AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Operator Letter of Designation: 1 file(s)
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Design Assumptions and Worksheet(s): 3 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 1 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 3 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 3 file(s)
  -- Other SUPO Attachment: 4 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments

-- None

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30-045-38323

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.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

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)

Approval Date: 09/12/2023

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.

Approval Date: 09/12/2023

Additional Operator Remarks

Location of Well

0. SHL: SENE / 1471 FNL / 408 FEL / TWSP: 23N / RANGE: 9W / SECTION: 25 / LAT: 36.201023 / LONG: -107.732908 (TVD: 0 feet, MD: 0 feet)

PPP: SWNW / 2268 FNL / 0 FWL / TWSP: 23N / RANGE: 8W / SECTION: 29 / LAT: 36.198916 / LONG: -107.713559 (TVD: 4879 feet, MD: 9003 feet)

PPP: NENW / 1136 FNL / 1946 FWL / TWSP: 23N / RANGE: 8W / SECTION: 30 / LAT: 36.201967 / LONG: -107.724931 (TVD: 4884 feet, MD: 5800 feet)

PPP: SWNE / 2269 FNL / 2643 FWL / TWSP: 23N / RANGE: 8W / SECTION: 29 / LAT: 36.198889 / LONG: -107.704602 (TVD: 4888 feet, MD: 12000 feet)

BHL: SENE / 2269 FNL / 100 FEL / TWSP: 23N / RANGE: 8W / SECTION: 29 / LAT: 36.198862 / LONG: -107.695954 (TVD: 4897 feet, MD: 14537 feet)

BLM Point of Contact

Name: CHRISTOPHER P WENMAN
Title: Natural Resource Specialist
Phone: (505) 564-7727
Email: cwenman@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

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.

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 (*Tamarix spp.*)
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 Coordintaor 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.

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)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
Project Dimensions: 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.

2. Field Check: none.
3. 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.

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Approval Date: 09/12/2023

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.

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: 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 =

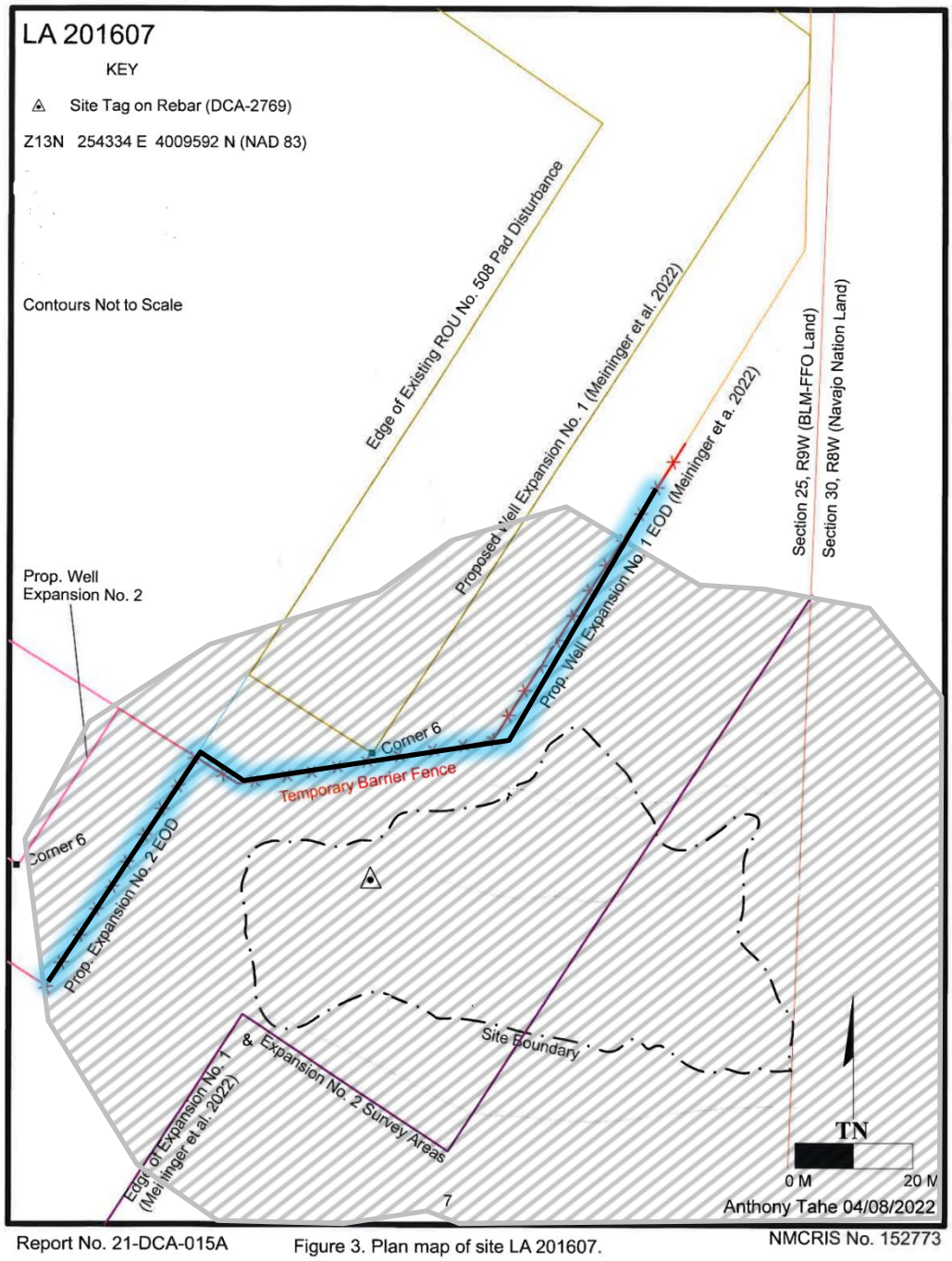


Figure 3. Plan map of site LA 201607.

Approval Date: 09/12/2023

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
Project Dimensions: 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.

2. Field Check: none.
3. 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.

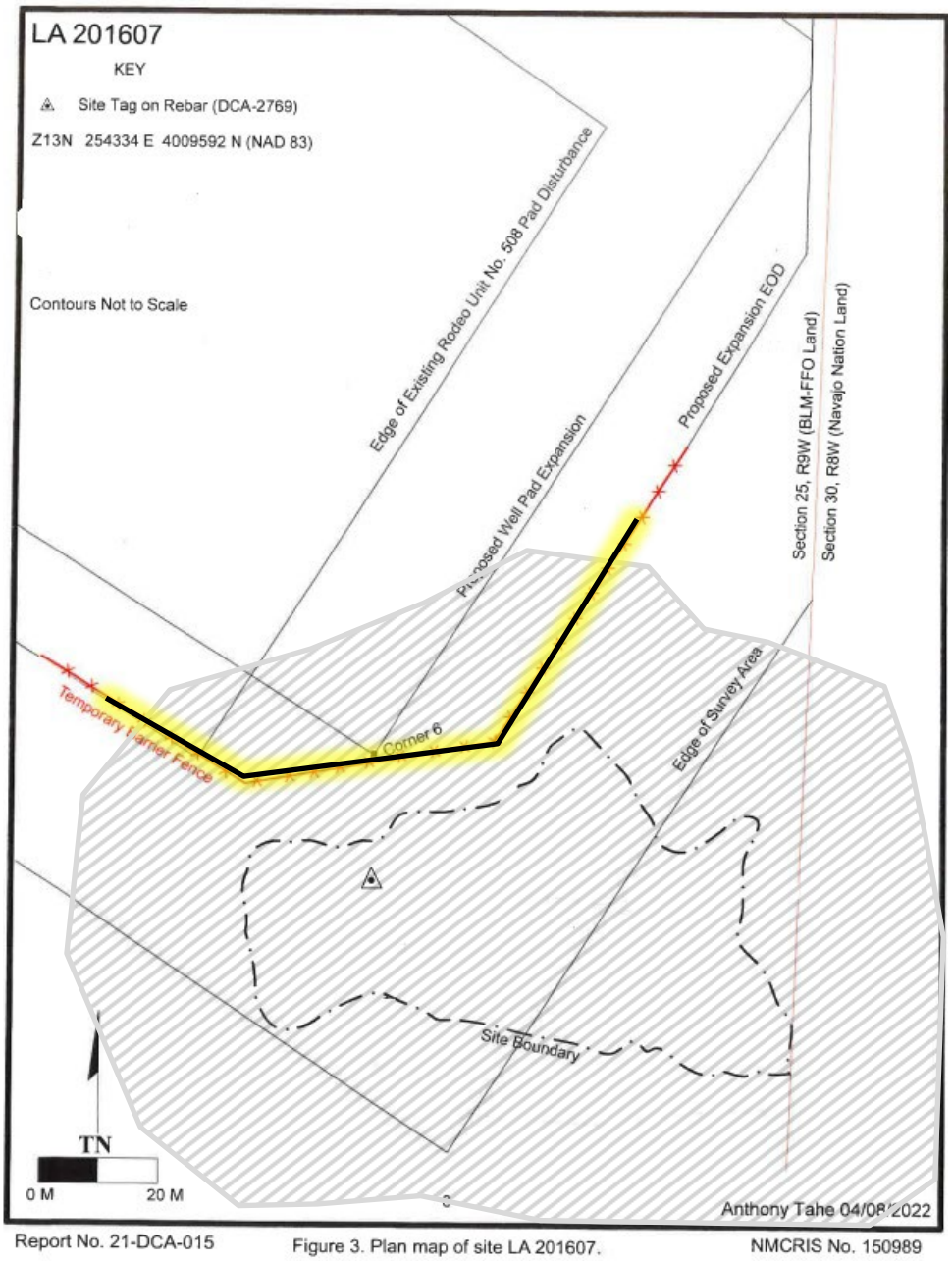
Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

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: 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

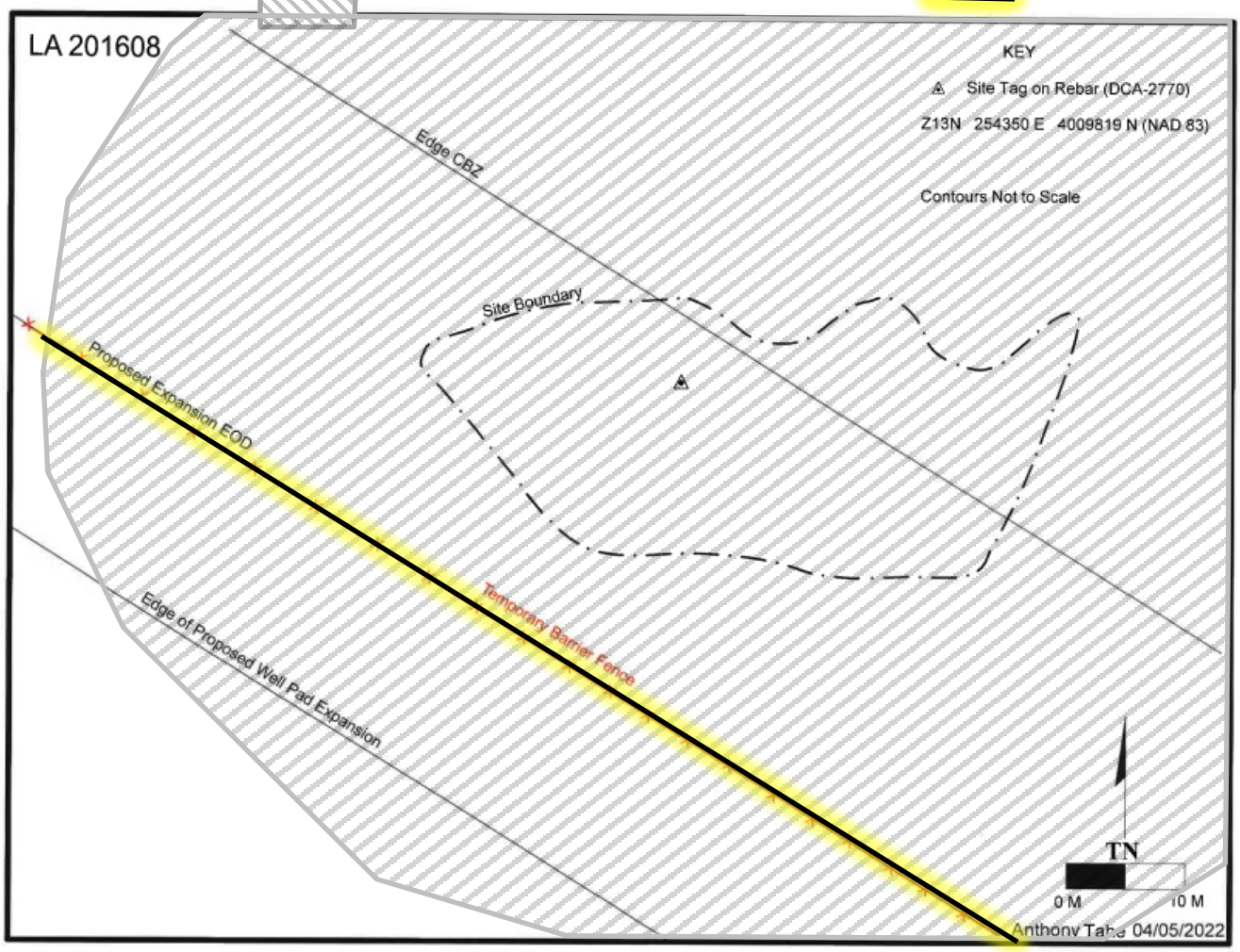
3

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: 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 4. Plan map of site LA 201608 NMCRIS No. 150989

Approval Date: 09/12/2023

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.
2. Field Check: No.
3. 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.

Approval Date: 09/12/2023

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

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

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.

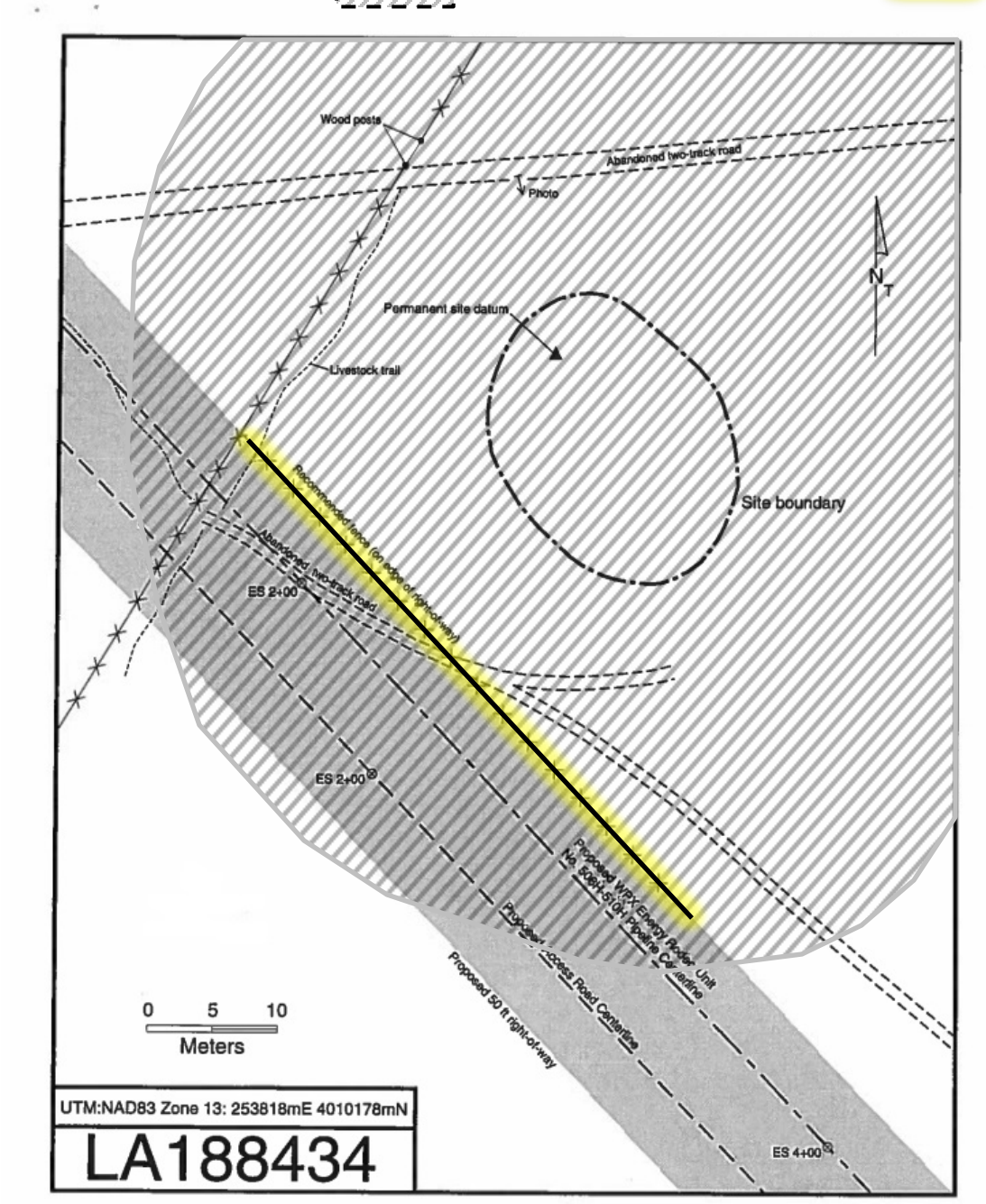
3. SITE PROTECTION BARRIER:
- Temporary site protection barriers will be erected prior to construction. The barriers will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barriers will remain in place through reclamation and reseeding 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 =



Approval Date: 09/12/2023

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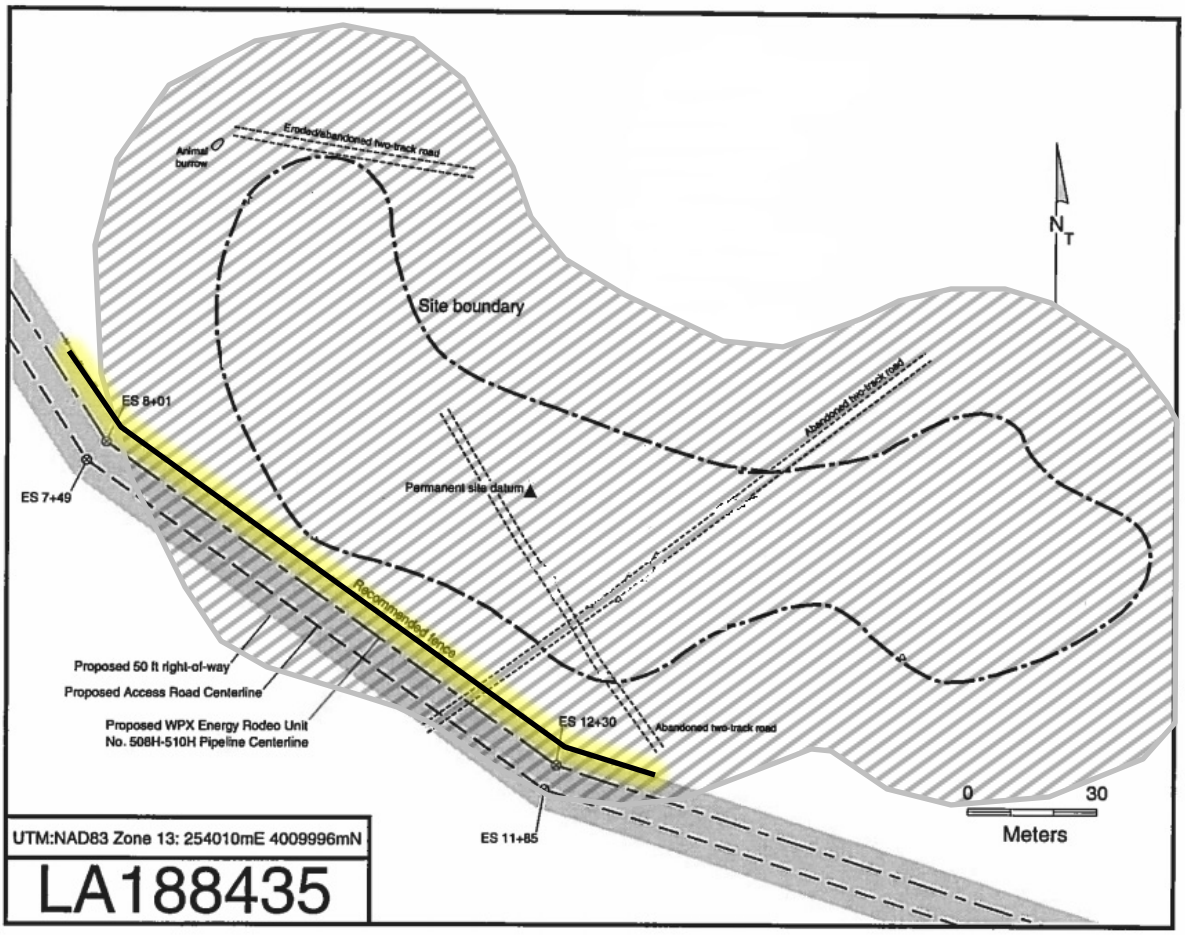
Farmington Field Office
BLM Report Number: 2017(IV)018F

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 =



Approval Date: 09/12/2023

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

#504H RODEO UNIT

Lease: NMNM120377 Unit: NMNM135216A
SH: NE¼NW¼ Section 30, T. 23 N., R. 8 W.
San Juan County, New Mexico
BH: SE¼NE¼ 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.

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 life-threatening 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.

Approval Date: 09/12/2023

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.

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

Operator Certification Data Report

09/12/2023

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.

NAME: DANIELLE GAVITO **Signed on:** 06/16/2022

Title: Permit Agent

Street Address: 9446 CLEARMONT STREET

City: THORNTON **State:** CO **Zip:** 80229

Phone: (303)524-4651

Email address: DGAVITO@CDHCONSULT.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data
09/12/2023

APD ID: 10400084207
Submission Date: 06/16/2022
Operator Name: ENDURING RESOURCES LLC
Well Name: RODEO UNIT
Well Number: 504H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400084207
Tie to previous NOS? Y
Submission Date: 06/16/2022
BLM Office: Farmington
User: DANIELLE GAVITO
Title: Permit Agent
Federal/Indian APD: IND
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM120377
Lease Acres:
Surface access agreement in place? N
Allotted? Y
Reservation: NAVAJO NATION
Agreement in place? YES
Federal or Indian agreement: FEDERAL
Agreement number: NMNM136328A
Agreement name:
Keep application confidential? Y
Permitting Agent? YES
APD Operator: ENDURING RESOURCES LLC
Operator letter of
BLM_Operator_Certification_05192022_20220615094435.pdf

Operator Info

Operator Organization Name: ENDURING RESOURCES LLC
Operator Address: 200 ENERGY COURT
Zip: 87401
Operator PO Box:
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:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: RODEO UNIT
Well Number: 504H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: LYBROOK MANCOS W
Pool Name:

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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?** Y **New surface disturbance?** Y

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:** 408 FT

Reservoir well spacing assigned acres Measurement: 640.97 Acres

Well plat: Rodeo504Plats_20230908111503.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
SHL Leg #1	1471	FNL	408	FEL	23N	9W	25	Aliquot SENE	36.201023	-107.732908	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NMNM 036949	6883	0	0	N
KOP Leg #1	1471	FNL	408	FEL	23N	9W	25	Aliquot SENE	36.201023	-107.732908	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NMNM 036949	2353	5059	4530	N
PPP Leg #1-1	1136	FNL	1946	FWL	23N	8W	30	Aliquot NENW	36.201967	-107.724931	SAN JUAN	NEW MEXICO	NEW MEXICO	F	NMNM 120377	1999	5800	4884	Y

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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
PPP Leg #1-2	2268	FNL	0	FWL	23N	8W	29	Aliquot SWNW	36.198916	-107.713559	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NOG13 121851	2004	9003	4879	Y
PPP Leg #1-3	2269	FNL	2643	FWL	23N	8W	29	Aliquot SWNE	36.198889	-107.704602	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NOG13 121855	1995	12000	4888	Y
EXIT Leg #1	2269	FNL	100	FEL	23N	8W	29	Aliquot SENE	36.198862	-107.695954	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NOG13 121855	1986	14537	4897	Y
BHL Leg #1	2269	FNL	100	FEL	23N	8W	29	Aliquot SENE	36.198862	-107.695954	SAN JUAN	NEW MEXICO	NEW MEXICO	I	NOG13 121855	1986	14537	4897	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 __19th____ day of ____May__, _2022__.

Name __Khem Suthiwan_____

Position Title _Regulatory Manager_____

Address _6300 S Syracuse Way, Suite 525; Centennial, CO 80111_____

Telephone _(303) 350-5721_____

Field representative (if not above signatory) _____

Email __ksuthiwan@enduringresources.com_____

Date: ___5/19/2022_____

Khem Suthiwan
Regulatory Manager
Enduring Resources, LLC

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT	504H

[7] OGRID No.	[8] Operator Name	[9] 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
H	25	23N	9W		1471	NORTH	408	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
H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 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

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with 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.

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 under my 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

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

SURFACE LOCATION
1471' FNL 408' FEL
SEC 25, T23N, R9W
LAT 36.201009 °N
LONG -107.732295 °W
DATUM: NAD1927

LAT 36.201023 °N
LONG -107.732908 °W
DATUM: NAD1983

FIRST TAKE POINT
1136' FNL 1946' FWL
SEC 30, T23N, R8W
LAT 36.201953 °N
LONG -107.724319 °W
DATUM: NAD1927

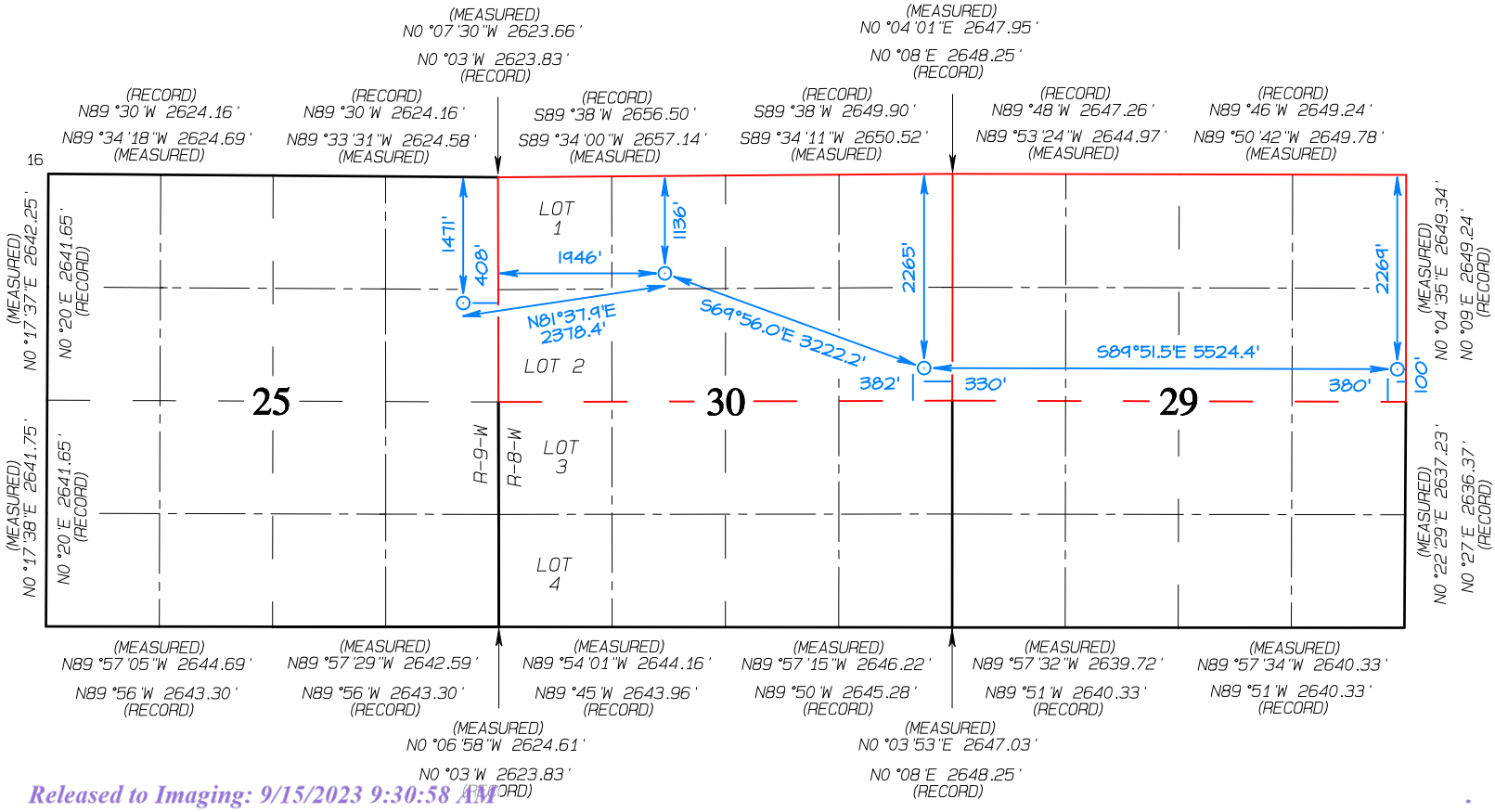
LAT 36.201967 °N
LONG -107.724931 °W
DATUM: NAD1983

LATERAL ANGLE POINT
2265' FNL 330' FEL
SEC 30, T23N, R8W
LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

LAST TAKE POINT
2269' FNL 100' FEL
SEC 29, T23N, R8W
LAT 36.198849 °N
LONG -107.695342 °W
DATUM: NAD1927

LAT 36.198862 °N
LONG -107.695954 °W
DATUM: NAD1983



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Form C-102
Revised August 1, 2011

Submit one copy to
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-38323	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT 36	504H

[7] OGRID No.	[8] Operator Name	[9] 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
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[11] Bottom Hole Location If Different From Surface

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H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 30			R-14313

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Signature Date

Printed Name

E-mail Address

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

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

LATERAL ANGLE POINT
2265' FNL 330' FEL
SEC 30, T23N, R8W
LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

(A) 2268' FNL 0' FEL
SEC 30, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

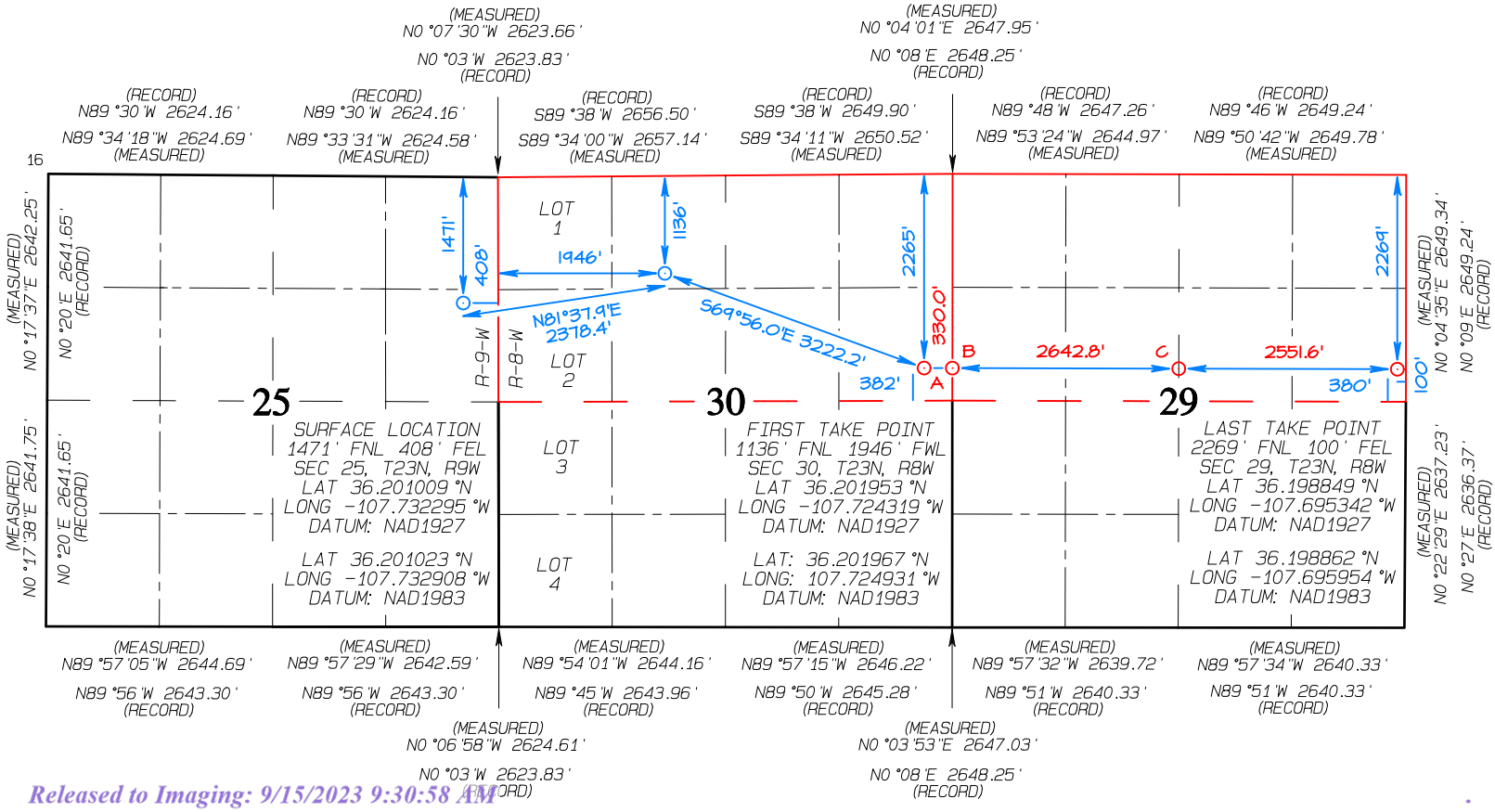
LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(B) 2268' FNL 0' FWL
SEC 29, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(C) 2269' FNL 2643' FWL
SEC 29, T23N, R8W
LAT 36.198876 °N
LONG -107.703990 °W
DATUM: NAD1927

LAT 36.198889 °N
LONG -107.704602 °W
DATUM: NAD1983



ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'
LAT 36°12'03.6325"N LONG -107°43'56.2635"W DATUM: NAD1927

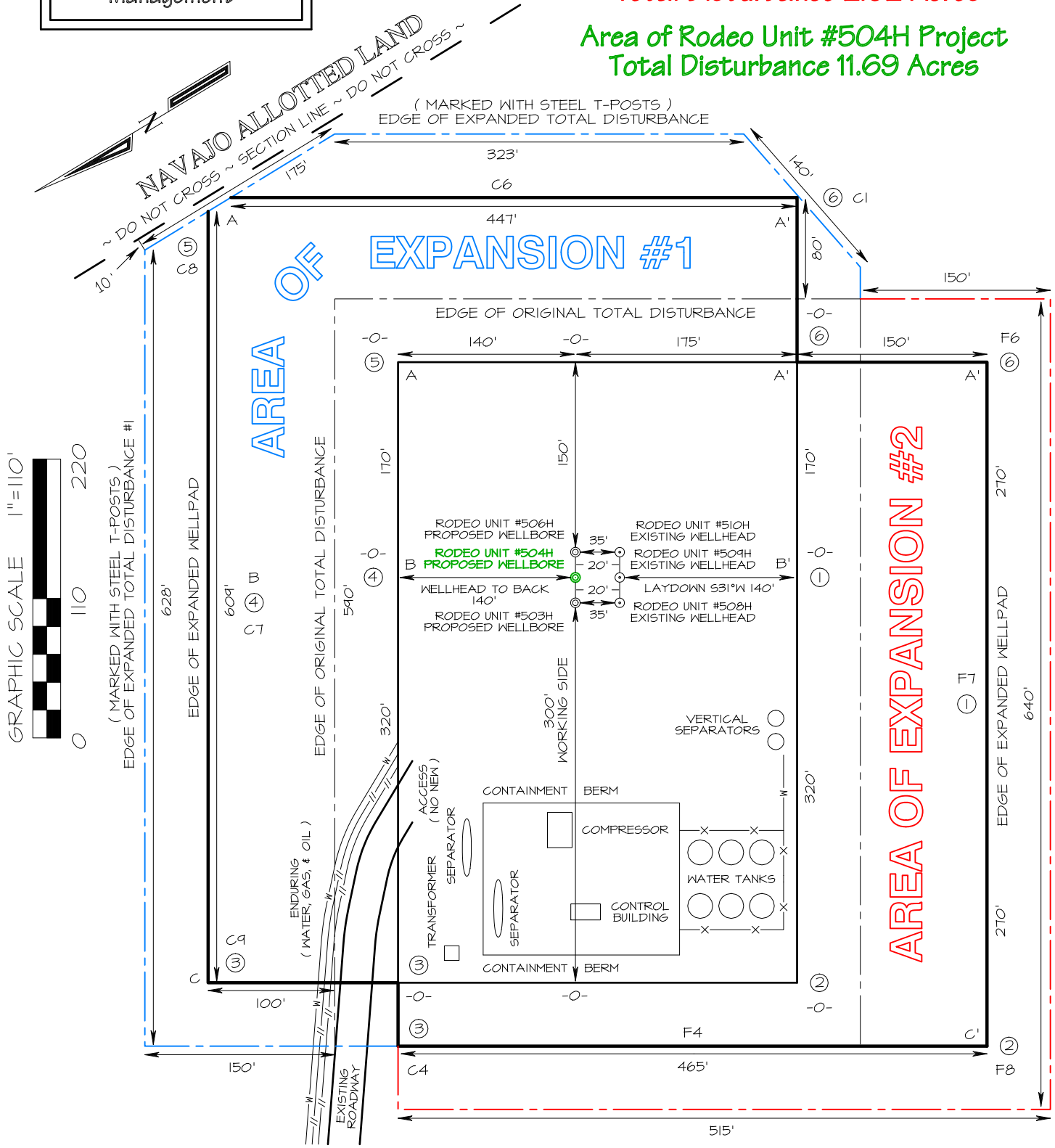
~ SURFACE OWNER ~

Bureau of Land Management

Area of Expansion #1
Total Disturbance 3.45 Acres

Area of Expansion #2
Total Disturbance 2.62 Acres

Area of Rodeo Unit #504H Project
Total Disturbance 11.69 Acres



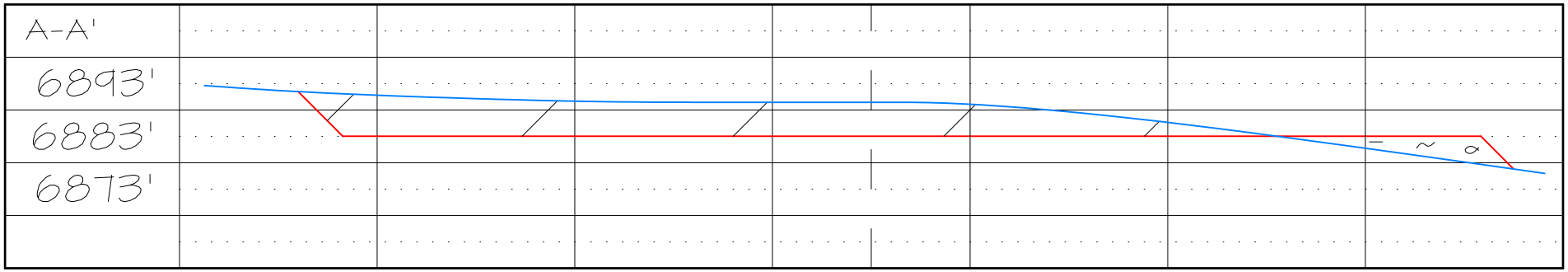
Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from edge of staked wellpad.

ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'

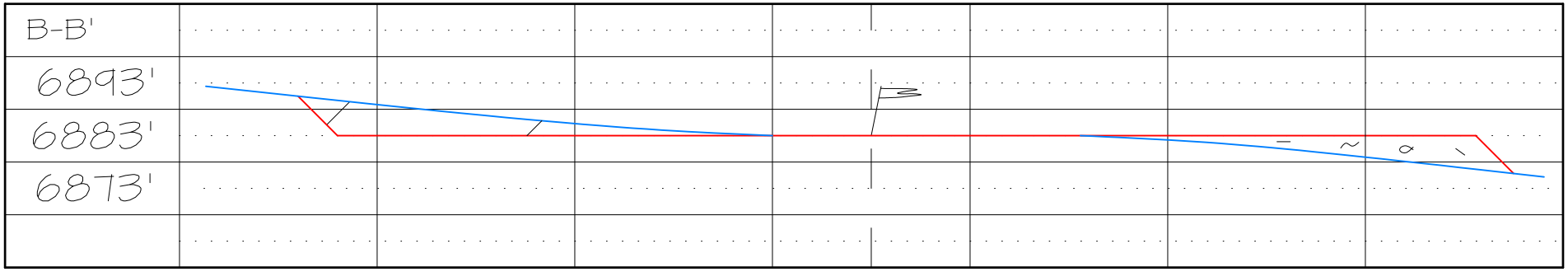
HORIZONTAL SCALE
1"=80'

VERTICAL SCALE
1"=30'

C/L



C/L



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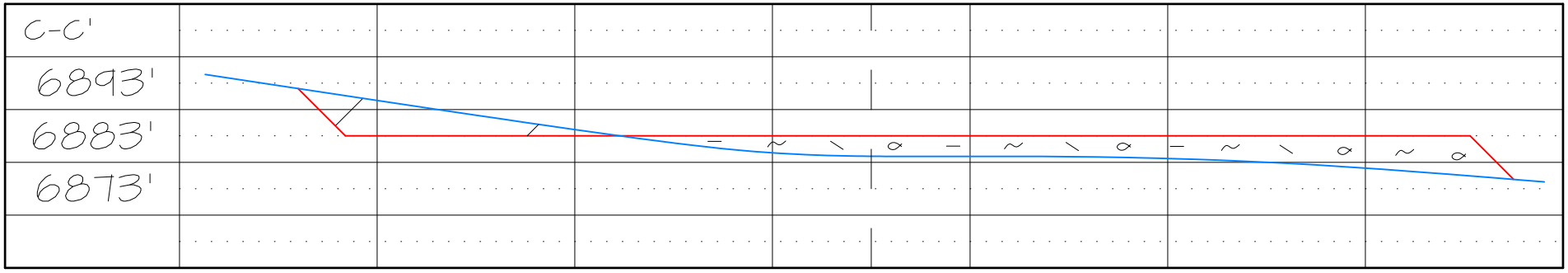
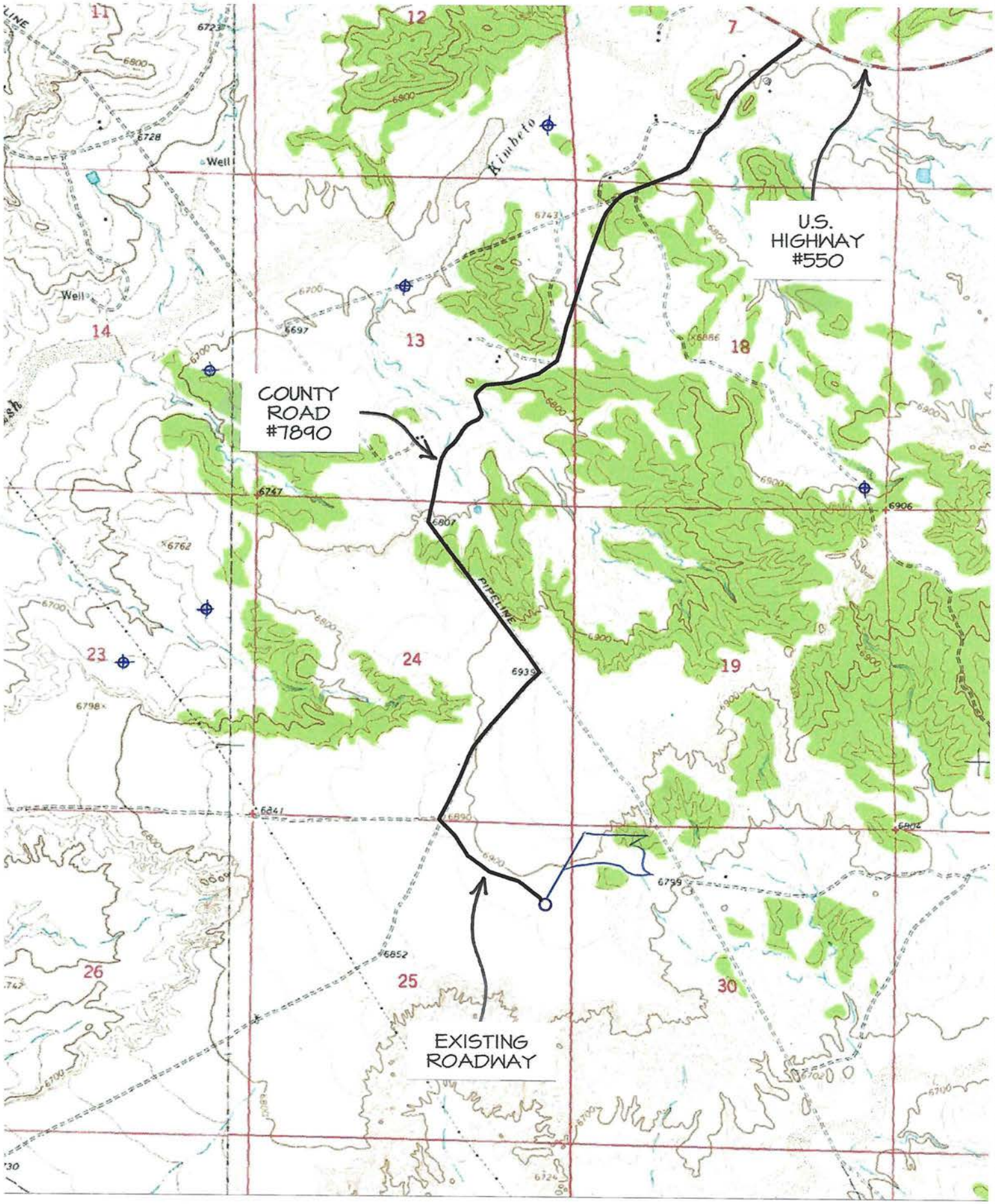


NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

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.

ENDURING RESOURCES, LLC. RODEO UNIT #504H

1471' FNL & 408' FEL, SECTION 25, T23N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : LYBROOK NW ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

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

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #504H

1471' FNL & 408' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude 36.201023°N Longitude -107.732908°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 #504H location which overlaps the existing Enduring Rodeo Unit #508H location.

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

Drilling Plan Data Report
09/12/2023

APD ID: 10400084207
Submission Date: 06/16/2022
Operator Name: ENDURING RESOURCES LLC
Well Name: RODEO UNIT
Well Number: 504H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12102112	NACIMIENTO	6896	0	0	SANDSTONE, SHALE	USEABLE WATER	N
12102113	OJO ALAMO	6325	571	571	SANDSTONE, SHALE	USEABLE WATER	N
12102114	KIRTLAND	6239	657	657	COAL, SHALE	COAL, NATURAL GAS	N
12102111	FRUITLAND	6035	861	861	COAL	COAL	N
12102115	PICTURED CLIFFS	5728	1168	1168	SANDSTONE, SHALE	NATURAL GAS	N
12102116	LEWIS	5569	1327	1327	SHALE	NATURAL GAS	N
12102117	CHACRA	5310	1586	1589	SANDSTONE, SHALE	NATURAL GAS	N
12102118	CLIFFHOUSE	4240	2656	2801	SANDSTONE	NATURAL GAS	N
12102119	MENEFEE	4222	2674	2823	COAL, SANDSTONE, SHALE	NATURAL GAS	N
12102120	POINT LOOKOUT	3248	3648	3997	SANDSTONE, SHALE	NATURAL GAS	N
12102121	MANCOS	3082	3814	4197	SHALE	NATURAL GAS, OIL	Y
12102122	GALLUP	2757	4139	4589	SHALE	NATURAL GAS, OIL	Y
12102123	MANCOS	2672	4224	4691	SHALE	NATURAL GAS, OIL	Y
12102124	MANCOS	2572	4324	4812	SHALE	NATURAL GAS, OIL	Y
12102125	MANCOS	2523	4373	4871	SHALE	NATURAL GAS, OIL	Y
12102126	MANCOS	2404	4492	5014	SHALE	NATURAL GAS, OIL	Y
12102127	MANCOS	2254	4642	5203	SHALE	NATURAL GAS, OIL	Y

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12102128	MANCOS	2197	4699	5285	SHALE	NATURAL GAS, OIL	Y
12102129	MANCOS	2121	4775	5415	SHALE	NATURAL GAS, OIL	Y
12102130	MANCOS	2067	4829	5527	SHALE	NATURAL GAS, OIL	Y
12102131	MANCOS	2028	4868	5648	SHALE	NATURAL GAS, OIL	Y
12102132	MANCOS	1999	4897	14538	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 4897

Equipment: REFERENCE BOP DIAGRAM

Requesting Variance? NO

Variance request:

Testing Procedure: REFERENCE OPS PLAN BOP TESTING

Choke Diagram Attachment:

BOPE___CHOKE_MANIFOLD_DIAGRAM_06152022_20220615145757.pdf

BOP Diagram Attachment:

BOPE___CHOKE_MANIFOLD_DIAGRAM_06152022_20220615145855.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
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3004	0	2824	6883	4059	3004	J-55	36	LT&C	1.64	2.93	BUOY	2.33	BUOY	2.9
3	PRODUCTION	8.5	5.5	NEW	API	N	0	14538	0	4897	6883	1986	14538	P-110	17	LT&C	3.08	1.19	BUOY	1.23	BUOY	1.5

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

RODU_504H_Drilling_Package_0982023_20230908104224.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

RODU_504H_Drilling_Package_0982023_20230908104250.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

RODU_504H_Drilling_Package_0982023_20230908104325.pdf

Section 4 - Cement

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

String Type	Lead/Tail	Stage Tool Depth	Top MD	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	2504	595	2.14	12.5	1274	70	Type III: POZ Blend	Pozmix Suspending Agent Cello Flake, D-MPA 1, dispersant, foam preventer
INTERMEDIATE	Tail		2504	3004	136	1.38	14.6	187.68	20	Type III	CaCl, Cello Flake, D-MPA 1
PRODUCTION	Lead		0	4197	534	2.36	12.4	1260	65	Type III	BA-90, Bentonite, Fluid Loss, Foam Preventer, Retarder
PRODUCTION	Tail		4197	14538	1671	1.56	13.3	2606	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: 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.
Describe the mud monitoring system utilized: Electronic and visual pit volume monitoring with be utalized.

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)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	14538	OIL-BASED MUD	8	9					120000		OWR 80:20

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	350	SPUD MUD	8.4	8.4			9	2			
0	3004	LOW SOLIDS NON-DISPERSED (LSND)	8.8	9.5	8		9	8			

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: 2110 **Anticipated Surface Pressure:** 1032

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

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Enduring_Rodeo_unit__504H_rev1b__12070__20230908104747.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

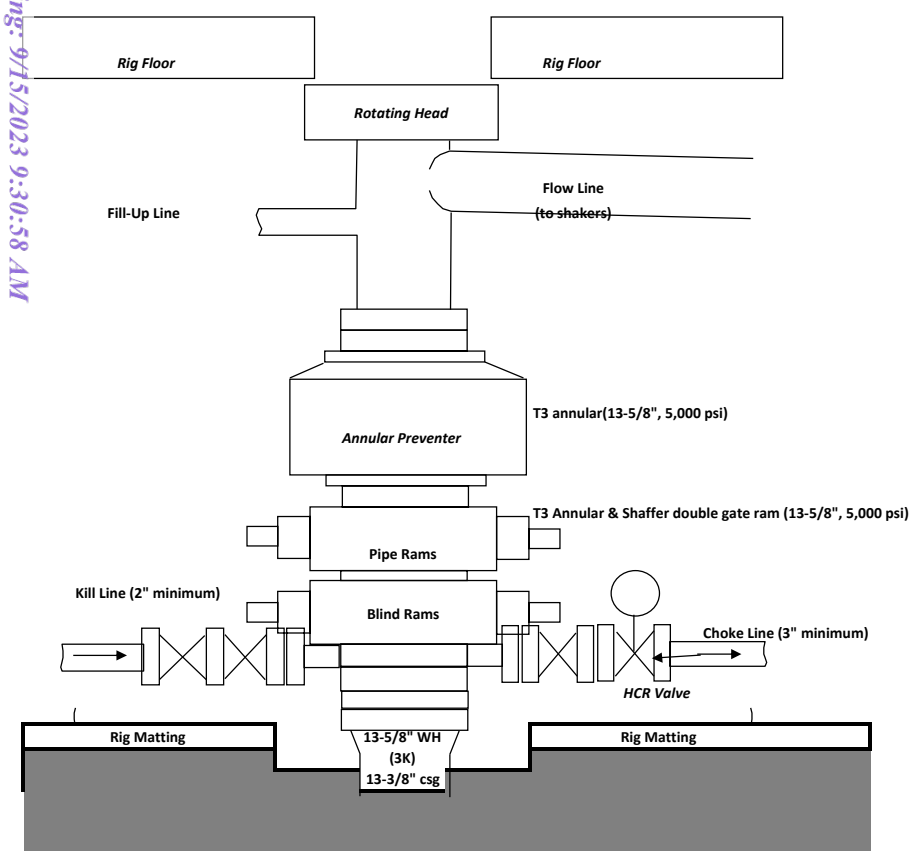
RODU_504H_WBD_0982023_20230908104754.pdf

Other Variance attachment:

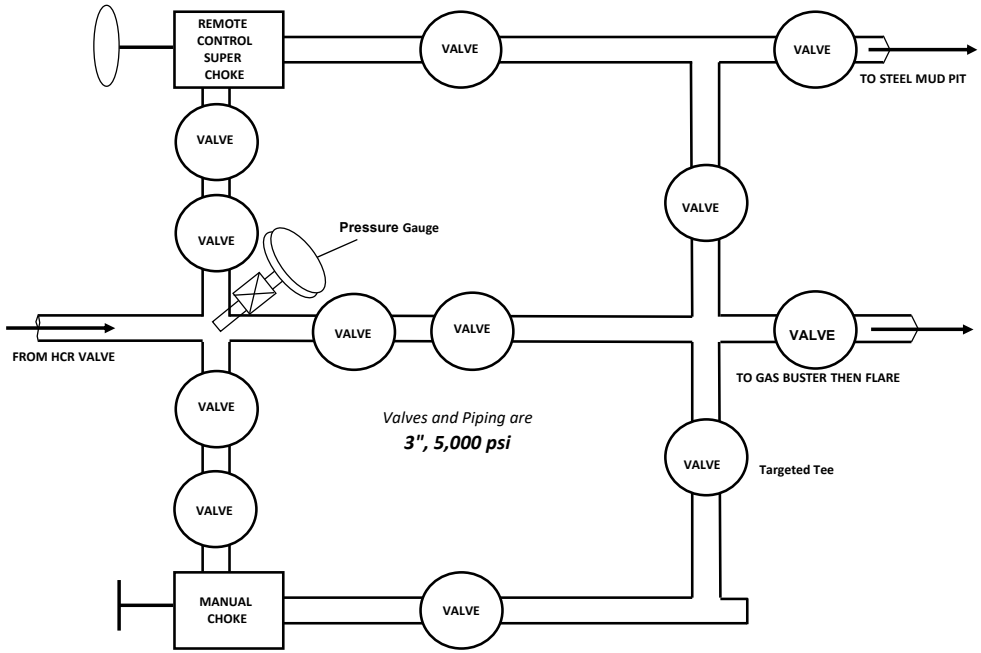
BOPE & CHOKE MANIFOLD DIAGRAMS

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



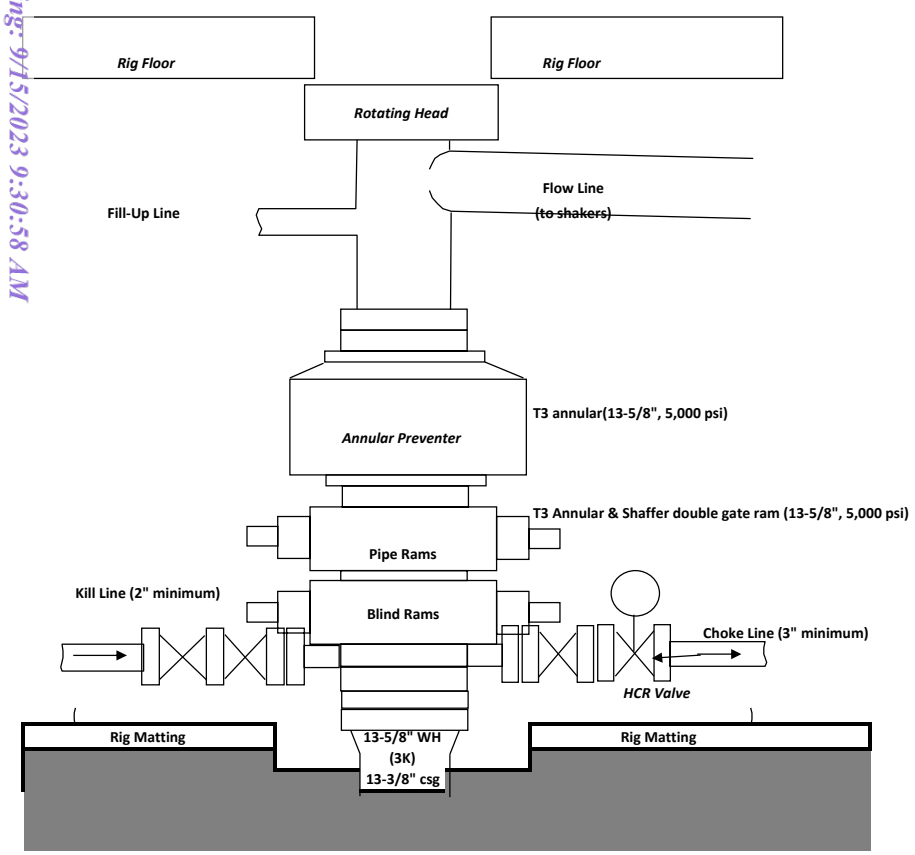
CHOKE MANIFOLD



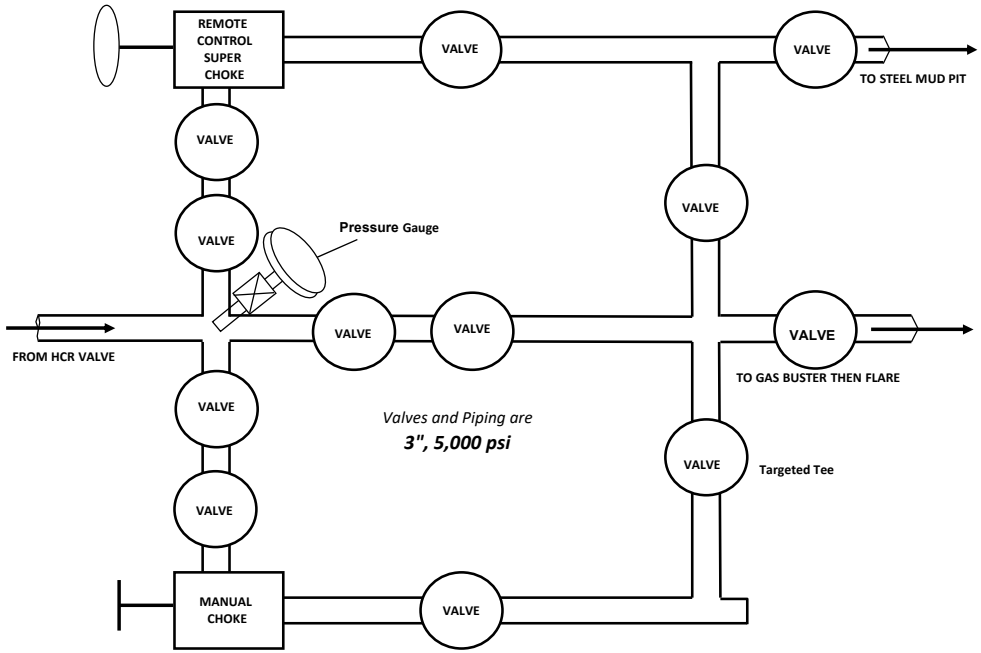
BOPE & CHOKE MANIFOLD DIAGRAMS

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



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 504H**
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 1,471 ft FNL 408 ft FEL
36.201023 ° N latitude 107.732908 ° W longitude (NAD 83)
BH Location: 29-23N-08W Sec-Twn-Rng 2,269 ft FNL 100 ft FEL
36.198862 ° N latitude 107.695954 ° W longitude (NAD 83)
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 37.8 miles to MM 113.5; 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	861	G, W	sub
Pictured Cliffs	5,728	1,168	1,168	G, W	sub
Lewis	5,569	1,327	1,327	G, W	normal
Chacra	5,310	1,586	1,589	G, W	normal
Cliff House	4,240	2,656	2,801	G, W	sub
Menefee	4,222	2,674	2,823	G, W	normal
Point Lookout	3,248	3,648	3,997	G, W	normal
Mancos	3,082	3,814	4,197	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,589	O,G	sub (~0.38)
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MNCS_C	2,572	4,324	4,812	O,G	sub (~0.38)
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MNCS_H	2,067	4,829	5,527	O,G	sub (~0.38)
MNCS_I	2,028	4,868	5,648	O,G	sub (~0.38)
FTP (LP) TARGET	**2,012**	**4,884**	**5,781**	**O,G**	**sub (~0.38)**
LTP (TD) TARGET	**1,999**	**4,897**	**14,538**	**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: 2,110 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi
Temperature: **Maximum anticipated BHT is 135° F or less**

H_2S INFORMATION:

H_2S 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.

Fluid:

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

Hole Size: 17-1/2"
Bit / Motor: Mill Tooth or PDC, no motor
MWD / Survey: No MWD, deviation survey
Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	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 and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: N/A Optimum: N/A Maximum: N/A*
Make-up as per API Buttress Connection running procedure.

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface
Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:

Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
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
Drake Energy Services surface cementing blend
Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

350 ft (MD)	to	3,004 ft (MD)	Hole Section Length:	2,654 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	3,004 ft

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

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 5- or 6-BLADE PDC w/16 mm or 19 mm cutters, target TFA 0.65 - 1.0 max); 6 - 14s = 0.902 sq-in TFA

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

Logging: None

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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,234	1,202	194,307	194,307
Min. S.F.					**1.64**	**2.93**	**2.90**	**2.33**

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	595
Tail	Type III	14.6	1.38	6.64	20%	2,504	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
Drake Energy Services Intermediate Cementing Program
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.*

3,004	ft (MD)	to	14,538 ft (MD)	Hole Section Length:	11,534 ft
2,824	ft (TVD)	to	4,897 ft (TVD)	Casing Required:	14,538 ft

Estimated KOP:	5,059	ft (MD)	4,530	ft (TVD)
Estimated Landing Point (FTP):	5,781	ft (MD)	4,884	ft (TVD)
Estimated Lateral Length:	8,757	ft (MD)		

Fluid:	Type	MW (ppg)	WPS ppm	HTHP	YP (lb/100 sqft)	ES	OWR	Comment
	OBM	8.0 - 9.0	120,000 CaCl	NC	±6	+300	80:20	WBM as contingency

Fluids / Solids Notes: OptiDrill OBM system will be built from previous well. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details.

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 077857 - 7/8, 5.7, stage, 0.23 rev/gal, 1.83 - 2.12 DEG, 750 GPM, 1,580 DIFF PSIG (or similar); on demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

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

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

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,419	8,958	363,265	363,265
Min. S.F.					**3.08**	**1.19**	**1.50**	**1.23**

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 maximum 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 as close to (but not past) the planned LTP as possible.***

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	534
Tail	G:POZ blend	13.3	1.560	7.70	10%	4,197	1,671

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
American Cementing Liner & Production Blend
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 504H**
API Number: *not yet assigned*
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State: New Mexico
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Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
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Lewis	5,569	1,327	1,327	G, W	normal
Chacra	5,310	1,586	1,589	G, W	normal
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MNCS_B	2,672	4,224	4,691	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,812	O,G	sub (~0.38)
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MNCS_F	2,197	4,699	5,285	O,G	sub (~0.38)
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Surface: Nacimiento
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Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft
Maximum anticipated BH pressure, assuming maximum pressure gradient: 2,110 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi
Temperature: **Maximum anticipated BHT is 135° F or less**

H_2S INFORMATION:

H_2S 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.

Fluid:

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

Hole Size: 17-1/2"
Bit / Motor: Mill Tooth or PDC, no motor
MWD / Survey: No MWD, deviation survey
Logging: None

Casing Specs:

	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	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 and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: N/A Optimum: N/A Maximum: N/A*
Make-up as per API Buttress Connection running procedure.

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface
Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:

Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
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
Drake Energy Services surface cementing blend
Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

350 ft (MD)	**to**	**3,004 ft (MD)**	**Hole Section Length:**	**2,654 ft**
350 ft (TVD)	**to**	**2,824 ft (TVD)**	**Casing Required:**	**3,004 ft**

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

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 5- or 6-BLADE PDC w/16 mm or 19 mm cutters, target TFA 0.65 - 1.0 max); 6 - 14s = 0.902 sq-in TFA

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

Logging: None

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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,234	1,202	194,307	194,307
Min. S.F.					**1.64**	**2.93**	**2.90**	**2.33**

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	595
Tail	Type III	14.6	1.38	6.64	20%	2,504	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
Drake Energy Services Intermediate Cementing Program
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.

3,004	ft (MD)	to	14,538 ft (MD)	Hole Section Length:	11,534 ft
2,824	ft (TVD)	to	4,897 ft (TVD)	Casing Required:	14,538 ft

Estimated KOP:	5,059	ft (MD)	4,530	ft (TVD)
Estimated Landing Point (FTP):	5,781	ft (MD)	4,884	ft (TVD)
Estimated Lateral Length:	8,757	ft (MD)		

Fluid:	Type	MW (ppg)	WPS ppm	HTHP	YP (lb/100 sqft)	ES	OWR	Comment
	OBM	8.0 - 9.0	120,000 CaCl	NC	±6	+300	80:20	WBM as contingency

Fluids / Solids Notes: OptiDrill OBM system will be built from previous well. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details.

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 077857 - 7/8, 5.7, stage, 0.23 rev/gal, 1.83 - 2.12 DEG, 750 GPM, 1,580 DIFF PSIG (or similar); on demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

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

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

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,419	8,958	363,265	363,265
Min. S.F.					**3.08**	**1.19**	**1.50**	**1.23**

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 maximum 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 as close to (but not past) the planned LTP as possible.***

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	534
Tail	G:POZ blend	13.3	1.560	7.70	10%	4,197	1,671

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
American Cementing Liner & Production Blend
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 504H**
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 1,471 ft FNL 408 ft FEL
36.201023 ° N latitude 107.732908 ° W longitude (NAD 83)
BH Location: 29-23N-08W Sec-Twn-Rng 2,269 ft FNL 100 ft FEL
36.198862 ° N latitude 107.695954 ° W longitude (NAD 83)
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 37.8 miles to MM 113.5; 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	861	G, W	sub
Pictured Cliffs	5,728	1,168	1,168	G, W	sub
Lewis	5,569	1,327	1,327	G, W	normal
Chacra	5,310	1,586	1,589	G, W	normal
Cliff House	4,240	2,656	2,801	G, W	sub
Menefee	4,222	2,674	2,823	G, W	normal
Point Lookout	3,248	3,648	3,997	G, W	normal
Mancos	3,082	3,814	4,197	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,589	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,691	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,812	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,871	O,G	sub (~0.38)
MNCS_D	2,404	4,492	5,014	O,G	sub (~0.38)
MNCS_E	2,254	4,642	5,203	O,G	sub (~0.38)
MNCS_F	2,197	4,699	5,285	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,415	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,527	O,G	sub (~0.38)
MNCS_I	2,028	4,868	5,648	O,G	sub (~0.38)
FTP (LP) TARGET	**2,012**	**4,884**	**5,781**	**O,G**	**sub (~0.38)**
LTP (TD) TARGET	**1,999**	**4,897**	**14,538**	**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: 2,110 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi
Temperature: **Maximum anticipated BHT is 135° F or less**

H_2S INFORMATION:

H_2S 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.

Fluid:

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

Hole Size: 17-1/2"
Bit / Motor: Mill Tooth or PDC, no motor
MWD / Survey: No MWD, deviation survey
Logging: None

Casing Specs:

	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	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 and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: N/A Optimum: N/A Maximum: N/A*
Make-up as per API Buttress Connection running procedure.

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface
Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:

Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
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
Drake Energy Services surface cementing blend
Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

350 ft (MD)	to	3,004 ft (MD)	Hole Section Length:	2,654 ft
350 ft (TVD)	to	2,824 ft (TVD)	Casing Required:	3,004 ft

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

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 5- or 6-BLADE PDC w/16 mm or 19 mm cutters, target TFA 0.65 - 1.0 max); 6 - 14s = 0.902 sq-in TFA

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

Logging: None

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

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,234	1,202	194,307	194,307
Min. S.F.					**1.64**	**2.93**	**2.90**	**2.33**

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	595
Tail	Type III	14.6	1.38	6.64	20%	2,504	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
Drake Energy Services Intermediate Cementing Program
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.*

3,004	ft (MD)	to	14,538 ft (MD)	Hole Section Length:	11,534 ft
2,824	ft (TVD)	to	4,897 ft (TVD)	Casing Required:	14,538 ft

Estimated KOP:	5,059	ft (MD)	4,530	ft (TVD)
Estimated Landing Point (FTP):	5,781	ft (MD)	4,884	ft (TVD)
Estimated Lateral Length:	8,757	ft (MD)		

Fluid:	Type	MW (ppg)	WPS ppm	HTHP	YP (lb/100 sqft)	ES	OWR	Comment
	OBM	8.0 - 9.0	120,000 CaCl	NC	±6	+300	80:20	WBM as contingency

Fluids / Solids Notes: OptiDrill OBM system will be built from previous well. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details.

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): **MOTOR:** NOV 077857 - 7/8, 5.7, stage, 0.23 rev/gal, 1.83 - 2.12 DEG, 750 GPM, 1,580 DIFF PSIG (or similar); on demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

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

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

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,419	8,958	363,265	363,265
Min. S.F.					**3.08**	**1.19**	**1.50**	**1.23**

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 maximum 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 as close to (but not past) the planned LTP as possible.***

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	65%	0	534
Tail	G:POZ blend	13.3	1.560	7.70	10%	4,197	1,671

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
American Cementing Liner & Production Blend
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**

Well: Rodeo Unit #504H
Site: Rodeo Unit
Project: San Juan County, New Mexico NAD83 NM W
Design: rev1
Rig: Ensign 773

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rodeo 504 Int tgt 2265 FNL 330 FEL r1	4879.00	-759.46	5379.73	1891725.713	2758100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FNL 1946 FWL r1	4884.00	346.17	2353.12	1892831.342	2755073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FNL 100 FEL r1	4897.00	-773.29	10903.86	1891711.889	2763624.488	36.198862000	-107.695954000

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	1200.00	0.00	0.000	1200.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' bujild
3	2331.47	33.94	74.618	2266.43	86.33	313.81	3.00	74.62	306.92	Begin 33.94° tangent
4	5059.43	33.94	74.618	4529.50	490.38	1782.50	0.00	0.00	1743.34	Begin 10°/100' build/turn
5	5419.71	60.00	110.067	4777.23	462.61	2034.37	10.00	58.64	1996.55	Begin 60.00° tangent
6	5479.71	60.00	110.067	4807.23	444.78	2083.18	0.00	0.00	2046.50	Begin 10°/100' build
7	5780.60	90.09	110.067	4883.99	346.18	2353.10	10.00	0.00	2322.72	Begin 90.09° lateral
8	9002.86	90.09	110.067	4879.00	-759.46	5379.73	0.00	0.00	5419.98	Begin 4°/100' turn
9	9525.45	89.80	89.166	4879.51	-846.28	5892.13	4.00	-90.79	5937.24	Begin 89.80° lateral
10	14537.75	89.80	89.166	4897.00	-773.29	10903.86	0.00	0.00	10931.25	PBHL/TD

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6883+28 @ 6911.00ft (Ensign 773)
Surface location:

Northing	Easting	Latitude	Longitude
1892485.174	2752720.648	36.201023000	-107.732908000

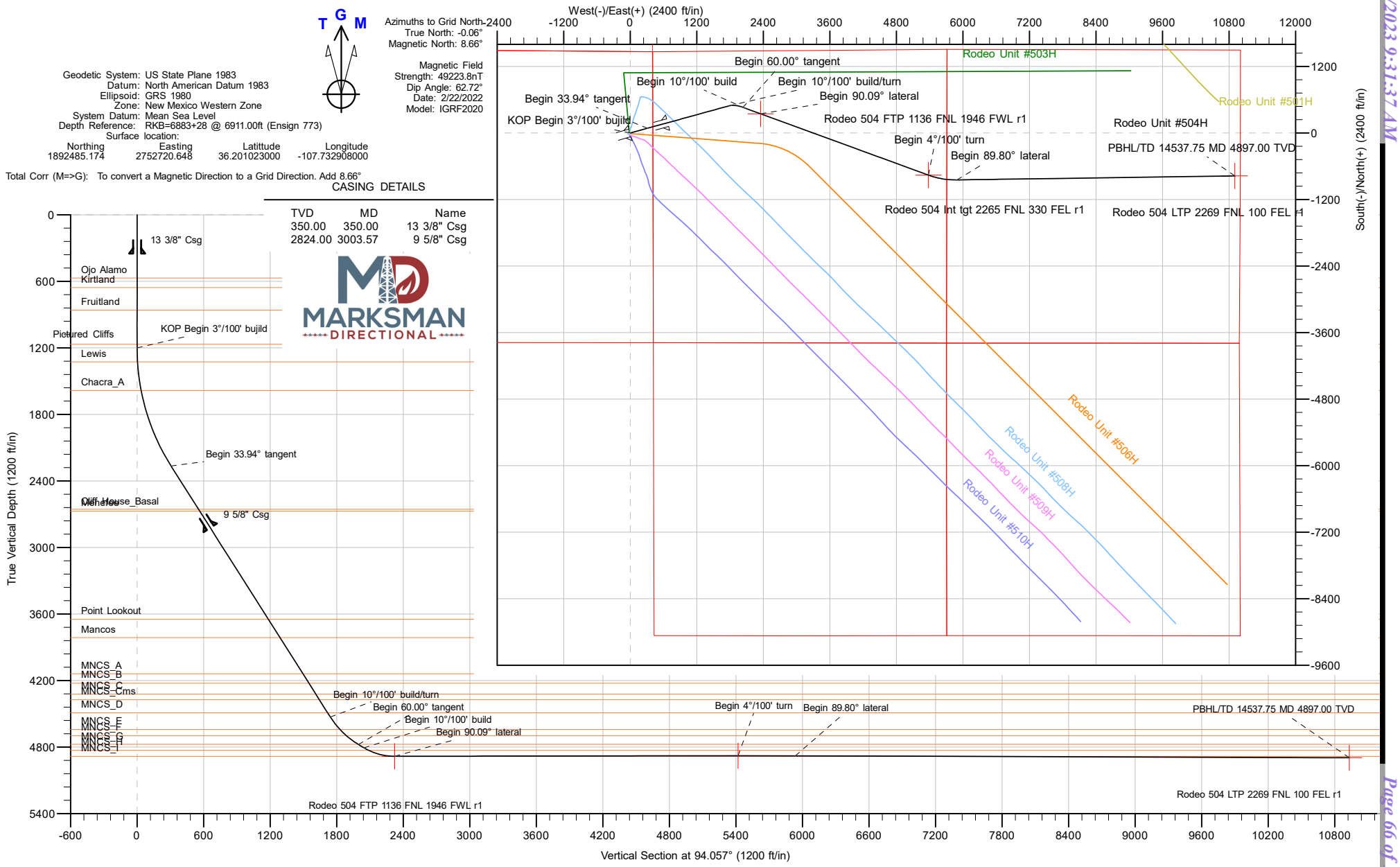
Azimuths to Grid North
True North: -0.06°
Magnetic North: 8.66°

Magnetic Field
Strength: 49223.8nT
Dip Angle: 62.72°
Date: 2/22/2022
Model: IGRF2020

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction. Add 8.66°

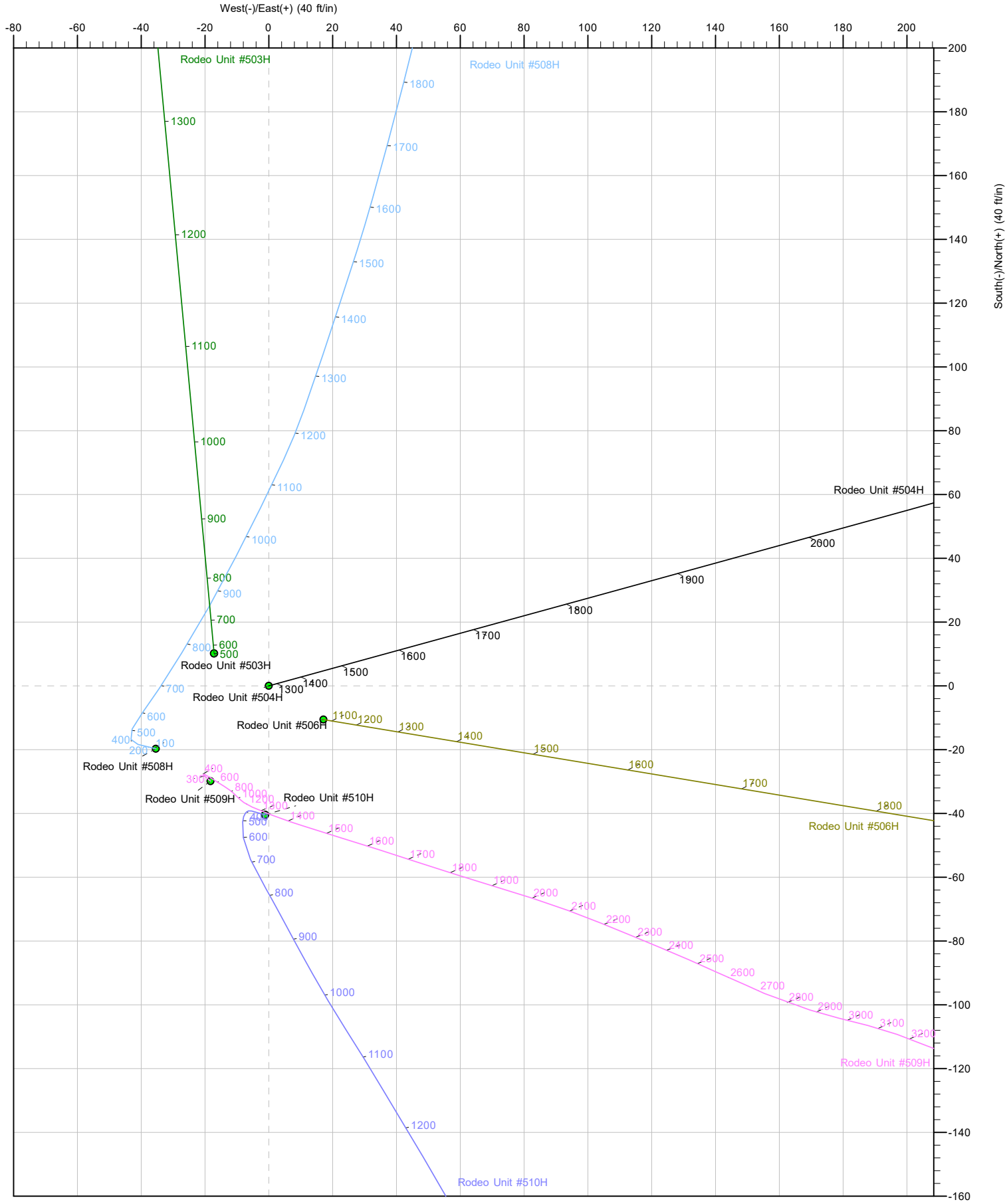
CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
2824.00	3003.57	9 5/8" Csg



7.57, March 15 2022

Well:	Rodeo Unit #504H
Site:	Rodeo Unit
Project:	San Juan County, New Mexico NAD83 NM W
Design:	rev1
Rig:	Ensign 773



Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project San Juan County, New Mexico NAD83 NM W

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

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 #504H, Surf loc: 1471 FNL 408 FEL Section 25-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,892,485.174 usft	**Latitude:**	36.201023000
	+E/-W	0.00 ft	**Easting:**	2,752,720.648 usft	**Longitude:**	-107.732908000
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	49,223.82454687

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	94.057

Plan Survey Tool Program **Date** 3/8/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,537.75	rev1 (Original Hole)	MWD	
				OWSG MWD - Standard	

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,331.47	33.94	74.618	2,266.43	86.33	313.81	3.00	3.00	0.00	74.62	
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	0.00	0.00	0.00	0.00	
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	10.00	7.23	9.84	58.64	
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	0.00	0.00	0.00	0.00	
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	10.00	10.00	0.00	0.00	
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	0.00	0.00	0.00	0.00	Rodeo 504 Int tgt 226
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	4.00	-0.06	-4.00	-90.79	
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	0.00	0.00	0.00	0.00	Rodeo 504 LTP 2269

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
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
571.00	0.00	0.000	571.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
657.00	0.00	0.000	657.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
861.00	0.00	0.000	861.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,168.00	0.00	0.000	1,168.00	0.00	0.00	0.00	0.00	0.00	0.00
Pictured Cliffs									
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' bujild									
1,300.00	3.00	74.618	1,299.95	0.69	2.52	2.47	3.00	3.00	0.00
1,327.09	3.81	74.618	1,327.00	1.12	4.08	3.99	3.00	3.00	0.00
Lewis									
1,400.00	6.00	74.618	1,399.63	2.78	10.09	9.87	3.00	3.00	0.00
1,500.00	9.00	74.618	1,498.77	6.24	22.67	22.17	3.00	3.00	0.00
1,588.68	11.66	74.618	1,586.00	10.45	38.00	37.17	3.00	3.00	0.00
Chacra_A									
1,600.00	12.00	74.618	1,597.08	11.07	40.24	39.36	3.00	3.00	0.00
1,700.00	15.00	74.618	1,694.31	17.26	62.75	61.37	3.00	3.00	0.00
1,800.00	18.00	74.618	1,790.18	24.79	90.13	88.15	3.00	3.00	0.00
1,900.00	21.00	74.618	1,884.43	33.65	122.31	119.62	3.00	3.00	0.00
2,000.00	24.00	74.618	1,976.81	43.80	159.20	155.70	3.00	3.00	0.00
2,100.00	27.00	74.618	2,067.06	55.22	200.71	196.30	3.00	3.00	0.00
2,200.00	30.00	74.618	2,154.93	67.87	246.71	241.29	3.00	3.00	0.00
2,300.00	33.00	74.618	2,240.18	81.73	297.08	290.55	3.00	3.00	0.00
2,331.47	33.94	74.618	2,266.43	86.33	313.81	306.92	3.00	3.00	0.00
Begin 33.94° tangent									
2,400.00	33.94	74.618	2,323.29	96.48	350.71	343.01	0.00	0.00	0.00
2,500.00	33.94	74.618	2,406.24	111.29	404.55	395.66	0.00	0.00	0.00
2,600.00	33.94	74.618	2,489.20	126.11	458.39	448.32	0.00	0.00	0.00
2,700.00	33.94	74.618	2,572.16	140.92	512.22	500.97	0.00	0.00	0.00
2,800.00	33.94	74.618	2,655.12	155.73	566.06	553.63	0.00	0.00	0.00
2,801.06	33.94	74.618	2,656.00	155.89	566.63	554.19	0.00	0.00	0.00
Cliff House_Basal									
2,822.76	33.94	74.618	2,674.00	159.10	578.32	565.61	0.00	0.00	0.00
Menefee									
2,900.00	33.94	74.618	2,738.08	170.54	619.90	606.28	0.00	0.00	0.00
3,000.00	33.94	74.618	2,821.04	185.35	673.74	658.94	0.00	0.00	0.00
3,100.00	33.94	74.618	2,903.99	200.16	727.58	711.59	0.00	0.00	0.00
3,200.00	33.94	74.618	2,986.95	214.97	781.42	764.25	0.00	0.00	0.00
3,300.00	33.94	74.618	3,069.91	229.78	835.25	816.91	0.00	0.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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	33.94	74.618	3,152.87	244.60	889.09	869.56	0.00	0.00	0.00
3,500.00	33.94	74.618	3,235.83	259.41	942.93	922.22	0.00	0.00	0.00
3,600.00	33.94	74.618	3,318.79	274.22	996.77	974.87	0.00	0.00	0.00
3,700.00	33.94	74.618	3,401.74	289.03	1,050.61	1,027.53	0.00	0.00	0.00
3,800.00	33.94	74.618	3,484.70	303.84	1,104.44	1,080.18	0.00	0.00	0.00
3,900.00	33.94	74.618	3,567.66	318.65	1,158.28	1,132.84	0.00	0.00	0.00
3,996.84	33.94	74.618	3,648.00	333.00	1,210.42	1,183.83	0.00	0.00	0.00
Point Lookout									
4,000.00	33.94	74.618	3,650.62	333.46	1,212.12	1,185.49	0.00	0.00	0.00
4,100.00	33.94	74.618	3,733.58	348.27	1,265.96	1,238.15	0.00	0.00	0.00
4,196.94	33.94	74.618	3,814.00	362.63	1,318.15	1,289.20	0.00	0.00	0.00
Mancos									
4,200.00	33.94	74.618	3,816.53	363.09	1,319.80	1,290.81	0.00	0.00	0.00
4,300.00	33.94	74.618	3,899.49	377.90	1,373.64	1,343.46	0.00	0.00	0.00
4,400.00	33.94	74.618	3,982.45	392.71	1,427.47	1,396.12	0.00	0.00	0.00
4,500.00	33.94	74.618	4,065.41	407.52	1,481.31	1,448.77	0.00	0.00	0.00
4,588.71	33.94	74.618	4,139.00	420.66	1,529.07	1,495.48	0.00	0.00	0.00
MNCS_A									
4,600.00	33.94	74.618	4,148.37	422.33	1,535.15	1,501.43	0.00	0.00	0.00
4,691.17	33.94	74.618	4,224.00	435.83	1,584.23	1,549.43	0.00	0.00	0.00
MNCS_B									
4,700.00	33.94	74.618	4,231.33	437.14	1,588.99	1,554.08	0.00	0.00	0.00
4,800.00	33.94	74.618	4,314.28	451.95	1,642.83	1,606.74	0.00	0.00	0.00
4,811.71	33.94	74.618	4,324.00	453.69	1,649.13	1,612.91	0.00	0.00	0.00
MNCS_C									
4,870.78	33.94	74.618	4,373.00	462.44	1,680.93	1,644.01	0.00	0.00	0.00
MNCS_Cms									
4,900.00	33.94	74.618	4,397.24	466.76	1,696.66	1,659.39	0.00	0.00	0.00
5,000.00	33.94	74.618	4,480.20	481.58	1,750.50	1,712.05	0.00	0.00	0.00
5,014.22	33.94	74.618	4,492.00	483.68	1,758.16	1,719.54	0.00	0.00	0.00
MNCS_D									
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	1,743.34	0.00	0.00	0.00
Begin 10°/100' build/turn									
5,100.00	36.20	80.490	4,562.71	495.36	1,805.25	1,765.68	10.00	5.56	14.47
5,150.00	39.33	86.864	4,602.25	498.67	1,835.65	1,795.77	10.00	6.26	12.75
5,200.00	42.76	92.405	4,639.97	498.83	1,868.45	1,828.48	10.00	6.86	11.08
5,202.78	42.96	92.691	4,642.00	498.74	1,870.34	1,830.37	10.00	7.13	10.30
MNCS_E									
5,250.00	46.43	97.251	4,675.57	495.83	1,903.40	1,863.56	10.00	7.34	9.66
5,284.85	49.09	100.286	4,699.00	491.88	1,928.89	1,889.26	10.00	7.65	8.71
MNCS_F									
5,300.00	50.28	101.528	4,708.80	489.69	1,940.23	1,900.73	10.00	7.80	8.20
5,350.00	54.26	105.345	4,739.40	480.48	1,978.67	1,939.72	10.00	7.97	7.63
5,400.00	58.36	108.792	4,767.13	468.24	2,018.41	1,980.23	10.00	8.19	6.90
5,415.27	59.63	109.784	4,775.00	463.92	2,030.77	1,992.86	10.00	8.31	6.49
MNCS_G									
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	1,996.55	10.00	8.34	6.38
Begin 60.00° tangent									
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	2,046.50	0.00	0.00	0.00
Begin 10°/100' build									
5,500.00	62.03	110.067	4,817.06	438.69	2,099.85	2,063.56	10.00	10.00	0.00
5,526.63	64.69	110.067	4,829.00	430.52	2,122.20	2,086.43	10.00	10.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
MNCS_H									
5,550.00	67.03	110.067	4,838.56	423.21	2,142.24	2,106.93	10.00	10.00	0.00
5,600.00	72.03	110.067	4,856.04	407.14	2,186.22	2,151.94	10.00	10.00	0.00
5,650.00	77.03	110.067	4,869.37	390.61	2,231.47	2,198.25	10.00	10.00	0.00
5,700.00	82.03	110.067	4,878.46	373.74	2,277.64	2,245.49	10.00	10.00	0.00
5,750.00	87.03	110.067	4,883.22	356.67	2,324.37	2,293.32	10.00	10.00	0.00
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	2,322.72	10.00	10.00	0.00
Begin 90.09° lateral									
5,800.00	90.09	110.067	4,883.96	339.52	2,371.33	2,341.37	0.00	0.00	0.00
5,900.00	90.09	110.067	4,883.81	305.21	2,465.25	2,437.49	0.00	0.00	0.00
6,000.00	90.09	110.067	4,883.65	270.90	2,559.18	2,533.61	0.00	0.00	0.00
6,100.00	90.09	110.067	4,883.50	236.58	2,653.11	2,629.73	0.00	0.00	0.00
6,200.00	90.09	110.067	4,883.34	202.27	2,747.04	2,725.85	0.00	0.00	0.00
6,300.00	90.09	110.067	4,883.19	167.96	2,840.97	2,821.97	0.00	0.00	0.00
6,400.00	90.09	110.067	4,883.03	133.64	2,934.90	2,918.09	0.00	0.00	0.00
6,500.00	90.09	110.067	4,882.88	99.33	3,028.83	3,014.21	0.00	0.00	0.00
6,600.00	90.09	110.067	4,882.72	65.02	3,122.76	3,110.33	0.00	0.00	0.00
6,700.00	90.09	110.067	4,882.57	30.71	3,216.68	3,206.45	0.00	0.00	0.00
6,800.00	90.09	110.067	4,882.41	-3.61	3,310.61	3,302.57	0.00	0.00	0.00
6,900.00	90.09	110.067	4,882.26	-37.92	3,404.54	3,398.70	0.00	0.00	0.00
7,000.00	90.09	110.067	4,882.10	-72.23	3,498.47	3,494.82	0.00	0.00	0.00
7,100.00	90.09	110.067	4,881.95	-106.54	3,592.40	3,590.94	0.00	0.00	0.00
7,200.00	90.09	110.067	4,881.79	-140.86	3,686.33	3,687.06	0.00	0.00	0.00
7,300.00	90.09	110.067	4,881.64	-175.17	3,780.26	3,783.18	0.00	0.00	0.00
7,400.00	90.09	110.067	4,881.48	-209.48	3,874.19	3,879.30	0.00	0.00	0.00
7,500.00	90.09	110.067	4,881.33	-243.79	3,968.12	3,975.42	0.00	0.00	0.00
7,600.00	90.09	110.067	4,881.17	-278.11	4,062.04	4,071.54	0.00	0.00	0.00
7,700.00	90.09	110.067	4,881.02	-312.42	4,155.97	4,167.66	0.00	0.00	0.00
7,800.00	90.09	110.067	4,880.86	-346.73	4,249.90	4,263.78	0.00	0.00	0.00
7,900.00	90.09	110.067	4,880.71	-381.04	4,343.83	4,359.90	0.00	0.00	0.00
8,000.00	90.09	110.067	4,880.55	-415.36	4,437.76	4,456.02	0.00	0.00	0.00
8,100.00	90.09	110.067	4,880.40	-449.67	4,531.69	4,552.15	0.00	0.00	0.00
8,200.00	90.09	110.067	4,880.24	-483.98	4,625.62	4,648.27	0.00	0.00	0.00
8,300.00	90.09	110.067	4,880.09	-518.29	4,719.55	4,744.39	0.00	0.00	0.00
8,400.00	90.09	110.067	4,879.93	-552.61	4,813.47	4,840.51	0.00	0.00	0.00
8,500.00	90.09	110.067	4,879.78	-586.92	4,907.40	4,936.63	0.00	0.00	0.00
8,600.00	90.09	110.067	4,879.62	-621.23	5,001.33	5,032.75	0.00	0.00	0.00
8,700.00	90.09	110.067	4,879.47	-655.54	5,095.26	5,128.87	0.00	0.00	0.00
8,800.00	90.09	110.067	4,879.31	-689.86	5,189.19	5,224.99	0.00	0.00	0.00
8,900.00	90.09	110.067	4,879.16	-724.17	5,283.12	5,321.11	0.00	0.00	0.00
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	5,419.98	0.00	0.00	0.00
Begin 4°/100' turn									
9,100.00	90.03	106.182	4,878.90	-789.68	5,472.04	5,514.19	4.00	-0.06	-4.00
9,200.00	89.98	102.182	4,878.88	-814.17	5,568.97	5,612.61	4.00	-0.06	-4.00
9,300.00	89.92	98.183	4,878.97	-831.85	5,667.37	5,712.02	4.00	-0.06	-4.00
9,400.00	89.87	94.183	4,879.15	-842.62	5,766.77	5,811.93	4.00	-0.06	-4.00
9,500.00	89.81	90.184	4,879.43	-846.42	5,866.68	5,911.86	4.00	-0.05	-4.00
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	5,937.24	4.00	-0.05	-4.00
Begin 89.80° lateral									
9,600.00	89.80	89.166	4,879.77	-845.19	5,966.67	6,011.51	0.00	0.00	0.00
9,700.00	89.80	89.166	4,880.12	-843.74	6,066.66	6,111.15	0.00	0.00	0.00
9,800.00	89.80	89.166	4,880.47	-842.28	6,166.65	6,210.78	0.00	0.00	0.00
9,900.00	89.80	89.166	4,880.82	-840.83	6,266.64	6,310.42	0.00	0.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
10,000.00	89.80	89.166	4,881.17	-839.37	6,366.62	6,410.05	0.00	0.00	0.00
10,100.00	89.80	89.166	4,881.52	-837.91	6,466.61	6,509.69	0.00	0.00	0.00
10,200.00	89.80	89.166	4,881.87	-836.46	6,566.60	6,609.32	0.00	0.00	0.00
10,300.00	89.80	89.166	4,882.22	-835.00	6,666.59	6,708.96	0.00	0.00	0.00
10,400.00	89.80	89.166	4,882.56	-833.54	6,766.58	6,808.59	0.00	0.00	0.00
10,500.00	89.80	89.166	4,882.91	-832.09	6,866.57	6,908.23	0.00	0.00	0.00
10,600.00	89.80	89.166	4,883.26	-830.63	6,966.56	7,007.86	0.00	0.00	0.00
10,700.00	89.80	89.166	4,883.61	-829.18	7,066.55	7,107.50	0.00	0.00	0.00
10,800.00	89.80	89.166	4,883.96	-827.72	7,166.53	7,207.13	0.00	0.00	0.00
10,811.64	89.80	89.166	4,884.00	-827.55	7,178.18	7,218.74	0.00	0.00	0.00
MNCS_I									
10,900.00	89.80	89.166	4,884.31	-826.26	7,266.52	7,306.77	0.00	0.00	0.00
11,000.00	89.80	89.166	4,884.66	-824.81	7,366.51	7,406.40	0.00	0.00	0.00
11,100.00	89.80	89.166	4,885.01	-823.35	7,466.50	7,506.04	0.00	0.00	0.00
11,200.00	89.80	89.166	4,885.36	-821.89	7,566.49	7,605.68	0.00	0.00	0.00
11,300.00	89.80	89.166	4,885.70	-820.44	7,666.48	7,705.31	0.00	0.00	0.00
11,400.00	89.80	89.166	4,886.05	-818.98	7,766.47	7,804.95	0.00	0.00	0.00
11,500.00	89.80	89.166	4,886.40	-817.52	7,866.46	7,904.58	0.00	0.00	0.00
11,600.00	89.80	89.166	4,886.75	-816.07	7,966.45	8,004.22	0.00	0.00	0.00
11,700.00	89.80	89.166	4,887.10	-814.61	8,066.43	8,103.85	0.00	0.00	0.00
11,800.00	89.80	89.166	4,887.45	-813.16	8,166.42	8,203.49	0.00	0.00	0.00
11,900.00	89.80	89.166	4,887.80	-811.70	8,266.41	8,303.12	0.00	0.00	0.00
12,000.00	89.80	89.166	4,888.15	-810.24	8,366.40	8,402.76	0.00	0.00	0.00
12,100.00	89.80	89.166	4,888.50	-808.79	8,466.39	8,502.39	0.00	0.00	0.00
12,200.00	89.80	89.166	4,888.84	-807.33	8,566.38	8,602.03	0.00	0.00	0.00
12,300.00	89.80	89.166	4,889.19	-805.87	8,666.37	8,701.66	0.00	0.00	0.00
12,400.00	89.80	89.166	4,889.54	-804.42	8,766.36	8,801.30	0.00	0.00	0.00
12,500.00	89.80	89.166	4,889.89	-802.96	8,866.34	8,900.93	0.00	0.00	0.00
12,600.00	89.80	89.166	4,890.24	-801.51	8,966.33	9,000.57	0.00	0.00	0.00
12,700.00	89.80	89.166	4,890.59	-800.05	9,066.32	9,100.20	0.00	0.00	0.00
12,800.00	89.80	89.166	4,890.94	-798.59	9,166.31	9,199.84	0.00	0.00	0.00
12,900.00	89.80	89.166	4,891.29	-797.14	9,266.30	9,299.47	0.00	0.00	0.00
13,000.00	89.80	89.166	4,891.64	-795.68	9,366.29	9,399.11	0.00	0.00	0.00
13,100.00	89.80	89.166	4,891.98	-794.22	9,466.28	9,498.75	0.00	0.00	0.00
13,200.00	89.80	89.166	4,892.33	-792.77	9,566.27	9,598.38	0.00	0.00	0.00
13,300.00	89.80	89.166	4,892.68	-791.31	9,666.25	9,698.02	0.00	0.00	0.00
13,400.00	89.80	89.166	4,893.03	-789.85	9,766.24	9,797.65	0.00	0.00	0.00
13,500.00	89.80	89.166	4,893.38	-788.40	9,866.23	9,897.29	0.00	0.00	0.00
13,600.00	89.80	89.166	4,893.73	-786.94	9,966.22	9,996.92	0.00	0.00	0.00
13,700.00	89.80	89.166	4,894.08	-785.49	10,066.21	10,096.56	0.00	0.00	0.00
13,800.00	89.80	89.166	4,894.43	-784.03	10,166.20	10,196.19	0.00	0.00	0.00
13,900.00	89.80	89.166	4,894.78	-782.57	10,266.19	10,295.83	0.00	0.00	0.00
14,000.00	89.80	89.166	4,895.12	-781.12	10,366.18	10,395.46	0.00	0.00	0.00
14,100.00	89.80	89.166	4,895.47	-779.66	10,466.16	10,495.10	0.00	0.00	0.00
14,200.00	89.80	89.166	4,895.82	-778.20	10,566.15	10,594.73	0.00	0.00	0.00
14,300.00	89.80	89.166	4,896.17	-776.75	10,666.14	10,694.37	0.00	0.00	0.00
14,400.00	89.80	89.166	4,896.52	-775.29	10,766.13	10,794.00	0.00	0.00	0.00
14,500.00	89.80	89.166	4,896.87	-773.84	10,866.12	10,893.64	0.00	0.00	0.00
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	10,931.25	0.00	0.00	0.00
PBHL/TD 14537.75 MD 4897.00 TVD									

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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 504 Int tgt 2265 F - plan hits target center - Point	0.00	0.000	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FN - plan misses target center by 0.01ft at 5780.61ft MD (4883.99 TVD, 346.17 N, 2353.12 E) - Point	0.00	0.000	4,884.00	346.17	2,353.12	1,892,831.342	2,755,073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FN - plan hits target center - Point	0.00	0.000	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000

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
3,003.57	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 (°)
571.00	571.00	Ojo Alamo			
657.00	657.00	Kirtland			
861.00	861.00	Fruitland			
1,168.00	1,168.00	Pictured Cliffs			
1,327.09	1,327.00	Lewis			
1,588.68	1,586.00	Chacra_A			
2,801.06	2,656.00	Cliff House_Basal			
2,822.76	2,674.00	Menefee			
3,996.84	3,648.00	Point Lookout			
4,196.94	3,814.00	Mancos			
4,588.71	4,139.00	MNCS_A			
4,691.17	4,224.00	MNCS_B			
4,811.71	4,324.00	MNCS_C			
4,870.78	4,373.00	MNCS_Cms			
5,014.22	4,492.00	MNCS_D			
5,202.78	4,642.00	MNCS_E			
5,284.85	4,699.00	MNCS_F			
5,415.27	4,775.00	MNCS_G			
5,526.63	4,829.00	MNCS_H			
10,811.64	4,884.00	MNCS_I		0.00	

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' bujild
2,331.47	2,266.43	86.33	313.81	Begin 33.94° tangent
5,059.43	4,529.50	490.38	1,782.50	Begin 10°/100' build/turn
5,419.71	4,777.23	462.61	2,034.37	Begin 60.00° tangent
5,479.71	4,807.23	444.78	2,083.18	Begin 10°/100' build
5,780.60	4,883.99	346.18	2,353.10	Begin 90.09° lateral
9,002.86	4,879.00	-759.46	5,379.73	Begin 4°/100' turn
9,525.45	4,879.51	-846.28	5,892.13	Begin 89.80° lateral
14,537.75	4,897.00	-773.29	10,903.86	PBHL/TD 14537.75 MD 4897.00 TVD

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project San Juan County, New Mexico NAD83 NM W

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

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 #504H, Surf loc: 1471 FNL 408 FEL Section 25-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,892,485.174 usft	**Latitude:**	36.201023000
	+E/-W	0.00 ft	**Easting:**	2,752,720.648 usft	**Longitude:**	-107.732908000
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	49,223.82454687

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	94.057

Plan Survey Tool Program **Date** 3/8/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,537.75	rev1 (Original Hole)	MWD OWSG MWD - Standard	

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,331.47	33.94	74.618	2,266.43	86.33	313.81	3.00	3.00	0.00	74.62	
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	0.00	0.00	0.00	0.00	
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	10.00	7.23	9.84	58.64	
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	0.00	0.00	0.00	0.00	
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	10.00	10.00	0.00	0.00	
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	0.00	0.00	0.00	0.00	Rodeo 504 Int tgt 226
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	4.00	-0.06	-4.00	-90.79	
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	0.00	0.00	0.00	0.00	Rodeo 504 LTP 2269

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
100.00	0.00	0.000	100.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
200.00	0.00	0.000	200.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
300.00	0.00	0.000	300.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
400.00	0.00	0.000	400.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
500.00	0.00	0.000	500.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
571.00	0.00	0.000	571.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Ojo Alamo									
600.00	0.00	0.000	600.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
657.00	0.00	0.000	657.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Kirtland									
700.00	0.00	0.000	700.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
800.00	0.00	0.000	800.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
861.00	0.00	0.000	861.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Fruitland									
900.00	0.00	0.000	900.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,100.00	0.00	0.000	1,100.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,168.00	0.00	0.000	1,168.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Pictured Cliffs									
1,200.00	0.00	0.000	1,200.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
KOP Begin 3°/100' bujild									
1,300.00	3.00	74.618	1,299.95	0.69	2.52	1,892,485.868	2,752,723.172	36.201024900	-107.732899444
1,327.09	3.81	74.618	1,327.00	1.12	4.08	1,892,486.295	2,752,724.724	36.201026069	-107.732894181
Lewis									
1,400.00	6.00	74.618	1,399.63	2.78	10.09	1,892,487.949	2,752,730.736	36.201030595	-107.732873799
1,500.00	9.00	74.618	1,498.77	6.24	22.67	1,892,491.411	2,752,743.319	36.201040069	-107.732831136
1,588.68	11.66	74.618	1,586.00	10.45	38.00	1,892,495.628	2,752,758.650	36.201051611	-107.732779159
Chacra_A									
1,600.00	12.00	74.618	1,597.08	11.07	40.24	1,892,496.244	2,752,760.888	36.201053297	-107.732771571
1,700.00	15.00	74.618	1,694.31	17.26	62.75	1,892,502.435	2,752,783.394	36.201070241	-107.732695268
1,800.00	18.00	74.618	1,790.18	24.79	90.13	1,892,509.968	2,752,810.775	36.201090856	-107.732602435
1,900.00	21.00	74.618	1,884.43	33.65	122.31	1,892,518.821	2,752,842.956	36.201115085	-107.732493328
2,000.00	24.00	74.618	1,976.81	43.80	159.20	1,892,528.971	2,752,879.849	36.201142862	-107.732368245
2,100.00	27.00	74.618	2,067.06	55.22	200.71	1,892,540.389	2,752,921.353	36.201174109	-107.732227530
2,200.00	30.00	74.618	2,154.93	67.87	246.71	1,892,553.044	2,752,967.354	36.201208743	-107.732071567
2,300.00	33.00	74.618	2,240.18	81.73	297.08	1,892,566.902	2,753,017.727	36.201246667	-107.731900784
2,331.47	33.94	74.618	2,266.43	86.33	313.81	1,892,571.506	2,753,034.462	36.201259266	-107.731844046
Begin 33.94° tangent									
2,400.00	33.94	74.618	2,323.29	96.48	350.71	1,892,581.656	2,753,071.357	36.201287043	-107.731718956
2,500.00	33.94	74.618	2,406.24	111.29	404.55	1,892,596.467	2,753,125.195	36.201327576	-107.731536423
2,600.00	33.94	74.618	2,489.20	126.11	458.39	1,892,611.279	2,753,179.033	36.201368109	-107.731353889
2,700.00	33.94	74.618	2,572.16	140.92	512.22	1,892,626.090	2,753,232.871	36.201408641	-107.731171355
2,800.00	33.94	74.618	2,655.12	155.73	566.06	1,892,640.901	2,753,286.709	36.201449173	-107.730988821
2,801.06	33.94	74.618	2,656.00	155.89	566.63	1,892,641.058	2,753,287.281	36.201449604	-107.730986882
Cliff House_Basal									
2,822.76	33.94	74.618	2,674.00	159.10	578.32	1,892,644.272	2,753,298.963	36.201458398	-107.730947277
Menefee									
2,900.00	33.94	74.618	2,738.08	170.54	619.90	1,892,655.712	2,753,340.547	36.201489705	-107.730806287
3,000.00	33.94	74.618	2,821.04	185.35	673.74	1,892,670.524	2,753,394.385	36.201530237	-107.730623753
3,100.00	33.94	74.618	2,903.99	200.16	727.58	1,892,685.335	2,753,448.223	36.201570768	-107.730441218
3,200.00	33.94	74.618	2,986.95	214.97	781.42	1,892,700.146	2,753,502.062	36.201611299	-107.730258683
3,300.00	33.94	74.618	3,069.91	229.78	835.25	1,892,714.957	2,753,555.900	36.201651829	-107.730076148

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

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	33.94	74.618	3,152.87	244.60	889.09	1,892,729.769	2,753,609.738	36.201692360	-107.729893613
3,500.00	33.94	74.618	3,235.83	259.41	942.93	1,892,744.580	2,753,663.576	36.201732890	-107.729711078
3,600.00	33.94	74.618	3,318.79	274.22	996.77	1,892,759.391	2,753,717.414	36.201773420	-107.729528542
3,700.00	33.94	74.618	3,401.74	289.03	1,050.61	1,892,774.202	2,753,771.252	36.201813949	-107.729346006
3,800.00	33.94	74.618	3,484.70	303.84	1,104.44	1,892,789.014	2,753,825.090	36.201854479	-107.729163470
3,900.00	33.94	74.618	3,567.66	318.65	1,158.28	1,892,803.825	2,753,878.928	36.201895007	-107.728980934
3,996.84	33.94	74.618	3,648.00	333.00	1,210.42	1,892,818.169	2,753,931.067	36.201934257	-107.728804159
Point Lookout									
4,000.00	33.94	74.618	3,650.62	333.46	1,212.12	1,892,818.636	2,753,932.766	36.201935536	-107.728798398
4,100.00	33.94	74.618	3,733.58	348.27	1,265.96	1,892,833.447	2,753,986.604	36.201976065	-107.728615862
4,196.94	33.94	74.618	3,814.00	362.63	1,318.15	1,892,847.806	2,754,038.798	36.202015355	-107.728438902
Mancos									
4,200.00	33.94	74.618	3,816.53	363.09	1,319.80	1,892,848.259	2,754,040.443	36.202016593	-107.728433325
4,300.00	33.94	74.618	3,899.49	377.90	1,373.64	1,892,863.070	2,754,094.281	36.202057121	-107.728250788
4,400.00	33.94	74.618	3,982.45	392.71	1,427.47	1,892,877.881	2,754,148.119	36.202097648	-107.728068251
4,500.00	33.94	74.618	4,065.41	407.52	1,481.31	1,892,892.692	2,754,201.957	36.202138176	-107.727885714
4,588.71	33.94	74.618	4,139.00	420.66	1,529.07	1,892,905.831	2,754,249.716	36.202174126	-107.727723788
MNCS_A									
4,600.00	33.94	74.618	4,148.37	422.33	1,535.15	1,892,907.504	2,754,255.795	36.202178703	-107.727703176
4,691.17	33.94	74.618	4,224.00	435.83	1,584.23	1,892,921.007	2,754,304.879	36.202215651	-107.727536758
MNCS_B									
4,700.00	33.94	74.618	4,231.33	437.14	1,588.99	1,892,922.315	2,754,309.633	36.202219229	-107.727520639
4,800.00	33.94	74.618	4,314.28	451.95	1,642.83	1,892,937.126	2,754,363.471	36.202259756	-107.727338101
4,811.71	33.94	74.618	4,324.00	453.69	1,649.13	1,892,938.861	2,754,369.777	36.202264502	-107.727316723
MNCS_C									
4,870.78	33.94	74.618	4,373.00	462.44	1,680.93	1,892,947.609	2,754,401.577	36.202288439	-107.727208905
MNCS_Cms									
4,900.00	33.94	74.618	4,397.24	466.76	1,696.66	1,892,951.937	2,754,417.309	36.202300282	-107.727155563
5,000.00	33.94	74.618	4,480.20	481.58	1,750.50	1,892,966.749	2,754,471.147	36.202340808	-107.726973025
5,014.22	33.94	74.618	4,492.00	483.68	1,758.16	1,892,968.855	2,754,478.805	36.202346572	-107.726947062
MNCS_D									
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	1,892,975.550	2,754,503.142	36.202364891	-107.726864548
Begin 10°/100' build/turn									
5,100.00	36.20	80.490	4,562.71	495.36	1,805.25	1,892,980.537	2,754,525.890	36.202378521	-107.726787424
5,150.00	39.33	86.864	4,602.25	498.67	1,835.65	1,892,983.846	2,754,556.293	36.202387518	-107.726684361
5,200.00	42.76	92.405	4,639.97	498.83	1,868.45	1,892,984.000	2,754,589.095	36.202387844	-107.726573180
5,202.78	42.96	92.691	4,642.00	498.74	1,870.34	1,892,983.916	2,754,590.981	36.202387608	-107.726566786
MNCS_E									
5,250.00	46.43	97.251	4,675.57	495.83	1,903.40	1,892,981.000	2,754,624.045	36.202379495	-107.726454729
5,284.85	49.09	100.286	4,699.00	491.88	1,928.89	1,892,977.053	2,754,649.534	36.202368577	-107.726368347
MNCS_F									
5,300.00	50.28	101.528	4,708.80	489.69	1,940.23	1,892,974.867	2,754,660.877	36.202362536	-107.726329910
5,350.00	54.26	105.345	4,739.40	480.48	1,978.67	1,892,965.648	2,754,699.312	36.202337094	-107.726199671
5,400.00	58.36	108.792	4,767.13	468.24	2,018.41	1,892,953.413	2,754,739.056	36.202303365	-107.726065004
5,415.27	59.63	109.784	4,775.00	463.92	2,030.77	1,892,949.088	2,754,751.412	36.202291446	-107.726023138
MNCS_G									
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	1,892,947.782	2,754,755.017	36.202287845	-107.726010926
Begin 60.00° tangent									
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	1,892,929.953	2,754,803.824	36.202238719	-107.725845563
Begin 10°/100' build									
5,500.00	62.03	110.067	4,817.06	438.69	2,099.85	1,892,923.863	2,754,820.494	36.202221939	-107.725789082
5,526.63	64.69	110.067	4,829.00	430.52	2,122.20	1,892,915.697	2,754,842.848	36.202199439	-107.725713345
MNCS_H									

Planning Report - Geographic

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Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,550.00	67.03	110.067	4,838.56	423.21	2,142.24	1,892,908.380	2,754,862.880	36.202179275	-107.725645473
5,600.00	72.03	110.067	4,856.04	407.14	2,186.22	1,892,892.312	2,754,906.865	36.202135002	-107.725496449
5,650.00	77.03	110.067	4,869.37	390.61	2,231.47	1,892,875.783	2,754,952.113	36.202089456	-107.725343143
5,700.00	82.03	110.067	4,878.46	373.74	2,277.64	1,892,858.918	2,754,998.281	36.202042985	-107.725186723
5,750.00	87.03	110.067	4,883.22	356.67	2,324.37	1,892,841.845	2,755,045.017	36.201995942	-107.725028379
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	1,892,831.351	2,755,073.744	36.201967025	-107.724931049
Begin 90.09° lateral									
5,800.00	90.09	110.067	4,883.96	339.52	2,371.33	1,892,824.693	2,755,091.969	36.201948680	-107.724869302
5,900.00	90.09	110.067	4,883.81	305.21	2,465.25	1,892,790.381	2,755,185.897	36.201854132	-107.724551065
6,000.00	90.09	110.067	4,883.65	270.90	2,559.18	1,892,756.068	2,755,279.826	36.201759582	-107.724232828
6,100.00	90.09	110.067	4,883.50	236.58	2,653.11	1,892,721.756	2,755,373.754	36.201665032	-107.723914592
6,200.00	90.09	110.067	4,883.34	202.27	2,747.04	1,892,687.443	2,755,467.683	36.201570480	-107.723596357
6,300.00	90.09	110.067	4,883.19	167.96	2,840.97	1,892,653.131	2,755,561.612	36.201475928	-107.723278123
6,400.00	90.09	110.067	4,883.03	133.64	2,934.90	1,892,618.818	2,755,655.540	36.201381375	-107.722959890
6,500.00	90.09	110.067	4,882.88	99.33	3,028.83	1,892,584.506	2,755,749.469	36.201286821	-107.722641657
6,600.00	90.09	110.067	4,882.72	65.02	3,122.76	1,892,550.193	2,755,843.398	36.201192267	-107.722323425
6,700.00	90.09	110.067	4,882.57	30.71	3,216.68	1,892,515.881	2,755,937.326	36.201097711	-107.722005194
6,800.00	90.09	110.067	4,882.41	-3.61	3,310.61	1,892,481.568	2,756,031.255	36.201003155	-107.721686964
6,900.00	90.09	110.067	4,882.26	-37.92	3,404.54	1,892,447.256	2,756,125.183	36.200908598	-107.721368734
7,000.00	90.09	110.067	4,882.10	-72.23	3,498.47	1,892,412.943	2,756,219.112	36.200814040	-107.721050505
7,100.00	90.09	110.067	4,881.95	-106.54	3,592.40	1,892,378.631	2,756,313.041	36.200719481	-107.720732277
7,200.00	90.09	110.067	4,881.79	-140.86	3,686.33	1,892,344.318	2,756,406.969	36.200624921	-107.720414050
7,300.00	90.09	110.067	4,881.64	-175.17	3,780.26	1,892,310.006	2,756,500.898	36.200530361	-107.720095823
7,400.00	90.09	110.067	4,881.48	-209.48	3,874.19	1,892,275.693	2,756,594.827	36.200435799	-107.719777598
7,500.00	90.09	110.067	4,881.33	-243.79	3,968.12	1,892,241.381	2,756,688.755	36.200341237	-107.719459373
7,600.00	90.09	110.067	4,881.17	-278.11	4,062.04	1,892,207.068	2,756,782.684	36.200246674	-107.719141148
7,700.00	90.09	110.067	4,881.02	-312.42	4,155.97	1,892,172.756	2,756,876.612	36.200152110	-107.718822926
7,800.00	90.09	110.067	4,880.86	-346.73	4,249.90	1,892,138.443	2,756,970.541	36.200057545	-107.718504703
7,900.00	90.09	110.067	4,880.71	-381.04	4,343.83	1,892,104.131	2,757,064.470	36.199962979	-107.718186481
8,000.00	90.09	110.067	4,880.55	-415.36	4,437.76	1,892,069.818	2,757,158.398	36.199868413	-107.717868260
8,100.00	90.09	110.067	4,880.40	-449.67	4,531.69	1,892,035.506	2,757,252.327	36.199773846	-107.717550040
8,200.00	90.09	110.067	4,880.24	-483.98	4,625.62	1,892,001.193	2,757,346.256	36.199679277	-107.717231820
8,300.00	90.09	110.067	4,880.09	-518.29	4,719.55	1,891,966.881	2,757,440.184	36.199584708	-107.716913601
8,400.00	90.09	110.067	4,879.93	-552.61	4,813.47	1,891,932.568	2,757,534.113	36.199490139	-107.716595383
8,500.00	90.09	110.067	4,879.78	-586.92	4,907.40	1,891,898.256	2,757,628.042	36.199395568	-107.716277166
8,600.00	90.09	110.067	4,879.62	-621.23	5,001.33	1,891,863.943	2,757,721.970	36.199300996	-107.715958949
8,700.00	90.09	110.067	4,879.47	-655.54	5,095.26	1,891,829.631	2,757,815.899	36.199206424	-107.715640734
8,800.00	90.09	110.067	4,879.31	-689.86	5,189.19	1,891,795.318	2,757,909.827	36.199111851	-107.715322519
8,900.00	90.09	110.067	4,879.16	-724.17	5,283.12	1,891,761.006	2,758,003.756	36.199017277	-107.715004304
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Begin 4°/100' turn									
9,100.00	90.03	106.182	4,878.90	-789.68	5,472.04	1,891,695.499	2,758,192.673	36.198836688	-107.714364273
9,200.00	89.98	102.182	4,878.88	-814.17	5,568.97	1,891,671.003	2,758,289.605	36.198769069	-107.714035840
9,300.00	89.92	98.183	4,878.97	-831.85	5,667.37	1,891,653.328	2,758,388.010	36.198720181	-107.713702388
9,400.00	89.87	94.183	4,879.15	-842.62	5,766.77	1,891,642.560	2,758,487.408	36.198690262	-107.713365542
9,500.00	89.81	90.184	4,879.43	-846.42	5,866.68	1,891,638.751	2,758,587.314	36.198679458	-107.713026943
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	1,891,638.895	2,758,612.766	36.198679769	-107.712940678
Begin 89.80° lateral									
9,600.00	89.80	89.166	4,879.77	-845.19	5,966.67	1,891,639.981	2,758,687.305	36.198682497	-107.712688038
9,700.00	89.80	89.166	4,880.12	-843.74	6,066.66	1,891,641.437	2,758,787.293	36.198686155	-107.712349138
9,800.00	89.80	89.166	4,880.47	-842.28	6,166.65	1,891,642.894	2,758,887.282	36.198689813	-107.712010239
9,900.00	89.80	89.166	4,880.82	-840.83	6,266.64	1,891,644.350	2,758,987.271	36.198693469	-107.711671339
10,000.00	89.80	89.166	4,881.17	-839.37	6,366.62	1,891,645.806	2,759,087.259	36.198697125	-107.711332439
10,100.00	89.80	89.166	4,881.52	-837.91	6,466.61	1,891,647.262	2,759,187.248	36.198700780	-107.710993539

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,200.00	89.80	89.166	4,881.87	-836.46	6,566.60	1,891,648.719	2,759,287.236	36.198704433	-107.710654640
10,300.00	89.80	89.166	4,882.22	-835.00	6,666.59	1,891,650.175	2,759,387.225	36.198708086	-107.710315740
10,400.00	89.80	89.166	4,882.56	-833.54	6,766.58	1,891,651.631	2,759,487.214	36.198711738	-107.709976840
10,500.00	89.80	89.166	4,882.91	-832.09	6,866.57	1,891,653.088	2,759,587.202	36.198715389	-107.709637940
10,600.00	89.80	89.166	4,883.26	-830.63	6,966.56	1,891,654.544	2,759,687.191	36.198719039	-107.709299040
10,700.00	89.80	89.166	4,883.61	-829.18	7,066.55	1,891,656.000	2,759,787.179	36.198722688	-107.708960140
10,800.00	89.80	89.166	4,883.96	-827.72	7,166.53	1,891,657.457	2,759,887.168	36.198726336	-107.708621241
10,811.64	89.80	89.166	4,884.00	-827.55	7,178.18	1,891,657.626	2,759,898.811	36.198726760	-107.708581777
MNCS_I									
10,900.00	89.80	89.166	4,884.31	-826.26	7,266.52	1,891,658.913	2,759,987.156	36.198729983	-107.708282341
11,000.00	89.80	89.166	4,884.66	-824.81	7,366.51	1,891,660.369	2,760,087.145	36.198733629	-107.707943441
11,100.00	89.80	89.166	4,885.01	-823.35	7,466.50	1,891,661.825	2,760,187.134	36.198737274	-107.707604541
11,200.00	89.80	89.166	4,885.36	-821.89	7,566.49	1,891,663.282	2,760,287.122	36.198740918	-107.707265641
11,300.00	89.80	89.166	4,885.70	-820.44	7,666.48	1,891,664.738	2,760,387.111	36.198744561	-107.706926741
11,400.00	89.80	89.166	4,886.05	-818.98	7,766.47	1,891,666.194	2,760,487.099	36.198748203	-107.706587840
11,500.00	89.80	89.166	4,886.40	-817.52	7,866.46	1,891,667.651	2,760,587.088	36.198751845	-107.706248940
11,600.00	89.80	89.166	4,886.75	-816.07	7,966.45	1,891,669.107	2,760,687.076	36.198755485	-107.705910040
11,700.00	89.80	89.166	4,887.10	-814.61	8,066.43	1,891,670.563	2,760,787.065	36.198759124	-107.705571140
11,800.00	89.80	89.166	4,887.45	-813.16	8,166.42	1,891,672.020	2,760,887.054	36.198762763	-107.705232240
11,900.00	89.80	89.166	4,887.80	-811.70	8,266.41	1,891,673.476	2,760,987.042	36.198766400	-107.704893340
12,000.00	89.80	89.166	4,888.15	-810.24	8,366.40	1,891,674.932	2,761,087.031	36.198770037	-107.704554439
12,100.00	89.80	89.166	4,888.50	-808.79	8,466.39	1,891,676.389	2,761,187.019	36.198773672	-107.704215539
12,200.00	89.80	89.166	4,888.84	-807.33	8,566.38	1,891,677.845	2,761,287.008	36.198777307	-107.703876639
12,300.00	89.80	89.166	4,889.19	-805.87	8,666.37	1,891,679.301	2,761,386.997	36.198780940	-107.703537738
12,400.00	89.80	89.166	4,889.54	-804.42	8,766.36	1,891,680.757	2,761,486.985	36.198784573	-107.703198838
12,500.00	89.80	89.166	4,889.89	-802.96	8,866.34	1,891,682.214	2,761,586.974	36.198788205	-107.702859937
12,600.00	89.80	89.166	4,890.24	-801.51	8,966.33	1,891,683.670	2,761,686.962	36.198791835	-107.702521037
12,700.00	89.80	89.166	4,890.59	-800.05	9,066.32	1,891,685.126	2,761,786.951	36.198795465	-107.702182137
12,800.00	89.80	89.166	4,890.94	-798.59	9,166.31	1,891,686.583	2,761,886.939	36.198799094	-107.701843236
12,900.00	89.80	89.166	4,891.29	-797.14	9,266.30	1,891,688.039	2,761,986.928	36.198802722	-107.701504336
13,000.00	89.80	89.166	4,891.64	-795.68	9,366.29	1,891,689.495	2,762,086.917	36.198806349	-107.701165435
13,100.00	89.80	89.166	4,891.98	-794.22	9,466.28	1,891,690.952	2,762,186.905	36.198809974	-107.700826534
13,200.00	89.80	89.166	4,892.33	-792.77	9,566.27	1,891,692.408	2,762,286.894	36.198813599	-107.700487634
13,300.00	89.80	89.166	4,892.68	-791.31	9,666.25	1,891,693.864	2,762,386.882	36.198817223	-107.700148733
13,400.00	89.80	89.166	4,893.03	-789.85	9,766.24	1,891,695.320	2,762,486.871	36.198820846	-107.699809833
13,500.00	89.80	89.166	4,893.38	-788.40	9,866.23	1,891,696.777	2,762,586.860	36.198824468	-107.699470932
13,600.00	89.80	89.166	4,893.73	-786.94	9,966.22	1,891,698.233	2,762,686.848	36.198828090	-107.699132031
13,700.00	89.80	89.166	4,894.08	-785.49	10,066.21	1,891,699.689	2,762,786.837	36.198831710	-107.698793130
13,800.00	89.80	89.166	4,894.43	-784.03	10,166.20	1,891,701.146	2,762,886.825	36.198835329	-107.698454230
13,900.00	89.80	89.166	4,894.78	-782.57	10,266.19	1,891,702.602	2,762,986.814	36.198838947	-107.698115329
14,000.00	89.80	89.166	4,895.12	-781.12	10,366.18	1,891,704.058	2,763,086.802	36.198842564	-107.697776428
14,100.00	89.80	89.166	4,895.47	-779.66	10,466.16	1,891,705.515	2,763,186.791	36.198846181	-107.697437527
14,200.00	89.80	89.166	4,895.82	-778.20	10,566.15	1,891,706.971	2,763,286.780	36.198849796	-107.697098626
14,300.00	89.80	89.166	4,896.17	-776.75	10,666.14	1,891,708.427	2,763,386.768	36.198853411	-107.696759725
14,400.00	89.80	89.166	4,896.52	-775.29	10,766.13	1,891,709.883	2,763,486.757	36.198857024	-107.696420824
14,500.00	89.80	89.166	4,896.87	-773.84	10,866.12	1,891,711.340	2,763,586.745	36.198860636	-107.696081923
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000
PBHL/TD 14537.75 MD 4897.00 TVD									

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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 504 Int tgt 2265 F - plan hits target center - Point	0.00	0.000	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FN - plan misses target center by 0.01ft at 5780.61ft MD (4883.99 TVD, 346.17 N, 2353.12 E) - Point	0.00	0.000	4,884.00	346.17	2,353.12	1,892,831.342	2,755,073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FN - plan hits target center - Point	0.00	0.000	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000

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
3,003.57	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 (°)
571.00	571.00	Ojo Alamo			
657.00	657.00	Kirtland			
861.00	861.00	Fruitland			
1,168.00	1,168.00	Pictured Cliffs			
1,327.09	1,327.00	Lewis			
1,588.68	1,586.00	Chacra_A			
2,801.06	2,656.00	Cliff House_Basal			
2,822.76	2,674.00	Menefee			
3,996.84	3,648.00	Point Lookout			
4,196.94	3,814.00	Mancos			
4,588.71	4,139.00	MNCS_A			
4,691.17	4,224.00	MNCS_B			
4,811.71	4,324.00	MNCS_C			
4,870.78	4,373.00	MNCS_Cms			
5,014.22	4,492.00	MNCS_D			
5,202.78	4,642.00	MNCS_E			
5,284.85	4,699.00	MNCS_F			
5,415.27	4,775.00	MNCS_G			
5,526.63	4,829.00	MNCS_H			
10,811.64	4,884.00	MNCS_I		0.00	

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' bujild
2,331.47	2,266.43	86.33	313.81	Begin 33.94° tangent
5,059.43	4,529.50	490.38	1,782.50	Begin 10°/100' build/turn
5,419.71	4,777.23	462.61	2,034.37	Begin 60.00° tangent
5,479.71	4,807.23	444.78	2,083.18	Begin 10°/100' build
5,780.60	4,883.99	346.18	2,353.10	Begin 90.09° lateral
9,002.86	4,879.00	-759.46	5,379.73	Begin 4°/100' turn
9,525.45	4,879.51	-846.28	5,892.13	Begin 89.80° lateral
14,537.75	4,897.00	-773.29	10,903.86	PBHL/TD 14537.75 MD 4897.00 TVD

WELL NAME: RODEO UNIT 504H

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 1,471 ft FNL 408 ft FEL

BH Location: 29-23N-08W Sec-Twn- Rng 2269 ft FNL 100 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)).

QUICK REFERENCE		
Sur TD (MD)	350	ft
Int TD (MD)	3,004	ft
KOP (MD)	5,059	ft
KOP (TVD)	4,530	ft
Target (TVD)	4,884	ft
Curve BUR	10	°/100 ft
POE (MD)	5,781	ft
TD (MD)	14,538	ft
Lat Len (ft)	8,757	ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	3,004	9.625	36.0	J-55	LTC	0	3,004
Production	8.500	14,538	5.500	17.0	P-110	LTC	0	14,538

CEMENT PROPERTIES SUMMARY:

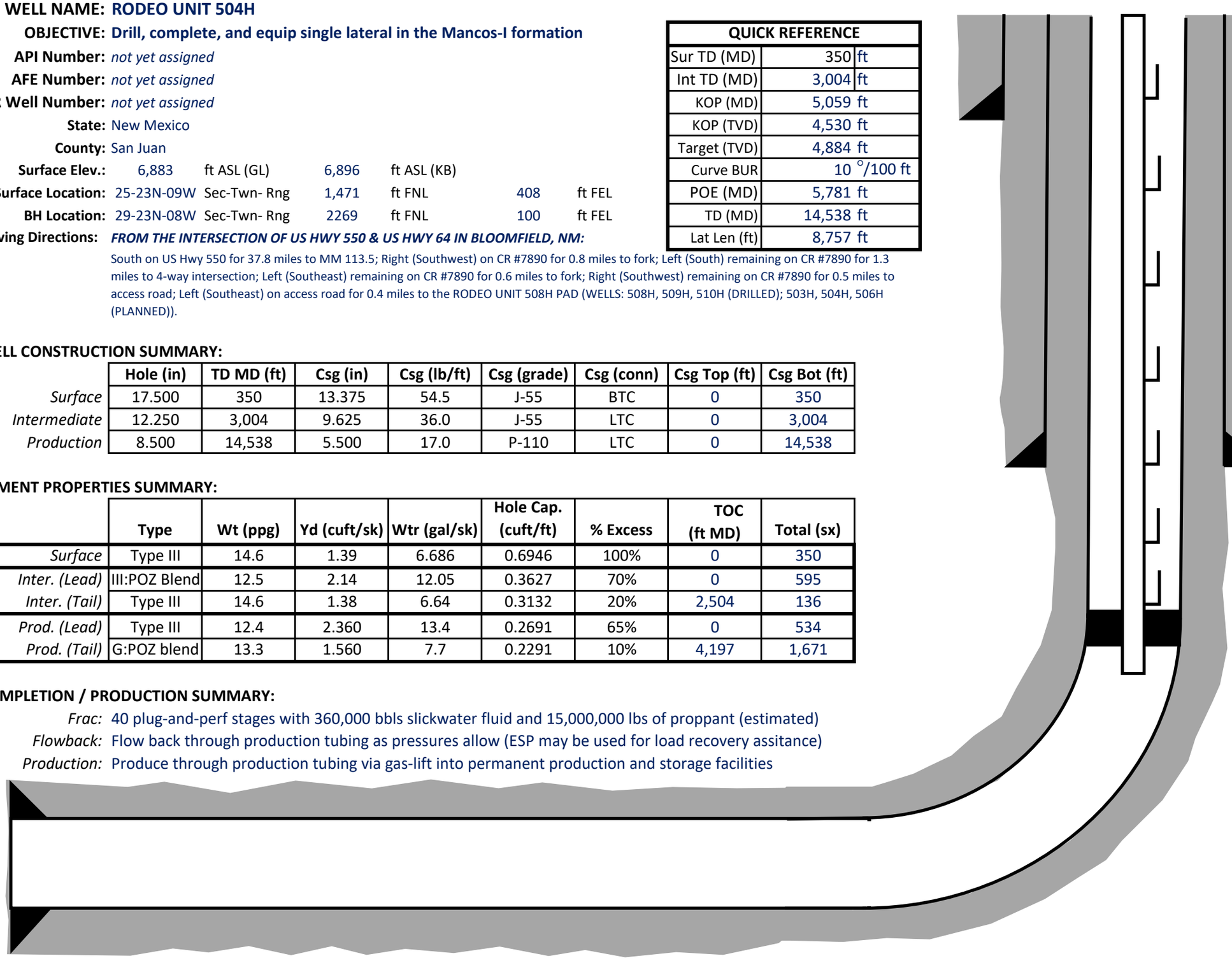
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	Type III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	595
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,504	136
Prod. (Lead)	Type III	12.4	2.360	13.4	0.2691	65%	0	534
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.2291	10%	4,197	1,671

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



Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	571	571
Kirtland	657	657
Fruitland	861	861
Pictured Cliffs	1,168	1,168
Lewis	1,327	1,327
Chacra	1,586	1,589
Cliff House	2,656	2,801
Menefee	2,674	2,823
Point Lookout	3,648	3,997
Mancos	3,814	4,197
Gallup (MNCS_A)	4,139	4,589
MNCS_B	4,224	4,691
MNCS_C	4,324	4,812
MNCS_Cms	4,373	4,871
MNCS_D	4,492	5,014
MNCS_E	4,642	5,203
MNCS_F	4,699	5,285
MNCS_G	4,775	5,415
MNCS_H	4,829	5,527
MNCS_I	4,868	5,648
FTP (LP) TARGET	4,884	5,781
LTP (TD) TARGET	4,897	14,538

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

SUPO Data Report
09/12/2023

APD ID: 10400084207
Submission Date: 06/16/2022
Operator Name: ENDURING RESOURCES LLC
Well Name: RODEO UNIT
Well Number: 504H
Well Type: OIL WELL
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:

Rodeo_508_Existing_Roads_Map_20230908111153.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:

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

75253p9_ROU_504H_Wells_Within_1Mile_20230908111226.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:

Pad_Layout_Rodeo_508_21129_01_Facility_Layout_RevB_20220615161342.pdf

Pad_Layout_Rodeo_508_21129_01_Drilling_Layout_RevA_20220615161342.pdf

Pad_Layout_Rodeo_508_21129_01_Completions_Layout_RevA_20220615161342.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

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: STATE

Water source volume (barrels): 6130 **Source volume (acre-feet):** 0.79011468

Source volume (gal): 257460

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Water source type: GW WELL

Water source use type: DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

STIMULATION

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: PRIVATE

Water source volume (barrels): 6130 **Source volume (acre-feet):** 0.79011468

Source volume (gal): 257460

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: 36.143567 **Source longitude:** -107.576013

Source datum: NAD83

Water source permit type: WATER WELL

OTHER

Water source transport method: PIPELINE

TRUCKING

Source land ownership: STATE

Source transportation land ownership: STATE

Water source volume (barrels): 1130000 **Source volume (acre-feet):** 145.64919885

Source volume (gal): 47460000

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: 36.205932 **Source longitude:** -107.741568

Source datum: NAD83

Water source permit type: WATER WELL

OTHER

Water source transport method: TRUCKING

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1130000 **Source volume (acre-feet):** 145.64919885

Source volume (gal): 47460000

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: 36.210181 **Source longitude:** -107.831776

Source datum: NAD83

Water source permit type: WATER WELL

OTHER

Water source transport method: PIPELINE

TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1130000 **Source volume (acre-feet):** 145.64919885

Source volume (gal): 47460000

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: 36.117342 **Source longitude:** -107.488712

Source datum: NAD83

Water source permit type: WATER WELL

OTHER

Water source transport method: TRUCKING

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1130000 **Source volume (acre-feet):** 145.64919885

Source volume (gal): 47460000

Water source and transportation

75253p9_ROU_504H_Water_Transportation_20230908121109.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.):**

Well Production type: **Completion Method:**

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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

RODEO_508_Materials_SourceMap_20230908_20230908111343.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 B (Drilling Fluids).
Amount of waste: 12000 barrels

Waste disposal frequency : Weekly

Safe containment description: Working area within well pad is bermed and protected from run-on and run-off waste.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
Disposal type description:

Disposal location description: Approved commercial disposal facility or land farm

Waste type: FLOWBACK

Waste content description: Flowback fluid would be gathered, recycled, and reused as described in Section 5. If there are no foreseen drilling and completion operations, flowback fluids would be disposed at one of the disposal wells listed in section 7.8 of the attached SUPO
Amount of waste: 2500 barrels

Waste disposal frequency : Daily

Safe containment description: Flowback fluid would be gathered, recycled, and reused as described in Section 5. If there are no foreseen drilling and completion operations, flowback fluids would be disposed at one of the disposal wells listed in section 7.8 of the attached SUPO.
Safe containmant attachment:

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

Disposal type description:

Disposal location description: Flowback fluid would be gathered, recycled, and reused as described in Section 5. If there are no foreseen drilling and completion operations, flowback fluids would be disposed at one of the disposal wells listed in section 7.8.

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Waste type: FLOWBACK

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods for Handling Waste).Section G (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 transported through temporary above ground surface lines rated for volumes and pressures anticipated. Produced water will be stored, treated, and recycled in above ground containments or earthen pits. Containments will be constructed, lined, and monitored per regulatory requirements.

Safe containmant 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.

Waste type: SEWAGE

Waste content description: Reference attached Enduring Resources Surface Use Plan of Operations Chapter 7 (Methods for Handling Waste).Section D (Sewage).
Amount of waste: 500 gallons

Waste disposal frequency : Weekly

Safe containment description: Portable toilets would be provided and maintained as needed during construction.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
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 E (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.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
Disposal type description:

Disposal location description: Approved landfill

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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: 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.
Safe containmant attachment:

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

Disposal type description:

Disposal location description: Enduring would dispose of produced water at the facilities listed in section 7.8 of the SUPO, please reference the attached document.

Reserve Pit

Reserve Pit being used? NO

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 A (Cuttings).
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

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Pad_Layout_Rodeo_508_21129_01_Drilling_Layout_RevA_20220615161607.pdf

Pad_Layout_Rodeo_508_21129_01_Completions_Layout_RevA_20220615161607.pdf

Pad_Layout_Rodeo_508_21129_01_Facility_Layout_RevB_20220615161607.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).

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 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 Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.3 and the construction plats.

Well pad proposed disturbance (acres): 11.69	**Well pad interim reclamation (acres):** 9.087	**Well pad long term disturbance (acres):** 2.603
Road proposed disturbance (acres):	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**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:** 9.087	**Total long term disturbance:** 2.603

Disturbance Comments: Reference attached Enduring Resources Surface Reclamation Plan Chapter 2.2 (Project Description) and Table 1 for project footprint calculations and reclamation estimates and details.
Reconstruction method: Reference attached Enduring Resources Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Sections 4.2 - 4.7.
Topsoil redistribution: Reference attached Enduring Resources Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.2
Soil treatment: Reference attached Enduring Resources Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.5.
Existing Vegetation at the well pad: Reference attached Enduring Resources Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.6.

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Reference attached Enduring Resources 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 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 Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.1.
Existing Vegetation Community at other disturbances

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: Winterfat

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

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

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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: 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: 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

PLS pounds per acre: 2 **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: 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: EXISTING ACCESS ROAD,NEW ACCESS ROAD,OTHER,PIPELINE,WELL PAD

PLS pounds per acre: 0.5 **Proposed seeding season:** AUTUMN

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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: EXISTING ACCESS ROAD,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: 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: 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: 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,NEW ACCESS ROAD,OTHER,PIPELINE,WELL PAD

PLS pounds per acre: 2 **Proposed seeding season:** AUTUMN

Total pounds/Acre: 20.25

Seed Summary	
Seed Type	**Pounds/Acre**
SHRUB	4
FORB	2.25
OTHER	11.5

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

PERENNIAL GRASS 2.5

Seed reclamation

Operator Contact/Responsible Official

First Name: Theresa **Last Name:** Ancell

Phone: (505)696-9720 **Email:** tancell@enduringresources.com

Seedbed prep: Reference attached Enduring Resources Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.4.
Seed BMP: Reference attached Enduring Resources Surface Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Sections 4.4 - 4.6.
Seed method: Reference attached Enduring Resources 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 Reclamation Plan Chapter 4 (Reclamation Techniques for Successful Revegetation) Section 4.7.

Existing invasive species treatment

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

Monitoring plan description: Reference attached Enduring Resources Surface Reclamation Plan Chapter 5 (Monitoring Requirements).
Monitoring plan

Success standards: Reference attached Enduring Resources Surface Reclamation Plan Chapter 3 (Pre-Disturbance Site Visit) Section 3.3.
Pit closure description: N/A Well will be drilled utilizing closed-loop technology

Pit closure attachment:

Section 11 - Surface

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:

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

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:**

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:

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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: 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:**

Section 12 - Other

Right of Way needed? Y **Use APD as ROW?** N

ROW Type(s):

ROW

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

SUB_NMNM_135923_ROW_Amendment___SF_299_and_Plat_20220616133532.pdf

SUPO Additional Information: Attached is the Amendment to ROW NMNM-135923, submitted to the BLM Farmington Field Office on 6/15/2022.
Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted on September 22, 2021

Other SUPO

Payment_Confirmation__BLM_Oil_and_Gas_Online_Payment_20220629095206.pdf

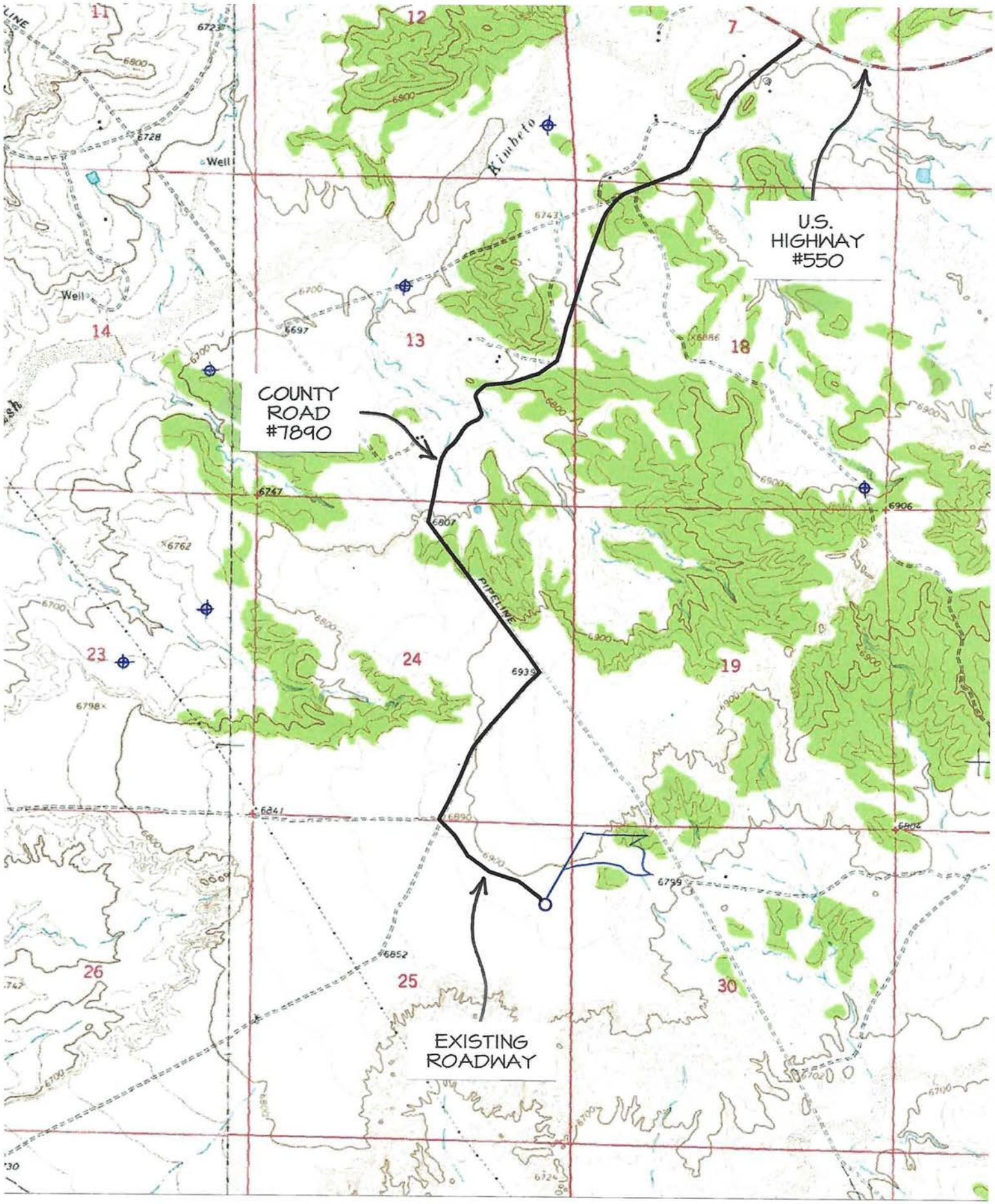
Rodeo_508__504__SUPO_20230908_20230908121327.pdf

Rodeo_508__504__RecPlan_20230906_20230908112012.pdf

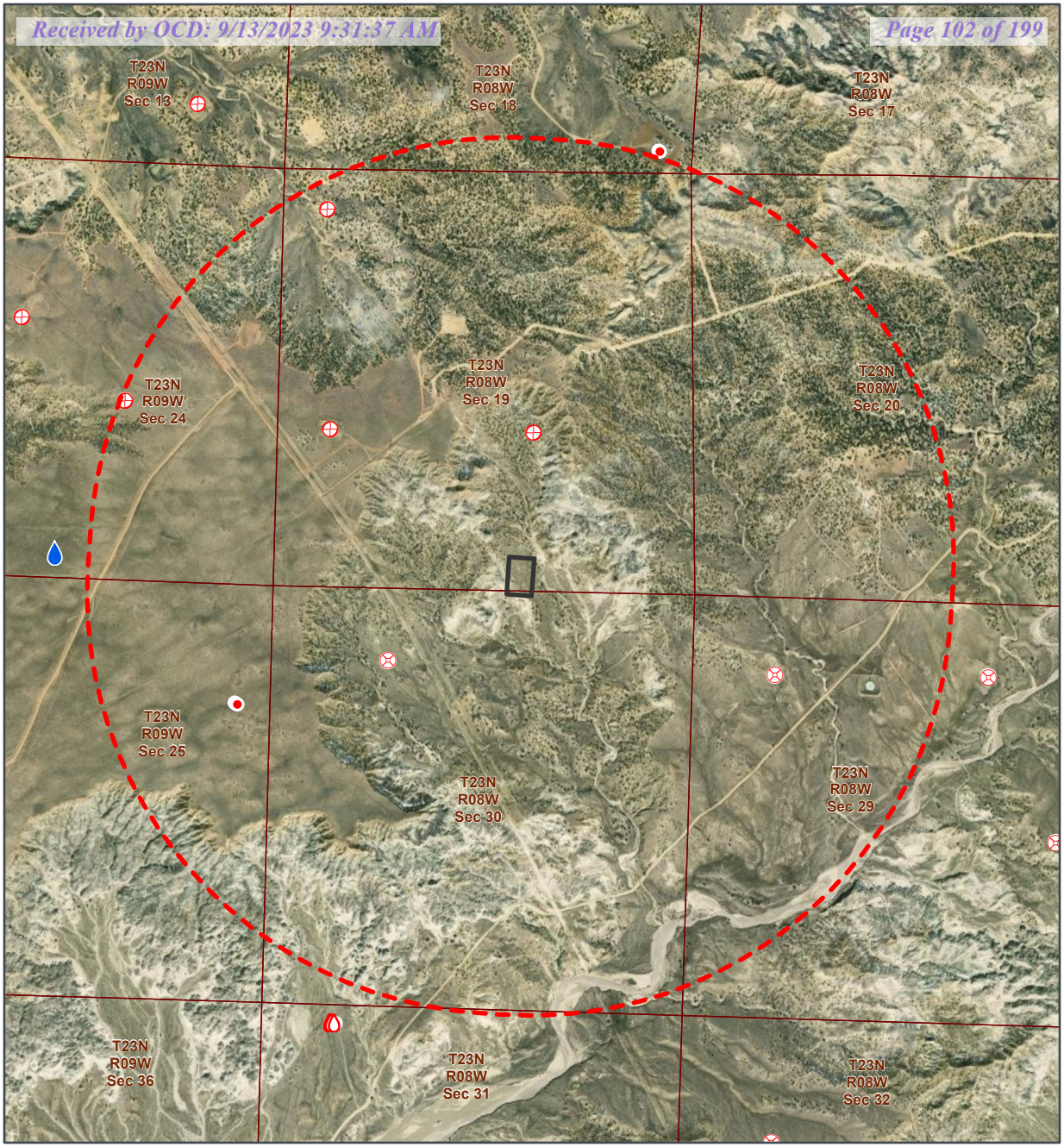
Rodeo_508__504__Road_Plan_20230906_20230908112020.pdf

ENDURING RESOURCES, LLC. RODEO UNIT #504H

1471' FNL & 408' FEL, SECTION 25, T23N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : LYBROOK NW ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL



ROU 504H Project | Wells Within 1 Mile

- OSE Points of Diversion
- 1 Mile Buffer
- Wellpads

Oil and Gas Well Status

- Active
- Cancelled
- New
- Plugged (site released)

Wells	Within 1 Mile	Within Map Extent
OSE Points of Diversion	0	1
Active O&G	3	7
Cancelled O&G	2	5
New	0	3
Plugged (site released) O&G	4	6

Rio Arriba County, NM
NAD 1983 BLM Zone 13N
36.2057°N 107.7205°W

0 1,000 2,000 Feet
0 250 500 Meters

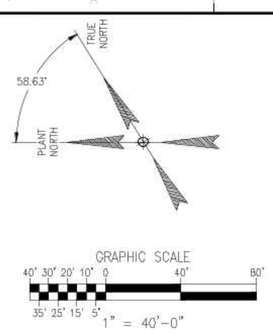
N

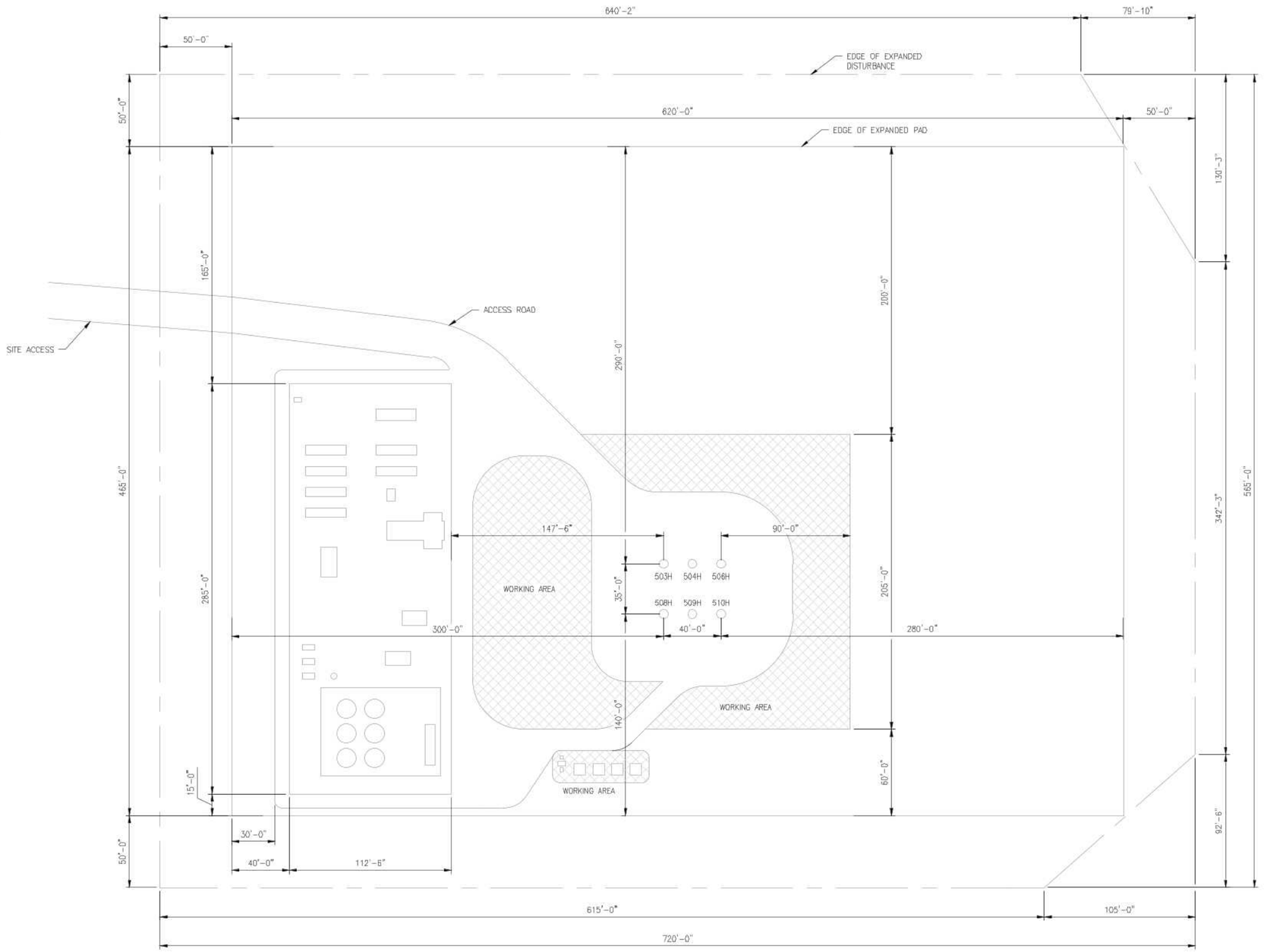
1:25,000

Base Map: ESRI ArcGIS Online, accessed September 2023
Updated: 9/8/2023
Project No. 75253p75
Layout: 253p9_ROU_504H_Wells_Within_1Mile
Aprx: 5253p9_RodeoUnit_508_WellPad_Exp

SWCA ENVIRONMENTAL CONSULTANTS

ENDURING RESOURCES, LLC





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A	ISSUED FOR CLIENT REVIEW	01/19/22	SCK	DTS	BBS	BBS

REVISIONS

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ENDURING RESOURCES
RODEO UNIT 508 EXPANSION
FACILITY LAYOUT

SCALE: (FORMATTED 22X34) 1" = 40'-0"

DRAWING NO. 21129-01-31042

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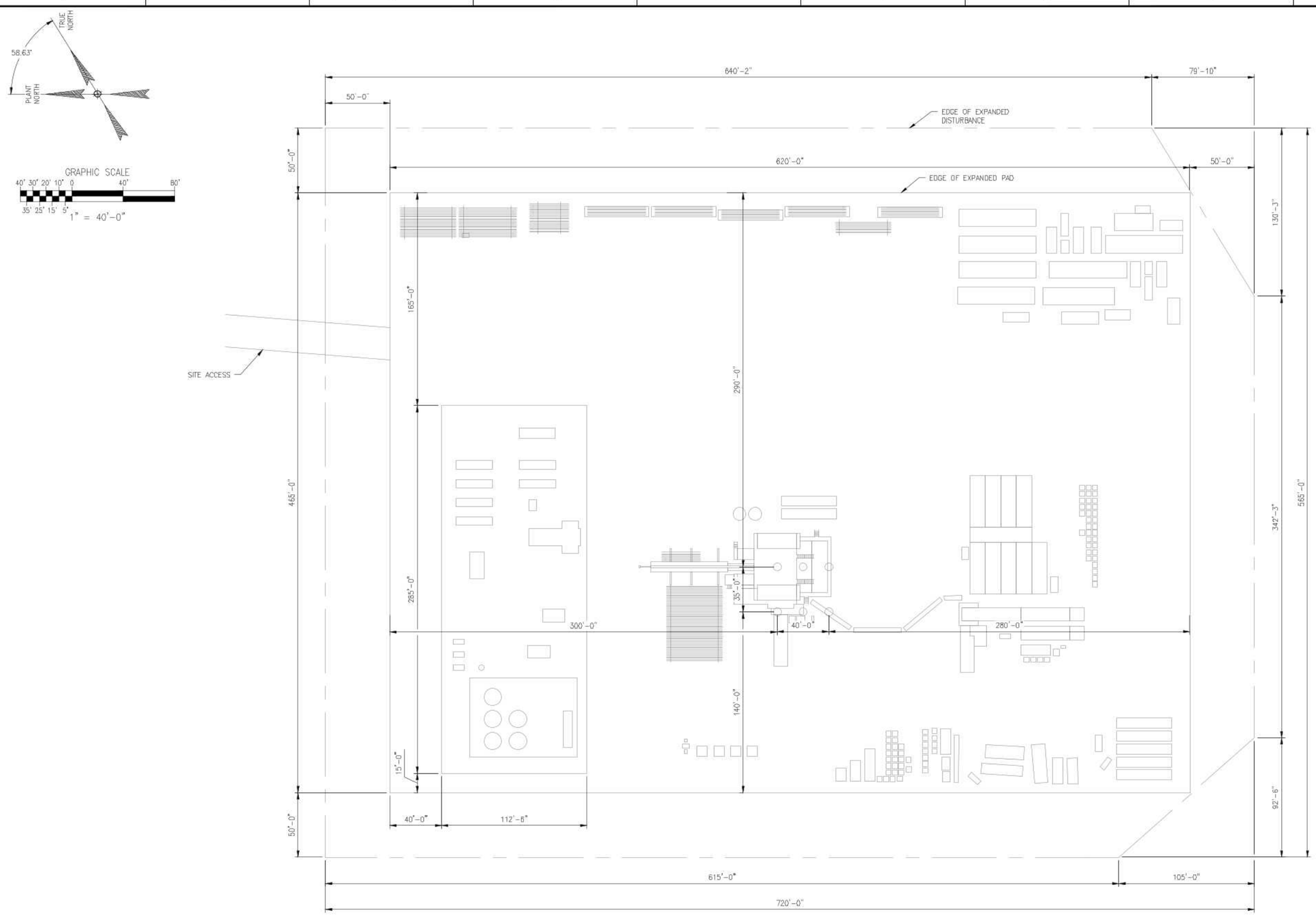

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RODEO UNIT 508 EXPANSION
FACILITY AND RIG LAYOUT

SCALE: (FORMATTED 22X34)	DRAWING NO.	
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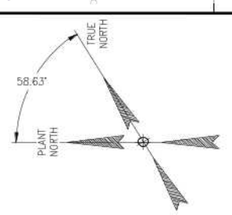

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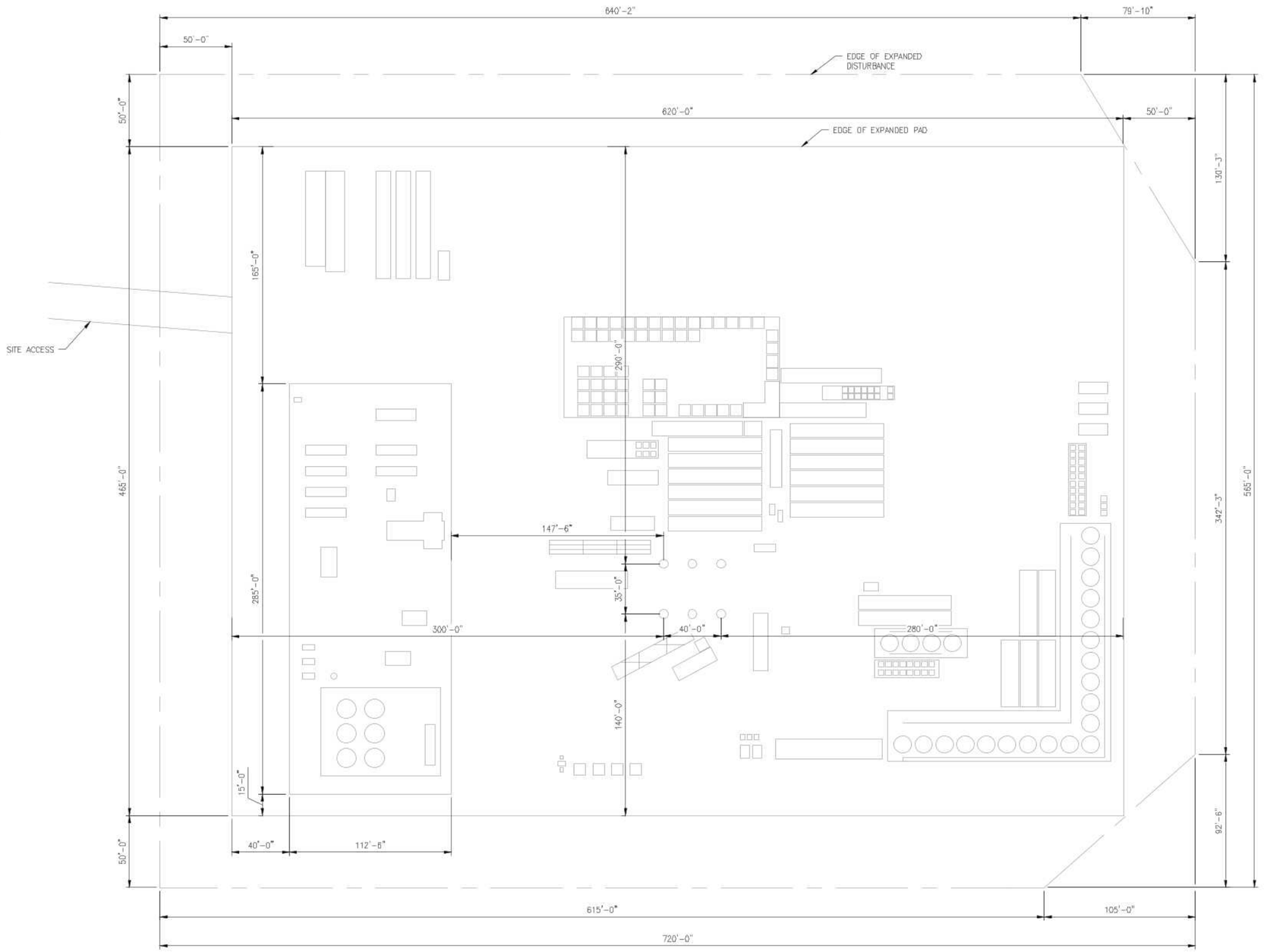

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ENDURING RESOURCES
RODEO UNIT 508 EXPANSION
FACILITY AND COMPLETIONS LAYOUT

SCALE: (FORMATTED 22X34) 1" = 40'-0"
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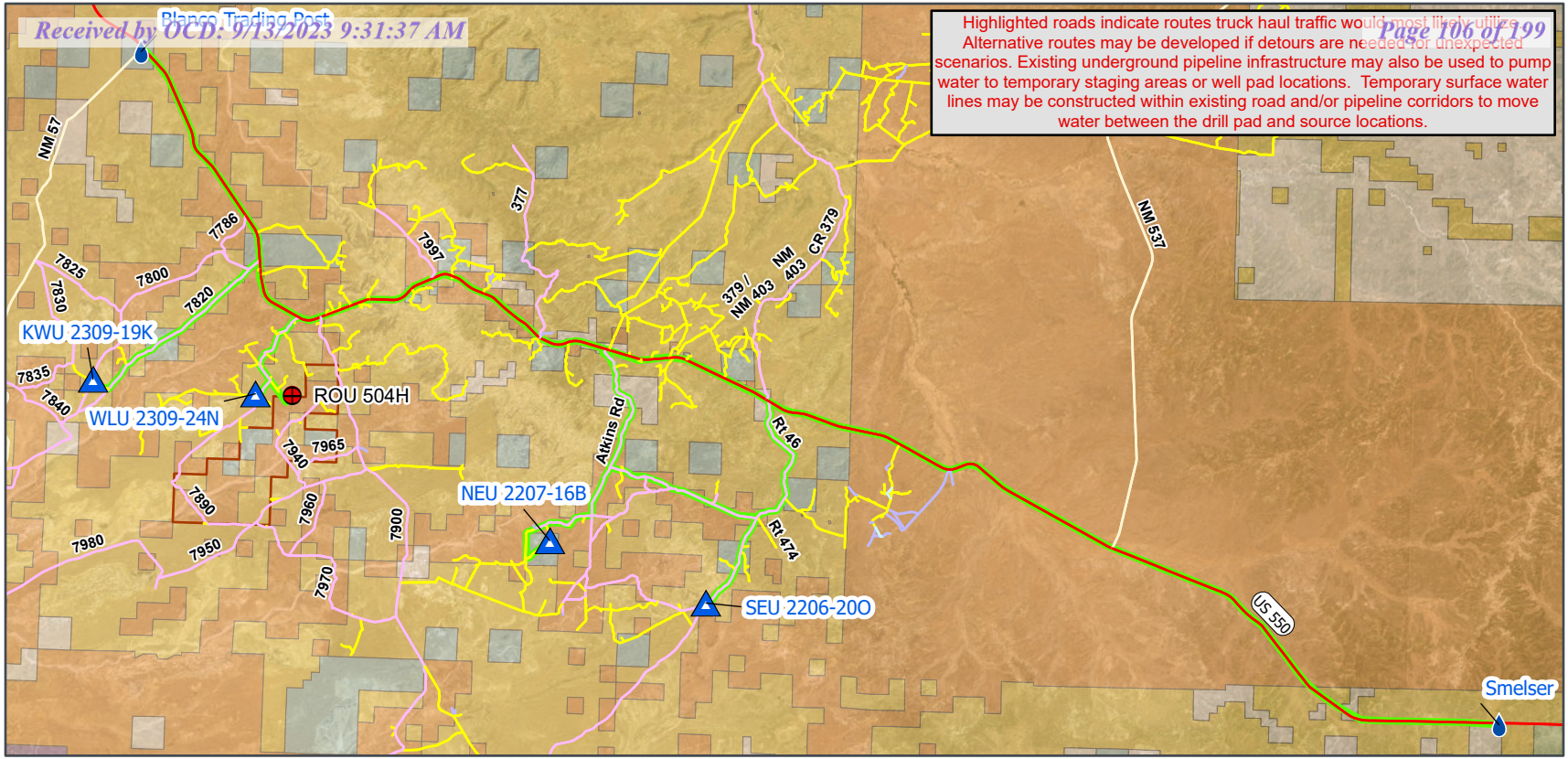
Highlighted roads indicate routes truck haul traffic would most likely utilize. Alternative routes may be developed if detours are needed for unexpected scenarios. Existing underground pipeline infrastructure may also be used to pump water to temporary staging areas or well pad locations. Temporary surface water lines may be constructed within existing road and/or pipeline corridors to move water between the drill pad and source locations.



ROU 504H Project | Water Transportation

- ROU 504H
- Potable Water Sources
- Non-Potable Water Sources
- Potential Truck Routes
- Access, Dirt
- County
- Highway
- Private
- Reclaim
- State

Land Ownership

- BLM
- USFS
- Tribal
- NPS
- Private
- State

- Unit Boundary

San Juan, Rio Arriba, and Sandoval County, NM
NAD 1983 UTM Zone 13N
36.2186°N 107.4483°W

0 10,000 20,000 Feet
0 3,000 6,000 Meters

N

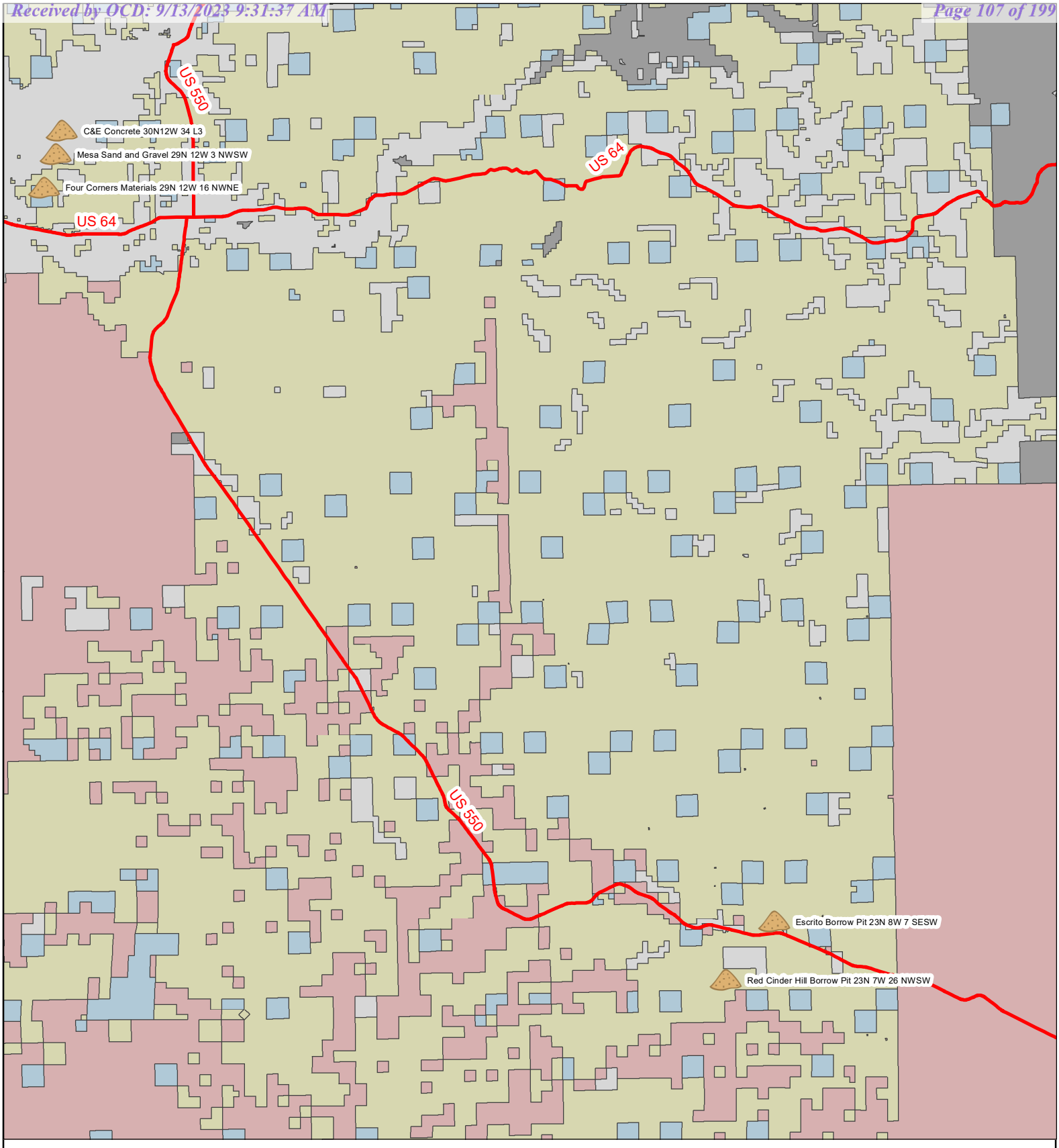
1:345,000

Base Map: ESRI ArcGIS Online, accessed September 2023
Updated: 9/8/2023
Project No. 75253p36
Layout: 3p9_ROU_504H_Water_Transportation
Aprx: 5253p9_RodeoUnit_508_WellPad_Exp

New Mexico

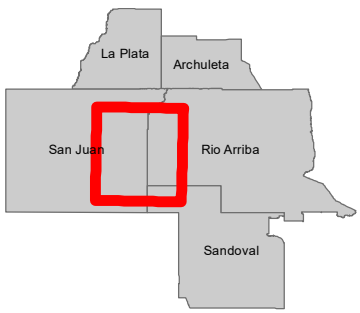
SWCA ENVIRONMENTAL CONSULTANTS

ENDURING RESOURCES, LLC



Material Source Location Map

- Material Source
- Highway, Paved
- BLM Surface
- Indian Surface
- Private Surface
- State Surface

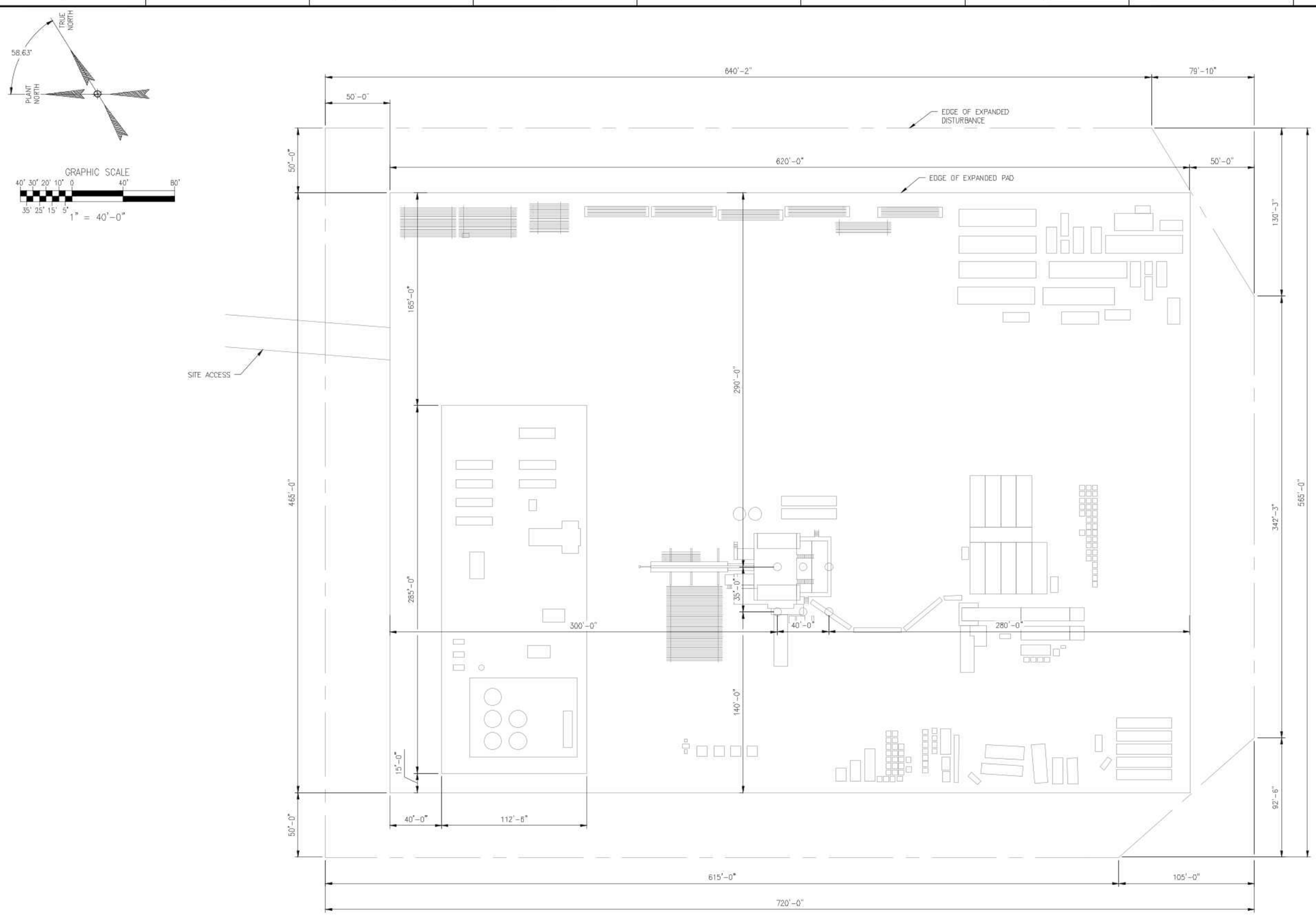


ENDURING RESOURCES, LLC

Data Source Statement:
BLM-FFO, Enduring Resources GIS, ESRI Inc., NCE Surveys, USGS

0 5 10 20 Miles

Author: drogers	Date: 10/23/2019



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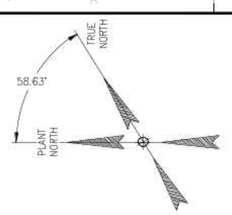

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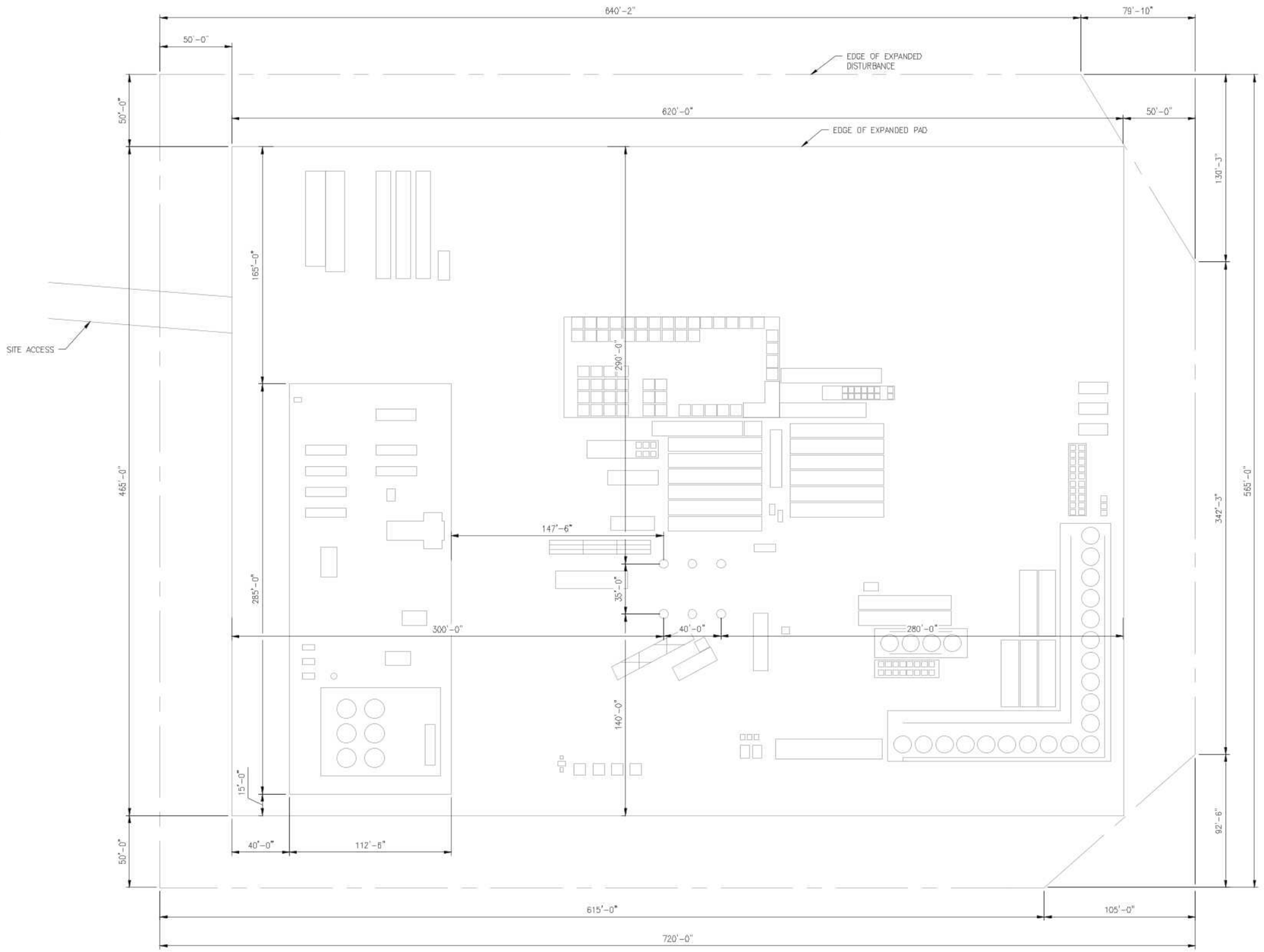

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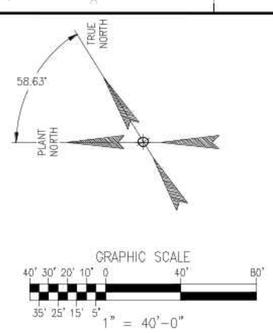

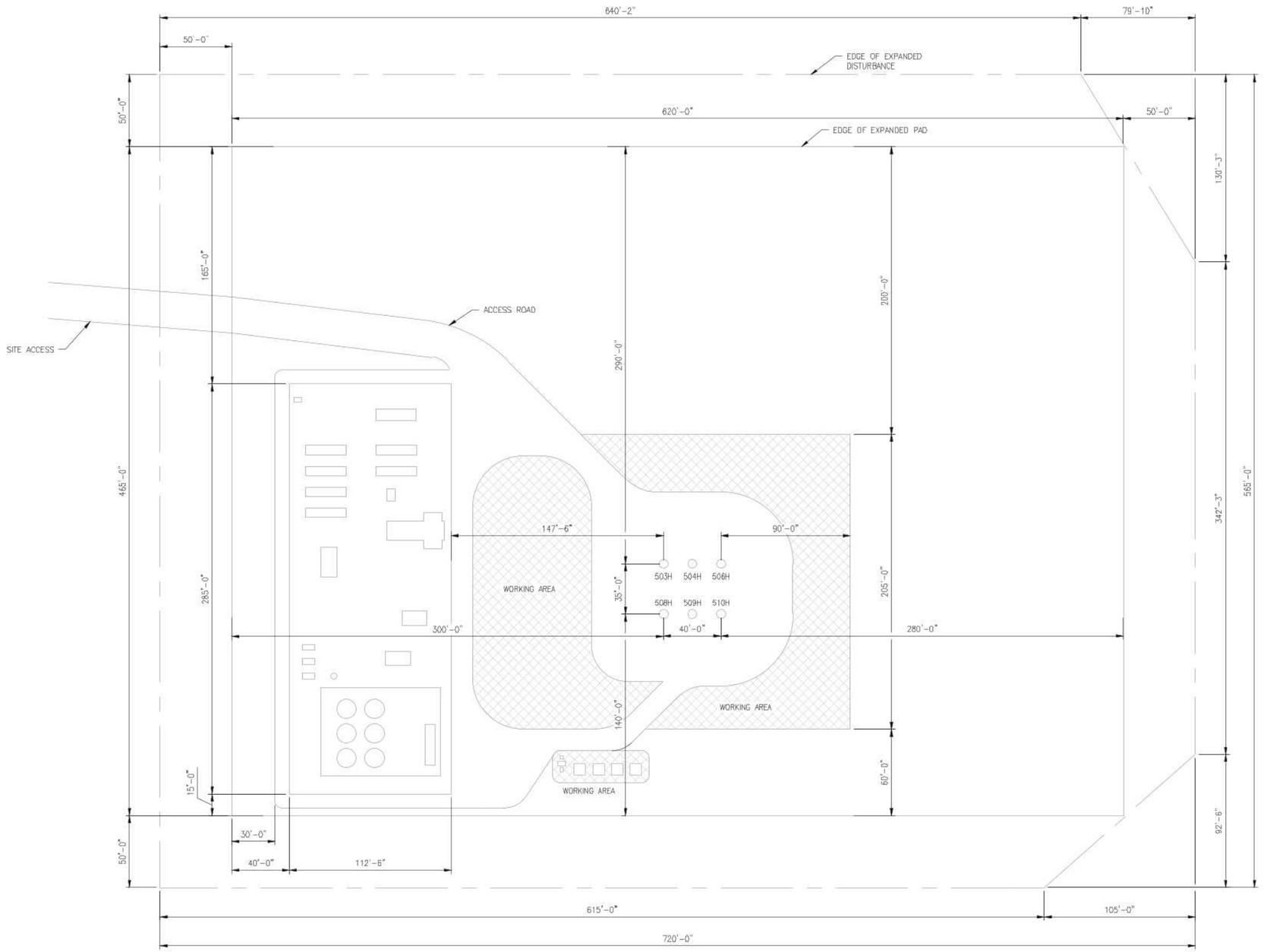

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From: Mark Lokshin
To: Heather Huntington
Cc: Khem Suthiwan; Alex Campbell
Subject: FW: Payment Confirmation: BLM Oil and Gas Online Payment
Date: Thursday, June 16, 2022 12:10:46 PM

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

An official email of the United States government

Pay.gov logo

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

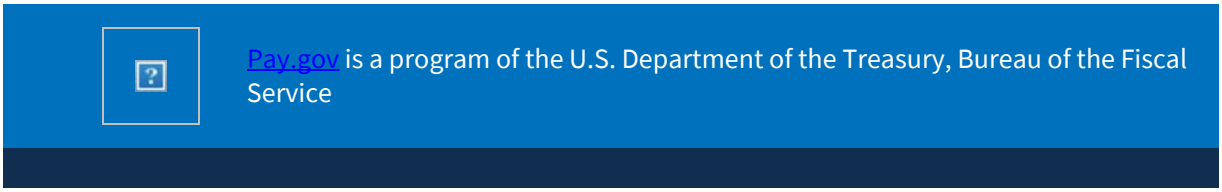
Account Type: Business Checking
Routing Number: 102001017
Account Number: **********9961

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 Pay.gov 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.



SURFACE USE PLAN OF OPERATIONS

Rodeo Unit, 503H, 504H, & 506H Oil and Natural Gas Wells Project (Rodeo 508 Pad Expansion)

SEPTEMBER 2023

ENDURING RESOURCES IV, LLC

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

TABLE OF CONTENTS

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 Enduring's Road Maintenance Plan for more details.

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, 504H, and 506H, 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 A 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.

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 A. 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 A 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 be 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 A 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 two 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 run 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.

5. Locations and Types of Water Supply

Please see Appendix A 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 2206-20O Water Recycling Facility

- The SEU 2206-20O 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 A. 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 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. 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 A. Additionally, please see Appendix A 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 A.

10. Plans for Surface Reclamation

A Surface Reclamation Plan for the Rodeo Unit 508 Pad Expansion has been prepared as a separate document. The Surface Reclamation Plan was prepared in accordance with Onshore Oil and Gas Order No. 1.

The Surface Reclamation plan addresses:

- 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. FIGURES & DIAGRAMS

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT	504H

[7] OGRID No.	[8] Operator Name	[9] 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
H	25	23N	9W		1471	NORTH	408	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
H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 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

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with 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.

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 under my 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

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

SURFACE LOCATION
1471' FNL 408' FEL
SEC 25, T23N, R9W
LAT 36.201009 °N
LONG -107.732295 °W
DATUM: NAD1927

LAT 36.201023 °N
LONG -107.732908 °W
DATUM: NAD1983

FIRST TAKE POINT
1136' FNL 1946' FWL
SEC 30, T23N, R8W
LAT 36.201953 °N
LONG -107.724319 °W
DATUM: NAD1927

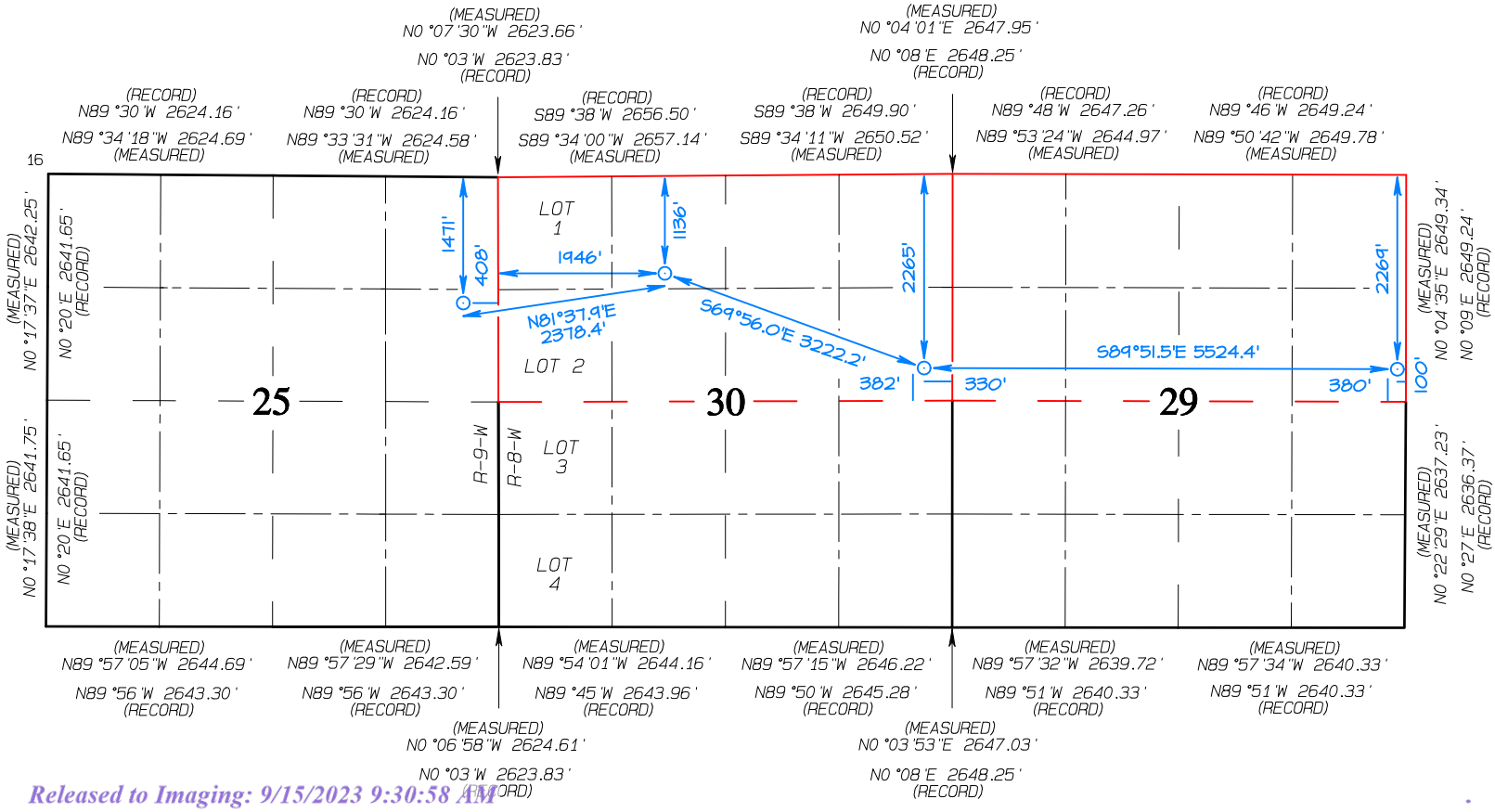
LAT 36.201967 °N
LONG -107.724931 °W
DATUM: NAD1983

LATERAL ANGLE POINT
2265' FNL 330' FEL
SEC 30, T23N, R8W
LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

LAST TAKE POINT
2269' FNL 100' FEL
SEC 29, T23N, R8W
LAT 36.198849 °N
LONG -107.695342 °W
DATUM: NAD1927

LAT 36.198862 °N
LONG -107.695954 °W
DATUM: NAD1983



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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
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Form C-102
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Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT	504H

[7] OGRID No.	[8] Operator Name	[9] 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
H	25	23N	9W		1471	NORTH	408	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
H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 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

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Signature Date

Printed Name

E-mail Address

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I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: MARCH 21, 2023
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Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

LATERAL ANGLE POINT
2265' FNL 330' FEL
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LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

(A) 2268' FNL 0' FEL
SEC 30, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

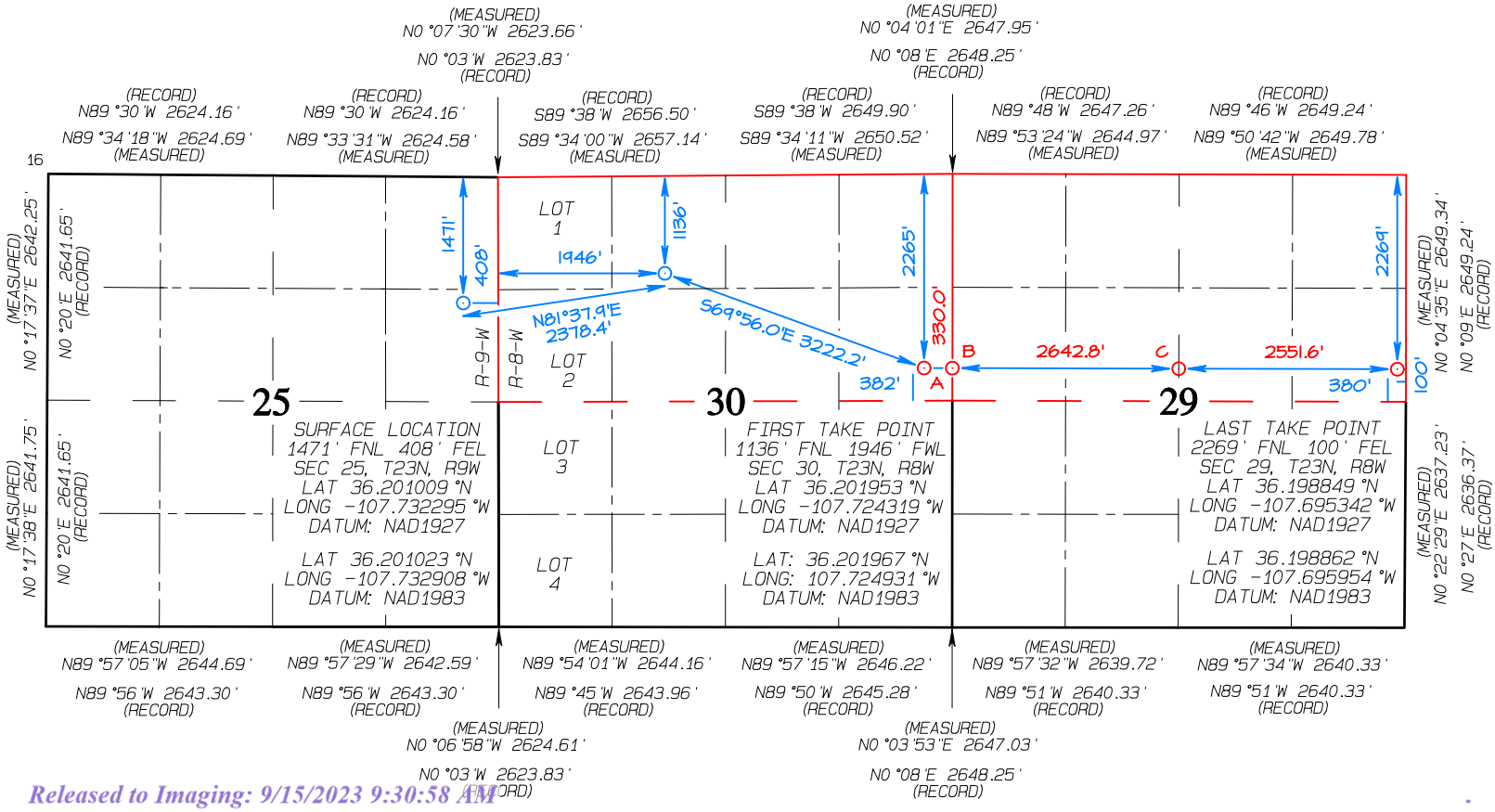
LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(B) 2268' FNL 0' FWL
SEC 29, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(C) 2269' FNL 2643' FWL
SEC 29, T23N, R8W
LAT 36.198876 °N
LONG -107.703990 °W
DATUM: NAD1927

LAT 36.198889 °N
LONG -107.704602 °W
DATUM: NAD1983



ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'
LAT 36°12'03.6325"N LONG -107°43'56.2635"W DATUM: NAD1927

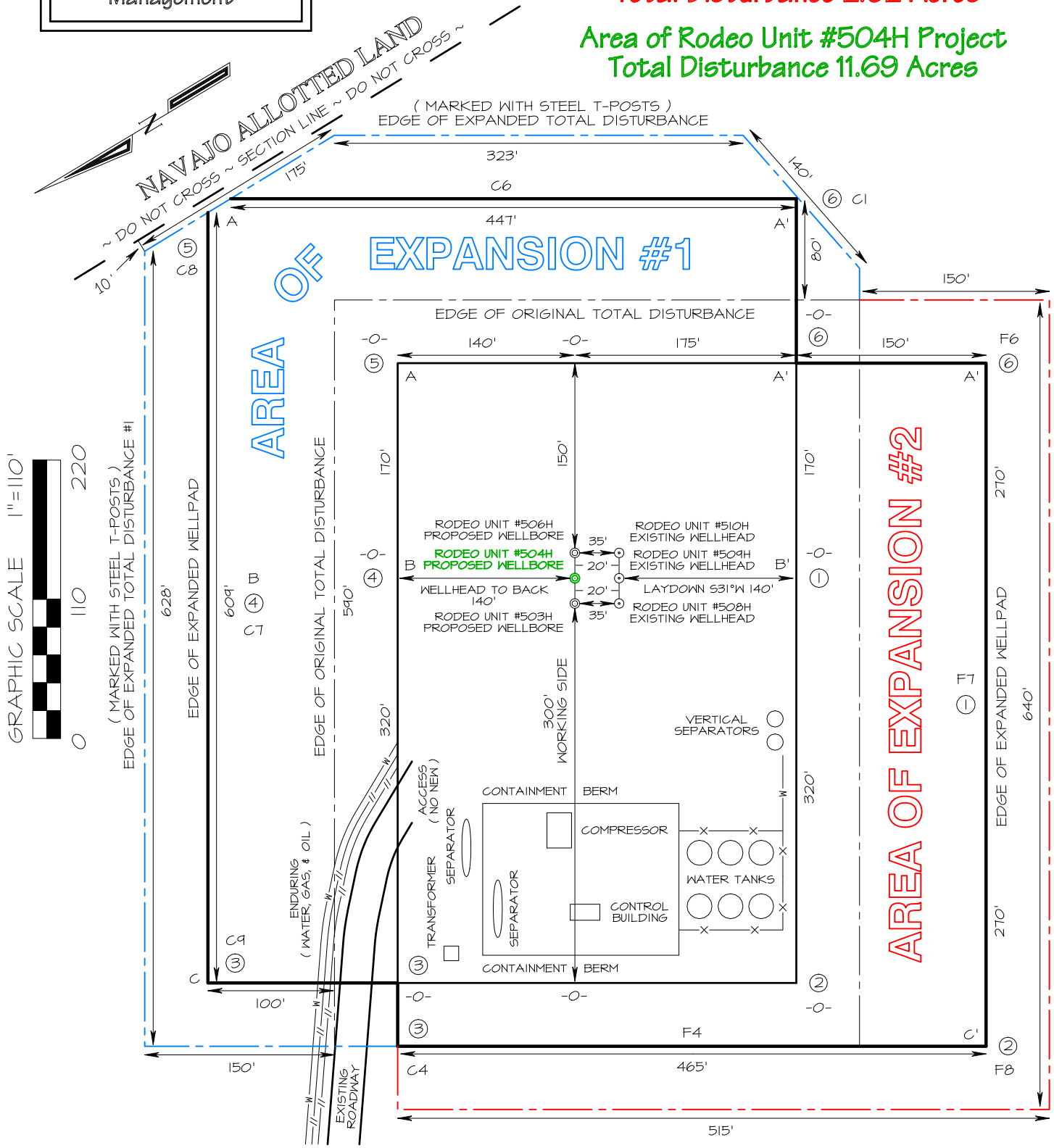
~ SURFACE OWNER ~

Bureau of Land Management

Area of Expansion #1
Total Disturbance 3.45 Acres

Area of Expansion #2
Total Disturbance 2.62 Acres

Area of Rodeo Unit #504H Project
Total Disturbance 11.69 Acres



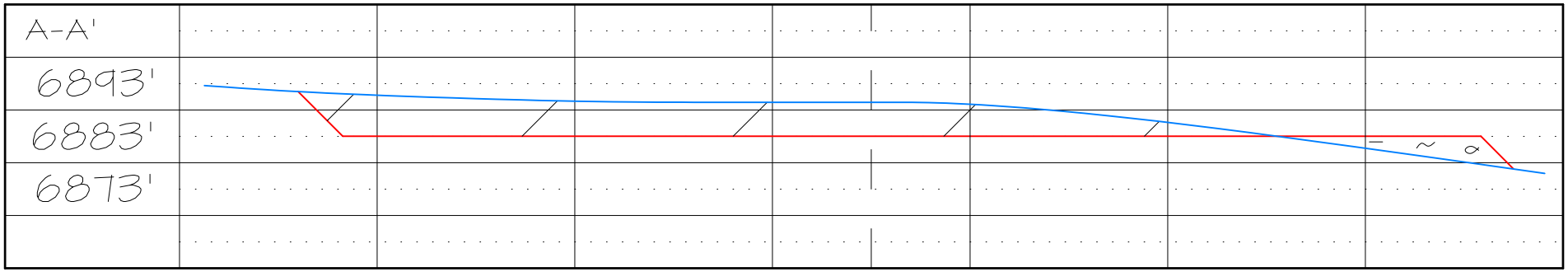
Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from edge of staked wellpad.

ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'

HORIZONTAL SCALE
1"=80'

VERTICAL SCALE
1"=30'

C/L



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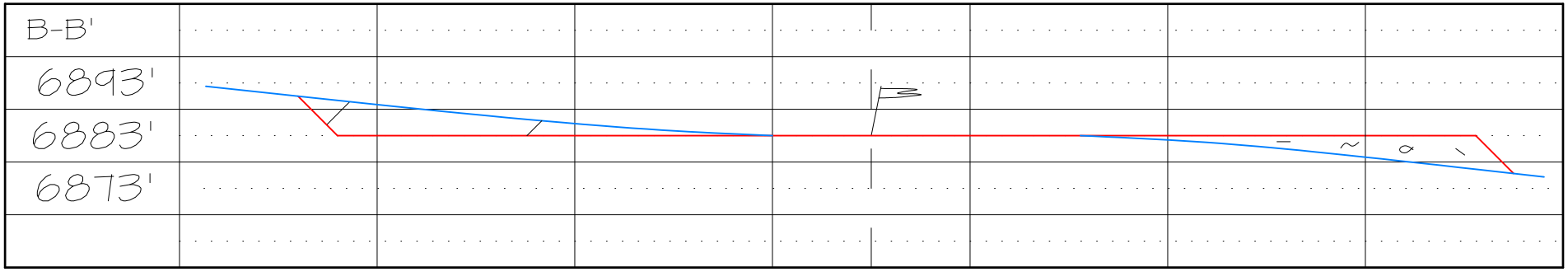

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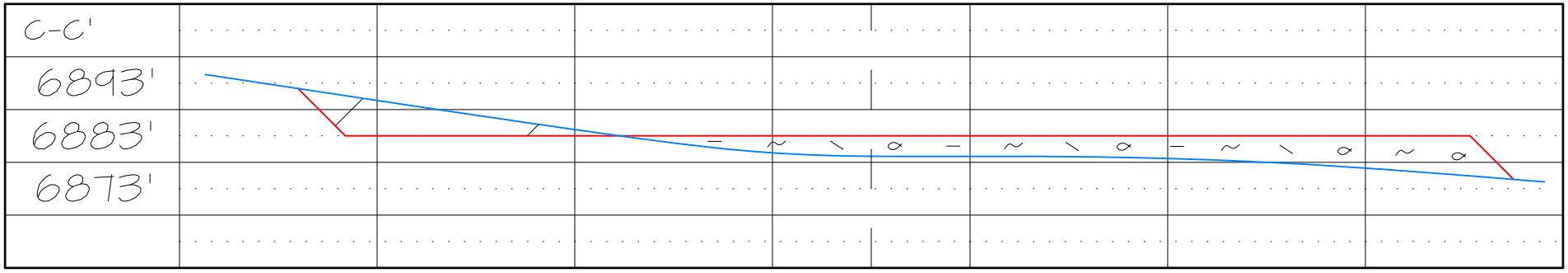
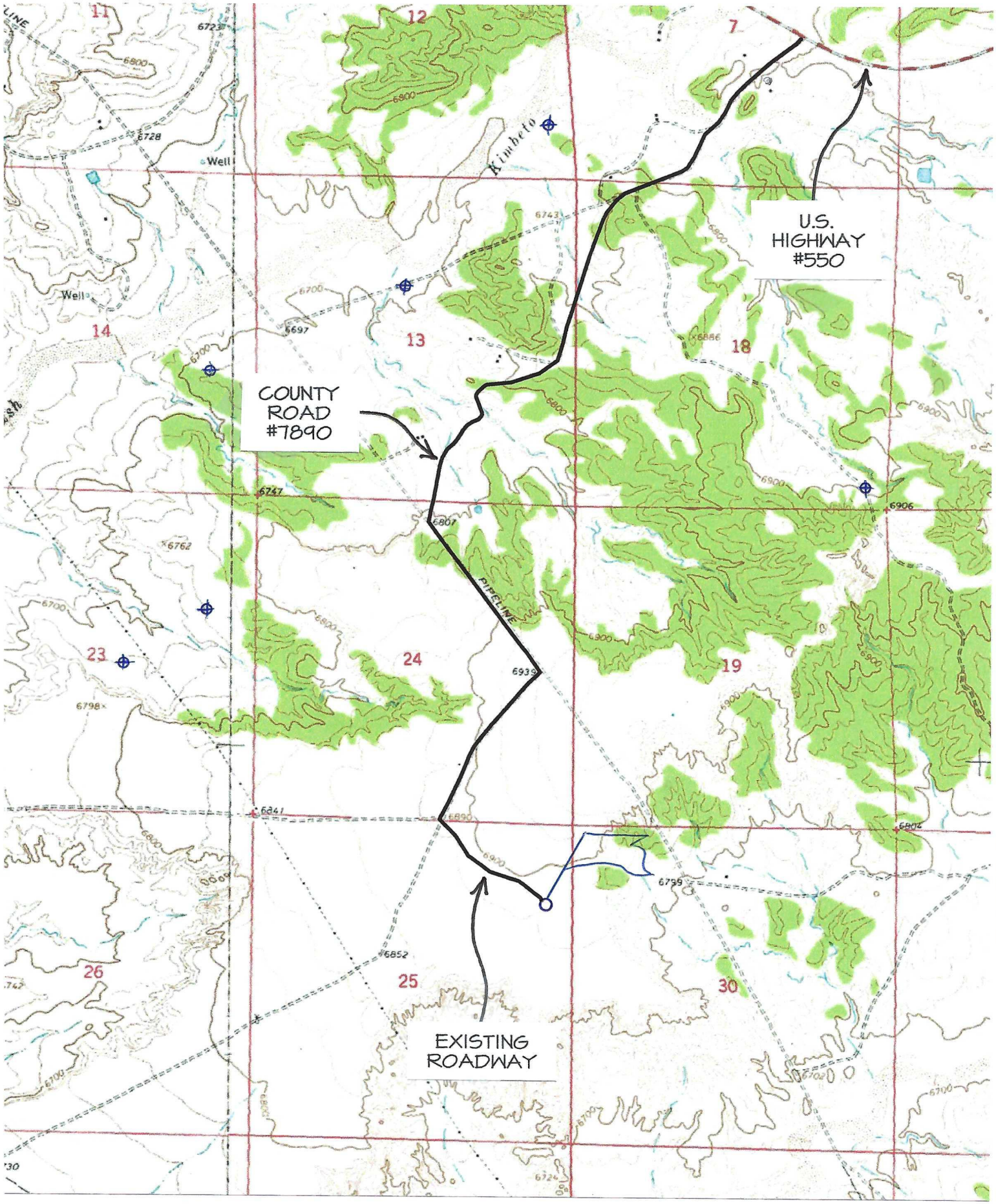


NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

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.

ENDURING RESOURCES, LLC. RODEO UNIT #504H

1471' FNL & 408' FEL, SECTION 25, T23N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : LYBROOK NW ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

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

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #504H

1471' FNL & 408' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude 36.201023°N Longitude -107.732908°W Datum: NAD1983

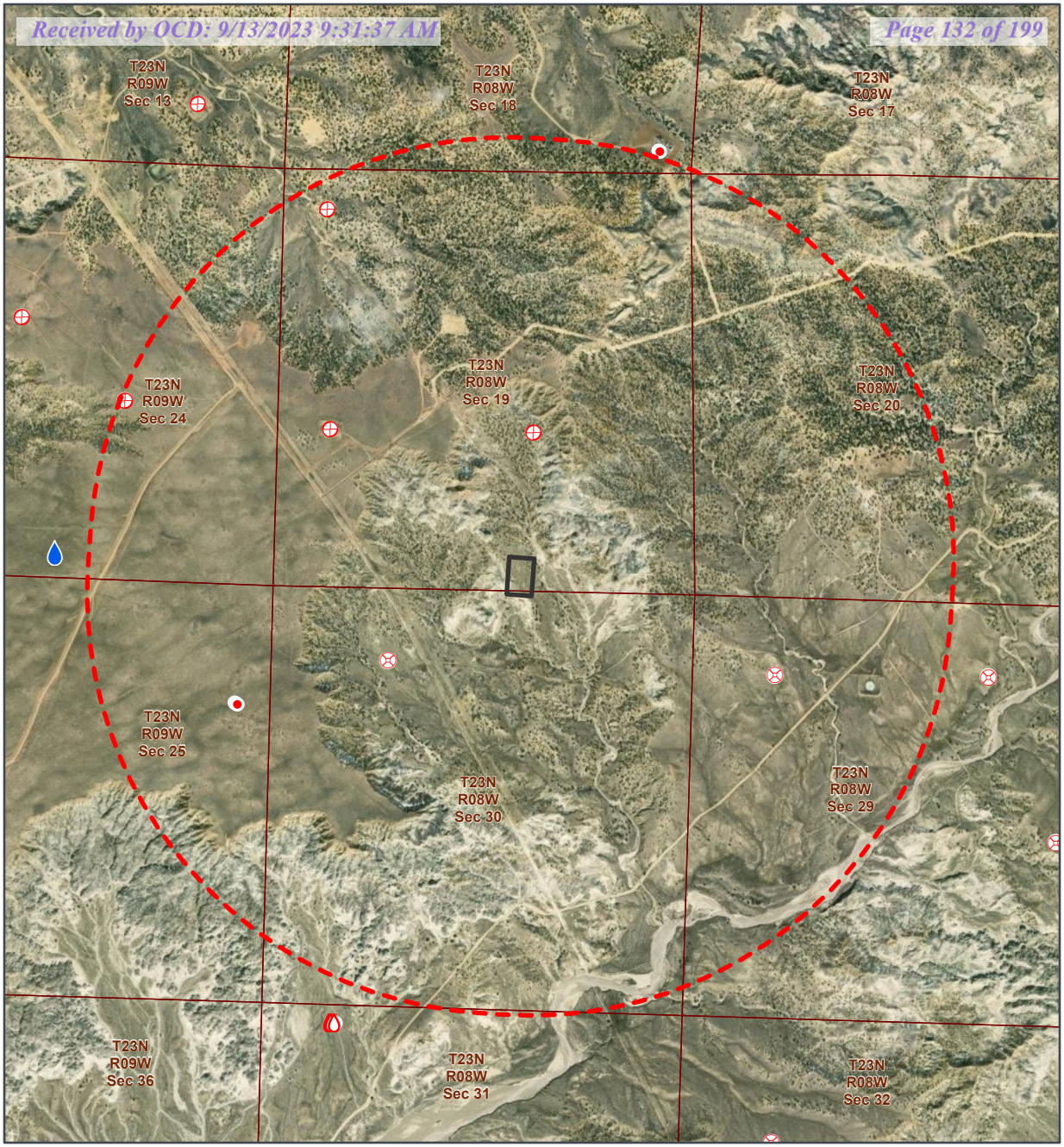
From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.3 miles to Mile Marker 113.4;

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 #504H location which overlaps the existing Enduring Rodeo Unit #508H location.



ROU 504H Project | Wells Within 1 Mile

- OSE Points of Diversion
- 1 Mile Buffer
- Wellpads

Oil and Gas Well Status

- Active
- Cancelled
- New
- Plugged (site released)

Wells	Within 1 Mile	Within Map Extent
OSE Points of Diversion	0	1
Active O&G	3	7
Cancelled O&G	2	5
New	0	3
Plugged (site released) O&G	4	6

Rio Arriba County, NM
NAD 1983 BLM Zone 13N
36.2057°N 107.7205°W

0 1,000 2,000 Feet
0 250 500 Meters

N

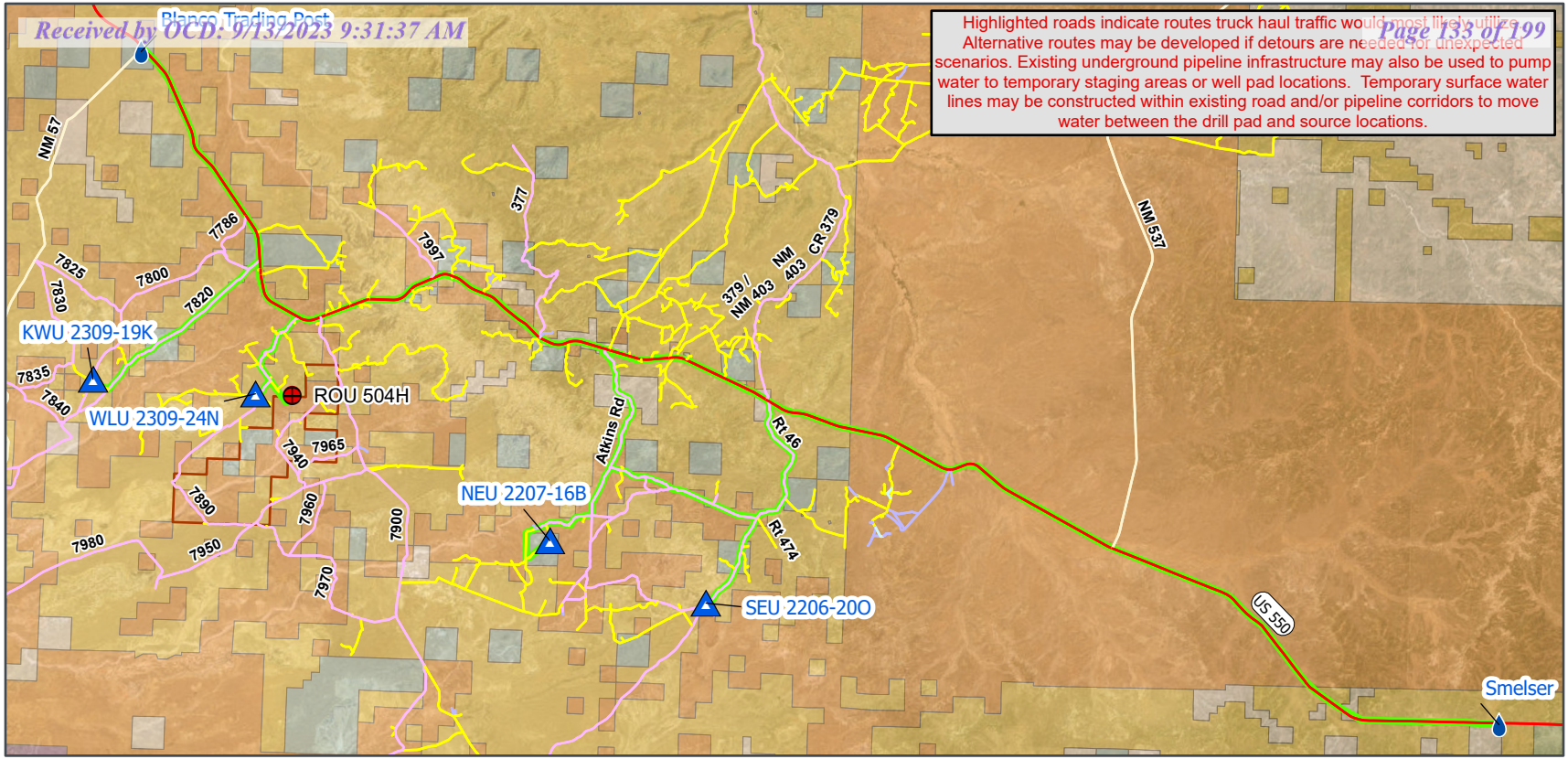
1:25,000

Base Map: ESRI ArcGIS Online, accessed September 2023
Updated: 9/8/2023
Project No. 75253p75
Layout: 253p9_ROU_504H_Wells_Within_1Mile
Aprx: 5253p9_RodeoUnit_508_WellPad_Exp

SWCA ENVIRONMENTAL CONSULTANTS

ENDURING RESOURCES, LLC

Highlighted roads indicate routes truck haul traffic would most likely utilize. Alternative routes may be developed if detours are needed for unexpected scenarios. Existing underground pipeline infrastructure may also be used to pump water to temporary staging areas or well pad locations. Temporary surface water lines may be constructed within existing road and/or pipeline corridors to move water between the drill pad and source locations.



ROU 504H Project | Water Transportation

- ROU 504H
- Potable Water Sources
- Non-Potable Water Sources
- Potential Truck Routes
- Access, Dirt
- County
- Highway
- Private
- Reclaim
- State

Land Ownership

- BLM
- USFS
- Tribal
- NPS
- Private
- State

- Unit Boundary

San Juan, Rio Arriba, and Sandoval County, NM
NAD 1983 UTM Zone 13N
36.2186°N 107.4483°W

0 10,000 20,000 Feet
0 3,000 6,000 Meters

N

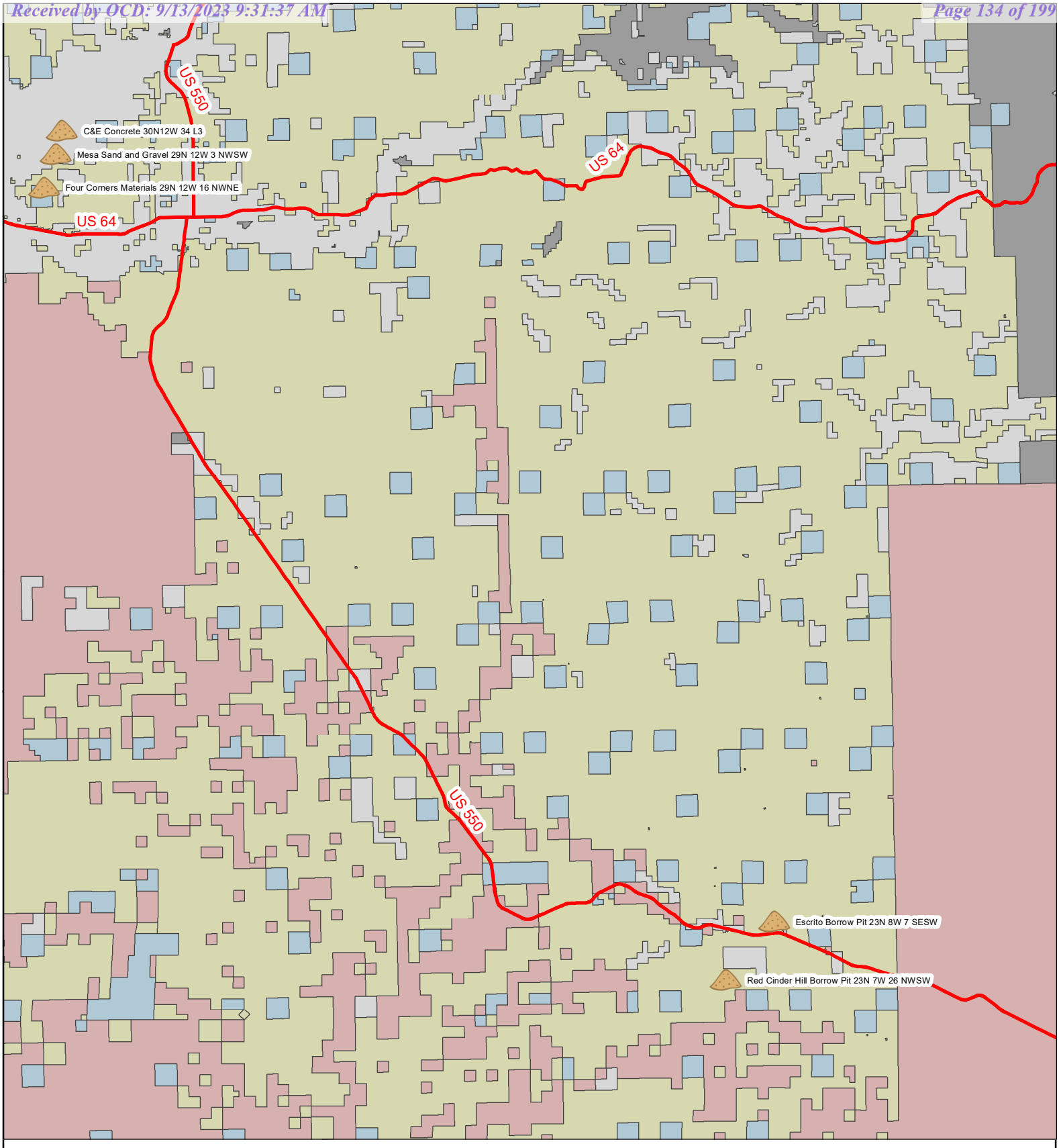
1:345,000

Base Map: ESRI ArcGIS Online, accessed September 2023
Updated: 9/8/2023
Project No. 75253p36
Layout: 3p9_ROU_504H_Water_Transportation
Aprx: 5253p9_RodeoUnit_508_WellPad_Exp

New Mexico

SWCA ENVIRONMENTAL CONSULTANTS

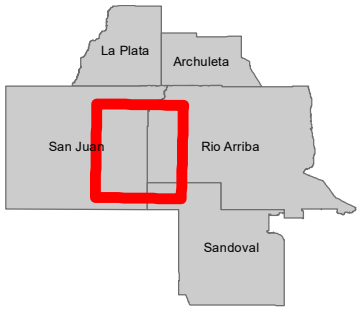
ENDURING RESOURCES, LLC



Material Source Location Map

Material Source
Highway, Paved
BLM Surface
Indian Surface
Private Surface
State Surface

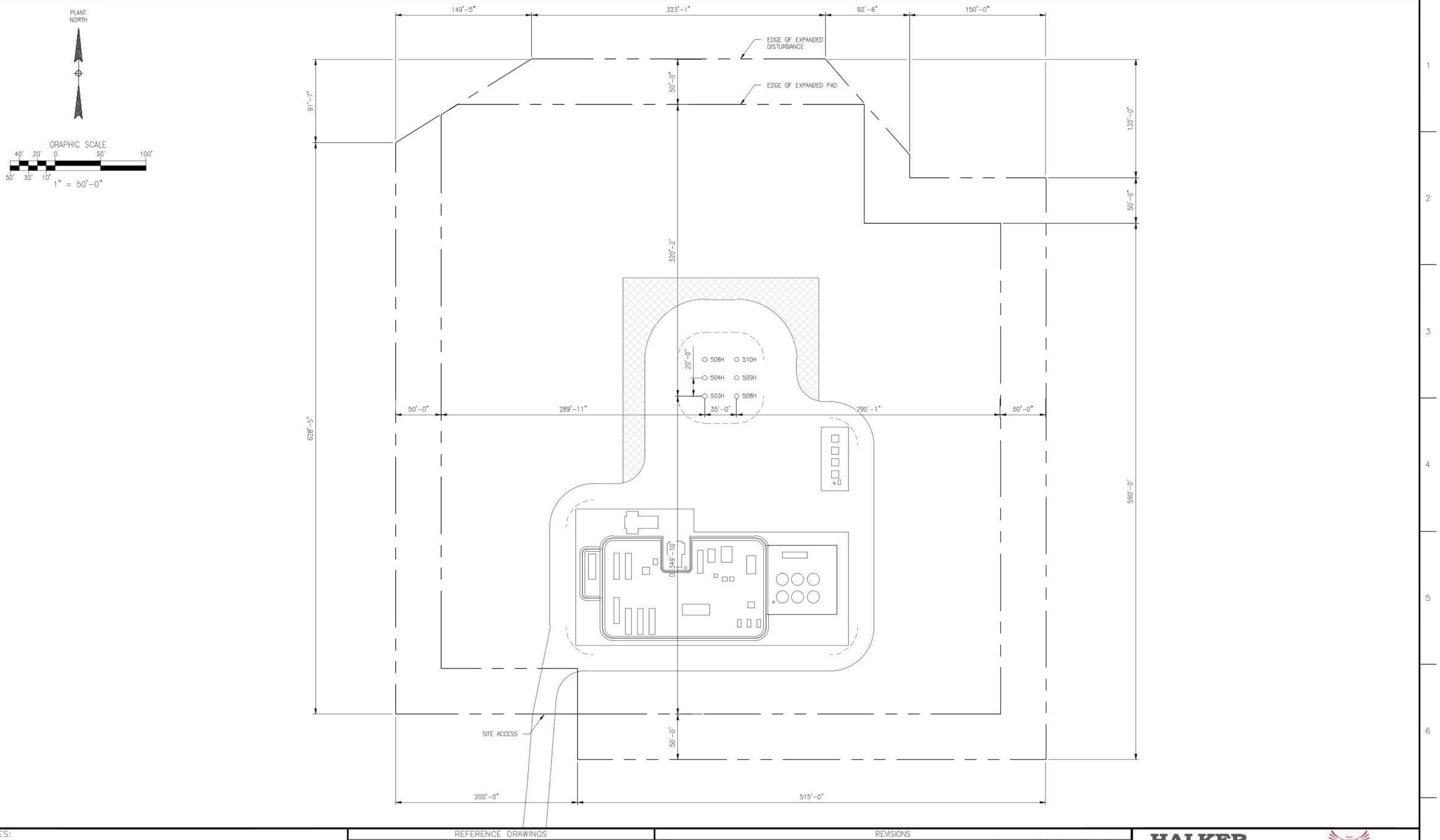
0 5 10 20 Miles



ENDURING RESOURCES, LLC

Data Source Statement:
BLM-FFO, Enduring Resources GIS, ESRI Inc., NCE Surveys, USGS

Author: drogers	Date: 10/23/2019



NOTES:

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DWG NO.	TITLE

REVISIONS						
REV	DESCRIPTION	DATE	BY	CHK	ENG	APR
A	ISSUED FOR INFORMATION	4/24/23	DTS	–	BBS	BBS

HALKER
ENGINEERED SOLUTIONS

ENDURING RESOURCES
RODEO UNIT 508 EXPANSION
FACILITY LAYOUT

SCALE: (FORMATTED 22X34) 1" = 50'-0"

DRAWING NO. 22014-01-31042

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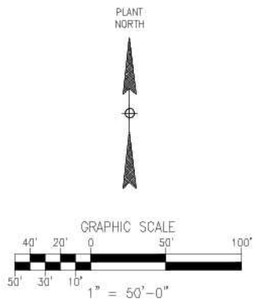

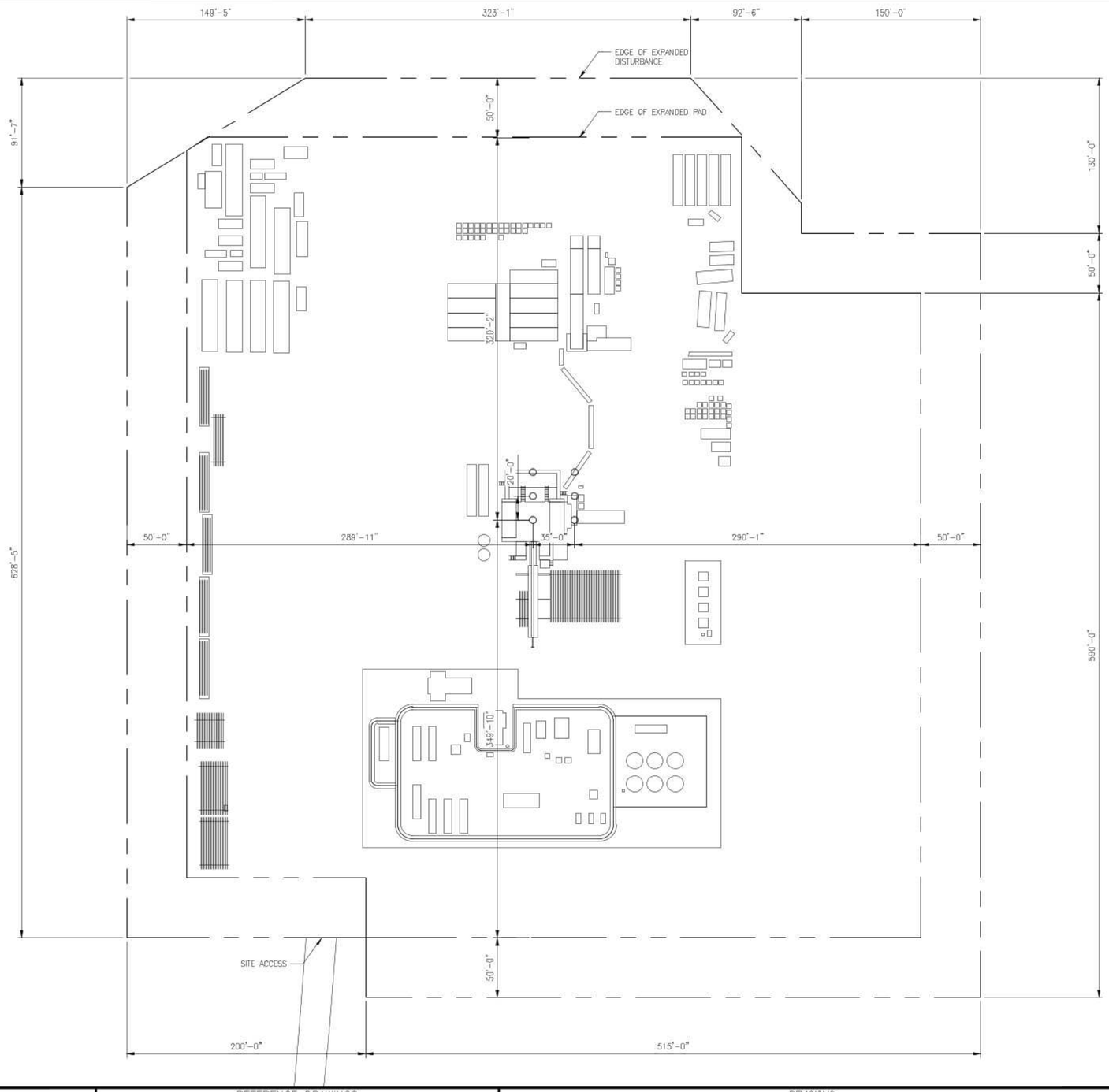

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ENGINEERED SOLUTIONS

ENDURING RESOURCES
RODEO UNIT 508 EXPANSION
FACILITY AND RIG LAYOUT

SCALE: (FORMATTED 22X34) 1" = 50'-0"
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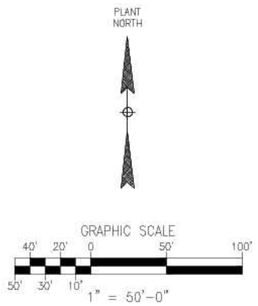

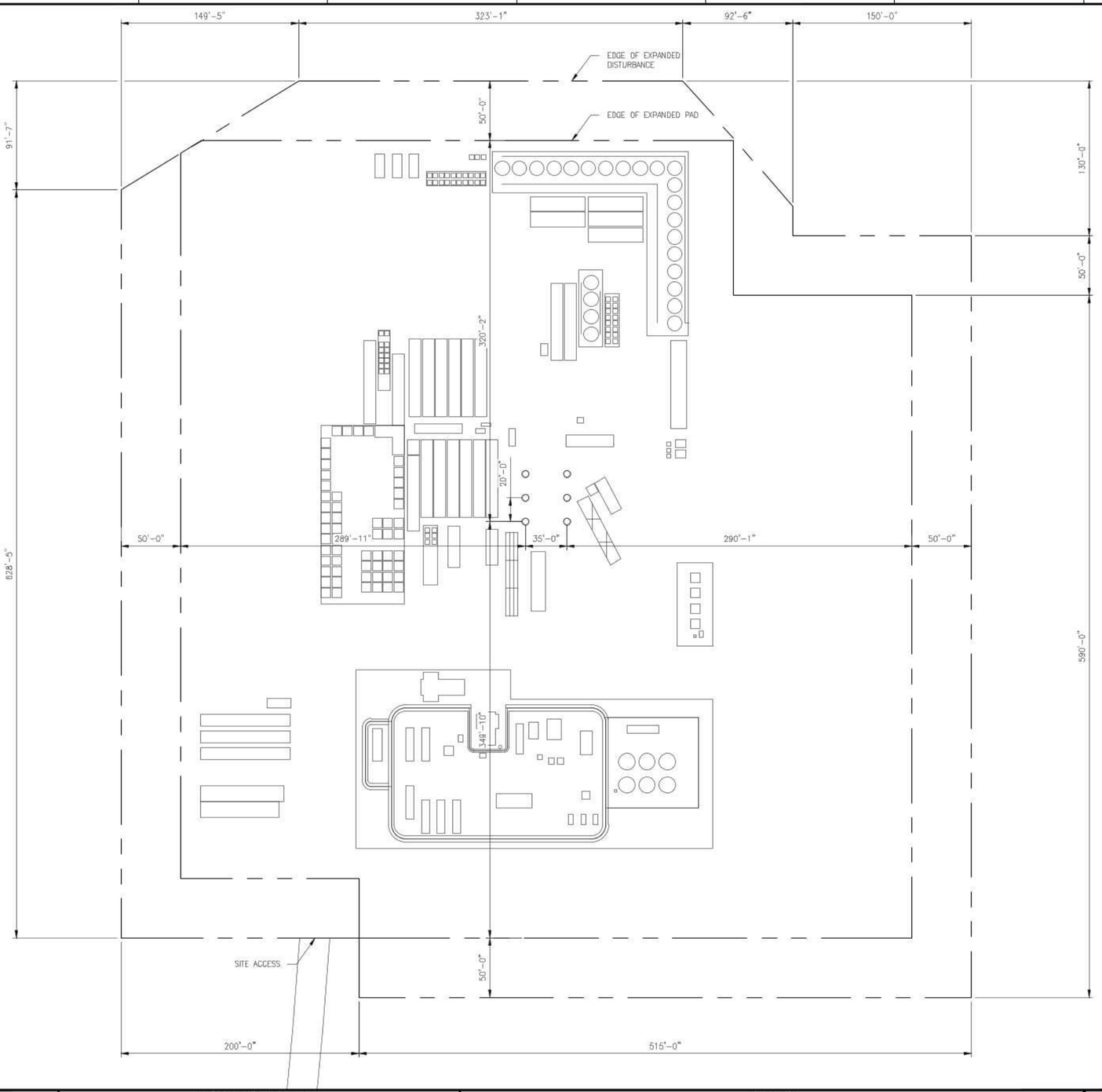

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ENGINEERED SOLUTIONS

ENDURING RESOURCES
RODEO UNIT 508 EXPANSION
FACILITY AND COMPLETIONS LAYOUT

SCALE: (FORMATTED 22X34) 1" = 50'-0"
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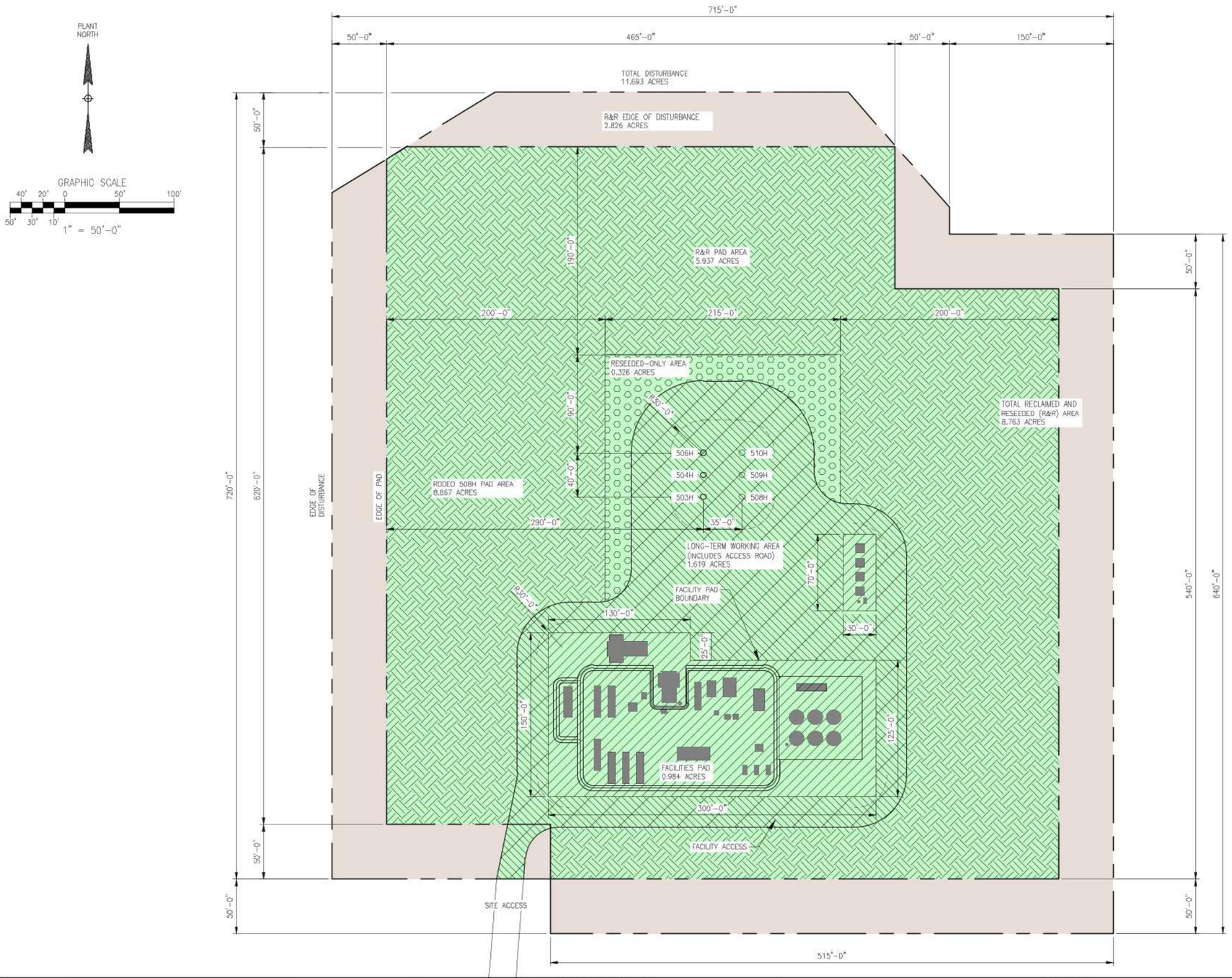

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ENDURING RESOURCES
RODEO 508H
PROPOSED RECLAMATION

SCALE: (FORMATTED 22X34) 1"=50'-0" | DRAWING NO. 22014-01-31000 | A

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SURFACE RECLAMATION PLAN

Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project (Rodeo Unit 508 Pad Expansion)

SEPTEMBER 2023

ENDURING RESOURCES IV, LLC

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

TABLE OF CONTENTS

LIST OF TABLES

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 **(Rodeo Unit 508 Pad Expansion)**
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

Feature	Disturbance Acreage		Reclamation Acreage		
	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

[1]Based 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 pre-construction 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.

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

Onsite Noxious Weed Form

If noxious weeds are found during the onsite, fill out form and submit to FFO weed coordinator
Operator Enduring Resources Surveyor(s) C. Jones, K. Suthiwan, & D. Rogers

Well Name and Number Rodeo 503H Date 11/17/2021

Location: Township, Range, Section Sec 25, Twn 23N, Rng 9W
Location of Project NAD 83 Decimal Degrees _____ _____

Class A Noxious Weed – Check Box if Found

	Alfombrilla		Diffuse knapweed		Hydrilla		Purple starthistle		Yellow toadflax
	Black henbane		Dyer's woad		Leafy spurge		Ravenna grass		
	Camelthorn		Eurasian watermilfoil		Oxeye daise		Scotch thistle		
	Canada thistle		Giant salvinia		Parrotfeather		Spotted knapweed		
	Dalmation toadflax		Hoary cress		Purple loosestrife		Yellow starthistle		

Class B Noxious Weed – Check Box if Found

	African rue		Perennial pepperweed		Russian knapweed		Tree of heaven
	Chicory		Musk thistle		Poison hemlock		
	Halogeton		Malta starthistle		Teasel		

Comments:

No List A or List B species observed. Russian thistle observed in previously disturbed areas.

FFO Representative: _____
sign and date

Operator Representative: _____ 11/17/2021
sign and date

Enduring Resources IV, LLC

Road Maintenance Plan

Rodeo Unit 503H, 504H, & 506H Oil and Natural Gas Wells Project (Rodeo Unit 508 Pad Expansion)

September 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 (Rodeo Unit 508 Pad Expansion). 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 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 orlocations.
- Bar ditches may be pulled.
- Low-water crossings and drainage dips may be cleared and/or repaired.
- Crowning may be repaired.

- 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:**
Date:	**Time (a.m./p.m.):**
Weather:	
Inspector(s):	
Road Surface Type:	

Road Condition Inspection Items	Road Condition		
	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 Inspection Notes:			

AFMSS

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

PWD Data Report

09/12/2023

APD ID: 10400084207 **Submission Date:** 06/16/2022

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

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: **PWD disturbance (acres):**

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:** 504H

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:** 504H

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):

Operator Name: ENDURING RESOURCES LLC

Well Name: RODEO UNIT **Well Number:** 504H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

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

Bond Info Data
09/12/2023

APD ID: 10400084207
Submission Date: 06/16/2022
Operator Name: ENDURING RESOURCES LLC
Well Name: RODEO UNIT
Well Number: 504H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: IND

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

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-38323	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT	504H

[7] OGRID No.	[8] Operator Name	[9] 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
H	25	23N	9W		1471	NORTH	408	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
H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 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

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with 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.

Signature 9/12/23 Date

Heather Huntington
Printed Name
hhuntington@enduringresource.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 under my 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

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

SURFACE LOCATION
1471' FNL 408' FEL
SEC 25, T23N, R9W
LAT 36.201009 °N
LONG -107.732295 °W
DATUM: NAD1927

LAT 36.201023 °N
LONG -107.732908 °W
DATUM: NAD1983

FIRST TAKE POINT
1136' FNL 1946' FWL
SEC 30, T23N, R8W
LAT 36.201953 °N
LONG -107.724319 °W
DATUM: NAD1927

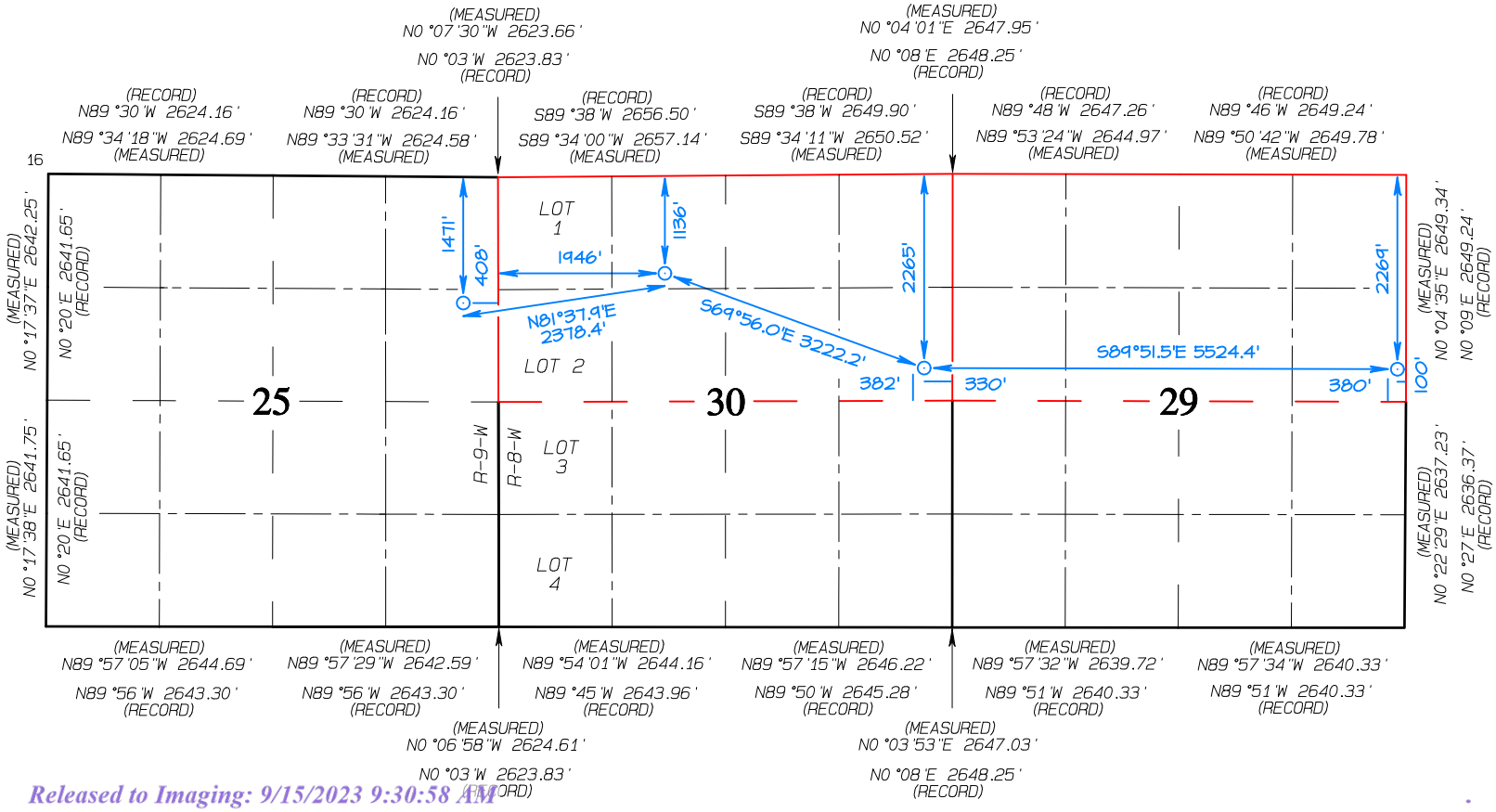
LAT 36.201967 °N
LONG -107.724931 °W
DATUM: NAD1983

LATERAL ANGLE POINT
2265' FNL 330' FEL
SEC 30, T23N, R8W
LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

LAST TAKE POINT
2269' FNL 100' FEL
SEC 29, T23N, R8W
LAT 36.198849 °N
LONG -107.695342 °W
DATUM: NAD1927

LAT 36.198862 °N
LONG -107.695954 °W
DATUM: NAD1983



District I
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District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
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State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
321253	RODEO UNIT	504H

[7] OGRID No.	[8] Operator Name	[9] 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
H	25	23N	9W		1471	NORTH	408	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
H	29	23N	8W		2269	NORTH	100	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.97	N/2 - Section 29 N/2 - Section 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

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with 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.

Signature — Date: 9/12/23

Heather Huntington
Printed Name

hhuntington@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 under my 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

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

LATERAL ANGLE POINT
2265' FNL 330' FEL
SEC 30, T23N, R8W
LAT 36.198906 °N
LONG -107.714065 °W
DATUM: NAD1927

LAT 36.198920 °N
LONG -107.714677 °W
DATUM: NAD1983

(A) 2268' FNL 0' FEL
SEC 30, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

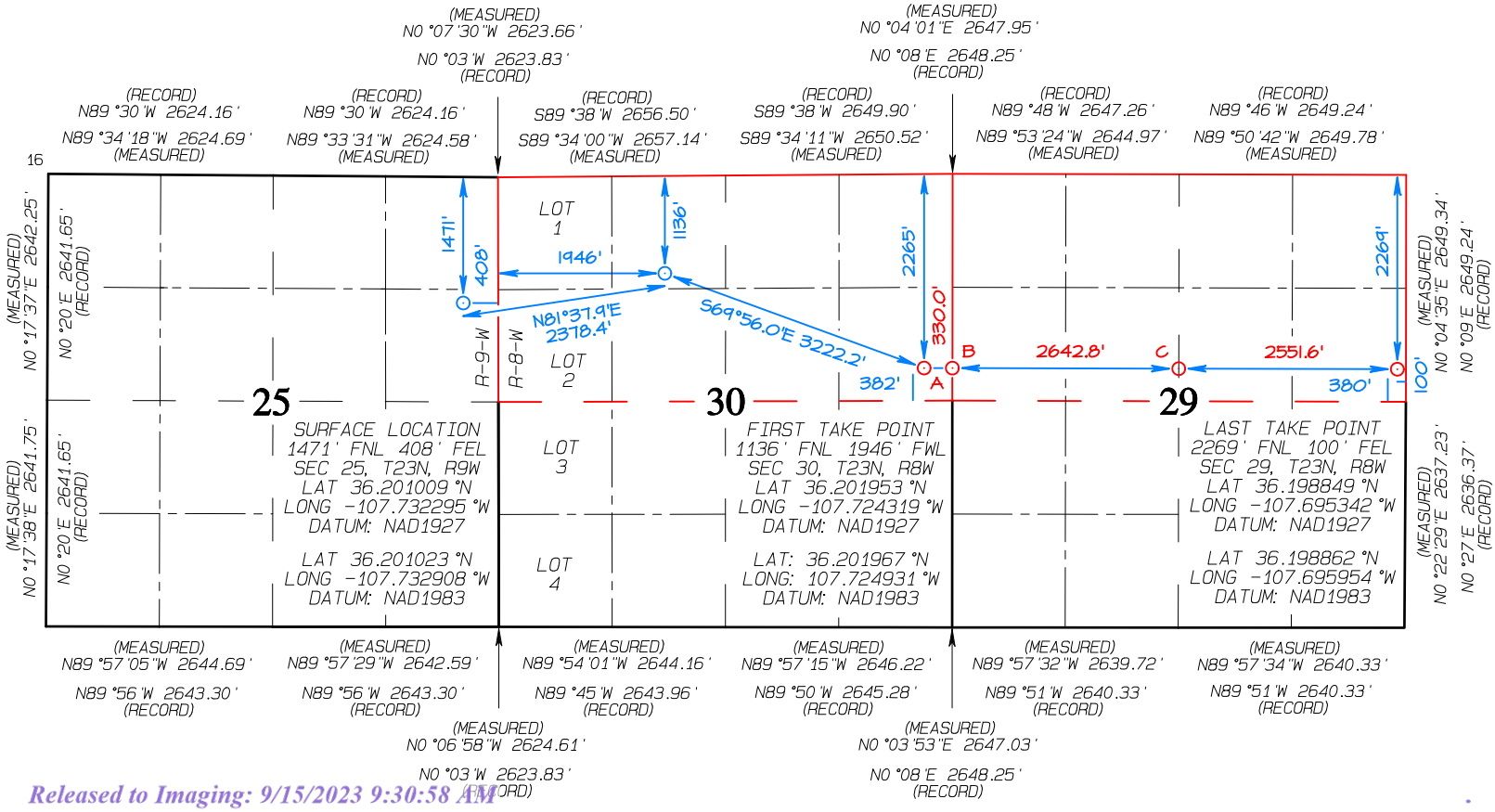
LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(B) 2268' FNL 0' FWL
SEC 29, T23N, R8W
LAT 36.198903 °N
LONG -107.712947 °W
DATUM: NAD1927

LAT 36.198916 °N
LONG -107.713559 °W
DATUM: NAD1983

(C) 2269' FNL 2643' FWL
SEC 29, T23N, R8W
LAT 36.198876 °N
LONG -107.703990 °W
DATUM: NAD1927

LAT 36.198889 °N
LONG -107.704602 °W
DATUM: NAD1983



ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'
LAT 36°12'03.6325"N LONG -107°43'56.2635"W DATUM: NAD1927

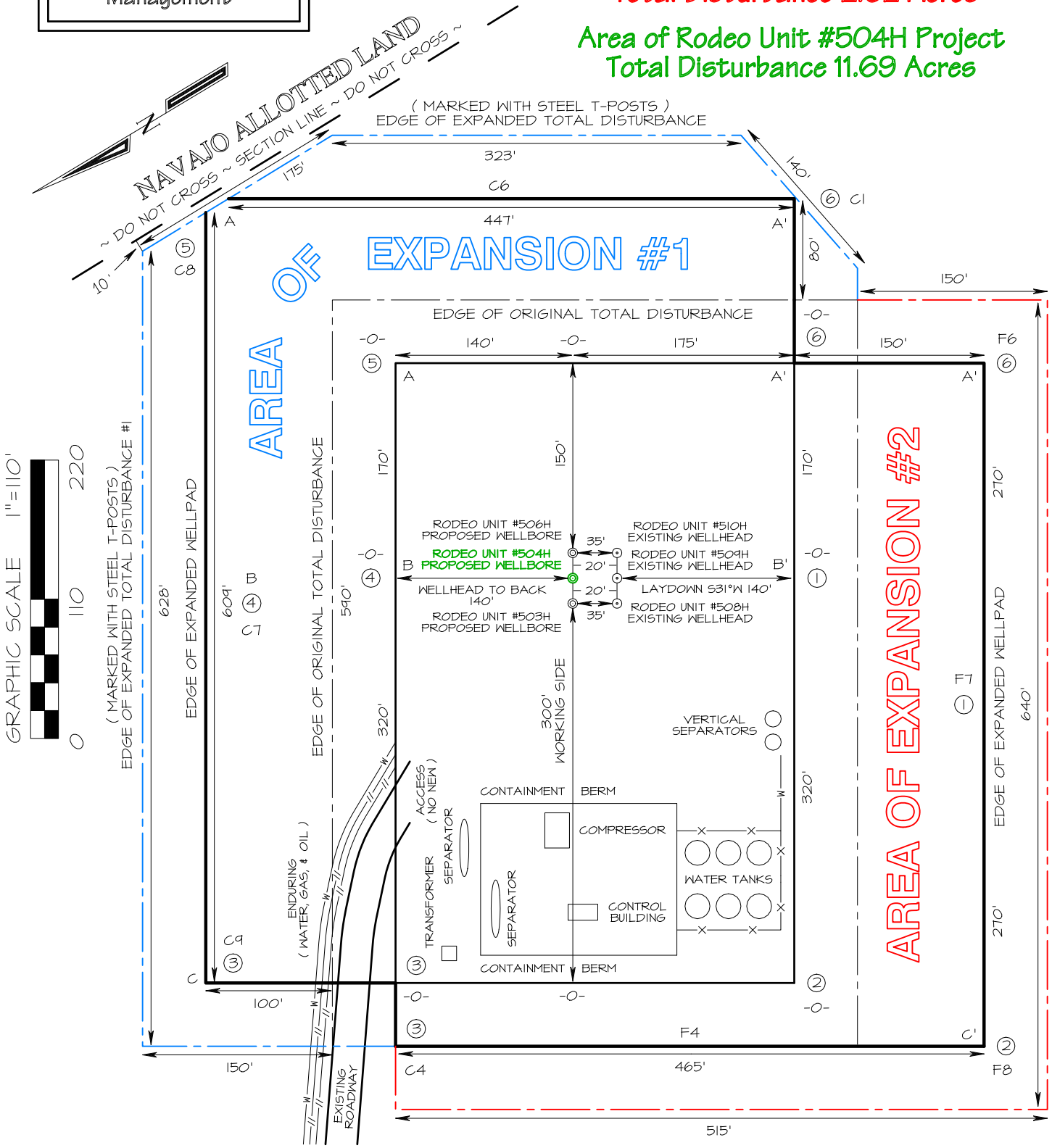
~ SURFACE OWNER ~

Bureau of Land Management

Area of Expansion #1
Total Disturbance 3.45 Acres

Area of Expansion #2
Total Disturbance 2.62 Acres

Area of Rodeo Unit #504H Project
Total Disturbance 11.69 Acres



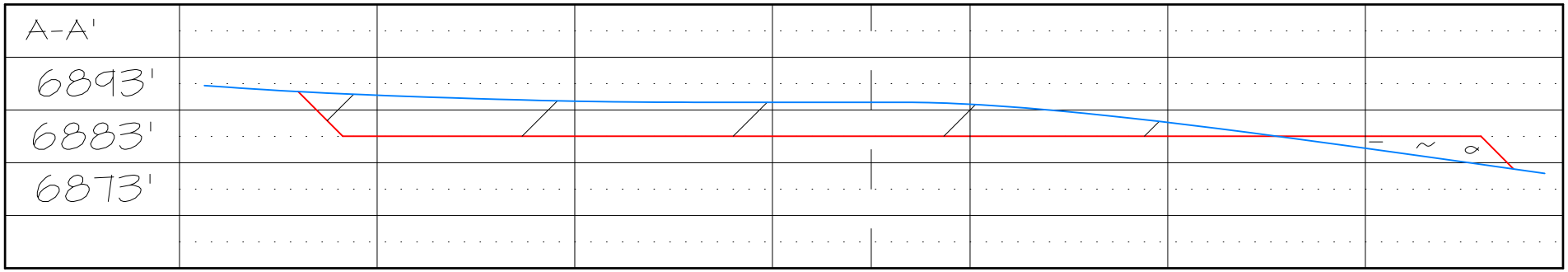
Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from edge of staked wellpad.

ENDURING RESOURCES, LLC RODEO UNIT #504H
1471' FNL & 408' FEL, SECTION 25, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6883'

HORIZONTAL SCALE
1"=80'

VERTICAL SCALE
1"=30'

C/L



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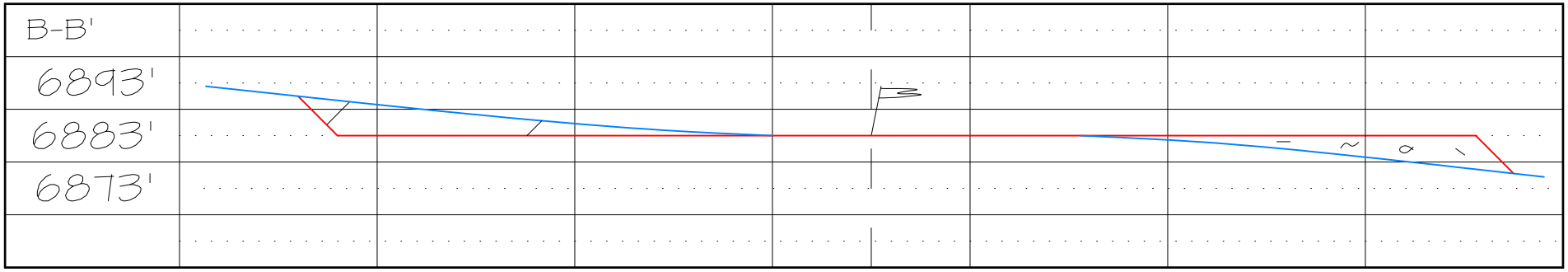
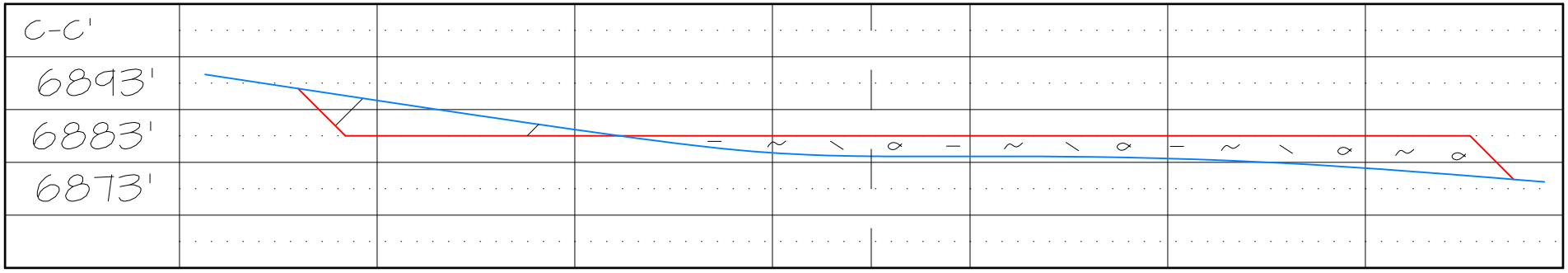


C/L

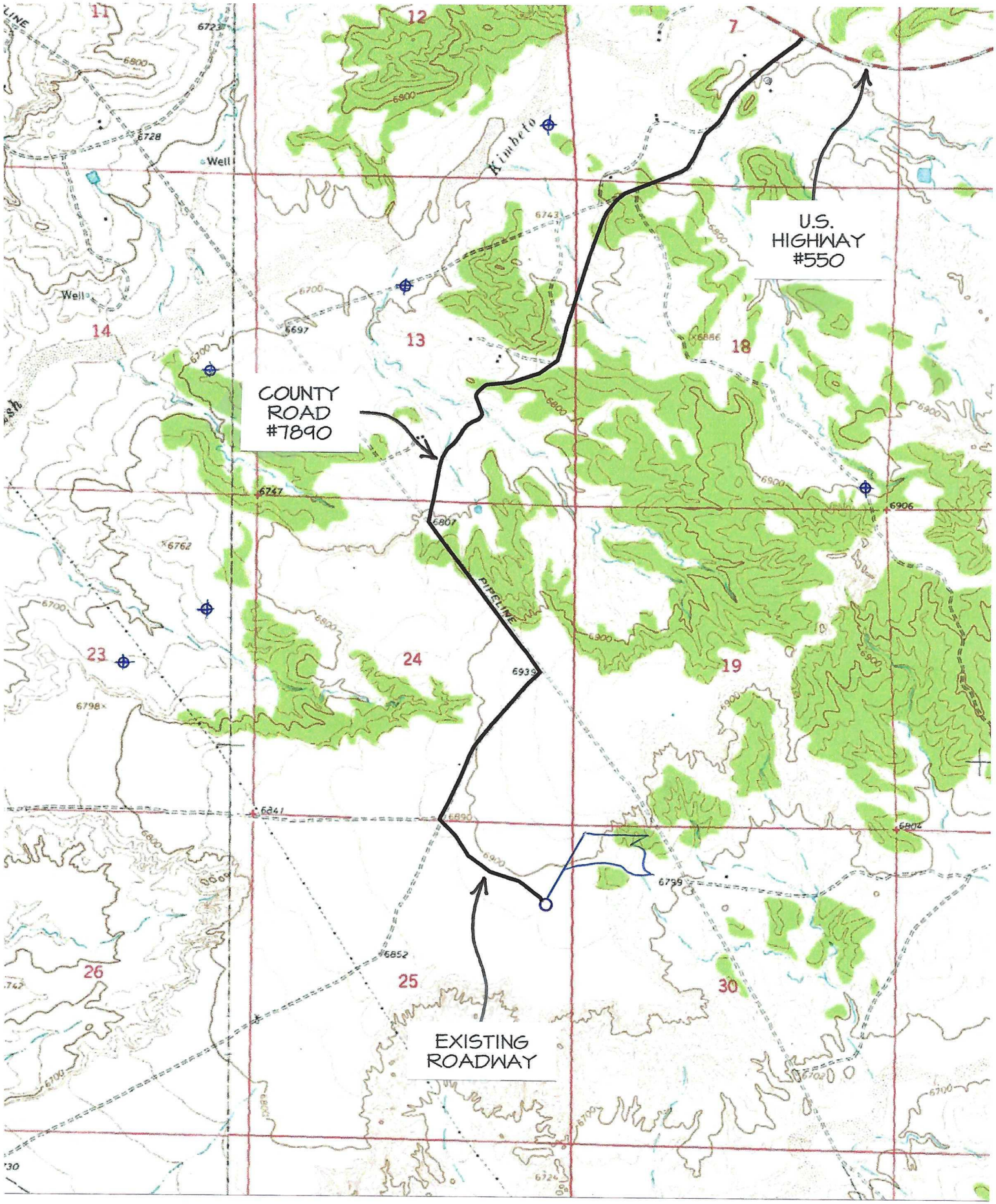


NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

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.

ENDURING RESOURCES, LLC. RODEO UNIT #504H

1471' FNL & 408' FEL, SECTION 25, T23N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : LYBROOK NW ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

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

in Bloomfield, NM to Enduring Resources, LLC Rodeo Unit #504H

1471' FNL & 408' FEL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude 36.201023°N Longitude -107.732908°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 #504H location which overlaps the existing Enduring Rodeo Unit #508H location.

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 Resources IV, LLC **OGRID:** 372286 **Date:** 9/12/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): 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	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water
Rodeo Unit 503H	pending	Sec. 25, T23N, R9W	UL:C SHL:1461' FNL & 425' FEL	210	420	430
Rodeo Unit 504H	pending	Sec. 25, T23N, R9W	UL:C SHL:1471' FNL & 408' FEL	210	420	430
Rodeo Unit 506H	pending	Sec. 25, T23N, R9W	UL:C SHL:1481' FNL & 391' FEL	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]

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	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

XI. Map. ☐ 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 ☒ will ☐ 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 ☒ does ☐ 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:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(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: 
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 Gas Transporter system at that time. Based on current information, it is Operator's 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.

Alternatives to Reduce Flaring

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

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - 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 504H**
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 1,471 ft FNL 408 ft FEL
36.201023 ° N latitude 107.732908 ° W longitude (NAD 83)
BH Location: 29-23N-08W Sec-Twn-Rng 2,269 ft FNL 100 ft FEL
36.198862 ° N latitude 107.695954 ° W longitude (NAD 83)
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 37.8 miles to MM 113.5; 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	861	G, W	sub
Pictured Cliffs	5,728	1,168	1,168	G, W	sub
Lewis	5,569	1,327	1,327	G, W	normal
Chacra	5,310	1,586	1,589	G, W	normal
Cliff House	4,240	2,656	2,801	G, W	sub
Menefee	4,222	2,674	2,823	G, W	normal
Point Lookout	3,248	3,648	3,997	G, W	normal
Mancos	3,082	3,814	4,197	O,G	sub (~0.38)
Gallup (MNCS_A)	2,757	4,139	4,589	O,G	sub (~0.38)
MNCS_B	2,672	4,224	4,691	O,G	sub (~0.38)
MNCS_C	2,572	4,324	4,812	O,G	sub (~0.38)
MNCS_Cms	2,523	4,373	4,871	O,G	sub (~0.38)
MNCS_D	2,404	4,492	5,014	O,G	sub (~0.38)
MNCS_E	2,254	4,642	5,203	O,G	sub (~0.38)
MNCS_F	2,197	4,699	5,285	O,G	sub (~0.38)
MNCS_G	2,121	4,775	5,415	O,G	sub (~0.38)
MNCS_H	2,067	4,829	5,527	O,G	sub (~0.38)
MNCS_I	2,028	4,868	5,648	O,G	sub (~0.38)
FTP (LP) TARGET	**2,012**	**4,884**	**5,781**	**O,G**	**sub (~0.38)**
LTP (TD) TARGET	**1,999**	**4,897**	**14,538**	**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: 2,110 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 1,040 psi
Temperature: **Maximum anticipated BHT is 135° F or less**

H_2S INFORMATION:

H_2S 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.

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

Hole Size: 17-1/2"
Bit / Motor: Mill Tooth or PDC, no motor
MWD / Survey: No MWD, deviation survey
Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	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 and 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Minumum: N/A Optimum: N/A Maximum: N/A*
Make-up as per API Buttress Connection running procedure.
Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface
Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	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**	**3,004 ft (MD)**	**Hole Section Length:**	**2,654 ft**
350 ft (TVD)	**to**	**2,824 ft (TVD)**	**Casing Required:**	**3,004 ft**

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

Hole Size: 12-1/4"
Bit / Motor: PDC w/mud motor
MWD / Survey: MWD Survey with inclination and azimuth survey (every 100' at a minimum), GR optional
Logging: None
Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to **1,500** psi for 30 minutes.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,234	1,202	194,307	194,307
Min. S.F.					**1.64**	**2.93**	**2.90**	**2.33**

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

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	595
Tail	Type III	14.6	1.38	6.64	20%	2,504	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.***

3,004	**ft (MD)**	**to**	**14,538**	**ft (MD)**	**Hole Section Length:** **11,534 ft**
2,824	**ft (TVD)**	**to**	**4,897**	**ft (TVD)**	**Casing Required:** **14,538 ft**

Estimated KOP:	**5,059**	**ft (MD)**	**4,530**	**ft (TVD)**
Estimated Landing Point (FTP):	**5,781**	**ft (MD)**	**4,884**	**ft (TVD)**
Estimated Lateral Length:	**8,757**	**ft (MD)**		

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

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	LTC	7,460	10,640	546,000	445,000
Loading					2,419	8,958	363,265	363,265
Min. S.F.					**3.08**	**1.19**	**1.50**	**1.23**

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 maximum 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 as close to (but not past) the planned LTP as possible.***

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

Cement:	**Type**	**Weight (ppg)**	**Yield (cuft/sk)**	**Water (gal/sk)**	**% Excess**	**Planned TOC (ft MD)**	**Total Cmt (sx)**
Lead	Type III	12.4	2.360	13.40	65%	0	534
Tail	G:POZ blend	13.3	1.560	7.70	10%	4,197	1,671

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**

WELL NAME: RODEO UNIT 504H

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 1,471 ft FNL 408 ft FEL

BH Location: 29-23N-08W Sec-Twn- Rng 2269 ft FNL 100 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)).

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	3,004 ft
KOP (MD)	5,059 ft
KOP (TVD)	4,530 ft
Target (TVD)	4,884 ft
Curve BUR	10 °/100 ft
POE (MD)	5,781 ft
TD (MD)	14,538 ft
Lat Len (ft)	8,757 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	3,004	9.625	36.0	J-55	LTC	0	3,004
Production	8.500	14,538	5.500	17.0	P-110	LTC	0	14,538

CEMENT PROPERTIES SUMMARY:

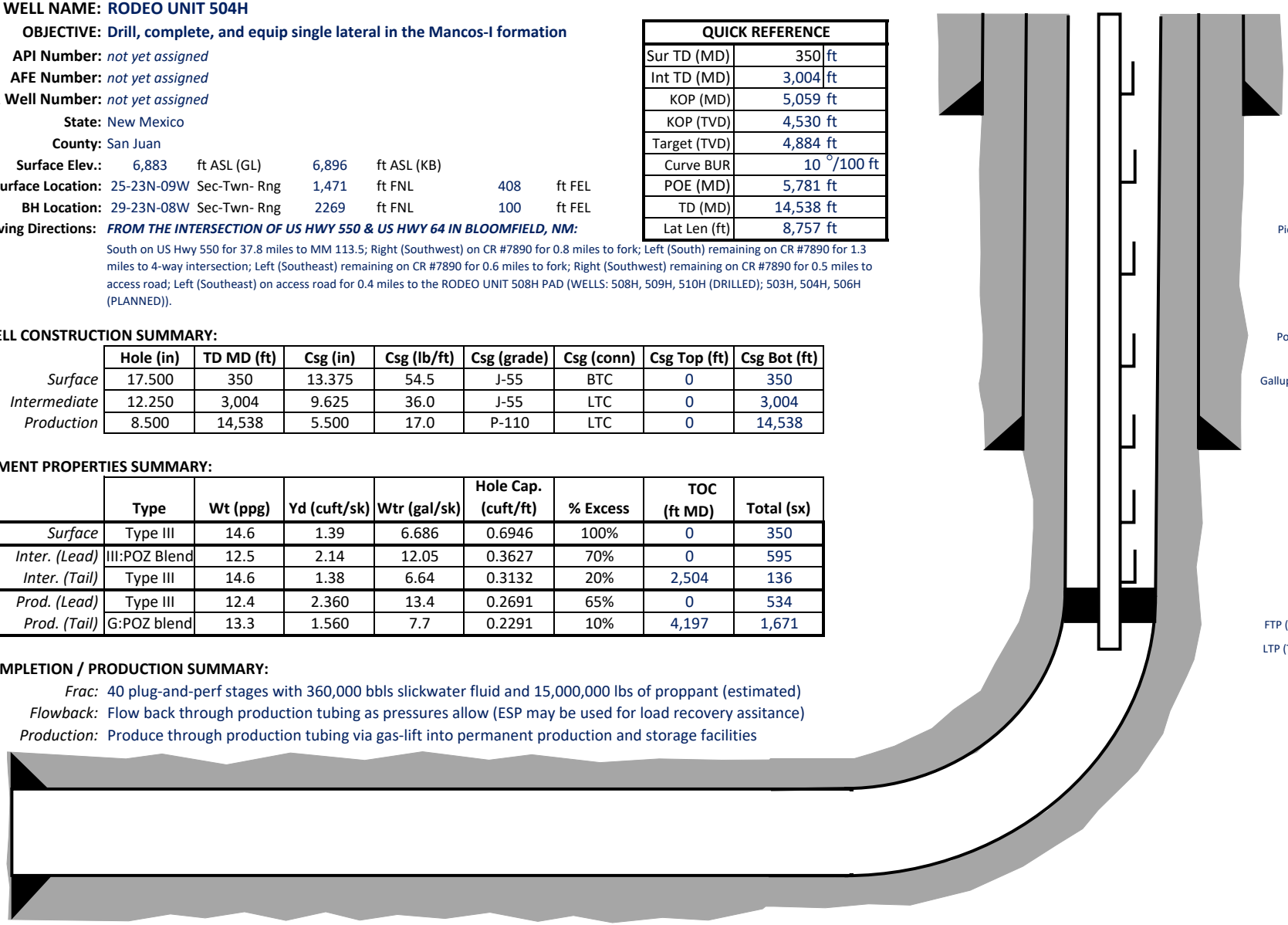
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	Type III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	595
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,504	136
Prod. (Lead)	Type III	12.4	2.360	13.4	0.2691	65%	0	534
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.2291	10%	4,197	1,671

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



Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	571	571
Kirtland	657	657
Fruitland	861	861
Pictured Cliffs	1,168	1,168
Lewis	1,327	1,327
Chacra	1,586	1,589
Cliff House	2,656	2,801
Menefee	2,674	2,823
Point Lookout	3,648	3,997
Mancos	3,814	4,197
Gallup (MNCS_A)	4,139	4,589
MNCS_B	4,224	4,691
MNCS_C	4,324	4,812
MNCS_Cms	4,373	4,871
MNCS_D	4,492	5,014
MNCS_E	4,642	5,203
MNCS_F	4,699	5,285
MNCS_G	4,775	5,415
MNCS_H	4,829	5,527
MNCS_I	4,868	5,648
FTP (LP) TARGET	4,884	5,781
LTP (TD) TARGET	4,897	14,538

Well: Rodeo Unit #504H
Site: Rodeo Unit
Project: San Juan County, New Mexico NAD83 NM W
Design: rev1
Rig: Ensign 773

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Rodeo 504 Int tgt 2265 FNL 330 FEL r1	4879.00	-759.46	5379.73	1891725.713	2758100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FNL 1946 FWL r1	4884.00	346.17	2353.12	1892831.342	2755073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FNL 100 FEL r1	4897.00	-773.29	10903.86	1891711.889	2763624.488	36.198862000	-107.695954000

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
2	1200.00	0.00	0.000	1200.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' bujild
3	2331.47	33.94	74.618	2266.43	86.33	313.81	3.00	74.62	306.92	Begin 33.94° tangent
4	5059.43	33.94	74.618	4529.50	490.38	1782.50	0.00	0.00	1743.34	Begin 10°/100' build/turn
5	5419.71	60.00	110.067	4777.23	462.61	2034.37	10.00	58.64	1996.55	Begin 60.00° tangent
6	5479.71	60.00	110.067	4807.23	444.78	2083.18	0.00	0.00	2046.50	Begin 10°/100' build
7	5780.60	90.09	110.067	4883.99	346.18	2353.10	10.00	0.00	2322.72	Begin 90.09° lateral
8	9002.86	90.09	110.067	4879.00	-759.46	5379.73	0.00	0.00	5419.98	Begin 4°/100' turn
9	9525.45	89.80	89.166	4879.51	-846.28	5892.13	4.00	-90.79	5937.24	Begin 89.80° lateral
10	14537.75	89.80	89.166	4897.00	-773.29	10903.86	0.00	0.00	10931.25	PBHL/TD

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Depth Reference: RKB=6883+28 @ 6911.00ft (Ensign 773)
Surface location:

Northing	Easting	Latitude	Longitude
1892485.174	2752720.648	36.201023000	-107.732908000

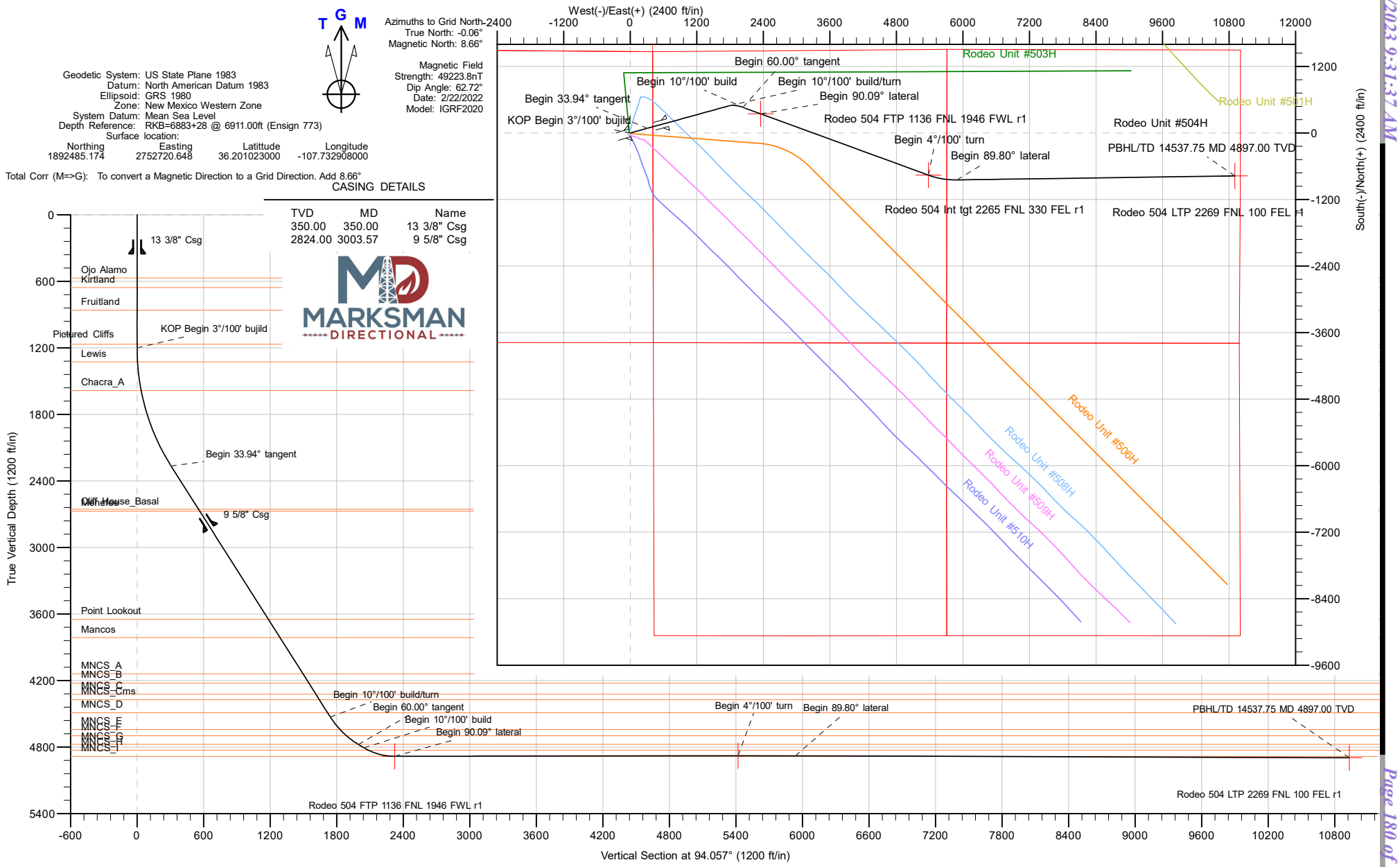
Azimuths to Grid North
True North: -0.06°
Magnetic North: 8.66°

Magnetic Field
Strength: 49223.8nT
Dip Angle: 62.72°
Date: 2/22/2022
Model: IGRF2020

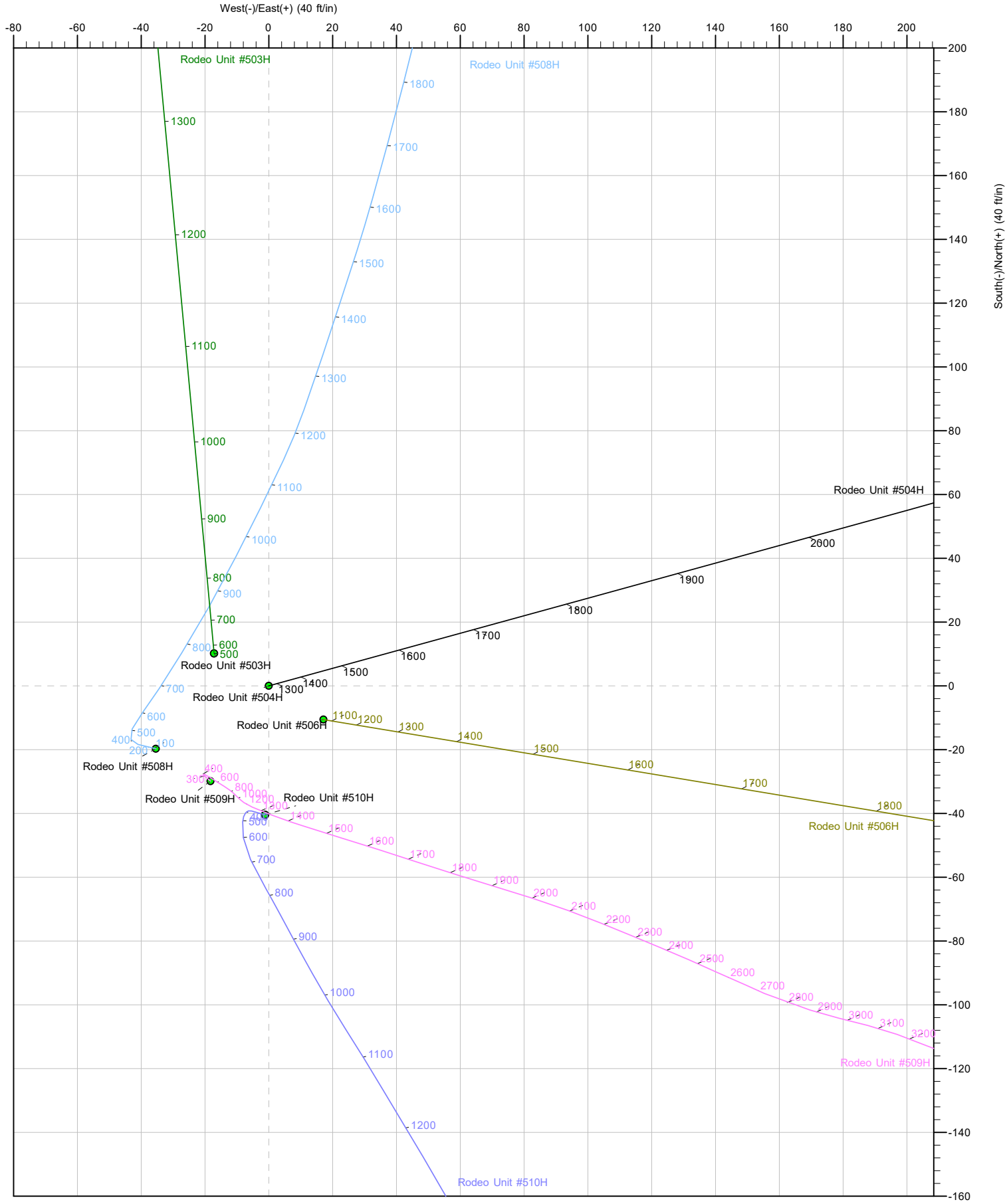
Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction. Add 8.66°

CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Csg
2824.00	3003.57	9 5/8" Csg



Well:	Rodeo Unit #504H
Site:	Rodeo Unit
Project:	San Juan County, New Mexico NAD83 NM W
Design:	rev1
Rig:	Ensign 773



Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project San Juan County, New Mexico NAD83 NM W

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

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 #504H, Surf loc: 1471 FNL 408 FEL Section 25-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,892,485.174 usft	**Latitude:**	36.201023000
	+E/-W	0.00 ft	**Easting:**	2,752,720.648 usft	**Longitude:**	-107.732908000
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	49,223.82454687

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	94.057

Plan Survey Tool Program **Date** 3/8/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,537.75	rev1 (Original Hole)	MWD	
				OWSG MWD - Standard	

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,331.47	33.94	74.618	2,266.43	86.33	313.81	3.00	3.00	0.00	74.62	
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	0.00	0.00	0.00	0.00	
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	10.00	7.23	9.84	58.64	
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	0.00	0.00	0.00	0.00	
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	10.00	10.00	0.00	0.00	
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	0.00	0.00	0.00	0.00	Rodeo 504 Int tgt 226
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	4.00	-0.06	-4.00	-90.79	
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	0.00	0.00	0.00	0.00	Rodeo 504 LTP 2269

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
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
571.00	0.00	0.000	571.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
657.00	0.00	0.000	657.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
861.00	0.00	0.000	861.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,168.00	0.00	0.000	1,168.00	0.00	0.00	0.00	0.00	0.00	0.00
Pictured Cliffs									
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' bujild									
1,300.00	3.00	74.618	1,299.95	0.69	2.52	2.47	3.00	3.00	0.00
1,327.09	3.81	74.618	1,327.00	1.12	4.08	3.99	3.00	3.00	0.00
Lewis									
1,400.00	6.00	74.618	1,399.63	2.78	10.09	9.87	3.00	3.00	0.00
1,500.00	9.00	74.618	1,498.77	6.24	22.67	22.17	3.00	3.00	0.00
1,588.68	11.66	74.618	1,586.00	10.45	38.00	37.17	3.00	3.00	0.00
Chacra_A									
1,600.00	12.00	74.618	1,597.08	11.07	40.24	39.36	3.00	3.00	0.00
1,700.00	15.00	74.618	1,694.31	17.26	62.75	61.37	3.00	3.00	0.00
1,800.00	18.00	74.618	1,790.18	24.79	90.13	88.15	3.00	3.00	0.00
1,900.00	21.00	74.618	1,884.43	33.65	122.31	119.62	3.00	3.00	0.00
2,000.00	24.00	74.618	1,976.81	43.80	159.20	155.70	3.00	3.00	0.00
2,100.00	27.00	74.618	2,067.06	55.22	200.71	196.30	3.00	3.00	0.00
2,200.00	30.00	74.618	2,154.93	67.87	246.71	241.29	3.00	3.00	0.00
2,300.00	33.00	74.618	2,240.18	81.73	297.08	290.55	3.00	3.00	0.00
2,331.47	33.94	74.618	2,266.43	86.33	313.81	306.92	3.00	3.00	0.00
Begin 33.94° tangent									
2,400.00	33.94	74.618	2,323.29	96.48	350.71	343.01	0.00	0.00	0.00
2,500.00	33.94	74.618	2,406.24	111.29	404.55	395.66	0.00	0.00	0.00
2,600.00	33.94	74.618	2,489.20	126.11	458.39	448.32	0.00	0.00	0.00
2,700.00	33.94	74.618	2,572.16	140.92	512.22	500.97	0.00	0.00	0.00
2,800.00	33.94	74.618	2,655.12	155.73	566.06	553.63	0.00	0.00	0.00
2,801.06	33.94	74.618	2,656.00	155.89	566.63	554.19	0.00	0.00	0.00
Cliff House_Basal									
2,822.76	33.94	74.618	2,674.00	159.10	578.32	565.61	0.00	0.00	0.00
Menefee									
2,900.00	33.94	74.618	2,738.08	170.54	619.90	606.28	0.00	0.00	0.00
3,000.00	33.94	74.618	2,821.04	185.35	673.74	658.94	0.00	0.00	0.00
3,100.00	33.94	74.618	2,903.99	200.16	727.58	711.59	0.00	0.00	0.00
3,200.00	33.94	74.618	2,986.95	214.97	781.42	764.25	0.00	0.00	0.00
3,300.00	33.94	74.618	3,069.91	229.78	835.25	816.91	0.00	0.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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	33.94	74.618	3,152.87	244.60	889.09	869.56	0.00	0.00	0.00
3,500.00	33.94	74.618	3,235.83	259.41	942.93	922.22	0.00	0.00	0.00
3,600.00	33.94	74.618	3,318.79	274.22	996.77	974.87	0.00	0.00	0.00
3,700.00	33.94	74.618	3,401.74	289.03	1,050.61	1,027.53	0.00	0.00	0.00
3,800.00	33.94	74.618	3,484.70	303.84	1,104.44	1,080.18	0.00	0.00	0.00
3,900.00	33.94	74.618	3,567.66	318.65	1,158.28	1,132.84	0.00	0.00	0.00
3,996.84	33.94	74.618	3,648.00	333.00	1,210.42	1,183.83	0.00	0.00	0.00
Point Lookout									
4,000.00	33.94	74.618	3,650.62	333.46	1,212.12	1,185.49	0.00	0.00	0.00
4,100.00	33.94	74.618	3,733.58	348.27	1,265.96	1,238.15	0.00	0.00	0.00
4,196.94	33.94	74.618	3,814.00	362.63	1,318.15	1,289.20	0.00	0.00	0.00
Mancos									
4,200.00	33.94	74.618	3,816.53	363.09	1,319.80	1,290.81	0.00	0.00	0.00
4,300.00	33.94	74.618	3,899.49	377.90	1,373.64	1,343.46	0.00	0.00	0.00
4,400.00	33.94	74.618	3,982.45	392.71	1,427.47	1,396.12	0.00	0.00	0.00
4,500.00	33.94	74.618	4,065.41	407.52	1,481.31	1,448.77	0.00	0.00	0.00
4,588.71	33.94	74.618	4,139.00	420.66	1,529.07	1,495.48	0.00	0.00	0.00
MNCS_A									
4,600.00	33.94	74.618	4,148.37	422.33	1,535.15	1,501.43	0.00	0.00	0.00
4,691.17	33.94	74.618	4,224.00	435.83	1,584.23	1,549.43	0.00	0.00	0.00
MNCS_B									
4,700.00	33.94	74.618	4,231.33	437.14	1,588.99	1,554.08	0.00	0.00	0.00
4,800.00	33.94	74.618	4,314.28	451.95	1,642.83	1,606.74	0.00	0.00	0.00
4,811.71	33.94	74.618	4,324.00	453.69	1,649.13	1,612.91	0.00	0.00	0.00
MNCS_C									
4,870.78	33.94	74.618	4,373.00	462.44	1,680.93	1,644.01	0.00	0.00	0.00
MNCS_Cms									
4,900.00	33.94	74.618	4,397.24	466.76	1,696.66	1,659.39	0.00	0.00	0.00
5,000.00	33.94	74.618	4,480.20	481.58	1,750.50	1,712.05	0.00	0.00	0.00
5,014.22	33.94	74.618	4,492.00	483.68	1,758.16	1,719.54	0.00	0.00	0.00
MNCS_D									
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	1,743.34	0.00	0.00	0.00
Begin 10°/100' build/turn									
5,100.00	36.20	80.490	4,562.71	495.36	1,805.25	1,765.68	10.00	5.56	14.47
5,150.00	39.33	86.864	4,602.25	498.67	1,835.65	1,795.77	10.00	6.26	12.75
5,200.00	42.76	92.405	4,639.97	498.83	1,868.45	1,828.48	10.00	6.86	11.08
5,202.78	42.96	92.691	4,642.00	498.74	1,870.34	1,830.37	10.00	7.13	10.30
MNCS_E									
5,250.00	46.43	97.251	4,675.57	495.83	1,903.40	1,863.56	10.00	7.34	9.66
5,284.85	49.09	100.286	4,699.00	491.88	1,928.89	1,889.26	10.00	7.65	8.71
MNCS_F									
5,300.00	50.28	101.528	4,708.80	489.69	1,940.23	1,900.73	10.00	7.80	8.20
5,350.00	54.26	105.345	4,739.40	480.48	1,978.67	1,939.72	10.00	7.97	7.63
5,400.00	58.36	108.792	4,767.13	468.24	2,018.41	1,980.23	10.00	8.19	6.90
5,415.27	59.63	109.784	4,775.00	463.92	2,030.77	1,992.86	10.00	8.31	6.49
MNCS_G									
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	1,996.55	10.00	8.34	6.38
Begin 60.00° tangent									
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	2,046.50	0.00	0.00	0.00
Begin 10°/100' build									
5,500.00	62.03	110.067	4,817.06	438.69	2,099.85	2,063.56	10.00	10.00	0.00
5,526.63	64.69	110.067	4,829.00	430.52	2,122.20	2,086.43	10.00	10.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
MNCS_H									
5,550.00	67.03	110.067	4,838.56	423.21	2,142.24	2,106.93	10.00	10.00	0.00
5,600.00	72.03	110.067	4,856.04	407.14	2,186.22	2,151.94	10.00	10.00	0.00
5,650.00	77.03	110.067	4,869.37	390.61	2,231.47	2,198.25	10.00	10.00	0.00
5,700.00	82.03	110.067	4,878.46	373.74	2,277.64	2,245.49	10.00	10.00	0.00
5,750.00	87.03	110.067	4,883.22	356.67	2,324.37	2,293.32	10.00	10.00	0.00
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	2,322.72	10.00	10.00	0.00
Begin 90.09° lateral									
5,800.00	90.09	110.067	4,883.96	339.52	2,371.33	2,341.37	0.00	0.00	0.00
5,900.00	90.09	110.067	4,883.81	305.21	2,465.25	2,437.49	0.00	0.00	0.00
6,000.00	90.09	110.067	4,883.65	270.90	2,559.18	2,533.61	0.00	0.00	0.00
6,100.00	90.09	110.067	4,883.50	236.58	2,653.11	2,629.73	0.00	0.00	0.00
6,200.00	90.09	110.067	4,883.34	202.27	2,747.04	2,725.85	0.00	0.00	0.00
6,300.00	90.09	110.067	4,883.19	167.96	2,840.97	2,821.97	0.00	0.00	0.00
6,400.00	90.09	110.067	4,883.03	133.64	2,934.90	2,918.09	0.00	0.00	0.00
6,500.00	90.09	110.067	4,882.88	99.33	3,028.83	3,014.21	0.00	0.00	0.00
6,600.00	90.09	110.067	4,882.72	65.02	3,122.76	3,110.33	0.00	0.00	0.00
6,700.00	90.09	110.067	4,882.57	30.71	3,216.68	3,206.45	0.00	0.00	0.00
6,800.00	90.09	110.067	4,882.41	-3.61	3,310.61	3,302.57	0.00	0.00	0.00
6,900.00	90.09	110.067	4,882.26	-37.92	3,404.54	3,398.70	0.00	0.00	0.00
7,000.00	90.09	110.067	4,882.10	-72.23	3,498.47	3,494.82	0.00	0.00	0.00
7,100.00	90.09	110.067	4,881.95	-106.54	3,592.40	3,590.94	0.00	0.00	0.00
7,200.00	90.09	110.067	4,881.79	-140.86	3,686.33	3,687.06	0.00	0.00	0.00
7,300.00	90.09	110.067	4,881.64	-175.17	3,780.26	3,783.18	0.00	0.00	0.00
7,400.00	90.09	110.067	4,881.48	-209.48	3,874.19	3,879.30	0.00	0.00	0.00
7,500.00	90.09	110.067	4,881.33	-243.79	3,968.12	3,975.42	0.00	0.00	0.00
7,600.00	90.09	110.067	4,881.17	-278.11	4,062.04	4,071.54	0.00	0.00	0.00
7,700.00	90.09	110.067	4,881.02	-312.42	4,155.97	4,167.66	0.00	0.00	0.00
7,800.00	90.09	110.067	4,880.86	-346.73	4,249.90	4,263.78	0.00	0.00	0.00
7,900.00	90.09	110.067	4,880.71	-381.04	4,343.83	4,359.90	0.00	0.00	0.00
8,000.00	90.09	110.067	4,880.55	-415.36	4,437.76	4,456.02	0.00	0.00	0.00
8,100.00	90.09	110.067	4,880.40	-449.67	4,531.69	4,552.15	0.00	0.00	0.00
8,200.00	90.09	110.067	4,880.24	-483.98	4,625.62	4,648.27	0.00	0.00	0.00
8,300.00	90.09	110.067	4,880.09	-518.29	4,719.55	4,744.39	0.00	0.00	0.00
8,400.00	90.09	110.067	4,879.93	-552.61	4,813.47	4,840.51	0.00	0.00	0.00
8,500.00	90.09	110.067	4,879.78	-586.92	4,907.40	4,936.63	0.00	0.00	0.00
8,600.00	90.09	110.067	4,879.62	-621.23	5,001.33	5,032.75	0.00	0.00	0.00
8,700.00	90.09	110.067	4,879.47	-655.54	5,095.26	5,128.87	0.00	0.00	0.00
8,800.00	90.09	110.067	4,879.31	-689.86	5,189.19	5,224.99	0.00	0.00	0.00
8,900.00	90.09	110.067	4,879.16	-724.17	5,283.12	5,321.11	0.00	0.00	0.00
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	5,419.98	0.00	0.00	0.00
Begin 4°/100' turn									
9,100.00	90.03	106.182	4,878.90	-789.68	5,472.04	5,514.19	4.00	-0.06	-4.00
9,200.00	89.98	102.182	4,878.88	-814.17	5,568.97	5,612.61	4.00	-0.06	-4.00
9,300.00	89.92	98.183	4,878.97	-831.85	5,667.37	5,712.02	4.00	-0.06	-4.00
9,400.00	89.87	94.183	4,879.15	-842.62	5,766.77	5,811.93	4.00	-0.06	-4.00
9,500.00	89.81	90.184	4,879.43	-846.42	5,866.68	5,911.86	4.00	-0.05	-4.00
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	5,937.24	4.00	-0.05	-4.00
Begin 89.80° lateral									
9,600.00	89.80	89.166	4,879.77	-845.19	5,966.67	6,011.51	0.00	0.00	0.00
9,700.00	89.80	89.166	4,880.12	-843.74	6,066.66	6,111.15	0.00	0.00	0.00
9,800.00	89.80	89.166	4,880.47	-842.28	6,166.65	6,210.78	0.00	0.00	0.00
9,900.00	89.80	89.166	4,880.82	-840.83	6,266.64	6,310.42	0.00	0.00	0.00

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned 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)
10,000.00	89.80	89.166	4,881.17	-839.37	6,366.62	6,410.05	0.00	0.00	0.00
10,100.00	89.80	89.166	4,881.52	-837.91	6,466.61	6,509.69	0.00	0.00	0.00
10,200.00	89.80	89.166	4,881.87	-836.46	6,566.60	6,609.32	0.00	0.00	0.00
10,300.00	89.80	89.166	4,882.22	-835.00	6,666.59	6,708.96	0.00	0.00	0.00
10,400.00	89.80	89.166	4,882.56	-833.54	6,766.58	6,808.59	0.00	0.00	0.00
10,500.00	89.80	89.166	4,882.91	-832.09	6,866.57	6,908.23	0.00	0.00	0.00
10,600.00	89.80	89.166	4,883.26	-830.63	6,966.56	7,007.86	0.00	0.00	0.00
10,700.00	89.80	89.166	4,883.61	-829.18	7,066.55	7,107.50	0.00	0.00	0.00
10,800.00	89.80	89.166	4,883.96	-827.72	7,166.53	7,207.13	0.00	0.00	0.00
10,811.64	89.80	89.166	4,884.00	-827.55	7,178.18	7,218.74	0.00	0.00	0.00
MNCS_I									
10,900.00	89.80	89.166	4,884.31	-826.26	7,266.52	7,306.77	0.00	0.00	0.00
11,000.00	89.80	89.166	4,884.66	-824.81	7,366.51	7,406.40	0.00	0.00	0.00
11,100.00	89.80	89.166	4,885.01	-823.35	7,466.50	7,506.04	0.00	0.00	0.00
11,200.00	89.80	89.166	4,885.36	-821.89	7,566.49	7,605.68	0.00	0.00	0.00
11,300.00	89.80	89.166	4,885.70	-820.44	7,666.48	7,705.31	0.00	0.00	0.00
11,400.00	89.80	89.166	4,886.05	-818.98	7,766.47	7,804.95	0.00	0.00	0.00
11,500.00	89.80	89.166	4,886.40	-817.52	7,866.46	7,904.58	0.00	0.00	0.00
11,600.00	89.80	89.166	4,886.75	-816.07	7,966.45	8,004.22	0.00	0.00	0.00
11,700.00	89.80	89.166	4,887.10	-814.61	8,066.43	8,103.85	0.00	0.00	0.00
11,800.00	89.80	89.166	4,887.45	-813.16	8,166.42	8,203.49	0.00	0.00	0.00
11,900.00	89.80	89.166	4,887.80	-811.70	8,266.41	8,303.12	0.00	0.00	0.00
12,000.00	89.80	89.166	4,888.15	-810.24	8,366.40	8,402.76	0.00	0.00	0.00
12,100.00	89.80	89.166	4,888.50	-808.79	8,466.39	8,502.39	0.00	0.00	0.00
12,200.00	89.80	89.166	4,888.84	-807.33	8,566.38	8,602.03	0.00	0.00	0.00
12,300.00	89.80	89.166	4,889.19	-805.87	8,666.37	8,701.66	0.00	0.00	0.00
12,400.00	89.80	89.166	4,889.54	-804.42	8,766.36	8,801.30	0.00	0.00	0.00
12,500.00	89.80	89.166	4,889.89	-802.96	8,866.34	8,900.93	0.00	0.00	0.00
12,600.00	89.80	89.166	4,890.24	-801.51	8,966.33	9,000.57	0.00	0.00	0.00
12,700.00	89.80	89.166	4,890.59	-800.05	9,066.32	9,100.20	0.00	0.00	0.00
12,800.00	89.80	89.166	4,890.94	-798.59	9,166.31	9,199.84	0.00	0.00	0.00
12,900.00	89.80	89.166	4,891.29	-797.14	9,266.30	9,299.47	0.00	0.00	0.00
13,000.00	89.80	89.166	4,891.64	-795.68	9,366.29	9,399.11	0.00	0.00	0.00
13,100.00	89.80	89.166	4,891.98	-794.22	9,466.28	9,498.75	0.00	0.00	0.00
13,200.00	89.80	89.166	4,892.33	-792.77	9,566.27	9,598.38	0.00	0.00	0.00
13,300.00	89.80	89.166	4,892.68	-791.31	9,666.25	9,698.02	0.00	0.00	0.00
13,400.00	89.80	89.166	4,893.03	-789.85	9,766.24	9,797.65	0.00	0.00	0.00
13,500.00	89.80	89.166	4,893.38	-788.40	9,866.23	9,897.29	0.00	0.00	0.00
13,600.00	89.80	89.166	4,893.73	-786.94	9,966.22	9,996.92	0.00	0.00	0.00
13,700.00	89.80	89.166	4,894.08	-785.49	10,066.21	10,096.56	0.00	0.00	0.00
13,800.00	89.80	89.166	4,894.43	-784.03	10,166.20	10,196.19	0.00	0.00	0.00
13,900.00	89.80	89.166	4,894.78	-782.57	10,266.19	10,295.83	0.00	0.00	0.00
14,000.00	89.80	89.166	4,895.12	-781.12	10,366.18	10,395.46	0.00	0.00	0.00
14,100.00	89.80	89.166	4,895.47	-779.66	10,466.16	10,495.10	0.00	0.00	0.00
14,200.00	89.80	89.166	4,895.82	-778.20	10,566.15	10,594.73	0.00	0.00	0.00
14,300.00	89.80	89.166	4,896.17	-776.75	10,666.14	10,694.37	0.00	0.00	0.00
14,400.00	89.80	89.166	4,896.52	-775.29	10,766.13	10,794.00	0.00	0.00	0.00
14,500.00	89.80	89.166	4,896.87	-773.84	10,866.12	10,893.64	0.00	0.00	0.00
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	10,931.25	0.00	0.00	0.00
PBHL/TD 14537.75 MD 4897.00 TVD									

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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 504 Int tgt 2265 F - plan hits target center - Point	0.00	0.000	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FN - plan misses target center by 0.01ft at 5780.61ft MD (4883.99 TVD, 346.17 N, 2353.12 E) - Point	0.00	0.000	4,884.00	346.17	2,353.12	1,892,831.342	2,755,073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FN - plan hits target center - Point	0.00	0.000	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000

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
3,003.57	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 (°)
571.00	571.00	Ojo Alamo			
657.00	657.00	Kirtland			
861.00	861.00	Fruitland			
1,168.00	1,168.00	Pictured Cliffs			
1,327.09	1,327.00	Lewis			
1,588.68	1,586.00	Chacra_A			
2,801.06	2,656.00	Cliff House_Basal			
2,822.76	2,674.00	Menefee			
3,996.84	3,648.00	Point Lookout			
4,196.94	3,814.00	Mancos			
4,588.71	4,139.00	MNCS_A			
4,691.17	4,224.00	MNCS_B			
4,811.71	4,324.00	MNCS_C			
4,870.78	4,373.00	MNCS_Cms			
5,014.22	4,492.00	MNCS_D			
5,202.78	4,642.00	MNCS_E			
5,284.85	4,699.00	MNCS_F			
5,415.27	4,775.00	MNCS_G			
5,526.63	4,829.00	MNCS_H			
10,811.64	4,884.00	MNCS_I		0.00	

Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' bujild
2,331.47	2,266.43	86.33	313.81	Begin 33.94° tangent
5,059.43	4,529.50	490.38	1,782.50	Begin 10°/100' build/turn
5,419.71	4,777.23	462.61	2,034.37	Begin 60.00° tangent
5,479.71	4,807.23	444.78	2,083.18	Begin 10°/100' build
5,780.60	4,883.99	346.18	2,353.10	Begin 90.09° lateral
9,002.86	4,879.00	-759.46	5,379.73	Begin 4°/100' turn
9,525.45	4,879.51	-846.28	5,892.13	Begin 89.80° lateral
14,537.75	4,897.00	-773.29	10,903.86	PBHL/TD 14537.75 MD 4897.00 TVD

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
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Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project San Juan County, New Mexico NAD83 NM W

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

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 #504H, Surf loc: 1471 FNL 408 FEL Section 25-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,892,485.174 usft	**Latitude:**	36.201023000
	+E/-W	0.00 ft	**Easting:**	2,752,720.648 usft	**Longitude:**	-107.732908000
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	49,223.82454687

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	94.057

Plan Survey Tool Program **Date** 3/8/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,537.75	rev1 (Original Hole)	MWD OWSG MWD - Standard	

Planning Report - Geographic

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Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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	
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,331.47	33.94	74.618	2,266.43	86.33	313.81	3.00	3.00	0.00	74.62	
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	0.00	0.00	0.00	0.00	
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	10.00	7.23	9.84	58.64	
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	0.00	0.00	0.00	0.00	
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	10.00	10.00	0.00	0.00	
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	0.00	0.00	0.00	0.00	Rodeo 504 Int tgt 226
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	4.00	-0.06	-4.00	-90.79	
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	0.00	0.00	0.00	0.00	Rodeo 504 LTP 2269

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
100.00	0.00	0.000	100.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
200.00	0.00	0.000	200.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
300.00	0.00	0.000	300.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
400.00	0.00	0.000	400.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
500.00	0.00	0.000	500.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
571.00	0.00	0.000	571.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Ojo Alamo									
600.00	0.00	0.000	600.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
657.00	0.00	0.000	657.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Kirtland									
700.00	0.00	0.000	700.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
800.00	0.00	0.000	800.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
861.00	0.00	0.000	861.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Fruitland									
900.00	0.00	0.000	900.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,000.00	0.00	0.000	1,000.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,100.00	0.00	0.000	1,100.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
1,168.00	0.00	0.000	1,168.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
Pictured Cliffs									
1,200.00	0.00	0.000	1,200.00	0.00	0.00	1,892,485.174	2,752,720.648	36.201023000	-107.732908000
KOP Begin 3°/100' bujild									
1,300.00	3.00	74.618	1,299.95	0.69	2.52	1,892,485.868	2,752,723.172	36.201024900	-107.732899444
1,327.09	3.81	74.618	1,327.00	1.12	4.08	1,892,486.295	2,752,724.724	36.201026069	-107.732894181
Lewis									
1,400.00	6.00	74.618	1,399.63	2.78	10.09	1,892,487.949	2,752,730.736	36.201030595	-107.732873799
1,500.00	9.00	74.618	1,498.77	6.24	22.67	1,892,491.411	2,752,743.319	36.201040069	-107.732831136
1,588.68	11.66	74.618	1,586.00	10.45	38.00	1,892,495.628	2,752,758.650	36.201051611	-107.732779159
Chacra_A									
1,600.00	12.00	74.618	1,597.08	11.07	40.24	1,892,496.244	2,752,760.888	36.201053297	-107.732771571
1,700.00	15.00	74.618	1,694.31	17.26	62.75	1,892,502.435	2,752,783.394	36.201070241	-107.732695268
1,800.00	18.00	74.618	1,790.18	24.79	90.13	1,892,509.968	2,752,810.775	36.201090856	-107.732602435
1,900.00	21.00	74.618	1,884.43	33.65	122.31	1,892,518.821	2,752,842.956	36.201115085	-107.732493328
2,000.00	24.00	74.618	1,976.81	43.80	159.20	1,892,528.971	2,752,879.849	36.201142862	-107.732368245
2,100.00	27.00	74.618	2,067.06	55.22	200.71	1,892,540.389	2,752,921.353	36.201174109	-107.732227530
2,200.00	30.00	74.618	2,154.93	67.87	246.71	1,892,553.044	2,752,967.354	36.201208743	-107.732071567
2,300.00	33.00	74.618	2,240.18	81.73	297.08	1,892,566.902	2,753,017.727	36.201246667	-107.731900784
2,331.47	33.94	74.618	2,266.43	86.33	313.81	1,892,571.506	2,753,034.462	36.201259266	-107.731844046
Begin 33.94° tangent									
2,400.00	33.94	74.618	2,323.29	96.48	350.71	1,892,581.656	2,753,071.357	36.201287043	-107.731718956
2,500.00	33.94	74.618	2,406.24	111.29	404.55	1,892,596.467	2,753,125.195	36.201327576	-107.731536423
2,600.00	33.94	74.618	2,489.20	126.11	458.39	1,892,611.279	2,753,179.033	36.201368109	-107.731353889
2,700.00	33.94	74.618	2,572.16	140.92	512.22	1,892,626.090	2,753,232.871	36.201408641	-107.731171355
2,800.00	33.94	74.618	2,655.12	155.73	566.06	1,892,640.901	2,753,286.709	36.201449173	-107.730988821
2,801.06	33.94	74.618	2,656.00	155.89	566.63	1,892,641.058	2,753,287.281	36.201449604	-107.730986882
Cliff House_Basal									
2,822.76	33.94	74.618	2,674.00	159.10	578.32	1,892,644.272	2,753,298.963	36.201458398	-107.730947277
Menefee									
2,900.00	33.94	74.618	2,738.08	170.54	619.90	1,892,655.712	2,753,340.547	36.201489705	-107.730806287
3,000.00	33.94	74.618	2,821.04	185.35	673.74	1,892,670.524	2,753,394.385	36.201530237	-107.730623753
3,100.00	33.94	74.618	2,903.99	200.16	727.58	1,892,685.335	2,753,448.223	36.201570768	-107.730441218
3,200.00	33.94	74.618	2,986.95	214.97	781.42	1,892,700.146	2,753,502.062	36.201611299	-107.730258683
3,300.00	33.94	74.618	3,069.91	229.78	835.25	1,892,714.957	2,753,555.900	36.201651829	-107.730076148

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

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	33.94	74.618	3,152.87	244.60	889.09	1,892,729.769	2,753,609.738	36.201692360	-107.729893613
3,500.00	33.94	74.618	3,235.83	259.41	942.93	1,892,744.580	2,753,663.576	36.201732890	-107.729711078
3,600.00	33.94	74.618	3,318.79	274.22	996.77	1,892,759.391	2,753,717.414	36.201773420	-107.729528542
3,700.00	33.94	74.618	3,401.74	289.03	1,050.61	1,892,774.202	2,753,771.252	36.201813949	-107.729346006
3,800.00	33.94	74.618	3,484.70	303.84	1,104.44	1,892,789.014	2,753,825.090	36.201854479	-107.729163470
3,900.00	33.94	74.618	3,567.66	318.65	1,158.28	1,892,803.825	2,753,878.928	36.201895007	-107.728980934
3,996.84	33.94	74.618	3,648.00	333.00	1,210.42	1,892,818.169	2,753,931.067	36.201934257	-107.728804159
Point Lookout									
4,000.00	33.94	74.618	3,650.62	333.46	1,212.12	1,892,818.636	2,753,932.766	36.201935536	-107.728798398
4,100.00	33.94	74.618	3,733.58	348.27	1,265.96	1,892,833.447	2,753,986.604	36.201976065	-107.728615862
4,196.94	33.94	74.618	3,814.00	362.63	1,318.15	1,892,847.806	2,754,038.798	36.202015355	-107.728438902
Mancos									
4,200.00	33.94	74.618	3,816.53	363.09	1,319.80	1,892,848.259	2,754,040.443	36.202016593	-107.728433325
4,300.00	33.94	74.618	3,899.49	377.90	1,373.64	1,892,863.070	2,754,094.281	36.202057121	-107.728250788
4,400.00	33.94	74.618	3,982.45	392.71	1,427.47	1,892,877.881	2,754,148.119	36.202097648	-107.728068251
4,500.00	33.94	74.618	4,065.41	407.52	1,481.31	1,892,892.692	2,754,201.957	36.202138176	-107.727885714
4,588.71	33.94	74.618	4,139.00	420.66	1,529.07	1,892,905.831	2,754,249.716	36.202174126	-107.727723788
MNCS_A									
4,600.00	33.94	74.618	4,148.37	422.33	1,535.15	1,892,907.504	2,754,255.795	36.202178703	-107.727703176
4,691.17	33.94	74.618	4,224.00	435.83	1,584.23	1,892,921.007	2,754,304.879	36.202215651	-107.727536758
MNCS_B									
4,700.00	33.94	74.618	4,231.33	437.14	1,588.99	1,892,922.315	2,754,309.633	36.202219229	-107.727520639
4,800.00	33.94	74.618	4,314.28	451.95	1,642.83	1,892,937.126	2,754,363.471	36.202259756	-107.727338101
4,811.71	33.94	74.618	4,324.00	453.69	1,649.13	1,892,938.861	2,754,369.777	36.202264502	-107.727316723
MNCS_C									
4,870.78	33.94	74.618	4,373.00	462.44	1,680.93	1,892,947.609	2,754,401.577	36.202288439	-107.727208905
MNCS_Cms									
4,900.00	33.94	74.618	4,397.24	466.76	1,696.66	1,892,951.937	2,754,417.309	36.202300282	-107.727155563
5,000.00	33.94	74.618	4,480.20	481.58	1,750.50	1,892,966.749	2,754,471.147	36.202340808	-107.726973025
5,014.22	33.94	74.618	4,492.00	483.68	1,758.16	1,892,968.855	2,754,478.805	36.202346572	-107.726947062
MNCS_D									
5,059.43	33.94	74.618	4,529.50	490.38	1,782.50	1,892,975.550	2,754,503.142	36.202364891	-107.726864548
Begin 10°/100' build/turn									
5,100.00	36.20	80.490	4,562.71	495.36	1,805.25	1,892,980.537	2,754,525.890	36.202378521	-107.726787424
5,150.00	39.33	86.864	4,602.25	498.67	1,835.65	1,892,983.846	2,754,556.293	36.202387518	-107.726684361
5,200.00	42.76	92.405	4,639.97	498.83	1,868.45	1,892,984.000	2,754,589.095	36.202387844	-107.726573180
5,202.78	42.96	92.691	4,642.00	498.74	1,870.34	1,892,983.916	2,754,590.981	36.202387608	-107.726566786
MNCS_E									
5,250.00	46.43	97.251	4,675.57	495.83	1,903.40	1,892,981.000	2,754,624.045	36.202379495	-107.726454729
5,284.85	49.09	100.286	4,699.00	491.88	1,928.89	1,892,977.053	2,754,649.534	36.202368577	-107.726368347
MNCS_F									
5,300.00	50.28	101.528	4,708.80	489.69	1,940.23	1,892,974.867	2,754,660.877	36.202362536	-107.726329910
5,350.00	54.26	105.345	4,739.40	480.48	1,978.67	1,892,965.648	2,754,699.312	36.202337094	-107.726199671
5,400.00	58.36	108.792	4,767.13	468.24	2,018.41	1,892,953.413	2,754,739.056	36.202303365	-107.726065004
5,415.27	59.63	109.784	4,775.00	463.92	2,030.77	1,892,949.088	2,754,751.412	36.202291446	-107.726023138
MNCS_G									
5,419.71	60.00	110.067	4,777.23	462.61	2,034.37	1,892,947.782	2,754,755.017	36.202287845	-107.726010926
Begin 60.00° tangent									
5,479.71	60.00	110.067	4,807.23	444.78	2,083.18	1,892,929.953	2,754,803.824	36.202238719	-107.725845563
Begin 10°/100' build									
5,500.00	62.03	110.067	4,817.06	438.69	2,099.85	1,892,923.863	2,754,820.494	36.202221939	-107.725789082
5,526.63	64.69	110.067	4,829.00	430.52	2,122.20	1,892,915.697	2,754,842.848	36.202199439	-107.725713345
MNCS_H									

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,550.00	67.03	110.067	4,838.56	423.21	2,142.24	1,892,908.380	2,754,862.880	36.202179275	-107.725645473
5,600.00	72.03	110.067	4,856.04	407.14	2,186.22	1,892,892.312	2,754,906.865	36.202135002	-107.725496449
5,650.00	77.03	110.067	4,869.37	390.61	2,231.47	1,892,875.783	2,754,952.113	36.202089456	-107.725343143
5,700.00	82.03	110.067	4,878.46	373.74	2,277.64	1,892,858.918	2,754,998.281	36.202042985	-107.725186723
5,750.00	87.03	110.067	4,883.22	356.67	2,324.37	1,892,841.845	2,755,045.017	36.201995942	-107.725028379
5,780.60	90.09	110.067	4,883.99	346.18	2,353.10	1,892,831.351	2,755,073.744	36.201967025	-107.724931049
Begin 90.09° lateral									
5,800.00	90.09	110.067	4,883.96	339.52	2,371.33	1,892,824.693	2,755,091.969	36.201948680	-107.724869302
5,900.00	90.09	110.067	4,883.81	305.21	2,465.25	1,892,790.381	2,755,185.897	36.201854132	-107.724551065
6,000.00	90.09	110.067	4,883.65	270.90	2,559.18	1,892,756.068	2,755,279.826	36.201759582	-107.724232828
6,100.00	90.09	110.067	4,883.50	236.58	2,653.11	1,892,721.756	2,755,373.754	36.201665032	-107.723914592
6,200.00	90.09	110.067	4,883.34	202.27	2,747.04	1,892,687.443	2,755,467.683	36.201570480	-107.723596357
6,300.00	90.09	110.067	4,883.19	167.96	2,840.97	1,892,653.131	2,755,561.612	36.201475928	-107.723278123
6,400.00	90.09	110.067	4,883.03	133.64	2,934.90	1,892,618.818	2,755,655.540	36.201381375	-107.722959890
6,500.00	90.09	110.067	4,882.88	99.33	3,028.83	1,892,584.506	2,755,749.469	36.201286821	-107.722641657
6,600.00	90.09	110.067	4,882.72	65.02	3,122.76	1,892,550.193	2,755,843.398	36.201192267	-107.722323425
6,700.00	90.09	110.067	4,882.57	30.71	3,216.68	1,892,515.881	2,755,937.326	36.201097711	-107.722005194
6,800.00	90.09	110.067	4,882.41	-3.61	3,310.61	1,892,481.568	2,756,031.255	36.201003155	-107.721686964
6,900.00	90.09	110.067	4,882.26	-37.92	3,404.54	1,892,447.256	2,756,125.183	36.200908598	-107.721368734
7,000.00	90.09	110.067	4,882.10	-72.23	3,498.47	1,892,412.943	2,756,219.112	36.200814040	-107.721050505
7,100.00	90.09	110.067	4,881.95	-106.54	3,592.40	1,892,378.631	2,756,313.041	36.200719481	-107.720732277
7,200.00	90.09	110.067	4,881.79	-140.86	3,686.33	1,892,344.318	2,756,406.969	36.200624921	-107.720414050
7,300.00	90.09	110.067	4,881.64	-175.17	3,780.26	1,892,310.006	2,756,500.898	36.200530361	-107.720095823
7,400.00	90.09	110.067	4,881.48	-209.48	3,874.19	1,892,275.693	2,756,594.827	36.200435799	-107.719777598
7,500.00	90.09	110.067	4,881.33	-243.79	3,968.12	1,892,241.381	2,756,688.755	36.200341237	-107.719459373
7,600.00	90.09	110.067	4,881.17	-278.11	4,062.04	1,892,207.068	2,756,782.684	36.200246674	-107.719141148
7,700.00	90.09	110.067	4,881.02	-312.42	4,155.97	1,892,172.756	2,756,876.612	36.200152110	-107.718822926
7,800.00	90.09	110.067	4,880.86	-346.73	4,249.90	1,892,138.443	2,756,970.541	36.200057545	-107.718504703
7,900.00	90.09	110.067	4,880.71	-381.04	4,343.83	1,892,104.131	2,757,064.470	36.199962979	-107.718186481
8,000.00	90.09	110.067	4,880.55	-415.36	4,437.76	1,892,069.818	2,757,158.398	36.199868413	-107.717868260
8,100.00	90.09	110.067	4,880.40	-449.67	4,531.69	1,892,035.506	2,757,252.327	36.199773846	-107.717550040
8,200.00	90.09	110.067	4,880.24	-483.98	4,625.62	1,892,001.193	2,757,346.256	36.199679277	-107.717231820
8,300.00	90.09	110.067	4,880.09	-518.29	4,719.55	1,891,966.881	2,757,440.184	36.199584708	-107.716913601
8,400.00	90.09	110.067	4,879.93	-552.61	4,813.47	1,891,932.568	2,757,534.113	36.199490139	-107.716595383
8,500.00	90.09	110.067	4,879.78	-586.92	4,907.40	1,891,898.256	2,757,628.042	36.199395568	-107.716277166
8,600.00	90.09	110.067	4,879.62	-621.23	5,001.33	1,891,863.943	2,757,721.970	36.199300996	-107.715958949
8,700.00	90.09	110.067	4,879.47	-655.54	5,095.26	1,891,829.631	2,757,815.899	36.199206424	-107.715640734
8,800.00	90.09	110.067	4,879.31	-689.86	5,189.19	1,891,795.318	2,757,909.827	36.199111851	-107.715322519
8,900.00	90.09	110.067	4,879.16	-724.17	5,283.12	1,891,761.006	2,758,003.756	36.199017277	-107.715004304
9,002.86	90.09	110.067	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Begin 4°/100' turn									
9,100.00	90.03	106.182	4,878.90	-789.68	5,472.04	1,891,695.499	2,758,192.673	36.198836688	-107.714364273
9,200.00	89.98	102.182	4,878.88	-814.17	5,568.97	1,891,671.003	2,758,289.605	36.198769069	-107.714035840
9,300.00	89.92	98.183	4,878.97	-831.85	5,667.37	1,891,653.328	2,758,388.010	36.198720181	-107.713702388
9,400.00	89.87	94.183	4,879.15	-842.62	5,766.77	1,891,642.560	2,758,487.408	36.198690262	-107.713365542
9,500.00	89.81	90.184	4,879.43	-846.42	5,866.68	1,891,638.751	2,758,587.314	36.198679458	-107.713026943
9,525.45	89.80	89.166	4,879.51	-846.28	5,892.13	1,891,638.895	2,758,612.766	36.198679769	-107.712940678
Begin 89.80° lateral									
9,600.00	89.80	89.166	4,879.77	-845.19	5,966.67	1,891,639.981	2,758,687.305	36.198682497	-107.712688038
9,700.00	89.80	89.166	4,880.12	-843.74	6,066.66	1,891,641.437	2,758,787.293	36.198686155	-107.712349138
9,800.00	89.80	89.166	4,880.47	-842.28	6,166.65	1,891,642.894	2,758,887.282	36.198689813	-107.712010239
9,900.00	89.80	89.166	4,880.82	-840.83	6,266.64	1,891,644.350	2,758,987.271	36.198693469	-107.711671339
10,000.00	89.80	89.166	4,881.17	-839.37	6,366.62	1,891,645.806	2,759,087.259	36.198697125	-107.711332439
10,100.00	89.80	89.166	4,881.52	-837.91	6,466.61	1,891,647.262	2,759,187.248	36.198700780	-107.710993539

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Rodeo Unit #504H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,200.00	89.80	89.166	4,881.87	-836.46	6,566.60	1,891,648.719	2,759,287.236	36.198704433	-107.710654640
10,300.00	89.80	89.166	4,882.22	-835.00	6,666.59	1,891,650.175	2,759,387.225	36.198708086	-107.710315740
10,400.00	89.80	89.166	4,882.56	-833.54	6,766.58	1,891,651.631	2,759,487.214	36.198711738	-107.709976840
10,500.00	89.80	89.166	4,882.91	-832.09	6,866.57	1,891,653.088	2,759,587.202	36.198715389	-107.709637940
10,600.00	89.80	89.166	4,883.26	-830.63	6,966.56	1,891,654.544	2,759,687.191	36.198719039	-107.709299040
10,700.00	89.80	89.166	4,883.61	-829.18	7,066.55	1,891,656.000	2,759,787.179	36.198722688	-107.708960140
10,800.00	89.80	89.166	4,883.96	-827.72	7,166.53	1,891,657.457	2,759,887.168	36.198726336	-107.708621241
10,811.64	89.80	89.166	4,884.00	-827.55	7,178.18	1,891,657.626	2,759,898.811	36.198726760	-107.708581777
MNCS_I									
10,900.00	89.80	89.166	4,884.31	-826.26	7,266.52	1,891,658.913	2,759,987.156	36.198729983	-107.708282341
11,000.00	89.80	89.166	4,884.66	-824.81	7,366.51	1,891,660.369	2,760,087.145	36.198733629	-107.707943441
11,100.00	89.80	89.166	4,885.01	-823.35	7,466.50	1,891,661.825	2,760,187.134	36.198737274	-107.707604541
11,200.00	89.80	89.166	4,885.36	-821.89	7,566.49	1,891,663.282	2,760,287.122	36.198740918	-107.707265641
11,300.00	89.80	89.166	4,885.70	-820.44	7,666.48	1,891,664.738	2,760,387.111	36.198744561	-107.706926741
11,400.00	89.80	89.166	4,886.05	-818.98	7,766.47	1,891,666.194	2,760,487.099	36.198748203	-107.706587840
11,500.00	89.80	89.166	4,886.40	-817.52	7,866.46	1,891,667.651	2,760,587.088	36.198751845	-107.706248940
11,600.00	89.80	89.166	4,886.75	-816.07	7,966.45	1,891,669.107	2,760,687.076	36.198755485	-107.705910040
11,700.00	89.80	89.166	4,887.10	-814.61	8,066.43	1,891,670.563	2,760,787.065	36.198759124	-107.705571140
11,800.00	89.80	89.166	4,887.45	-813.16	8,166.42	1,891,672.020	2,760,887.054	36.198762763	-107.705232240
11,900.00	89.80	89.166	4,887.80	-811.70	8,266.41	1,891,673.476	2,760,987.042	36.198766400	-107.704893340
12,000.00	89.80	89.166	4,888.15	-810.24	8,366.40	1,891,674.932	2,761,087.031	36.198770037	-107.704554439
12,100.00	89.80	89.166	4,888.50	-808.79	8,466.39	1,891,676.389	2,761,187.019	36.198773672	-107.704215539
12,200.00	89.80	89.166	4,888.84	-807.33	8,566.38	1,891,677.845	2,761,287.008	36.198777307	-107.703876639
12,300.00	89.80	89.166	4,889.19	-805.87	8,666.37	1,891,679.301	2,761,386.997	36.198780940	-107.703537738
12,400.00	89.80	89.166	4,889.54	-804.42	8,766.36	1,891,680.757	2,761,486.985	36.198784573	-107.703198838
12,500.00	89.80	89.166	4,889.89	-802.96	8,866.34	1,891,682.214	2,761,586.974	36.198788205	-107.702859937
12,600.00	89.80	89.166	4,890.24	-801.51	8,966.33	1,891,683.670	2,761,686.962	36.198791835	-107.702521037
12,700.00	89.80	89.166	4,890.59	-800.05	9,066.32	1,891,685.126	2,761,786.951	36.198795465	-107.702182137
12,800.00	89.80	89.166	4,890.94	-798.59	9,166.31	1,891,686.583	2,761,886.939	36.198799094	-107.701843236
12,900.00	89.80	89.166	4,891.29	-797.14	9,266.30	1,891,688.039	2,761,986.928	36.198802722	-107.701504336
13,000.00	89.80	89.166	4,891.64	-795.68	9,366.29	1,891,689.495	2,762,086.917	36.198806349	-107.701165435
13,100.00	89.80	89.166	4,891.98	-794.22	9,466.28	1,891,690.952	2,762,186.905	36.198809974	-107.700826534
13,200.00	89.80	89.166	4,892.33	-792.77	9,566.27	1,891,692.408	2,762,286.894	36.198813599	-107.700487634
13,300.00	89.80	89.166	4,892.68	-791.31	9,666.25	1,891,693.864	2,762,386.882	36.198817223	-107.700148733
13,400.00	89.80	89.166	4,893.03	-789.85	9,766.24	1,891,695.320	2,762,486.871	36.198820846	-107.699809833
13,500.00	89.80	89.166	4,893.38	-788.40	9,866.23	1,891,696.777	2,762,586.860	36.198824468	-107.699470932
13,600.00	89.80	89.166	4,893.73	-786.94	9,966.22	1,891,698.233	2,762,686.848	36.198828090	-107.699132031
13,700.00	89.80	89.166	4,894.08	-785.49	10,066.21	1,891,699.689	2,762,786.837	36.198831710	-107.698793130
13,800.00	89.80	89.166	4,894.43	-784.03	10,166.20	1,891,701.146	2,762,886.825	36.198835329	-107.698454230
13,900.00	89.80	89.166	4,894.78	-782.57	10,266.19	1,891,702.602	2,762,986.814	36.198838947	-107.698115329
14,000.00	89.80	89.166	4,895.12	-781.12	10,366.18	1,891,704.058	2,763,086.802	36.198842564	-107.697776428
14,100.00	89.80	89.166	4,895.47	-779.66	10,466.16	1,891,705.515	2,763,186.791	36.198846181	-107.697437527
14,200.00	89.80	89.166	4,895.82	-778.20	10,566.15	1,891,706.971	2,763,286.780	36.198849796	-107.697098626
14,300.00	89.80	89.166	4,896.17	-776.75	10,666.14	1,891,708.427	2,763,386.768	36.198853411	-107.696759725
14,400.00	89.80	89.166	4,896.52	-775.29	10,766.13	1,891,709.883	2,763,486.757	36.198857024	-107.696420824
14,500.00	89.80	89.166	4,896.87	-773.84	10,866.12	1,891,711.340	2,763,586.745	36.198860636	-107.696081923
14,537.75	89.80	89.166	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000
PBHL/TD 14537.75 MD 4897.00 TVD									

Planning Report - Geographic

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Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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 504 Int tgt 2265 F - plan hits target center - Point	0.00	0.000	4,879.00	-759.46	5,379.73	1,891,725.713	2,758,100.368	36.198920000	-107.714677000
Rodeo 504 FTP 1136 FN - plan misses target center by 0.01ft at 5780.61ft MD (4883.99 TVD, 346.17 N, 2353.12 E) - Point	0.00	0.000	4,884.00	346.17	2,353.12	1,892,831.342	2,755,073.758	36.201967000	-107.724931000
Rodeo 504 LTP 2269 FN - plan hits target center - Point	0.00	0.000	4,897.00	-773.29	10,903.86	1,891,711.889	2,763,624.488	36.198862000	-107.695954000

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
3,003.57	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 (°)
571.00	571.00	Ojo Alamo			
657.00	657.00	Kirtland			
861.00	861.00	Fruitland			
1,168.00	1,168.00	Pictured Cliffs			
1,327.09	1,327.00	Lewis			
1,588.68	1,586.00	Chacra_A			
2,801.06	2,656.00	Cliff House_Basal			
2,822.76	2,674.00	Menefee			
3,996.84	3,648.00	Point Lookout			
4,196.94	3,814.00	Mancos			
4,588.71	4,139.00	MNCS_A			
4,691.17	4,224.00	MNCS_B			
4,811.71	4,324.00	MNCS_C			
4,870.78	4,373.00	MNCS_Cms			
5,014.22	4,492.00	MNCS_D			
5,202.78	4,642.00	MNCS_E			
5,284.85	4,699.00	MNCS_F			
5,415.27	4,775.00	MNCS_G			
5,526.63	4,829.00	MNCS_H			
10,811.64	4,884.00	MNCS_I		0.00	

Planning Report - Geographic

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Company:	Enduring Resources LLC	**TVD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB=6883+28 @ 6911.00ft (Ensign 773)
Site:	Rodeo Unit	**North Reference:**	Grid
Well:	Rodeo Unit #504H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

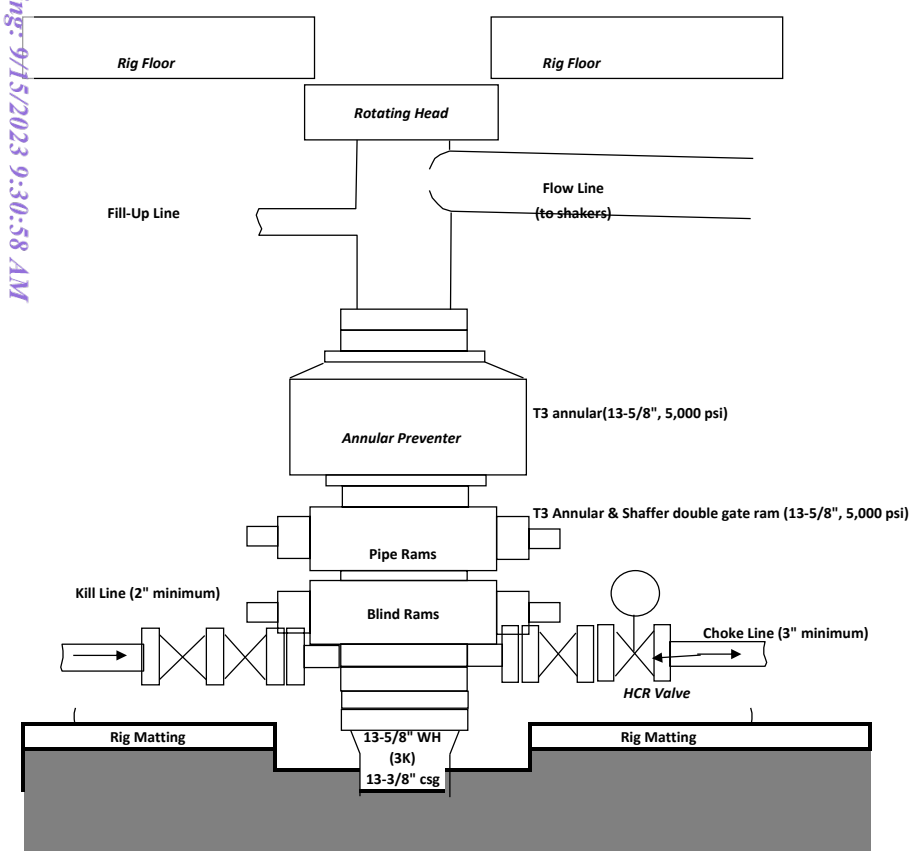
Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,200.00	1,200.00	0.00	0.00	KOP Begin 3°/100' bujild
2,331.47	2,266.43	86.33	313.81	Begin 33.94° tangent
5,059.43	4,529.50	490.38	1,782.50	Begin 10°/100' build/turn
5,419.71	4,777.23	462.61	2,034.37	Begin 60.00° tangent
5,479.71	4,807.23	444.78	2,083.18	Begin 10°/100' build
5,780.60	4,883.99	346.18	2,353.10	Begin 90.09° lateral
9,002.86	4,879.00	-759.46	5,379.73	Begin 4°/100' turn
9,525.45	4,879.51	-846.28	5,892.13	Begin 89.80° lateral
14,537.75	4,897.00	-773.29	10,903.86	PBHL/TD 14537.75 MD 4897.00 TVD

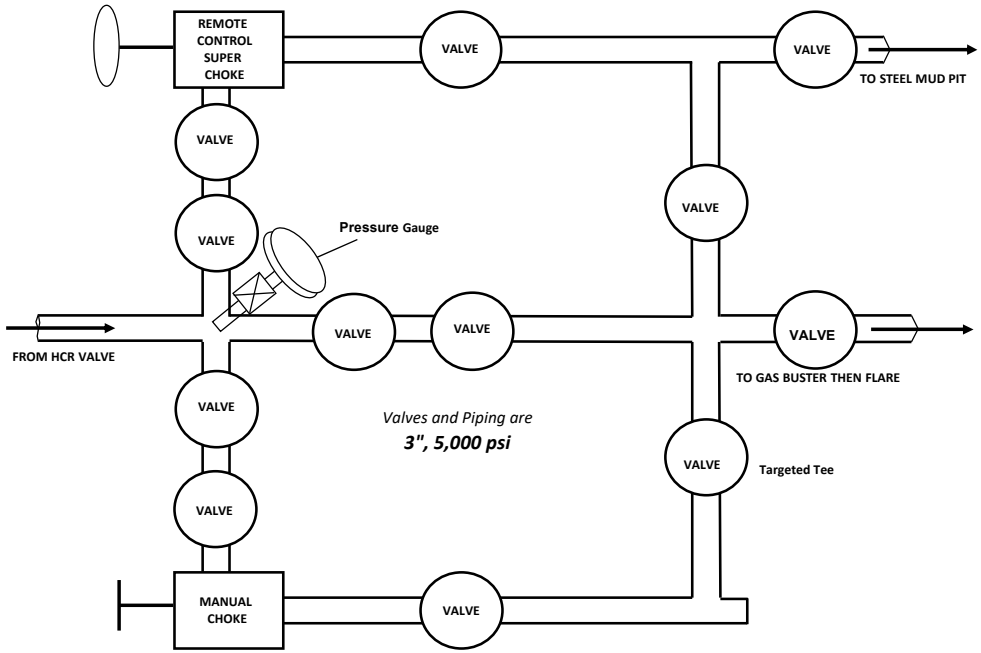
BOPE & CHOKE MANIFOLD DIAGRAMS

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
District IV
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 264783

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 264783
	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