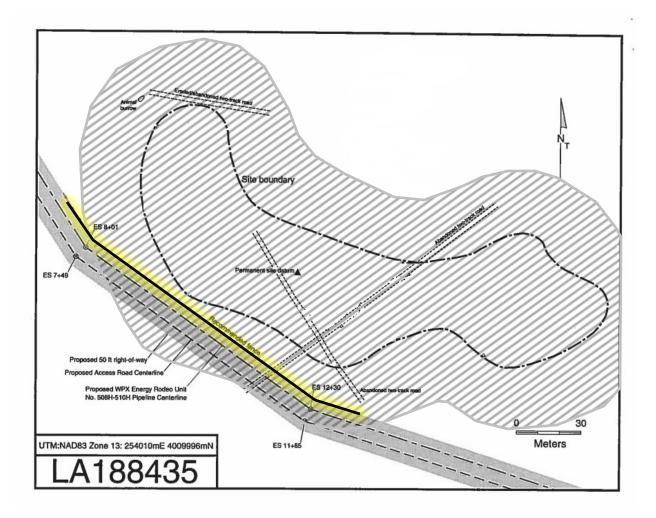
For Official Use Only: Disclosure of site locations prohibited (43 CFR 7.18)

CULTURAL RESOURCE STIPULATIONS
Farmington Field Office
BLM Report Number: 2017(IV)018F

Project Name: Rodeo Unit Number 508H-510H Dual Well Pad, Access Road, and Pipeline.

Project Sponsor: WPX Energy Production LLC.

MONITOR CONSTRUCTION = SITE PROTECTION BARRIER = ----





United States Department of the Interior



BUREAU OF LAND MANAGEMENT Farmington District Office 6251 College Blvd, Suite A Farmington, New Mexico 87402

In Reply Refer To: 3162.3-1(NMF0110)

* ENDURING RESOURCES LLC #503H RODEO UNIT

Lease: NMNM36949 Unit: NMNM135216X SH: SE¼NE¼ Section 25, T. 23 N., R. 9 W.

San Juan County, New Mexico

BH: NW1/4 NE1/4 Section 29, T. 23 N., R. 8 W.

San Juan County, New Mexico

*Above Data Required on Well Sign

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

A.⊠ Note all surface/drilling conditions of approval attached.
B. The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
C. Test all casing strings below the conductor casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield (burst) for a minimum of 30 minutes. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
D. Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508. The effective date of the agreement must be prior to any sales.
E. The use of co-flex hose is authorized contingent upon the following:
1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as
practical, hobbled on both ends and anchored to prevent whip.
3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

Released to Imaging: 9/15/2023 9:09:44 AM Approval Date: 09/12/2023

I. GENERAL

- A. Full compliance with all applicable laws and regulations, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving lifethreatening injuries or loss of life. (See NTL-3A).
- F. BOP equipment (except the annular preventer) shall be tested utilizing a test plug to full working pressure for 10 minutes. No bleed-off of pressure is acceptable.
- G. The operator shall have sufficient weighting materials and lost circulation materials on location in the event of a pressure kick or in the event of lost circulation
- H. The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of the prevailing wind direction and shall be anchored. The flare system shall have an effective method for ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and to maintain a continuous flare.
- I. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a Notice of Intent sundry within three business days. Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to Virgil Lucero at 505-793-1836.
- J. The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.

- K. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two-year extension may be granted if submitted prior to expiration.
- L. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.
- M. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.
- N. **Commingling**: No production (oil, gas, and water) from the subject well should start until Sundry Notices (if necessary) granting variances from applicable regulations as related to commingling and off-lease measurement are approved by this office.

II. REPORTING REQUIREMENTS

- A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.
- B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.
 - 1. Provide complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
 - b. Intervals tested, perforated (include size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
 - c. Subsequent Report of Abandonment, show the way the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
 - 2. Well Completion Report will be submitted with 30 days after well has been completed.
 - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
 - 3. Submit a cement evaluation log if cement is not circulated to surface.

C. Production Startup Notification is required no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site or resumes production in the case of a well which has been off production for more than 90 days. The operator shall notify the Authorized Officer by letter or Sundry Notice, Form 3160-5, or orally to be followed by a letter or Sundry Notice, of the date on which such production has begun or resumed. CFR 43 3162.4-1(c).

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results, 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results, and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of *Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

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

V. SAFETY

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

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

NAME: DANIELLE GAVITO

Email address:

Operator Certification Data Report

Signed on: 07/12/2023

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

MAINE: DANIELLE GAVITO		Oigiled Oil: 01/12/2020
Title: Permit Agent		
Street Address: 9446 CLEARMON	NT STREET	
City: THORNTON	State: CO	Zip: 80229
Phone : (303)524-4651		
Email address: DGAVITO@CDHC	CONSULT.COM	
Field		
Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Application Data

APD ID: 10400084206

Submission Date: 06/16/2022

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT

Well Type: OIL WELL

Well Number: 503H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400084206 Tie to previous NOS? Y

Submission Date: 06/16/2022

BLM Office: Farmington

User: DANIELLE GAVITO

Lease Acres:

Title: Permit Agent

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM120377

Allotted? Surface access agreement in place?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM135216X

Agreement name: WEST LYBROOK EXPLORATORY UNIT

Keep application confidential? Y

Permitting Agent? YES

APD Operator: ENDURING RESOURCES LLC

Operator letter of

BLM_Operator_Certification_05192022_20220614153408.pdf

Operator Info

Operator Organization Name: ENDURING RESOURCES LLC

Operator Address: 200 ENERGY COURT

Operator PO Box:

Zip: 87401

Operator City: FARMINGTON

State: NM

Operator Phone: (505)497-8574

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Master Drilling Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Well API Number:

Well Name: RODEO UNIT

Well Number: 503H

Field Name: LYBROOK

Pool Name:

Field/Pool or Exploratory? Field and Pool

MANCOS W

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

Is the proposed well in an area containing other mineral resources? NATURAL GAS

Is the proposed well in a Helium production area? N Use Existing Well Pad? N New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:
RODEO UNIT 508

Number: 503H 504H 506H

Well Class: HORIZONTAL Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL
Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 42 Miles Distance to nearest well: 35 FT Distance to lease line: 425 FT

Reservoir well spacing assigned acres Measurement: 640.97 Acres

Well plat: Rodeo_Unit_503H_Revised_C_102_Plat_with_Details_signed_05052022_20220614153706.pdf

 $503H_RODEO_UNIT_Directions_20220615094134.pdf$

503H_RODEO_UNIT_Existing_Road_20220615094135.pdf

Rodeo_503H_Revised_Pad_Layout_07122023_20230713092243.pdf

RODEO_UNIT_503H_Revised_Cut_Fill_Exhibit_07122023_20230713105249.pdf

Well work start Date: 11/01/2022 Duration: 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number: 15269 Reference Datum: GROUND LEVEL

Wellbore		NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SH	I L 1	46	FNL	425	FEL	23N	9W	25	Aliquot	36.20105		SAN	1	NEW		NMNM		0	0	Z
Le	g 1								SENE	1	107.7329	I	MEXI			036949	3			
#1											66	N	CO	CO						

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
KOP Leg #1	146 1	FNL	425	FEL	23N	9W	25	Aliquot SENE	36.20105 1	- 107.7329 66	SAN JUA N	NEW MEXI CO	NEW MEXI CO	I	NMNM 036949	259 7	446 0	428 6	N
PPP Leg #1-1	380	FNL	100	FW L	23N	8W	30	Lot 1	36.20401 1	- 107.7311 91	SAN JUA N	NEW MEXI CO	NEW MEXI CO	F	NMNM 120377	199 4	541 7	488 9	Y
PPP Leg #1-2	399	FNL	0	FW L	23N	8W	29	Aliquot NWN W	36.20405	- 107.7135 44	SAN JUA N	NEW MEXI CO	NEW MEXI CO		NOG13 121851	197 0	107 00	491 3	Y
EXIT Leg #1	380	FNL	197 7	FEL	23N	8W	29	Aliquot NWNE	36.20407 3	- 107.7022 99	SAN JUA N	NEW MEXI CO	NEW MEXI CO		NOG13 121855	195 4	139 41	492 9	Y
BHL Leg #1	380	FNL	197 7	FEL	23N	8W	29	Aliquot NWNE	36.20407 3	- 107.7022 99	SAN JUA N	NEW MEXI CO	NEW MEXI CO		NOG13 121855	195 4	139 41	492 9	Y

Operator Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, are true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this <u>19th</u> day of <u>May</u> , <u>20</u>	<u>22</u> .
Name Khem Suthiwan	
Position Title Regulatory Manager	
Address <u>6300 S Syracuse Way, Suite 525; Center</u>	nnial, CO 80111
Telephone <u>(303) 350-5721</u>	
Field representative (if not above signatory)	
Email <u>ksuthiwan@enduringresources.com</u>	
F	Chem Suthiwan Regulatory Manager Enduring Resources, LLC

Districted by OCD: 9/13/2023 9:21:51 AM State of New Mexico 1625 N. French Brive, Hopps, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Energy, Minerals & Natural Resources Department District II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748–1283 Fax: (575) 748–9720

Form C-102 Revised August 1, 2011

OIL CONSERVATION DIVISION 1220 South St. Francis Drive

Sub	mit	one	CODY	to
Appropriate				
Appl opl Tacc	010	CI IC	L OII	100

AMENDED REPORT

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe. NM 87505

30-045-3	*Pool Code 97232	*Pool Name BASIN MANCOS	
⁴Property Code 321253		operty Name DEO UNIT	°Well Number 503H
70GRID No. 372286		erator Name RESOURCES, LLC	°Elevation 6883'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	25	23N	9W		1461	NORTH	425	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	23N	8W		380	NORTH	1977	EAST	SAN JUAN
¹² Dedicated Acres N/2 - Section 29			¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.				
1 640 07		,= =-	ection 30				R-14313		

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 CERTAGE "OPEHAIOH CELESTANTING THE REPRESENCE OF THE PROPERTY OF THE P Khem Suthiwan 5/5/2022 Signature Date Khem Suthiwan Printed Name ksuthiwan@enduringresources.com 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 und my supervision, and that the same is true and correct to the best of my belief. Date Revised: MAY 4, 2022 Survey Date: SEPTEMBER 15, 2021 Signature and Seal of Professional Surveyor SON C. EDWARDS MEXICO SEW REGISTERNO SAME YOR AOFESSIONAL EDWARDS Certificate Number

SURFACE LOCATION 1461' FNL 425' FEL SEC 25, T23N, R9W LAT: 36.201038 N LONG: 107.732353 W DATUM: NAD1927

O'E

LAT: 36.201051 °N LONG: 107.732966 °W DATUM: NAD1983

FIRST TAKE POINT 380' FNL 100' FWL SEC 30, T23N, R8W LAT: 36.203998 °N LONG: 107.730578 °W DATUM: NAD1927

LAT: 36.204011°N LONG: 107.731191°W DATUM: NAD1983

(A) 399' FNL 0' FEL (A) 399 FNL 0 FEL SEC 30, T23N, R8W LAT: 36.204036°N LONG: 107.712932°W DATUM: NAD1927 LONG:

LAT: 36.204050 °N LONG: 107.713544 °W DATUM: NAD1983

(B) 399' FNL 0' FWL (B) 399 FNL 0 FWL SEC 29, T23N, R8W LAT: 36.204036°N LONG: 107.712932°W DATUM: NAD1927 LONG:

LAT: 36.204050 °N LONG: 107.713544 °W DATUM: NAD1983

(C) 384' FNL 2645' FWL .) 384 FNL 2645 F SEC 29, T23N, R8W LAT: 36.204055°N LONG: 107.703968°W DATUM: NAD1927

LAT: 36.204068 °N LONG: 107.704580 °W DATUM: NAD1983

LAST TAKE POINT 380' FNL 1977' FEL SEC 29, T23N, R8W LAT: 36.204059 °N LONG: 107.701687 °W DATUM: NAD1927

672.8°

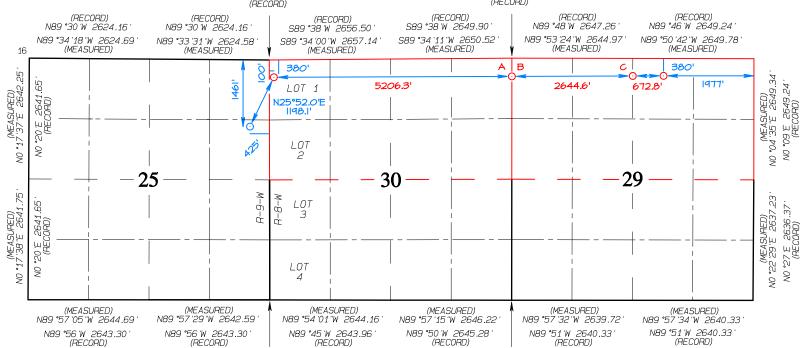
46.9E

LAT: 36.204073 °N LONG: 107.702299 °W DATUM: NAD1983

(MEASURED) NO °07'30"W 2623.66

NO °03 W 2623.83 (RECORD)

(MEASURED) NO °04'01"E 2647.95 NO *08 'E 2648.25 (RECORD)



(MEASURED) NO °06 '58''W 2624.61

(MEASURED) NO °03 '53 'E 2647.03 NO °08 E 2648.25 (RECORD)

NO °03 W 2623.83

Released to Imaging: 9/15/2023 9:09:44 AMPRD)

<u>Directions from the Intersection of US Hwy 550 & US Hwy 64</u>

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #503H

1461' FNL & 425' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.201051°N Longitude: 107.732966°W Datum: NAD1983

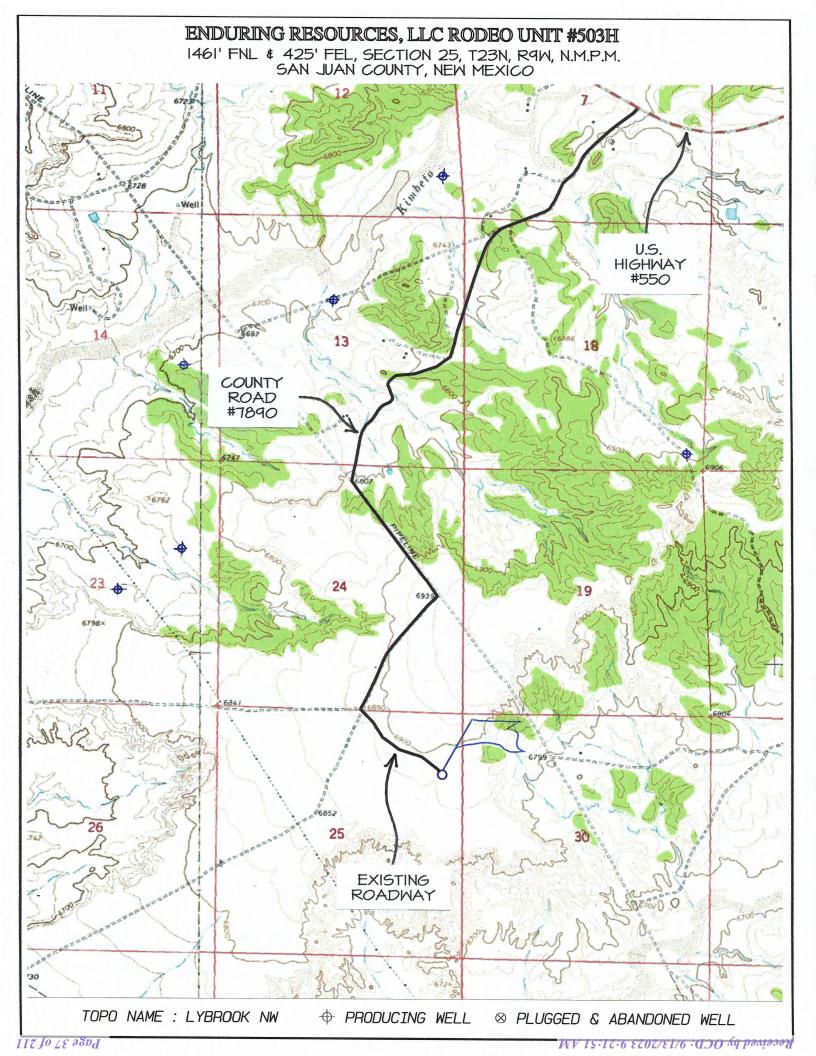
From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.3 miles to Mile Marker 113.4;

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

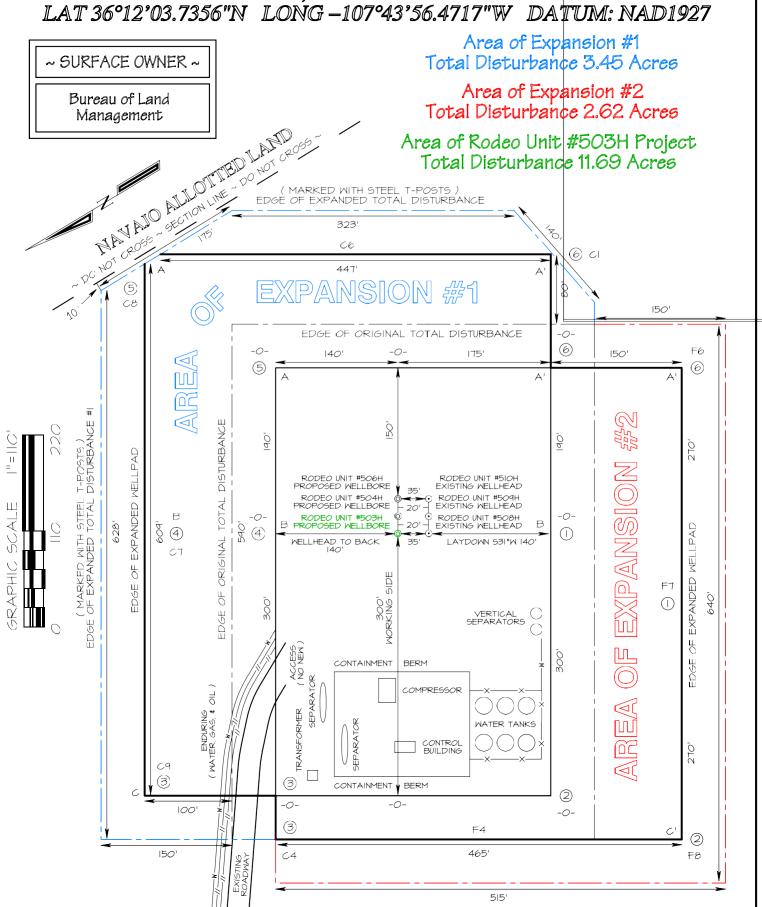
Go Left (Southerly) remaining on County Road #7890 for 1.3 miles to 4-way intersection;

Go Left (South-easterly) remaining on County Road #7890 for 1.2 miles to 4-way intersection;

Go Left (South-easterly) exiting County Road #7890 for 0.4 miles to staked Enduring Rodeo Unit #503H location which overlaps the existing Enduring Rodeo Unit #508H location.



ENDURING RESOURCES, LLC RODEO UNIT #503H 1461' FNL & 425' FEL, SECTION 25, T23N, R9W, NMPM SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883' LAT 36°12'03.7356"N LONG -107°43'56.4717"W DATUM: NAD1927



\rightarrow W-W 6883 6883 9 6883 6813 6813 6893 6893 6893 HORIZONTAL SCALE |"=80' SAN JUAN COUNTY, NEW MIEXICO CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. 1461' FNIL & 425' FEIL, SECTION 25, T23N, R9W, NMIPM ENDURING RESOURCES, LLC RODEO UNIT #503HI NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES. \mathbb{C} C \mathbb{C} Q ELEVATION: 6883' Q ? VERTICAL SCALE Q ? Q Q



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

09/12/2023

APD ID: 10400084206

Submission Date: 06/16/2022

Highlighted data reflects the most recent changes

Operator Name: ENDURING RESOURCES LLC

Well Number: 503H

Well Type: OIL WELL

Well Name: RODEO UNIT

Well Work Type: Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12102098	NACIMIENTO	6883	0	0	SANDSTONE, SHALE	USEABLE WATER	N
12102099	OJO ALAMO	6312	571	571	SANDSTONE, SHALE	USEABLE WATER	N
12102100	KIRTLAND	6226	657	657	COAL, SHALE	COAL, NATURAL GAS	Y
12102097	FRUITLAND	6022	861	863	COAL	COAL	N
12102101	PICTURED CLIFFS	5715	1168	1182	SANDSTONE, SHALE	NATURAL GAS	Y
12102102	LEWIS	5556	1327	1351	SHALE	NATURAL GAS	Y
12102103	CHACRA	5297	1586	1626	SANDSTONE, SHALE	NATURAL GAS	Y
12102104	CLIFFHOUSE	4227	2656	2762	SANDSTONE	NATURAL GAS	Y
12102105	MENEFEE	4209	2674	2782	COAL, SANDSTONE, SHALE	NATURAL GAS	Y
12102106	POINT LOOKOUT	3235	3648	3814	SANDSTONE, SHALE	NATURAL GAS	Y
12102107	MANCOS	3069	3814	3986	SHALE	NATURAL GAS, OIL	Y
12102108	GALLUP	2744	4139	4313	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M Rating Depth: 4929

Equipment: REFERENCE BOP DIAGRAM

Requesting Variance? NO

Variance request: The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to 250 psi (Low) for 5 minutes and 1500 psi (High) for 10 minutes. A full pressure test will be performed within 30 day intervals, during rig skids a shell test will be performed on the connections that were separated.

Well Name: RODEO UNIT Well Number: 503H

Testing Procedure: REFERENCE OPS PLAN BOP TESTING

Choke Diagram Attachment:

BOPE___CHOKE_MANIFOLD_DIAGRAM_06152022_20220615144409.pdf

BOP Diagram Attachment:

BOPE___CHOKE_MANIFOLD_DIAGRAM_06152022_20220615144418.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	350	0	350	6883	6533	350	J-55	54.5	BUTT	7.39	4.45	BUOY	7.79	BUOY	7.31
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2941	0	2824	6883	4059	2941	J-55	36	LT&C	1.64	2.93	BUOY	2.36	BUOY	2.93
3	PRODUCTI ON	8.5	5.5	NEW	API	N	0	13941	0	4929	6883	1954	13941	P- 110	17	LT&C	3.06	1.19	BUOY	1.26	BUOY	1.54

Casing Attachments

Casing ID: 1 String SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

RODU_503H_Drilling_Prog_06152022_20220615144440.pdf

Well Name: RODEO UNIT Well Number: 503H

Casing Attachments

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

 $RODU_503H_Drilling_Prog_06152022_20220615144533.pdf$

Casing ID: 3

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

RODU_503H_Drilling_Prog_06152022_20220615144620.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Тор МБ	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	350	350	1.39	14.6	486.5	100	Type III	CaCl, Poly E-Flake, CD-2

INTERMEDIATE	Lead	0	2441	580	2.14	12.5	1241. 2	70	Blend	Pozmix Suspending Agent Cello Flake, D- MPA 1, dispersant, foam preventer
INTERMEDIATE	Tail	2441	2941	136	1.38	14.6	187.6 8	20	Type III	CaCl, Cello Flake, D- MPA 1

Well Name: RODEO UNIT Well Number: 503H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	3986	503	2.36	12.4	1187. 08	65	Type III	BA-90, Bentonite, Fluid Loss, Foam Preventer, Retarder
PRODUCTION	Tail		3986	1394 1	1608	1.56	13.3	2508. 48	10	Class G:POZ Blend	Pozmix, BA-90, Bentonite, Fluid Loss, Foam Preventer, Viscosifier, Retarder

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Barite will be present to weight up the system if needed.

Describe the mud monitoring system utilized: Electronic and visual pit volume monitoring with be utilized.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	2941	LOW SOLIDS NON- DISPERSED (LSND)	8.8	9.5							
0	350	SPUD MUD	8.4	8.4							
0	1394 1	LOW SOLIDS NON- DISPERSED (LSND)	8.7	9							

Well Name: RODEO UNIT Well Number: 503H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

REFERENCE OPS PLAN

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY, MEASUREMENT WHILE DRILLING, CEMENT BOND LOG,

Coring operation description for the well:

REFERENCE OPS PLAN

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2120 Anticipated Surface Pressure: 1035

Anticipated Bottom Hole Temperature(F): 135

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

ROU_503H_Directional_Plan_03072022_20220614162118.pdf

RODU_503H_WBD_06152022_20220615144927.pdf

Other proposed operations facets description:

Natural Gas Management Plan

Other proposed operations facets attachment:

NGMPForm_Rodeo508Expansion_20220614162905.pdf

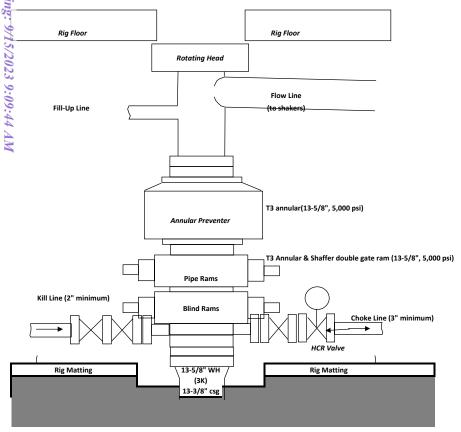
Other Variance attachment:

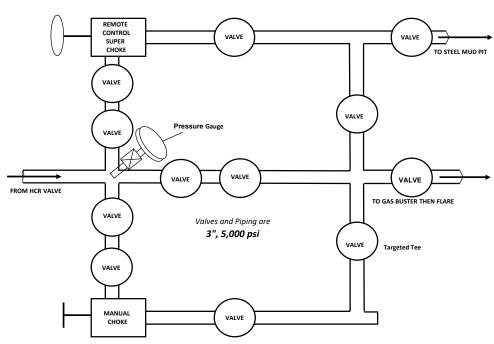


SOPE & CHOKE MANIFOLD DIAGRAMS
NOTE: EXACT BOPE AND CHOKE CONFIRGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

SOPE

CHOKE MANIFOLD

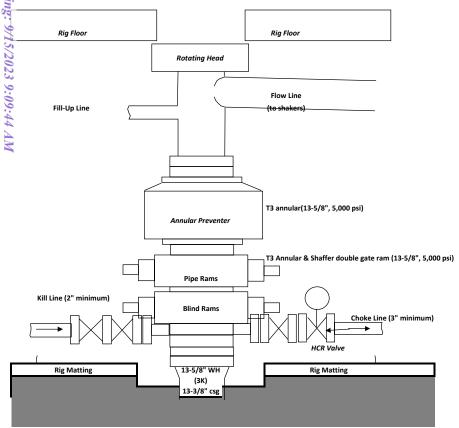


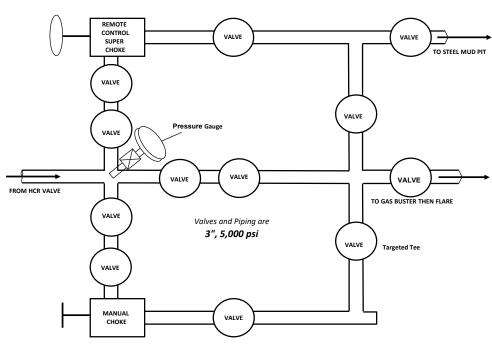


SOPE & CHOKE MANIFOLD DIAGRAMS
NOTE: EXACT BOPE AND CHOKE CONFIRGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

SOPE

CHOKE MANIFOLD







ENDURING RESOURCES IV, LLC 6300 S SYRACUSE WAY, SUITE 525 **CENTENNIAL, COLORADO 80111**

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

WELL INFORMATION:

Name: RODEO UNIT 503H API Number: not yet assigned AFE Number: not yet assigned ER Well Number: not yet assigned

State: New Mexico County: San Juan

Surface Elevation: 6,883 ft ASL (GL)

6,896 ft ASL (KB)

Surface Location: 25-23N-09W Sec-Twn-Rng 1,461 ft FNL 425 ft FEL

> 36.201051 ° N latitude 107.732966 ° W longitude (NAD 83) 29-23N-08W Sec-Twn-Rng 380 ft FNL 1,977 ft FEL

107.702299 $^{\circ}$ W longitude 36.204073 ° N latitude (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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD

(WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 506H (PLANNED)).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

BH Location:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,325	571	571	W	normal
Kirtland	6,239	657	657	W	normal
Fruitland	6,035	861	863	G, W	sub
Pictured Cliffs	5,728	1,168	1,182	G, W	sub
Lewis	5,569	1,327	1,351	G, W	normal
Chacra	5,310	1,586	1,626	G, W	normal
Cliff House	4,240	2,656	2,762	G, W	sub
Menefee	4,222	2,674	2,782	G, W	normal
Point Lookout	3,248	3,648	3,814	G, W	normal
Mancos	3,082	3,814	3,986	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,313	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,398	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,498	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,547	O,G	sub (~0.38)
MNCS_D	2,404	4,492	4,671	O,G	sub (~0.38)
MNCS_E	2,254	4,642	4,844	O,G	sub (~0.38)
MNCS_F	2,197	4,699	4,921	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,046	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,456	O,G	sub (~0.38)
MNCS_I	2,023	4,873	5,284	O,G	sub (~0.38)
FTP (LP) TARGET	2,007	4,889	5,418	O,G	sub (~0.38)
LTP (TD) TARGET	1,967	4,929	13,941	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: 2,120 psi Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi

Temperature: Maximum anticipated BHT is 135° 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: Ensign Rig No.: 145

Draw Works: Lewco LDS 1500K (1,000 hp)

Mast: ADR 1000 Cantilever Triple (134 ft, 500,000 lbs)

Top Drive: Tesco 350-EXI-600 (250 ton)

Prime Movers: 2 - CAT 3512 (1,350 hp), 1 -CAT C32 (1,100 hp)

Pumps: 2 - Mudder MD11 (5,000 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (13-5/8", 5,000 psi)

Int Hole BOPE 2: T3 annular(13-5/8", 5,000 psi)

Prod Hole BOPE 2: T3 annular/Townsend Double gate(11", 5,000 psi)

Choke 3", 5,000 psi **KB-GL (ft):** 12.5

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

Note: BOPE 2 are alternate stacks to be used only if problems with rig height and BOP 1 height are encountered. Intermediate hole

BOPE 2 is designed for 2,000 psi permit requirements.

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.
- 3) 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.
- **4)** 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.
- 5) 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.
- 6) 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. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

DETAILED DRILLING PLAN:

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

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

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

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

							Tens. Body	Tens. Conn
Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	613	116,634	116,634
Min. S.F.					7.39	4.45	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

Maximum:

N/A

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 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

					Hole Cap.		Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total Cmt (sx)
	Type III	14.6	1.39	6.686	0.6946	100%	0	350

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

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	2,941 ft (MD)	Hole Section Length:	2,591 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	2,941 ft

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

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					1,234	1,202	192,329	192,329
Min. S.F.					1.64	2.93	2.93	2.36

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): Minumum: 3,400 Optimum: 4,530 Maximum: 5,660

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

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per jt

(floating) to KOP; 1 centralizer per 2 jts (floating) to surface

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	580
Tail	Type III	14.6	1.38	6.64	20%	2,441	136

Annular Capacity

0.3627 cuft/ft 9-5/8" casing x 13-3/8" casing annulus 9-5/8" casing x 12-1/4" hole annulus 0.3132 cuft/ft

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

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.

2,941	ft (MD)	to	13,941 ft (MD)	Hole Section Length:	11,000 ft
2,824	ft (TVD)	to	4,929 ft (TVD)	Casing Required:	13,941 ft

Estimated KOP:	4,460 ft (MD)	4,286 ft (TVD)
Estimated Landing Point (FTP):	5,418 ft (MD)	4,889 ft (TVD)
Estimated Lateral Length:	8,523 ft (MD)	·

					YP (lb/100		
Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

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.

							Tens. Body	Tens. Conn
Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,435	8,961	354,507	354,507
Min. S.F.					3.06	1.19	1.54	1.26

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 150,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher, 1 jt casing, float collar, 20' marker joint, toe-intitiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub, casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the target depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as

required for necessary rat-hole and shoe-track length to place the toe sleeve at the LTP target.

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

Lateral: 1 centralizer per joint

FTP to 9-5/8" shoe: 1 centralizer per joint 9-5/8" shoe to surface: 1 centralizer per 2 joints

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	503
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,986	1,608

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

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

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

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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: TBD **Completion:** TBD **Production:** TBD

Prepared by: Alec Bridge 3/15/2022



ENDURING RESOURCES IV, LLC 6300 S SYRACUSE WAY, SUITE 525 **CENTENNIAL, COLORADO 80111**

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

WELL INFORMATION:

Name: RODEO UNIT 503H API Number: not yet assigned AFE Number: not yet assigned ER Well Number: not yet assigned

State: New Mexico County: San Juan

6,896 ft ASL (KB) Surface Elevation: 6,883 ft ASL (GL)

Surface Location: 25-23N-09W Sec-Twn-Rng 1,461 ft FNL 425 ft FEL

> 36.201051 ° N latitude 107.732966 ° W longitude (NAD 83)

29-23N-08W Sec-Twn-Rng 380 ft FNL 1,977 ft FEL BH Location:

107.702299 $^{\circ}$ W longitude 36.204073 ° N latitude (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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD (WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 506H (PLANNED)).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,325	571	571	W	normal
Kirtland	6,239	657	657	W	normal
Fruitland	6,035	861	863	G, W	sub
Pictured Cliffs	5,728	1,168	1,182	G, W	sub
Lewis	5,569	1,327	1,351	G, W	normal
Chacra	5,310	1,586	1,626	G, W	normal
Cliff House	4,240	2,656	2,762	G, W	sub
Menefee	4,222	2,674	2,782	G, W	normal
Point Lookout	3,248	3,648	3,814	G, W	normal
Mancos	3,082	3,814	3,986	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,313	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,398	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,498	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,547	O,G	sub (~0.38)
MNCS_D	2,404	4,492	4,671	O,G	sub (~0.38)
MNCS_E	2,254	4,642	4,844	O,G	sub (~0.38)
MNCS_F	2,197	4,699	4,921	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,046	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,456	O,G	sub (~0.38)
MNCS_I	2,023	4,873	5,284	O,G	sub (~0.38)
FTP (LP) TARGET	2,007	4,889	5,418	O,G	sub (~0.38)
LTP (TD) TARGET	1,967	4,929	13,941	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: 2,120 psi Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi

Temperature: Maximum anticipated BHT is 135° 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: Ensign Rig No.: 145

Draw Works: Lewco LDS 1500K (1,000 hp)

Mast: ADR 1000 Cantilever Triple (134 ft, 500,000 lbs)

Top Drive: Tesco 350-EXI-600 (250 ton)

Prime Movers: 2 - CAT 3512 (1,350 hp), 1 -CAT C32 (1,100 hp)

Pumps: 2 - Mudder MD11 (5,000 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (13-5/8", 5,000 psi)

Int Hole BOPE 2: T3 annular(13-5/8", 5,000 psi)

Prod Hole BOPE 2: T3 annular/Townsend Double gate(11", 5,000 psi)

Choke 3", 5,000 psi **KB-GL (ft):** 12.5

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

Note: BOPE 2 are alternate stacks to be used only if problems with rig height and BOP 1 height are encountered. Intermediate hole

BOPE 2 is designed for 2,000 psi permit requirements.

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.
- 3) 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.
- **4)** 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.
- 5) 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.
- 6) 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. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

DETAILED DRILLING PLAN:

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

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

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

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

ng 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	613	116,634	116,634
Min. S.F.					7.39	4.45	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

Maximum:

N/A

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

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

					Hole Cap.		Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total Cmt (sx)
	Type III	14.6	1.39	6.686	0.6946	100%	0	350

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

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	2,941 ft (MD)	Hole Section Length:	2,591 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	2,941 ft

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

L**ogging:** 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
Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,234	1,202	192,329	192,329
Min. S.F.					1.64	2.93	2.93	2.36

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): Minumum: 3,400 Optimum: 4,530 Maximum: 5,660

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

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per jt

(floating) to KOP; 1 centralizer per 2 jts (floating) to surface

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	580
Tail	Type III	14.6	1.38	6.64	20%	2,441	136

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

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.

2,941	ft (MD)	to	13,941 ft (MD)	Hole Section Length:	11,000 ft
2,824	ft (TVD)	to	4,929 ft (TVD)	Casing Required:	13,941 ft

Estimated KOP:	4,460 ft (MD)	4,286 ft (TVD)
Estimated Landing Point (FTP):	5,418 ft (MD)	4,889 ft (TVD)
Estimated Lateral Length:	8,523 ft (MD)	·

					YP (lb/100		
Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

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.

							Tens. Body	Tens. Conn
Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,435	8,961	354,507	354,507
Min. S.F.					3.06	1.19	1.54	1.26

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 150,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher, 1 jt casing, float collar, 20' marker joint, toe-intitiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub, casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the target depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as

required for necessary rat-hole and shoe-track length to place the toe sleeve at the LTP target.

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

Lateral: 1 centralizer per joint

FTP to 9-5/8" shoe: 1 centralizer per joint 9-5/8" shoe to surface: 1 centralizer per 2 joints

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	503
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,986	1,608

Annular Capacity

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

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

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

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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: TBD Completion: TBD **Production: TBD**

Prepared by: **Alec Bridge** 3/15/2022



ENDURING RESOURCES IV, LLC 6300 S SYRACUSE WAY, SUITE 525 **CENTENNIAL, COLORADO 80111**

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

WELL INFORMATION:

Name: RODEO UNIT 503H API Number: not yet assigned AFE Number: not yet assigned ER Well Number: not yet assigned

State: New Mexico County: San Juan

BH Location:

6,896 ft ASL (KB) Surface Elevation: 6,883 ft ASL (GL)

Surface Location: 25-23N-09W Sec-Twn-Rng 1,461 ft FNL 425 ft FEL

> 36.201051 ° N latitude 107.732966 ° W longitude (NAD 83) 29-23N-08W Sec-Twn-Rng 380 ft FNL 1,977 ft FEL

107.702299 $^{\circ}$ W longitude 36.204073 ° N latitude (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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD (WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 506H (PLANNED)).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,325	571	571	W	normal
Kirtland	6,239	657	657	W	normal
Fruitland	6,035	861	863	G, W	sub
Pictured Cliffs	5,728	1,168	1,182	G, W	sub
Lewis	5,569	1,327	1,351	G, W	normal
Chacra	5,310	1,586	1,626	G, W	normal
Cliff House	4,240	2,656	2,762	G, W	sub
Menefee	4,222	2,674	2,782	G, W	normal
Point Lookout	3,248	3,648	3,814	G, W	normal
Mancos	3,082	3,814	3,986	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,313	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,398	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,498	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,547	O,G	sub (~0.38)
MNCS_D	2,404	4,492	4,671	O,G	sub (~0.38)
MNCS_E	2,254	4,642	4,844	O,G	sub (~0.38)
MNCS_F	2,197	4,699	4,921	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,046	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,456	O,G	sub (~0.38)
MNCS_I	2,023	4,873	5,284	O,G	sub (~0.38)
FTP (LP) TARGET	2,007	4,889	5,418	O,G	sub (~0.38)
LTP (TD) TARGET	1,967	4,929	13,941	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: 2,120 psi Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi

Temperature: Maximum anticipated BHT is 135° 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: Ensign **Rig No.:** 145

Draw Works: Lewco LDS 1500K (1,000 hp)

Mast: ADR 1000 Cantilever Triple (134 ft, 500,000 lbs)

Top Drive: Tesco 350-EXI-600 (250 ton)

Prime Movers: 2 - CAT 3512 (1,350 hp), 1 -CAT C32 (1,100 hp)

Pumps: 2 - Mudder MD11 (5,000 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (13-5/8", 5,000 psi)

Int Hole BOPE 2: T3 annular(13-5/8", 5,000 psi)

Prod Hole BOPE 2: T3 annular/Townsend Double gate(11", 5,000 psi)

Choke 3", 5,000 psi **KB-GL (ft):** 12.5

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

Note: BOPE 2 are alternate stacks to be used only if problems with rig height and BOP 1 height are encountered. Intermediate hole

BOPE 2 is designed for 2,000 psi permit requirements.

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.
- 3) 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.
- **4)** 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.
- 5) 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.
- 6) 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. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

DETAILED DRILLING PLAN:

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

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

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

			FL (mL/30		YP (lb/100		
Fluid:	Type	MW (ppg)	min)	PV (cp)	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.

Loading Min. S.F.

							Tens. Body	Tens. Conn
Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
oading					153	613	116,634	116,634
∕lin. S.F.					7.39	4.45	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

N/A

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:

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

					Hole Cap.		Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total Cmt (sx)
	Type III	14.6	1.39	6.686	0.6946	100%	0	350

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

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	2,941 ft (MD)	Hole Section Length:	2,591 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	2,941 ft

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

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					1,234	1,202	192,329	192,329
Min. S.F.					1.64	2.93	2.93	2.36

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): Minumum: 3,400 Optimum: 4,530 Maximum: 5,660

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

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per jt

(floating) to KOP; 1 centralizer per 2 its (floating) to surface

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	580
Tail	Type III	14.6	1.38	6.64	20%	2,441	136

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

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.

2,941	ft (MD)	to	13,941 ft (MD)	Hole Section Length:	11,000 ft
2,824	ft (TVD)	to	4,929 ft (TVD)	Casing Required:	13,941 ft

Estimated KOP:	4,460 ft (MD)	4,286 ft (TVD)
Estimated Landing Point (FTP):	5,418 ft (MD)	4,889 ft (TVD)
Estimated Lateral Length:	8,523 ft (MD)	·

					YP (lb/100		
Fluid:	Туре	MW (ppg)	FL (mL/30')	PV (cp)	sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

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.

							Tens. Body	Tens. Conn
Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,435	8,961	354,507	354,507
Min. S.F.					3.06	1.19	1.54	1.26

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 150,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher, 1 jt casing, float collar, 20' marker joint, toe-intitiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub, casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the target depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as

required for necessary rat-hole and shoe-track length to place the toe sleeve at the LTP target.

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

Lateral: 1 centralizer per joint

FTP to 9-5/8" shoe: 1 centralizer per joint 9-5/8" shoe to surface: 1 centralizer per 2 joints

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	503
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,986	1,608

Annular Capacity

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

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

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

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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: TBD Completion: TBD **Production: TBD**

Prepared by: **Alec Bridge** 3/15/2022



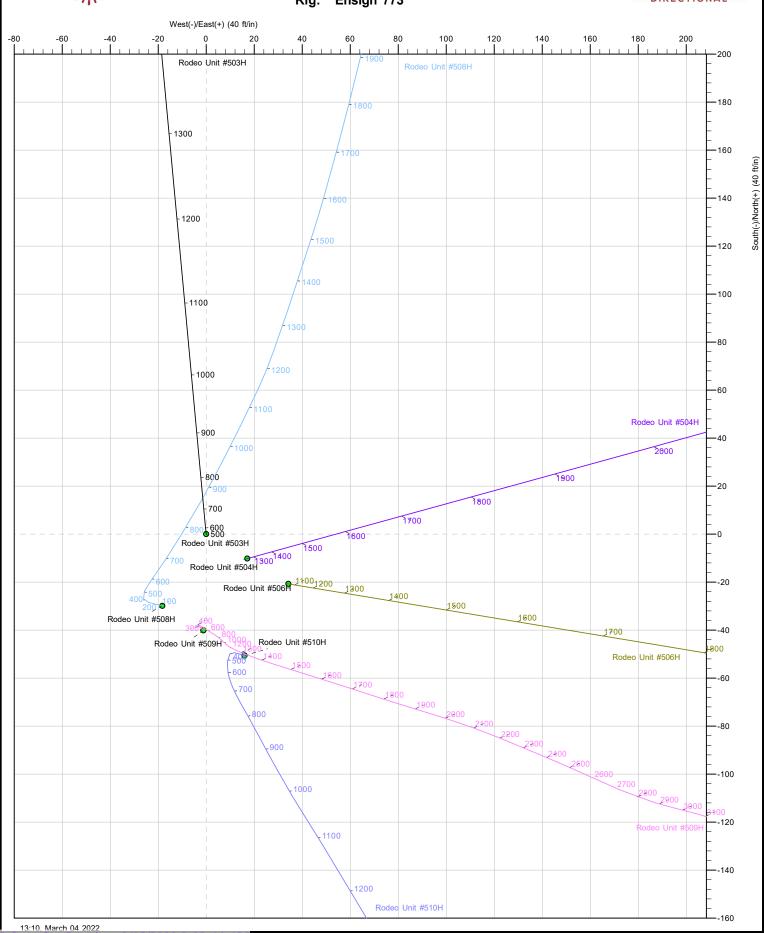
Rodeo Unit #503H Well: Site: Rodeo Unit

Project: San Juan County, New Mexico NAD83 NM W

Design: rev1

Rig: Ensign 773







Site

Planning Report

DB Feb2822 Database:

Company: **Enduring Resources LLC**

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit Well: Rodeo Unit #503H Wellbore: Original Hole Design: rev1

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference: MD Reference: North Reference: Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

Map System: US State Plane 1983 North American Datum 1983 Geo Datum: New Mexico Western Zone Map Zone:

System Datum: Mean Sea Level

Rodeo Unit

Northing: 1,892,465.480 usft 36.200969000 Site Position: Latitude: From: Lat/Long Easting: 2,752,685.264 usft Longitude: -107.733028000 13-3/16 "

Position Uncertainty: 0.00 ft Slot Radius:

Well Rodeo Unit #503H, Surf loc: 1461 FNL 425 FEL Section 25-T23N-R09W

0.00 ft 1,892,495.349 usft 36.201051000 **Well Position** +N/-S Northing: Latitude: 2,752,703.525 usft -107.732966000 +E/-W 0.00 ft Easting: Longitude:

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 6,883.00 ft

Grid Convergence: 0.06°

Wellbore Original Hole Declination Field Strength Magnetics **Model Name** Sample Date Dip Angle (°) (°) (nT) 49,223.83303591 IGRF2020 2/22/2022 8.72 62.72

Design rev1 Audit Notes: **PLAN** Tie On Depth: 0.00 Version: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction

(ft) (ft) (ft) (°) 0.00 0.00 0.00 89.785

3/7/2022 Plan Survey Tool Program Date **Depth From** Depth To (ft) (ft) Survey (Wellbore) **Tool Name** Remarks 0.00 13,941.46 MWD rev1 (Original Hole)

OWSG MWD - Standard



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.21	19.66	354.707	1,142.43	110.82	-10.27	3.00	3.00	0.00	354.71	
3,704.99	19.66	354.707	3,543.63	964.84	-89.39	0.00	0.00	0.00	0.00	
4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	3.00	-3.00	0.00	180.00	
4,460.18	0.00	0.000	4,286.05	1,075.66	-99.66	0.00	0.00	0.00	0.00	
5,060.18	60.00	89.779	4,782.25	1,076.77	186.82	10.00	10.00	0.00	89.78	
5,120.18	60.00	89.779	4,812.25	1,076.97	238.78	0.00	0.00	0.00	0.00	
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	10.00	10.00	0.00	0.00	
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	0.00	0.00	0.00	0.00	Rodeo 503 LTP 380 F



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

anned Survey									
Measured	4	Vertical Vertical Dogleg Build Tu				Turn			
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
0.0	00 0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.0		0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0		0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.0	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.0	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
	gin 3°/100' build								
571.0		354.707	571.00	1.31	-0.12	-0.12	3.00	3.00	0.00
Ojo Alam		054.707	500.05	0.04	0.04	0.00	0.00	0.00	0.00
600.0		354.707	599.95	2.61	-0.24	-0.23	3.00	3.00	0.00
657.	18 4.72	354.707	657.00	6.44	-0.60	-0.57	3.00	3.00	0.00
Kirtland 700.0	00 6.00	354.707	699.63	10.42	-0.97	-0.93	3.00	3.00	0.00
800.0		354.707	798.77	23.41	-2.17	-2.08	3.00	3.00	0.00
863.		354.707	861.00	34.28	-3.18	-3.05	3.00	3.00	0.00
Fruitland		054707	007.00	44.50	2.25	2.22	2.22	2.22	2.22
900.0		354.707	897.08	41.56	-3.85	-3.69	3.00	3.00	0.00
1,000.0		354.707	994.31	64.80	-6.00	-5.76	3.00	3.00	0.00
1,100.0		354.707	1,090.18	93.08	-8.62	-8.27	3.00	3.00	0.00
1,155.2		354.707	1,142.43	110.82	-10.27	-9.85	3.00	3.00	0.00
•	9.66° tangent	054707	4 400 00	440.04		40.00	0.00	2.22	0.00
1,182.3		354.707	1,168.00	119.91	-11.11	-10.66	0.00	0.00	0.00
Pictured		254 707	4 404 64	405.00	44.00	44.40	0.00	0.00	0.00
1,200.0 1,300.0		354.707 354.707	1,184.61 1,278.79	125.82 159.31	-11.66 -14.76	-11.19 -14.16	0.00 0.00	0.00 0.00	0.00 0.00
1,351.2		354.707	1,327.00	176.46	-14.76	-14.10	0.00	0.00	0.00
Lewis	10.00	001.101	1,027.00	170.10	10.00	10.00	0.00	0.00	0.00
	00 40.00	254.707	4 272 00	400.04	47.00	47.44	0.00	0.00	0.00
1,400.0 1,500.0		354.707 354.707	1,372.96 1,467.13	192.81 226.30	-17.86 -20.97	-17.14 -20.12	0.00 0.00	0.00 0.00	0.00 0.00
1,600.0		354.707	1,561.30	259.80	-24.07	-20.12	0.00	0.00	0.00
1,626.2		354.707	1,586.00	268.58	-24.88	-23.10	0.00	0.00	0.00
Chacra		001.101	1,000.00	200.00	21.00	20.00	0.00	0.00	0.00
1,700.0		354.707	1,655.48	293.29	-27.17	-26.07	0.00	0.00	0.00
,									
1,800.0		354.707	1,749.65	326.78	-30.28	-29.05	0.00	0.00	0.00
1,900.0 2,000.0		354.707 354.707	1,843.82 1,938.00	360.28 393.77	-33.38 -36.48	-32.03 -35.01	0.00 0.00	0.00 0.00	0.00 0.00
2,100.0		354.707 354.707	2,032.17	393.77 427.27	-39.59	-37.98	0.00	0.00	0.00
2,200.0		354.707	2,126.34	460.76	-42.69	-40.96	0.00	0.00	0.00
2,300.0		354.707	2,220.51 2,314.69	494.26	-45.79 48.00	-43.94 -46.92	0.00 0.00	0.00	0.00
2,400.0 2,500.0		354.707 354.707	2,314.69 2,408.86	527.75 561.24	-48.90 -52.00	-46.92 -49.89	0.00	0.00 0.00	0.00 0.00
2,600.0		354.707	2,503.03	594.74	-52.00 -55.10	- 4 9.69 -52.87	0.00	0.00	0.00
2,700.0		354.707	2,597.20	628.23	-58.21	-55.85	0.00	0.00	0.00
2,762.4		354.707	2,656.00	649.14	-60.14	-57.71	0.00	0.00	0.00
	use_Basal	334.707	2,000.00	048.14	-00.14	-31.11	0.00	0.00	0.00
2,781.	_	354.707	2,674.00	655.54	-60.74	-58.28	0.00	0.00	0.00
Menefee		331.707	_,0,7 1.00	550.01	55.7 F	30.20	0.00	0.00	0.00
2,800.0		354.707	2,691.38	661.73	-61.31	-58.83	0.00	0.00	0.00
2,900.0		354.707	2,785.55	695.22	-64.41	-61.80	0.00	0.00	0.00
3,000.0		354.707	2,879.72	728.71	-67.52	-64.78	0.00	0.00	0.00
3,100.0		354.707	2,973.90	762.21	-70.62	-67.76	0.00	0.00	0.00
3,200.0		354.707	3,068.07	795.70	-73.72	-70.74	0.00	0.00	0.00
3,300.0		354.707	3,162.24	829.20	-76.83	-73.71	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

d Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,400.00 3,500.00	19.66 19.66	354.707 354.707	3,256.41 3,350.59	862.69 896.18	-79.93 -83.03	-76.69 -79.67	0.00 0.00	0.00 0.00	0.00 0.00
3,600.00 3,704.99	19.66 19.66	354.707 354.707	3,444.76 3,543.63	929.68 964.84	-86.13 -89.39	-82.65 -85.77	0.00 0.00	0.00 0.00	0.00 0.00
3,800.00	16.81	354.707	3,633.86	994.44	-92.13	-88.40	3.00	-3.00	0.00
3,814.75 Point Looko	16.36 ut	354.707	3,648.00	998.63	-92.52	-88.78	3.00	-3.00	0.00
3,900.00	13.81	354.707	3,730.31	1,020.72	-94.57	-90.74	3.00	-3.00	0.00
3,985.74	11.23	354.707	3,814.00	1,039.23	-96.28	-92.38	3.00	-3.00	0.00
Mancos 4,000.00 4,100.00 4,200.00 4,300.00	10.81 7.81 4.81 1.81	354.707 354.707 354.707 354.707	3,828.00 3,926.67 4,026.05 4,125.88	1,041.94 1,058.04 1,068.97 1,074.72	-96.54 -98.03 -99.04 -99.57	-92.63 -94.06 -95.03 -95.54	3.00 3.00 3.00 3.00	-3.00 -3.00 -3.00 -3.00	0.00 0.00 0.00 0.00
4,313.13	1.41	354.707	4,139.00	1,075.08	-99.61	-95.57	3.00	-3.00	0.00
MNCS_A 4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	-95.62	3.00	-3.00	0.00
Begin vertic 4,398.13	al hold 0.00	0.000	4,224.00	1,075.66	-99.66	-95.62	0.00	0.00	0.00
MNCS_B 4,400.00 4,460.18	0.00 0.00	0.000 0.000	4,225.87 4,286.05	1,075.66 1,075.66	-99.66 -99.66	-95.62 -95.62	0.00 0.00	0.00 0.00	0.00 0.00
Begin 10°/10	00' build								
4,498.16 MNCS_C	3.80	89.779	4,324.00	1,075.66	-98.40	-94.36	10.00	10.00	0.00
4,500.00 4,547.47	3.98 8.73	89.779 89.779	4,325.83 4,373.00	1,075.67 1,075.69	-98.28 -93.02	-94.24 -88.99	10.00 10.00	10.00 10.00	0.00 0.00
MNCS_Cms 4,550.00 4,600.00	8.98 13.98	89.779 89.779	4,375.50 4,424.48	1,075.69 1,075.73	-92.63 -82.69	-88.60 -78.65	10.00 10.00	10.00 10.00	0.00 0.00
4,650.00 4,670.85	18.98 21.07	89.779 89.779	4,472.41 4,492.00	1,075.78 1,075.81	-68.50 -61.37	-64.47 -57.33	10.00 10.00	10.00 10.00	0.00 0.00
4,700.00 4,750.00 4,800.00	23.98 28.98 33.98	89.779 89.779 89.779	4,518.92 4,563.66 4,606.29	1,075.85 1,075.94 1,076.04	-50.20 -27.91 -1.81	-46.16 -23.87 2.23	10.00 10.00 10.00	10.00 10.00 10.00	0.00 0.00 0.00
4,844.26	38.41	89.779	4,642.00	1,076.14	24.32	28.36	10.00	10.00	0.00
MNCS_E 4,850.00 4,900.00 4,921.34	38.98 43.98 46.12	89.779 89.779 89.779	4,646.48 4,683.93 4,699.00	1,076.15 1,076.28 1,076.34	27.91 61.02 76.12	31.95 65.06 80.15	10.00 10.00 10.00	10.00 10.00 10.00	0.00 0.00 0.00
MNCS_F	40.00	00.770	4 740 05	4 070 40	07.00	404.00	40.00	40.00	0.00
4,950.00 5,000.00	48.98 53.98	89.779 89.779	4,718.35 4,749.47	1,076.42 1,076.57	97.26 136.37	101.30 140.41	10.00 10.00	10.00 10.00	0.00
5,046.00 MNCS_G	58.58	89.779	4,775.00	1,076.72	174.62	178.66	10.00	10.00	0.00
5,050.00 5,060.18	58.98 60.00	89.779 89.779	4,777.08 4,782.25	1,076.73 1,076.77	178.04 186.82	182.08 190.86	10.00 10.00	10.00 10.00	0.00 0.00
Begin 60.00° 5,100.00	° tangent 60.00	89.779	4,802.15	1,076.90	221.30	225.34	0.00	0.00	0.00
5,120.18	60.00	89.779	4,812.25	1,076.97	238.78	242.82	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

1.									
ned Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
D									
Begin 10°/1 5,150.00	62.98	89.779	4,826.48	1,077.07	264.97	269.01	10.00	10.00	0.00
5,155.61	63.54	89.779	4,829.00	1,077.09	269.99	274.03	10.00	10.00	0.00
MNCS_H	00.01	00.110	1,020.00	1,077.00	200.00	27 1.00	10.00	10.00	0.00
5,200.00	67.98	89.779	4,847.22	1,077.24	310.45	314.49	10.00	10.00	0.00
5,250.00	72.98	89.779	4,863.92	1,077.42	357.56	361.60	10.00	10.00	0.00
5,284.43	76.42	89.779	4,873.00	1,077.55	390.77	394.81	10.00	10.00	0.00
MNCS_I	70.42	09.119	4,073.00	1,077.33	390.77	394.01	10.00	10.00	0.00
5,300.00	77.98	89.779	4,876.45	1,077.61	405.95	409.99	10.00	10.00	0.00
5,350.00	82.98	89.779	4,884.71	1,077.80	455.25	459.29	10.00	10.00	0.00
5,400.00	87.98	89.779	4,888.65	1,077.99	505.07	509.12	10.00	10.00	0.00
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	526.61	10.00	10.00	0.00
Begin 89.73	3° lateral								
5,500.00	89.73	89.779	4,889.39	1,078.38	605.07	609.11	0.00	0.00	0.00
5,600.00	89.73	89.779	4,889.86	1,078.76	705.07	709.11	0.00	0.00	0.00
5,700.00	89.73	89.779	4,890.33	1,079.15	805.06	809.11	0.00	0.00	0.00
5,800.00	89.73	89.779	4,890.80	1,079.53	905.06	909.11	0.00	0.00	0.00
5,900.00	89.73	89.779	4,891.27	1,079.92	1,005.06	1,009.11	0.00	0.00	0.00
6,000.00	89.73	89.779	4,891.73	1,080.30	1,105.06	1,109.11	0.00	0.00	0.00
6,100.00	89.73	89.779	4,892.20	1,080.69	1,205.06	1,209.10	0.00	0.00	0.00
6,200.00	89.73	89.779	4,892.67	1,081.07	1,305.06	1,309.10	0.00	0.00	0.00
6,300.00	89.73	89.779	4,893.14	1,081.46	1,405.05	1,409.10	0.00	0.00	0.00
6,400.00	89.73	89.779	4,893.61	1,081.84	1,505.05	1,509.10	0.00	0.00	0.00
6,500.00	89.73	89.779	4,894.08	1,082.22	1,605.05	1,609.10	0.00	0.00	0.00
6,600.00	89.73	89.779	4,894.55	1,082.61	1,705.05	1,709.10	0.00	0.00	0.00
6,700.00 6,800.00	89.73 89.73	89.779 89.779	4,895.02 4,895.49	1,082.99 1,083.38	1,805.05 1,905.04	1,809.10 1,909.10	0.00 0.00	0.00 0.00	0.00 0.00
6,900.00	89.73	89.779	4,895.96	1,083.76	2,005.04	2,009.10	0.00	0.00	0.00
7,000.00 7,100.00	89.73 89.73	89.779 89.779	4,896.43 4,896.90	1,084.15 1,084.53	2,105.04 2,205.04	2,109.09 2,209.09	0.00 0.00	0.00 0.00	0.00 0.00
7,100.00	89.73	89.779	4,897.37	1,084.92	2,205.04	2,209.09	0.00	0.00	0.00
7,300.00	89.73	89.779	4,897.84	1,085.30	2,405.04	2,409.09	0.00	0.00	0.00
7,400.00	89.73	89.779	4,898.30	1,085.69	2,505.03	2,509.09	0.00	0.00	0.00
7,500.00	89.73	89.779	4,898.77	1,086.07	2,605.03	2,609.09	0.00	0.00	0.00
7,600.00	89.73	89.779	4,899.24	1,086.46	2,705.03	2,709.09	0.00	0.00	0.00
7,700.00	89.73	89.779	4,899.71	1,086.84	2,805.03	2,809.09	0.00	0.00	0.00
7,800.00	89.73	89.779	4,900.18	1,087.23	2,905.03	2,909.09	0.00	0.00	0.00
7,900.00	89.73	89.779	4,900.65	1,087.61	3,005.02	3,009.08	0.00	0.00	0.00
8,000.00	89.73	89.779	4,901.12	1,088.00	3,105.02	3,109.08	0.00	0.00	0.00
8,100.00	89.73	89.779	4,901.59	1,088.38	3,205.02	3,209.08	0.00	0.00	0.00
8,200.00	89.73	89.779	4,902.06	1,088.77	3,305.02	3,309.08	0.00	0.00	0.00
8,300.00	89.73	89.779	4,902.53	1,089.15	3,405.02	3,409.08	0.00	0.00	0.00
8,400.00	89.73	89.779	4,903.00	1,089.54	3,505.02	3,509.08	0.00	0.00	0.00
8,500.00	89.73	89.779	4,903.47	1,089.92	3,605.01	3,609.08	0.00	0.00	0.00
8,600.00	89.73	89.779	4,903.94	1,090.31	3,705.01	3,709.08	0.00	0.00	0.00
8,700.00	89.73	89.779	4,904.40	1,090.69	3,805.01	3,809.08	0.00	0.00	0.00
8,800.00 8,900.00	89.73 89.73	89.779 89.779	4,904.87 4,905.34	1,091.08 1,091.46	3,905.01 4,005.01	3,909.07 4,009.07	0.00 0.00	0.00 0.00	0.00
				,					
9,000.00	89.73	89.779	4,905.81	1,091.85	4,105.00	4,109.07	0.00	0.00	0.00
9,100.00 9,200.00	89.73 89.73	89.779 89.779	4,906.28 4,906.75	1,092.23 1,092.62	4,205.00 4,305.00	4,209.07 4,309.07	0.00 0.00	0.00 0.00	0.00 0.00
9,200.00	89.73 89.73	89.779 89.779	4,906.75	1,092.62	4,305.00	4,309.07 4,409.07	0.00	0.00	0.00
9,400.00	89.73	89.779	4,907.69	1,093.39	4,505.00	4,509.07	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,500.00	89.73	89.779	4,908.16	1,093.77	4,604.99	4,609.07	0.00	0.00	0.00
9,600.00	89.73	89.779	4,908.63	1,094.15	4,704.99	4,709.07	0.00	0.00	0.00
9,700.00	89.73	89.779	4,909.10	1,094.54	4,804.99	4,809.06	0.00	0.00	0.00
9,800.00	89.73	89.779	4,909.57	1,094.92	4,904.99	4,909.06	0.00	0.00	0.00
9,900.00	89.73	89.779	4,910.04	1,095.31	5,004.99	5,009.06	0.00	0.00	0.00
10,000.00	89.73	89.779	4,910.50	1,095.69	5,104.99	5,109.06	0.00	0.00	0.00
10,100.00	89.73	89.779	4,910.97	1,096.08	5,204.98	5,209.06	0.00	0.00	0.00
10,200.00	89.73	89.779	4,911.44	1,096.46	5,304.98	5,309.06	0.00	0.00	0.00
10,300.00	89.73	89.779	4,911.91	1,096.85	5,404.98	5,409.06	0.00	0.00	0.00
10,400.00	89.73	89.779	4,912.38	1,097.23	5,504.98	5,509.06	0.00	0.00	0.00
10,500.00	89.73	89.779	4,912.85	1,097.62	5,604.98	5,609.06	0.00	0.00	0.00
10,600.00	89.73	89.779	4,913.32	1,098.00	5,704.97	5,709.05	0.00	0.00	0.00
10,700.00	89.73	89.779	4,913.79	1,098.39	5,804.97	5,809.05	0.00	0.00	0.00
10,800.00	89.73	89.779	4,914.26	1,098.77	5,904.97	5,909.05	0.00	0.00	0.00
10,900.00	89.73	89.779	4,914.73	1,099.16	6,004.97	6,009.05	0.00	0.00	0.00
11,000.00	89.73	89.779	4,915.20	1,099.54	6,104.97	6,109.05	0.00	0.00	0.00
11,100.00	89.73	89.779	4,915.67	1,099.93	6,204.97	6,209.05	0.00	0.00	0.00
11,200.00	89.73	89.779	4,916.14	1,100.31	6,304.96	6,309.05	0.00	0.00	0.00
11,300.00	89.73	89.779	4,916.61	1,100.70	6,404.96	6,409.05	0.00	0.00	0.00
11,400.00	89.73	89.779	4,917.07	1,101.08	6,504.96	6,509.05	0.00	0.00	0.00
11,500.00	89.73	89.779	4,917.54	1,101.47	6,604.96	6,609.04	0.00	0.00	0.00
11,600.00	89.73	89.779	4,918.01	1,101.85	6,704.96	6,709.04	0.00	0.00	0.00
11,700.00	89.73	89.779	4,918.48	1,102.24	6,804.95	6,809.04	0.00	0.00	0.00
11,800.00	89.73	89.779	4,918.95	1,102.62	6,904.95	6,909.04	0.00	0.00	0.00
11,900.00	89.73	89.779	4,919.42	1,103.01	7,004.95	7,009.04	0.00	0.00	0.00
12,000.00	89.73	89.779	4,919.89	1,103.39	7,104.95	7,109.04	0.00	0.00	0.00
12,100.00	89.73	89.779	4,920.36	1,103.78	7,204.95	7,209.04	0.00	0.00	0.00
12,200.00	89.73	89.779	4,920.83	1,104.16	7,304.95	7,309.04	0.00	0.00	0.00
12,300.00	89.73	89.779	4,921.30	1,104.55	7,404.94	7,409.04	0.00	0.00	0.00
12,400.00	89.73	89.779	4,921.77	1,104.93	7,504.94	7,509.03	0.00	0.00	0.00
12,500.00	89.73	89.779	4,922.24	1,105.32	7,604.94	7,609.03	0.00	0.00	0.00
12,600.00	89.73	89.779	4,922.71	1,105.70	7,704.94	7,709.03	0.00	0.00	0.00
12,700.00	89.73	89.779	4,923.17	1,106.09	7,804.94	7,809.03	0.00	0.00	0.00
12,800.00	89.73	89.779	4,923.64	1,106.47	7,904.93	7,909.03	0.00	0.00	0.00
12,900.00	89.73	89.779	4,924.11	1,106.85	8,004.93	8,009.03	0.00	0.00	0.00
13,000.00	89.73	89.779	4,924.58	1,107.24	8,104.93	8,109.03	0.00	0.00	0.00
13,100.00	89.73	89.779	4,925.05	1,107.62	8,204.93	8,209.03	0.00	0.00	0.00
13,200.00	89.73	89.779	4,925.52	1,108.01	8,304.93	8,309.03	0.00	0.00	0.00
13,300.00	89.73	89.779	4,925.99	1,108.39	8,404.92	8,409.02	0.00	0.00	0.00
13,400.00	89.73	89.779	4,926.46	1,108.78	8,504.92	8,509.02	0.00	0.00	0.00
13,500.00	89.73	89.779	4,926.93	1,109.16	8,604.92	8,609.02	0.00	0.00	0.00
13,600.00	89.73	89.779	4,927.40	1,109.55	8,704.92	8,709.02	0.00	0.00	0.00
13,700.00	89.73	89.779	4,927.87	1,109.93	8,804.92	8,809.02	0.00	0.00	0.00
13,800.00	89.73	89.779	4,928.34	1,110.32	8,904.92	8,909.02	0.00	0.00	0.00
13,900.00	89.73	89.779	4,928.81	1,110.70	9,004.91	9,009.02	0.00	0.00	0.00
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	9,050.47	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rodeo 503 FTP 380 FNI - plan misses target - Point	0.00 center by 0.01	0.000 ft at 5417.48	4,889.00 Bft MD (4889	1,078.05 .00 TVD, 1078	522.55 8.06 N, 522.5	1,893,573.395 5 E)	2,753,226.078	36.204011000	-107.731191000
Rodeo 503 LTP 380 FNL - plan hits target cen - Point	0.00 ter	0.000	4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.702299000

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")	
	350.00 2,940.83		13 3/8" Csg 9 5/8" Csg		13-3/8 9-5/8	17-1/2 12-1/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	571.02	571.00	Ojo Alamo			
	657.18	657.00	Kirtland			
	863.18	861.00	Fruitland			
	1,182.36	1,168.00	Pictured Cliffs			
	1,351.20	1,327.00	Lewis			
	1,626.22	1,586.00	Chacra_A			
	2,762.43	2,656.00	Cliff House_Basal			
	2,781.55	2,674.00	Menefee			
	3,814.75	3,648.00	Point Lookout			
	3,985.74	3,814.00	Mancos			
	4,313.13	4,139.00	MNCS_A			
	4,398.13	4,224.00	MNCS_B			
	4,498.16	4,324.00	MNCS_C			
	4,547.47	4,373.00	MNCS_Cms			
	4,670.85	4,492.00	MNCS_D			
	4,844.26	4,642.00	MNCS_E			
	4,921.34	4,699.00	MNCS_F			
	5,046.00	4,775.00	MNCS_G			
	5,155.61	4,829.00	MNCS_H			
	5,284.43	4,873.00	MNCS_I		0.00	



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
1,155.21	1,142.43	110.82	-10.27	Begin 19.66° tangent
3,704.99	3,543.63	964.84	-89.39	Begin 3°/100' drop
4,360.19	4,186.06	1,075.66	-99.66	Begin vertical hold
4,460.18	4,286.05	1,075.66	-99.66	Begin 10°/100' build
5,060.18	4,782.25	1,076.77	186.82	Begin 60.00° tangent
5,120.18	4,812.25	1,076.97	238.78	Begin 10°/100' build
5,417.50	4,889.00	1,078.06	522.57	Begin 89.73° lateral
13,941.46	4,929.00	1,110.86	9,046.37	PBHL/TD 13941.46 MD 4929.00 TVD



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

 Site:
 Rodeo Unit

 Well:
 Rodeo Unit #503H

 Wellbore:
 Original Hole

 Design:
 rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Western Zone

System Datum:

Mean Sea Level

Site Rodeo Unit

 Site Position:
 Northing:
 1,892,465.480 usft
 Latitude:
 36.200969000

 From:
 Lat/Long
 Easting:
 2,752,685.264 usft
 Longitude:
 -107.733028000

Position Uncertainty: 0.00 ft Slot Radius: 13-3/16

Well Rodeo Unit #503H, Surf loc: 1461 FNL 425 FEL Section 25-T23N-R09W

 Well Position
 +N/-S
 0.00 ft
 Northing:
 1,892,495.349 usft
 Latitude:
 36.201051000

 +E/-W
 0.00 ft
 Easting:
 2,752,703.525 usft
 Longitude:
 -107.732966000

Position Uncertainty

0.00 ft

Wellhead Elevation:

#E/-W

0.00 ft

Wellhead Elevation:

ft

Ground Level:

6,883.00 ft

Grid Convergence: 0.06 °

Wellbore Original Hole

 Magnetics
 Model Name
 Sample Date
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2020
 2/22/2022
 8.72
 62.72
 49.223.83303591

Design rev1

Audit Notes:

Version:Phase:PLANTie On Depth:0.00

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

 (ft)
 (ft)
 (ft)
 (°)

 0.00
 0.00
 0.00
 89.785

Plan Survey Tool Program Date 3/7/2022

Depth From Depth To

(ft) (ft) Survey (Wellbore) Tool Name Remarks

1 0.00 13,941.46 rev1 (Original Hole) MWD

OWSG MWD - Standard



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.21	19.66	354.707	1,142.43	110.82	-10.27	3.00	3.00	0.00	354.71	
3,704.99	19.66	354.707	3,543.63	964.84	-89.39	0.00	0.00	0.00	0.00	
4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	3.00	-3.00	0.00	180.00	
4,460.18	0.00	0.000	4,286.05	1,075.66	-99.66	0.00	0.00	0.00	0.00	
5,060.18	60.00	89.779	4,782.25	1,076.77	186.82	10.00	10.00	0.00	89.78	
5,120.18	60.00	89.779	4,812.25	1,076.97	238.78	0.00	0.00	0.00	0.00	
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	10.00	10.00	0.00	0.00	
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	0.00	0.00	0.00	0.00	Rodeo 503 LTP 380 F



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Planned Surv	ey								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.000	0.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
100.0	0.00	0.000	100.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
200.0	0.00	0.000	200.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
300.0	0.00	0.000	300.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
400.0	0.00	0.000	400.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
500.0	0.00	0.000	500.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	egin 3°/100' bu								
571.0		354.707	571.00	1.31	-0.12	1,892,496.663	2,752,703.404	36.201054611	-107.732966408
Ojo Al									
600.0		354.707	599.95	2.61	-0.24	1,892,497.955	2,752,703.284	36.201058160	-107.732966809
657.		354.707	657.00	6.44	-0.60	1,892,501.785	2,752,702.929	36.201068683	-107.732967999
Kirtlar		254 707	000.00	10.40	0.07	4 000 505 700	0.750.700.500	20.004070004	407 70000000
700.0 800.0		354.707 354.707	699.63 798.77	10.42	-0.97	1,892,505.766	2,752,702.560 2,752,701.356	36.201079621 36.201115324	-107.732969235 -107.732973270
863.		354.707	861.00	23.41 34.28	-2.17 -3.18	1,892,518.762 1,892,529.630	2,752,701.356	36.201145183	-107.732976645
		334.707	001.00	34.20	-3.10	1,092,329.030	2,732,700.349	30.201143163	-107.732970043
Fruitla 900.0		354.707	897.08	41.56	-3.85	1,892,536.905	2,752,699.675	36.201165172	-107.732978904
1,000.0		354.707	994.31	64.80	-6.00	1,892,560.148	2,752,697.522	36.201229027	-107.732986122
1,100.0		354.707	1,090.18	93.08	-8.62	1,892,588.425	2,752,694.902	36.201306714	-107.732994902
1,155.2		354.707	1,142.43	110.82	-10.27	1,892,606.165	2,752,693.258	36.201355453	-107.733000411
	19.66° tangent	001.707	1,112.10	110.02	10.27	1,002,000.100	2,702,000.200	00.201000100	107.700000111
1,182.3	•	354.707	1,168.00	119.91	-11.11	1,892,615.260	2,752,692.416	36.201380439	-107.733003235
	ed Cliffs	00 01	1,100.00			.,002,0.0.200	2,. 02,0020	00.201.0001.00	
1,200.0		354.707	1,184.61	125.82	-11.66	1,892,621.168	2,752,691.868	36.201396672	-107.733005070
1,300.0		354.707	1,278.79	159.31	-14.76	1,892,654.662	2,752,688.765	36.201488692	-107.733015471
1,351.2		354.707	1,327.00	176.46	-16.35	1,892,671.810	2,752,687.176	36.201535804	-107.733020796
Lewis									
1,400.0	00 19.66	354.707	1,372.96	192.81	-17.86	1,892,688.156	2,752,685.662	36.201580712	-107.733025872
1,500.0	00 19.66	354.707	1,467.13	226.30	-20.97	1,892,721.650	2,752,682.558	36.201672733	-107.733036273
1,600.0	19.66	354.707	1,561.30	259.80	-24.07	1,892,755.144	2,752,679.455	36.201764753	-107.733046673
1,626.2	22 19.66	354.707	1,586.00	268.58	-24.88	1,892,763.928	2,752,678.641	36.201788884	-107.733049401
Chacr	a_A								
1,700.0		354.707	1,655.48	293.29	-27.17	1,892,788.638	2,752,676.352	36.201856773	-107.733057074
1,800.0	19.66	354.707	1,749.65	326.78	-30.28	1,892,822.132	2,752,673.249	36.201948793	-107.733067475
1,900.0		354.707	1,843.82	360.28	-33.38	1,892,855.626	2,752,670.146	36.202040813	-107.733077876
2,000.0		354.707	1,938.00	393.77	-36.48	1,892,889.120	2,752,667.042	36.202132834	-107.733088277
2,100.0		354.707	2,032.17	427.27	-39.59	1,892,922.615	2,752,663.939	36.202224854	-107.733098678
2,200.0		354.707	2,126.34	460.76	-42.69	1,892,956.109	2,752,660.836	36.202316874	-107.733109079
2,300.0		354.707	2,220.51	494.26	-45.79	1,892,989.603	2,752,657.733	36.202408894	-107.733119480
2,400.0		354.707	2,314.69	527.75	-48.90 53.00	1,893,023.097	2,752,654.629	36.202500914	-107.733129881
2,500.0 2,600.0		354.707 354.707	2,408.86 2,503.03	561.24 594.74	-52.00 -55.10	1,893,056.591 1,893,090.085	2,752,651.526 2,752,648.423	36.202592935	-107.733140282 -107.733150683
2,700.0		354.707	2,503.03	628.23	-58.21	1,893,123.579	2,752,645.320	36.202684955 36.202776975	-107.733161085
2,762.4		354.707	2,656.00	649.14	-60.14	1,893,144.490	2,752,643.382	36.202834426	-107.733167578
	ouse_Basal	001.707	2,000.00	0.10.11	00.11	1,000,111.100	2,702,010.002	00.202001120	101.100101010
2,781.5		354.707	2,674.00	655.54	-60.74	1,893,150.892	2,752,642.789	36.202852015	-107.733169566
Menef			,			,,	, - ,		
2,800.0		354.707	2,691.38	661.73	-61.31	1,893,157.073	2,752,642.217	36.202868995	-107.733171486
2,900.0		354.707	2,785.55	695.22	-64.41	1,893,190.567	2,752,639.113	36.202961015	-107.733181887
3,000.0		354.707	2,879.72	728.71	-67.52	1,893,224.061	2,752,636.010	36.203053036	-107.733192288
3,100.0		354.707	2,973.90	762.21	-70.62	1,893,257.555	2,752,632.907	36.203145056	-107.733202689
3,200.0	19.66	354.707	3,068.07	795.70	-73.72	1,893,291.049	2,752,629.804	36.203237076	-107.733213091
3,300.0	00 19.66	354.707	3,162.24	829.20	-76.83	1,893,324.543	2,752,626.700	36.203329096	-107.733223492



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Design.	1671								
Planned Surve	y								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,400.00	19.66	354.707	3,256.41	862.69	-79.93	1,893,358.037	2,752,623.597	36.203421116	-107.733233893
3,500.00		354.707	3,350.59	896.18	-83.03	1,893,391.531	2,752,620.494	36.203513137	-107.733244295
3,600.00		354.707	3,444.76	929.68	-86.13	1,893,425.025	2,752,617.391	36.203605157	-107.733254696
3,704.99	19.66	354.707	3,543.63	964.84	-89.39	1,893,460.190	2,752,614.133	36.203701767	-107.733265616
Begin 3	°/100' drop								
3,800.00	16.81	354.707	3,633.86	994.44	-92.13	1,893,489.784	2,752,611.391	36.203783074	-107.733274807
3,814.75	16.36	354.707	3,648.00	998.63	-92.52	1,893,493.976	2,752,611.002	36.203794591	-107.733276108
Point Lo	ookout								
3,900.00	13.81	354.707	3,730.31	1,020.72	-94.57	1,893,516.066	2,752,608.956	36.203855279	-107.733282968
3,985.74	11.23	354.707	3,814.00	1,039.23	-96.28	1,893,534.571	2,752,607.241	36.203906120	-107.733288715
Mancos	i								
4,000.00	10.81	354.707	3,828.00	1,041.94	-96.54	1,893,537.285	2,752,606.990	36.203913577	-107.733289558
4,100.00	7.81	354.707	3,926.67	1,058.04	-98.03	1,893,553.385	2,752,605.498	36.203957808	-107.733294558
4,200.00	4.81	354.707	4,026.05	1,068.97	-99.04	1,893,564.321	2,752,604.485	36.203987852	-107.733297953
4,300.00		354.707	4,125.88	1,074.72	-99.57	1,893,570.062	2,752,603.953	36.204003625	-107.733299736
4,313.13	1.41	354.707	4,139.00	1,075.08	-99.61	1,893,570.429	2,752,603.919	36.204004634	-107.733299850
MNCS_									
4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	1,893,571.006	2,752,603.866	36.204006220	-107.733300030
Begin v	ertical hold								
4,398.13	0.00	0.000	4,224.00	1,075.66	-99.66	1,893,571.006	2,752,603.866	36.204006220	-107.733300030
MNCS_I	В								
4,400.00		0.000	4,225.87	1,075.66	-99.66	1,893,571.006	2,752,603.866	36.204006220	-107.733300030
4,460.18	0.00	0.000	4,286.05	1,075.66	-99.66	1,893,571.006	2,752,603.866	36.204006220	-107.733300030
Begin 1	0°/100' build								
4,498.16	3.80	89.779	4,324.00	1,075.66	-98.40	1,893,571.011	2,752,605.124	36.204006230	-107.733295765
MNCS_	С								
4,500.00		89.779	4,325.83	1,075.67	-98.28	1,893,571.012	2,752,605.248	36.204006231	-107.733295343
4,547.47	8.73	89.779	4,373.00	1,075.69	-93.02	1,893,571.032	2,752,610.502	36.204006271	-107.733277537
MNCS_									
4,550.00		89.779	4,375.50	1,075.69	-92.63	1,893,571.033	2,752,610.891	36.204006274	-107.733276218
4,600.00		89.779	4,424.48	1,075.73	-82.69	1,893,571.072	2,752,620.840	36.204006352	-107.733242494
4,650.00		89.779	4,472.41	1,075.78	-68.50	1,893,571.127	2,752,635.021	36.204006462	-107.733194427
4,670.85		89.779	4,492.00	1,075.81	-61.37	1,893,571.154	2,752,642.159	36.204006517	-107.733170230
MNCS_									
4,700.00		89.779	4,518.92	1,075.85	-50.20	1,893,571.197	2,752,653.325	36.204006604	-107.733132385
4,750.00		89.779	4,563.66	1,075.94	-27.91	1,893,571.283	2,752,675.613	36.204006777	-107.733056837
4,800.00		89.779	4,606.29	1,076.04	-1.81	1,893,571.384	2,752,701.716	36.204006979	-107.732968361
4,844.26		89.779	4,642.00	1,076.14	24.32	1,893,571.485	2,752,727.845	36.204007182	-107.732879792
MNCS_I		00 770	4 0 4 0 4 0	4 070 45	07.04	4 000 574 400	0.750.704.404	00.00.1007000	407 70007000
4,850.00		89.779	4,646.48	1,076.15	27.91	1,893,571.498	2,752,731.434	36.204007209	-107.732867628
4,900.00		89.779	4,683.93	1,076.28	61.02	1,893,571.626	2,752,764.542	36.204007466	-107.732755406
4,921.34		89.779	4,699.00	1,076.34	76.12	1,893,571.684	2,752,779.640	36.204007583	-107.732704229
MNCS_		00.770	4 740 05	4.070.40	07.00	4 000 574 700	0.750.000.700	20.004007747	407 700000540
4,950.00		89.779	4,718.35	1,076.42	97.26 126.27	1,893,571.766	2,752,800.788	36.204007747	-107.732632548
5,000.00		89.779	4,749.47 4,775.00	1,076.57	136.37	1,893,571.917	2,752,839.895	36.204008050	-107.732499991
5,046.00		89.779	4,775.00	1,076.72	174.62	1,893,572.064	2,752,878.143	36.204008346	-107.732370349
MNCS_0		00.770	4 777 00	1.076.72	170.04	1 002 572 077	2 752 994 567	26 20/000272	107 720250744
5,050.00 5,060.18		89.779 89.779	4,777.08 4,782.25	1,076.73 1,076.77	178.04 186.82	1,893,572.077	2,752,881.567	36.204008372 36.204008440	-107.732358741
·		09.119	4,102.20	1,070.77	100.02	1,893,572.111	2,752,890.342	30.204000440	-107.732329000
	0.00° tangent	00.770	4 900 45	1.076.00	224.20	1 002 F70 044	2.752.024.022	26 204000707	107 72221212
5,100.00 5,120.18		89.779 89.779	4,802.15 4,812.25	1,076.90 1,076.97	221.30 238.78	1,893,572.244	2,752,924.822	36.204008707	-107.732212125
		09.119	4,01∠.∠0	1,070.97	230.10	1,893,572.312	2,752,942.303	36.204008842	-107.732152874
Begin 1	0°/100' build								



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

sign:	rev1								
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,150.00 5,155.61	62.98 63.54	89.779 89.779	4,826.48 4,829.00	1,077.07 1,077.09	264.97 269.99	1,893,572.413 1,893,572.432	2,752,968.499 2,752,973.511	36.204009044 36.204009083	-107.7320640 -107.7320470
MNCS_H									
5,200.00	67.98	89.779	4,847.22	1,077.24	310.45	1,893,572.588	2,753,013.976	36.204009395	-107.7319099
5,250.00	72.98	89.779	4,863.92	1,077.42	357.56	1,893,572.770	2,753,061.087	36.204009759	-107.731750
5,284.43	76.42	89.779	4,873.00	1,077.55	390.77	1,893,572.898	2,753,094.291	36.204010015	-107.731637
MNCS_I	77.00	00.770	4.070.45	4 077 04	405.05	4 000 570 050	0.750.400.475	20 204040424	407 704500
5,300.00	77.98	89.779 89.779	4,876.45	1,077.61	405.95 455.25	1,893,572.956	2,753,109.475	36.204010131 36.204010511	-107.731586 -107.731419
5,350.00 5,400.00	82.98 87.98	89.779	4,884.71 4,888.65	1,077.80 1,077.99	455.25 505.07	1,893,573.146 1,893,573.338	2,753,158.770 2,753,208.598	36.204010894	-107.731419
5,417.50	89.73	89.779	4,889.00	1,077.99	522.57	1,893,573.405	2,753,226.090	36.204011028	-107.731230
	.73° lateral	00.110	1,000.00	1,070.00	022.07	1,000,010.100	2,700,220.000	00.201011020	101.101100
5,500.00	89.73	89.779	4,889.39	1,078.38	605.07	1,893,573.723	2,753,308.592	36.204011661	-107.730911
5,600.00	89.73	89.779	4,889.86	1,078.76	705.07	1,893,574.107	2,753,408.590	36.204012428	-107.730572
5,700.00	89.73	89.779	4,890.33	1,079.15	805.06	1,893,574.492	2,753,508.588	36.204013194	-107.730233
5,800.00	89.73	89.779	4,890.80	1,079.53	905.06	1,893,574.877	2,753,608.586	36.204013959	-107.729894
5,900.00	89.73	89.779	4,891.27	1,079.92	1,005.06	1,893,575.262	2,753,708.584	36.204014722	-107.729555
6,000.00	89.73	89.779	4,891.73	1,080.30	1,105.06	1,893,575.647	2,753,808.582	36.204015485	-107.729216
6,100.00	89.73	89.779	4,892.20	1,080.69	1,205.06	1,893,576.032	2,753,908.580	36.204016247	-107.728877
6,200.00	89.73	89.779	4,892.67	1,081.07	1,305.06	1,893,576.416	2,754,008.578	36.204017008	-107.728538
6,300.00	89.73	89.779	4,893.14	1,081.46	1,405.05	1,893,576.801	2,754,108.576	36.204017768	-107.728199
6,400.00	89.73	89.779	4,893.61	1,081.84	1,505.05	1,893,577.186	2,754,208.574	36.204018527	-107.727860
6,500.00	89.73	89.779	4,894.08	1,082.22	1,605.05	1,893,577.571	2,754,308.572	36.204019285	-107.727521
6,600.00	89.73	89.779	4,894.55	1,082.61	1,705.05	1,893,577.956	2,754,408.570	36.204020042	-107.727182
6,700.00 6,800.00	89.73 89.73	89.779 89.779	4,895.02 4,895.49	1,082.99 1,083.38	1,805.05 1,905.04	1,893,578.341 1,893,578.726	2,754,508.568 2,754,608.566	36.204020798 36.204021553	-107.726843 -107.726504
6,900.00	89.73	89.779	4,895.96	1,083.76	2,005.04	1,893,579.110	2,754,708.564	36.204021333	-107.726166
7,000.00	89.73	89.779	4,896.43	1,084.15	2,105.04	1,893,579.495	2,754,808.562	36.204023061	-107.725827
7,100.00	89.73	89.779	4,896.90	1,084.53	2,205.04	1,893,579.880	2,754,908.560	36.204023813	-107.725488
7,200.00	89.73	89.779	4,897.37	1,084.92	2,305.04	1,893,580.265	2,755,008.558	36.204024564	-107.725149
7,300.00	89.73	89.779	4,897.84	1,085.30	2,405.04	1,893,580.650	2,755,108.556	36.204025315	-107.724810
7,400.00	89.73	89.779	4,898.30	1,085.69	2,505.03	1,893,581.035	2,755,208.554	36.204026064	-107.724471
7,500.00	89.73	89.779	4,898.77	1,086.07	2,605.03	1,893,581.419	2,755,308.552	36.204026812	-107.724132
7,600.00	89.73	89.779	4,899.24	1,086.46	2,705.03	1,893,581.804	2,755,408.549	36.204027560	-107.723793
7,700.00	89.73	89.779	4,899.71	1,086.84	2,805.03	1,893,582.189	2,755,508.547	36.204028306	-107.723454
7,800.00	89.73	89.779	4,900.18	1,087.23	2,905.03	1,893,582.574	2,755,608.545	36.204029052	-107.723115
7,900.00	89.73	89.779	4,900.65	1,087.61	3,005.02	1,893,582.959	2,755,708.543	36.204029797	-107.722776
8,000.00	89.73	89.779	4,901.12	1,088.00	3,105.02	1,893,583.344	2,755,808.541	36.204030540	-107.722437
8,100.00	89.73	89.779	4,901.59	1,088.38	3,205.02	1,893,583.728	2,755,908.539	36.204031283	-107.722098
8,200.00	89.73	89.779	4,902.06	1,088.77	3,305.02	1,893,584.113	2,756,008.537	36.204032025	-107.721759
8,300.00 8,400.00	89.73 89.73	89.779 89.779	4,902.53 4,903.00	1,089.15 1,089.54	3,405.02 3,505.02	1,893,584.498	2,756,108.535	36.204032765 36.204033505	-107.721420 -107.721081
8,500.00	89.73	89.779	4,903.00	1,089.54 1,089.92	3,505.02	1,893,584.883 1,893,585.268	2,756,208.533 2,756,308.531	36.204033505 36.204034244	-107.72108
8,600.00	89.73	89.779	4,903.94	1,009.32	3,705.01	1,893,585.653	2,756,408.529	36.204034244	-107.720742
8,700.00	89.73	89.779	4,904.40	1,090.69	3,805.01	1,893,586.038	2,756,508.527	36.204035719	-107.720064
8,800.00	89.73	89.779	4,904.87	1,091.08	3,905.01	1,893,586.422	2,756,608.525	36.204036455	-107.719725
8,900.00	89.73	89.779	4,905.34	1,091.46	4,005.01	1,893,586.807	2,756,708.523	36.204037190	-107.719387
9,000.00	89.73	89.779	4,905.81	1,091.85	4,105.00	1,893,587.192	2,756,808.521	36.204037924	-107.719048
9,100.00	89.73	89.779	4,906.28	1,092.23	4,205.00	1,893,587.577	2,756,908.519	36.204038657	-107.718709
9,200.00	89.73	89.779	4,906.75	1,092.62	4,305.00	1,893,587.962	2,757,008.517	36.204039389	-107.718370
9,300.00	89.73	89.779	4,907.22	1,093.00	4,405.00	1,893,588.347	2,757,108.515	36.204040120	-107.718031
9,400.00	89.73	89.779	4,907.69	1,093.39	4,505.00	1,893,588.731	2,757,208.513	36.204040850	-107.717692
9,500.00	89.73	89.779	4,908.16	1,093.77	4,604.99	1,893,589.116	2,757,308.511	36.204041579	-107.717353
9,600.00	89.73	89.779	4,908.63	1,094.15	4,704.99	1,893,589.501	2,757,408.509	36.204042308	-107.717014



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

ation Azimuth		+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
89.73 89.779	,	1,094.54	4,804.99	1,893,589.886	2,757,508.507	36.204043035	-107.7166754
89.73 89.779	,	1,094.92	4,904.99	1,893,590.271	2,757,608.504	36.204043761	-107.71633646
89.73 89.779	,	1,095.31	5,004.99	1,893,590.656	2,757,708.502	36.204044487	-107.7159975°
89.73 89.779	,	1,095.69	5,104.99	1,893,591.041	2,757,808.500	36.204045211	-107.7156585
89.73 89.779	,	1,096.08	5,204.98	1,893,591.425	2,757,908.498	36.204045935	-107.7153196
89.73 89.779	,	1,096.46	5,304.98	1,893,591.810	2,758,008.496	36.204046657	-107.7149806
89.73 89.779	,	1,096.85	5,404.98	1,893,592.195	2,758,108.494	36.204047379	-107.7146417
89.73 89.779	,	1,097.23	5,504.98	1,893,592.580	2,758,208.492	36.204048099	-107.7143027
89.73 89.779	,	1,097.62	5,604.98	1,893,592.965	2,758,308.490	36.204048819	-107.7139638
89.73 89.779	,	1,098.00	5,704.97	1,893,593.350	2,758,408.488	36.204049538	-107.7136248
89.73 89.779	,	1,098.39	5,804.97	1,893,593.734	2,758,508.486	36.204050255	-107.7132859
89.73 89.779	,	1,098.77	5,904.97	1,893,594.119	2,758,608.484	36.204050972	-107.7129469
89.73 89.779	,	1,099.16	6,004.97	1,893,594.504	2,758,708.482	36.204051688	-107.7126080
89.73 89.779	,	1,099.54	6,104.97	1,893,594.889	2,758,808.480	36.204052403	-107.7122690
89.73 89.779	,	1,099.93	6,204.97	1,893,595.274	2,758,908.478	36.204053117	-107.7119301
89.73 89.779	,	1,100.31	6,304.96	1,893,595.659	2,759,008.476	36.204053830	-107.7115911
89.73 89.779	,	1,100.70	6,404.96	1,893,596.043	2,759,108.474	36.204054542	-107.7112522
89.73 89.779	,	1,101.08	6,504.96	1,893,596.428	2,759,208.472	36.204055252	-107.7109132
89.73 89.779	,	1,101.47	6,604.96	1,893,596.813	2,759,308.470	36.204055963	-107.7105743
89.73 89.779		1,101.85	6,704.96	1,893,597.198	2,759,408.468	36.204056672	-107.7102353
89.73 89.779	,	1,102.24	6,804.95	1,893,597.583	2,759,508.466	36.204057380	-107.7098964
89.73 89.779	,	1,102.62	6,904.95	1,893,597.968	2,759,608.464	36.204058087	-107.7095574
89.73 89.779	,	1,103.01	7,004.95	1,893,598.353	2,759,708.461	36.204058793	-107.709218
89.73 89.779		1,103.39	7,104.95	1,893,598.737	2,759,808.459	36.204059498	-107.708879
89.73 89.779	,	1,103.78	7,204.95	1,893,599.122	2,759,908.457	36.204060203	-107.708540
89.73 89.779	,	1,104.16	7,304.95	1,893,599.507	2,760,008.455	36.204060906	-107.708201
89.73 89.779		1,104.55	7,404.94	1,893,599.892	2,760,108.453	36.204061608	-107.707862
89.73 89.779		1,104.93	7,504.94	1,893,600.277	2,760,208.451	36.204062310	-107.707523
89.73 89.779		1,105.32	7,604.94	1,893,600.662	2,760,308.449	36.204063010	-107.707184
89.73 89.779		1,105.70	7,704.94	1,893,601.046	2,760,408.447	36.204063710	-107.7068458
89.73 89.779		1,106.09	7,804.94	1,893,601.431	2,760,508.445	36.204064408	-107.7065069
89.73 89.779	,	1,106.47	7,904.93	1,893,601.816	2,760,608.443	36.204065106	-107.7061679
89.73 89.779	,	1,106.85	8,004.93	1,893,602.201	2,760,708.441	36.204065802	-107.7058290
89.73 89.779	,	1,107.24	8,104.93	1,893,602.586	2,760,808.439	36.204066498	-107.7054900
89.73 89.779	,	1,107.62	8,204.93	1,893,602.971	2,760,908.437	36.204067193	-107.705151
89.73 89.779	,	1,108.01	8,304.93	1,893,603.355	2,761,008.435	36.204067886	-107.704812°
89.73 89.779	,	1,108.39	8,404.92	1,893,603.740	2,761,108.433	36.204068579	-107.7044732
89.73 89.779	,	1,108.78	8,504.92	1,893,604.125	2,761,208.431	36.204069271	-107.7041342
89.73 89.779	,	1,109.16	8,604.92	1,893,604.510	2,761,308.429	36.204069962	-107.7037953
89.73 89.779	,	1,109.55	8,704.92	1,893,604.895	2,761,408.427	36.204070652	-107.7034563
89.73 89.779	,	1,109.93	8,804.92	1,893,605.280	2,761,508.425	36.204071340	-107.7031174
89.73 89.779	,	1,110.32	8,904.92	1,893,605.665	2,761,608.423	36.204072028	-107.702778
	,	1,110.70	9,004.91	1,893,606.049	2,761,708.421	36.204072715	-107.702439
89.73 89.779	39.779 4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.7022990
89.73 89.73	8	89.779 4,928.81	89.779 4,928.81 1,110.70 89.779 4,929.00 1,110.86	89.779 4,928.81 1,110.70 9,004.91 89.779 4,929.00 1,110.86 9,046.37	89.779 4,928.81 1,110.70 9,004.91 1,893,606.049 89.779 4,929.00 1,110.86 9,046.37 1,893,606.209	89.779 4,928.81 1,110.70 9,004.91 1,893,606.049 2,761,708.421 89.779 4,929.00 1,110.86 9,046.37 1,893,606.209 2,761,749.876	89.779 4,928.81 1,110.70 9,004.91 1,893,606.049 2,761,708.421 36.204072715 89.779 4,929.00 1,110.86 9,046.37 1,893,606.209 2,761,749.876 36.204073000



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rodeo 503 FTP 380 FNI - plan misses target - Point		0.000 Ift at 5417.4	4,889.00 8ft MD (4889	1,078.05 .00 TVD, 107	522.55 8.06 N, 522.5	1,893,573.395 5 E)	2,753,226.078	36.204011000	-107.731191000
Rodeo 503 LTP 380 FNL - plan hits target cer - Point	0.00 ter	0.000	4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.702299000

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")	
	350.00	350.00	13 3/8" Csg		13-3/8	17-1/2	
	2,940.83	2,824.00	9 5/8" Csg		9-5/8	12-1/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	571.02	571.00	Ojo Alamo			
	657.18	657.00	Kirtland			
	863.18	861.00	Fruitland			
	1,182.36	1,168.00	Pictured Cliffs			
	1,351.20	1,327.00	Lewis			
	1,626.22	1,586.00	Chacra_A			
	2,762.43	2,656.00	Cliff House_Basal			
	2,781.55	2,674.00	Menefee			
	3,814.75	3,648.00	Point Lookout			
	3,985.74	3,814.00	Mancos			
	4,313.13	4,139.00	MNCS_A			
	4,398.13	4,224.00	MNCS_B			
	4,498.16	4,324.00	MNCS_C			
	4,547.47	4,373.00	MNCS_Cms			
	4,670.85	4,492.00	MNCS_D			
	4,844.26	4,642.00	MNCS_E			
	4,921.34	4,699.00	MNCS_F			
	5,046.00	4,775.00	MNCS_G			
	5,155.61	4,829.00	MNCS_H			
	5,284.43	4,873.00	MNCS_I		0.00	



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
1,155.21	1,142.43	110.82	-10.27	Begin 19.66° tangent
3,704.99	3,543.63	964.84	-89.39	Begin 3°/100' drop
4,360.19	4,186.06	1,075.66	-99.66	Begin vertical hold
4,460.18	4,286.05	1,075.66	-99.66	Begin 10°/100' build
5,060.18	4,782.25	1,076.77	186.82	Begin 60.00° tangent
5,120.18	4,812.25	1,076.97	238.78	Begin 10°/100' build
5,417.50	4,889.00	1,078.06	522.57	Begin 89.73° lateral
13,941.46	4,929.00	1,110.86	9,046.37	PBHL/TD 13941.46 MD 4929.00 TVD

WELL NAME: RODEO UNIT 503H

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

OBJECTIVE: Drill, complete,
API Number: not yet assigned
AFE Number: not yet assigned
ER Well Number: not yet assigned

State: New Mexico

County: San Juan

Surface Elev.: 6,883 ft ASL (GL) 6,896 ft ASL (KB)

 Surface Location:
 25-23N-09W
 Sec-Twn- Rng
 1,461
 ft FNL

 BH Location:
 29-23N-08W
 Sec-Twn- Rng
 380
 ft FNL

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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD (WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 504H

425

1977

ft FEL

ft FEL

(PLANNED)).

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	2,941	9.625	36.0	J-55	LTC	0	2,941
Production	8.500	13,941	5.500	17.0	P-110	LTC	0	13,941

CEMENT PROPERTIES SUMMARY:

					Hole Cap.		TOC	
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total (sx)
Surface	Type III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	580
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,441	136
Prod. (Lead)	Type III	12.4	2.360	13.4	0.2691	65%	0	503
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.2291	10%	3,986	1,608

COMPLETION / PRODUCTION SUMMARY:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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

QUIC	QUICK REFERENCE							
Sur TD (MD)	350 ft							
Int TD (MD)	2,941 ft							
KOP (MD)	4,460 ft							
KOP (TVD)	4,286 ft							
Target (TVD)	4,889 ft							
Curve BUR	10 °/100 ft							
POE (MD)	5,418 ft							
TD (MD)	13,941 ft							
Lat Len (ft)	8,523 ft							

_					
		11.	Tops	TVD (ft KB)	MD (ft KB
		111	Ojo Alamo	571	571
		1 1	Kirtland	657	657
			Fruitland	861	863
			Pictured Cliffs	1,168	1,182
			Lewis	1,327	1,351
		1 1	Chacra	1,586	1,626
			Cliff House	2,656	2,762
			Menefee	2,674	2,782
		1111	Point Lookout	3,648	3,814
		$ \downarrow $	Mancos	3,814	3,986
			Gallup (MNCS_A)	4,139	4,313
			MNCS_B	4,224	4,398
		1111	MNCS_C	4,324	4,498
		1 14 1	MNCS_Cms	4,373	4,547
			MNCS_D	4,492	4,671
1		Hili			
		I∐I	MNCS_E	4,642	4,844
			MNCS_F	4,699	4,921
		1111	MNCS_G	4,775	5,046
		JĽIJ	MNCS_H	4,829	5,456
			MNCS_I	4,873	5,284
		٧ -	FTP (LP) TARGET	4,889	5,418
	/	\cup I	LTP (TD) TARGET	4,929	13,941
	/				
	/				

I. Operator: Enduring Resources IV, LLC

Rodeo Unit 506H

pending

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date: 06/14/2022

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

OGRID: 372286

408' FEL

UL:C SHL:1481' FNL &

391' FEL

1,070

1,173

II. Type: \boxtimes Original \square A	amendment due to □	19.15.27.9.D(6)(a)	NMAC □ 19.15.27.	9.D(6)(b) NM	$AC \square Other.$	
If Other, please describe: _						
III. Well(s): Provide the fobe recompleted from a sing	_		•	of wells propo	osed to be drilled	d or proposed to
Well Name	API	ULSTR	Footages	Anticipated	Anticipated	Anticipated
				Oil BBL/D	Gas MCF/D	Produced
						Water
Rodeo Unit 503H	pending	Sec. 25, T23N, R9W	UL:C SHL:1461' FNL & 425' FEL	808	975	854
Rodeo Unit 504H	pending	Sec. 25, T23N, R9W	UL:C SHL:1471' FNL &	545	658	905

IV. Central Delivery Point Name: 2-9 Gas Receipt & Trunk 1 Transfer Gas Receipt [See 19.15.27.9(D)(1) NMAC]

Sec. 25, T23N, R9W

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Rodeo Unit 503H	pending	1/1/2023	1/8/2023	2/25/2023	2/26/2023	2/27/2023
Rodeo Unit 504H	pending	1/1/2023	1/15/2023	2/25/2023	2/26/2023	2/27/2023
Rodeo Unit 506H	pending	1/1/2023	1/23/2023	2/25/2023	2/26/2023	2/27/2023

- VI. Separation Equipment:

 Attach a complete description of how Operator will size separation equipment to optimize gas capture.
- VII. Operational Practices: ⊠ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.
- VIII. Best Management Practices:

 Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

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Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☑ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system \boxtimes will \square will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator \boxtimes does \square does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: □ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

one hundred percer	able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport at of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering
hundred percent of into account the cu	the able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking trent and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. this box, Operator will select one of the following:
Well Shut-In. □ O D of 19.15.27.9 NM	perator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection IAC; or
_	ng Plan. Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential
	al uses for the natural gas until a natural gas gathering system is available, including:
,	power generation on lease;
	power generation for grid;
	compression on lease;
	l) liquids removal on lease;
	reinjection for underground storage;
(1	
	reinjection for enhanced oil recovery;
(i	other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Khem Suthiwan
Printed Name: Khem Suthiwan
Title: Regulatory Manager
E-mail Address: ksuthiwan@enduringresources.com
Date: June 14, 2022
Phone: (303) 350-5721
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Attachments:

Separation Equipment: Below is a complete description of how Operator will size separation equipment to optimize gas capture.

Description of how separation equipment will be sized to optimize gas capture:

Well separation equipment is sized to have appropriate residence time and vapor space to remove gas particles on the micron scale per typical engineering calculations and/or operational experience. Furthermore, a sales scrubber downstream of the well separators is planned in order to capture any additional liquids if present. All gas is routed to end users or the sales pipeline under normal operating conditions.

Operational & Best Management Practices: Below is a complete description of the actions the Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. Additionally, below is a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Drilling Operations:

Enduring Resources will minimize venting by:

- Gas will only be vented to the atmosphere to avoid risk of immediate or substantial adverse impact to employee safety, public health, and the environment.
- If utilized, flare stacks shall be located at a minimum of 100 feet from the nearest surface hole location

Completion Operations:

Enduring Resources will minimize venting by:

- Separator operation will commence as soon as technically feasible.
- Gas will route immediately to a collection system or applied to other beneficial use, such as a fuel source for onsite equipment.
- During initial flowback and if technically feasible, flaring shall occur rather than venting.
- If natural gas does not meet pipeline standards, gas will be vented or flared. A gas analysis will be performed twice weekly until standards are met (for up to 60 days). This is not anticipated to occur.
- If required, all venting and flaring of natural gas during flowback operations shall be performed in compliance with Subsections B, C and D of 19.15.27.8 NMAC.

Production Operations:

Enduring Resources will minimize venting by:

- Shutting in the wells if the pipeline is not available. No flaring of high pressure gas will occur.
- Utilizing gas for equipment fuel, heater fuel, and artificial lift when allowable.
- Capturing low pressure gas via a gas capture system when allowable.

In General:

- All venting and flaring from drilling, flowback and operation phases shall be reported in compliance with Subsection G of 19.15.27.8 NMAC.
- If utilized, flare stacks shall be located at a minimum of 100 feet from the nearest surface hole location and 100 ft from the permanent facility storage tanks.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on <u>Gas Transporter</u> system at that time. Based on current information, it is <u>Operator's</u> belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

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Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
 - o Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
 - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
 - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines
- Power generation for grid;
- Liquids removal on lease;
- Reinjection for underground storage;
- Reinjection for temporary storage;
- Reinjection for enhanced oil recovery;
- Fuel cell production; and
- Other alternative beneficial uses approved by the division.



U.S. Department of the Interior

SUPO Data Report

BUREAU OF LAND MANAGEMENT

APD ID: 10400084206

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT

Well Type: OIL WELL

Submission Date: 06/16/2022

Well Number: 503H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

503H_RODEO_UNIT_Existing_Road_20220614163321.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? YES

ROW ID(s)

ID: NMNM 135923

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Received by OCD: 9/13/2023 9:21:51 AM

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Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

503H_ROU_1MileBuffer_220222_20220614163543.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Reference attached Enduring Resources Surface Use Plan of Operations , Chapter 4 Section 4.1 (Location of Existing or Proposed Production Facilities).

Production Facilities map:

Enduring_Rodeo_508_Completion_Layout_Rev_A_20230712170743.pdf Enduring_Rodeo_508_Facility_Layout_Rev_A_20230712170751.pdf Enduring_Rodeo_508_Rig_Layout_Rev_A_20230712170801.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

STIMULATION

Source latitude: 36.205933 Source longitude: -107.74157

Source datum: NAD83

WATER WELL Water source permit type:

Water source transport method: **TRUCKING**

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: OTHER

Source volume (gal): 2520000

Water source volume (barrels): 60000 Source volume (acre-feet): 7.73358578

FACILITY

Page 2 of 16

Describe transportation land ownership: ENDURING

Well Name: RODEO UNIT Well Number: 503H

Water source type: GW WELL

Water source use type: DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

STIMULATION

Source latitude: 36.359802 Source longitude: -107.81031

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: STATE

Source transportation land ownership: OTHER

Describe transportation land ownership: BLANCO 7

Water source volume (barrels): 2061 Source volume (acre-feet): 0.26564867

Source volume (gal): 86562

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

STIMULATION

Source latitude: 36.143566 Source longitude: -107.57601

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: STATE

Source transportation land ownership: OTHER

Water source volume (barrels): 60000

Source volume (gal): 2520000

Describe transportation land ownership: ENDURING

FACILITY

Source volume (acre-feet): 7.73358578

Well Name: RODEO UNIT Well Number: 503H

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

STIMULATION

Source latitude: 36.210182 Source longitude: -107.83178

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: OTHER

Water source volume (barrels): 60000

Source volume (gal): 2520000

Describe transportation land ownership: ENDURING

Describe transportation land ownership: ENDURING

FACILITY

Source volume (acre-feet): 7.73358578

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

STIMULATION

Source latitude: 36.117344 Source longitude: -107.48871

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: OTHER

FACIL

Water source volume (barrels): 60000 Source volume (acre-feet): 7.73358578

Source volume (gal): 2520000

Well Name: RODEO UNIT Well Number: 503H

Water source type: GW WELL

DUST CONTROL Water source use type:

ICE ROAD CONSTRUCTION &

MAINTENANCE SURFACE CASING

Source latitude: 36.069826 Source longitude: -107.04718

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: **TRUCKING**

Source land ownership: PRIVATE

Source transportation land ownership: OTHER Describe transportation land ownership: Smelser w

highway across Federal, State, and Indian surface Water source volume (barrels): 2061

Source volume (acre-feet): 0.26564867

Source volume (gal): 86562

Water source and transportation

503H_ROU_WaterTransportationMap_07112023_Deficiency_Response_20230712171028.pdf

Water source comments: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 5 (Locations and Types of Water Supply).

New water well? N

New Water Well Info

Well latitude: Well Longitude: Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft): Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft): Well casing type:

Well casing outside diameter (in.): Well casing inside diameter (in.):

New water well casing? Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

Casing length (ft.): Casing top depth (ft.):

Completion Method: Well Production type:

Well Name: RODEO UNIT Well Number: 503H

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 6 (Construction Materials).

Construction Materials source location

MaterialSourceLocationMap_191022_20220614163946.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods

for Handling Waste). Section 7.2 (Drilling Fluids).

Amount of waste: 12000 barrels

Waste disposal frequency: Weekly

Safe containment description: Drilling fluids would be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or disposed of at one of the locations specified in the SUPO sections 7.2 and 7.8.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: Approved commercial disposal facility or land farm

Waste type: FLOWBACK

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods for Handling Waste). Section 7.7 (Flowback). Flowback transported off location will consist of approximately 2500 bbls of produced water per day for approximately 30 days.

Amount of waste: 2500 barrels

Waste disposal frequency: Daily

Safe containment description: Produced water from flowback will be gathered, recycled, and reused through temporary above ground surface lines rated for volumes and pressures anticipated, see SUPO section 5. If there are no foreseen drilling and completion operations, flowback would be disposed of at one of the disposal wells listed in section 7.8.1 of the SUPO.

Safe containment attachment:

Waste disposal type: RECYCLE Disposal location ownership: OTHER

Disposal type description:

Disposal location description: Produced water from flowback will be stored, treated, and recycled at any of Enduring's approved water recycling facilities. Containments are constructed, lined, and monitored per regulatory requirements. Flowback would be disposed of at one of the disposal wells listed in Section 7.8.1 of the SUPO.

Page 6 of 16

Well Name: RODEO UNIT Well Number: 503H

Waste type: SEWAGE

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods

for Handling Waste). Section 7.4 (Sewage). **Amount of waste:** 500 gallons

Waste disposal frequency: Weekly

Safe containment description: Portable toilets would be provided and maintained as needed. See SUPO section 7.4 for

reference

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: Commercial facilities disposal

Waste type: GARBAGE

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods

for Handling Waste). Section 7.5 (Garbage and other waste material).

Amount of waste: 1500 pounds

Waste disposal frequency: Weekly

Safe containment description: All garbage and trash would be placed in enclosed metal trash containers. The trash and

garbage would be hauled off site and dumped in an approved landfill, as needed. See SUPO, Section 7.5.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: Approved landfill

Waste type: PRODUCED WATER

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods

for Handling Waste). Section 7.8 (Produced Water).

Amount of waste: 11000 barrels

Waste disposal frequency: Weekly

Safe containment description: Drilling fluids would be stored onsite in above-ground storage tanks. See SUPO section 7.2,

Drilling Fluids

Safe containment attachment:

Waste disposal type: OFF-LEASE INJECTION Disposal location ownership: PRIVATE

Disposal type description:

Disposal location description: Commercial UIC, See SUPO Chapter 7, section 7.8.1 disposal locations

Reserve Pit

Reserve Pit being used? NO

Well Name: RODEO UNIT Well Number: 503H

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods for Handling Waste). Section 7.1 (Cuttings) of the SUPO.

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.) Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Enduring_Rodeo_508_Facility_Layout_Rev_A_20230712171255.pdf

Enduring_Rodeo_508_Rig_Layout_Rev_A_20230712171304.pdf

Enduring_Rodeo_508_Completion_Layout_Rev_A_20230712171312.pdf

Rodeo_503H_Revised_Pad_Layout_07122023_20230713094100.pdf

Comments: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 9 (Well Site Layout) and Chapter 4 (Location of Existing or Proposed Production Facilities).

Well Name: RODEO UNIT Well Number: 503H

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: RODEO UNIT 508

Multiple Well Pad Number: 503H 504H 506H

Recontouring

Drainage/Erosion control construction: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.3 and the construction plats.

Drainage/Erosion control reclamation: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.3 and the construction plats.

Well pad proposed disturbance Well pad interim reclamation (acres): Well pad long term disturbance

(acres): 11.69 8.763 (acres): 2.603

Road proposed disturbance (acres): Road interim reclamation (acres): 0 Road long term disturbance (acres): 0

Powerline proposed disturbance Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0 (acres): 0

Pipeline proposed disturbance Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other proposed disturbance (acres): 0 Other interim reclamation (acres): 0 Other long term disturbance (acres): 0

Total proposed disturbance: 11.69 Total interim reclamation: 8.763 Total long term disturbance: 2.603

Disturbance Comments: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 2 (Project Description) and Table 1 for project footprint calculations and reclamation estimates and details.

Reconstruction method: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Sections 4.2 - 4.6.

Topsoil redistribution: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.2

Soil treatment: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.5.

Existing Vegetation at the well pad: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.1.

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.1. **Existing Vegetation Community at the road**

Existing Vegetation Community at the pipeline: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.1. **Existing Vegetation Community at the pipeline**

Existing Vegetation Community at other disturbances: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.1.

Existing Vegetation Community at other disturbances

Well Name: RODEO UNIT Well Number: 503H

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed type: SHRUB Seed source: COMMERCIAL

Seed name: Sagebrush

Source name: Southwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: VNS

Seed use location: EXISTING ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 0 Proposed seeding season: AUTUMN

Seed type: FORB Seed source: COMMERCIAL

Seed name: Blue Flax

Source name: Southwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: Apar

Seed use location: NEW ACCESS ROAD,OTHER,PIPELINE,WELL PAD

PLS pounds per acre: 0.25 Proposed seeding season: AUTUMN

Seed type: SHRUB Seed source: COMMERCIAL

Seed name: Fourwing saltbrush

Source name: Southwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: VNS

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

Well Name: RODEO UNIT Well Number: 503H

PLS pounds per acre: 2 Proposed seeding season: AUTUMN

Seed type: OTHER Seed source: COMMERCIAL

Seed name: Western wheatgrass

Source name: Southwest Seed, Inc. Source address: 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: Arriba

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 4 Proposed seeding season: AUTUMN

Seed type: OTHER Seed source: COMMERCIAL

Seed name: Bottle brush squirreltail

Source name: Southwest Seed, Inc. Source address: 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: Tusas or VNS

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 3 Proposed seeding season: AUTUMN

Seed type: PERENNIAL GRASS Seed source: COMMERCIAL

Seed name: Blue grama

Source name: Southwest Seed, Inc. Source address: 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722 Seed cultivar: Alma or Hachita

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 2.5 Proposed seeding season: AUTUMN

Seed type: OTHER Seed source: COMMERCIAL

Seed name: Indian ricegrass

Source name: Soutwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: Paloma or Rimrock

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 4 Proposed seeding season: AUTUMN

Seed type: SHRUB Seed source: COMMERCIAL

Seed name: Winterfat

Source name: Southwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: VNS

Well Name: RODEO UNIT Well Number: 503H

Seed use location: EXISTING ACCESS ROAD, NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 2 Proposed seeding season: AUTUMN

Seed type: OTHER Seed source: COMMERCIAL

Seed name: Sand dropseed

Source name: Southwest Seed, Inc. Source address: 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: VNS

Seed use location: NEW ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 0.5 Proposed seeding season: AUTUMN

Seed type: FORB Seed source: COMMERCIAL

Seed name: Small burnet

Source name: Southwest Seed, Inc. **Source address:** 13514 Rd. 29, Dolores, CO 81323

Source phone: (970)565-8722

Seed cultivar: Delar

Seed use location: EXISTING ACCESS ROAD, OTHER, PIPELINE, WELL PAD

PLS pounds per acre: 2 Proposed seeding season: AUTUMN

	Seed Summary				
Seed Type		Pounds/Acre			
SHRUB		4			
OTHER		11.5			
FORB		2.5			
PERE	NNIAL GRASS	2.5			

Total pounds/Acre: 20.5

Seed reclamation

Operator Contact/Responsible Official

First Name: Chris Last Name: Jones

Phone: (505)497-1115 Email: cjones@enduringresources.com

Seedbed prep: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.4.

Seed BMP: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Sections 4.4 - 4.6.

Seed method: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.6.

Existing invasive species? Y

Existing invasive species treatment description: Halogeton Class B Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.7.

Well Name: RODEO UNIT Well Number: 503H

Existing invasive species treatment

Weed treatment plan description: Halogeton Class B Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.7.

Weed treatment plan

Monitoring plan description: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface Reclamation Plan Chapter 5 (Monitoring Requirements).

Monitoring plan

Enduring_Rodeo_508_Proposed_Reclamation_Rev_A_20230712172801.pdf

Success standards: Reference attached Enduring Resources Surface Use Plan of Operations Appendix A Surface

Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.3.

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT, OTHER

Other surface owner description: Navajo Indian Allotted & Farmington Field Office

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Well Name: RODEO UNIT Well Number: 503H

Disturbance type: OTHER

Describe: TUA

Surface Owner: BUREAU OF LAND MANAGEMENT, OTHER

Other surface owner description: Farmington Field Office & Navajo Indian Allotted

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: OTHER

Other surface owner description: Navajo Indian Allotted

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: USFS Ranger District:

Well Name: RODEO UNIT Well Number: 503H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT, OTHER

Other surface owner description: Farmington Field Office & Navajo Indian Allotted

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other

Right of Way needed? Y

Use APD as ROW? N

ROW Type(s):

ROW

 $SUB_AMENDMENT_NMNM_135923_ROW_SF_299_07122023_20230712171733.pdf$

SUPO Additional Information: Attached is the Amendment to ROW NMNM-135923, submitted to the BLM Farmington Field Office on 7/12/2023.

Office on 7/12/2023.

Use a previously conducted onsite? Y

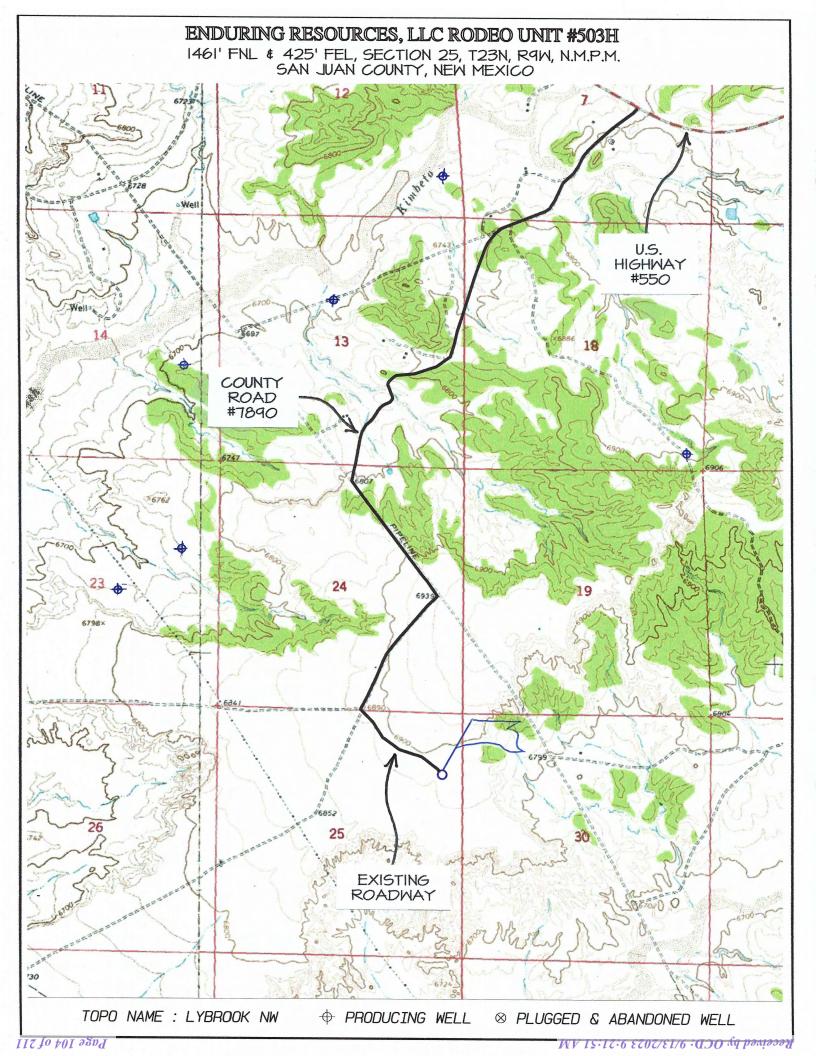
Previous Onsite information: Onsite conducted on September 22, 2021 and November 17, 2021

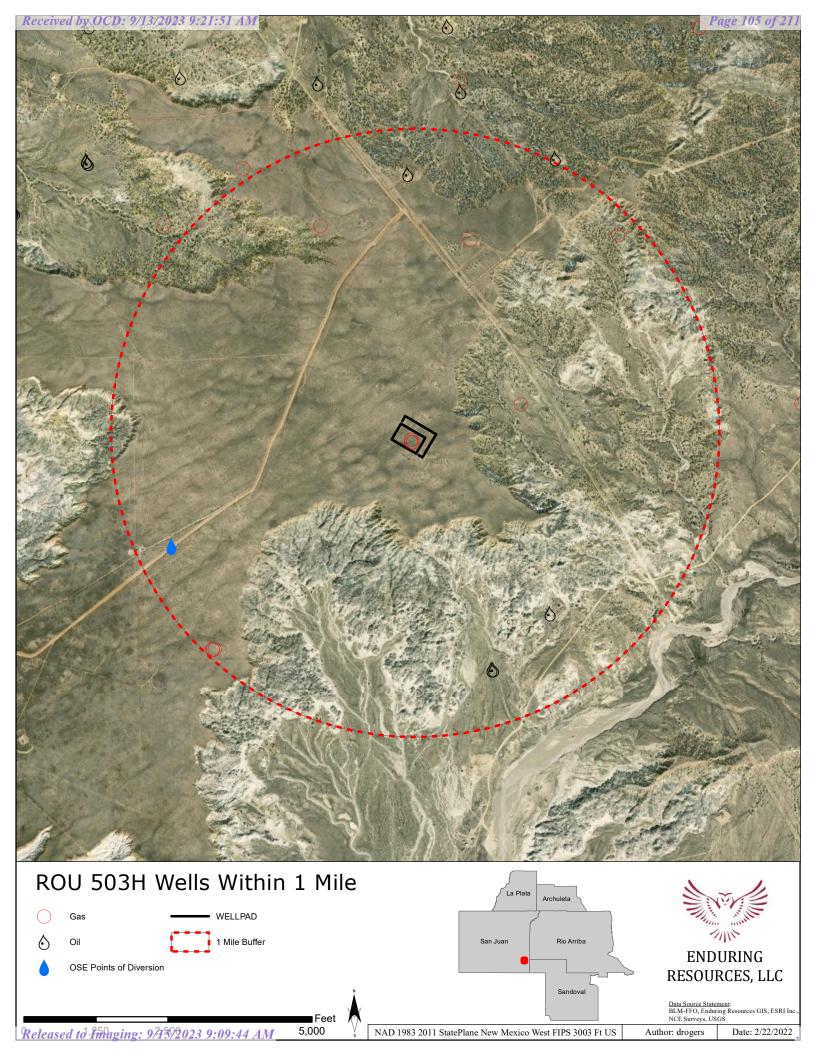
Other SUPO

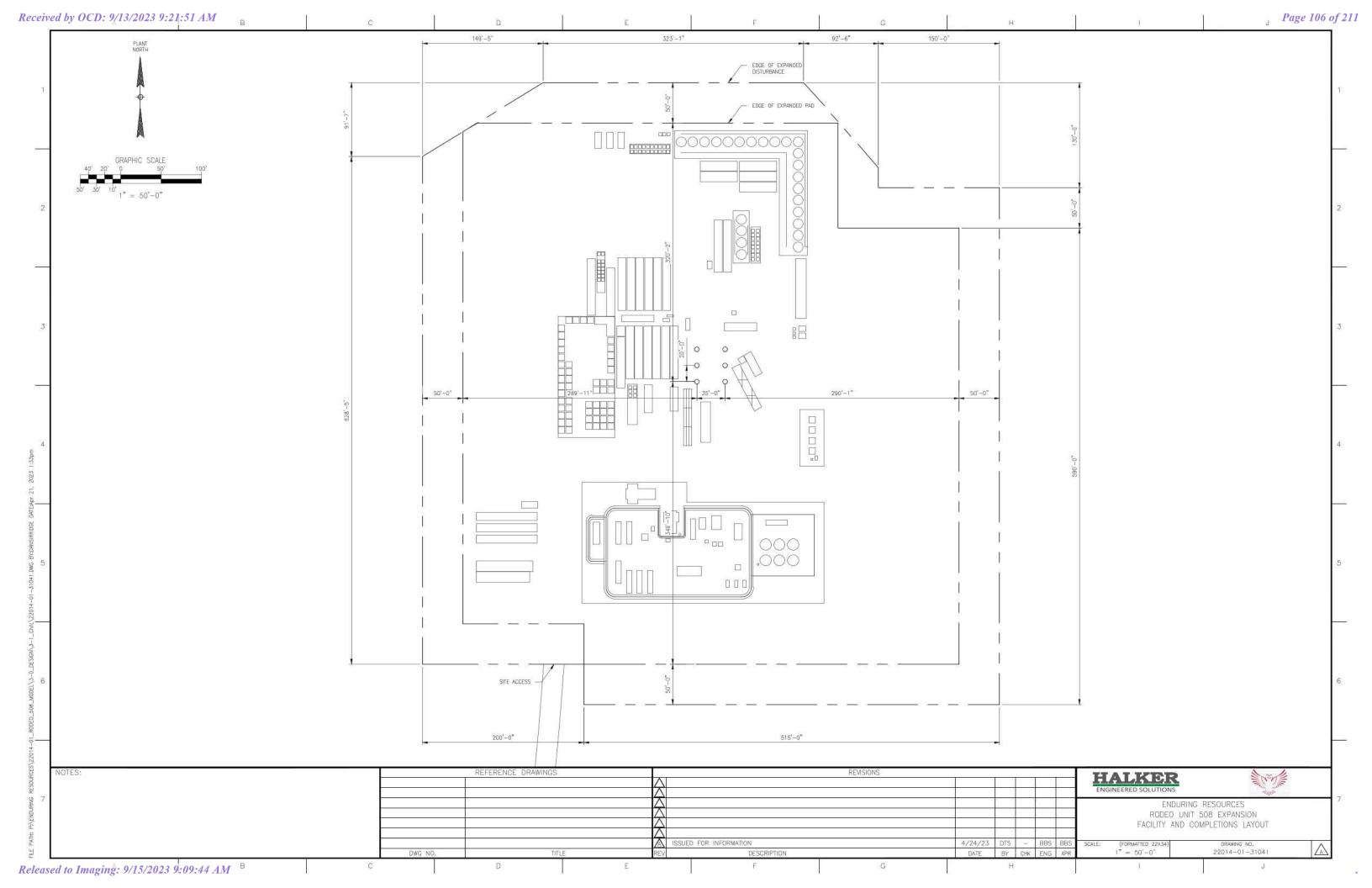
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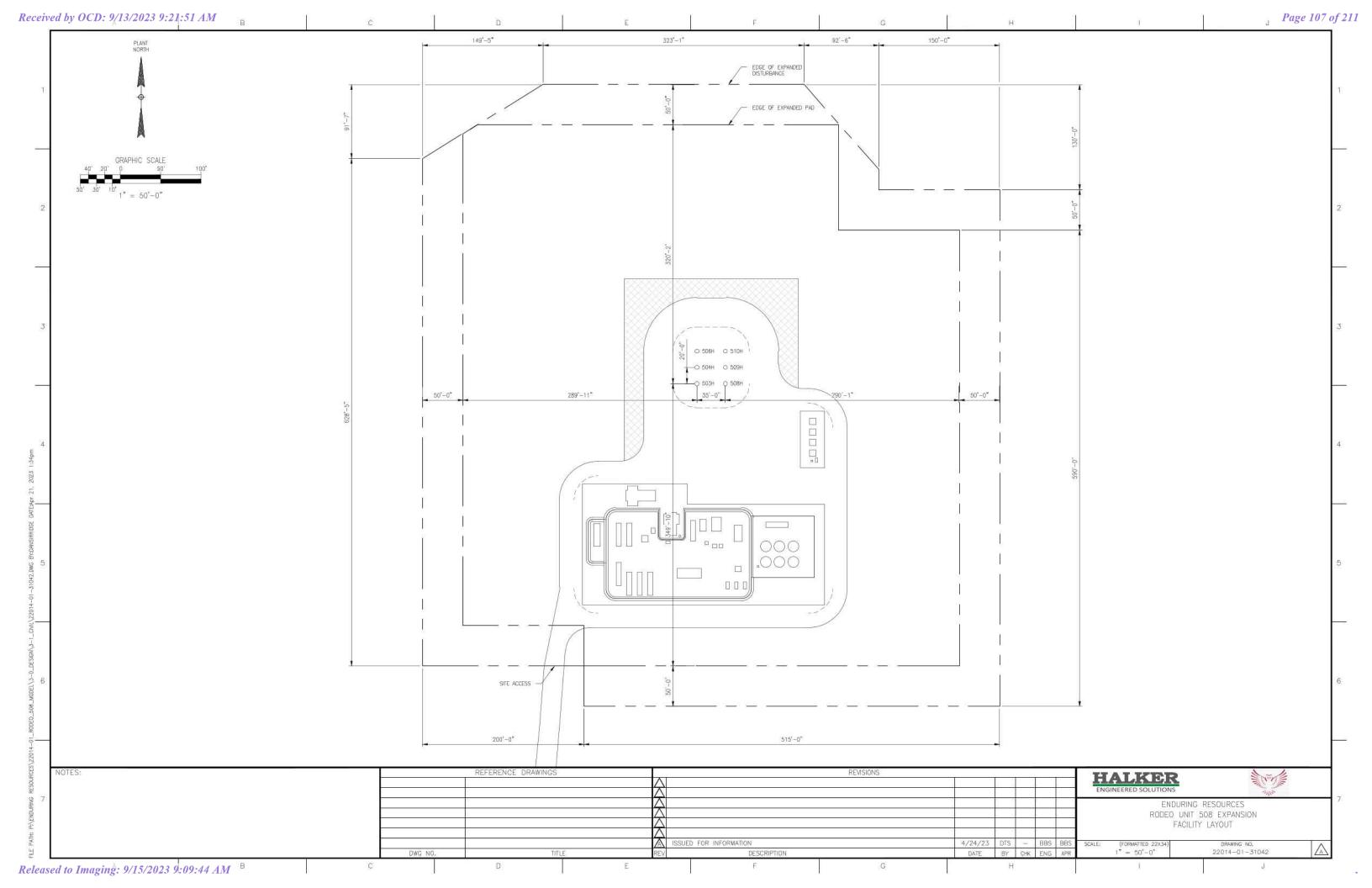
Well Name: RODEO UNIT Well Number: 503H

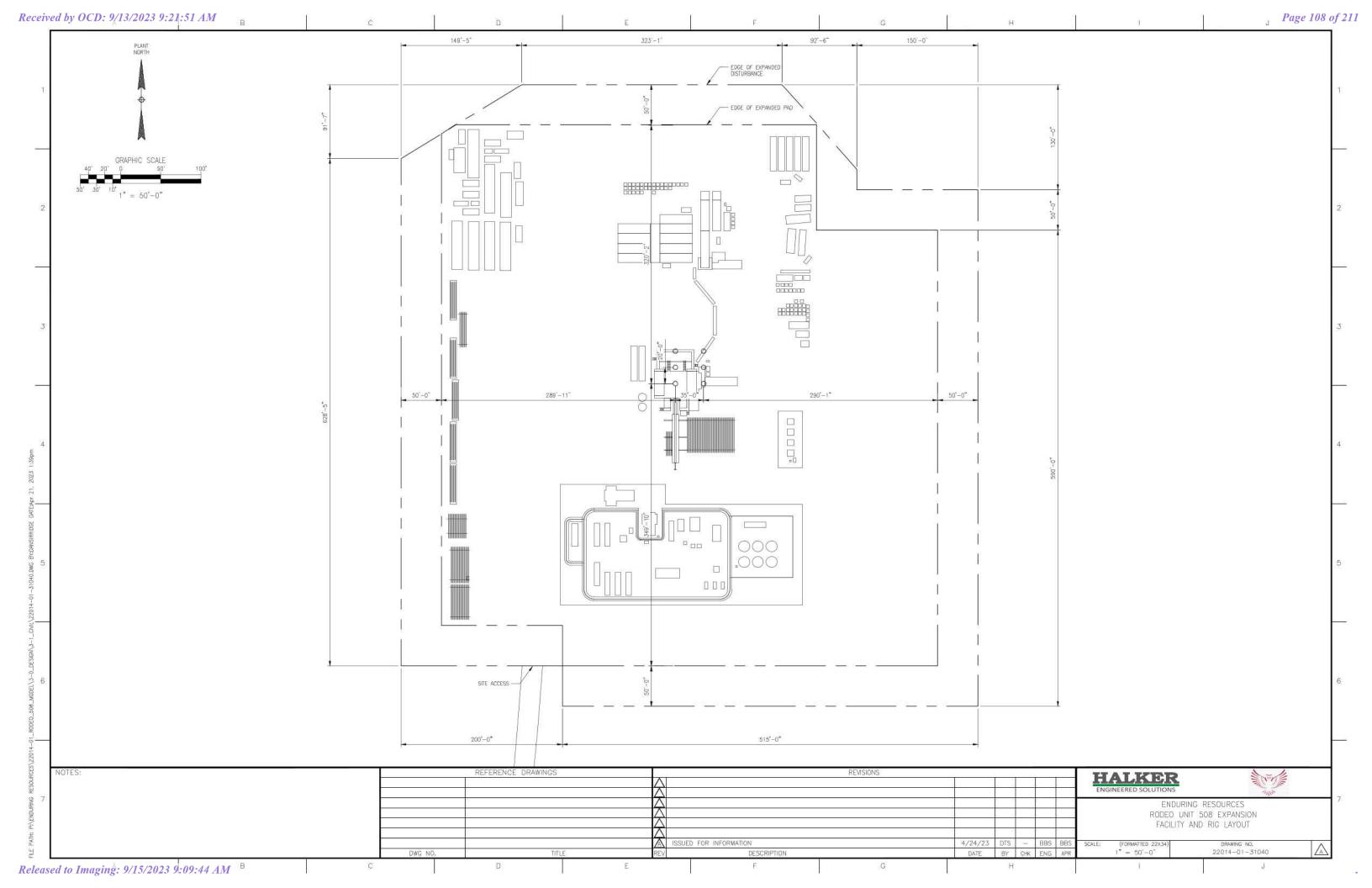
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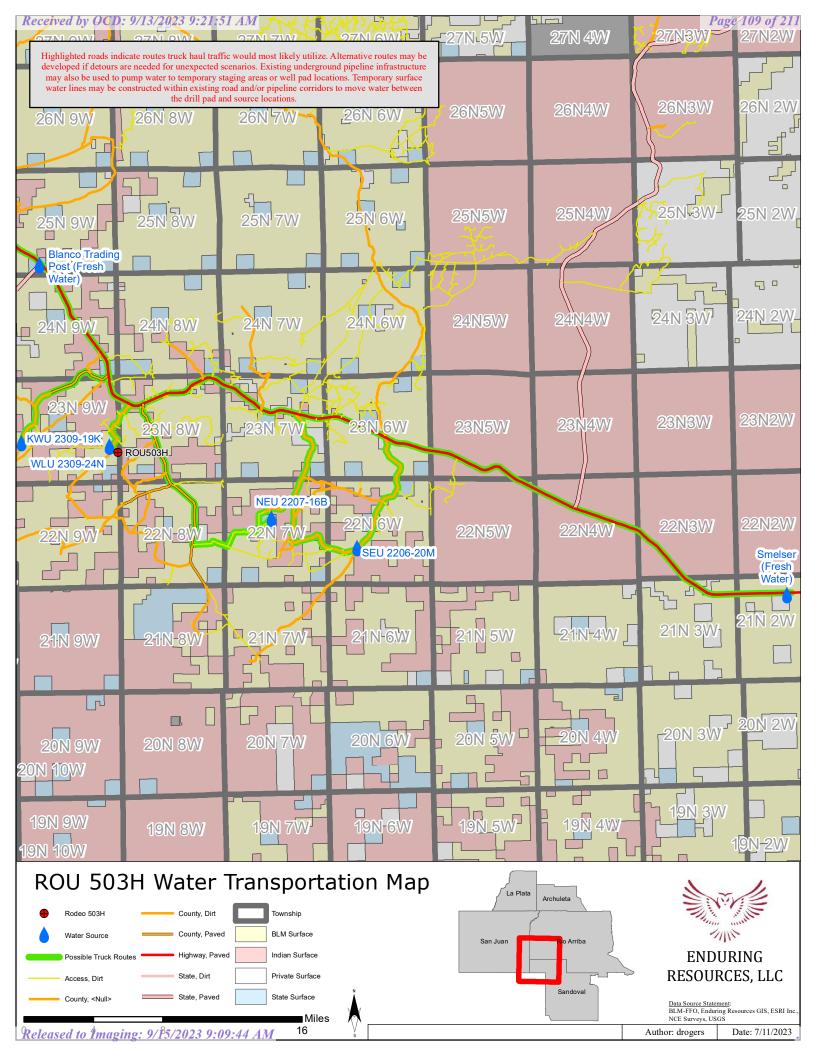


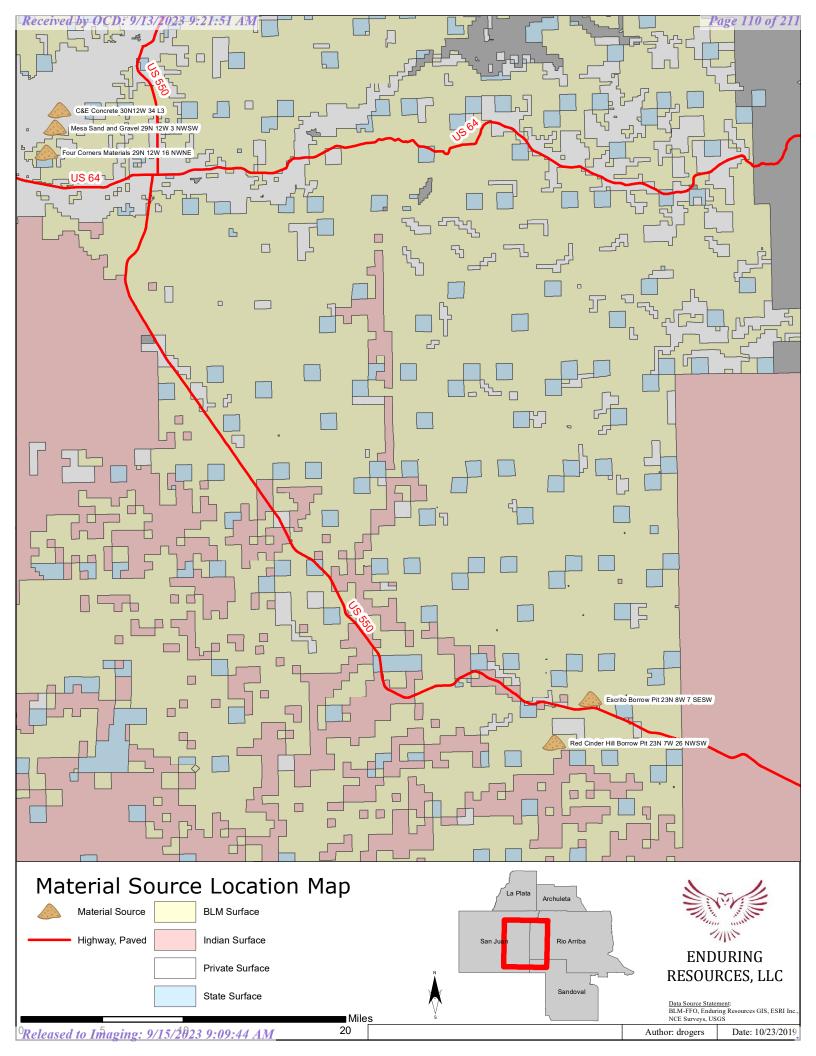


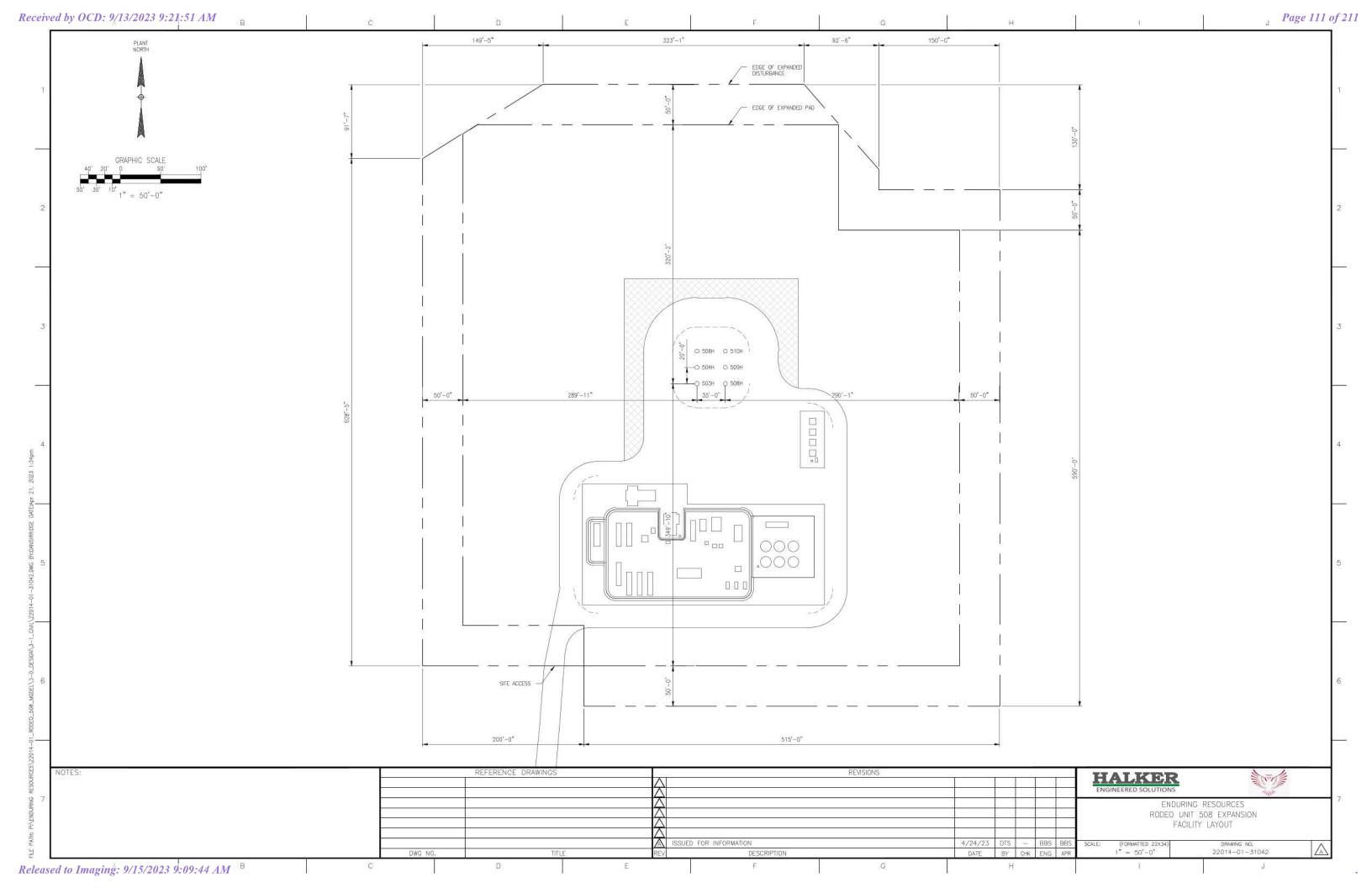


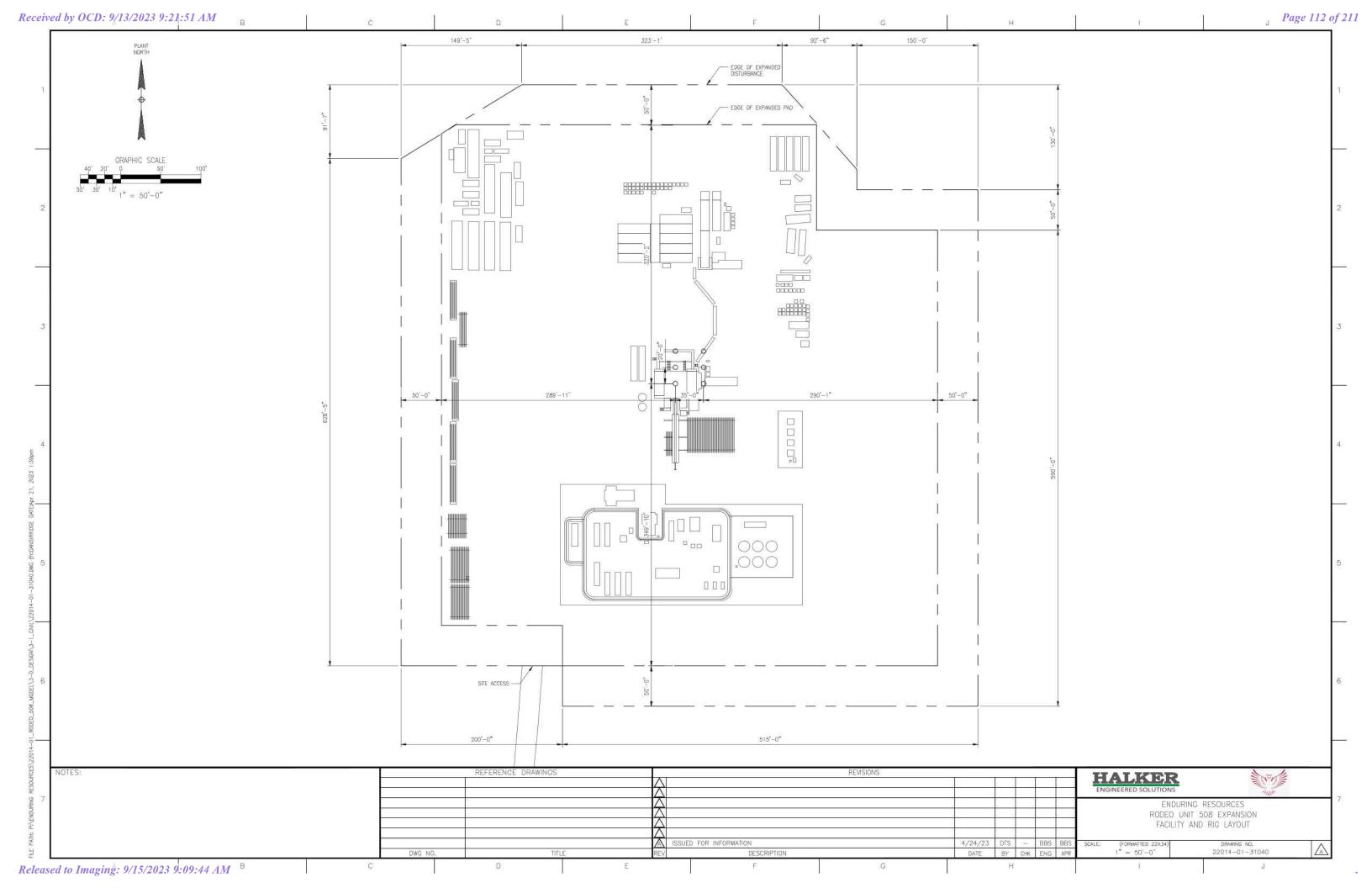


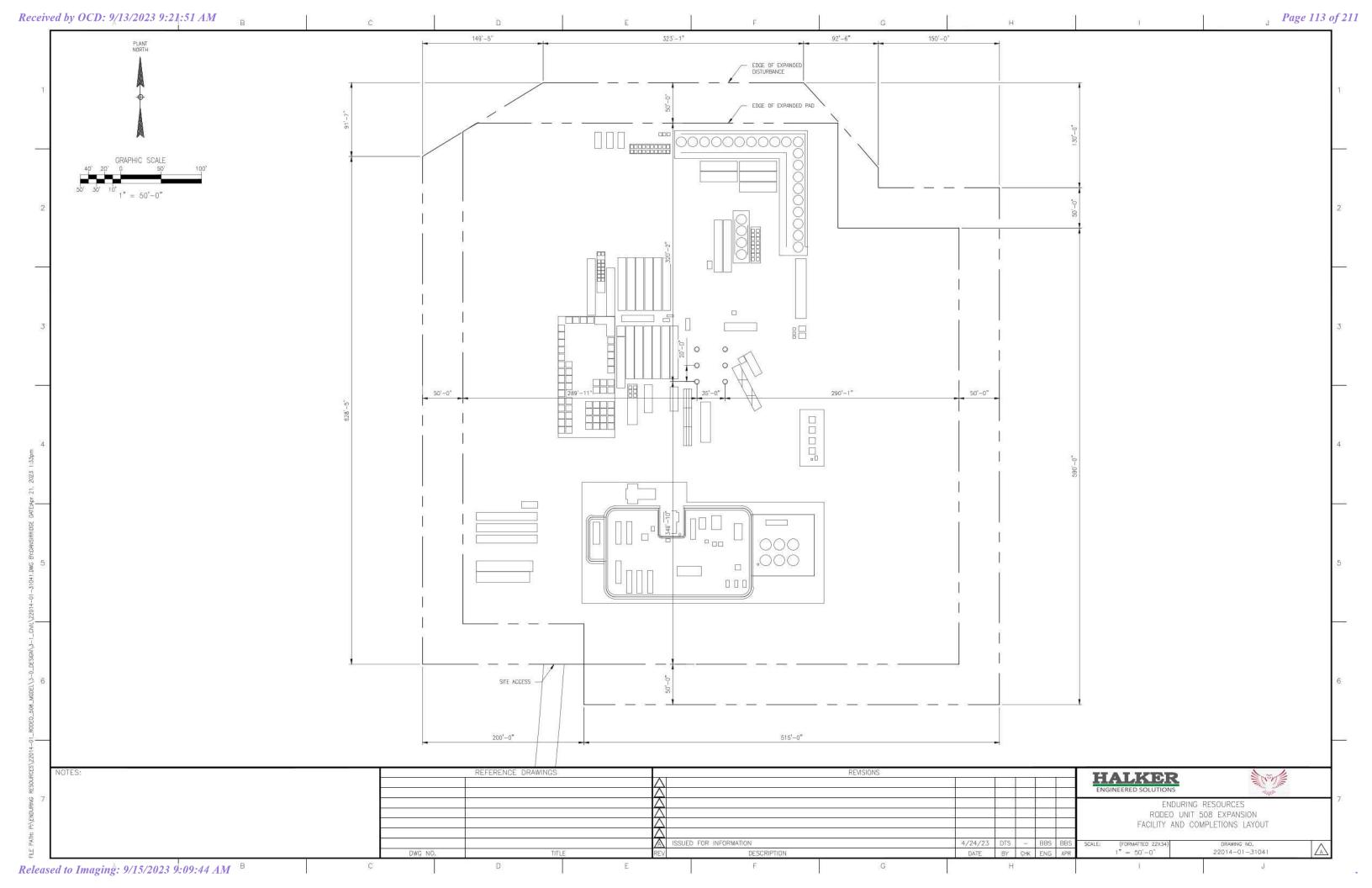




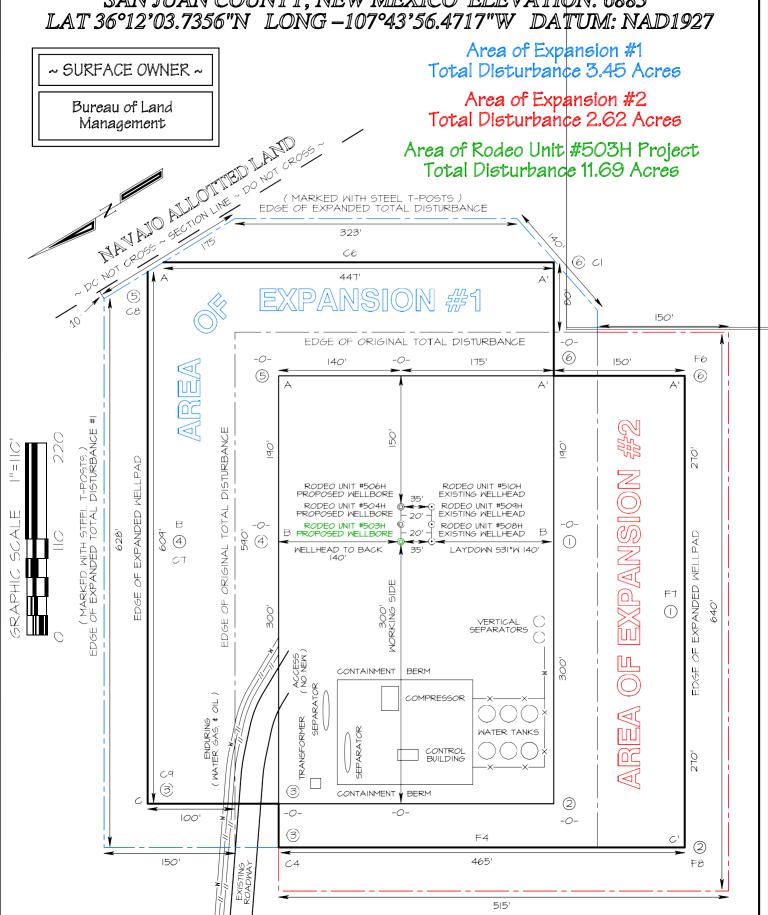




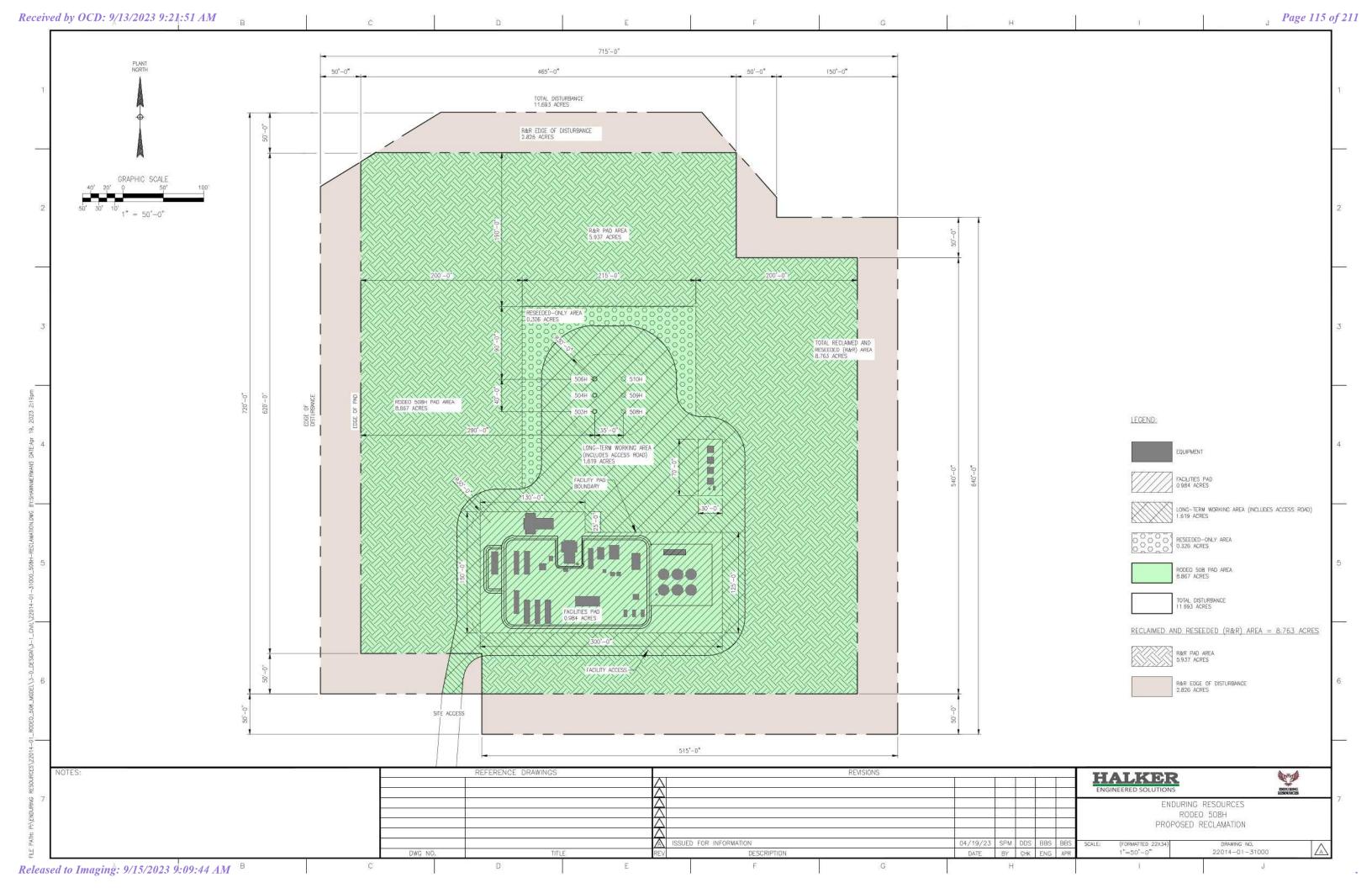




ENDURING RESOURCES, LLC RODEO UNIT #503H 1461' FNL & 425' FEL, SECTION 25, T23N, R9W, NMIPM SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883' LAT 36°12'03.7356"N LONG -107°43'56.4717"W DATUM: NAD1927



Steel T-Posts have been set to define Edge of Disturbance limits which are 50 offiset from edge of staked wellpad.



From: Mark Lokshin
To: Heather Huntington

Cc: Khem Suthiwan; Alex Campbell

Subject: FW: Payment Confirmation: BLM Oil and Gas Online Payment

Date: Thursday, June 16, 2022 12:10:46 PM

From: notification@pay.gov <notification@pay.gov>

Sent: Thursday, June 16, 2022 12:09 PM

To: Mark Lokshin < MLokshin@enduringresources.com>

Subject: Payment Confirmation: BLM Oil and Gas Online Payment



Your payment has been submitted to the designated government agency through Pay.gov and the details are below. Please note that this is just a confirmation of transaction submission. To confirm that the payment processed as expected, you may refer to your bank statement on the scheduled payment date. If you have any questions or wish to cancel this payment, you will need to contact the agency you paid at your earliest convenience.

Application Name: BLM Oil and Gas Online Payment

Pay.gov Tracking ID: 270HBG3P Agency Tracking ID: 76253882529

Account Holder Name: Enduring Resources IV, LLC

Transaction Type: ACH Debit Transaction Amount: \$32,700.00 Payment Date: 06/17/2022

Payment Date: 06/17/2022

Account Type: Business Checking Routing Number: 102001017 Account Number: ********9961

Transaction Date: 06/16/2022 02:08:56 PM EDT

Total Payments Scheduled: 1

Frequency: OneTime

Company: Enduring Resources IV LLC

APD IDs: 10400084206, 10400084207, 10400084208

Lease Numbers: NMNM120377, NMNM120377, NMNM120377

Well Numbers: 503H, 504H, 506H

Note: You will need your <u>Pay.gov</u> Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of

payment.

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.



<u>Pay.gov</u> is a program of the U.S. Department of the Treasury, Bureau of the Fiscal Service

SURFACE USE PLAN OF OPERATIONS

Rodeo Unit, 503H, 504H, & 506H Oil and Natural Gas Wells Project

JULY 2023



ENDURING RESOURCES IV, LLC

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

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Pursuant to Onshore Oil and Gas Order No. 1 (43 CFR 3160), this Surface Use Plan of Operations (SUPO) has been prepared for the Bureau of Land Management (BLM) Farmington Field Office (FFO) as part of Enduring Resources IV, LLC's (Enduring's) proposed Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project (Rodeo 508 Pad Expansion) Applications for Permit to Drill (APDs). This SUPO has been developed to meet the requirements of Onshore Oil and Gas Order No. 1. The below information is provided to the surface management agency to give an accurate account of the proposed action for National Environmental Policy Act (NEPA) disclosure.

Infrastructure proposed to be constructed, operated, subsequently interim reclaimed, and eventually fully reclaimed as part of the Rodeo Unit 508 Pad Expansion includes expansion of the existing Rodeo Unit 508 well pad to accommodate additional production facilities and an expanded construction buffer zone. Existing disturbance and/or facilities to be utilized as part of this project include; one existing well pad access road with one pullout, one existing well-connect pipeline corridor including temporary drilling and completion surface lay-flat lines, and temporary use areas. The proposed infrastructure associated with the Rodeo Unit 508 Pad Expansion would be located off-lease. The proposed off-lease project located on Navajo Indian Allotted lands would be built per lease authority associated with Enduring's W Lybrook Unit (NMNM135923). The proposed wells would access Federal and Navajo Indian Allotted minerals within Enduring's Rodeo Unit (NMNM136328X).

1. EXISTING ROADS

The Rodeo Unit 508 Pad Expansion project area is located in northwest New Mexico; specifically, in the BLM-FFO management area in the southeast portion of San Juan County, New Mexico. The project area is accessed off of US Highway 550, approximately 38 miles south of Bloomfield.

1.1. Driving Directions

- From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.3 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 4-way intersection
- Go Left (South-easterly) remaining on County Road #7890 for 1.2 miles to 4-way intersection
- Go Left (South-easterly) exiting County Road #7890 for 0.4 miles to the staked Enduring Rodeo Unit, 503H, 504H, & 506H Oil and Natural Gas Wells Project Area, which overlaps the existing Enduring Rodeo Unit 508 location.

For existing County Roads or roads that are considered collector roads, Enduring would defer to the county or to the Roads Committee, when formed, for maintenance determinations.

Existing roadways utilized would be maintained to the same or better condition as existed prior to the commencement of operations. Roadways would be maintained to accommodate anticipated traffic volumes with all-weather access. Maintenance would continue until wells accessed by existing roadway have been Plugged and Abandoned (P&A) and a Final Abandonment Notice (FAN) has been approved.

Best management practices (BMPs) for dust abatement would be utilized along the roads to reduce fugitive dust during construction, drilling, completion, and any other heavy traffic activities during the life of the project. Water application using a rear-spraying truck or other suitable means would be the primary method of dust suppression along the roads. If it is found to be necessary to apply commercial dust mitigation materials such as magnesium chloride, organic-based compounds, or polymer compounds to the roads; Enduring would seek approval from the appropriate surface managing agency.

No routine maintenance activities would be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than six inches, the soil would be deemed too wet for construction or maintenance.

Existing water management and erosion control structures would be inspected and maintained to accommodate long term storm water control.

See Appendix B for Enduring's Road Maintenance Plan.

1.2. Onsite Inspection

On November 17, 2021, an onsite inspection was conducted as required by Onshore Oil and Gas Order No. 1 (43 CFR 3160). Members of the BLM, third party contractors, company representatives from Enduring Resources, and others were in attendance. The following items were published as items requiring further evaluation or action in the Notice of 7-day Onsite Letter of BLM Surface Concerns for Enduring Resources, Rodeo Unit 503H, Sec 25, Twn 23N, Rng 9W.

1.2.1. Pad Layout

- A. "The pad layout as it stands today (November 17, 2021) has the northeastern corner of the pad (stake #5) falling directly at the border of BLM and IA surface. In an effort to minimize the risk of IA surface disturbance at this location, it was suggested to pull in the corner of the pad to allow [a] 50' edge of disturbance buffer if possible. Operator will evaluate feasibility of this proposal and provide new surveyed plats when submitting the APD's should the layout be changed."
- B. "If the pad cannot be changed, the operator will take the appropriate measures to prevent disturbance on IA surface."

1.2.2. Additional Observations

- A. "Juniper Green Paint for the above ground equipment."
- B. "Sagebrush seed mix to be used at reclamation."
- C. "Designated pre-reclamation fill material storage location to be identified."
- D. "This letter does not represent an exhaustive list of resource concerns and is subject to change at the time of APD submittal and subsequent scoping by the FFO Inter Disciplinary (ID) Team."

2. NEW OR RECONSTRUCTED ACCESS ROAD(S)

No new access roads are required or proposed as part of the Rodeo Unit 508 Pad Expansion project. See the construction plats in Appendix C for proposed access road improvements or modifications and any other site-specific design features.

Enduring previously construct 2,170 feet of roadway to accommodate anticipated traffic volumes and all-weather access to the Rodeo Unit 508H, 509H, & 510H Oil and Natural Gas Wells Project. This roadway was designed, constructed, has been maintained, and will continue to be maintained in accordance with The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development and BLM Manual 9113, Sections 1 and 2.

Maintenance activities requiring surfacing material or fill material, such as sandstone, gravel, pit run, or road base would be obtained, if needed and economically viable, from an approved location. Enduring will maximize the use of native material within the proposed project area to reduce or eliminate the need to haul in foreign materials.

BMPs for dust abatement and erosion control will be implemented as needed along the existing access road to reduce fugitive dust during construction, drilling, completion, and any other heavy traffic activities during the life of the project. Water application using a rear-spraying truck or other suitable means, would be the primary method of dust suppression along the road. Any additional erosion-control practices, such as the application of commercial dust mitigation materials like magnesium chloride, organic-based compounds, or polymer compounds would be included in the COAs attached to the approved APD.

No construction or routine maintenance activities would be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than six inches, the soil would be deemed too wet for construction or maintenance.

All Enduring approved locations may be utilized as staging areas during construction activities.

Final reclamation of the proposed access road is discussed in the Surface Reclamation Plan (Appendix A).

3. LOCATION OF EXISTING WELLS

Water wells and oil and gas wells (plugged and abandoned, active, and proposed) within a one-mile radius of the Rodeo Unit 508 Pad Expansion are depicted in Appendix C. There is one (1) water well and four (4) oil and gas wells within a one-mile radius of the proposed well pad expansion location.

4. LOCATION OF EXISTING OR PROPOSED PRODUCTION FACILITIES

4.1. Production Facilities

See Appendix C for a diagram depicting the anticipated production facility layout.

Production facilities for the Rodeo Unit 508 Pad Expansion would be located in kind with the existing facilities on the existing well pad. Facilities on existing location include, but are not limited to (including facilities that may occur through the life of the wells), vertical and/or horizontal separators of varying types, 500 bbl oil and water tanks, 750 bbl flash tanks, below grade tanks of varying sizes, above grade steel pit tank, vapor recovery units, vapor recovery tower, LACT building and equipment, Gas Scrubbers of various types, Instrument Air System (Compressor/dryer/receiver etc), chemical skids, gas lift skid, gas lift compressor, sales compressor, electric/automation buildings and equipment, capstone generators or other generator types, power poles, communication tower, combustors, cathodic protection equipment, various pumps, meter runs, pipeline risers, and artificial lift equipment. These facilities will be utilized and additional facilities for the proposed new wellbores will limited and addressed on an as needed basis.

Berms or containment walls have been constructed around all storage tanks sufficient in size to contain the volume of the single largest storage vessel plus 1-foot freeboard for precipitation; or, 110% of the volume of the largest vessel. Containment walls and floors will be impervious to fluids including hydrocarbons for 72 hours. No additional storage tanks or additional containment will be required as part of the Rodeo Unit 508 Pad Expansion.

Within 90 days of installation, all long-term production facilities associated with the Rodeo Unit 508 Pad Expansion would be painted BLM Juniper Green. BLM Juniper Green was chosen to match existing facilities in the area and to blend with the surrounding landscape, as seen from a viewing distance and location typically used by the public. Contrasting safety paint and/or reflective tape will be used to highlight and mitigate a potential hazard, such as a tripping hazards, pinch points, or protruding or mechanical edges that could harm the operator or public.

All open-vent exhaust stacks will be modified/equipped and maintained to prevent birds or bats from entering and to discourage perching, roosting, and nesting.

4.2. Pipelines

Please see the construction plats in Appendix C for the existing pipeline corridor center line survey plats identifying route, length and location, existing structures within the same corridor and/or crossed, TUAs, and any other site-specific design features.

Enduring proposes no new pipeline system to serve the Rodeo Unit 508 Pad Expansion but will utilize existing infrastructure and approvals. The existing well-connect pipelines and waterlines are located in Section 25 in Township 23 North, Range 9 West N.M.P.M. and Section 24 in Township 23 North, Range 9 West N.M.P.M.

Above ground appurtenances associated with the existing pipelines may include, but are not limited to, pigging stations, future well tie-in risers, valve cans, coriolis check meters/meter skids/meter house, automation equipment, BGT(s), crossover valve set, and protective barricade structures. All above ground appurtenances associated with the permanent buried steel pipelines would be painted BLM Juniper Green. Contrasting safety paint and/or reflective tape will be used to highlight and mitigate a potential hazard, such as a tripping hazards, pinch points, protruding or mechanical edges that could harm the operator or public, and pipe barricades to highlight visibility from roadway.

No new buried pipelines are anticipated as part of the Rodeo Unit 508 Pad Expansion; however, Enduring could lay up to one parallel 12-inch inside diameter or less surface lay-flat lines or high density polyethylene (HDPE) pipelines within the existing pipeline corridor and other existing road and pipeline corridors to serve drilling and completion operations. These surface pipelines would be temporary for the duration of active drilling and completion operation in the surrounding area or movement of water between recycling facilities as needed. These pipelines would transport fresh water, flowback water, and produced water. Where surface lines cross roadways, dual 18-inch or 24-inch culverts would be installed within the roadway and used as casing for the pipelines. Any area where the lay-flat line crosses a significant wash or watercourse, jersey barriers will be set parallel to the drainage flow. The lay-flat would be ran through 18-inch to 24-inch culverts that are anchored to the top of the jersey barriers. This prevents any obstruction or impoundment of natural drainage and protects the lines in the event of high flows. Roadway culverts and jersey barriers with anchored culverts will remain in place even in periods when lay-flat lines have been retrieved and are not in use. Prior to breaking down and picking up surface lines they would be pigged multiple times with foam pigs and compressed air. Liquids would be recovered in a facility, recycling containment, or water hauler for reuse or disposal.

Reclamation of the existing pipeline corridor is discussed in the Surface Reclamation Plan (Appendix A).

5. LOCATIONS AND TYPES OF WATER SUPPLY

Please see Appendix C for the water transportation map for the below listed sources.

During construction, fresh water sources will be used to dampen the native soils as fill slopes are constructed in lifts. This will promote acceptable compaction for the well pad as well as control fugitive dust. Enduring anticipates use of approximately 2,000 bbls of fresh water to construct the proposed well pad expansion. Fresh water is additionally used on an as needed basis for dust suppression along dirt roadways during drilling, completion, and any other operations where heavy traffic would be anticipated. Total amounts applied during these activities are dependent upon, but not limited to, length of dirt road, weather conditions, relative humidity, density of traffic, and duration of traffic.

The following estimates are general and assumed using average past volume usage for similar activities. Variables that can significantly affect these volumes include, but are not limited to, soil type, grain size, grain shape, recent weather events, relative humidity, time of year, and soil moisture holding capacity. During initial drilling, and post completion drill out operations, Enduring will use a consolidated 6,130 bbls of fresh water. This is inclusive of the Rodeo Unit 503H (2,000 bbls), 504H (2,000 bbls), and 506H (2,000 bbls) wells, and an estimated 130 bbl rig wash.

Fresh water would be obtained from the following location(s):

5.1. Blanco Trading Post (POD No. SJ02105)

The Blanco Trading Post Well is located in the southwest ¼ of the northeast ¼ of Section 32, Township 25 North, Range 9 West, NMPM. The well is located at Latitude 36.359802° North and Longitude -107.810310° West. This source is located on State of New Mexico lands managed by the NMSLO. Transportation from source will be via truck.

5.2. Smelser (POD No. 82771 S2)

■ The Smelser Well is located in the northeast ¼ of the northeast ¼ of Section 9, Township 21 North, Range 2 West, NMPM. The well is located at Latitude 36.069826° North and Longitude -107.04718° West. This source is located on private lands. Transportation from source will be via truck.

During completion operations, Enduring will use a consolidated 1,130,000 bbls of non-potable brine water from a non-potable formation, produced water, and recycled water. This is inclusive of the Rodeo Unit 503H (360,000 bbls), 504H (360,000 bbls), and 506H (410,000 bbls) wells. Sources of these fluids and the process of recycling are discussed further below.

During completion operations, Enduring would use non-potable water from a non-potable water bearing formation. Enduring may also utilize produced water gathered from their existing wells within the Mancos Gallup area. Produced water may be gathered via existing underground pipeline infrastructure, temporary surface line infrastructure, and trucked. Flowback water from completion operations would be recycled for reuse. These non-potable sources would be gathered, stored, treated, and recycled at any and all of Enduring's Water Recycling Facilities. Enduring Resources filters and separates water contained within their recycling facilities in three phases. Phase one includes retention of water within a 750 bbl water leg that separates 100-micron oil droplets and sediment/particles. Phase two, downstream of the water leg, water passes through a large coalesquer filter with estimated 30-micron oil droplet removal capabilities. The final phase of filtration before entering the containment, includes passing through two filter pots in parallel containing bag or cartridge filters. These filters can vary in micron filtration sizing dictated by the solids recovered, likely, a range between 10-50 microns. Enduring resources will size bag or cartridge filters as may be necessary during operations. Average Entrada water supply well TDS is 8,000 - 10,000. Flowback water from completion activities will be recycled and returned to an Enduring water recycling facility for reuse. Flowback water may contain solids, oil, and produced water when immediately returned from the wellbore. Prior to water leaving the completion location, it will pass through the permanent facilities on location if built and commissioned or pass through a temporary treatment facility on location. Treatment will remove oil and solids prior to leaving location. Flowback water may additionally pass through the permanent water treatment facility at the containment location prior to entering containment if necessary. Flowback water within containment after treatment and filtration may contain a mixture of produced water and supply water from the Entrada Formation used for the stimulation process. Enduring Resources will fill and store water in all containments that use is anticipated during drilling and completions activities. Filling containments via Entrada supply wells on locations will begin no later than four to five working weeks prior to drilling and completion activities commencing unless supplementary sources are used in addition thereto. Enduring

Resources provides all stimulation fluid properties and additives through the Frac Focus site established for reporting to State and Federal Agencies. See Frac Focus for stimulation fluid components.

In addition to recycled and produced water, Enduring would use non-potable water from their following non-potable brine water supply wells:

5.3. Enduring Resources NEU 2207-16B Water Recycling Facility

The NEU 2207-16B Water Recycling Facility is located in the Northwest ¼ of the Northeast ¼ of Section 16, Township 22 North, Range 9 West, NMPM. The supply well is located at Latitude 36.143567° North and Longitude -107.576013° West. This water recycling Facility is located on State of New Mexico lands managed by the NMSLO. Transportation from source will be via truck, underground pipe, or surface lines, depending on availability.

5.4. Enduring Resources WLU 2309-24N Water Recycling Facility

■ The WLU 2309-24N Water Recycling Facility is located in the Southeast ¼ of the Southwest ¼ and Southwest ¼ of the Southeast ¼ of Section 24, Township 23 North, Range 9 West, NMPM. The supply well is located at Latitude 36.205932° North and Longitude -107.741568° West. This water recycling Facility is located on public lands managed by the BLM-FFO. Transportation from source will be via truck, underground pipe, or surface lines, depending on availability.

5.4 Enduring Resources KWU 2390- Water Recycling Facility

The KWU 2309-19K Water Recycling Facility is located in the Northeast ¼ of the Southwest ¼ of Section 19, Township 23 North, Range 9 West, NMPM. The supply well is located at Latitude 36.210181° North and Longitude -107.831776° West. This water recycling Facility is located on public lands managed by the BLM-FFO. Transportation from source will be via truck, underground pipe, or surface lines, depending on availability.

5.5 Enduring Resources SEU 2206-200 Water Recycling Facility

The SEU 2206-200 Water Recycling Facility is located in the Southwest ¼ of the Southeast ¼ of Section 20, Township 22 North, Range 6 West, NMPM. The supply well is located at Latitude 36.117342° North and Longitude -107.488712° West. This water supply well is located on public lands managed by the BLM-FFO. Transportation from source will be via truck, underground pipe, or surface lines, depending on availability.

6. CONSTRUCTION MATERIALS

- A. All surface infrastructure would be constructed utilizing native borrow within the permitted area to create a balanced working surface. Surfacing material or fill material, such as sandstone, gravel, pit run, or road base would be used if needed and economically viable and would be obtained from an approved location. Enduring will maximize the use of native material within the proposed project area to reduce or eliminate the need to haul in foreign material.
- B. Material may be imported and used for any of the following reasons; low water crossings (pit run and road base), road surfacing (road base, gravel, or sandstone), erosion control (riprap cobble stone), barricades (boulders), under and surrounding equipment (gravel), and filling soft or muddy areas (sandstone, pit run, road base, or gravel).
- C. A map of borrow pit locations where Enduring may obtain material can be found in Appendix C. The borrow pits are labeled with operating company name if applicable and legal location to the quarter-quarter.

7. METHODS FOR HANDLING WASTE

7.1. Cuttings

- Drilling operations would utilize a closed-loop system. Drilling of the horizontal laterals would be accomplished with water-based mud. Oil based mud could be used contingent on formation properties encountered. All cuttings would be placed in roll-off bins and hauled to a commercial disposal facility or land farm. Enduring would follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit would be used.
- Closed-loop tanks would be adequately sized for containment of all fluids.

7.2. Drilling Fluids

Drilling fluids would be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or disposed of at one of the locations specified below in part 7.8.

7.3. Spills

 Any spills of non-freshwater fluids would be immediately cleaned up and removed to an approved disposal site.

7.4. Sewage

Portable toilets would be provided and maintained as needed during construction.

7.5. Garbage and other waste material

 All garbage and trash would be placed in enclosed metal trash containers. The trash and garbage would be hauled off site and dumped in an approved landfill, as needed.

7.6. Hazardous Waste

- No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of these wells.
- No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
- All fluids (i.e., scrubber cleaners) used during washing of production equipment would be properly disposed
 of to avoid ground contamination or hazard to livestock or wildlife.

7.7. Flowback:

- Flowback transported off location will consist of approximately 2500 bbls of produced water per day for approximately 30 days.
- Flowback fluid would be gathered, recycled, and reused as described in Section 5. If there are no foreseen
 drilling and completion operations, flowback would be disposed of at one of the disposal wells listed below.

7.8. Produced Water:

Enduring would dispose of produced water at the following facilities:

7.8.1. Disposal 001, API 30-045-26862

Operated by Basin Disposal Inc., located in the Southeast ¼ of the Northwest ¼, Section 3, Township 29 North, Range 11 West.

7.8.2. Sunco Disposal 001, API 30-045-28653

Operated by Agua Moss, LLC, located in the Southwest ¼ of the Northwest ¼, Section 2, Township 29 North, Range 12 West.

7.8.3. Pretty Lady 30 11 34 001, API 30-045-30922

Operated by Agua Moss, LLC, located in the Northwest ¼ of the Southeast ¼, Section 34, Township 30 North, Range 11 West.

7.8.4. NE Chaco COM SWD 001, API 30-039-31378

Operated by Enduring Resources IV, LLC, located in the Northwest ¼ of the Southeast ¼ of Section 13, Township 23 North, Range 7 West.

Produced water would be hauled by truck and/or transported through below grade or surface pipeline
infrastructure to any of Enduring's water recycling facilities. Produced water may be gathered and used in
future drilling and completion operations as an alternative disposal method.

8. ANCILLARY FACILITIES

Any of Enduring's existing locations may be used for staging during construction, drilling, and completion operations. Sleeping quarters for drilling and completion personnel will be located on the active location or one of Enduring's nearby locations.

9. WELL SITE LAYOUT

Topsoil removal, storage, and protection is described in detail in the Surface Reclamation Plan (Appendix A). During construction, the proposed well pad would be leveled to provide adequate space and a level working surface for vehicles and equipment. Excavated materials from cuts would be used on fill portions of the well pad to level the surface. The approximate cuts, fills, and well pad orientation is shown on the cut/fill worksheet and cross section diagrams in the survey plats found in Appendix C. Additionally, please see Appendix C for the proposed Well Pad Facility Diagram showing long term well pad layout, reclamation areas, and disturbance acreage; Well Pad Drilling Diagrams showing the location and orientation of the drill rig; and the Well Pad Completion Diagram, showing the location and orientation of the completion equipment.

Drilling of the proposed three wells would require constructing an expansion of the existing Rodeo Unit 508 Pad. The expansion area is proposed as a 150-foot by 565-foot area south and west of the existing pad (3.45 acres) and a 100-foot by 640-foot area north and east of the existing pad (2.62 acres) for a total expansion of (6.07 acres). This area includes a 50-foot construction buffer zone surrounding the new disturbance area. The resulting area of the existing well pad, well pad expansion area, and construction buffer zone, would encompass a 11.69-acre disturbed area. This entire area would be utilized during construction, setting of production equipment, drilling and completion phases. The approximate cuts and fills and well pad orientation for the proposed Rodeo Unit 508 Pad Expansion are shown on the plats in Appendix C.

10. PLANS FOR SURFACE RECLAMATION

A Surface Reclamation Plan for the Rodeo Unit 508 Pad Expansion is attached hereto as Appendix A. This Surface Reclamation Plan was prepared in accordance with Onshore Oil and Gas Order No. 1.

The Surface Reclamation plan addresses:

Surface Use Plan of Operations

- Configuration of the reshaped topography;
- Drainage systems;
- Segregation of spoil material;
- Surface disturbances;
- Backfill requirements;
- Redistribution of topsoil;
- Soil treatments;
- Seeding or other steps to reestablish vegetation;
- Weed control;
- and practices necessary to reclaim all disturbed areas.

11. SURFACE OWNERSHIP

The project is located on BLM-managed land. The field office contact information is:

Bureau of Land Management - Farmington Field Office 6251 College Boulevard, Suite A Farmington, New Mexico 87402 (505) 564-7600

12. OTHER INFORMATION

- Enduring's appointed construction contractors 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 proposed Rodeo Unit 508 Pad Expansion or any other areas proposed to have ground disturbance at least two working days prior to ground disturbance.
- The construction phase of the project would commence upon receipt of an approved APD. The BLM-FFO would be notified via phone or email at least 48 hours prior to the start of construction activities associated with the project.
- All activities associated with the construction, use/operation, maintenance, and abandonment or termination
 of the Rodeo Unit 508 Pad Expansion would be limited to areas approved in the APDs.
- The project area has been surveyed by Division of Conservation Archaeology (DCA). The cultural survey report will be submitted directly to the surface managing agencies. Cultural mitigation, monitoring, and implementation of site protection barriers would occur if stipulated in the COAs attached to the approved APDs.
- Construction and maintenance activities would cease if soil or road surfaces become saturated to the extent
 that construction equipment is unable to stay within the project area and/or when activities cause irreparable
 harm to roads, soils, or streams.
- All BLM-FFO general COAs would apply to this action.

Appendix A. SURFACE RECLAMATION PLAN

SURFACE RECLAMATION PLAN

Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project

JULY 2023



ENDURING RESOURCES IV, LLC

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

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Applicant	Enduring Resources IV, LLC
Project Type	Three planned oil & natural gas wells and the expansion of an existing well pad
Name	Rodeo Unit 503H, 504H and 506H Oil and Natural Gas Wells Project
Legal Location	Rodeo Unit 503H: 1461' FNL and 425' FEL Sec. 25, Twn. 23N, Rng. 9W Rodeo Unit 504H: 1471' FNL and 408' FEL Sec. 25, Twn. 23N, Rng. 9W Rodeo Unit 506H: 1481' FNL and 391' FEL Sec. 25, Twn. 23N, Rng. 9W
Lease Numbers	Rodeo Unit Recordation Number: NMNM-105311745 (Legacy NMNM-136328X) Rodeo Unit 508 Pad ROW Authorization: NMNM-135923

1. Introduction

Enduring Resources IV, LLC (Enduring) is providing this Surface Reclamation Plan as part of the Surface Use Plan of Operations (SUPO) to the Bureau of Land Management – Farmington Field Office (BLM-FFO) for their Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project (Rodeo Unit 508 Pad Expansion) Applications for Permit to Drill (APDs). The Rodeo Unit 508 Pad Expansion is part of WPX's Rodeo Unit Master Development Plan (MDP) submitted to the BLM on August 21, 2017.

Enduring may submit a request to the BLM-FFO to revise this Reclamation Plan at any time during the life of the project in accordance to page 44 of the Gold Book (USDI-USDA 2007). Enduring would include justification for the revision request.

The Enduring Contact person for this reclamation plan is:

Theresa Ancell Regulatory Manager Enduring Resources IV, LLC 200 Energy Court Farmington, New Mexico 87401 505-696-9720

During interim and final reclamation, Enduring will meet the reclamation standards provided in this plan to reestablish vegetation and control noxious weeds and erosion. The reclamation standards provided in this Plan are habitat specific and meet standards established in The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (The Gold Book). Enduring will be responsible for all surface disturbance authorized by the approved APDs until the permits are transferred or they obtain a Final Abandonment Notice (FAN) or relinquishment from the BLM-FFO.

2. PROJECT DESCRIPTION

2.1 Project Infrastructure

Infrastructure proposed to be constructed, operated, subsequently interim reclaimed, and eventually fully reclaimed as part of the Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project includes expansion of the existing Rodeo Unit 508 well pad with production facilities and construction buffer zone, one existing well pad access road with one pullout, one existing well-connect pipeline corridor including temporary drilling and completion surface lines, and temporary use area. The aforementioned proposed infrastructure associated with the Rodeo Unit 508 Pad Expansion would be located on BLM lands and would be built per lease authority associated with Enduring's W

Lybrook Unit (NMNM135923). The proposed wells would access Federal and Navajo Indian Allotted minerals administered by the BLM-FFO within Enduring's Rodeo Unit (NMNM136328X).

See the Surface Use Plan of Operations (SUPO) and construction plats for detailed descriptions of project components, construction processes, and geographic locations of all project components.

2.2 Estimated Total Area of Disturbance

The Rodeo Unit 508 Pad Expansion would result in a total of 6.07 acres of new disturbance. The total disturbance area of the Rodeo Unit 508 Pad Expansion would be 11.69 acres. New surface disturbance is placed with respect to archeology, paleontology, geology, terrain characteristics, current/proposed Enduring infrastructure, leasehold area and efforts to minimize ground/vegetative disturbance in areas of critical habitat to sensitive species. During interim reclamation, of the total 11.69 acres proposed surface disturbance, approximately 8.763 acres would be fully reclaimed, approximately .326 acres would be reseeded only, and the remaining 2.603 acres would be stabilized and used as an operations area throughout the life of the project. The operations area and the areas that were reseeded only, would be fully reclaimed during final reclamation. Disturbance per project feature is described below.

2.3 Well Pad

The proposed Rodeo Unit 508 Pad Expansion would be a 150-foot by 565-foot area south and west of the existing pad (3.45 acres) and a 150-foot by 640-foot area north and east of the existing pad (5.62 acres) for a total expansion of (6.07 acres). This area includes a 50-foot construction buffer zone surrounding the new disturbance area. The resulting area of the existing well pad, well pad expansion area, and construction buffer zone, would encompass a 11.69-acre disturbed area. During well pad construction, elevated areas would be excavated and utilized as fill material on low areas to establish a level working surface. This entire area would be utilized during construction, setting of production equipment, drilling, and completion phases. The three horizontal wells planned to be drilled from this well pad as part of this project will increase the existing well count from three horizontal wellbores to six horizontal wellbores. Once all drilling and completions phases are complete for the three wells, the well pad would be interim reclaimed. During interim reclamation, of the total 11.69 acres of well pad disturbance, approximately 8.763 acres would be fully reclaimed, approximately .326 acres would be reseeded only, and the remaining 2.603 acres would be stabilized and used as a working surface throughout the life of the wells. The approximate cuts, fills, and well pad orientation is shown on the construction plats in the SUPO. Anticipated facility layout of the location is depicted in the SUPO, facility layout diagram.

2.4 Access Road and Traffic Pullouts

No new access roads or Traffic Pullouts are required or proposed as part of the proposed Rodeo Unit 508 Pad Expansion. All access for the Rodeo Unit 508 Pad Expansion will be via existing and adequate infrastructure. See the construction plats in the SUPO for proposed access road improvements or modifications and any other site-specific design features.

2.5 Pipeline Corridor

Enduring proposes no new pipeline system to serve the Rodeo Unit 508 Pad Expansion. Existing infrastructure will be utilized. No new buried pipelines are anticipated as part of the Rodeo Unit 508 Pad Expansion; however, Enduring could lay up to one parallel 12-inch inside diameter or less lay-flat hoses or high density polyethylene (HDPE) pipelines within the existing pipeline corridor and other existing road and pipeline corridors to serve drilling and completion operations. The lay-flat line measures approximately 2,359.6 feet long. This surface pipelines would be temporary for the duration of active drilling and completion operation in the surrounding area or movement of water between recycling facilities as needed.

2.6 Temporary Use Areas

Temporary Use Areas (TUA) are areas where ground disturbance would take place because additional area outside the proposed ROW is needed to accommodate the task. TUAs may be cleared of vegetation and material excavated or placed in-order to establish appropriate slopes needed to stabilize the surface and reduce erosion. TUAs are generally reclaimed during interim reclamation unless found to be necessary long term by the operator and authorized officer. Reclamation may include re-contouring and reseeding or only reseeding to preserve safe cut slopes. The proposed Rodeo 508 Pad Expansion does not require the use of TUAs as no new buried pipelines are anticipated as Surface Reclamation Plan Rodeo 508 Pad Expansion June 2023 - 3 - part of this project. Please see the SUPO for details concerning the infrastructure associated with the Rodeo 508 Pad Expansion.

Table 1. Project Disturbance and Reclamation Estimates

	Disturbance Acreage		Reclamation Acreage			
Feature	Total	New Disturbance	Fully Reclaimed	Reseed Only	Long-term Disturbance	
Well Pad and Construction Buffer Zone	11.69	6.07	8.763	.326	2.603	
Total:	11.69	6.07	8.763	.326	2.603	

3. Pre-Disturbance Site Visit

The pre-disturbance onsite meeting occurred for the proposed project on November 17, 2021. Table 2, below, provides a list of individuals present at the site visit.

Table 2. Pre-Disturbance Onsite Visit Attendees.

Name	Affiliation
Mitch Sigler	BLM
Ryan Joyner	BLM
Jamie DeMarco	BLM
Rodger Herrera	BLM
Laverna Jaquez	FIMO
Marjorie Brown	BLM
Virginia Barber	BLM
Chris Jones	WSP
Deidre Duffy	WSP
Khem Suthiwan	WSP
Dave Rogers	Enduring

3.1 Vegetation Community

The proposed project area vegetation community is classified as sagebrush shrubland community. The dominant species observed in the project area is big sagebrush (Artemisia tridentata). No New Mexico Department of Agriculture Class A- or Class B- listed species were observed within or directly surrounding the Rodeo Unit 508 Pad Expansion. Russian thistle (Salsola targus) was observed on all surrounding disturbance areas and sporadically mixed in the surrounding habitat.

3.2 Proposed Reclamation Seed Mix

Disturbance would be re-contoured, and topsoil would be redistributed and prepared for seeding by the construction contractor. Ripping, disking, and seeding of the site would be done by Enduring's construction contractor using the

BLM-approved seed mix shown in Table 3 below. The proposed reclamation seed mix takes into account the existing vegetation on the proposed project site.

Table 3. BLM Farmington Field Office Sagebrush Community Seed Mix.

Common Name	Scientific Name	Variety	Season	Form	PLS lbs/acre ¹
Fourwing saltbush	Atriplex canescens	VNS	Cool	Shrub	2.0
Winterfat	Krascheninnikovia lanata	VNS	Cool	Shrub	2.0
Sand dropseed	Sporobolus cryptandrus	VNS	Warm	Bunch	0.5
Western wheatgrass	Pascopyrum smithii	Arriba	Cool	Sod-forming	4.0
Indian ricegrass	Achnatherum hymenoides	Paloma or Rimrock	Cool	Bunch	4.0
Blue grama	Bouteloua gracilis	Alma or Hachita	Warm	Sod-forming	2.5
Bottle brush squirreltail	Elymus elymoides	Tusas or VNS	Cool	Bunch	3.0
Blue flax	Linum lewisii	Apar	Cool	Forb	0.25
Rocky Mtn. bee Plant	Cleome Serrulata	Local or VNS	Cool	Forb	0.25

¹Based on 60 PLS per square foot, drill seeded; double this rate (120 PLS per square foot) if broadcast or hydro-seeded.

3.3 Vegetation Reclamation Standards

The Rodeo Unit 508 Pad Expansion is located on BLM-managed land and Navajo Indian allotted lands. Requirements for determining reclamation and its successful completion of the selected vegetation community on BLM lands is determined by the reclamation percent cover standards for the community, as outlined in Table 4. These standards must be met on BLM-managed lands during post-disturbance monitoring procedures in order for the BLM-FFO to sign off on the attainment of vegetation reclamation standards. The portions of the proposed project area located on Indian Allotted lands will be monitored on a regular basis by Enduring until the reclaimed areas have reached an approximate vegetative cover of at least 80% of surrounding undisturbed areas (background) within the same vegetative community.

Table 4. Reclamation Goal for Sagebrush Community.

Functional Group	Percent (%) Foliar Cover	Common Species
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% allowed toward meeting standard of 35%.	≤ 10	Plants that have the potential to become a dominant species on a site where its presence is a detriment to revegetation efforts or the native plant community. Examples of invasive species include cheatgrass, Russian thistle, kochia.

3.4 Pre-Disturbance Weed Survey

During the onsite visit, the proposed action area was surveyed for noxious weeds listed on the NMDA's Class-A and Class-B noxious weeds list. No NMDA Class A-listed species were identified. The Onsite Noxious Weed form was

completed and signed by the BLM-FFO representative and project proponent. The form is attached to the end of this Surface Reclamation Plan.

3.5 Pre-Disturbance Soil Evaluation

The BLM-FFO representative and Enduring representative collaboratively decided at the pre-disturbance site visit that no soil testing is necessary for the proposed project areas.

3.6 Pre-Disturbance Site Photographs

Photographs were taken of the pre-disturbance site. Each photograph in this Vegetation Reclamation Plan is notated with the location of the photo point and the direction the photograph was taken. The photographs and locations are listed in Table 5 below. Due to active drilling operations on the existing pad, the well location stakes for the proposed new wells had been removed for adequate spacing and safety while operating equipment. Well locations can be interpreted from the construction plats in the SUPO.

Table 5. List of Pre-Disturbance Site Photographs

Photographs	Location Description
1, 2, 3, 4	From each location corner, looking toward the well stakes
5	Start & End of Access Road & Well-Connect Pipeline



Photo 1. Corner 3 (Expansion) Looking West.



Photo 2. Corner 5 (Expansion) Looking North.



Photo 3. Corner 6 (Expansion) Looking East.



Photo 4. Corner 2 (Expansion) Looking South.



Photo 5. Existing Access Road and Well-Connect Pipeline Start Looking North terminating at existing well pad.

4. RECLAMATION TECHNIQUES FOR SUCCESSFUL REVEGETATION

All activities associated with the construction, use/operation, maintenance, and abandonment or termination of the Rodeo Unit 508 Pad Expansion would be limited to areas approved in the APDs.

4.1 Vegetation and Site Clearing

Vegetation removed during construction, including trees (if applicable) that measure less than three inches in diameter (at ground level) and slash/brush, would be chipped or mulched and incorporated into the topsoil as additional organic matter. If trees are present, all trees three inches in diameter or greater (at ground level) would be cut to ground level and delimbed. Tree trunks (left whole) and cut limbs would be stacked and made available to the public. The subsurface portion of trees (tree stumps) would be disposed of appropriately.

4.2 Topsoil Stripping, Storage, and Replacement

The upper six inches of topsoil (if available) would be stripped following vegetation mulching. Topsoil would not be mixed with the underlying subsoil horizons and would be stockpiled as a berm/windrow along the interior perimeter of the construction buffer zone. Topsoil and sub-surface soils would be replaced in the proper order, prior to final seedbed preparation. Redistribution of topsoil shall not be done when the ground or topsoil is wet. Vehicle/equipment traffic would not be allowed to cross topsoil stockpiles. If topsoil is stored for a length of time such that nutrients are depleted from the topsoil, amendments would be added to the topsoil as advised by the Enduring environmental scientist or appropriate agent/contractor.

4.3 Water Management/Erosion Control Features

The BLM-FFO representative and the Enduring representative would work in collaboration to develop site-specific erosion control or water management features and to identify installation locations. Potential erosion control or water management features that may be used include (but are not limited to) water bars or rolling dips for roads, sediment basins or sediment traps, check dams, silt fencing, bellholes upstream of culverts, outlet protection for culverts, erosion control blankets, straw bales, and straw wattles.

As determined during the on-site on November 17, 2021, the following water management/erosion control features would be implemented during construction of the project: none noted

During interim reclamation, areas of the project that are not needed for long term well operations and maintenance will be recontoured to reestablish disturbed terrain and blend into the surrounding landscape. The natural drainage network would be reestablished as practicable with necessary diversions and silt traps around the long-term project footprint.

4.4 Seedbed Preparation

For cut-and-fill slopes, initial seedbed preparation would consist of pushing (dozer)/excavating (excavator)/hauling (belly scraper) the unneeded fill slope material and placing it within the cut slopes. Natural rolling contours would be implemented to break up the surface and aid in removing signs of the sharp well pad corners once vegetation establishes. Emphasis would be placed on restoration of the existing drainage patterns and landforms to preconstruction conditions, to the extent practicable.

Within areas that would be reseeded, stockpiled topsoil would be evenly redistributed prior to final seedbed preparation. Seedbed preparation within compacted areas would include ripping to a minimum depth of 18 inches and spacing furrows two feet apart. Ripping would be conducted perpendicularly in two phases, where practicable. If large clumps/clods result from the ripping process, disking would be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. Final seedbed preparation would consist of raking or harrowing the spread

topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

4.5 Soil Amendments

Soil amendments would be added to the topsoil, if needed, as advised by the Enduring environmental scientist or appropriate surface managing agency.

4.6 Seeding

The seed mix chosen for this project area is listed in Table 3. Seeding would occur at the time of interim and final reclamation. A disc-type seed drill with two boxes for various seed sizes would be utilized for seeding the disturbed areas of the site. Enduring or its reclamation subcontractor would ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate size seeds (such as wheatgrasses and shrubs) would be planted at a depth of 0.5-inch, larger seeds (such as Indian ricegrass) would be planted at a depth of one to two inches, and small seeds (such as alkali sacaton and sand dropseed) would 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 would be planted no deeper than 0.25 inch. A drag, packer, or roller would follow the seeder to ensure uniform seed coverage and adequate compaction. Seed would be drilled perpendicular to slopes at practical in order to minimize runoff and erosion.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes where tractors and drill seeders can safely operate. Where drill seeding is not practicable due to topography, the contractor would hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Seeds like Galleta (with florets) and winter fat (with fine hairs) may also be broadcast as they do not flow well through a seeder. Broadcast application of seed requires a doubling of the drill-seeding rate. The seed would then be raked into the ground so the seed is planted no deeper than 0.25 inch below the surface.

4.7 Noxious and Invasive Weed Control

Should any noxious or invasive weeds be documented on any portions of the action area located on BLM-managed lands 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.

5. MONITORING REQUIREMENTS

Monitoring for project areas on BLM-managed lands would be completed according to the BLM-FFO Bare Soil Reclamation Procedure B. Monitoring activities would be initiated after the project is completed (Interim Monitoring), during the post disturbance earthwork, and seeding inspection process.

5.1 Initiation

During the post-disturbance site inspection at the project site located on BLM lands, the BLM-FFO representative (in collaboration with the Enduring Representative) would determine site-specific monitoring locations for photo point monitoring and vegetation line point intercept transects. The BLM-FFO would GPS the monitoring locations, take the initial monitoring photographs, and complete the initial monitoring report within 60 days of post-disturbance earthwork and seeding approval. The initial report would be available from the BLM-FFO. Photograph location requirements are found in the BLM-FFO Bare Soil Reclamation Procedure Appendix A.

5.2 Annual Monitoring and Reporting

The operator will be responsible for annual monitoring of the photo points and the vegetation line point intercept transects starting two years after the completion and approval of the earthwork and seeding. Monitoring may occur during any time of the year. Vegetation line point intercept transects will be monitored annually by the operator until attainment of vegetation reclamation standards is met. Enduring will submit the monitoring report to the BLM by December 31 of the year monitored.

5.3 Attainment of Vegetation Reclamation Standards

When vegetation within BLM-managed lands appears to meet the required percent revegetation standard (see Section 3.3 Vegetation Reclamation Standards), Enduring may request BLM-FFO concurrence that vegetation percent cover standards have been attained any time after two calendar years of completion of earthwork and seeding. Enduring will submit a written report identifying that revegetation standards have been attained. The BLM-FFO will reply to the operator to confirm concurrence (or not) with a rational for the determination within 60 days of receiving the request.

If the revegetation standards are not being attained, Enduring and the BLM-FFO will analyze the issues that may have contributed to vegetation reclamation failure or lack of meaningful progress. Remedial actions will be developed collaboratively if vegetation percent cover standards are not being attained.

5.4 Long-Term Monitoring

After the required percent revegetation standard has been attained, Enduring will begin long-term monitoring. Every fifth year after attainment, Enduring will monitor the site at all established photo points to ensure the site remains productive and stable. Enduring will submit the monitoring report to the BLM by December 31 of the year monitored.

5.5 Final Abandonment

If 1 acre or more of bare soil results from earthwork required in preparation for final abandonment, Enduring would follow the Vegetation Reclamation Plan in accordance with Procedure B of the BLM-FFO Bare Soil Reclamation Procedures.

If final abandonment or relinquishment earthwork results in less than 1 acre, but more than 0.1 acre of bare soil, Enduring would initiate the Vegetation Reclamation Plan in accordance with Procedure A of the BLM-FFO Bare Soil Reclamation Procedures. Disturbed areas less than 0.1 acre are expected to revegetate naturally from seed sources adjacent to the disturbance.

Revegetation percent cover standards will be attained, documented, and submitted to the BLM-FFO by Enduring or an exception granted before the BLM-FFO will approve a final abandonment notice (FAN) or relinquishment.

5.6 Cessation of Monitoring

Monitoring requirements will remain in effect as long as the permit, grant, or authorization remains in force and until all infrastructure or associated facilities are abandoned by established BLM procedure and a FAN or relinquishment is issued by the BLM-FFO. Enduring will document that percent cover standards have been obtained when submitting a request for a FAN or a relinquishment.

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. 10328-10338.

Surface Reclamation Plan

- BLM. 2013. Farmington Field Office Bare Soil Reclamation Procedures. Available at: http://www.emnrd.state.nm.us/MMD/AML/documents/FFOBareSoilReclamationProcedures2-1-13.pdf. Accessed September 2014.
- 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.

Appendix C - Onsite Noxious Weed Form

	iber Rodeo 503H			Date 11/17	/2021	
I Name and Non	DEI ROCCOSOSI					
ation: Township,	Range, Section Sec	25, Twn 23	N. Rng 9W		-	
ation of Project N	IAD 83 Decimal De	egices				
	Class A Noxious	Wood	Charle	Don if Found		
Alfomballa	Diffuse	Hydrilla		Purple		Yellow
Black	knapweed	1/2		starthistle	2	toadflax
henbane	Dyer's woad Eurasian	Leafys	purge	Ravenna gras		-
Camelthorm	watermilfoil	Oxeye daise Parrot feather		Scotch thistle Spotted knapweed		
Cana da thistle	Giant salvinia					
Dalmation toadflax	Hoary cress	Purple loosestrife		Yellow starthistle		
	Class B Noxious	Weed -	Check	Box if Found		
African roe	Perennial pepperweed		-	an knapweed		ee of heaver
Chicory	Musk thistle		Poiso	n bemlock		
Halogeton	Malta starti	histle	Tease	easel		
			•		1837	
mments:						
List A or List B speci	es observed. Russian th	histle observ	ed in previo	usly disturbed area	5.	
	200	11				
	M	// (-/			
O Representat	tive: //4	M J	4//			
and date	Off.	-11 6	1-			
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Appendix B. ROAD MAINTENANCE PLAN

Enduring Resources IV, LLC

Road Maintenance Plan

Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project

July 2023



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

1.0 Introduction

Enduring Resources IV, LLC (Enduring) is providing this Road Maintenance Plan (Plan) to the Bureau of Land Management Farmington Field Office (BLM-FFO) as part of the Surface Use Plan of Operations (SUPO) for the Rodeo Unit 503H, 504H, and 506H Oil and Natural Gas Wells Project. The road addressed in this Plan was permitted under the Application for Permit to Drill (APD) for the aforementioned Rodeo 508H pad wells. The coordinates (Universal Transverse Mercator, North American Datum 1983) for the access road are as follows:

Start: 36.205177, -107.738949End: 36.201964, -107.733471

The road maintenance procedures provided in this Plan meet the standards established in The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development and BLM Manual 9113.

Under the Rodeo Unit 503H, 504H, and 506H APDs, Enduring will be responsible for road maintenance associated with the aforementioned wells. This responsibility will continue until Enduring transfers the permit or abandons the project and obtains a Final Abandonment Notice or relinquishment from the BLM-FFO. Refer to Conditions of Approval (COAs) attached to the approved APDs for any upgrades to existing roads.

2.0 Road Inspections

Enduring Representatives will formally inspect the road biannually, in the spring and fall, to assess the condition of the road. The formal road inspection will be recorded on a Road Inspection Form (blank form attached to this Plan). Completed Road Inspection Forms will be kept on file at Enduring and can be provided to the BLM-FFO, if requested (See Attached Road Inspection Form).

Additionally, outside of the formal inspection period, Enduring Representatives driving to/from the project area will assess the condition of the road and notify the Enduring Construction Supervisor if maintenance is needed.

Road maintenance activities will be documented at Enduring and can be provided to the BLM-FFO, if requested.

3.0 Road Maintenance

The following maintenance may be performed on an as needed basis:

- Water control structures (such as culverts, ditches, and silt traps) and/or cattle guards may be cleaned. If this occurs, the soil/sediment material will be spread on area roads or locations.
- Bar ditches may be pulled.
- Low-water crossings and drainage dips may be cleared and/or repaired.
- Crowning may be repaired.

Rodeo 503H, 504H, and 506H July 2023

Road Maintenance Plan

- Litter may be collected.
- Noxious weeds may be controlled following the BLM-FFO noxious weed guidelines.
- The access road may be bladed.

In addition to inspection-triggered maintenance procedures, the road will be maintained following this Plan, as needed.

Attachment: Road Inspection Form

Road Inspection Form

Road Name:		County	County:				
Date:		Time (a	a.m./p.m.):				
Weather:							
Inspector(s):							
Road Surface Type:							
Road Condition			Road Condition				
Inspection Items Water Control Structure(s)	Good	Poor	Comments				
Water-Control Structure(s)							
Low-Water Crossing(s)							
Road Crowning/Ruts/Potholes							
Road Surfacing							
Cattle guard(s)							
Litter							
Noxious Weeds Within/Adjacent to Roadway							
Vegetation Within Roadway							
Additional Site-Specific Ins	pection Notes:		•				

Appendix C. FIGURES & DIAGRAMS

- C.1. SURVEY & CONSTRUCTION PLATS
- C.2. FIGURE 1 LOCATION ACCESS
- C.3. FIGURE 2 EXISTING WELLS WITHIN 1-MILE
- C.4. FIGURE 3 WATER TRANSPORTATION MAP
- C.5. FIGURE 4 CONSTRUCTION MATERIALS
- **C.6. FIGURE 5** –
- C.7. WELL PAD LAYOUT DIAGRAMS

16**Kecerved.by: OCD** 50**0.13/2023 9:21:51 AM** Phone: (575) 393-5161 Fax: (575) 393-0720 **Energy. N** State of New Mexico Énergy, Minerals & Natural Resources Department

District II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748–1283 Fax: (575) 748–9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

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

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

	For	m C-	10
Revise	d August	1, 2	01

Submit one copy to Appropriate District Office

AMENDED REPORT

I OPERATOR I hereby certify that the inherein is true and complete knowledge and belief, and the either owns a working intermineral interest in the land proposed bottom-hole location to drill this well at this to a contract with an owner or working interest, or to a agreement or a compulsory of the computer of the compulsory of the computer of the com	to the best of my at this organization ast or unleased dincluding the moor has a right location pursuant of such a mineral ivoluntary pooling poling order
Signature	Date
Printed Name	

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 undim y supervision, and that the same is true and correct to the best of my belief.

Date Revised: MARCH 21, 2023 Survey Date: SEPTEMBER 15, 2021

Signature and Seal of Professional Surveyor



NO *09 'E 2649.24 (RECORD)

NO °27 E 2636.37 (RECORD)

N89 °51 W 2640.33

(RECORD)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	P001 Name	
		97232	BASIN MANCOS	
⁴Property Code		*Pr	operty Name	⁵Well Number
321253		RO	DEO UNIT	503H
'OGRID No.		^e Op	erator Name	°Elevation
372286		ENDURING	RESOURCES, LLC	6883 '

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	25	23N	9W		1461	NORTH	425	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

								-	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	23N	8W		380	NORTH	1977	EAST	SAN JUAN
¹² Dedicated Acres	N,	/2 - 50	ction a		¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.		
640.97	Ň,			30			R-14	313	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION 30HFACE LUCATION 1461 FNL 425 FEL SEC 25, T23N, R9W LAT 36.201038 N LONG -107.732353 W DATUM: NAD1927

LAT 36.201051°N LONG -107.732966°W DATUM: NAD1983

FIRST TAKE POINT F1H51 TAKE PUINT 380 FNL 100 FWL SEC 30, T23N, R8W LAT 36.203998 N LONG -107.730578 W DATUM: NAD1927

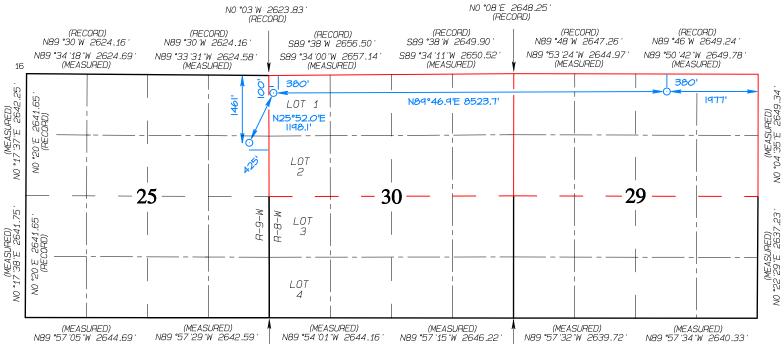
LAT 36.204011°N LONG -107.731191°W DATUM: NAD1983

LAST TAKE POINT 380' FNL 1977' FEL SEC 29, T23N, R8W LAT 36.204059 N LONG -107.701687°W DATUM: NAD1927

LAT 36.204073°N LONG -107.702299°W DATUM: NAD1983

(MEASURED) NO °07'30"W 2623.66

(MEASURED) NO °04'01"E 2647.95



(MEASURED) NO °06 '58 'W 2624.61

N89 °45 'W 2643.96 ' (RECORD)

(MEASURED) NO °03 '53 "E 2647.03 NO °08 'E 2648.25 (RECORD)

N89 °51 'W 2640.33 ' (RECORD)

N89 °50 'W 2645.28 ' (RECORD)

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N89 °56 'W 2643.30 ' (RECORD)

N89 °56 'W 2643.30 ' (RECORD)

State of New Mexico District 16.8 ecerved by OCD 600.15.1 2023 9:21:51 AM Phone: (575) 393-6161 Fax: (575) 393-0720 Energy. A Énergy, Minerals & Natural Resources Department District II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748–1283 Fax: (575) 748–9720

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

Revised	August	

Submit one copy to Appropriate District Office

AMENDED	REPORT

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code				
		97232	BASIN MANCOS			
⁴Property Code		⁵Property Name				
321253		RO	DEO UNIT	503H		
'OGRID No.		⁸ Op	°Elevation			
372286		ENDURING	RESOURCES, LLC	6883 '		

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Н	25	23N	9W		1461	NORTH	425	EAST	SAN JUAN	

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	23N	8W		380	NORTH	1977	EAST	SAN JUAN
12 Dedicated Acres N/2 - Section 29			¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.				
640.97	N/			30			R-14	313	

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

I hereby certify herein is true a knowledge and be either owns a wo mineral interest proposed bottom-t odrill this we to a contract wi or working inter	that the informatic domplete to the lief, and that this king interest or u in the land includiole location or has ll at this location ch an owner of such set, or to a volunta ompulsory pooling or d by the division.	on contained best of my organization nleased and the samples a right pursuant a mineral ary pooling
Signature	Date	
Printed Name		
E-mail Address		
I hereby certif shown on this p notes of actual my supervision, and correct to Date Revi	R CERTIFIC y that the well loc lat was plotted fro surveys made by me and that the same the best of my bel: sed: MARCH 21, : SEPTEMBER 2	ration om field e or under is true ief. 2023
	eal of Professional	
(禹(MEXICO 15269	
LASON	C. Fnw	IARDS

Certificate Number

SURFACE LOCATION 1461' FNL 425' FEL SEC 25, T23N, R9W LAT 36.201038 °N LONG -107.732353 °W DATUM: NAD1927

LAT 36.201051°N LONG -107.732966°W DATUM: NAD1983

20

8

52.0'E

FIRST TAKE POINT 380' FNL 100' FWL SEC 30, T23N, R8W LAT 36.203998 N LONG -107.730578 W DATUM: NAD1927

LAT 36.204011°N LONG -107.731191°W DATUM: NAD1983

(A) 399' FNL 0' FEL SEC 30, T23N, R8W LAT 36.204036°N LONG -107.712932°W DATUM: NAD1927

LAT 36.204050°N LONG -107.713544°W DATUM: NAD1983

(B) 399' FNL 0' FWL (B) 399 FNL 0 FWL SEC 29, T23N, R8W LAT 36.204036°N LONG -107.712932°W DATUM: NAD1927

LAT 36.204050°N LONG -107.713544°W DATUM: NAD1983

(C) 384' FNL 2645' FWL SEC 29, T23N, R8W LAT 36.204055°N LONG -107.703968°W DATUM: NAD1927

LAT 36.204068°N LONG -107.704580°W DATUM: NAD1983

LAST TAKE POINT 380' FNL 1977' FEL SEC 29, T23N, R8W LAT 36.204059 N LONG -107.701687 W DATUM: NAD1927

15269

LAT 36.204073°N LONG -107.702299°W DATUM: NAD1983

NO *09 'E 2649.24 (RECORD)

NO °27 E 2636.37 (RECORD)

(MEASURED) NO °04'01"E 2647.95 (MEASURED) NO °07'30"W 2623.66 NO °03 'W 2623.83 ' (RECORD) NO °08 E 2648.25 (RECORD) (RECORD) N89°48'W 2647.26 (RECORD) N89 °46 'W 2649.24 ' (RECORD) (RECORD) (RECORD) N89 °30 W 2624.16 S89 °38 W 2649.90 N89 °30 W 2624.16 S89 °38 W 2656.50 ' N89 °34 '18 "W 2624.69 (MEASURED) S89 °34 '11"W 2650.52 (MEASURED) N89 °53 '24 "W 2644.97 ' N89 °50 '42 "W 2649.78 ' N89 °33 '31 "W 2624.58 (MEASURED) S89°34'00"W 2657.14' (MEASURED) (MEASURED) 380' Α В C 380 (MEASURED) NO *17 '37 "E 2642.25 (MEASURED) NO °04'35"E 2649.34 2641.65 °CORD) 1977 194 2644.6' 5206.3 672.8 LOT 1 125°52.0′E 1198.1 .20 'E (REC LOT 8 25 30 (MEASURED) •17'38"E 2641.75 R-9-W M-8-M (MEASURED) NO °22 '29 'E 2637.23 .65 LOT 20 'E 2641.t (RECORD)

(MEASURED) N89 °57 '29" W 2642.59 (MEASURED) N89 °57 '05 "W 2644.69 N89 °56 'W 2643.30 ' (RECORD) N89 °56 'W 2643.30 ' (RECORD)

(MEASURED)

(MEASURED) NO °06 '58 'W 2624.61

LOT

4

N89 °54 '01" W 2644.16 N89 °45 'W 2643.96 ' (RECORD)

(MEASURED) N89 °57 '15 "W 2646.22 N89 °50 'W 2645.28 ' (RECORD)

(MEASURED) N89 °57 '32 "W 2639.72 N89 °51 'W 2640.33 ' (RECORD)

(MEASURED) N89 °57 '34 "W 2640 .33 N89 °51 W 2640.33 (RECORD)

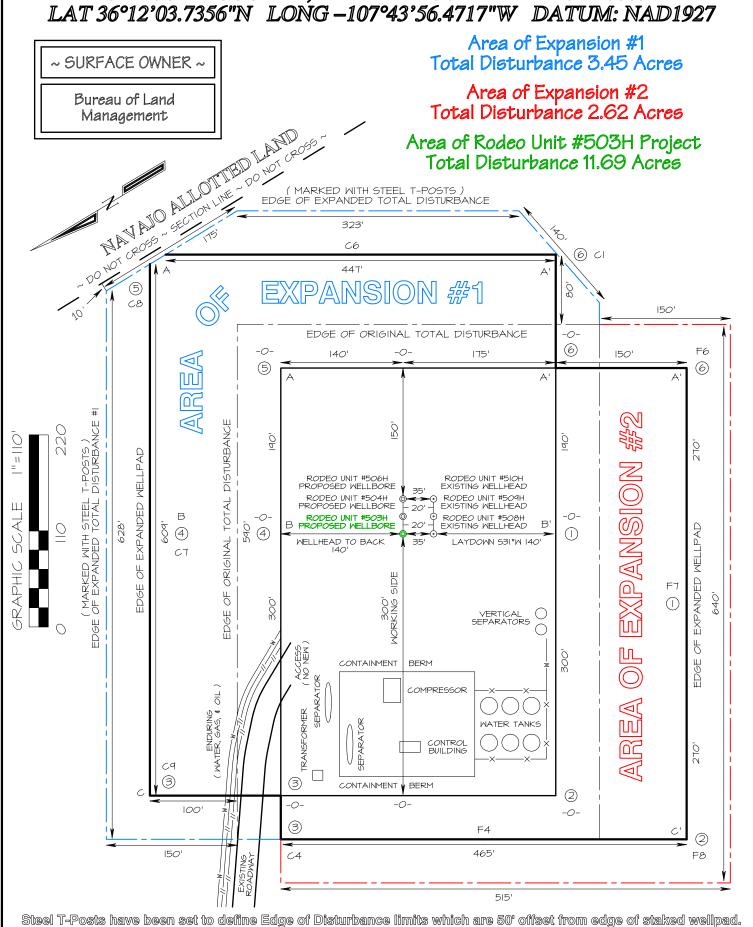
(MEASURED) NO °03 '53 "E 2647.03

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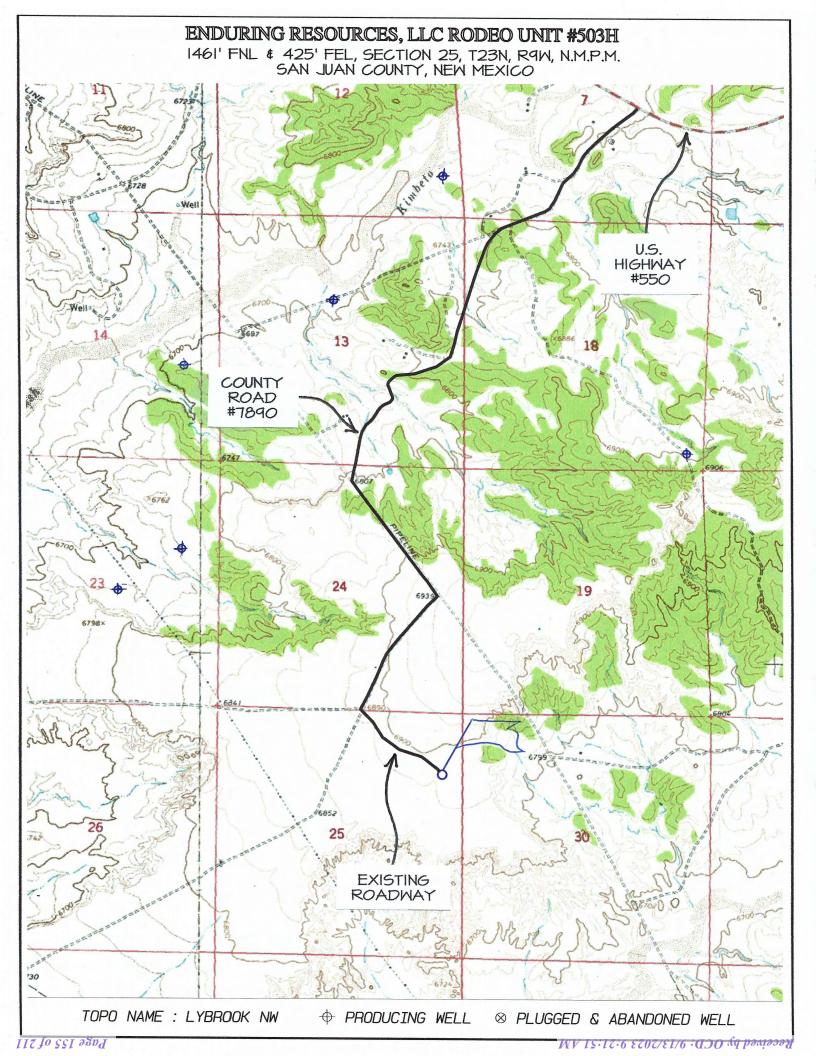
NO °08 'E 2648.25 (RECORD)

Released to Imaging: 9/15/2023 9:09:44 AM

ENDURING RESOURCES, LLC RODEO UNIT #503H 1461' FNL & 425' FEL, SECTION 25, T23N, R9W, NMPM SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883' LAT 36°12'03.7356"N LONG -107°43'56.4717"W DATUM: NAD1927



\rightarrow П-П 6883 6883 6883 6813 6813 6893 6893 6813 6893 HORIZONTAL SCALE |"=80' SAN JUAN COUNTY, NEW MIEXICO CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. 1461' FNIL & 425' FEIL, SECTION 25, T23N, R9W, NMIPM ENDURING RESOURCES, LLC RODEO UNIT #503HI NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES. \mathbb{C} C \mathbb{C} Q ELEVATION: 6883' Q ? VERTICAL SCALE Q Q Q



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

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #503H

1461' FNL & 425' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude 36.201051°N Longitude -107.732966°W Datum: NAD1983

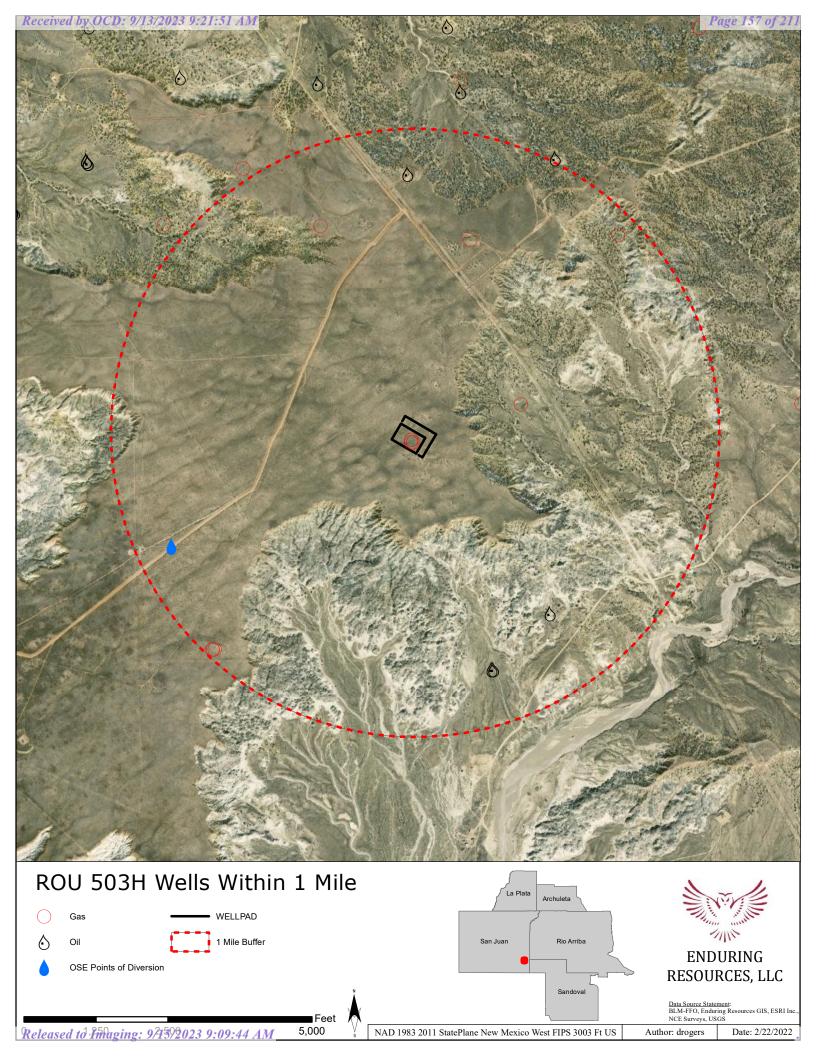
From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.3 miles to Mile Marker 113.4;

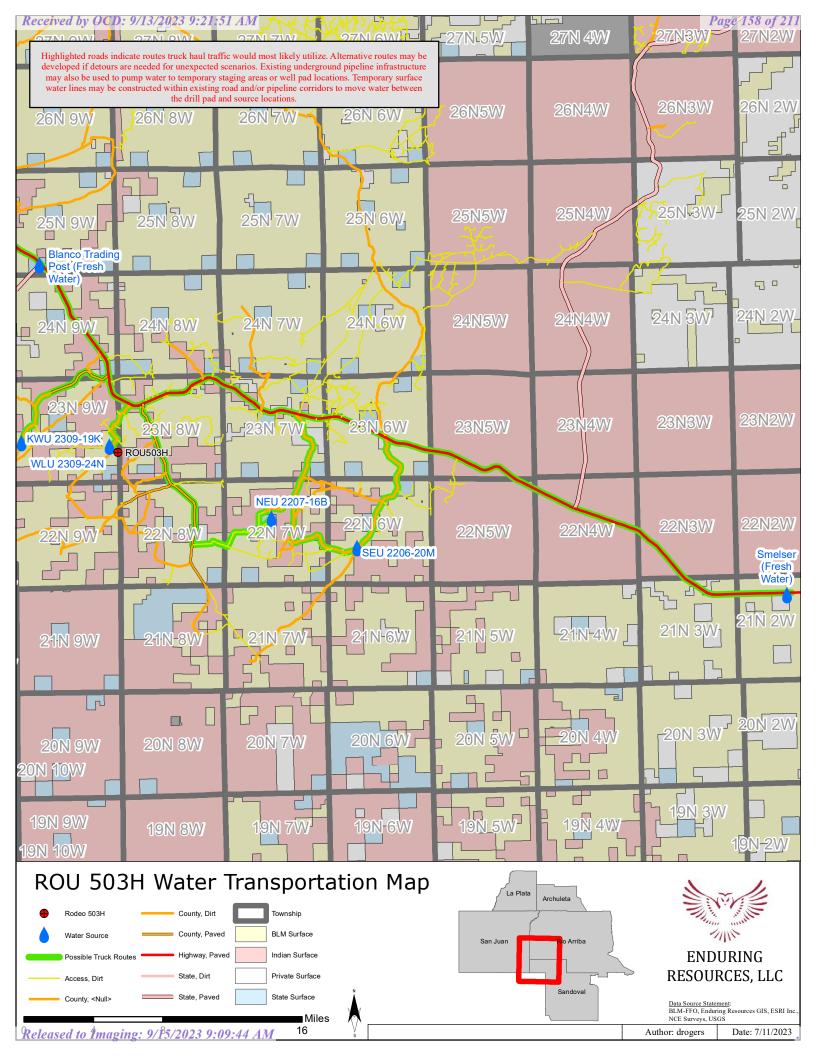
Go Right (South-westerly) on County Road #7890 for 0.8 miles to fork in roadway;

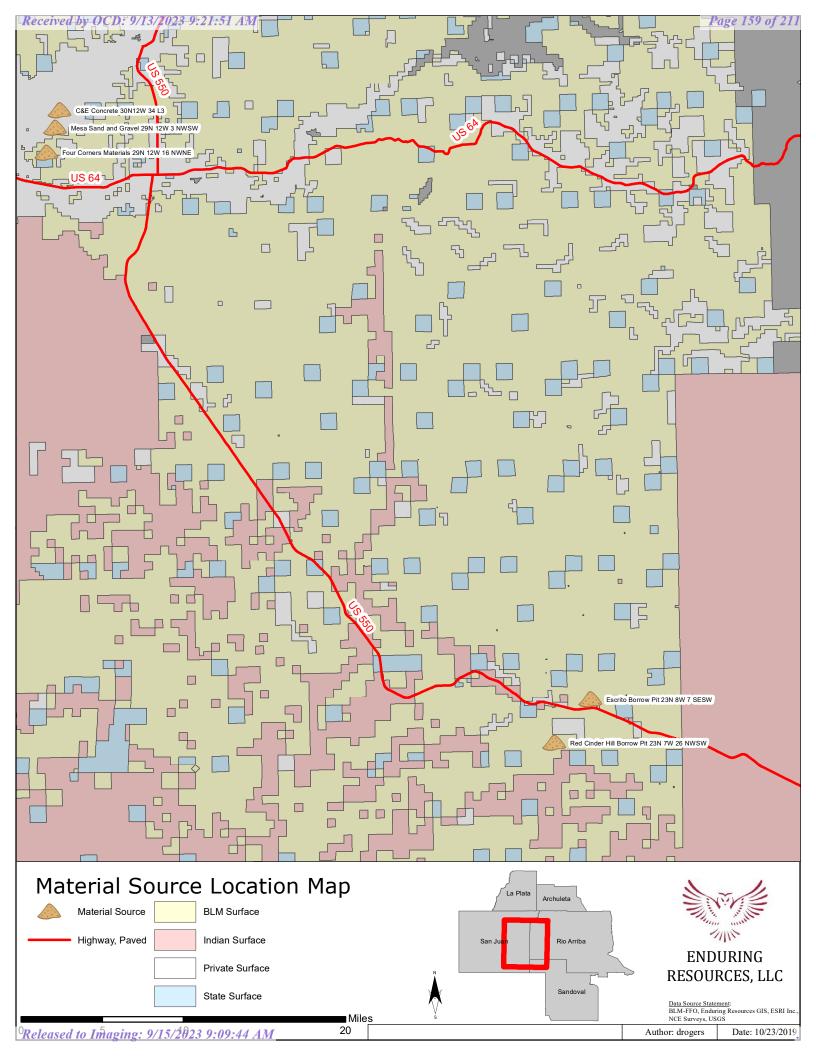
Go Left (Southerly) remaining on County Road #7890 for 1.3 miles to 4-way intersection;

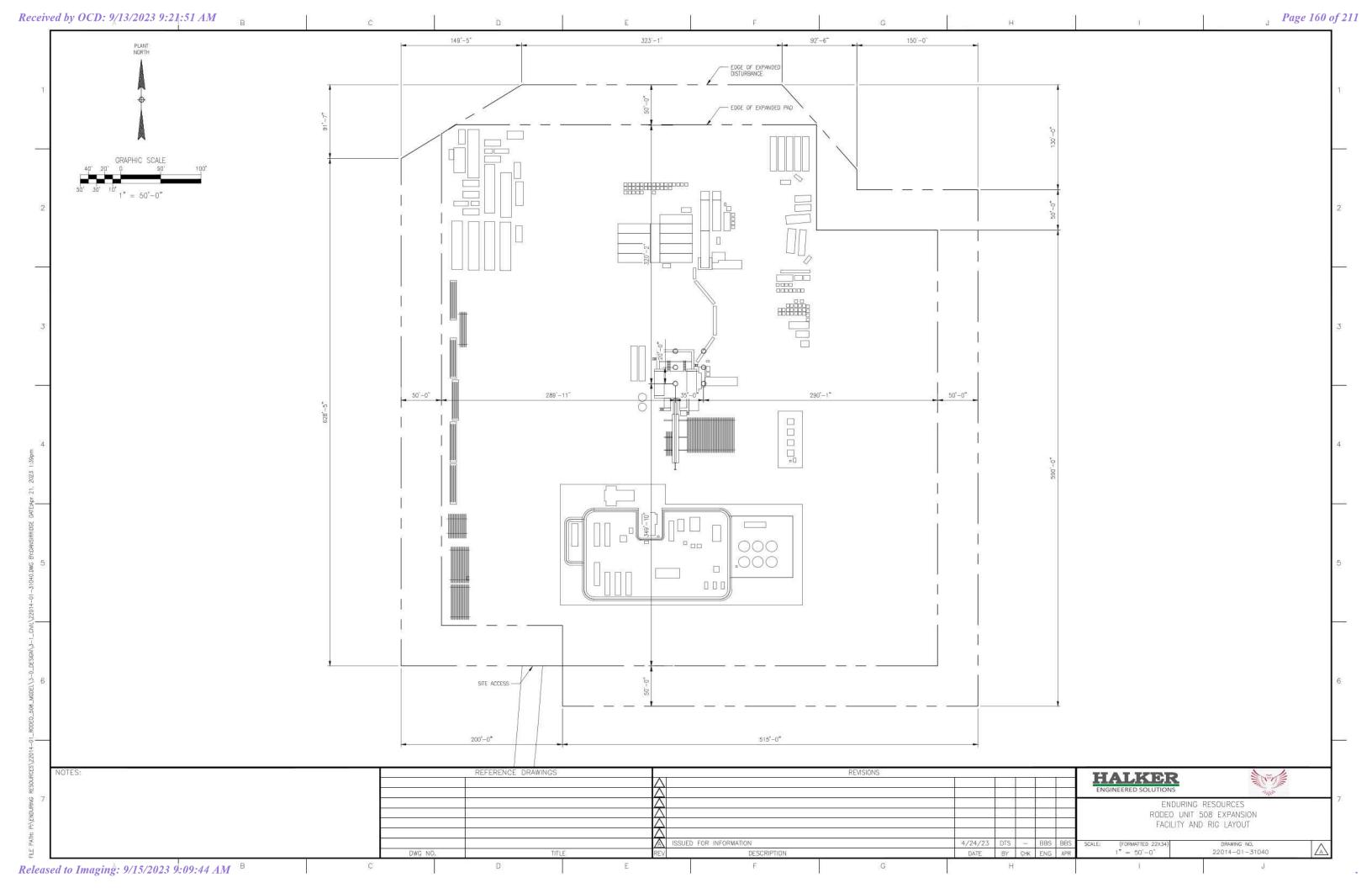
Go Left (South-easterly) remaining on County Road #7890 for 1.2 miles to 4-way intersection;

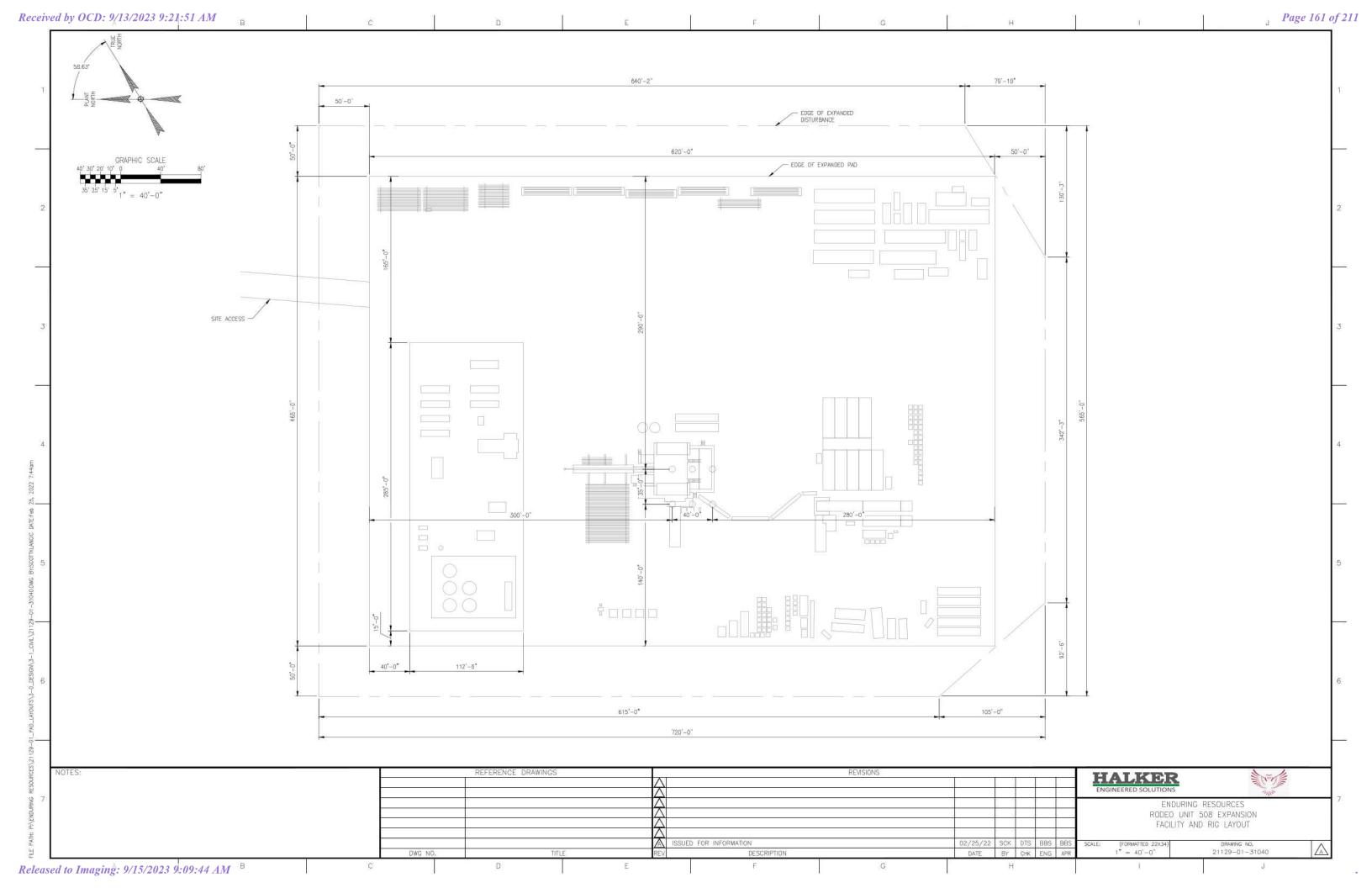
Go Left (South-easterly) exiting County Road #7890 for 0.4 miles to staked Enduring Rodeo Unit #503H location which overlaps the existing Enduring Rodeo Unit #508H location.

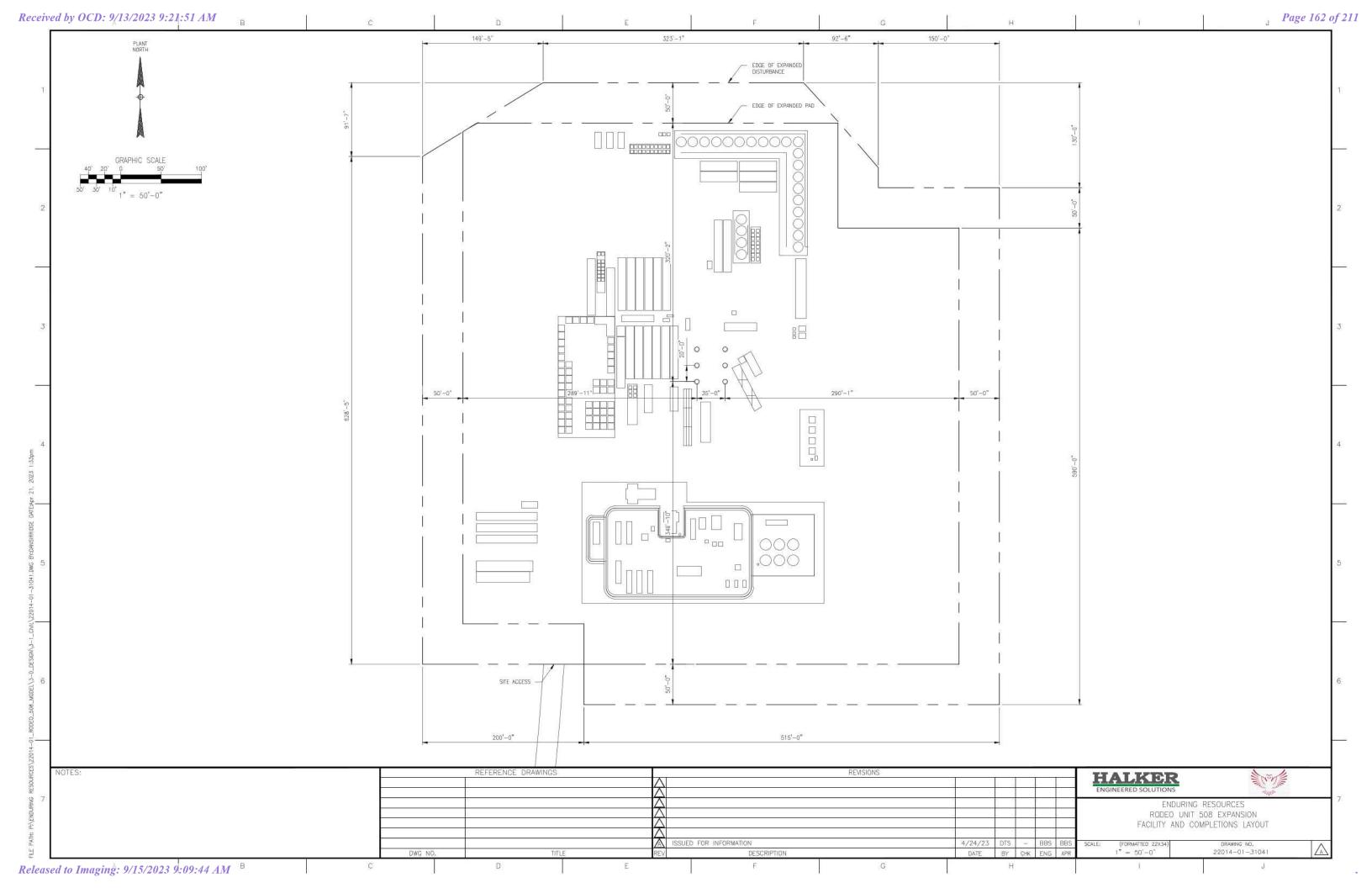


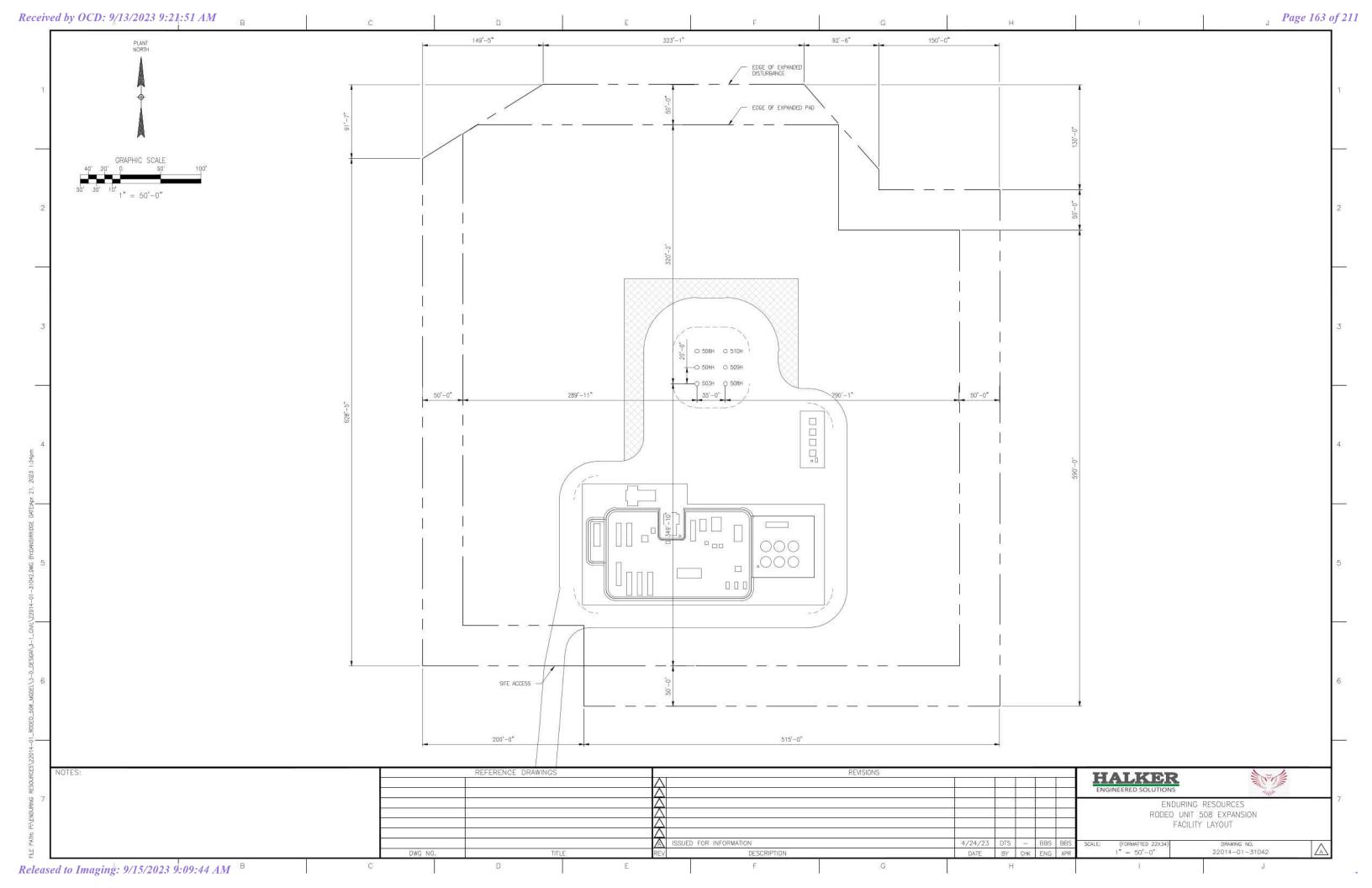


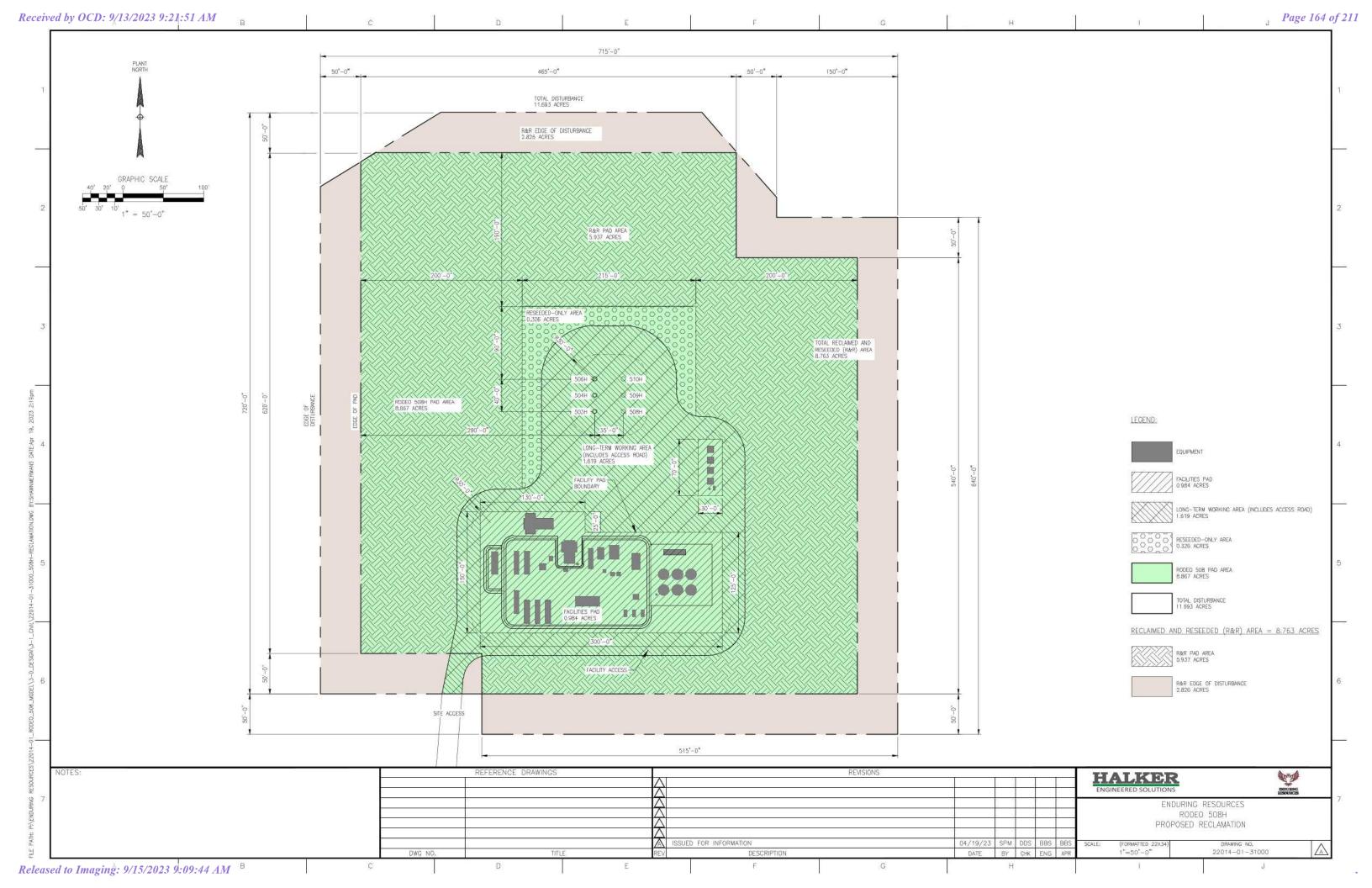












Enduring Resources IV, LLC

Road Maintenance Plan

Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project

July 2023



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

1.0 Introduction

Enduring Resources IV, LLC (Enduring) is providing this Road Maintenance Plan (Plan) to the Bureau of Land Management Farmington Field Office (BLM-FFO) as part of the Surface Use Plan of Operations (SUPO) for the Rodeo Unit 503H, 504H, and 506H Oil and Natural Gas Wells Project. The road addressed in this Plan was permitted under the Application for Permit to Drill (APD) for the aforementioned Rodeo 508H pad wells. The coordinates (Universal Transverse Mercator, North American Datum 1983) for the access road are as follows:

Start: 36.205177, -107.738949
End: 36.201964, -107.733471

The road maintenance procedures provided in this Plan meet the standards established in The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development and BLM Manual 9113.

Under the Rodeo Unit 503H, 504H, and 506H APDs, Enduring will be responsible for road maintenance associated with the aforementioned wells. This responsibility will continue until Enduring transfers the permit or abandons the project and obtains a Final Abandonment Notice or relinquishment from the BLM-FFO. Refer to Conditions of Approval (COAs) attached to the approved APDs for any upgrades to existing roads.

2.0 Road Inspections

Enduring Representatives will formally inspect the road biannually, in the spring and fall, to assess the condition of the road. The formal road inspection will be recorded on a Road Inspection Form (blank form attached to this Plan). Completed Road Inspection Forms will be kept on file at Enduring and can be provided to the BLM-FFO, if requested (See Attached Road Inspection Form).

Additionally, outside of the formal inspection period, Enduring Representatives driving to/from the project area will assess the condition of the road and notify the Enduring Construction Supervisor if maintenance is needed.

Road maintenance activities will be documented at Enduring and can be provided to the BLM-FFO, if requested.

3.0 Road Maintenance

The following maintenance may be performed on an as needed basis:

- Water control structures (such as culverts, ditches, and silt traps) and/or cattle guards may be cleaned. If this occurs, the soil/sediment material will be spread on area roads or locations.
- Bar ditches may be pulled.
- Low-water crossings and drainage dips may be cleared and/or repaired.
- Crowning may be repaired.

Rodeo 503H, 504H, and 506H July 2023

Road Maintenance Plan

- Litter may be collected.
- Noxious weeds may be controlled following the BLM-FFO noxious weed guidelines.
- The access road may be bladed.

In addition to inspection-triggered maintenance procedures, the road will be maintained following this Plan, as needed.

Attachment: Road Inspection Form

Road Inspection Form

Road Name:		County	County:			
Date:		Time (a	a.m./p.m.):			
Weather:						
Inspector(s):						
Road Surface Type:						
Road Condition			Road Condition			
Inspection Items	Good	Poor	Comments			
Water-Control Structure(s)						
Low-Water Crossing(s)						
Road Crowning/Ruts/Potholes						
Road Surfacing						
Cattle guard(s)						
Litter						
Noxious Weeds Within/Adjacent to Roadway						
Vegetation Within Roadway						
Additional Site-Specific Ins	pection Notes:					



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

PWD Data Report

PWD disturbance (acres):

APD ID: 10400084206 **Submission Date:** 06/16/2022

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT

Well Number: 503H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Released to Imaging: 9/15/2023 9:09:44 AM

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT Well Number: 503H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Bond Info Data

APD ID: 10400084206

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT

Well Type: OIL WELL

Submission Date: 06/16/2022

Highlighted data reflects the most recent changes Show Final Text

Well Number: 503H

Well Work Type: Drill

Bond

Federal/Indian APD: FED

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

16**Received by OCD 601/18/2023 9:21:51 AM** Phone: (575) 393-6161 Fax: (575) 393-0720 **Energy. N** State of New Mexico Énergy, Minerals & Natural Resources Department

District II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748–1283 Fax: (575) 748–9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

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

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

Revised August 1, 2011 Submit one copy to Appropriate District Office

Form C-102

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number		Pool Code	POOI Name		
30-045-3	8322	97232			
⁴Property Code		⁶ Well Number			
321253		DEO UNIT	503H		
'OGRID No.		°Elevation			
372286		ENDURING	RESOURCES, LLC	6883 '	

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	25	23N	9W		1461	NORTH	425	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

	Bettern 11818 Leadershi 11 Billion and Carlade								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	23N	8W		380	NORTH	1977	EAST	SAN JUAN
¹² Dedicated Acres	12 Dedicated Acres N/2 - Section 20		¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.				
640.97	1 1/2 - Section 29				R-14	313			

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

Date Revised: MARCH 21, 2023 Survey Date: SEPTEMBER 15, 2021 Signature and Seal of Professional Surveyor SEON C. EDWARDS MEXICO **EN** REGISTER A OFESSIONAL DWARDS

Certificate Number

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

Heather Huntington

hhuntington@enduringresources.com 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or undim y supervision, and that the same is true and correct to the best of my belief.

Printed Name

9/12/23

15269

SURFACE LOCATION 30HFACE LUCATION 1461 FNL 425 FEL SEC 25, T23N, R9W LAT 36.201038 N LONG -107.732353 W DATUM: NAD1927

LAT 36.201051°N LONG -107.732966°W DATUM: NAD1983

FIRST TAKE POINT 71RS1 TARE PUINT 380' FNL 100' FWL SEC 30, T23N, R8W LAT 36.203998°N LONG -107.730578°W DATUM: NAD1927

LAT 36.204011°N LONG -107.731191°W DATUM: NAD1983

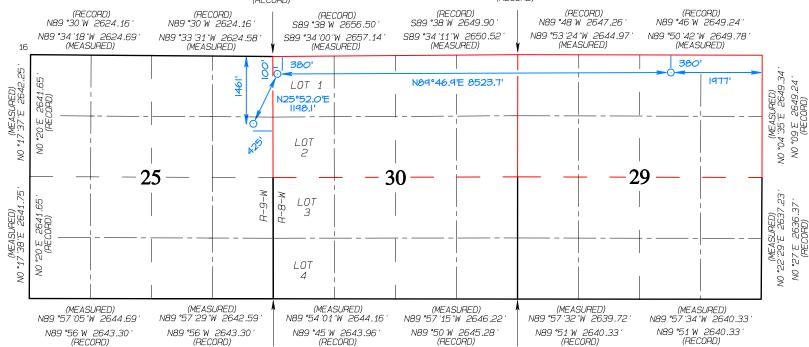
LAST TAKE POINT 380' FNL 1977' FEL SEC 29, T23N, R8W LAT 36.204059°N LONG -107.701687°W DATUM: NAD1927

LAT 36.204073°N LONG -107.702299°W DATUM: NAD1983

(MEASURED) NO °07'30"W 2623.66

NO °03 'W 2623.83 ' (RECORD)

(MEASURED) NO °04'01"E 2647.95 NO °08 'E 2648.25 (RECORD)



(MEASURED) NO °06 '58 'W 2624.61

(MEASURED) NO °03 '53 "E 2647.03 NO °08 'E 2648.25 (RECORD)

Released to Imaging: 9/15/2023 9:09:44 AMORD)

State of New Mexico District 16.8 ecerved by OCD 600.15.1 2023 9:21:51 AM Phone: (575) 393-6161 Fax: (575) 393-0720 Energy. A Énergy, Minerals & Natural Resources Department

District II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748–1283 Fax: (575) 748–9720 OIL CONSERVATION DIVISION District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 1220 South St. Francis Drive Santa Fe, NM 87505 District IV 1220 S. St. Francis Drive, Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

Form C-102 Revised August 1, 2011

Submit one copy to Appropriate District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number		°Pool Code 97232	³Pool Name BASIN MANCOS		
⁴Property Code 321253			operty Name DEO UNIT	⁶ Well Number 503H	
'ogrid no. 372286			erator Name RESOURCES, LLC	°Elevation 6883'	

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	25	23N	9W		1461	NORTH	425	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	23N	8W		380	NORTH	1977	EAST	SAN JUAN
¹² Dedicated Acres	Dedicated Acres N/2 - Soction 20			¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.			
640.97	N/2 - Section 29				R-14313				

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

In PERATOR PROFITABLE IN I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 9/12/23 **Heather Huntington** hhuntington@enduringresources.com 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or undim y supervision, and that the same is true and correct to the best of my belief. Date Revised: MARCH 21, 2023 Survey Date: SEPTEMBER 15, 2021 Signature and Seal of Professional Surveyor SEON C. EDWARD MEXICO **EW** REGISTER APOFESSIONAL DWARDS Certificate Number

SURFACE LOCATION 1461' FNL 425' FEL SEC 25, T23N, R9W LAT 36.201038 °N LONG -107.732353 °W DATUM: NAD1927

52.0'E

LAT 36.201051°N LONG -107.732966°W DATUM: NAD1983

FIRST TAKE POINT 380' FNL 100' FWL SEC 30, T23N, R8W LAT 36.203998 N LONG -107.730578 W DATUM: NAD1927

LAT 36.204011°N LONG -107.731191°W DATUM: NAD1983

399' FNL 0' FEL (A) 399 FNL 0 FEL SEC 30, T23N, R8W LAT 36.204036°N LONG -107.712932°W DATUM: NAD1927 I ONG

LAT 36.204050°N LONG -107.713544°W DATUM: NAD1983

(B) 399' FNL 0' FWL (B) 399 FNL 0 FWL SEC 29, T23N, R8W LAT 36.204036 °N LONG -107.712932 °W DATUM: NAD1927 LONG

LAT 36.204050°N LONG -107.713544°W DATUM: NAD1983

(C) 384' FNL 2645' FWL SEC 29, T23N, R8W LAT 36.204055°N LONG -107.703968°W DATUM: NAD1927

LAT 36.204068°N LONG -107.704580°W DATUM: NAD1983

LAST TAKE POINT 380' FNL 1977' FEL SEC 29, T23N, R8W LAT 36.204059 N LONG -107.701687 W DATUM: NAD1927

LAT 36.204073°N LONG -107.702299°W DATUM: NAD1983

NO *09 'E 2649.24 (RECORD)

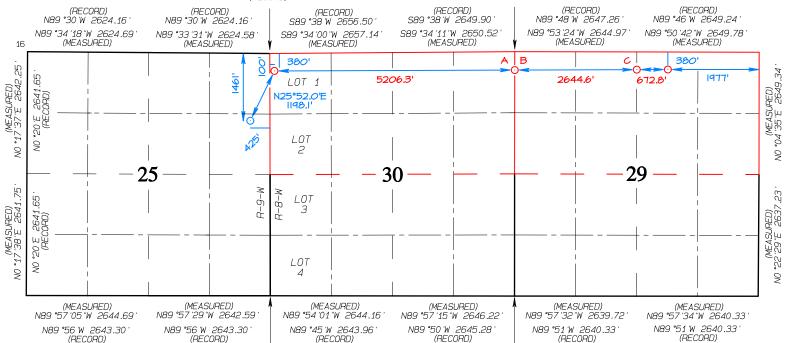
NO "27 E 2636.37 (RECORD)

(RECORD)

(MEASURED) NO °07'30"W 2623.66

NO °03 W 2623.83 (RECORD)

(MEASURED) NO °04'01"E 2647.95 NO *08 'E 2648.25 (RECORD)



(MEASURED) NO °06 '58 'W 2624.61

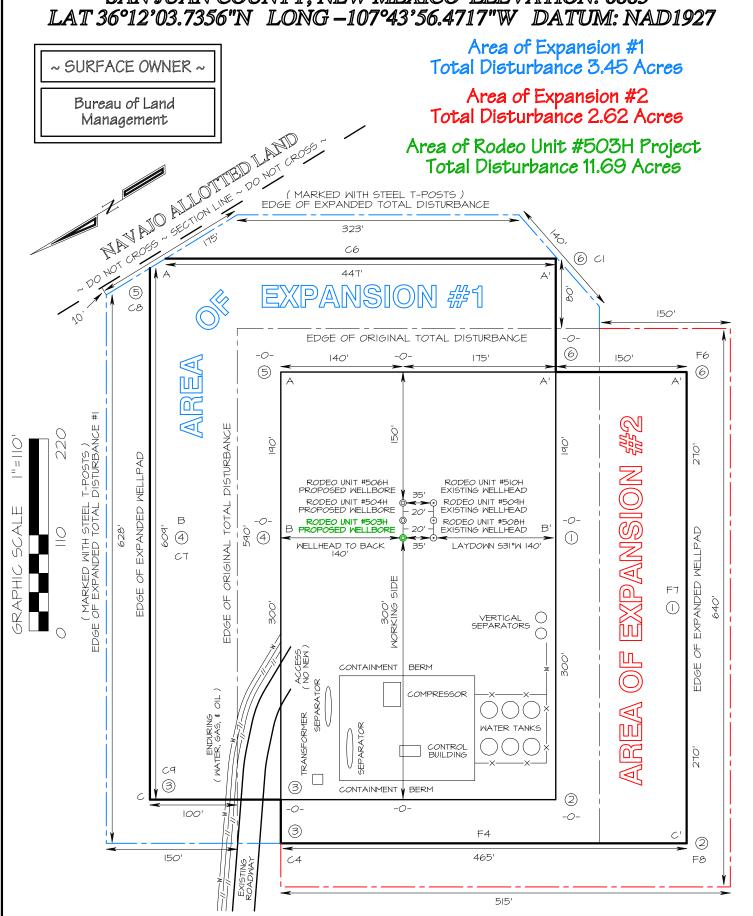
(MEASURED) NO °03 '53 "E 2647.03

Released to Imaging: 9/15/2023 9:09:44 AMORD)

(RECORD)

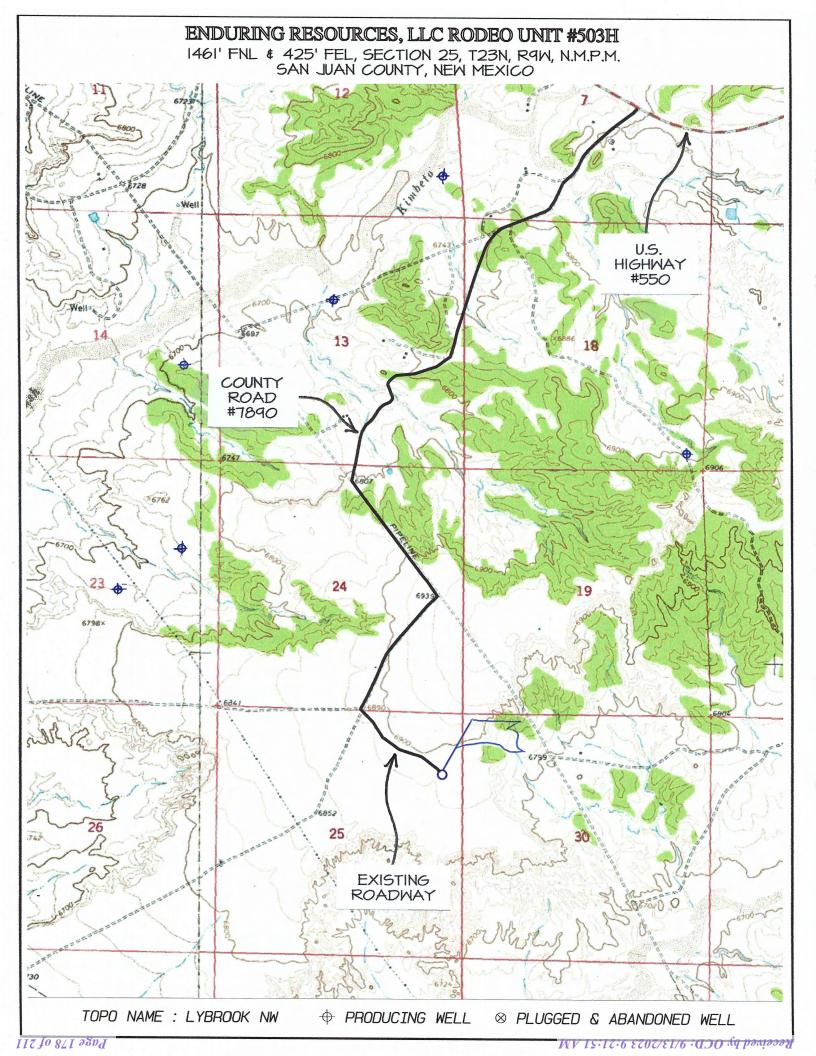
NO °08 E 2648.25 (RECORD)

ENDURING RESOURCES, LLC RODEO UNIT #503H 1461' FNL & 425' FEL, SECTION 25, T23N, R9W, NMPM SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883' LAT 36°12'03.7356"N LONG -107°43'56.4717"W DATUM: NAD1927



Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from edge of staked wellpad.

\rightarrow П-П 6883 6883 6883 6813 6813 6893 6893 6813 6893 HORIZONTAL SCALE |"=80' SAN JUAN COUNTY, NEW MIEXICO CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. 1461' FNIL & 425' FEIL, SECTION 25, T23N, R9W, NMIPM ENDURING RESOURCES, LLC RODEO UNIT #503HI NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES. \mathbb{C} C \mathbb{C} Q ELEVATION: 6883' Q ? VERTICAL SCALE Q Q Q



<u>Directions from the Intersection of US Hwy 550 & US Hwy 64</u>

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #503H

1461' FNL & 425' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude 36.201051°N Longitude -107.732966°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.3 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 4-way intersection;

Go Left (South-easterly) remaining on County Road #7890 for 1.2 miles to 4-way intersection;

Go Left (South-easterly) exiting County Road #7890 for 0.4 miles to staked Enduring Rodeo Unit #503H location which overlaps the existing Enduring Rodeo Unit #508H location.

Rodeo Unit 504H

Rodeo Unit 506H

pending

pending

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: Enduring Res	sources IV, LLC		OGRID: _372286	5	Date: _9	/12/2023_
II. Type: ⊠ Original □ A	Amendment due to [☐ 19.15.27.9.D(6)(a)	NMAC □ 19.15.27	'.9.D(6)(b) NM	IAC Other.	
If Other, please describe:						
III. Well(s): Provide the fobe recompleted from a sing	•			of wells propo	osed to be drilled	l or proposed to
Well Name	API	ULSTR	Footages	Anticipated	Anticipated	Anticipated
				Oil BBL/D	Gas MCF/D	Produced
						Water
Rodeo Unit 503H	pending	Sec. 25, T23N, R9W	UL:C SHL:1461' FNL	210	420	430

IV. Central Delivery Point Name: 2-9 Gas Receipt & Trunk 1 Transfer Gas Receipt [See 19.15.27.9(D)(1) NMAC]

Sec. 25, T23N, R9W

Sec. 25, T23N, R9W

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

UL:C SHL:1471' FNL

UL:C SHL:1481' FNL & 391' FEL

& 408' FEL

210

210

420

420

430

430

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Rodeo Unit 503H	pending	11/1/2023	11/21/2023	12/15/2023	12/29/2023	1/6/2024
Rodeo Unit 504H	pending	11/10/2023	11/30/023	12/15/2023	1/1/2024	1/6/2024
Rodeo Unit 506H	pending	11/20/2023	12/10/2023	12/15/2023	1/4/2023	1/6/2023

- VI. Separation Equipment:
 ☐ Attach a complete description of how Operator will size separation equipment to optimize gas capture.
- VII. Operational Practices: ⊠ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.
- VIII. Best Management Practices:

 ☐ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

⊠ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF	

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
				a a y a a a g

XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system \boxtimes will \square will not have capacity to gather 100% of th	ne anticipated natural gas
production volume from the well prior to the date of first production.	

XIII. Line Pressure. Operator $oxtimes$ does $oxtimes$ does not anticipate that its existing well(s) connected to the same segment	, or portion,	of the
natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by	y the new w	ell(s).

	, ,	1 4		1 4.	•		41	. 1	1.	
☐ Attach O	nerator's	nian to	manage	nroduction	in resi	nonse to	the	increased	line	nressure
	perator 5	piuli to	mamage	production	111 1 05	ponse to	LIIC	mercusea	11110	pressure

XIV. Confidentiality: Uperator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provide	ed in
Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific inform	ation
for which confidentiality is asserted and the basis for such assertion.	

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

one hundred percen	able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport at of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering
hundred percent of into account the cu	ot be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking trent and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. this box, Operator will select one of the following:
Well Shut-In. □ C D of 19.15.27.9 NM	perator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection IAC; or
_	ng Plan. Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential
alternative benefici	al uses for the natural gas until a natural gas gathering system is available, including:
(:	power generation on lease;
(power generation for grid;
	c) compression on lease;
,	liquids removal on lease;
	e) reinjection for underground storage;
	reinjection for temporary storage;
	g) reinjection for enhanced oil recovery;
	n) fuel cell production; and
(1	other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Heath House
Printed Name: Heather Huntington
Title: Regulatory Agent
E-mail Address: hhuntington@enduringresources.com
Date: 9/12/2023
Phone: 505-636-9751
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Attachments:

Separation Equipment: Below is a complete description of how Operator will size separation equipment to optimize gas capture.

Description of how separation equipment will be sized to optimize gas capture:

Well separation equipment is sized to have appropriate residence time and vapor space to remove gas particles on the micron scale per typical engineering calculations and/or operational experience. Furthermore, a sales scrubber downstream of the well separators is planned in order to capture any additional liquids if present. All gas is routed to end users or the sales pipeline under normal operating conditions.

Operational & Best Management Practices: Below is a complete description of the actions the Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. Additionally, below is a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Drilling Operations:

Enduring Resources will minimize venting by:

- Gas will only be vented to the atmosphere to avoid risk of immediate or substantial adverse impact to employee safety, public health, and the environment.
- If utilized, flare stacks shall be located at a minimum of 100 feet from the nearest surface hole location

Completion Operations:

Enduring Resources will minimize venting by:

- Separator operation will commence as soon as technically feasible.
- Gas will route immediately to a collection system or applied to other beneficial use, such as a fuel source for onsite equipment.
- During initial flowback and if technically feasible, flaring shall occur rather than venting.
- If natural gas does not meet pipeline standards, gas will be vented or flared. A gas analysis will be performed twice weekly until standards are met (for up to 60 days). This is not anticipated to occur.
- If required, all venting and flaring of natural gas during flowback operations shall be performed in compliance with Subsections B, C and D of 19.15.27.8 NMAC.

Production Operations:

Enduring Resources will minimize venting by:

- Shutting in the wells if the pipeline is not available. No flaring of high pressure gas will occur.
- Utilizing gas for equipment fuel, heater fuel, and artificial lift when allowable.
- Capturing low pressure gas via a gas capture system when allowable.

In General:

- All venting and flaring from drilling, flowback and operation phases shall be reported in compliance with Subsection G of 19.15.27.8 NMAC.
- If utilized, flare stacks shall be located at a minimum of 100 feet from the nearest surface hole location and 100 ft from the permanent facility storage tanks.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on <u>Gas Transporter</u> system at that time. Based on current information, it is <u>Operator's</u> belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Page 5 of 6

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
 - o Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
 - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
 - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines
- Power generation for grid;
- Liquids removal on lease;
- Reinjection for underground storage;
- Reinjection for temporary storage;
- Reinjection for enhanced oil recovery;
- Fuel cell production; and
- Other alternative beneficial uses approved by the division.



ENDURING RESOURCES IV, LLC 6300 S SYRACUSE WAY, SUITE 525 **CENTENNIAL, COLORADO 80111**

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

WELL INFORMATION:

Name: RODEO UNIT 503H API Number: not yet assigned AFE Number: not yet assigned ER Well Number: not yet assigned State: New Mexico

County: San Juan

6,896 ft ASL (KB) Surface Elevation: 6,883 ft ASL (GL)

Surface Location: 25-23N-09W Sec-Twn-Rng 1,461 ft FNL 425 ft FEL

> 36.201051 ° N latitude 107.732966 ° W longitude (NAD 83)

29-23N-08W Sec-Twn-Rng 380 ft FNL BH Location: 1,977 ft FEL

107.702299 $^{\circ}$ W longitude 36.204073 ° N latitude (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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD (WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 506H (PLANNED)).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O/G/W	Pressure
Ojo Alamo	6,325	571	571	W	normal
Kirtland	6,239	657	657	W	normal
Fruitland	6,035	861	863	G, W	sub
Pictured Cliffs	5,728	1,168	1,182	G, W	sub
Lewis	5,569	1,327	1,351	G, W	normal
Chacra	5,310	1,586	1,626	G, W	normal
Cliff House	4,240	2,656	2,762	G, W	sub
Menefee	4,222	2,674	2,782	G, W	normal
Point Lookout	3,248	3,648	3,814	G, W	normal
Mancos	3,082	3,814	3,986	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,313	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,398	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,498	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,547	O,G	sub (~0.38)
MNCS_D	2,404	4,492	4,671	O,G	sub (~0.38)
MNCS_E	2,254	4,642	4,844	O,G	sub (~0.38)
MNCS_F	2,197	4,699	4,921	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,046	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,456	O,G	sub (~0.38)
MNCS_I	2,023	4,873	5,284	O,G	sub (~0.38)
FTP (LP) TARGET	2,007	4,889	5,418	O,G	sub (~0.38)
LTP (TD) TARGET	1,967	4,929	13,941	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: 2,120 psi Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi

Temperature: Maximum anticipated BHT is 135° 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: Ensign Rig No.: 145

Draw Works: Lewco LDS 1500K (1,000 hp)

Mast: ADR 1000 Cantilever Triple (134 ft, 500,000 lbs)

Top Drive: Tesco 350-EXI-600 (250 ton)

Prime Movers: 2 - CAT 3512 (1,350 hp), 1 -CAT C32 (1,100 hp)

Pumps: 2 - Mudder MD11 (5,000 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (13-5/8", 5,000 psi)

Int Hole BOPE 2: T3 annular(13-5/8", 5,000 psi)

Prod Hole BOPE 2: T3 annular/Townsend Double gate(11", 5,000 psi)

Choke 3", 5,000 psi **KB-GL (ft):** 12.5

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

Note: BOPE 2 are alternate stacks to be used only if problems with rig height and BOP 1 height are encountered. Intermediate hole

BOPE 2 is designed for 2,000 psi permit requirements.

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.
- 3) 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.
- **4)** 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.
- 5) 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.
- 6) 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. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

DETAILED DRILLING PLAN:

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

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

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

			FL (mL/30		YP (lb/100		
Fluid:	Туре	MW (ppg)	min)	PV (cp)	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:		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	613	116,634	116,634
Min. S.F.					7.39	4.45	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

N/A

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:

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

					Hole Cap.		Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total Cmt (sx)
	Type III	14.6	1.39	6.686	0.6946	100%	0	350

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

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	2,941 ft (MD)	Hole Section Length:	2,591 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	2,941 ft

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

L**ogging:** 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					1,234	1,202	192,329	192,329
Min. S.F.					1.64	2.93	2.93	2.36

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

5,660

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: 3,400 Optimum: 4,530 Maximum:

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

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per jt

(floating) to KOP; 1 centralizer per 2 jts (floating) to surface

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	580
Tail	Type III	14.6	1.38	6.64	20%	2,441	136

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

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.

2,941	ft (MD)	to	13,941 ft (MD)	Hole Section Length:	11,000 ft
2,824	ft (TVD)	to	4,929 ft (TVD)	Casing Required:	13,941 ft

Estimated KOP:	4,460 ft (MD)	4,286 ft (TVD)
Estimated Landing Point (FTP):	5,418 ft (MD)	4,889 ft (TVD)
Estimated Lateral Length:	8,523 ft (MD)	·

					YP (lb/100		
Fluid:	Туре	MW (ppg)	FL (mL/30')	PV (cp)	sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

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.

							Tens. Body	Tens. Conn
Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	(lbs)	(lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,435	8,961	354,507	354,507
Min. S.F.					3.06	1.19	1.54	1.26

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 150,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar w/debris catcher, 1 jt casing, float collar, 20' marker joint, toe-intitiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub, casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. Note: the LTP is the target depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as

required for necessary rat-hole and shoe-track length to place the toe sleeve at the LTP target.

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

Lateral: 1 centralizer per joint

FTP to 9-5/8" shoe: 1 centralizer per joint 9-5/8" shoe to surface: 1 centralizer per 2 joints

						Planned TOC	
Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	(ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	503
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,986	1,608

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

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

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

FINISH WELL: ND BOP, cap well, RDMO.

COMPLETION AND PRODUCTION PLAN:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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: TBD Completion: TBD **Production: TBD**

Prepared by: **Alec Bridge** 3/15/2022



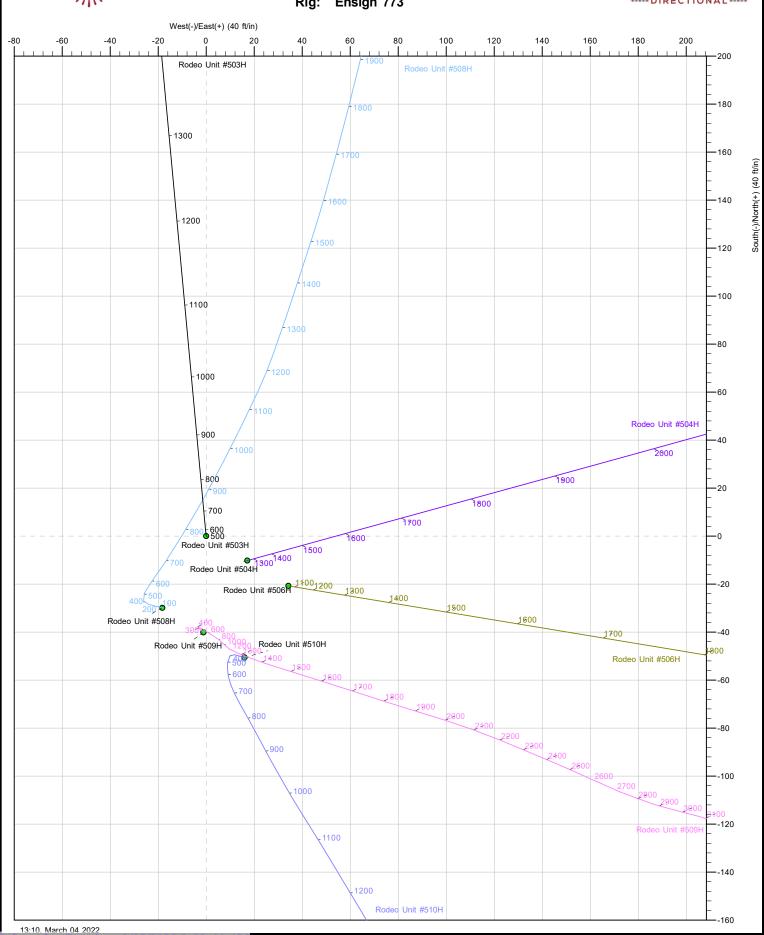
Rodeo Unit #503H Well: Site: Rodeo Unit

Project: San Juan County, New Mexico NAD83 NM W

Design: rev1

Rig: Ensign 773







Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

 Site:
 Rodeo Unit

 Well:
 Rodeo Unit #503H

 Wellbore:
 Original Hole

 Design:
 rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Western Zone

System Datum: Mean Sea Level

Site Rodeo Unit

 Site Position:
 Northing:
 1,892,465.480 usft
 Latitude:
 36.200969000

 From:
 Lat/Long
 Easting:
 2,752,685.264 usft
 Longitude:
 -107.733028000

Position Uncertainty: 0.00 ft Slot Radius: 13-3/16 "

Well Rodeo Unit #503H, Surf loc: 1461 FNL 425 FEL Section 25-T23N-R09W

 Well Position
 +N/-S
 0.00 ft
 Northing:
 1,892,495.349 usft
 Latitude:
 36.201051000

 +E/-W
 0.00 ft
 Easting:
 2,752,703.525 usft
 Longitude:
 -107.732966000

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 6,883.00 ft

Grid Convergence: 0.06 °

Wellbore Original Hole Declination Field Strength Magnetics **Model Name** Sample Date Dip Angle (°) (°) (nT) 49,223.83303591 IGRF2020 2/22/2022 8.72 62.72

| Design | rev1 | | Audit Notes: | Version: | Phase: | PLAN | Tie On Depth: | 0.00 | |

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

 0.00
 0.00
 0.00
 0.00
 89.785

 Plan Survey Tool Program
 Date 3/7/2022

 Depth From (ft)
 Depth To (ft)
 Survey (Wellbore)
 Tool Name
 Remarks

 1
 0.00
 13,941.46 rev1 (Original Hole)
 MWD

OWSG MWD - Standard



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

an Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.21	19.66	354.707	1,142.43	110.82	-10.27	3.00	3.00	0.00	354.71	
3,704.99	19.66	354.707	3,543.63	964.84	-89.39	0.00	0.00	0.00	0.00	
4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	3.00	-3.00	0.00	180.00	
4,460.18	0.00	0.000	4,286.05	1,075.66	-99.66	0.00	0.00	0.00	0.00	
5,060.18	60.00	89.779	4,782.25	1,076.77	186.82	10.00	10.00	0.00	89.78	
5,120.18	60.00	89.779	4,812.25	1,076.97	238.78	0.00	0.00	0.00	0.00	
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	10.00	10.00	0.00	0.00	
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	0.00	0.00	0.00	0.00 F	odeo 503 LTP 380



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

lanned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
•	3°/100' build								
571.02	2.13	354.707	571.00	1.31	-0.12	-0.12	3.00	3.00	0.00
Ojo Alamo	0.00	054707	500.05	0.04	0.04	0.00	0.00	0.00	2.22
600.00	3.00	354.707	599.95	2.61	-0.24	-0.23	3.00	3.00	0.00
657.18	4.72	354.707	657.00	6.44	-0.60	-0.57	3.00	3.00	0.00
Kirtland	0.00	254 707	600.00	40.40	0.07	0.00	2.00	2.00	0.00
700.00	6.00	354.707	699.63	10.42	-0.97	-0.93	3.00	3.00	0.00
800.00	9.00	354.707	798.77	23.41	-2.17	-2.08	3.00	3.00	0.00
863.18	10.90	354.707	861.00	34.28	-3.18	-3.05	3.00	3.00	0.00
Fruitland									
900.00	12.00	354.707	897.08	41.56	-3.85	-3.69	3.00	3.00	0.00
1,000.00	15.00	354.707	994.31	64.80	-6.00	-5.76	3.00	3.00	0.00
1,100.00	18.00	354.707	1,090.18	93.08	-8.62	-8.27	3.00	3.00	0.00
1,155.21	19.66	354.707	1,142.43	110.82	-10.27	-9.85	3.00	3.00	0.00
Begin 19.66	6° tangent								
1,182.36	19.66	354.707	1,168.00	119.91	-11.11	-10.66	0.00	0.00	0.00
Pictured Cli									
1,200.00	19.66	354.707	1,184.61	125.82	-11.66	-11.19	0.00	0.00	0.00
1,300.00	19.66	354.707	1,278.79	159.31	-14.76	-14.16	0.00	0.00	0.00
1,351.20 Lewis	19.66	354.707	1,327.00	176.46	-16.35	-15.69	0.00	0.00	0.00
1,400.00	19.66	354.707	1,372.96	192.81	-17.86	-17.14	0.00	0.00	0.00
1,500.00	19.66	354.707	1,467.13	226.30	-20.97	-20.12	0.00	0.00	0.00
1,600.00	19.66	354.707	1,561.30	259.80	-24.07	-23.10	0.00	0.00	0.00
1,626.22	19.66	354.707	1,586.00	268.58	-24.88	-23.88	0.00	0.00	0.00
Chacra_A 1,700.00	10.66	254 707	1 655 10	202.20	07.47	26.07	0.00	0.00	0.00
1,700.00	19.66	354.707	1,655.48	293.29	-27.17	-26.07	0.00	0.00	0.00
1,800.00	19.66	354.707	1,749.65	326.78	-30.28	-29.05	0.00	0.00	0.00
1,900.00	19.66	354.707	1,843.82	360.28	-33.38	-32.03	0.00	0.00	0.00
2,000.00	19.66	354.707	1,938.00	393.77	-36.48	-35.01	0.00	0.00	0.00
2,100.00	19.66	354.707 354.707	2,032.17	427.27 460.76	-39.59	-37.98 40.06	0.00 0.00	0.00	0.00 0.00
2,200.00	19.66	354.707	2,126.34	460.76	-42.69	-40.96		0.00	
2,300.00	19.66	354.707	2,220.51	494.26	-45.79	-43.94	0.00	0.00	0.00
2,400.00	19.66	354.707	2,314.69	527.75	-48.90	-46.92	0.00	0.00	0.00
2,500.00	19.66	354.707	2,408.86	561.24	-52.00	-49.89	0.00	0.00	0.00
2,600.00	19.66	354.707 354.707	2,503.03	594.74	-55.10	-52.87	0.00	0.00	0.00
2,700.00	19.66	354.707	2,597.20	628.23	-58.21	-55.85	0.00	0.00	0.00
2,762.43	19.66	354.707	2,656.00	649.14	-60.14	-57.71	0.00	0.00	0.00
Cliff House		254 707	2 674 00	CEE TA	60.74	EQ 00	0.00	0.00	0.00
2,781.55	19.66	354.707	2,674.00	655.54	-60.74	-58.28	0.00	0.00	0.00
Menefee	40.00	054.707	0.004.00	004.70	04.04	50.00	0.00	0.00	0.00
2,800.00 2,900.00	19.66	354.707	2,691.38	661.73	-61.31	-58.83 -61.80	0.00 0.00	0.00	0.00
3,000.00	19.66 19.66	354.707 354.707	2,785.55 2,879.72	695.22 728.71	-64.41 -67.52	-61.80 -64.78	0.00	0.00 0.00	0.00 0.00
3,100.00	19.66	354.707	2,973.90	762.21	-70.62	-67.76	0.00	0.00	0.00
3,200.00	19.66	354.707	3,068.07	795.70	-73.72	-70.74	0.00	0.00	0.00
3,300.00	19.66	354.707	3,162.24	829.20	-76.83	-73.71	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

\$3,000.00 19,66 354,707 3,350,59 896,18 -83,03 -79,67 0,00 0,00 0,00 0,00 3,00 0,00	N Cumo:									
Depth Inclination Azimuth Depth NNLS E-IW Section Raite Rate (*100 ft)	Jourvey									
3,800.00 19.66 354.707 3,350.59 896.18 -83.03 -79.67 0.00 0.00 0.00 3,360.00 19.66 354.707 3,545.63 964.84 -89.39 -85.77 0.00 0.00 0.00 0.00 3,3704.99 19.66 354.707 3,545.63 964.84 -89.39 -85.77 0.00 0.00 0.00 0.00 3,381.37 10.00 10.3 81.3 354.707 3,545.00 986.63 -92.52 -88.78 3.00 -3.00 0.00 3,381.00 13.81 354.707 3,545.00 986.63 -92.52 -88.78 3.00 -3.00 0.00 0.00 3,381.3 354.707 3,545.00 986.63 -92.52 -88.78 3.00 -3.00 0.00 0.00 3,381.3 354.707 3,730.31 1,020.72 -94.57 -90.74 3.00 -3.00 0.00 0.00 0.00 0.00 0.00 0.0	Depth			Depth			Section	Rate	Rate	Rate
3,704.99 19.66 354.707 3,643.63 964.84 -99.39 -95.77 0.00 0.00 0.00				,						0.00 0.00
3,800.00 18.81 354.707 3,833.86 994.44 -92.13 -88.70 3.00 -3.00 0.00 3,814.75 163.6 354.707 3,648.00 998.63 -92.52 -88.76 3.00 -3.00 0.00 3,905.74 11.23 354.707 3,814.00 1,039.23 -96.28 -92.38 3.00 -3.00 0.00 3,905.74 11.23 354.707 3,814.00 1,039.23 -96.28 -92.38 3.00 -3.00 0.00 Mancos 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 -92.63 3.00 -3.00 0.00 4,100.00 7.81 354.707 3,828.00 1,041.94 -96.54 -92.63 3.00 -3.00 0.00 4,200.00 4.81 354.707 4,026.05 1,068.04 -98.03 -94.06 3.00 -3.00 0.00 4,200.00 4.81 354.707 4,125.88 1,074.72 -99.57 -95.64 3.00 -3.00 0.00 4,300.00 18.81 354.707 4,125.88 1,074.72 -99.57 -95.64 3.00 -3.00 0.00 4,300.00 18.81 354.707 4,125.88 1,074.72 -99.57 -95.64 3.00 -3.00 0.00 4,300.00 18.01 354.707 4,125.88 1,074.72 -99.66 -95.62 3.00 -3.00 0.00 MNCS_A 4,300.13 0.00 0.000 4,186.06 1,075.08 -99.66 -95.62 3.00 -3.00 0.00 MNCS_B 4,400.00 0.00 0.000 4,224.00 1,075.66 -99.66 -95.62 0.00 0.00 0.00 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 -95.62 0.00 0.00 0.00 MNCS_B 4,498.16 3.80 89.779 4,325.83 1,075.67 -98.28 -94.24 1.00 0 10.00 0.00 MNCS_C 4,507.47 8,73 89.779 4,373.00 1,075.69 -99.69 -95.62 0.00 0.00 0.00 MNCS_C 4,500.00 3.98 89.779 4,373.00 1,075.69 -99.69 -95.62 0.00 0.00 0.00 MNCS_C 4,500.00 19.88 89.779 4,375.50 1,075.69 -99.69 -95.62 0.00 0.00 0.00 MNCS_C 4,500.00 19.88 89.779 4,472.44 1,075.78 -98.26 -98.80 10.00 10.00 0.00 MNCS_C 4,500.00 19.88 89.779 4,472.44 1,075.78 -98.26 -98.80 10.00 10.00 0.00 MNCS_C 4,500.00 19.88 89.779 4,472.44 1,075.78 -98.50 -98.26 -98.60 10.00 10.00 0.00 MNCS_C 4,500.00 19.88 89.779 4,472.44 1,075.78 -98.50 -98.26 10.00 10.00 0.00 MNCS_D 4,600.00 13.98 89.779 4,472.44 1,075.78 -98.50 -98.26 10.00 10.00 0.00 MNCS_D 4,500.00 3.98 89.779 4,472.44 1,075.78 -98.50 -98.60 10.00 10.00 0.00 MNCS_D 4,500.00 3.98 89.779 4,472.49 1,075.81 -91.37 -91.38 10.00 10.00 0.00 MNCS_D 4,500.00 3.98 89.779 4,474.47 1,075.78 -99.60 -95.60 10.00 10.00 0.00 MNCS_D 4,500.00 3.98 89.779 4,474.47 1,075.78 -90.00 10.00 10.00 0.00 MNCS_D 4,500.00 3.98 89.779 4,474.47 1				,						0.00 0.00
Point Lockout 3,900.00 13.81 354.707 3,730.31 1,020.72 -94.57 -90.74 3.00 -3.00 0.00	3,800.00	16.81		,						0.00
3,985.74			354.707	3,040.00	990.03	-92.52	-00.70	3.00	-3.00	0.00
Marcos	3,900.00	13.81	354.707	3,730.31	1,020.72	-94.57	-90.74	3.00	-3.00	0.00
4,000.00 10.81 354.707 3,328.00 1,041.94 986.54 92.83 3.00 3.00 0.00 4.100.00 7.81 354.707 3,926.67 1,058.04 98.03 0 94.05 3.00 3.00 0.00 4.200.00 4.81 354.707 4,026.05 1,068.97 99.04 95.03 3.00 3.00 3.00 0.00 4.200.00 1.81 354.707 4,125.88 1,074.72 99.57 95.54 3.00 3.00 3.00 0.00 4.300.00 1.81 354.707 4,125.88 1,074.72 99.57 95.54 3.00 3.00 3.00 0.00 0.00 4.300.00 1.81 354.707 4,139.00 1,075.08 9.99.61 95.52 3.00 3.00 3.00 0.00 MNCS_A 4,331.13 0.00 0.000 4,186.06 1,075.66 99.66 95.62 3.00 3.00 3.00 0.00 0.00 0.000 4,186.06 1,075.66 99.66 95.62 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	,	11.23	354.707	3,814.00	1,039.23	-96.28	-92.38	3.00	-3.00	0.00
MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 -95.62 3.00 -3.00 0.00 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 -95.62 0.00 0.00 0.00 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 -95.62 0.00 0.00 0.00 4,460.18 0.00 0.000 4,226.05 1,075.66 -99.66 -95.62 0.00 0.00 0.00 Begin 10°/100° build 4,498.16 3.80 89.779 4,324.00 1,075.66 -98.40 -94.36 10.00 10.00 0.00 MNCS_C 4,500.00 3.98 89.779 4,325.83 1,075.67 -98.28 -94.24 10.00 10.00 0.00 4,547.47 8,73 89.779 4,373.00 1,075.69 -93.02 -88.99 10.00 10.00 0.00 MNCS_C 4,500.00 13.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.00 4,660.00 13.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.00 4,670.85 21.07 89.779 4,492.0 1,075.78 -68.50 -64.47 10.00 10.00 0.00 MNCS_D 4,750.00 28.98 89.779 4,518.92 1,075.85 -50.20 -46.16 10.00 10.00 0.00 MNCS_D 4,750.00 28.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,680.29 1,076.04 -1.81 2.23 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,680.20 1,075.81 -61.37 -57.33 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,680.20 1,076.04 -1.81 2.23 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,680.29 1,076.04 -1.81 2.23 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,680.29 1,076.04 -1.81 2.23 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,683.89 1,076.84 76.12 80.15 10.00 10.00 0.00 MNCS_E 4,850.00 48.98 89.779 4,689.00 1,076.14 24.32 28.36 10.00 10.00 0.00 MNCS_E 4,850.00 48.98 89.779 4,699.00 1,076.74 76.12 80.15 10.00 10.00 0.00 MNCS_E 4,850.00 58.58 89.779 4,775.00 1,076.57 136.37 140.41 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.57 136.37 140.41 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 10.00 0.00 MNCS_G 5,000.00 58.98 89.779 4,775.00 1,076.	4,000.00 4,100.00 4,200.00	7.81 4.81	354.707 354.707	3,926.67 4,026.05	1,058.04 1,068.97	-98.03 -99.04	-94.06 -95.03	3.00 3.00	-3.00 -3.00	0.00 0.00 0.00 0.00
Begin vertical hold	,	1.41	354.707	4,139.00	1,075.08	-99.61	-95.57	3.00	-3.00	0.00
A,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 -95.62 0.00 0.00 0.00 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 -95.62 0.00 0.00 0.00 4,460.18 0.00 0.000 4,286.05 1,075.66 -99.66 -95.62 0.00 0.00 0.00 Begin 10°/100° build 4,498.16 3.80 89.779 4,322.83 1,075.67 -98.28 -94.24 10.00 10.00 0.00 MNCS_C 4,500.00 3.98 89.779 4,325.83 1,075.67 -98.28 -94.24 10.00 10.00 0.00 MNCS_Cms 4,550.00 8.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.00 4,550.00 18.98 89.779 4,472.41 1,075.78 -68.50 -64.47 10.00 10.00 0.0 4,650.00 18.98 89.779 4,4	4,360.19		0.000	4,186.06	1,075.66	-99.66	-95.62	3.00	-3.00	0.00
4,400.00 0.00 0.00 4,225.87 1,075.66 -99.66 -95.62 0.00 0.00 0.00 0.00 4,460.18 0.00 0.00 4,286.05 1,075.66 -99.66 -95.62 0.00 0.00 0.00 0.00 0.00 4,460.18 0.00 0.00 4,286.05 1,075.66 -99.66 -95.62 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4,398.13		0.000	4,224.00	1,075.66	-99.66	-95.62	0.00	0.00	0.00
4,498.16 3.80 89.779 4,324.00 1,075.66 -98.40 -94.36 10.00 10.00 0.00 MNCS_C 4,500.00 3.98 89.779 4,325.83 1,075.67 -98.28 -94.24 10.00 10.00 0.00 4,547.47 8.73 89.779 4,373.00 1,075.69 -93.02 -88.99 10.00 10.00 0.00 MNCS_Cms 4,550.00 8.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.00 4,600.00 13.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.00 4,650.00 18.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.00 4,670.85 21.07 89.779 4,492.00 1,075.81 -61.37 -57.33 10.00 10.00 0.00 MNCS_D 4,700.00 23.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.00 4,800.00 33.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.00 4,844.26 38.41 89.779 4,642.00 1,076.14 24.32 28.36 10.00 10.00 0.00 MNCS_E 4,850.00 38.98 89.779 4,684.20 1,076.15 27.91 31.95 10.00 10.00 0.00 MNCS_E 4,800.00 33.98 89.779 4,684.39 1,076.15 27.91 31.95 10.00 10.00 0.00 MNCS_F 4,900.00 43.98 89.779 4,684.39 1,076.28 61.02 65.06 10.00 10.00 0.00 4,921.34 46.12 89.779 4,689.90 1,076.42 97.26 101.30 10.00 10.00 0.00 MNCS_F 4,950.00 48.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.00 MNCS_G 5,060.00 58.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.00 MNCS_G 5,060.00 58.98 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.77 186.82 190.86 10.00 10.00 0.00 MNCS_G 5,060.18 60.00 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 0.00	4,400.00 4,460.18	0.00								0.00 0.00
MNCS_C 4,500.00 3.98 89.779 4,325.83 1,075.67 -98.28 -94.24 10.00 10.00 0.0.0 4,547.47 8.73 89.779 4,373.00 1,075.69 -93.02 -88.99 10.00 10.00 0.0.0 MNCS_Cms 4,550.00 8.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.0.0 4,600.00 13.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.0.0 4,650.00 18.98 89.779 4,472.41 1,075.78 -68.50 -64.47 10.00 10.00 0.0.0 4,670.85 21.07 89.779 4,492.00 1,075.81 -61.37 -57.33 10.00 10.00 0.0.0 MNCS_D 4,700.00 23.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.0.0 4,800.00 33.98 89.779 4,664.29 1,076.04 -1.81 2.23 10.00 10.00 0.0.0 4,844.26 38.41 89.779 4,642.00 1,076.14 24.32 28.36 10.00 10.00 0.0.0 MNCS_E 4,850.00 38.98 89.779 4,643.93 1,076.15 27.91 31.95 10.00 10.00 0.0.0 4,840.00 33.98 89.779 4,683.93 1,076.28 61.02 65.06 10.00 10.00 0.0.0 4,921.34 46.12 89.779 4,689.90 1,076.34 76.12 80.15 10.00 10.00 0.0.0 4,921.34 46.12 89.779 4,699.00 1,076.34 76.12 80.15 10.00 10.00 0.0.0 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.0.0 5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.0.0 5,000.00 58.58 89.779 4,749.47 1,076.77 136.37 140.41 10.00 10.00 0.0.0 MNCS_G 5,050.00 58.98 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.0.0 MNCS_G 5,050.00 58.98 89.779 4,775.00 1,076.77 186.82 190.86 10.00 10.00 0.0.0 Begin 60.00° tangent	•									
4,500.00 3.98 89.779 4,325.83 1,075.67 -98.28 -94.24 10.00 10.00 0.00 4,547.47 8.73 89.779 4,373.00 1,075.69 -93.02 -88.99 10.00 10.00 0.00 MNCS_Cms 4,550.00 8.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.00 4,600.00 13.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.00 4,600.00 18.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.00 4,670.85 21.07 89.779 4,492.00 1,075.81 -61.37 -57.33 10.00 10.00 0.00 0.00 0.00 0.00 0.00		3.80	89.779	4,324.00	1,075.66	-98.40	-94.36	10.00	10.00	0.00
4,555.00 8.98 89.779 4,375.50 1,075.69 -92.63 -88.60 10.00 10.00 0.0 4,600.00 13.98 89.779 4,424.48 1,075.73 -82.69 -78.65 10.00 10.00 0.0 4,650.00 18.98 89.779 4,472.41 1,075.78 -68.50 -64.47 10.00 10.00 0.0 4,670.85 21.07 89.779 4,492.00 1,075.81 -61.37 -57.33 10.00 10.00 0.0 MNCS_D 4,700.00 23.98 89.779 4,518.92 1,075.85 -50.20 -46.16 10.00 10.00 0.0 4,750.00 28.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.0 4,800.00 33.98 89.779 4,666.29 1,076.04 -1.81 2.23 10.00 10.00 0.0 4,844.26 38.41 89.779 4,642.00 1,076.14 24.32 28.36 10.00 10.00 0.0 MNCS_E 4,850.00 38.98 89.779 4,683.93 1,076.15 27.91 31.95 10.00 10.00 0.0 4,900.00 43.98 89.779 4,683.93 1,076.28 61.02 65.06 10.00 10.00 0.0 4,921.34 46.12 89.779 4,699.00 1,076.34 76.12 80.15 10.00 10.00 0.0 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.0 5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.0 5,046.00 58.58 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.0 MNCS_G MNCS_G 5,060.18 60.00 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 Begin 60.00° tangent	,									0.00 0.00
4,670.85 21.07 89.779 4,492.00 1,075.81 -61.37 -57.33 10.00 10.00 0.00 MNCS_D 4,700.00 23.98 89.779 4,518.92 1,075.85 -50.20 -46.16 10.00 10.00 0.0 4,750.00 28.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.0 4,800.00 33.98 89.779 4,606.29 1,076.04 -1.81 2.23 10.00 10.00 0.0 4,844.26 38.41 89.779 4,642.00 1,076.14 24.32 28.36 10.00 10.00 0.0 MNCS_E 4,850.00 38.98 89.779 4,646.48 1,076.15 27.91 31.95 10.00 10.00 0.0 4,900.00 43.98 89.779 4,689.93 1,076.28 61.02 65.06 10.00 10.00 0.0 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.0 5,000.00	4,550.00			,	,					0.00 0.00
4,700.00 23.98 89.779 4,518.92 1,075.85 -50.20 -46.16 10.00 10.00 0.00 4,750.00 28.98 89.779 4,563.66 1,075.94 -27.91 -23.87 10.00 10.00 0.0 4,800.00 33.98 89.779 4,606.29 1,076.04 -1.81 2.23 10.00 10.00 0.0 MNCS_E 4,850.00 38.98 89.779 4,646.48 1,076.15 27.91 31.95 10.00 10.00 0.0 4,900.00 43.98 89.779 4,683.93 1,076.28 61.02 65.06 10.00 10.00 0.0 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.0 MNCS_G 5,006.00 58.58 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.0 MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 174.62	4,670.85			,	,					0.00 0.00
MNCS_E 4,850.00 38.98 89.779 4,646.48 1,076.15 27.91 31.95 10.00 10.00 0.00 4,900.00 43.98 89.779 4,683.93 1,076.28 61.02 65.06 10.00 10.00 0.00 4,921.34 46.12 89.779 4,699.00 1,076.34 76.12 80.15 10.00 10.00 10.00 0.00 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.00 5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.00 5,046.00 58.58 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.00 MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.00 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.	4,700.00 4,750.00	28.98	89.779	4,563.66	1,075.94	-27.91	-23.87	10.00	10.00	0.00 0.00 0.00
4,850.00 38.98 89.779 4,646.48 1,076.15 27.91 31.95 10.00 10.00 0.00 4,900.00 43.98 89.779 4,683.93 1,076.28 61.02 65.06 10.00 10.00 0.00 4,921.34 46.12 89.779 4,699.00 1,076.34 76.12 80.15 10.00 10.00 0.00 MNCS_F 4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.00 5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.0 5,046.00 58.58 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.0 MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 <td< td=""><td></td><td>38.41</td><td>89.779</td><td>4,642.00</td><td>1,076.14</td><td>24.32</td><td>28.36</td><td>10.00</td><td>10.00</td><td>0.00</td></td<>		38.41	89.779	4,642.00	1,076.14	24.32	28.36	10.00	10.00	0.00
4,950.00 48.98 89.779 4,718.35 1,076.42 97.26 101.30 10.00 10.00 0.0 5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.0 5,046.00 58.58 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.0 MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 Begin 60.00° tangent	4,850.00 4,900.00	43.98	89.779	4,683.93	1,076.28	61.02	65.06	10.00	10.00	0.00 0.00 0.00
5,000.00 53.98 89.779 4,749.47 1,076.57 136.37 140.41 10.00 10.00 0.00 5,046.00 58.58 89.779 4,775.00 1,076.72 174.62 178.66 10.00 10.00 0.00 MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.00 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.00 Begin 60.00° tangent	_	40.00	00.770	471005	4 070 40	27.05	404.00	40.00	40.00	2.22
MNCS_G 5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 Begin 60.00° tangent	5,000.00	53.98	89.779	4,749.47	1,076.57	136.37	140.41	10.00	10.00	0.00
5,050.00 58.98 89.779 4,777.08 1,076.73 178.04 182.08 10.00 10.00 0.0 5,060.18 60.00 89.779 4,782.25 1,076.77 186.82 190.86 10.00 10.00 0.0 Begin 60.00° tangent		58.58	89.779	4,775.00	1,076.72	174.62	178.66	10.00	10.00	0.00
· · · · · · · · · · · · · · · · · · ·	5,050.00			,						0.00 0.00
3 100 00 00 00 00 00 40 4007 13 1 10/0 MU 77 34 11111 11111 1111 1111	•	•	00 770	1 000 15	1 076 00	224 20	225.24	0.00	0.00	0.00
										0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

1.									
ned Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
D				. ,	` '				
Begin 10°/1 5,150.00	62.98	89.779	4,826.48	1,077.07	264.97	269.01	10.00	10.00	0.00
5,155.61	63.54	89.779	4,829.00	1,077.09	269.99	274.03	10.00	10.00	0.00
MNCS_H	00.01	00.110	1,020.00	1,077.00	200.00	27 1.00	10.00	10.00	0.00
5,200.00	67.98	89.779	4,847.22	1,077.24	310.45	314.49	10.00	10.00	0.00
5,250.00	72.98	89.779	4,863.92	1,077.42	357.56	361.60	10.00	10.00	0.00
5,284.43	76.42	89.779	4,873.00	1,077.55	390.77	394.81	10.00	10.00	0.00
	70.42	69.779	4,073.00	1,077.55	390.77	394.01	10.00	10.00	0.00
MNCS_I 5,300.00	77.98	89.779	4,876.45	1,077.61	405.95	409.99	10.00	10.00	0.00
5,350.00	82.98	89.779	4,884.71	1,077.80	455.25	459.29	10.00	10.00	0.00
5,400.00	87.98	89.779	4,888.65	1,077.99	505.07	509.12	10.00	10.00	0.00
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	526.61	10.00	10.00	0.00
Begin 89.73									
5,500.00	89.73	89.779	4,889.39	1,078.38	605.07	609.11	0.00	0.00	0.00
5,600.00	89.73 89.73	89.779 89.779	4,889.39 4,889.86	1,078.38	705.07	709.11	0.00	0.00	0.00
5,700.00	89.73	89.779	4,890.33	1,079.15	805.06	809.11	0.00	0.00	0.00
5,800.00	89.73	89.779	4,890.80	1,079.53	905.06	909.11	0.00	0.00	0.00
5,900.00	89.73	89.779	4,891.27	1,079.92	1,005.06	1,009.11	0.00	0.00	0.00
6,000.00	89.73	89.779	4,891.73	1,080.30	1,105.06	1,109.11	0.00	0.00	0.00
6,100.00	89.73	89.779	4,892.20	1,080.69	1,205.06	1,209.11	0.00	0.00	0.00
6,200.00	89.73	89.779	4,892.67	1,080.09	1,305.06	1,309.10	0.00	0.00	0.00
6,300.00	89.73	89.779	4,893.14	1,081.46	1,405.05	1,409.10	0.00	0.00	0.00
6,400.00	89.73	89.779	4,893.61	1,081.84	1,505.05	1,509.10	0.00	0.00	0.00
	89.73	89.779	4,894.08	1,082.22		1,609.10	0.00	0.00	0.00
6,500.00 6,600.00	89.73	89.779	4,894.55	1,082.22	1,605.05 1,705.05	1,709.10	0.00	0.00	0.00
6,700.00	89.73	89.779	4,895.02	1,082.99	1,805.05	1,809.10	0.00	0.00	0.00
6,800.00	89.73	89.779	4,895.49	1,083.38	1,905.04	1,909.10	0.00	0.00	0.00
6,900.00	89.73	89.779	4,895.96	1,083.76	2,005.04	2,009.10	0.00	0.00	0.00
	89.73	89.779	4,896.43	1,084.15	2,105.04	2,109.09	0.00	0.00	0.00
7,000.00 7,100.00	89.73 89.73	89.779 89.779	4,896.43	1,084.15	2,105.04	2,109.09	0.00	0.00	0.00
7,100.00	89.73	89.779	4,897.37	1,084.92	2,305.04	2,309.09	0.00	0.00	0.00
7,300.00	89.73	89.779	4,897.84	1,085.30	2,405.04	2,409.09	0.00	0.00	0.00
7,400.00	89.73	89.779	4,898.30	1,085.69	2,505.03	2,509.09	0.00	0.00	0.00
7,500.00	89.73	89.779	4,898.77	1,086.07	2,605.03	2,609.09	0.00	0.00	0.00
7,600.00	89.73	89.779	4,899.24	1,086.07	2,705.03	2,709.09	0.00	0.00	0.00
7,700.00	89.73	89.779	4,899.71	1,086.84	2,805.03	2,809.09	0.00	0.00	0.00
7,800.00	89.73	89.779	4,900.18	1,087.23	2,905.03	2,909.09	0.00	0.00	0.00
7,900.00	89.73	89.779	4,900.65	1,087.61	3,005.02	3,009.08	0.00	0.00	0.00
8,000.00	89.73	89.779	4,901.12	1,088.00	3,105.02	3,109.08	0.00	0.00	0.00
8,100.00	89.73	89.779	4,901.12	1,088.38	3,105.02	3,209.08	0.00	0.00	0.00
8,200.00	89.73	89.779	4,902.06	1,088.77	3,305.02	3,309.08	0.00	0.00	0.00
8,300.00	89.73	89.779	4,902.53	1,089.15	3,405.02	3,409.08	0.00	0.00	0.00
8,400.00	89.73	89.779	4,903.00	1,089.54	3,505.02	3,509.08	0.00	0.00	0.00
8,500.00	89.73	89.779	4,903.47	1,089.92	3,605.01	3,609.08	0.00	0.00	0.00
8,600.00	89.73	89.779	4,903.47	1,090.31	3,705.01	3,709.08	0.00	0.00	0.00
8,700.00	89.73	89.779	4,903.94	1,090.69	3,805.01	3,809.08	0.00	0.00	0.00
8,800.00	89.73	89.779	4,904.87	1,091.08	3,905.01	3,909.07	0.00	0.00	0.00
8,900.00	89.73	89.779	4,905.34	1,091.46	4,005.01	4,009.07	0.00	0.00	0.00
9,000.00	89.73	89.779	4,905.81	1,091.85	4,105.00	4,109.07	0.00	0.00	0.00
9,000.00	89.73 89.73	89.779 89.779	4,905.81	1,091.85	4,105.00	4,109.07	0.00	0.00	0.00
9,200.00	89.73	89.779	4,906.75	1,092.62	4,205.00	4,209.07	0.00	0.00	0.00
9,300.00	89.73	89.779	4,900.73	1,093.00	4,405.00	4,409.07	0.00	0.00	0.00
9,400.00	89.73	89.779	4,907.69	1,093.39	4,505.00	4,509.07	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

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Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,500.00	89.73	89.779	4,908.16	1,093.77	4,604.99	4,609.07	0.00	0.00	0.00
9,600.00	89.73	89.779	4,908.63	1,094.15	4,704.99	4,709.07	0.00	0.00	0.00
9,700.00	89.73	89.779	4,909.10	1,094.54	4,804.99	4,809.06	0.00	0.00	0.00
9,800.00	89.73	89.779	4,909.57	1,094.92	4,904.99	4,909.06	0.00	0.00	0.00
9,900.00	89.73	89.779	4,910.04	1,095.31	5,004.99	5,009.06	0.00	0.00	0.00
10,000.00	89.73	89.779	4,910.50	1,095.69	5,104.99	5,109.06	0.00	0.00	0.00
10,100.00	89.73	89.779	4,910.97	1,096.08	5,204.98	5,209.06	0.00	0.00	0.00
10,200.00	89.73	89.779	4,911.44	1,096.46	5,304.98	5,309.06	0.00	0.00	0.00
10,300.00	89.73	89.779	4,911.91	1,096.85	5,404.98	5,409.06	0.00	0.00	0.00
10,400.00	89.73	89.779	4,912.38	1,097.23	5,504.98	5,509.06	0.00	0.00	0.00
10,500.00	89.73	89.779	4,912.85	1,097.62	5,604.98	5,609.06	0.00	0.00	0.00
10,600.00	89.73	89.779	4,913.32	1,098.00	5,704.97	5,709.05	0.00	0.00	0.00
10,700.00	89.73	89.779	4,913.79	1,098.39	5,804.97	5,809.05	0.00	0.00	0.00
10,800.00	89.73	89.779	4,914.26	1,098.77	5,904.97	5,909.05	0.00	0.00	0.00
10,900.00	89.73	89.779	4,914.73	1,099.16	6,004.97	6,009.05	0.00	0.00	0.00
11,000.00	89.73	89.779	4,915.20	1,099.54	6,104.97	6,109.05	0.00	0.00	0.00
11,100.00	89.73	89.779	4,915.67	1,099.93	6,204.97	6,209.05	0.00	0.00	0.00
11,200.00	89.73	89.779	4,916.14	1,100.31	6,304.96	6,309.05	0.00	0.00	0.00
11,300.00	89.73	89.779	4,916.61	1,100.70	6,404.96	6,409.05	0.00	0.00	0.00
11,400.00	89.73	89.779	4,917.07	1,101.08	6,504.96	6,509.05	0.00	0.00	0.00
11,500.00	89.73	89.779	4,917.54	1,101.47	6,604.96	6,609.04	0.00	0.00	0.00
11,600.00	89.73	89.779	4,918.01	1,101.85	6,704.96	6,709.04	0.00	0.00	0.00
11,700.00	89.73	89.779	4,918.48	1,102.24	6,804.95	6,809.04	0.00	0.00	0.00
11,800.00	89.73	89.779	4,918.95	1,102.62	6,904.95	6,909.04	0.00	0.00	0.00
11,900.00	89.73	89.779	4,919.42	1,103.01	7,004.95	7,009.04	0.00	0.00	0.00
12,000.00	89.73	89.779	4,919.89	1,103.39	7,104.95	7,109.04	0.00	0.00	0.00
12,100.00	89.73	89.779	4,920.36	1,103.78	7,204.95	7,209.04	0.00	0.00	0.00
12,200.00	89.73	89.779	4,920.83	1,104.16	7,304.95	7,309.04	0.00	0.00	0.00
12,300.00	89.73	89.779	4,921.30	1,104.55	7,404.94	7,409.04	0.00	0.00	0.00
12,400.00	89.73	89.779	4,921.77	1,104.93	7,504.94	7,509.03	0.00	0.00	0.00
12,500.00	89.73	89.779	4,922.24	1,105.32	7,604.94	7,609.03	0.00	0.00	0.00
12,600.00	89.73	89.779	4,922.71	1,105.70	7,704.94	7,709.03	0.00	0.00	0.00
12,700.00	89.73	89.779	4,923.17	1,106.09	7,804.94	7,809.03	0.00	0.00	0.00
12,800.00	89.73	89.779	4,923.64	1,106.47	7,904.93	7,909.03	0.00	0.00	0.00
12,900.00	89.73	89.779	4,924.11	1,106.85	8,004.93	8,009.03	0.00	0.00	0.00
13,000.00	89.73	89.779	4,924.58	1,107.24	8,104.93	8,109.03	0.00	0.00	0.00
13,100.00	89.73	89.779	4,925.05	1,107.62	8,204.93	8,209.03	0.00	0.00	0.00
13,200.00	89.73	89.779	4,925.52	1,108.01	8,304.93	8,309.03	0.00	0.00	0.00
13,300.00	89.73	89.779	4,925.99	1,108.39	8,404.92	8,409.02	0.00	0.00	0.00
13,400.00	89.73	89.779	4,926.46	1,108.78	8,504.92	8,509.02	0.00	0.00	0.00
	89.73	89.779					0.00	0.00	0.00
13,500.00			4,926.93	1,109.16	8,604.92	8,609.02			
13,600.00	89.73	89.779	4,927.40	1,109.55	8,704.92	8,709.02	0.00	0.00	0.00
13,700.00	89.73	89.779	4,927.87	1,109.93 1,110.32	8,804.92	8,809.02	0.00	0.00	0.00 0.00
13,800.00	89.73	89.779 80.770	4,928.34	,	8,904.92	8,909.02	0.00	0.00	
13,900.00	89.73	89.779	4,928.81	1,110.70	9,004.91	9,009.02	0.00	0.00	0.00
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	9,050.47	0.00	0.00	0.00



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rodeo 503 FTP 380 FNI - plan misses target - Point	0.00 center by 0.01	0.000 ft at 5417.4	4,889.00 8ft MD (4889	1,078.05 .00 TVD, 107	522.55 8.06 N, 522.5	1,893,573.395 5 E)	2,753,226.078	36.204011000	-107.731191000
Rodeo 503 LTP 380 FNL - plan hits target cen - Point	0.00 ter	0.000	4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.702299000

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")	
	350.00	350.00	13 3/8" Csg		13-3/8	17-1/2	
	2,940.83	2,824.00	9 5/8" Csg		9-5/8	12-1/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	571.02	571.00	Ojo Alamo			
	657.18	657.00	Kirtland			
	863.18	861.00	Fruitland			
	1,182.36	1,168.00	Pictured Cliffs			
	1,351.20	1,327.00	Lewis			
	1,626.22	1,586.00	Chacra_A			
	2,762.43	2,656.00	Cliff House_Basal			
	2,781.55	2,674.00	Menefee			
	3,814.75	3,648.00	Point Lookout			
	3,985.74	3,814.00	Mancos			
	4,313.13	4,139.00	MNCS_A			
	4,398.13	4,224.00	MNCS_B			
	4,498.16	4,324.00	MNCS_C			
	4,547.47	4,373.00	MNCS_Cms			
	4,670.85	4,492.00	MNCS_D			
	4,844.26	4,642.00	MNCS_E			
	4,921.34	4,699.00	MNCS_F			
	5,046.00	4,775.00	MNCS_G			
	5,155.61	4,829.00	MNCS_H			
	5,284.43	4,873.00	MNCS_I		0.00	



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
1,155.21	1,142.43	110.82	-10.27	Begin 19.66° tangent
3,704.99	3,543.63	964.84	-89.39	Begin 3°/100' drop
4,360.19	4,186.06	1,075.66	-99.66	Begin vertical hold
4,460.18	4,286.05	1,075.66	-99.66	Begin 10°/100' build
5,060.18	4,782.25	1,076.77	186.82	Begin 60.00° tangent
5,120.18	4,812.25	1,076.97	238.78	Begin 10°/100' build
5,417.50	4,889.00	1,078.06	522.57	Begin 89.73° lateral
13,941.46	4,929.00	1,110.86	9,046.37	PBHL/TD 13941.46 MD 4929.00 TVD



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

 Site:
 Rodeo Unit

 Well:
 Rodeo Unit #503H

 Wellbore:
 Original Hole

 Design:
 rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Minimum Curvature

Project San Juan County, New Mexico NAD83 NM W

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Western Zone

System Datum:

Mean Sea Level

Site Rodeo Unit

 Site Position:
 Northing:
 1,892,465.480 usft
 Latitude:
 36.200969000

 From:
 Lat/Long
 Easting:
 2,752,685.264 usft
 Longitude:
 -107.733028000

Position Uncertainty: 0.00 ft Slot Radius: 13-3/16

Well Rodeo Unit #503H, Surf loc: 1461 FNL 425 FEL Section 25-T23N-R09W

 Well Position
 +N/-S
 0.00 ft
 Northing:
 1,892,495.349 usft
 Latitude:
 36.201051000

 +E/-W
 0.00 ft
 Easting:
 2,752,703.525 usft
 Longitude:
 -107.732966000

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 6,883.00 ft

Grid Convergence: 0.06 °

Wellbore Original Hole

Magnetics Model Name Sample Date Declination Dip Angle Field Strength

(°) (°) (nT)
IGRF2020 2/22/2022 8.72 62.72 49.223.83303591

Design rev1

Audit Notes:

Version:Phase:PLANTie On Depth:0.00

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

 (ft)
 (ft)
 (ft)
 (°)

 0.00
 0.00
 0.00
 89.785

Plan Survey Tool Program Date 3/7/2022

Depth From Depth To

(ft) (ft) Survey (Wellbore) Tool Name Remarks

1 0.00 13,941.46 rev1 (Original Hole) MWD

OWSG MWD - Standard



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.21	19.66	354.707	1,142.43	110.82	-10.27	3.00	3.00	0.00	354.71	
3,704.99	19.66	354.707	3,543.63	964.84	-89.39	0.00	0.00	0.00	0.00	
4,360.19	0.00	0.000	4,186.06	1,075.66	-99.66	3.00	-3.00	0.00	180.00	
4,460.18	0.00	0.000	4,286.05	1,075.66	-99.66	0.00	0.00	0.00	0.00	
5,060.18	60.00	89.779	4,782.25	1,076.77	186.82	10.00	10.00	0.00	89.78	
5,120.18	60.00	89.779	4,812.25	1,076.97	238.78	0.00	0.00	0.00	0.00	
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	10.00	10.00	0.00	0.00	
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	0.00	0.00	0.00	0.00	Rodeo 503 LTP 380 F



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Planned Su	rvey								
Measur Depth (ft)		Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
(0.00	0.000	0.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	0.00		100.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	0.00		200.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	0.00		300.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	0.00		400.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
	0.00		500.00	0.00	0.00	1,892,495.349	2,752,703.525	36.201051000	-107.732966000
КОР	P Begin 3°/100' b								
	1.02 2.13		571.00	1.31	-0.12	1,892,496.663	2,752,703.404	36.201054611	-107.732966408
Ojo .	Alamo								
_	0.00 3.00	0 354.707	599.95	2.61	-0.24	1,892,497.955	2,752,703.284	36.201058160	-107.732966809
657	7.18 4.72	2 354.707	657.00	6.44	-0.60	1,892,501.785	2,752,702.929	36.201068683	-107.732967999
Kirtl	and								
700	0.00 6.00	0 354.707	699.63	10.42	-0.97	1,892,505.766	2,752,702.560	36.201079621	-107.732969235
800	0.00 9.00	0 354.707	798.77	23.41	-2.17	1,892,518.762	2,752,701.356	36.201115324	-107.732973270
863	3.18 10.90	354.707	861.00	34.28	-3.18	1,892,529.630	2,752,700.349	36.201145183	-107.732976645
Frui	tland								
900	0.00 12.00	0 354.707	897.08	41.56	-3.85	1,892,536.905	2,752,699.675	36.201165172	-107.732978904
1,000	0.00 15.00	354.707	994.31	64.80	-6.00	1,892,560.148	2,752,697.522	36.201229027	-107.732986122
1,100	0.00 18.00	354.707	1,090.18	93.08	-8.62	1,892,588.425	2,752,694.902	36.201306714	-107.732994902
1,158	5.21 19.66	6 354.707	1,142.43	110.82	-10.27	1,892,606.165	2,752,693.258	36.201355453	-107.733000411
Begi	in 19.66° tangen	t							
1,182	2.36 19.66	6 354.707	1,168.00	119.91	-11.11	1,892,615.260	2,752,692.416	36.201380439	-107.733003235
Pict	ured Cliffs								
1,200			1,184.61	125.82	-11.66	1,892,621.168	2,752,691.868	36.201396672	-107.733005070
1,300			1,278.79	159.31	-14.76	1,892,654.662	2,752,688.765	36.201488692	-107.733015471
1,351	1.20 19.6	6 354.707	1,327.00	176.46	-16.35	1,892,671.810	2,752,687.176	36.201535804	-107.733020796
Lew									
1,400			1,372.96	192.81	-17.86	1,892,688.156	2,752,685.662	36.201580712	-107.733025872
1,500			1,467.13	226.30	-20.97	1,892,721.650	2,752,682.558	36.201672733	-107.733036273
1,600			1,561.30	259.80	-24.07	1,892,755.144	2,752,679.455	36.201764753	-107.733046673
1,626		6 354.707	1,586.00	268.58	-24.88	1,892,763.928	2,752,678.641	36.201788884	-107.733049401
	cra_A								
1,700			1,655.48	293.29	-27.17	1,892,788.638	2,752,676.352	36.201856773	-107.733057074
1,800			1,749.65	326.78	-30.28	1,892,822.132	2,752,673.249	36.201948793	-107.733067475
1,900			1,843.82	360.28	-33.38	1,892,855.626	2,752,670.146	36.202040813	-107.733077876
2,000			1,938.00	393.77	-36.48	1,892,889.120	2,752,667.042	36.202132834	-107.733088277
2,100 2,200			2,032.17	427.27 460.76	-39.59 -42.69	1,892,922.615 1,892,956.109	2,752,663.939	36.202224854 36.202316874	-107.733098678 -107.733109079
2,300			2,126.34 2,220.51	494.26	-42.09 -45.79	1,892,989.603	2,752,660.836 2,752,657.733	36.202408894	-107.733119480
2,400				527.75	-48.90	1,893,023.097	2,752,654.629	36.202500914	-107.733119480
2,500				561.24	-52.00	1,893,056.591	2,752,651.526	36.202592935	-107.733140282
2,600			2,503.03	594.74	-55.10	1,893,090.085	2,752,648.423	36.202684955	-107.733150683
2,700			2,597.20	628.23	-58.21	1,893,123.579	2,752,645.320	36.202776975	-107.733161085
2,762			2,656.00	649.14	-60.14	1,893,144.490	2,752,643.382	36.202834426	-107.733167578
	House_Basal		,			,,	, , , , , , , , , , ,		
2,78	_	6 354.707	2,674.00	655.54	-60.74	1,893,150.892	2,752,642.789	36.202852015	-107.733169566
Men			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			,,	, , , , , , , , , , , , , , , , , , , ,		
2,800		6 354.707	2,691.38	661.73	-61.31	1,893,157.073	2,752,642.217	36.202868995	-107.733171486
2,900				695.22	-64.41	1,893,190.567	2,752,639.113	36.202961015	-107.733181887
3,000				728.71	-67.52	1,893,224.061	2,752,636.010	36.203053036	-107.733192288
3,100	0.00 19.66	354.707	2,973.90	762.21	-70.62	1,893,257.555	2,752,632.907	36.203145056	-107.733202689
3,200	0.00 19.66	354.707	3,068.07	795.70	-73.72	1,893,291.049	2,752,629.804	36.203237076	-107.733213091
3,300	0.00 19.66	6 354.707	3,162.24	829.20	-76.83	1,893,324.543	2,752,626.700	36.203329096	-107.733223492



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

3,400.00 19.66 354.707 3,256.41 862.69 -79.93 1,893,358.037 2,752,623.597 36.203421116 -107 3,500.00 19.66 354.707 3,350.59 896.18 -83.03 1,893,391.531 2,752,620.494 36.203513137 -107 3,600.00 19.66 354.707 3,444.76 929.68 -86.13 1,893,425.025 2,752,617.391 36.203605157 -107 3,704.99 19.66 354.707 3,543.63 964.84 -89.39 1,893,460.190 2,752,614.133 36.203701767 -107 Begin s*/100* drop	
Depth (ft)	
3,400.00 19.66 354.707 3,256.41 862.69 -79.93 1,893,358.037 2,752,623.597 36.203421116 -107 3,500.00 19.66 354.707 3,350.59 896.18 -83.03 1,893,391.531 2,752,622.494 36.203513137 -107 3,600.00 19.66 354.707 3,444.76 929.68 -86.13 1,893,425.025 2,752,617.391 36.203605157 -107 3,704.99 19.66 354.707 3,543.63 964.84 -89.39 1,893,460.190 2,752,614.133 36.203701767 -107	
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3,600.00 19.66 354.707 3,444.76 929.68 -86.13 1,893,425.025 2,752,617.391 36.203605157 -107 3,704.99 19.66 354.707 3,543.63 964.84 -89.39 1,893,460.190 2,752,614.133 36.203701767 -107 Begin 3°/100' drop	.733233893
3,704.99 19.66 354.707 3,543.63 964.84 -89.39 1,893,460.190 2,752,614.133 36.203701767 -107 **Begin 3°/100' drop** 3,800.00 16.81 354.707 3,633.86 994.44 -92.13 1,893,489.784 2,752,611.391 36.203783074 -107 3,814.75 16.36 354.707 3,648.00 998.63 -92.52 1,893,493.976 2,752,611.002 36.203794591 -107 **Point Lookout** 3,900.00 13.81 354.707 3,730.31 1,020.72 -94.57 1,893,516.066 2,752,608.956 36.203855279 -107 3,985.74 11.23 354.707 3,814.00 1,039.23 -96.28 1,893,534.571 2,752,607.241 36.203906120 -107 **Mancos** 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,605.498 36.203957808 -107 4,200.00 4.81 354.707 4,026.05 1,068.97 -99.04 1,893,554.321 2,752,604.485 36.203987852 -107 4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.963 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,571.006 2,752,603.866 36.204006220 -107 **MNCS_A** 4,300.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 **MNCS_B** 4,400.00 0.00 0.00 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 **MNCS_B**	.733244295
Begin 3°/100' drop 3,800.00 16.81 354.707 3,633.86 994.44 -92.13 1,893,489.784 2,752,611.391 36.203783074 -107 3,814.75 16.36 354.707 3,648.00 998.63 -92.52 1,893,493.976 2,752,611.002 36.203794591 -107 Point Lookout 3,900.00 13.81 354.707 3,730.31 1,020.72 -94.57 1,893,516.066 2,752,608.956 36.203855279 -107 Mancs 4,000.00 10.81 354.707 3,814.00 1,039.23 -96.28 1,893,534.571 2,752,608.956 36.203855279 -107 Mancs 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,606.990 36.203913577 -107 4,200.00 4.81 354.707 4,026.05	.733254696
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3,814.75	.733274807
Point Lookout 3,900.00 13.81 354.707 3,730.31 1,020.72 -94.57 1,893,516.066 2,752,608.956 36.203855279 -107 3,985.74 11.23 354.707 3,814.00 1,039.23 -96.28 1,893,534.571 2,752,607.241 36.203906120 -107 Mancos 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,605.498 36.203957808 -107 4,200.00 4.81 354.707 4,026.05 1,068.97 -99.04 1,893,550.325 2,752,604.485 36.203987852 -107 4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.953 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.06 -99.66 1,893,571.006 2,752,603.866	733274607
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3,985.74 11.23 354.707 3,814.00 1,039.23 -96.28 1,893,534.571 2,752,607.241 36.203906120 -107 Mancos 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,605.498 36.203957808 -107 4,200.00 4.81 354.707 4,026.05 1,068.97 -99.04 1,893,564.321 2,752,604.485 36.203987852 -107 4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.953 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,570.429 2,752,603.919 36.204004634 -107 MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 0.00 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733282968
Mancos 4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,605.498 36.203957808 -107 4,200.00 4.81 354.707 4,026.05 1,068.97 -99.04 1,893,564.321 2,752,604.485 36.203987852 -107 4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.953 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,570.429 2,752,603.919 36.204004634 -107 MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733288715
4,000.00 10.81 354.707 3,828.00 1,041.94 -96.54 1,893,537.285 2,752,606.990 36.203913577 -107 4,100.00 7.81 354.707 3,926.67 1,058.04 -98.03 1,893,553.385 2,752,605.498 36.203957808 -107 4,200.00 4.81 354.707 4,026.05 1,068.97 -99.04 1,893,564.321 2,752,604.485 36.203987852 -107 4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.953 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,570.429 2,752,603.919 36.204004634 -107 MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,00.00	
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4,300.00 1.81 354.707 4,125.88 1,074.72 -99.57 1,893,570.062 2,752,603.953 36.204003625 -107 4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,570.429 2,752,603.919 36.204004634 -107 MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733294558
4,313.13 1.41 354.707 4,139.00 1,075.08 -99.61 1,893,570.429 2,752,603.919 36.204004634 -107 MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733297953
MNCS_A 4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733299736
4,360.19 0.00 0.000 4,186.06 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733299850
Begin vertical hold 4,398.13 0.00 0.000 4,224.00 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107 MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	
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MNCS_B 4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	700000000
4,400.00 0.00 0.000 4,225.87 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733300030
	.733300030
4,460.18 0.00 0.000 4,286.05 1,075.66 -99.66 1,893,571.006 2,752,603.866 36.204006220 -107	.733300030
Begin 10°/100' build	.733300030
•	.733295765
MNCS_C	
-	.733295343
4,547.47 8.73 89.779 4,373.00 1,075.69 -93.02 1,893,571.032 2,752,610.502 36.204006271 -107	.733277537
MNCS_Cms	
	.733276218
	.733242494
	.733194427
	.733170230
MNCS_D 4,700.00 23.98 89.779 4,518.92 1,075.85 -50.20 1,893,571.197 2,752,653.325 36.204006604 -107	722422205
	.733132385 .733056837
	732968361
	.732879792
MNCS_E	
	.732867628
4,900.00 43.98 89.779 4,683.93 1,076.28 61.02 1,893,571.626 2,752,764.542 36.204007466 -107	.732755406
4,921.34 46.12 89.779 4,699.00 1,076.34 76.12 1,893,571.684 2,752,779.640 36.204007583 -107	.732704229
MNCS_F	
	.732632548
	.732499991
	.732370349
MNCS_G 5.050.00 58.08 80.770 4.777.08 1.076.73 178.04 1.803.572.077 2.752.881.567 36.2040.08372 1.07	722250744
	.732358741 .732329000
Begin 60.00° tangent	., 52523000
	.732212125
	.732152874
Begin 10°/100' build	- '



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
						, ,			
5,150.00	62.98	89.779	4,826.48	1,077.07	264.97	1,893,572.413	2,752,968.499	36.204009044	-107.732064079
5,155.61	63.54	89.779	4,829.00	1,077.09	269.99	1,893,572.432	2,752,973.511	36.204009083	-107.732047092
MNCS_F 5,200.00	67.98	89.779	4,847.22	1,077.24	310.45	1,893,572.588	2,753,013.976	36.204009395	-107.731909933
5,250.00	72.98	89.779	4,863.92	1,077.24	357.56	1,893,572.770	2,753,061.087	36.204009759	-107.731750247
5,284.43	76.42	89.779	4,873.00	1,077.55	390.77	1,893,572.898	2,753,094.291	36.204010015	-107.731637700
MNCS I		000	1,070.00	.,		.,000,072.000	2,100,001.201	00.201010	
5,300.00	77.98	89.779	4,876.45	1,077.61	405.95	1,893,572.956	2,753,109.475	36.204010131	-107.731586234
5,350.00	82.98	89.779	4,884.71	1,077.80	455.25	1,893,573.146	2,753,158.770	36.204010511	-107.731419143
5,400.00	87.98	89.779	4,888.65	1,077.99	505.07	1,893,573.338	2,753,208.598	36.204010894	-107.731250247
5,417.50	89.73	89.779	4,889.00	1,078.06	522.57	1,893,573.405	2,753,226.090	36.204011028	-107.731190957
Begin 89	.73° lateral								
5,500.00	89.73	89.779	4,889.39	1,078.38	605.07	1,893,573.723	2,753,308.592	36.204011661	-107.730911311
5,600.00	89.73	89.779	4,889.86	1,078.76	705.07	1,893,574.107	2,753,408.590	36.204012428	-107.730572361
5,700.00	89.73	89.779	4,890.33	1,079.15	805.06	1,893,574.492	2,753,508.588	36.204013194	-107.730233411
5,800.00	89.73	89.779	4,890.80	1,079.53	905.06	1,893,574.877	2,753,608.586	36.204013959	-107.729894461
5,900.00 6,000.00	89.73 89.73	89.779 89.779	4,891.27 4,891.73	1,079.92 1,080.30	1,005.06 1,105.06	1,893,575.262 1,893,575.647	2,753,708.584 2,753,808.582	36.204014722 36.204015485	-107.729555512 -107.729216562
6,100.00	89.73	89.779	4,892.20	1,080.69	1,105.06	1,893,576.032	2,753,908.580	36.204016247	-107.728877612
6,200.00	89.73	89.779	4,892.67	1,081.07	1,305.06	1,893,576.416	2,754,008.578	36.204017008	-107.728538662
6,300.00	89.73	89.779	4,893.14	1,081.46	1,405.05	1,893,576.801	2,754,108.576	36.204017768	-107.728199712
6,400.00	89.73	89.779	4,893.61	1,081.84	1,505.05	1,893,577.186	2,754,208.574	36.204018527	-107.727860763
6,500.00	89.73	89.779	4,894.08	1,082.22	1,605.05	1,893,577.571	2,754,308.572	36.204019285	-107.727521813
6,600.00	89.73	89.779	4,894.55	1,082.61	1,705.05	1,893,577.956	2,754,408.570	36.204020042	-107.727182863
6,700.00	89.73	89.779	4,895.02	1,082.99	1,805.05	1,893,578.341	2,754,508.568	36.204020798	-107.726843913
6,800.00	89.73	89.779	4,895.49	1,083.38	1,905.04	1,893,578.726	2,754,608.566	36.204021553	-107.726504963
6,900.00	89.73	89.779	4,895.96	1,083.76	2,005.04	1,893,579.110	2,754,708.564	36.204022307	-107.726166013
7,000.00	89.73	89.779	4,896.43	1,084.15	2,105.04	1,893,579.495	2,754,808.562	36.204023061	-107.725827064
7,100.00	89.73	89.779 89.779	4,896.90	1,084.53	2,205.04 2,305.04	1,893,579.880	2,754,908.560	36.204023813	-107.725488114
7,200.00 7,300.00	89.73 89.73	89.779	4,897.37 4,897.84	1,084.92 1,085.30	2,305.04	1,893,580.265 1,893,580.650	2,755,008.558 2,755,108.556	36.204024564 36.204025315	-107.725149164 -107.724810214
7,400.00	89.73	89.779	4,898.30	1,085.69	2,505.03	1,893,581.035	2,755,208.554	36.204026064	-107.724471264
7,500.00	89.73	89.779	4,898.77	1,086.07	2,605.03	1,893,581.419	2,755,308.552	36.204026812	-107.724132314
7,600.00	89.73	89.779	4,899.24	1,086.46	2,705.03	1,893,581.804	2,755,408.549	36.204027560	-107.723793364
7,700.00	89.73	89.779	4,899.71	1,086.84	2,805.03	1,893,582.189	2,755,508.547	36.204028306	-107.723454415
7,800.00	89.73	89.779	4,900.18	1,087.23	2,905.03	1,893,582.574	2,755,608.545	36.204029052	-107.723115465
7,900.00	89.73	89.779	4,900.65	1,087.61	3,005.02	1,893,582.959	2,755,708.543	36.204029797	-107.722776515
8,000.00	89.73	89.779	4,901.12	1,088.00	3,105.02	1,893,583.344	2,755,808.541	36.204030540	-107.722437565
8,100.00	89.73	89.779	4,901.59	1,088.38	3,205.02	1,893,583.728	2,755,908.539	36.204031283	-107.722098615
8,200.00	89.73	89.779	4,902.06	1,088.77	3,305.02	1,893,584.113	2,756,008.537	36.204032025	-107.721759665
8,300.00	89.73	89.779	4,902.53	1,089.15	3,405.02	1,893,584.498	2,756,108.535	36.204032765	-107.721420715
8,400.00	89.73	89.779	4,903.00	1,089.54	3,505.02	1,893,584.883	2,756,208.533	36.204033505	-107.721081765
8,500.00 8,600.00	89.73 89.73	89.779 89.779	4,903.47 4,903.94	1,089.92 1,090.31	3,605.01 3,705.01	1,893,585.268 1,893,585.653	2,756,308.531 2,756,408.529	36.204034244 36.204034982	-107.720742815 -107.720403866
8,700.00	89.73	89.779	4,903.94	1,090.69	3,805.01	1,893,586.038	2,756,508.527	36.204034962	-107.720064916
8,800.00	89.73	89.779	4,904.87	1,090.09	3,905.01	1,893,586.422	2,756,608.525	36.204036455	-107.719725966
8,900.00	89.73	89.779	4,905.34	1,091.46	4,005.01	1,893,586.807	2,756,708.523	36.204037190	-107.719387016
9,000.00	89.73	89.779	4,905.81	1,091.85	4,105.00	1,893,587.192	2,756,808.521	36.204037924	-107.719048066
9,100.00	89.73	89.779	4,906.28	1,092.23	4,205.00	1,893,587.577	2,756,908.519	36.204038657	-107.718709117
9,200.00	89.73	89.779	4,906.75	1,092.62	4,305.00	1,893,587.962	2,757,008.517	36.204039389	-107.718370167
9,300.00	89.73	89.779	4,907.22	1,093.00	4,405.00	1,893,588.347	2,757,108.515	36.204040120	-107.718031217
9,400.00	89.73	89.779	4,907.69	1,093.39	4,505.00	1,893,588.731	2,757,208.513	36.204040850	-107.717692267
9,500.00	89.73	89.779	4,908.16	1,093.77	4,604.99	1,893,589.116	2,757,308.511	36.204041579	-107.717353317
9,600.00	89.73	89.779	4,908.63	1,094.15	4,704.99	1,893,589.501	2,757,408.509	36.204042308	-107.717014367



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,700.00	89.73	89.779	4,909.10	1,094.54	4,804.99	1,893,589.886	2,757,508.507	36.204043035	-107.71667541
9,800.00	89.73	89.779	4,909.57	1,094.92	4,904.99	1,893,590.271	2,757,608.504	36.204043761	-107.71633646
9,900.00	89.73	89.779	4,910.04	1,095.31	5,004.99	1,893,590.656	2,757,708.502	36.204044487	-107.71599751
10,000.00	89.73	89.779	4,910.50	1,095.69	5,104.99	1,893,591.041	2,757,808.500	36.204045211	-107.71565856
10,100.00	89.73	89.779	4,910.97	1,096.08	5,204.98	1,893,591.425	2,757,908.498	36.204045935	-107.71531961
10,200.00	89.73	89.779	4,911.44	1,096.46	5,304.98	1,893,591.810	2,758,008.496	36.204046657	-107.71498066
10,300.00	89.73	89.779	4,911.91	1,096.85	5,404.98	1,893,592.195	2,758,108.494	36.204047379	-107.71464171
10,400.00	89.73	89.779	4,912.38	1,097.23	5,504.98	1,893,592.580	2,758,208.492	36.204048099	-107.71430276
10,500.00	89.73	89.779	4,912.85	1,097.62	5,604.98	1,893,592.965	2,758,308.490	36.204048819	-107.71396381
10,600.00	89.73	89.779	4,913.32	1,098.00	5,704.97	1,893,593.350	2,758,408.488	36.204049538	-107.71362486
10,700.00	89.73	89.779	4,913.79	1,098.39	5,804.97	1,893,593.734	2,758,508.486	36.204050255	-107.71328591
10,800.00	89.73	89.779	4,914.26	1,098.77	5,904.97	1,893,594.119	2,758,608.484	36.204050972	-107.71294696
10,900.00	89.73	89.779	4,914.73	1,099.16	6,004.97	1,893,594.504	2,758,708.482	36.204051688	-107.71260801
11,000.00	89.73	89.779	4,915.20	1,099.54	6,104.97	1,893,594.889	2,758,808.480	36.204052403	-107.71226906
11,100.00	89.73	89.779	4,915.67	1,099.93	6,204.97	1,893,595.274	2,758,908.478	36.204053117	-107.7119301
11,200.00	89.73	89.779	4,916.14	1,100.31	6,304.96	1,893,595.659	2,759,008.476	36.204053830	-107.71159116
11,300.00	89.73	89.779	4,916.61	1,100.70	6,404.96	1,893,596.043	2,759,108.474	36.204054542	-107.7112522
11,400.00	89.73	89.779	4,917.07	1,101.08	6,504.96	1,893,596.428	2,759,208.472	36.204055252	-107.7109132
11,500.00	89.73	89.779	4,917.54	1,101.47	6,604.96	1,893,596.813	2,759,308.470	36.204055963	-107.7105743
11,600.00	89.73	89.779	4,918.01	1,101.85	6,704.96	1,893,597.198	2,759,408.468	36.204056672	-107.7102353
11,700.00	89.73	89.779	4,918.48	1,102.24	6,804.95	1,893,597.583	2,759,508.466	36.204057380	-107.7098964
11,800.00	89.73	89.779	4,918.95	1,102.62	6,904.95	1,893,597.968	2,759,608.464	36.204058087	-107.7095574
11,900.00	89.73	89.779	4,919.42	1,103.01	7,004.95	1,893,598.353	2,759,708.461	36.204058793	-107.7092185
12,000.00	89.73	89.779	4,919.89	1,103.39	7,104.95	1,893,598.737	2,759,808.459	36.204059498	-107.7088795
12,100.00	89.73	89.779	4,920.36	1,103.78	7,204.95	1,893,599.122	2,759,908.457	36.204060203	-107.7085406
12,200.00	89.73	89.779	4,920.83	1,104.16	7,304.95	1,893,599.507	2,760,008.455	36.204060906	-107.7082016
12,300.00	89.73	89.779	4,921.30	1,104.55	7,404.94	1,893,599.892	2,760,108.453	36.204061608	-107.7078627
12,400.00	89.73	89.779	4,921.77	1,104.93	7,504.94	1,893,600.277	2,760,208.451	36.204062310	-107.7075237
12,500.00	89.73	89.779	4,922.24	1,105.32	7,604.94	1,893,600.662	2,760,308.449	36.204063010	-107.7071848
12,600.00	89.73	89.779	4,922.71	1,105.70	7,704.94	1,893,601.046	2,760,408.447	36.204063710	-107.7068458
12,700.00	89.73	89.779	4,923.17	1,106.09	7,804.94	1,893,601.431	2,760,508.445	36.204064408	-107.7065069
12,800.00	89.73	89.779	4,923.64	1,106.47	7,904.93	1,893,601.816	2,760,608.443	36.204065106	-107.7061679
12,900.00	89.73	89.779	4,924.11	1,106.85	8,004.93	1,893,602.201	2,760,708.441	36.204065802	-107.7058290
13,000.00	89.73	89.779	4,924.58	1,107.24	8,104.93	1,893,602.586	2,760,808.439	36.204066498	-107.7054900
13,100.00	89.73	89.779	4,925.05	1,107.62	8,204.93	1,893,602.971	2,760,908.437	36.204067193	-107.7051511
13,200.00	89.73	89.779	4,925.52	1,108.01	8,304.93	1,893,603.355	2,761,008.435	36.204067886	-107.7048121
13,300.00	89.73	89.779	4,925.99	1,108.39	8,404.92	1,893,603.740	2,761,108.433	36.204068579	-107.7044732
13,400.00	89.73	89.779	4,926.46	1,108.78	8,504.92	1,893,604.125	2,761,208.431	36.204069271	-107.7041342
13,500.00	89.73	89.779	4,926.93	1,109.16	8,604.92	1,893,604.510	2,761,308.429	36.204069962	-107.7037953
13,600.00	89.73	89.779	4,927.40	1,109.55	8,704.92	1,893,604.895	2,761,408.427	36.204070652	-107.7034563
13,700.00	89.73	89.779	4,927.87	1,109.93	8,804.92	1,893,605.280	2,761,508.425	36.204071340	-107.7031174
13,800.00	89.73	89.779	4,928.34	1,110.32	8,904.92	1,893,605.665	2,761,608.423	36.204072028	-107.7027784
13,900.00	89.73	89.779	4,928.81	1,110.70	9,004.91	1,893,606.049	2,761,708.421	36.204072715	-107.7024395
13,941.46	89.73	89.779	4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.70229900
PBHL/TD	13941.46 MD	4929.00 TVE)						



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rodeo 503 FTP 380 FNI - plan misses target - Point		0.000 Ift at 5417.4	4,889.00 8ft MD (4889	1,078.05 .00 TVD, 107	522.55 8.06 N, 522.5	1,893,573.395 5 E)	2,753,226.078	36.204011000	-107.731191000
Rodeo 503 LTP 380 FNL - plan hits target cer - Point	0.00 ter	0.000	4,929.00	1,110.86	9,046.37	1,893,606.209	2,761,749.876	36.204073000	-107.702299000

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")	
	350.00	350.00	13 3/8" Csg		13-3/8	17-1/2	
	2,940.83	2,824.00	9 5/8" Csg		9-5/8	12-1/4	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	571.02	571.00	Ojo Alamo			
	657.18	657.00	Kirtland			
	863.18	861.00	Fruitland			
	1,182.36	1,168.00	Pictured Cliffs			
	1,351.20	1,327.00	Lewis			
	1,626.22	1,586.00	Chacra_A			
	2,762.43	2,656.00	Cliff House_Basal			
	2,781.55	2,674.00	Menefee			
	3,814.75	3,648.00	Point Lookout			
	3,985.74	3,814.00	Mancos			
	4,313.13	4,139.00	MNCS_A			
	4,398.13	4,224.00	MNCS_B			
	4,498.16	4,324.00	MNCS_C			
	4,547.47	4,373.00	MNCS_Cms			
	4,670.85	4,492.00	MNCS_D			
	4,844.26	4,642.00	MNCS_E			
	4,921.34	4,699.00	MNCS_F			
	5,046.00	4,775.00	MNCS_G			
	5,155.61	4,829.00	MNCS_H			
	5,284.43	4,873.00	MNCS_I		0.00	



Database: DB_Feb2822

Company: Enduring Resources LLC

Project: San Juan County, New Mexico NAD83 NM W

Site: Rodeo Unit
Well: Rodeo Unit #503H
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Rodeo Unit #503H

RKB=6883+28 @ 6911.00ft (Ensign 773) RKB=6883+28 @ 6911.00ft (Ensign 773)

Grid

Measured	Vertical	Local Coor	dinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
500.00	500.00	0.00	0.00	KOP Begin 3°/100' build
1,155.21	1,142.43	110.82	-10.27	Begin 19.66° tangent
3,704.99	3,543.63	964.84	-89.39	Begin 3°/100' drop
4,360.19	4,186.06	1,075.66	-99.66	Begin vertical hold
4,460.18	4,286.05	1,075.66	-99.66	Begin 10°/100' build
5,060.18	4,782.25	1,076.77	186.82	Begin 60.00° tangent
5,120.18	4,812.25	1,076.97	238.78	Begin 10°/100' build
5,417.50	4,889.00	1,078.06	522.57	Begin 89.73° lateral
13,941.46	4,929.00	1,110.86	9,046.37	PBHL/TD 13941.46 MD 4929.00 TVD

Received by OCD: 9/13/2023 9:21:51 AM

WELL NAME: RODEO UNIT 503H

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

API Number: not yet assigned
AFE Number: not yet assigned
ER Well Number: not yet assigned

State: New Mexico
County: San Juan

Surface Elev.: 6,883 ft ASL (GL) 6,896 ft ASL (KB)

Surface Location: 25-23N-09W Sec-Twn- Rng 1,461 ft FNL 425 ft FEL BH Location: 29-23N-08W Sec-Twn- Rng 380 ft FNL 1977 ft FEL

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 113.5; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) remaining on CR #7890 for 0.5 miles to access road; Left (Southeast) on access road for 0.4 miles to the RODEO UNIT 508H PAD (WELLS: 508H, 509H, 510H (DRILLED); 503H, 504H, 506H

(PLANNED))

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	2,941	9.625	36.0	J-55	LTC	0	2,941
Production	8.500	13,941	5.500	17.0	P-110	LTC	0	13,941

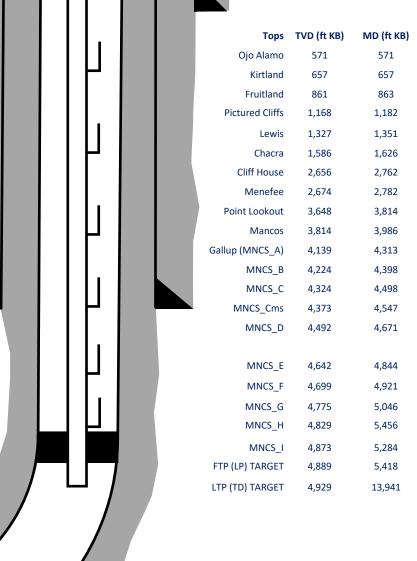
CEMENT PROPERTIES SUMMARY:

					Hole Cap.		тос	
	Туре	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	(cuft/ft)	% Excess	(ft MD)	Total (sx)
Surface	Type III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	580
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,441	136
Prod. (Lead)	Type III	12.4	2.360	13.4	0.2691	65%	0	503
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.2291	10%	3,986	1,608

COMPLETION / PRODUCTION SUMMARY:

Frac: 40 plug-and-perf stages with 360,000 bbls slickwater fluid and 15,000,000 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

QUICK REFERENCE Sur TD (MD) 350 ft Int TD (MD) 2,941 ft KOP (MD) 4,460 ft 4,286 ft KOP (TVD) Target (TVD) 4,889 ft 10 °/100 ft Curve BUR 5,418 ft POE (MD) TD (MD) 13,941 ft 8,523 ft Lat Len (ft)

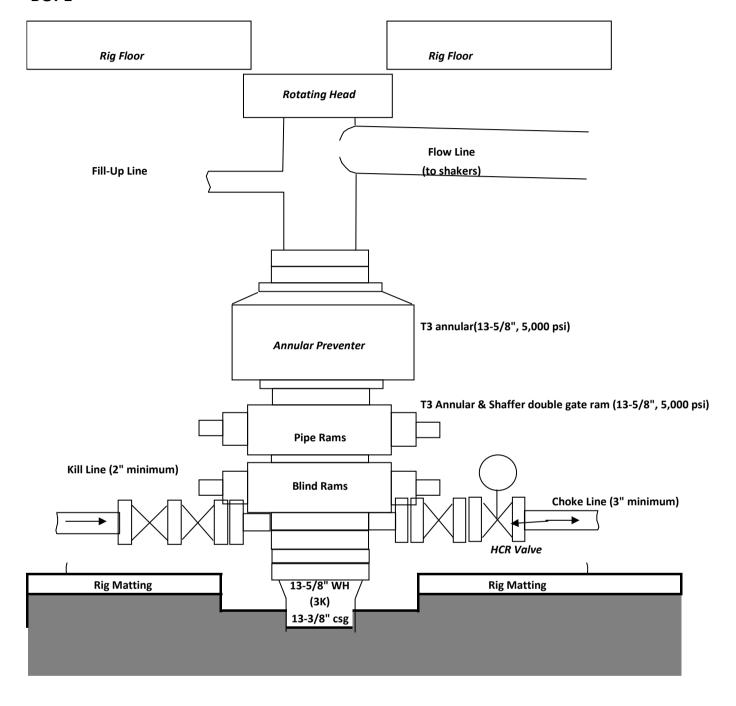


Received by OCD: 9/13/2023 9:21:51 AM

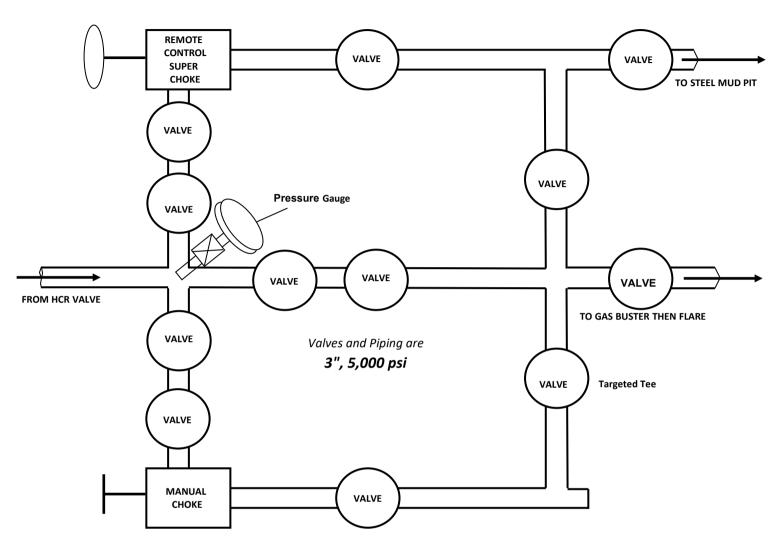
BOPE & CHOKE MANIFOLD DIAGRAMS

NOTE: EXACT BOPE AND CHOKE CONFIRGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

BOPE



CHOKE MANIFOLD



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

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

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 264765

CONDITIONS

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	264765
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/15/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/15/2023
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/15/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/15/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/15/2023