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.: NOG13121857

6. If Indian, Allotee or Tribe Name: NAVAJO NATION

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.: Greater Lybrook / NMNM 144419X

8. Lease Name and Well No.: GREATER LYBROOK UNIT 055H

2. Name of Operator: ENDURING RESOURCES LLC

9. API Well No.: 30-045-38309

3a. Address: 200 ENERGY COURT, FARMINGTON, NM 87401

3b. Phone No. *(include area code)*: (505) 497-8574

10. Field and Pool, or Exploratory: LYBROOK MANCOS W

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NWSE / 1376 FSL / 2024 FEL / LAT 36.208945 / LONG -107.756125

At proposed prod. zone: SESE / 232 FSL / 306 FEL / LAT 36.191274 / LONG -107.735249

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 23/T23N/R9W/NMP

14. Distance in miles and direction from nearest town or post office*: 43 miles

12. County or Parish: SAN JUAN

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 655 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 640.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1120 feet

19. Proposed Depth: 4352 feet / 14941 feet

20. BLM/BIA Bond No. in file: IND:

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 6802 feet

22. Approximate date work will start*: 04/01/2022

23. Estimated duration: 30 days

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
(Electronic Submission)	KHEM SUTHIWAN / Ph: (505) 386-8205	01/14/2022

Title: Regulatory Manager

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	DAVE J MANKIEWICZ / Ph: (505) 564-7761	06/27/2023

Title	Office
AFM-Minerals	Farmington Field 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: 06/27/2023

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.

(Continued on page 3)

Approval Date: 06/27/2023

Additional Operator Remarks

Location of Well

0. SHL: NWSE / 1376 FSL / 2024 FEL / TWSP: 23N / RANGE: 9W / SECTION: 23 / LAT: 36.208945 / LONG: -107.756125 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 20 FNL / 0 FWL / TWSP: 23N / RANGE: 9W / SECTION: 25 / LAT: 36.205123 / LONG: -107.749324 (TVD: 4374 feet, MD: 7900 feet)

PPP: NENE / 20 FNL / 0 FEL / TWSP: 23N / RANGE: 9W / SECTION: 26 / LAT: 36.205123 / LONG: -107.749324 (TVD: 4374 feet, MD: 7900 feet)

PPP: SWSW / 0 FNL / 19 FEL / TWSP: 23N / RANGE: 9W / SECTION: 24 / LAT: 36.205177 / LONG: -107.749389 (TVD: 4375 feet, MD: 7800 feet)

PPP: NWSE / 2027 FSL / 2032 FEL / TWSP: 23N / RANGE: 9W / SECTION: 23 / LAT: 36.210734 / LONG: -107.756122 (TVD: 4384 feet, MD: 5014 feet)

BHL: SESE / 232 FSL / 306 FEL / TWSP: 23N / RANGE: 9W / SECTION: 25 / LAT: 36.191274 / LONG: -107.735249 (TVD: 4352 feet, MD: 14941 feet)

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.

The holder or its contractors will notify the BLM of any fires and comply with all rules and regulations administered by the BLM concerning the use, prevention and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The holder or its contractors may be held liable for the cost of fire suppression, stabilization and rehabilitation. In the event of a fire, personal safety will be the first priority of the holder or its contractors.

The holder or its contractors shall:

1. Operate all internal and external combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with a qualified spark arrester. Qualified spark arresters are maintained and not modified, and meet the Society of Automotive Engineers (SAE) Recommended Practices J335 or J350. Refer to 43 CFR §8343.1.
    a. *Refueling of any combustible engine equipment must be minimum of 3 meters away from any ignition source (open flame, smoking, etc.).*
2. Maintain and clean all equipment regularly to remove flammable debris buildup and prevent fluid leaks that can lead to ignitions.
3. Carry at least one shovel or wildland fire hand tool (combi, Pulaski, McLeod) per person working, minimum 5 gallons of water, and a fire extinguisher rated at a minimum as ABC - 10 pound on each piece of equipment and each vehicle.
4. When conducting "hotwork" such as, but not limited to welding, grinding, cutting, spark-producing work with metal, work that creates hot material or slag; choose an area large enough to contain all hot material that is naturally free of all flammable vegetation or remove the flammable vegetation in a manner compliant with the permitted activity. If adequate clearance cannot be made, wet an area large enough to contain all hot material prior to the activity and periodically throughout the activity to reduce the risk of wildfire ignition. Regardless of clearance, maintain readiness to respond to an ignition at all times. In addition, keep one hand tool per person and at least one fire extinguisher ready, minimum, as specified earlier (#3) during this activity.
5. Keep apprised of current and forecasted weather at https://www.weather.gov/abq/forecasts-fireweather-links and fire conditions at www.wfas.net and take additional fire precautions when fire danger is rated High or greater. Red Flag Warnings are issued by the National Weather Service when fire conditions are most dangerous, and ignitions escape control quickly. Extra precautions are required during these warnings such as additional water, designate a fire watch/patrol and tools. If work is being conducted in an area that is not clear of vegetation within 50 feet of work area; then, when fire danger is rated High or greater and 1. There is a predicted Red Flag warning for your area or 2. If winds are predicted to be greater than 10 mph, stop all hotwork activities for the day at 10 am.
6. In the event of an ignition, initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If a fire spreads beyond the capability of workers with the stipulated tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.
7. Call **911** or the **Taos Interagency Fire Dispatch Center (575-758-6208)** immediately of the location and status of any fire.

    AND

    Notify the respective BLM field office for which the permit or contract was issued immediately of the incident.
    Farmington Field Office at 505-564-7600
    Taos Field Office at 575-758-8851

CONDITIONS OF APPROVAL

Operator:	**Enduring Resources, LLC**
Well Name:	**Greater Lybrook Unit (GLU) 053 Nos. 053H, 054H, 055H, 056H, 057H and One Future Well Oil and Natural Gas Project (GLU 053) Wells Project**
EA Number:	**DOI-BLM-NM-F010-2023-0040-EA**
Lease Number:	**N0G13121857 & NMNM144419X**

The following conditions of approval will apply to the Greater Lybrook Unit (GLU) 053 Oil and Natural Gas Well Project wells pad, access roads and pipeline 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 the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2.

Special Stipulations

Copy of COA's: A copy of these stipulations, including exhibits and the Plan(s) of Operation (if required), shall be on the project area and available to person directing equipment.

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff at (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project. The operator or their contractor will contact the grazing permittee to give notice at least 10 days prior to start of construction operations.

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 in excess of 6 inches deep, the soil shall be deemed too wet.

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.

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 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.

Design Features

Enduring would adhere to any conditions required by the BLM FFO. Additional project-specific design features would be included as determined during the BLM on-site meeting. Enduring has also committed to the following design features and BMPs to lessen impacts to resources. Where applicable, additional details related to the design features may be found in the APDs on file at the BLM FFO.

Air Resources

- Areas not required for facilities would be revegetated during interim reclamation.
- Dirt roads would be watered during periods of high use (magnesium chloride, organic-based compounds, and/or polymer compounds could also be used on dirt roads upon approval of the BLM).
- BMPs provided in The Gold Book would be implemented for proposed and existing roads (BLM and U.S. Forest Service 2007).
- Where applicable, compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NO_x at 2 grams per horsepower hour or less to comply with the NMED, Air Quality Bureau's guidance.

Water Resources

- To prevent erosion, certain areas surrounding the proposed site would be recontoured during interim reclamation.
- Culverts and silt traps would be installed as appropriate, and locations would be determined during the BLM on-site and/or facility on-site visits.

Wildlife, Migratory Birds, and Special-Status Species

- Any wildlife encountered within the proposed project area would be avoided and allowed to move out of the proposed project area. No wildlife would be intentionally harmed or harassed.
- Wildlife hazards, such as storage tanks, associated with the proposed project would be fenced or covered, as necessary.
- Because the proposed project would disturb more than 4.0 acres of vegetation, migratory breeding bird nesting surveys would be required if construction activities are scheduled to occur during the migratory bird nesting season (May 15–July 31). If an active nest is encountered, it would be avoided (avoidance buffer to be determined by BLM FFO) and left undisturbed until the nest has failed, or nestlings have fledged. If present, an inactive nest could be cleared by a BLM FFO–approved wildlife biologist.
- Enduring would notify the BLM and U.S. Fish and Wildlife Service (USFWS) upon discovery of a dead or injured migratory bird, bald eagle (*Haliaeetus leucocephalus*), or golden eagle (*Aquila chrysaetos*) within or adjacent to the proposed project area. If the BLM becomes aware of such mortality or injury, the BLM will inform Enduring. If Enduring fails to notify the USFWS of the mortality or injury, the BLM would notify the USFWS. The BLM and the USFWS would then attempt to determine the cause of mortality and identify appropriate mitigation measures to avoid future occurrences.
- Should other special-status species be observed within the proposed project area prior to or during the proposed project, construction would cease, and the BLM FFO would be immediately contacted. The BLM FFO would then evaluate the resource. Should a discovery be evaluated as significant (protected under the Endangered Species Act, etc.), it would be protected in place

until mitigation could be developed and implemented according to guidelines set by the BLM FFO.

- Per BLM FFO Instruction Memorandum No. NM-200-2008-001 (BLM 2008b), an updated pre-construction biological survey could be required for the proposed project if vegetation removal would occur more than 1 year following the previous biological survey.

Soil, Upland Vegetation, and Noxious Weeds and Invasive Species

- 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.
- Reclamation would follow the guidance provided in the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013). These procedures are referenced in Enduring's Surface Reclamation Plan.
- During the pre-disturbance on-site meeting with BLM, a suitable vegetation community from the *Farmington Field Office Bare Soil Reclamation Procedures* (BLM 2013) would be selected by the BLM. Plant species would be chosen from the BLM FFO's seed pick list for the selected community.
- A noxious weed inventory utilizing the New Mexico Noxious Weed List (New Mexico Department of Agriculture 2020) and the U.S. Department of Agriculture's (USDA's) Federal Noxious Weed List (USDA 2010) will be conducted during the pre-disturbance on-site meeting.
- Identified noxious weeds would be treated prior to new surface disturbance, as determined by the BLM FFO Noxious Weed Specialist (505-564-7600). A pesticide use proposal (PUP) would be submitted to and approved by the BLM FFO Noxious Weed Specialist prior to application of any pesticide.
- Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an un-reclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.
- To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Cleared trees and rocks may be salvaged for redistribution over reshaped cut and-fill slopes or along linear features.
- See the above water resources section for erosion-control features.

Cultural Resources

- All cultural resources stipulations would be followed as indicated in the BLM Cultural Resource Records of Review and the conditions of approvals. These stipulations may include, but are not limited to, temporary or permanent fencing or other physical barriers, monitoring of earth-disturbing construction, project area reduction and/or specific construction avoidance zones, and employee education.

- Known sites and sites identified during the pre-construction cultural resources inventory surveys would be avoided.
- If heritage resources are discovered during the project, all work in the immediate vicinity will stop, and the district archaeologist or forest archaeologist will be notified immediately. Significant cultural resources will not be affected, archaeological clearance is recommended for the project.
- **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**.

- **EMPLOYEE EDUCATION**: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed **and educated** that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. This includes personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. They will also be notified that it is illegal to collect, damage, or disturb **historic or prehistoric** cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the **ARPA (16 U.S.C. 470aa-mm), NAGPRA (25 U.S.C. 3001-3013), and other laws, as applicable (for example, NM Stat. § 18-6-9 through § 18-6-11.2, as amended, and NM Stat. § 30-12-12, as amended).**

Paleontological Resources

If any paleontological resources are discovered during activities associated with the proposed project:

- Enduring would immediately inform the BLM Authorized Officer.
- Activities in the vicinity of the discovery would be immediately suspended until written authorization to proceed is issued by the BLM Authorized Officer.
- The discovery would be protected from damage or looting.
- The Authorized Officer would ensure evaluation of the discovery as soon as possible.
- Appropriate measures to mitigate adverse effects to significant paleontological resources would be determined by the Authorized Officer after consulting with the operator.
- Any paleontological resource discovered by the Operator, or any person working on his behalf,
- 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 and Dark Skies

- Equipment not subject to safety requirements would be painted a BLM Standard Environmental Color (Juniper Green) to minimize contrast with the surrounding landscape.
- If applicable, during reclamation, stockpiled rocks, if available, would be placed within the reclaimed area for erosion control and/or to discourage off-highway vehicle traffic (if requested by the BLM FFO). Rocks would be placed in a manner that visually blends with the adjacent, undisturbed landscape.
- Lights would be limited to those needed for safety during construction and operations.
- Lighting would be downward-facing or shielded where possible.

Livestock Grazing and Rangeland Health Standards

- Livestock grazing operators in the vicinity of the proposed project area would be contacted prior to construction.
- Safety meetings would be conducted prior to construction to increase awareness of livestock, such as the presence of open range and driving speed to avoid livestock collisions.
- To the extent feasible, construction activities would not be conducted when livestock are present within the proposed project area.
- If livestock are present during construction, barriers would be placed to ensure that livestock do not come in contact with potential hazards. Barrier examples could include fencing of exposed ditch-type holes, covering of holes when personnel are not present on-site, and containment of contaminants, fluid leaks, or hazards that could cause injury to livestock.

Public Health and Safety

- The hauling of equipment and materials on public roads would comply with New Mexico Department of Transportation regulations. Any accidents involving persons or property would be reported to the BLM FFO. Enduring would notify the public of potential hazards by posting signage, having flaggers, or using lighted signs, as necessary.
- Worker safety incidents would be reported to the BLM FFO as required under NTL–3A (BLM 2019b). Enduring would adhere to company safety policies and Occupational Safety and Health Administration regulations.
- Vehicles would be restricted to proposed and existing disturbance areas.
- The proposed site would have an informational sign, delineating operator, legal description, etc.
- Oil and gas industry traffic is expected to adhere to all posted speed limits and signs. Drivers would be appropriately licensed and inspected.

Lay-Flat Pipeline BMPs

- If a temporary lay flat line would be authorized to move water for completion activities, the lay flat will reduce the amount of truck traffic to move water. The lay flat will be authorized for no more than 60 days from the date of installation or development. Request for an extension of the 60-day authorization, would require a sundry application be submitted to the BLM-FFO including justification for the request.

- Time construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., buried pipelines, culverts) to avoid high-flow conditions. When construction disturbs a flowing stream, utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.

- Design and construct surface pipelines at drainage crossings at an adequate height above possible flood levels. Bore/bury pipeline crossings below the surface deep enough to remain undisturbed by scour and fill processes typically associated with peak flows. Complete a hydraulic analysis during the pipeline design phase to avoid repeated maintenance of such a crossing and eliminate costly repairs and potential environmental degradation associated with pipeline breaks at stream crossings. Utilize horizontal directional boring techniques below perennial water bodies and/or wetland complexes when environmental circumstances allow.

- X-ray pipeline welds within 100 feet of a perennial stream to prevent leakage into the stream. Where pipelines cross streams that support Federal or State-listed threatened or endangered species

or BLM-listed sensitive species, utilize additional safeguards (such as double-walled pipe, and remotely actuated block or check valves) on both sides of the stream.

- Avoid water courses when locating pipelines and flowlines; utilize road corridors wherever possible to minimize surface disturbance and provide better leak detection and access for installation and repair activities.
- Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an un-reclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.
- To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Cleared trees and rocks may be salvaged for redistribution over reshaped cut and-fill slopes or along linear features.

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
Greater Lybrook Unit 055H
Lease: NOG13121857 Unit: NMNM144419X
SH: NW¼SE¼ Section 23, T.23 N., R.9 W.
BH: SE¼SE¼ Section 25, T.23 N., R.9 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 the surface casing to a minimum of _____ psi for 30 minutes.

D. ☐ Test all casing strings below the surface 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.

E. ☒ 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.

Approval Date: 06/27/2023

F. ☐ 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.

I. GENERAL

A. Full compliance with all applicable laws, regulations, and Onshore Orders, 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.

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. 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 (on a Sundry Notice, Form 3160-5) within three business days (original and three copies of Federal leases and an original and four copies on Indian leases). **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 at Virgil Lucero at 505-793-1836.**

G. 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.

H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two years extension may be granted if submitted prior to expiration.

I. 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 time, unless the well is secured with blowout preventers or cement plugs.

J. 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.

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 .Original and three copies on Federal and an Original and five copies on Indian leases of Sundry Notice (Form 3150-5), giving 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 any and 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 manner in which 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 (Form 3160-4) 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.

III. DRILLER'S LOG

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

IV. GAS FLARING

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

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

V. SAFETY

A. All rig heating stoves are to be of the explosion-proof type.

B. Rig safety lines are to be installed.

C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

A. Any changes of plans required to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.

B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.

C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

VII. PHONE NUMBERS

A. For BOPE tests, cementing, and plugging operations the phone number is 505-564-7750 and must be called 24 hours in advance in order that a BLM representative may witness the operations.

B. Emergency program changes after hours contact:

Virgil Lucero (505) 793-1836
BLM 24 Hour Number (505) 564-7750

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
30-045-38309	98157	LYBROOK MANCOS W

[4] Property Code	[5] Property Name	[6] Well Number
332891	GREATER LYBROOK UNIT	055H

[7] OGRID No.	[8] Operator Name	[9] Elevation
372286	ENDURING RESOURCES, LLC	6802'

[10] Surface Location

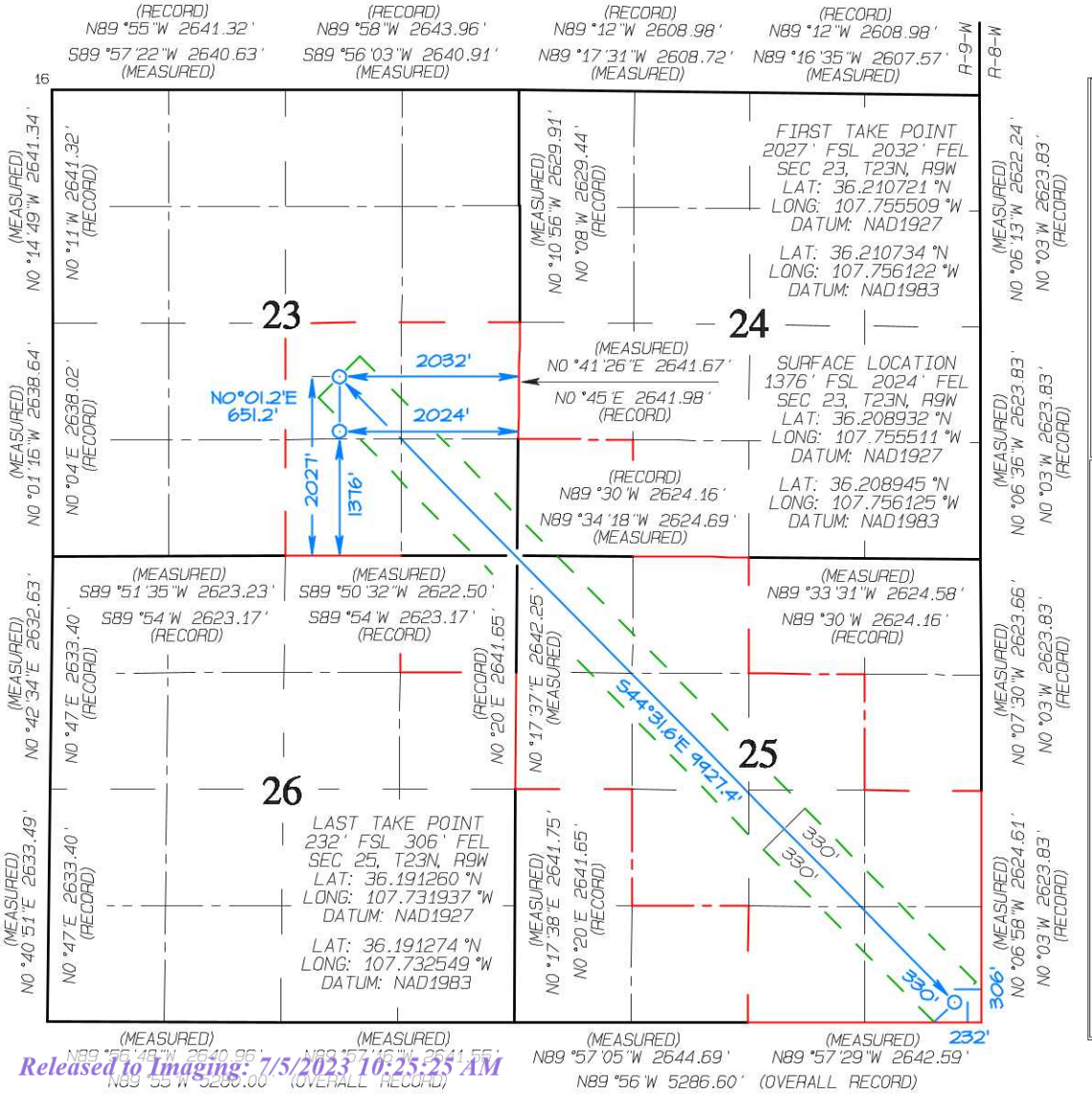
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	23N	9W		1376	SOUTH	2024	EAST	SAN JUAN

[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
P	25	23N	9W		232	SOUTH	306	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.0	SE/4 - Section 23 SW/4 SW/4 - Section 24 NW/4, SE/4, SW/4 NE/4 NE/4 SW/4 - Section 25 NE/4 NE/4 - Section 26			R-22081

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.

Khem Suthiwan — 6/2/2022
Signature — Date

Khem Suthiwan
Printed Name

ksuthiwan@enduringresources.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

Date Revised: JUNE 2, 2022
Survey Date: SEPTEMBER 29, 2021

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

District I
1625 N. French Drive, Hobbs, NM 88240
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Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to Appropriate District Office

☐ AMENDED REPORT

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	98157	LYBROOK MANCOS W

[4] Property Code	[5] Property Name	[6] Well Number
332891	GREATER LYBROOK UNIT	055H

[7] OGRID No.	[8] Operator Name	[9] Elevation
372286	ENDURING RESOURCES, LLC	6802'

[10] Surface Location

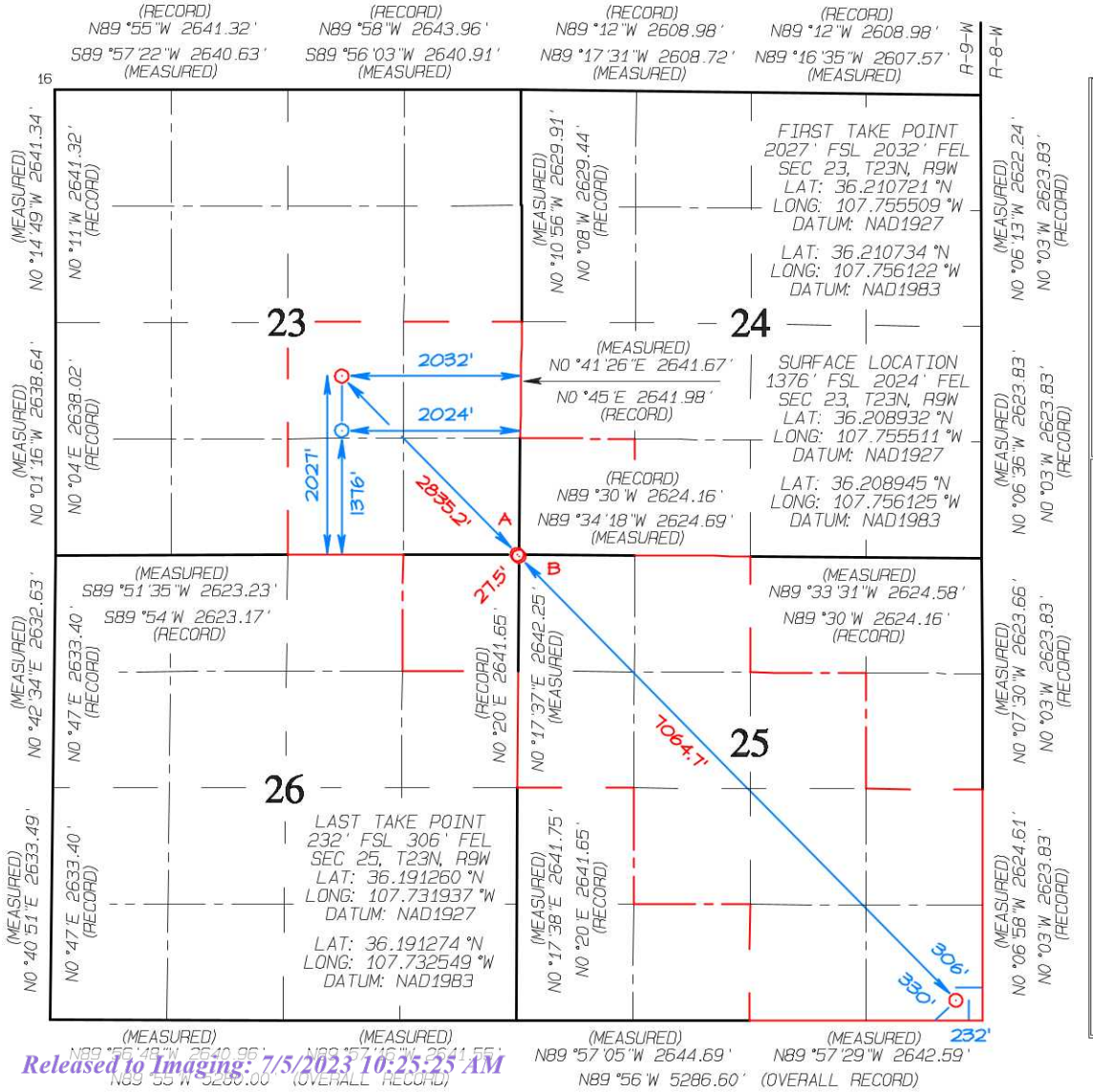
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	23N	9W		1376	SOUTH	2024	EAST	SAN JUAN

[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
P	25	23N	9W		232	SOUTH	306	EAST	SAN JUAN

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640.0	SE/4 - Section 23 SW/4 SW/4 - Section 24 NW/4, SE/4, SW/4 NE/4 NE/4 SW/4 - Section 25 NE/4 NE/4 - Section 26			R-22081

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: JUNE 2, 2022
Survey Date: SEPTEMBER 29, 2021

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

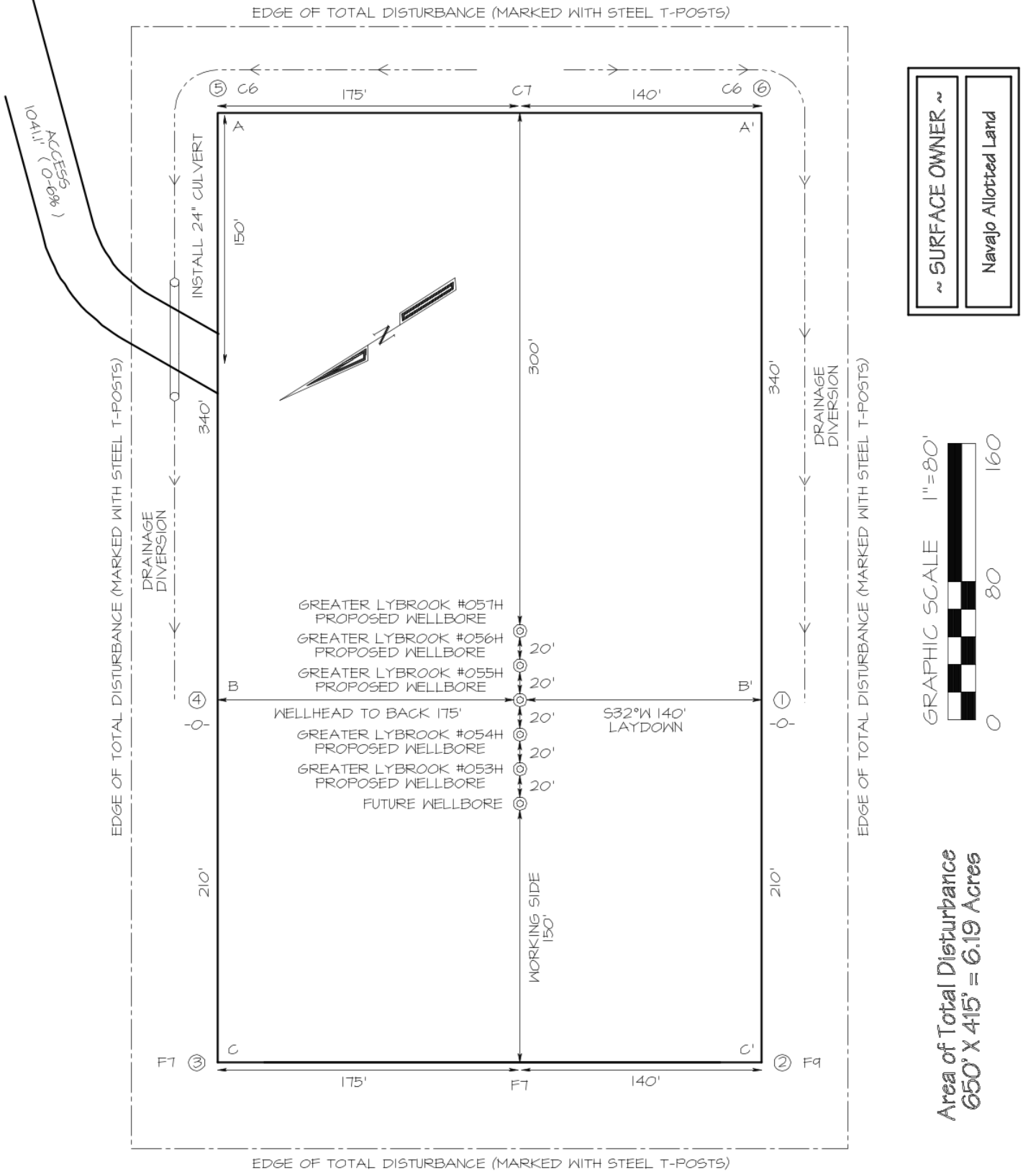
(A) 0' FNL 19' FEL
SEC 26, T23N, R9W
LAT: 36.205163 °N
LONG: 107.748776 °W
DATUM: NAD1927

LAT: 36.205177 °N
LONG: 107.749389 °W
DATUM: NAD1983

(B) 20' FNL 0' FEL
SEC 26, T23N, R9W
LAT: 36.205109 °N
LONG: 107.748710 °W
DATUM: NAD1927

LAT: 36.205123 °N
LONG: 107.749324 °W
DATUM: NAD1983

ENDURING RESOURCES, LLC GREATER LYBROOK UNIT #055H
1376' FSL & 2024' FEL, SECTION 23, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6802'
LAT: 36°12'32.1542" LONG: 107°45'19.8412" DATUM: NAD1927

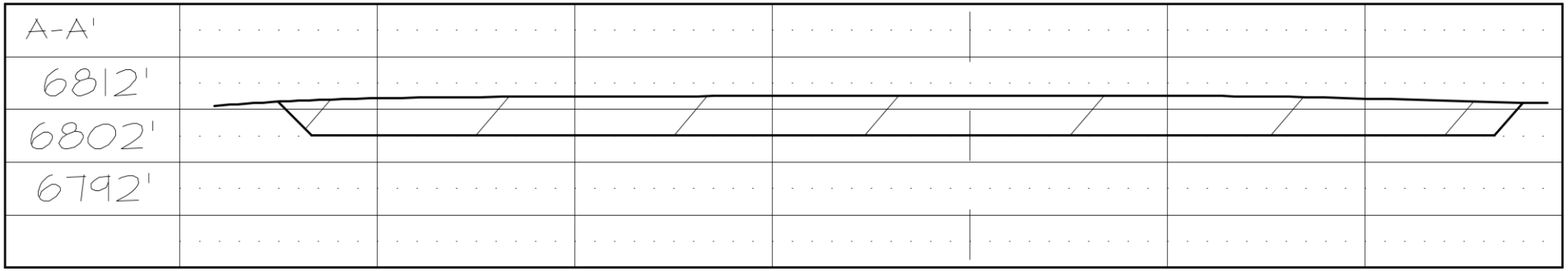


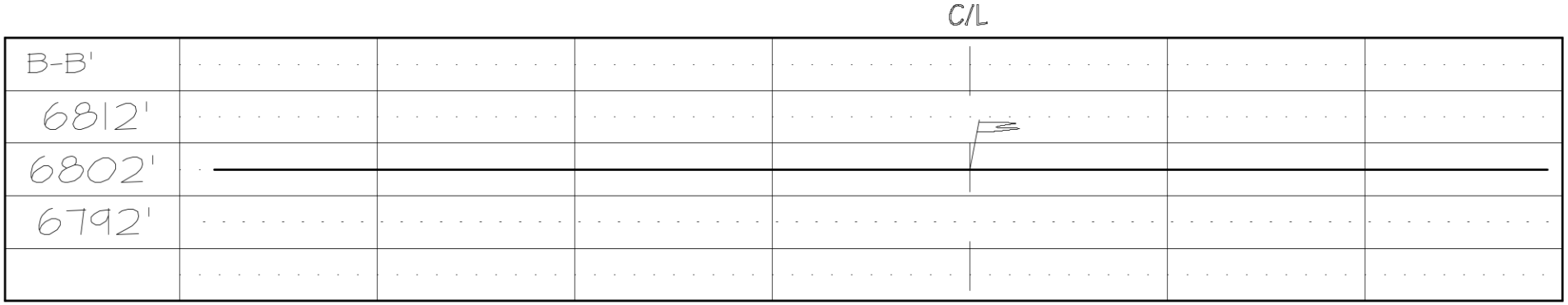
Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from edge of wellpad.

ENDURING RESOURCES, LLC GREATER LYBROOK UNIT #055H
1376' FSL & 2024' FEL, SECTION 23, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6802'

HORIZONTAL SCALE
1"=40'

VERTICAL SCALE
1"=30'

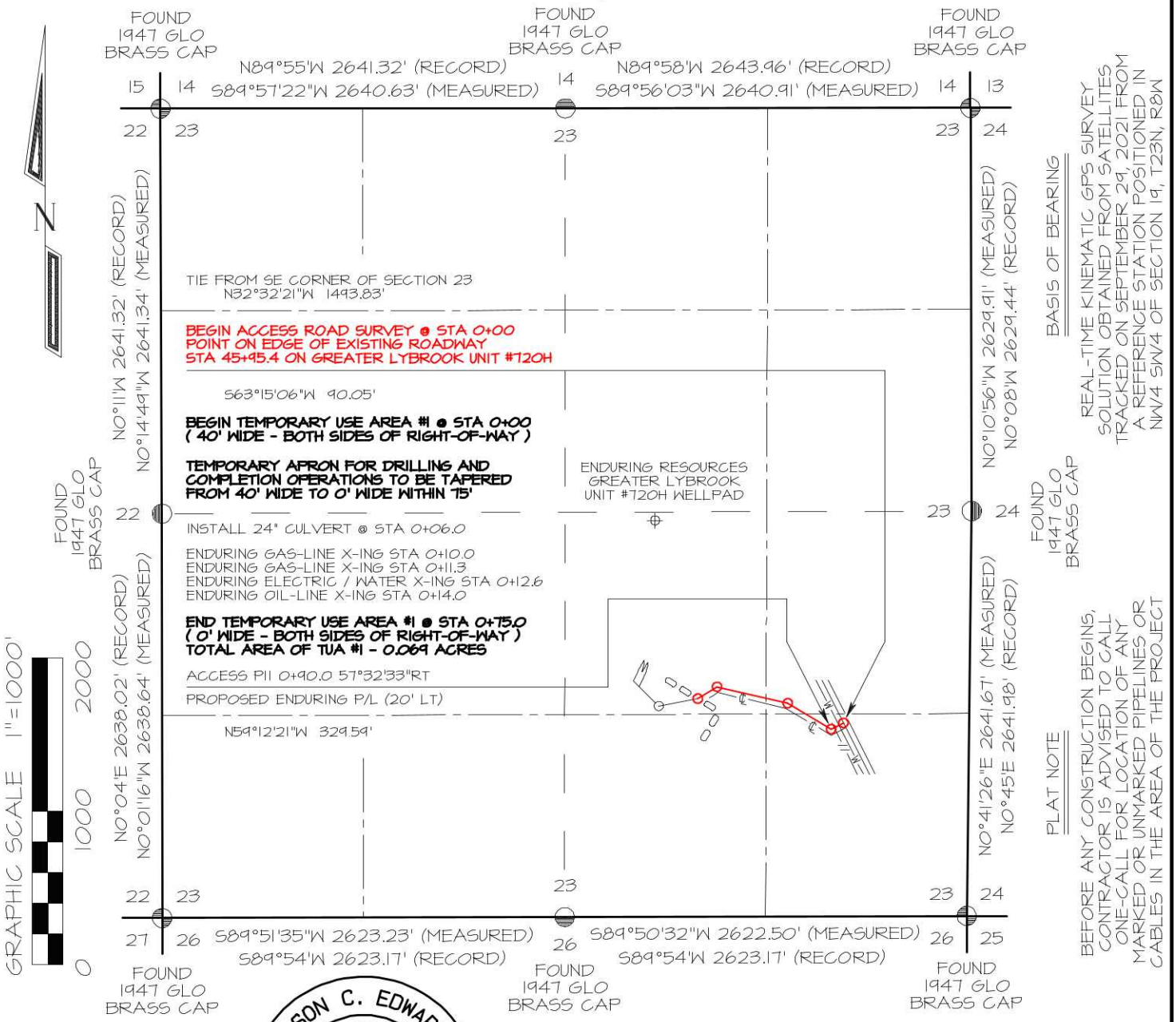




NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

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 GREATER LYBROOK UNIT #055H
PROPOSED ACCESS ROAD SURVEY LOCATED IN
SE/4 OF SECTION 23, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO



JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Navajo Allotted Land (SE/4 Section 23)	
0+00 TO 10+41.1	1041.1 FT / 63.1 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

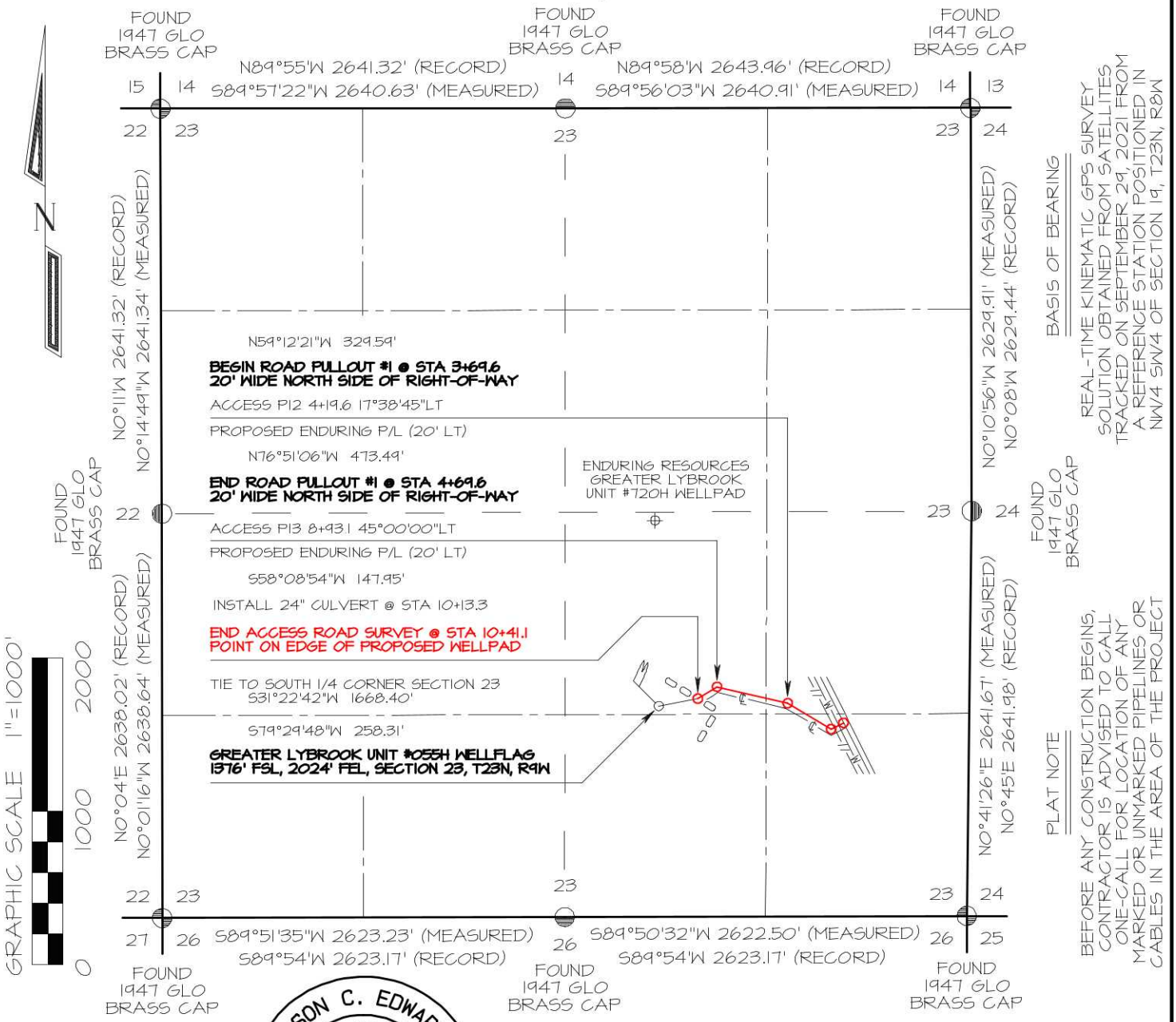
Date: June 2, 2022

Prepared for:
ENDURING RESOURCES, LLC
200 ENERGY COURT
FARMINGTON, NM 87401

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 6 OF 10
FILENAME: 23423JAI

ENDURING RESOURCES, LLC GREATER LYBROOK UNIT #055H
PROPOSED ACCESS ROAD SURVEY LOCATED IN
SE/4 OF SECTION 23, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO



JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Navajo Allotted Land (SE/4 Section 23)	
0+00 TO 10+41.1	1041.1 FT / 63.1 RODS

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JASON C. EDWARDS

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

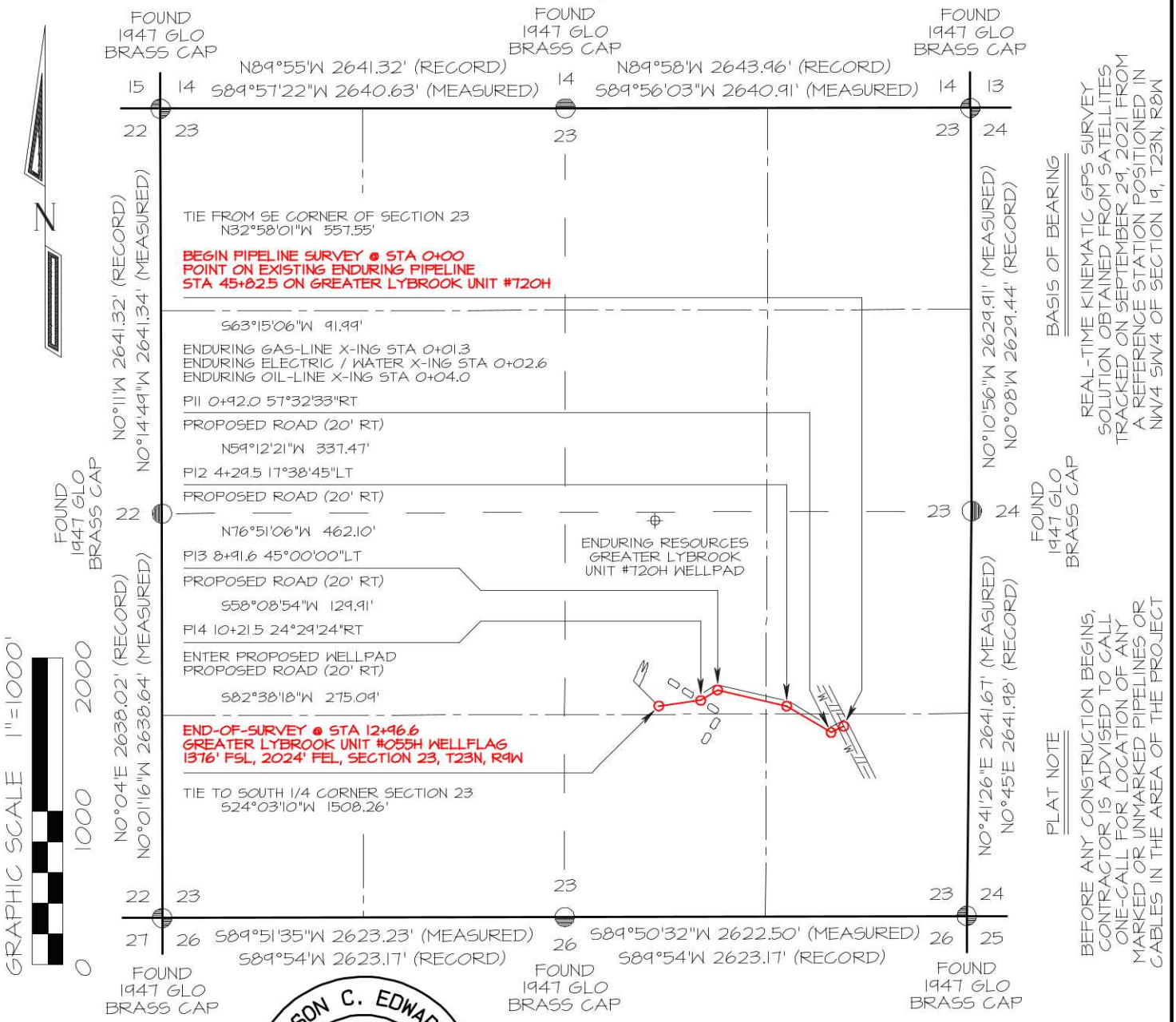
Date: June 2, 2022

Prepared for:
ENDURING RESOURCES, LLC
200 ENERGY COURT
FARMINGTON, NM 87401

NCE SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 7 OF 10
FILENAME: 23423JA2

ENDURING RESOURCES, LLC GREATER LYBROOK UNIT #055H
PROPOSED PIPELINE SURVEY LOCATED IN
SE/4 OF SECTION 23, T23N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO



BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON SEPTEMBER 29, 2021 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 19, T23N, R8W

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ Navajo Allotted Land (SE/4 Section 23)	
0+00 TO 12+96.6	1296.6 FT / 78.6 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Date: June 2, 2022

Prepared for:
ENDURING RESOURCES, LLC
200 ENERGY COURT
FARMINGTON, NM 87401

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 8 OF 10
FILENAME: 23423J61

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

in Bloomfield, NM to Enduring Resources, LLC Greater Lybrook Unit #055H

1376' FSL & 2024' FEL, Section 23, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.208945°N Longitude: 107.756125°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 Right (Westerly) exiting County Road #7890 along existing roadway for 0.6 miles to fork in roadway;

Go Right (North-westerly) for 0.3 miles to new access on left-hand side of existing roadway which continues for 1041.1' to Enduring Greater Lybrook Unit #055H staked 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:** 10/26/2022

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
Greater Lybrook Unit 053H	pending	Sec. 23, T23N, R9W	UL:C SHL:1397' FSL & 2058' FEL	650	1,700	1,200
Greater Lybrook Unit 054H	pending	Sec. 23, T23N, R9W	UL:C SHL:1386' FSL & 2041' FEL	650	1,700	1,200
Greater Lybrook Unit 055H	pending	Sec. 23, T23N, R9W	UL:C SHL:1376' FSL & 2024' FEL	650	1,700	1,200
Greater Lybrook Unit 056H	pending	Sec. 23, T23N, R9W	UL:C SHL:1365' FSL & 2007' FEL	650	1,700	1,200
Greater Lybrook Unit 772H	pending	Sec. 23, T23N, R9W	UL:C SHL:1448' FSL & 1981' FEL	650	1,700	1,200

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
Greater Lybrook Unit 053H	pending	12/16/2022	1/13/2023	1/21/2023	2/21/2023	2/24/2023
Greater Lybrook Unit 054H	pending	12/13/2022	1/8/2023	1/21/2023	2/21/2023	2/24/2023
Greater Lybrook Unit 055H	pending	12/11/2022	1/3/2023	1/21/2023	2/21/2023	2/24/2023
Greater Lybrook Unit 056H	pending	12/9/2022	12/28/2022	1/21/2023	2/21/2023	2/24/2023
Greater Lybrook Unit 772H	pending	12/7/2023	12/23/2022	1/21/2023	2/21/2023	2/24/2023

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: Khem Suthiwan
Printed Name: Khem Suthiwan
Title: Regulatory Manager
E-mail Address: ksuthiwan@enduringresources.com
Date: 10/26/2022
Phone: (303) 350-5721

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Attachments:

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

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

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

Drilling Operations:
Enduring Resources will minimize venting by:

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

Completion Operations:
Enduring Resources will minimize venting by:

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

Production Operations:
Enduring Resources will minimize venting by:

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

In General:

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

Flowback Strategy
After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on 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 80211

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

WELL INFORMATION:

Name: **GREATER LYBROOK UNIT 055H**
API Number: not yet assigned
AFE Number: *not yet assigned*
ER Well Number: *not yet assigned*
State: New Mexico
County: San Juan
Surface Elevation: 6,802 ft ASL (GL) 6,815 ft ASL (KB)
Surface Location: 23-23N-09W Sec-Twn-Rng 1,376 ft FSL 2,024 ft FEL
36.208945 ° N latitude 107.756125 ° W longitude (NAD 83)
BH Location: 25-23N-09W Sec-Twn-Rng 232 ft FSL 306 ft FEL
36.191274 ° N latitude 107.732549 ° 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 38.3 miles to MM 113.4, 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 1.2 miles to 4-way intersection; Right (West) exiting CR #7890 along existing roadway for 0.6 mile to fork; Right (Northwest) for 0.3 miles to new access road; Left on access road for 0.2 miles to W LYBROOK UNIT 772H PAD (772H, 773H, 774H, 775H, 776H wells).

GEOLOGIC AND RESERVOIR INFORMATION:

Prognosis:

Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
Ojo Alamo	6,398	417	417	W	normal
Kirtland	6,295	520	520	W	normal
Fruitland	6,095	720	720	G, W	sub
Pictured Cliffs	5,715	1,100	1,100	G, W	sub
Lewis	5,593	1,222	1,223	G, W	normal
Chacra	5,324	1,491	1,496	G, W	normal
Cliff House	4,267	2,548	2,671	G, W	sub
Menefee	4,242	2,573	2,699	G, W	normal
Point Lookout	3,285	3,530	3,784	G, W	normal
Mancos	3,140	3,675	3,940	O,G	sub (~0.38)
Gallup (MNCS_A)	2,780	4,035	4,312	O,G	sub (~0.38)
MNCS_B	2,669	4,146	4,444	O,G	sub (~0.38)
MNCS_C	2,579	4,236	4,589	O,G	sub (~0.38)
MNCS_Cms	2,539	4,276	4,663	O,G	sub (~0.38)
FTP TARGET	**2,431**	**4,384**	**5,014**	**O,G**	**sub (~0.38)**
PROJECTED TD	**2,463**	**4,352**	**14,942**	**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: 1,890 psi
Maximum anticipated surface pressure, assuming partially evacuated hole: 930 psi
Temperature: **Maximum anticipated BHT is 125° 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.

2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.

3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.

4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.

5) Manual locking devices (hand wheels) shall be intalled on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device.The valve will be maintained in the open position and shall only be closed when the there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

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

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

Fluid Disposal : Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Solids Disposal : Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Fluid Program: See "Detailed Drilling Plan" section and attached Newpark mud program for additional details.

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	581	116,634	116,634
Min. S.F.					**7.39**	**4.70**	**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	2,811 ft (MD)	Hole Section Length:	2,461 ft
350 ft (TVD)	to	2,673 ft (TVD)	Casing Required:	2,811 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	No OBM

Hole Size: 12-1/4"

Bit / Motor: 12-1/4" PDC bit 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					1,168	1,083	188,248	188,248
Min. S.F.					**1.73**	**3.25**	**3.00**	**2.41**

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 per joint in non-vertical hole; 1 per 2-joints in vertical hole

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	547
Tail	Type III	14.6	1.380	6.64	20%	2,311	136

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

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

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

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

2,811 ft (MD)	to	14,942 ft (MD)	Hole Section Length:	12,131 ft
2,673 ft (TVD)	to	4,352 ft (TVD)	Casing Required:	14,942 ft

Estimated KOP:	3,785	ft (MD)	3,529	ft (TVD)
Estimated Landing Point (FTP):	5,014	ft (MD)	4,384	ft (TVD)
Estimated Lateral Length:	9,928	ft (MD)		

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (FW)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: 8-1/2" PDC bit 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					2,150	8,907	319,191	319,191
Min. S.F.					**3.47**	**1.19**	**1.71**	**1.39**

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)
Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient
Tension: buoyed weight in 9.0 ppg fluid with 100,000 lbs over-pull

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

Casing Summary: Float shoe, 1 jt casing, float collar, 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 at KOP, casing to surface. The toe-initiation sleeve (last-take-point) cannot be placed closer than 330' to the unit boundary when measured perpendicular to the well path.

Centralizers: *Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys.*
Lateral: 1 centralizer per joint
Landing point 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	50%	0	539
Tail	G:POZ blend	13.3	1.560	7.70	10%	4,312	1,717

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 defined 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 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 280,000 bbls slickwater fluid and 17,000,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow
Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 4/1/2022
Completion: 5/31/2022
Production: 7/15/2022

Prepared by: **Alec Bridge** **11/22/2021**

Well: Greater Lybrook Unit No. 055H
Site: Greater Lybrook 57 Pad (53,54,55,56 & 57)
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
G Lybrook 055 LTP 232 FSL 306 FEL r1	4292.00	-6426.23	6961.74	1888936.455	2752830.252	36.191274000	-107.732549000
G Lybrook 055 vs=4500	4362.00	-2887.74	3481.29	1892474.936	2749349.808	36.201003918	-107.744333241
G Lybrook 055 vs=0	4364.00	320.44	325.74	1895683.110	2746194.264	36.209824560	-107.755019942
G Lybrook 055 FTP 2027 FSL 2032 FEL	4384.00	651.23	0.37	1896013.904	2745868.892	36.210734000	-107.756122000

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1948.22	28.45	335.18	1909.74	209.29	-96.80	3.00	335.18	-217.09	Begin 28.45° tangent
4	3764.50	28.45	335.18	3506.72	994.54	-459.99	0.00	0.00	-1031.57	Begin 10°/100' drop/build/turn
5	4635.11	60.00	135.47	4257.45	893.82	-238.26	10.00	163.00	-804.28	Begin 60.00° tangent
6	4695.11	60.00	135.47	4287.45	856.78	-201.82	0.00	0.00	-752.32	Begin 10°/100' build/turn
7	4995.36	90.03	135.47	4364.21	652.36	-0.75	10.00	0.01	-465.58	Begin 90.03° lateral
8	9960.93	90.03	135.47	4362.00	-2887.74	3481.29	0.00	0.00	4499.99	Begin 2°/100' build
9	10000.21	90.81	135.47	4361.71	-2915.74	3508.83	2.00	0.00	4539.27	Begin 90.81° lateral
10	14924.74	90.81	135.47	4292.00	-6426.23	6961.74	0.00	0.00	9463.30	PBHL/TD

Azimuths to Grid North
True North: -0.05°
Magnetic North: 8.56°

Magnetic Field
Strength: 49101.7nT
Dip Angle: 62.69°
Date: 5/10/2023
Model: IGRF2020

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+6802+28 @ 6830.00ft (Ensign 773)

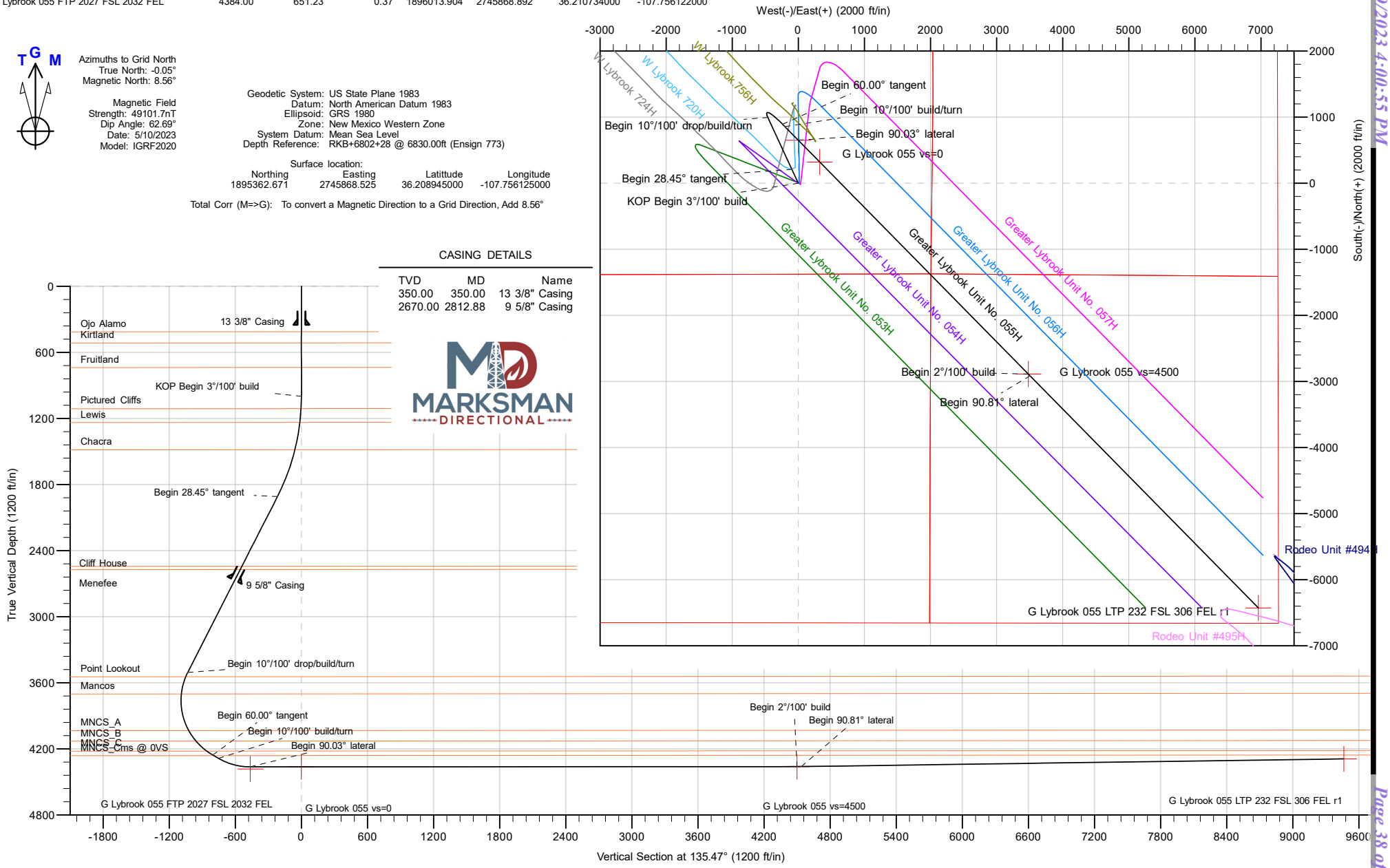
Surface location:

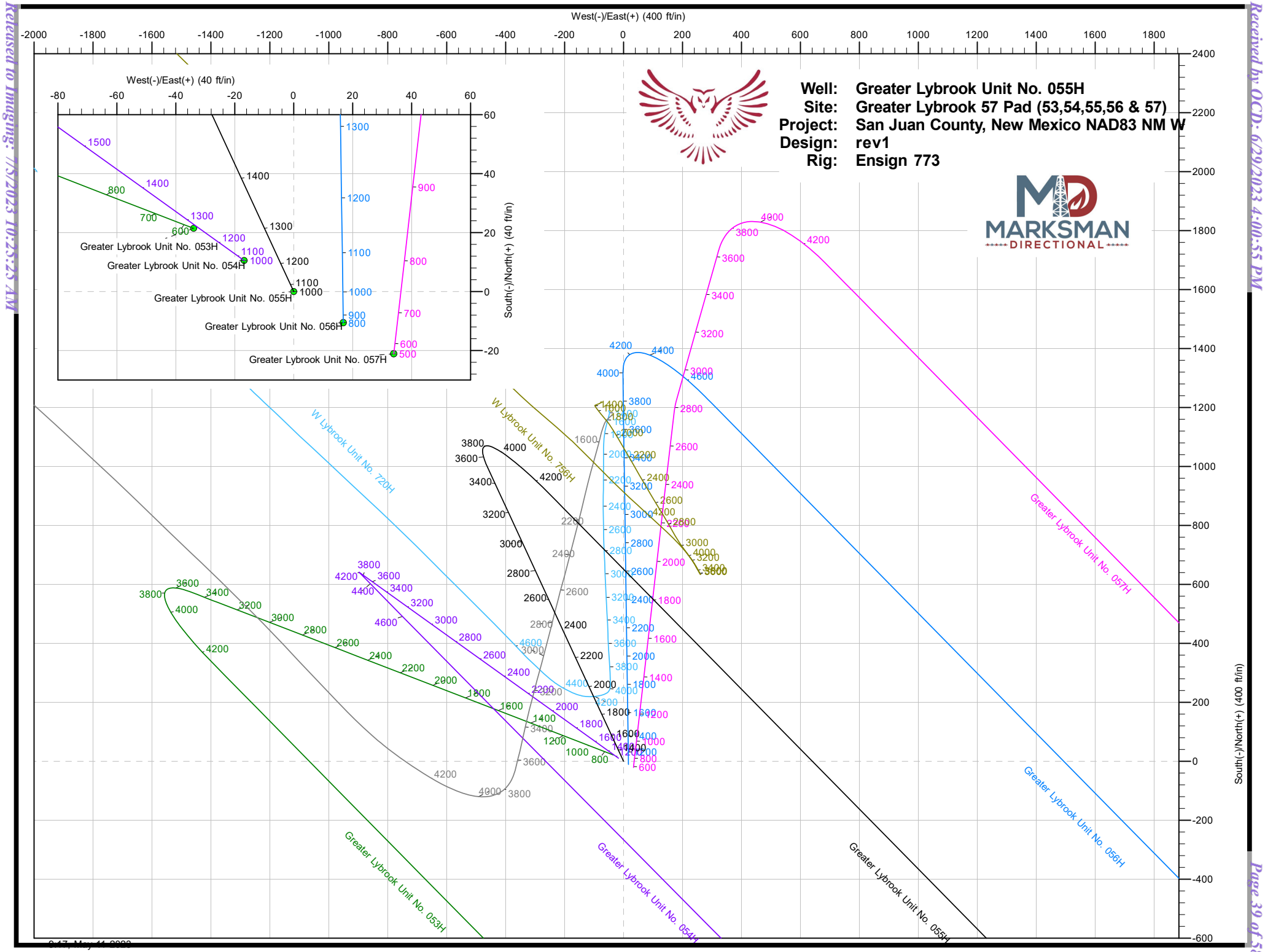
Northing	Easting	Latitude	Longitude
1895362.671	2745868.525	36.208945000	-107.756125000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.56°

CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Casing
2670.00	2812.88	9 5/8" Casing





Planning Report

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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 Greater Lybrook 57 Pad (53,54,55,56 & 57)

Site Position:		**Northing:**	1,895,341.584 usft	**Latitude:**	36.208887000
From:	Lat/Long	**Easting:**	2,745,902.467 usft	**Longitude:**	-107.756010000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Greater Lybrook Unit No. 055H, Surf loc: 1376 FSL 2024 FEL Section 23-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,895,362.670 usft	**Latitude:**	36.208945000
	+E/-W	0.00 ft	**Easting:**	2,745,868.525 usft	**Longitude:**	-107.756125000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,802.00 ft
Grid Convergence:		0.05 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/10/2023	8.60	62.69	49,101.65250916

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	135.47

Plan Survey Tool Program **Date** 5/11/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,924.34	rev1 (Original Hole)	MWD	
				OWSG MWD - Standard	

Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,948.22	28.45	335.18	1,909.74	209.29	-96.80	3.00	3.00	0.00	335.18	
3,764.50	28.45	335.18	3,506.72	994.54	-459.99	0.00	0.00	0.00	0.00	
4,635.11	60.00	135.47	4,257.45	893.82	-238.26	10.00	3.62	18.41	163.00	
4,695.11	60.00	135.47	4,287.45	856.78	-201.82	0.00	0.00	0.00	0.00	
4,995.36	90.03	135.47	4,364.21	652.36	-0.75	10.00	10.00	0.00	0.01	
9,960.93	90.03	135.47	4,362.00	-2,887.74	3,481.29	0.00	0.00	0.00	0.00	G Lybrook 055 vs=45
10,000.21	90.81	135.47	4,361.71	-2,915.74	3,508.83	2.00	2.00	0.00	0.00	
14,924.74	90.81	135.47	4,292.00	-6,426.23	6,961.74	0.00	0.00	0.00	0.00	G Lybrook 055 LTP 2

Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8" Casing									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
414.00	0.00	0.00	414.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
514.00	0.00	0.00	514.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
737.00	0.00	0.00	737.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 3°/100' build									
1,100.00	3.00	335.18	1,099.95	2.38	-1.10	-2.46	3.00	3.00	0.00
1,112.06	3.36	335.18	1,112.00	2.98	-1.38	-3.09	3.00	3.00	0.00
Pictured Cliffs									
1,200.00	6.00	335.18	1,199.63	9.50	-4.39	-9.85	3.00	3.00	0.00
1,237.61	7.13	335.18	1,237.00	13.40	-6.20	-13.90	3.00	3.00	0.00
Lewis									
1,300.00	9.00	335.18	1,298.77	21.34	-9.87	-22.14	3.00	3.00	0.00
1,400.00	12.00	335.18	1,397.08	37.88	-17.52	-39.29	3.00	3.00	0.00
1,490.37	14.71	335.18	1,485.00	56.82	-26.28	-58.94	3.00	3.00	0.00
Chacra									
1,500.00	15.00	335.18	1,494.31	59.07	-27.32	-61.26	3.00	3.00	0.00
1,600.00	18.00	335.18	1,590.18	84.84	-39.24	-88.00	3.00	3.00	0.00
1,700.00	21.00	335.18	1,684.43	115.13	-53.25	-119.42	3.00	3.00	0.00
1,800.00	24.00	335.18	1,776.81	149.86	-69.31	-155.44	3.00	3.00	0.00
1,900.00	27.00	335.18	1,867.06	188.93	-87.38	-195.97	3.00	3.00	0.00
1,948.22	28.45	335.18	1,909.74	209.29	-96.80	-217.09	3.00	3.00	0.00
Begin 28.45° tangent									
2,000.00	28.45	335.18	1,955.27	231.68	-107.15	-240.31	0.00	0.00	0.00
2,100.00	28.45	335.18	2,043.20	274.91	-127.15	-285.15	0.00	0.00	0.00
2,200.00	28.45	335.18	2,131.12	318.15	-147.15	-329.99	0.00	0.00	0.00
2,300.00	28.45	335.18	2,219.05	361.38	-167.14	-374.84	0.00	0.00	0.00
2,400.00	28.45	335.18	2,306.97	404.61	-187.14	-419.68	0.00	0.00	0.00
2,500.00	28.45	335.18	2,394.90	447.85	-207.14	-464.52	0.00	0.00	0.00
2,600.00	28.45	335.18	2,482.83	491.08	-227.13	-509.37	0.00	0.00	0.00
2,667.30	28.45	335.18	2,542.00	520.18	-240.59	-539.55	0.00	0.00	0.00
Cliff House									
2,700.00	28.45	335.18	2,570.75	534.31	-247.13	-554.21	0.00	0.00	0.00
2,701.42	28.45	335.18	2,572.00	534.93	-247.41	-554.85	0.00	0.00	0.00
Menefee									
2,800.00	28.45	335.18	2,658.68	577.55	-267.12	-599.05	0.00	0.00	0.00
2,812.88	28.45	335.18	2,670.00	583.11	-269.70	-604.83	0.00	0.00	0.00
9 5/8" Casing									
2,900.00	28.45	335.18	2,746.60	620.78	-287.12	-643.90	0.00	0.00	0.00

Planning Report

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Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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)
3,000.00	28.45	335.18	2,834.53	664.02	-307.12	-688.74	0.00	0.00	0.00
3,100.00	28.45	335.18	2,922.46	707.25	-327.11	-733.58	0.00	0.00	0.00
3,200.00	28.45	335.18	3,010.38	750.48	-347.11	-778.43	0.00	0.00	0.00
3,300.00	28.45	335.18	3,098.31	793.72	-367.11	-823.27	0.00	0.00	0.00
3,400.00	28.45	335.18	3,186.24	836.95	-387.10	-868.12	0.00	0.00	0.00
3,500.00	28.45	335.18	3,274.16	880.18	-407.10	-912.96	0.00	0.00	0.00
3,600.00	28.45	335.18	3,362.09	923.42	-427.09	-957.80	0.00	0.00	0.00
3,700.00	28.45	335.18	3,450.01	966.65	-447.09	-1,002.65	0.00	0.00	0.00
3,764.50	28.45	335.18	3,506.72	994.54	-459.99	-1,031.57	0.00	0.00	0.00
Begin 10°/100' drop/build/turn									
3,800.00	25.07	337.63	3,538.42	1,009.17	-466.40	-1,046.50	10.00	-9.51	6.90
3,807.24	24.39	338.20	3,545.00	1,011.98	-467.54	-1,049.30	10.00	-9.43	7.96
Point Lookout									
3,850.00	20.41	342.34	3,584.52	1,027.29	-473.08	-1,064.10	10.00	-9.30	9.67
3,900.00	15.95	349.62	3,632.02	1,042.36	-476.97	-1,077.57	10.00	-8.93	14.56
3,950.00	11.90	1.99	3,680.55	1,054.28	-478.03	-1,086.81	10.00	-8.09	24.74
3,971.86	10.40	10.20	3,702.00	1,058.47	-477.60	-1,089.50	10.00	-6.90	37.55
Mancos									
4,000.00	8.87	24.42	3,729.75	1,062.95	-476.25	-1,091.75	10.00	-5.41	50.54
4,050.00	8.09	58.42	3,779.23	1,068.31	-471.66	-1,092.34	10.00	-1.57	68.00
4,100.00	10.09	87.91	3,828.63	1,070.31	-464.28	-1,088.60	10.00	4.00	58.98
4,150.00	13.71	104.91	3,877.56	1,068.94	-454.17	-1,080.53	10.00	7.23	34.00
4,200.00	17.99	114.46	3,925.66	1,064.22	-441.41	-1,068.22	10.00	8.56	19.10
4,250.00	22.56	120.34	3,972.55	1,056.17	-426.09	-1,051.74	10.00	9.14	11.76
4,300.00	27.28	124.30	4,017.88	1,044.87	-408.34	-1,031.23	10.00	9.43	7.92
4,319.42	29.13	125.51	4,035.00	1,039.61	-400.81	-1,022.20	10.00	9.56	6.24
MNCS_A									
4,350.00	32.07	127.16	4,061.32	1,030.38	-388.28	-1,006.83	10.00	9.62	5.39
4,400.00	36.92	129.34	4,102.51	1,012.83	-366.07	-978.75	10.00	9.69	4.36
4,435.19	40.35	130.60	4,130.00	998.71	-349.24	-956.88	10.00	9.75	3.58
MNCS_B									
4,450.00	41.80	131.08	4,141.16	992.35	-341.88	-947.18	10.00	9.77	3.23
4,500.00	46.70	132.51	4,176.97	969.09	-315.89	-912.38	10.00	9.80	2.87
4,550.00	51.61	133.73	4,209.66	943.24	-288.30	-874.60	10.00	9.83	2.44
4,568.64	53.45	134.14	4,221.00	932.97	-277.65	-859.81	10.00	9.84	2.21
MNCS_C									
4,600.00	56.54	134.79	4,238.99	914.98	-259.32	-834.13	10.00	9.85	2.08
4,635.11	60.00	135.47	4,257.45	893.82	-238.26	-804.28	10.00	9.86	1.93
Begin 60.00° tangent									
4,644.21	60.00	135.47	4,262.00	888.20	-232.73	-796.40	0.00	0.00	0.00
MNCS_Cms @ 0VS									
4,695.11	60.00	135.47	4,287.45	856.78	-201.82	-752.32	0.00	0.00	0.00
Begin 10°/100' build/turn									
4,700.00	60.49	135.47	4,289.88	853.75	-198.84	-748.07	10.00	10.00	0.00
4,750.00	65.49	135.47	4,312.58	822.00	-167.61	-703.54	10.00	10.00	0.00
4,800.00	70.49	135.47	4,331.31	788.97	-135.11	-657.19	10.00	10.00	0.00
4,850.00	75.49	135.47	4,345.93	754.89	-101.60	-609.40	10.00	10.00	0.00
4,900.00	80.49	135.47	4,356.34	720.04	-67.31	-560.51	10.00	10.00	0.00
4,950.00	85.49	135.47	4,362.44	684.67	-32.52	-510.90	10.00	10.00	0.00
4,995.36	90.03	135.47	4,364.21	652.36	-0.75	-465.58	10.00	10.00	0.00
Begin 90.03° lateral									
5,000.00	90.03	135.47	4,364.21	649.06	2.51	-460.94	0.00	0.00	0.00
5,100.00	90.03	135.47	4,364.17	577.76	72.63	-360.94	0.00	0.00	0.00

Planning Report

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Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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)
5,200.00	90.03	135.47	4,364.12	506.47	142.75	-260.94	0.00	0.00	0.00
5,300.00	90.03	135.47	4,364.08	435.18	212.88	-160.94	0.00	0.00	0.00
5,400.00	90.03	135.47	4,364.03	363.88	283.00	-60.94	0.00	0.00	0.00
5,500.00	90.03	135.47	4,363.99	292.59	353.12	39.06	0.00	0.00	0.00
5,600.00	90.03	135.47	4,363.94	221.30	423.25	139.06	0.00	0.00	0.00
5,700.00	90.03	135.47	4,363.90	150.01	493.37	239.06	0.00	0.00	0.00
5,800.00	90.03	135.47	4,363.85	78.71	563.49	339.06	0.00	0.00	0.00
5,900.00	90.03	135.47	4,363.81	7.42	633.62	439.06	0.00	0.00	0.00
6,000.00	90.03	135.47	4,363.76	-63.87	703.74	539.06	0.00	0.00	0.00
6,100.00	90.03	135.47	4,363.72	-135.17	773.87	639.06	0.00	0.00	0.00
6,200.00	90.03	135.47	4,363.68	-206.46	843.99	739.06	0.00	0.00	0.00
6,300.00	90.03	135.47	4,363.63	-277.75	914.11	839.06	0.00	0.00	0.00
6,400.00	90.03	135.47	4,363.59	-349.05	984.24	939.06	0.00	0.00	0.00
6,500.00	90.03	135.47	4,363.54	-420.34	1,054.36	1,039.06	0.00	0.00	0.00
6,600.00	90.03	135.47	4,363.50	-491.63	1,124.48	1,139.06	0.00	0.00	0.00
6,700.00	90.03	135.47	4,363.45	-562.92	1,194.61	1,239.06	0.00	0.00	0.00
6,800.00	90.03	135.47	4,363.41	-634.22	1,264.73	1,339.06	0.00	0.00	0.00
6,900.00	90.03	135.47	4,363.36	-705.51	1,334.85	1,439.06	0.00	0.00	0.00
7,000.00	90.03	135.47	4,363.32	-776.80	1,404.98	1,539.06	0.00	0.00	0.00
7,100.00	90.03	135.47	4,363.27	-848.10	1,475.10	1,639.06	0.00	0.00	0.00
7,200.00	90.03	135.47	4,363.23	-919.39	1,545.22	1,739.06	0.00	0.00	0.00
7,300.00	90.03	135.47	4,363.19	-990.68	1,615.35	1,839.06	0.00	0.00	0.00
7,400.00	90.03	135.47	4,363.14	-1,061.97	1,685.47	1,939.06	0.00	0.00	0.00
7,500.00	90.03	135.47	4,363.10	-1,133.27	1,755.60	2,039.06	0.00	0.00	0.00
7,600.00	90.03	135.47	4,363.05	-1,204.56	1,825.72	2,139.06	0.00	0.00	0.00
7,700.00	90.03	135.47	4,363.01	-1,275.85	1,895.84	2,239.06	0.00	0.00	0.00
7,800.00	90.03	135.47	4,362.96	-1,347.15	1,965.97	2,339.06	0.00	0.00	0.00
7,900.00	90.03	135.47	4,362.92	-1,418.44	2,036.09	2,439.06	0.00	0.00	0.00
8,000.00	90.03	135.47	4,362.87	-1,489.73	2,106.21	2,539.06	0.00	0.00	0.00
8,100.00	90.03	135.47	4,362.83	-1,561.03	2,176.34	2,639.06	0.00	0.00	0.00
8,200.00	90.03	135.47	4,362.78	-1,632.32	2,246.46	2,739.06	0.00	0.00	0.00
8,300.00	90.03	135.47	4,362.74	-1,703.61	2,316.58	2,839.06	0.00	0.00	0.00
8,400.00	90.03	135.47	4,362.70	-1,774.90	2,386.71	2,939.06	0.00	0.00	0.00
8,500.00	90.03	135.47	4,362.65	-1,846.20	2,456.83	3,039.06	0.00	0.00	0.00
8,600.00	90.03	135.47	4,362.61	-1,917.49	2,526.95	3,139.06	0.00	0.00	0.00
8,700.00	90.03	135.47	4,362.56	-1,988.78	2,597.08	3,239.06	0.00	0.00	0.00
8,800.00	90.03	135.47	4,362.52	-2,060.08	2,667.20	3,339.06	0.00	0.00	0.00
8,900.00	90.03	135.47	4,362.47	-2,131.37	2,737.33	3,439.06	0.00	0.00	0.00
9,000.00	90.03	135.47	4,362.43	-2,202.66	2,807.45	3,539.06	0.00	0.00	0.00
9,100.00	90.03	135.47	4,362.38	-2,273.95	2,877.57	3,639.06	0.00	0.00	0.00
9,200.00	90.03	135.47	4,362.34	-2,345.25	2,947.70	3,739.06	0.00	0.00	0.00
9,300.00	90.03	135.47	4,362.29	-2,416.54	3,017.82	3,839.06	0.00	0.00	0.00
9,400.00	90.03	135.47	4,362.25	-2,487.83	3,087.94	3,939.06	0.00	0.00	0.00
9,500.00	90.03	135.47	4,362.21	-2,559.13	3,158.07	4,039.06	0.00	0.00	0.00
9,600.00	90.03	135.47	4,362.16	-2,630.42	3,228.19	4,139.06	0.00	0.00	0.00
9,700.00	90.03	135.47	4,362.12	-2,701.71	3,298.31	4,239.06	0.00	0.00	0.00
9,800.00	90.03	135.47	4,362.07	-2,773.01	3,368.44	4,339.06	0.00	0.00	0.00
9,900.00	90.03	135.47	4,362.03	-2,844.30	3,438.56	4,439.06	0.00	0.00	0.00
9,960.93	90.03	135.47	4,362.00	-2,887.74	3,481.29	4,499.99	0.00	0.00	0.00
Begin 2°/100' build									
10,000.21	90.81	135.47	4,361.71	-2,915.74	3,508.83	4,539.27	2.00	2.00	0.00
Begin 90.81° lateral									
10,100.00	90.81	135.47	4,360.30	-2,986.88	3,578.80	4,639.04	0.00	0.00	0.00

Planning Report

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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)
10,200.00	90.81	135.47	4,358.89	-3,058.16	3,648.92	4,739.03	0.00	0.00	0.00
10,300.00	90.81	135.47	4,357.47	-3,129.45	3,719.03	4,839.02	0.00	0.00	0.00
10,400.00	90.81	135.47	4,356.05	-3,200.73	3,789.15	4,939.01	0.00	0.00	0.00
10,500.00	90.81	135.47	4,354.64	-3,272.02	3,859.27	5,039.00	0.00	0.00	0.00
10,600.00	90.81	135.47	4,353.22	-3,343.30	3,929.38	5,138.99	0.00	0.00	0.00
10,700.00	90.81	135.47	4,351.81	-3,414.59	3,999.50	5,238.98	0.00	0.00	0.00
10,800.00	90.81	135.47	4,350.39	-3,485.88	4,069.62	5,338.97	0.00	0.00	0.00
10,900.00	90.81	135.47	4,348.98	-3,557.16	4,139.73	5,438.96	0.00	0.00	0.00
11,000.00	90.81	135.47	4,347.56	-3,628.45	4,209.85	5,538.95	0.00	0.00	0.00
11,100.00	90.81	135.47	4,346.14	-3,699.73	4,279.97	5,638.94	0.00	0.00	0.00
11,200.00	90.81	135.47	4,344.73	-3,771.02	4,350.08	5,738.93	0.00	0.00	0.00
11,300.00	90.81	135.47	4,343.31	-3,842.31	4,420.20	5,838.92	0.00	0.00	0.00
11,400.00	90.81	135.47	4,341.90	-3,913.59	4,490.32	5,938.91	0.00	0.00	0.00
11,500.00	90.81	135.47	4,340.48	-3,984.88	4,560.43	6,038.90	0.00	0.00	0.00
11,600.00	90.81	135.47	4,339.07	-4,056.16	4,630.55	6,138.89	0.00	0.00	0.00
11,700.00	90.81	135.47	4,337.65	-4,127.45	4,700.67	6,238.88	0.00	0.00	0.00
11,800.00	90.81	135.47	4,336.23	-4,198.73	4,770.78	6,338.87	0.00	0.00	0.00
11,900.00	90.81	135.47	4,334.82	-4,270.02	4,840.90	6,438.86	0.00	0.00	0.00
12,000.00	90.81	135.47	4,333.40	-4,341.31	4,911.01	6,538.85	0.00	0.00	0.00
12,100.00	90.81	135.47	4,331.99	-4,412.59	4,981.13	6,638.84	0.00	0.00	0.00
12,200.00	90.81	135.47	4,330.57	-4,483.88	5,051.25	6,738.83	0.00	0.00	0.00
12,300.00	90.81	135.47	4,329.16	-4,555.16	5,121.36	6,838.82	0.00	0.00	0.00
12,400.00	90.81	135.47	4,327.74	-4,626.45	5,191.48	6,938.81	0.00	0.00	0.00
12,500.00	90.81	135.47	4,326.33	-4,697.73	5,261.60	7,038.80	0.00	0.00	0.00
12,600.00	90.81	135.47	4,324.91	-4,769.02	5,331.71	7,138.79	0.00	0.00	0.00
12,700.00	90.81	135.47	4,323.49	-4,840.31	5,401.83	7,238.78	0.00	0.00	0.00
12,800.00	90.81	135.47	4,322.08	-4,911.59	5,471.95	7,338.77	0.00	0.00	0.00
12,900.00	90.81	135.47	4,320.66	-4,982.88	5,542.06	7,438.76	0.00	0.00	0.00
13,000.00	90.81	135.47	4,319.25	-5,054.16	5,612.18	7,538.75	0.00	0.00	0.00
13,100.00	90.81	135.47	4,317.83	-5,125.45	5,682.30	7,638.74	0.00	0.00	0.00
13,200.00	90.81	135.47	4,316.42	-5,196.74	5,752.41	7,738.73	0.00	0.00	0.00
13,300.00	90.81	135.47	4,315.00	-5,268.02	5,822.53	7,838.72	0.00	0.00	0.00
13,400.00	90.81	135.47	4,313.58	-5,339.31	5,892.65	7,938.71	0.00	0.00	0.00
13,500.00	90.81	135.47	4,312.17	-5,410.59	5,962.76	8,038.70	0.00	0.00	0.00
13,600.00	90.81	135.47	4,310.75	-5,481.88	6,032.88	8,138.69	0.00	0.00	0.00
13,700.00	90.81	135.47	4,309.34	-5,553.16	6,103.00	8,238.68	0.00	0.00	0.00
13,800.00	90.81	135.47	4,307.92	-5,624.45	6,173.11	8,338.67	0.00	0.00	0.00
13,900.00	90.81	135.47	4,306.51	-5,695.74	6,243.23	8,438.66	0.00	0.00	0.00
14,000.00	90.81	135.47	4,305.09	-5,767.02	6,313.35	8,538.65	0.00	0.00	0.00
14,100.00	90.81	135.47	4,303.68	-5,838.31	6,383.46	8,638.64	0.00	0.00	0.00
14,200.00	90.81	135.47	4,302.26	-5,909.59	6,453.58	8,738.63	0.00	0.00	0.00
14,300.00	90.81	135.47	4,300.84	-5,980.88	6,523.70	8,838.62	0.00	0.00	0.00
14,400.00	90.81	135.47	4,299.43	-6,052.16	6,593.81	8,938.61	0.00	0.00	0.00
14,500.00	90.81	135.47	4,298.01	-6,123.45	6,663.93	9,038.60	0.00	0.00	0.00
14,600.00	90.81	135.47	4,296.60	-6,194.74	6,734.05	9,138.59	0.00	0.00	0.00
14,700.00	90.81	135.47	4,295.18	-6,266.02	6,804.16	9,238.58	0.00	0.00	0.00
14,800.00	90.81	135.47	4,293.77	-6,337.31	6,874.28	9,338.57	0.00	0.00	0.00
14,900.00	90.81	135.47	4,292.35	-6,408.59	6,944.40	9,438.56	0.00	0.00	0.00
14,924.74	90.81	135.47	4,292.00	-6,426.23	6,961.74	9,463.30	0.00	0.00	0.00

PBHL/TD @ 14924.74 MD 4292.00 TVD

Planning Report

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
G Lybrook 055 LTP 232 - plan hits target center - Point	0.00	0.00	4,292.00	-6,426.23	6,961.74	1,888,936.455	2,752,830.252	36.191274000	-107.732549000
G Lybrook 055 vs=4500 - plan hits target center - Point	0.00	0.00	4,362.00	-2,887.74	3,481.29	1,892,474.936	2,749,349.808	36.201003918	-107.744333241
G Lybrook 055 vs=0 - plan misses target center by 0.01ft at 5460.94ft MD (4364.00 TVD, 320.44 N, 325.74 E) - Point	0.00	0.00	4,364.00	320.44	325.74	1,895,683.110	2,746,194.264	36.209824560	-107.755019942
G Lybrook 055 FTP 202 - plan misses target center by 19.79ft at 4996.94ft MD (4364.21 TVD, 651.24 N, 0.36 E) - Point	0.00	0.00	4,384.00	651.23	0.37	1,896,013.904	2,745,868.891	36.210734000	-107.756122000

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2
2,812.88	2,670.00	9 5/8" Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
414.00	414.00	Ojo Alamo		-0.03	135.47
514.00	514.00	Kirtland		-0.03	135.47
737.00	737.00	Fruitland		-0.03	135.47
1,112.06	1,112.00	Pictured Cliffs		-0.03	135.47
1,237.61	1,237.00	Lewis		-0.03	135.47
1,490.37	1,485.00	Chacra		-0.03	135.47
2,667.30	2,542.00	Cliff House		-0.03	135.47
2,701.42	2,572.00	Menefee		-0.03	135.47
3,807.24	3,545.00	Point Lookout		-0.03	135.47
3,971.86	3,702.00	Mancos		-0.03	135.47
4,319.42	4,035.00	MNCS_A		-0.03	135.47
4,435.19	4,130.00	MNCS_B		-0.03	135.47
4,568.64	4,221.00	MNCS_C		-0.03	135.47
4,644.21	4,262.00	MNCS_Cms @ 0VS		-0.03	135.47

Planning Report

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build
1,948.22	1,909.74	209.29	-96.80	Begin 28.45° tangent
3,764.50	3,506.72	994.54	-459.99	Begin 10°/100' drop/build/turn
4,635.11	4,257.45	893.82	-238.26	Begin 60.00° tangent
4,695.11	4,287.45	856.78	-201.82	Begin 10°/100' build/turn
4,995.36	4,364.21	652.36	-0.75	Begin 90.03° lateral
9,960.93	4,362.00	-2,887.74	3,481.29	Begin 2°/100' build
10,000.21	4,361.71	-2,915.74	3,508.83	Begin 90.81° lateral
14,924.74	4,292.00	-6,426.23	6,961.74	PBHL/TD @ 14924.74 MD 4292.00 TVD

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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 Greater Lybrook 57 Pad (53,54,55,56 & 57)

Site Position:		**Northing:**	1,895,341.584 usft	**Latitude:**	36.208887000
From:	Lat/Long	**Easting:**	2,745,902.467 usft	**Longitude:**	-107.756010000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Greater Lybrook Unit No. 055H, Surf loc: 1376 FSL 2024 FEL Section 23-T23N-R09W

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,895,362.670 usft	**Latitude:**	36.208945000
	+E/-W	0.00 ft	**Easting:**	2,745,868.525 usft	**Longitude:**	-107.756125000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,802.00 ft
Grid Convergence:		0.05 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/10/2023	8.60	62.69	49,101.65250916

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	135.47

Plan Survey Tool Program **Date** 5/11/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,924.34	rev1 (Original Hole)	MWD OWSG MWD - Standard	

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,948.22	28.45	335.18	1,909.74	209.29	-96.80	3.00	3.00	0.00	335.18	
3,764.50	28.45	335.18	3,506.72	994.54	-459.99	0.00	0.00	0.00	0.00	
4,635.11	60.00	135.47	4,257.45	893.82	-238.26	10.00	3.62	18.41	163.00	
4,695.11	60.00	135.47	4,287.45	856.78	-201.82	0.00	0.00	0.00	0.00	
4,995.36	90.03	135.47	4,364.21	652.36	-0.75	10.00	10.00	0.00	0.01	
9,960.93	90.03	135.47	4,362.00	-2,887.74	3,481.29	0.00	0.00	0.00	0.00	G Lybrook 055 vs=45
10,000.21	90.81	135.47	4,361.71	-2,915.74	3,508.83	2.00	2.00	0.00	0.00	
14,924.74	90.81	135.47	4,292.00	-6,426.23	6,961.74	0.00	0.00	0.00	0.00	G Lybrook 055 LTP 2

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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	0.00	0.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
100.00	0.00	0.00	100.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
200.00	0.00	0.00	200.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
300.00	0.00	0.00	300.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
350.00	0.00	0.00	350.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
13 3/8" Casing									
400.00	0.00	0.00	400.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
414.00	0.00	0.00	414.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
Ojo Alamo									
500.00	0.00	0.00	500.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
514.00	0.00	0.00	514.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
Kirtland									
600.00	0.00	0.00	600.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
700.00	0.00	0.00	700.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
737.00	0.00	0.00	737.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
Fruitland									
800.00	0.00	0.00	800.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
900.00	0.00	0.00	900.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,895,362.670	2,745,868.525	36.208945000	-107.756125000
KOP Begin 3°/100' build									
1,100.00	3.00	335.18	1,099.95	2.38	-1.10	1,895,365.046	2,745,867.426	36.208951528	-107.756128718
1,112.06	3.36	335.18	1,112.00	2.98	-1.38	1,895,365.654	2,745,867.145	36.208953198	-107.756129669
Pictured Cliffs									
1,200.00	6.00	335.18	1,199.63	9.50	-4.39	1,895,372.166	2,745,864.133	36.208971096	-107.756139862
1,237.61	7.13	335.18	1,237.00	13.40	-6.20	1,895,376.069	2,745,862.328	36.208981820	-107.756145970
Lewis									
1,300.00	9.00	335.18	1,298.77	21.34	-9.87	1,895,384.012	2,745,858.654	36.209003648	-107.756158401
1,400.00	12.00	335.18	1,397.08	37.88	-17.52	1,895,400.550	2,745,851.005	36.209049097	-107.756184286
1,490.37	14.71	335.18	1,485.00	56.82	-26.28	1,895,419.495	2,745,842.242	36.209101159	-107.756213937
Chacra									
1,500.00	15.00	335.18	1,494.31	59.07	-27.32	1,895,421.736	2,745,841.206	36.209107317	-107.756217444
1,600.00	18.00	335.18	1,590.18	84.84	-39.24	1,895,447.510	2,745,829.285	36.209178149	-107.756257785
1,700.00	21.00	335.18	1,684.43	115.13	-53.25	1,895,477.804	2,745,815.274	36.209261399	-107.756305198
1,800.00	24.00	335.18	1,776.81	149.86	-69.31	1,895,512.533	2,745,799.211	36.209356838	-107.756359554
1,900.00	27.00	335.18	1,867.06	188.93	-87.38	1,895,551.603	2,745,781.141	36.209464206	-107.756420703
1,948.22	28.45	335.18	1,909.74	209.29	-96.80	1,895,571.963	2,745,771.724	36.209520157	-107.756452569
Begin 28.45° tangent									
2,000.00	28.45	335.18	1,955.27	231.68	-107.15	1,895,594.348	2,745,761.370	36.209581675	-107.756487606
2,100.00	28.45	335.18	2,043.20	274.91	-127.15	1,895,637.582	2,745,741.374	36.209700485	-107.756555273
2,200.00	28.45	335.18	2,131.12	318.15	-147.15	1,895,680.815	2,745,721.378	36.209819296	-107.756622940
2,300.00	28.45	335.18	2,219.05	361.38	-167.14	1,895,724.049	2,745,701.381	36.209938106	-107.756690608
2,400.00	28.45	335.18	2,306.97	404.61	-187.14	1,895,767.283	2,745,681.385	36.210056916	-107.756758275
2,500.00	28.45	335.18	2,394.90	447.85	-207.14	1,895,810.516	2,745,661.389	36.210175726	-107.756825943
2,600.00	28.45	335.18	2,482.83	491.08	-227.13	1,895,853.750	2,745,641.393	36.210294537	-107.756893611
2,667.30	28.45	335.18	2,542.00	520.18	-240.59	1,895,882.846	2,745,627.936	36.210374495	-107.756939152
Cliff House									
2,700.00	28.45	335.18	2,570.75	534.31	-247.13	1,895,896.983	2,745,621.397	36.210413347	-107.756961280
2,701.42	28.45	335.18	2,572.00	534.93	-247.41	1,895,897.597	2,745,621.113	36.210415033	-107.756962240
Menefee									
2,800.00	28.45	335.18	2,658.68	577.55	-267.12	1,895,940.217	2,745,601.400	36.210532157	-107.757028948
2,812.88	28.45	335.18	2,670.00	583.11	-269.70	1,895,945.784	2,745,598.826	36.210547455	-107.757037661
9 5/8" Casing									
2,900.00	28.45	335.18	2,746.60	620.78	-287.12	1,895,983.451	2,745,581.404	36.210650967	-107.757096617

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
3,000.00	28.45	335.18	2,834.53	664.02	-307.12	1,896,026.684	2,745,561.408	36.210769777	-107.757164285
3,100.00	28.45	335.18	2,922.46	707.25	-327.11	1,896,069.918	2,745,541.412	36.210888587	-107.757231955
3,200.00	28.45	335.18	3,010.38	750.48	-347.11	1,896,113.151	2,745,521.416	36.211007397	-107.757299624
3,300.00	28.45	335.18	3,098.31	793.72	-367.11	1,896,156.385	2,745,501.419	36.211126206	-107.757367293
3,400.00	28.45	335.18	3,186.24	836.95	-387.10	1,896,199.619	2,745,481.423	36.211245016	-107.757434963
3,500.00	28.45	335.18	3,274.16	880.18	-407.10	1,896,242.852	2,745,461.427	36.211363826	-107.757502633
3,600.00	28.45	335.18	3,362.09	923.42	-427.09	1,896,286.086	2,745,441.431	36.211482636	-107.757570303
3,700.00	28.45	335.18	3,450.01	966.65	-447.09	1,896,329.319	2,745,421.435	36.211601446	-107.757637973
3,764.50	28.45	335.18	3,506.72	994.54	-459.99	1,896,357.204	2,745,408.538	36.211678075	-107.757681619
Begin 10°/100' drop/build/turn									
3,800.00	25.07	337.63	3,538.42	1,009.17	-466.40	1,896,371.839	2,745,402.123	36.211718292	-107.757703325
3,807.24	24.39	338.20	3,545.00	1,011.98	-467.54	1,896,374.647	2,745,400.984	36.211726009	-107.757707180
Point Lookout									
3,850.00	20.41	342.34	3,584.52	1,027.29	-473.08	1,896,389.955	2,745,395.442	36.211768073	-107.757725926
3,900.00	15.95	349.62	3,632.02	1,042.36	-476.97	1,896,405.029	2,745,391.557	36.211809491	-107.757739057
3,950.00	11.90	1.99	3,680.55	1,054.28	-478.03	1,896,416.947	2,745,390.497	36.211842232	-107.757742616
3,971.86	10.40	10.20	3,702.00	1,058.47	-477.60	1,896,421.141	2,745,390.925	36.211853754	-107.757741156
Mancos									
4,000.00	8.87	24.42	3,729.75	1,062.95	-476.25	1,896,425.617	2,745,392.272	36.211866048	-107.757736578
4,050.00	8.09	58.42	3,779.23	1,068.31	-471.66	1,896,430.975	2,745,396.866	36.211880755	-107.757720988
4,100.00	10.09	87.91	3,828.63	1,070.31	-464.28	1,896,432.978	2,745,404.247	36.211886244	-107.757695965
4,150.00	13.71	104.91	3,877.56	1,068.94	-454.17	1,896,431.613	2,745,414.356	36.211882471	-107.757661699
4,200.00	17.99	114.46	3,925.66	1,064.22	-441.41	1,896,426.889	2,745,427.118	36.211869466	-107.757618451
4,250.00	22.56	120.34	3,972.55	1,056.17	-426.09	1,896,418.842	2,745,442.434	36.211847327	-107.757566550
4,300.00	27.28	124.30	4,017.88	1,044.87	-408.34	1,896,407.533	2,745,460.190	36.211816224	-107.757506391
4,319.42	29.13	125.51	4,035.00	1,039.61	-400.81	1,896,402.279	2,745,467.716	36.211801773	-107.757480892
MNCS_A									
4,350.00	32.07	127.16	4,061.32	1,030.38	-388.28	1,896,393.049	2,745,480.248	36.211776392	-107.757438433
4,400.00	36.92	129.34	4,102.51	1,012.83	-366.07	1,896,375.500	2,745,502.458	36.211728135	-107.757363191
4,435.19	40.35	130.60	4,130.00	998.71	-349.24	1,896,361.381	2,745,519.290	36.211689311	-107.757306170
MNCS_B									
4,450.00	41.80	131.08	4,141.16	992.35	-341.88	1,896,355.019	2,745,526.649	36.211671820	-107.757281240
4,500.00	46.70	132.51	4,176.97	969.09	-315.89	1,896,331.763	2,745,552.638	36.211607876	-107.757193202
4,550.00	51.61	133.73	4,209.66	943.24	-288.30	1,896,305.907	2,745,580.227	36.211536789	-107.757099749
4,568.64	53.45	134.14	4,221.00	932.97	-277.65	1,896,295.642	2,745,590.880	36.211508566	-107.757063663
MNCS_C									
4,600.00	56.54	134.79	4,238.99	914.98	-259.32	1,896,277.650	2,745,609.206	36.211459100	-107.757001590
4,635.11	60.00	135.47	4,257.45	893.82	-238.26	1,896,256.489	2,745,630.265	36.211400923	-107.756930257
Begin 60.00° tangent									
4,644.21	60.00	135.47	4,262.00	888.20	-232.73	1,896,250.871	2,745,635.792	36.211385477	-107.756911538
MNCS_Cms @ 0VS									
4,695.11	60.00	135.47	4,287.45	856.78	-201.82	1,896,219.446	2,745,666.705	36.211299085	-107.756806831
Begin 10°/100' build/turn									
4,700.00	60.49	135.47	4,289.88	853.75	-198.84	1,896,216.418	2,745,669.683	36.211290760	-107.756796741
4,750.00	65.49	135.47	4,312.58	822.00	-167.61	1,896,184.672	2,745,700.913	36.211203482	-107.756690963
4,800.00	70.49	135.47	4,331.31	788.97	-135.11	1,896,151.636	2,745,733.410	36.211112658	-107.756580890
4,850.00	75.49	135.47	4,345.93	754.89	-101.60	1,896,117.561	2,745,766.928	36.211018978	-107.756467359
4,900.00	80.49	135.47	4,356.34	720.04	-67.31	1,896,082.707	2,745,801.212	36.210923156	-107.756351235
4,950.00	85.49	135.47	4,362.44	684.67	-32.52	1,896,047.338	2,745,836.001	36.210825920	-107.756233400
4,995.36	90.03	135.47	4,364.21	652.36	-0.75	1,896,015.032	2,745,867.779	36.210737100	-107.756125767
Begin 90.03° lateral									
5,000.00	90.03	135.47	4,364.21	649.06	2.51	1,896,011.725	2,745,871.031	36.210728011	-107.756114753
5,100.00	90.03	135.47	4,364.17	577.76	72.63	1,895,940.433	2,745,941.154	36.210532009	-107.755877238

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
5,200.00	90.03	135.47	4,364.12	506.47	142.75	1,895,869.140	2,746,011.277	36.210336007	-107.755639725
5,300.00	90.03	135.47	4,364.08	435.18	212.88	1,895,797.847	2,746,081.401	36.210140004	-107.755402213
5,400.00	90.03	135.47	4,364.03	363.88	283.00	1,895,726.554	2,746,151.524	36.209944001	-107.755164702
5,500.00	90.03	135.47	4,363.99	292.59	353.12	1,895,655.261	2,746,221.648	36.209747997	-107.754927192
5,600.00	90.03	135.47	4,363.94	221.30	423.25	1,895,583.969	2,746,291.771	36.209551993	-107.754689683
5,700.00	90.03	135.47	4,363.90	150.01	493.37	1,895,512.676	2,746,361.895	36.209355988	-107.754452176
5,800.00	90.03	135.47	4,363.85	78.71	563.49	1,895,441.383	2,746,432.018	36.209159983	-107.754214671
5,900.00	90.03	135.47	4,363.81	7.42	633.62	1,895,370.090	2,746,502.141	36.208963978	-107.753977165
6,000.00	90.03	135.47	4,363.76	-63.87	703.74	1,895,298.797	2,746,572.265	36.208767972	-107.753739662
6,100.00	90.03	135.47	4,363.72	-135.17	773.87	1,895,227.505	2,746,642.388	36.208571965	-107.753502159
6,200.00	90.03	135.47	4,363.68	-206.46	843.99	1,895,156.212	2,746,712.512	36.208375958	-107.753264657
6,300.00	90.03	135.47	4,363.63	-277.75	914.11	1,895,084.919	2,746,782.635	36.208179951	-107.753027157
6,400.00	90.03	135.47	4,363.59	-349.05	984.24	1,895,013.626	2,746,852.758	36.207983943	-107.752789658
6,500.00	90.03	135.47	4,363.54	-420.34	1,054.36	1,894,942.333	2,746,922.882	36.207787934	-107.752552160
6,600.00	90.03	135.47	4,363.50	-491.63	1,124.48	1,894,871.041	2,746,993.005	36.207591925	-107.752314663
6,700.00	90.03	135.47	4,363.45	-562.92	1,194.61	1,894,799.748	2,747,063.129	36.207395916	-107.752077168
6,800.00	90.03	135.47	4,363.41	-634.22	1,264.73	1,894,728.455	2,747,133.252	36.207199906	-107.751839673
6,900.00	90.03	135.47	4,363.36	-705.51	1,334.85	1,894,657.162	2,747,203.376	36.207003896	-107.751602180
7,000.00	90.03	135.47	4,363.32	-776.80	1,404.98	1,894,585.869	2,747,273.499	36.206807885	-107.751364688
7,100.00	90.03	135.47	4,363.27	-848.10	1,475.10	1,894,514.577	2,747,343.622	36.206611874	-107.751127197
7,200.00	90.03	135.47	4,363.23	-919.39	1,545.22	1,894,443.284	2,747,413.746	36.206415862	-107.750889707
7,300.00	90.03	135.47	4,363.19	-990.68	1,615.35	1,894,371.991	2,747,483.869	36.206219850	-107.750652219
7,400.00	90.03	135.47	4,363.14	-1,061.97	1,685.47	1,894,300.698	2,747,553.994	36.206023837	-107.750414732
7,500.00	90.03	135.47	4,363.10	-1,133.27	1,755.60	1,894,229.405	2,747,624.117	36.205827824	-107.750177246
7,600.00	90.03	135.47	4,363.05	-1,204.56	1,825.72	1,894,158.113	2,747,694.241	36.205631810	-107.749939761
7,700.00	90.03	135.47	4,363.01	-1,275.85	1,895.84	1,894,086.820	2,747,764.364	36.205435796	-107.749702277
7,800.00	90.03	135.47	4,362.96	-1,347.15	1,965.97	1,894,015.527	2,747,834.487	36.205239781	-107.749464794
7,900.00	90.03	135.47	4,362.92	-1,418.44	2,036.09	1,893,944.234	2,747,904.611	36.205043766	-107.749227313
8,000.00	90.03	135.47	4,362.87	-1,489.73	2,106.21	1,893,872.941	2,747,974.734	36.204847751	-107.748989833
8,100.00	90.03	135.47	4,362.83	-1,561.03	2,176.34	1,893,801.649	2,748,044.858	36.204651735	-107.748752354
8,200.00	90.03	135.47	4,362.78	-1,632.32	2,246.46	1,893,730.356	2,748,114.981	36.204455718	-107.748514876
8,300.00	90.03	135.47	4,362.74	-1,703.61	2,316.58	1,893,659.063	2,748,185.104	36.204259701	-107.748277399
8,400.00	90.03	135.47	4,362.70	-1,774.90	2,386.71	1,893,587.770	2,748,255.228	36.204063684	-107.748039924
8,500.00	90.03	135.47	4,362.65	-1,846.20	2,456.83	1,893,516.477	2,748,325.351	36.203867666	-107.747802450
8,600.00	90.03	135.47	4,362.61	-1,917.49	2,526.95	1,893,445.185	2,748,395.475	36.203671647	-107.747564976
8,700.00	90.03	135.47	4,362.56	-1,988.78	2,597.08	1,893,373.892	2,748,465.598	36.203475628	-107.747327505
8,800.00	90.03	135.47	4,362.52	-2,060.08	2,667.20	1,893,302.599	2,748,535.722	36.203279609	-107.747090034
8,900.00	90.03	135.47	4,362.47	-2,131.37	2,737.33	1,893,231.306	2,748,605.845	36.203083589	-107.746852564
9,000.00	90.03	135.47	4,362.43	-2,202.66	2,807.45	1,893,160.013	2,748,675.968	36.202887569	-107.746615096
9,100.00	90.03	135.47	4,362.38	-2,273.95	2,877.57	1,893,088.721	2,748,746.092	36.202691548	-107.746377629
9,200.00	90.03	135.47	4,362.34	-2,345.25	2,947.70	1,893,017.428	2,748,816.215	36.202495527	-107.746140163
9,300.00	90.03	135.47	4,362.29	-2,416.54	3,017.82	1,892,946.135	2,748,886.339	36.202299505	-107.745902698
9,400.00	90.03	135.47	4,362.25	-2,487.83	3,087.94	1,892,874.842	2,748,956.462	36.202103483	-107.745665234
9,500.00	90.03	135.47	4,362.21	-2,559.13	3,158.07	1,892,803.549	2,749,026.585	36.201907460	-107.745427772
9,600.00	90.03	135.47	4,362.16	-2,630.42	3,228.19	1,892,732.257	2,749,096.709	36.201711437	-107.745190311
9,700.00	90.03	135.47	4,362.12	-2,701.71	3,298.31	1,892,660.964	2,749,166.832	36.201515413	-107.744952851
9,800.00	90.03	135.47	4,362.07	-2,773.01	3,368.44	1,892,589.671	2,749,236.956	36.201319389	-107.744715392
9,900.00	90.03	135.47	4,362.03	-2,844.30	3,438.56	1,892,518.378	2,749,307.079	36.201123364	-107.744477934
9,960.93	90.03	135.47	4,362.00	-2,887.74	3,481.29	1,892,474.936	2,749,349.808	36.201003918	-107.744333241
Begin 2°/100' build									
10,000.21	90.81	135.47	4,361.71	-2,915.74	3,508.83	1,892,446.933	2,749,377.352	36.200926921	-107.744239971
Begin 90.81° lateral									
10,100.00	90.81	135.47	4,360.30	-2,986.88	3,578.80	1,892,375.801	2,749,447.318	36.200731336	-107.744003049
10,200.00	90.81	135.47	4,358.89	-3,058.16	3,648.92	1,892,304.515	2,749,517.434	36.200535330	-107.743765619

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
10,300.00	90.81	135.47	4,357.47	-3,129.45	3,719.03	1,892,233.229	2,749,587.551	36.200339323	-107.743528189
10,400.00	90.81	135.47	4,356.05	-3,200.73	3,789.15	1,892,161.944	2,749,657.667	36.200143315	-107.743290761
10,500.00	90.81	135.47	4,354.64	-3,272.02	3,859.27	1,892,090.658	2,749,727.784	36.199947308	-107.743053334
10,600.00	90.81	135.47	4,353.22	-3,343.30	3,929.38	1,892,019.373	2,749,797.900	36.199751299	-107.742815909
10,700.00	90.81	135.47	4,351.81	-3,414.59	3,999.50	1,891,948.087	2,749,868.017	36.199555291	-107.742578484
10,800.00	90.81	135.47	4,350.39	-3,485.88	4,069.62	1,891,876.801	2,749,938.133	36.199359281	-107.742341061
10,900.00	90.81	135.47	4,348.98	-3,557.16	4,139.73	1,891,805.516	2,750,008.249	36.199163272	-107.742103639
11,000.00	90.81	135.47	4,347.56	-3,628.45	4,209.85	1,891,734.230	2,750,078.366	36.198967262	-107.741866218
11,100.00	90.81	135.47	4,346.14	-3,699.73	4,279.97	1,891,662.944	2,750,148.482	36.198771251	-107.741628798
11,200.00	90.81	135.47	4,344.73	-3,771.02	4,350.08	1,891,591.659	2,750,218.599	36.198575240	-107.741391379
11,300.00	90.81	135.47	4,343.31	-3,842.31	4,420.20	1,891,520.373	2,750,288.715	36.198379228	-107.741153962
11,400.00	90.81	135.47	4,341.90	-3,913.59	4,490.32	1,891,449.087	2,750,358.832	36.198183216	-107.740916546
11,500.00	90.81	135.47	4,340.48	-3,984.88	4,560.43	1,891,377.802	2,750,428.948	36.197987204	-107.740679130
11,600.00	90.81	135.47	4,339.07	-4,056.16	4,630.55	1,891,306.516	2,750,499.064	36.197791191	-107.740441717
11,700.00	90.81	135.47	4,337.65	-4,127.45	4,700.67	1,891,235.230	2,750,569.181	36.197595177	-107.740204304
11,800.00	90.81	135.47	4,336.23	-4,198.73	4,770.78	1,891,163.945	2,750,639.297	36.197399163	-107.739966892
11,900.00	90.81	135.47	4,334.82	-4,270.02	4,840.90	1,891,092.659	2,750,709.414	36.197203149	-107.739729482
12,000.00	90.81	135.47	4,333.40	-4,341.31	4,911.01	1,891,021.374	2,750,779.530	36.197007134	-107.739492073
12,100.00	90.81	135.47	4,331.99	-4,412.59	4,981.13	1,890,950.088	2,750,849.646	36.196811118	-107.739254665
12,200.00	90.81	135.47	4,330.57	-4,483.88	5,051.25	1,890,878.802	2,750,919.763	36.196615102	-107.739017258
12,300.00	90.81	135.47	4,329.16	-4,555.16	5,121.36	1,890,807.517	2,750,989.879	36.196419086	-107.738779853
12,400.00	90.81	135.47	4,327.74	-4,626.45	5,191.48	1,890,736.231	2,751,059.996	36.196223069	-107.738542448
12,500.00	90.81	135.47	4,326.33	-4,697.73	5,261.60	1,890,664.945	2,751,130.112	36.196027052	-107.738305045
12,600.00	90.81	135.47	4,324.91	-4,769.02	5,331.71	1,890,593.660	2,751,200.229	36.195831034	-107.738067643
12,700.00	90.81	135.47	4,323.49	-4,840.31	5,401.83	1,890,522.374	2,751,270.345	36.195635016	-107.737830242
12,800.00	90.81	135.47	4,322.08	-4,911.59	5,471.95	1,890,451.088	2,751,340.461	36.195438997	-107.737592842
12,900.00	90.81	135.47	4,320.66	-4,982.88	5,542.06	1,890,379.803	2,751,410.578	36.195242978	-107.737355444
13,000.00	90.81	135.47	4,319.25	-5,054.16	5,612.18	1,890,308.517	2,751,480.694	36.195046958	-107.737118047
13,100.00	90.81	135.47	4,317.83	-5,125.45	5,682.30	1,890,237.232	2,751,550.811	36.194850938	-107.736880650
13,200.00	90.81	135.47	4,316.42	-5,196.74	5,752.41	1,890,165.946	2,751,620.927	36.194654918	-107.736643256
13,300.00	90.81	135.47	4,315.00	-5,268.02	5,822.53	1,890,094.660	2,751,691.044	36.194458896	-107.736405862
13,400.00	90.81	135.47	4,313.58	-5,339.31	5,892.65	1,890,023.375	2,751,761.160	36.194262875	-107.736168469
13,500.00	90.81	135.47	4,312.17	-5,410.59	5,962.76	1,889,952.089	2,751,831.276	36.194066853	-107.735931078
13,600.00	90.81	135.47	4,310.75	-5,481.88	6,032.88	1,889,880.803	2,751,901.393	36.193870830	-107.735693688
13,700.00	90.81	135.47	4,309.34	-5,553.16	6,103.00	1,889,809.518	2,751,971.509	36.193674807	-107.735456299
13,800.00	90.81	135.47	4,307.92	-5,624.45	6,173.11	1,889,738.232	2,752,041.626	36.193478784	-107.735218911
13,900.00	90.81	135.47	4,306.51	-5,695.74	6,243.23	1,889,666.946	2,752,111.742	36.193282760	-107.734981524
14,000.00	90.81	135.47	4,305.09	-5,767.02	6,313.35	1,889,595.661	2,752,181.858	36.193086735	-107.734744139
14,100.00	90.81	135.47	4,303.68	-5,838.31	6,383.46	1,889,524.375	2,752,251.975	36.192890710	-107.734506754
14,200.00	90.81	135.47	4,302.26	-5,909.59	6,453.58	1,889,453.089	2,752,322.091	36.192694685	-107.734269371
14,300.00	90.81	135.47	4,300.84	-5,980.88	6,523.70	1,889,381.804	2,752,392.208	36.192498659	-107.734031989
14,400.00	90.81	135.47	4,299.43	-6,052.16	6,593.81	1,889,310.518	2,752,462.324	36.192302633	-107.733794609
14,500.00	90.81	135.47	4,298.01	-6,123.45	6,663.93	1,889,239.233	2,752,532.441	36.192106606	-107.733557229
14,600.00	90.81	135.47	4,296.60	-6,194.74	6,734.05	1,889,167.947	2,752,602.557	36.191910579	-107.733319851
14,700.00	90.81	135.47	4,295.18	-6,266.02	6,804.16	1,889,096.661	2,752,672.673	36.191714551	-107.733082473
14,800.00	90.81	135.47	4,293.77	-6,337.31	6,874.28	1,889,025.376	2,752,742.790	36.191518523	-107.732845097
14,900.00	90.81	135.47	4,292.35	-6,408.59	6,944.40	1,888,954.090	2,752,812.906	36.191322494	-107.732607723
14,924.74	90.81	135.47	4,292.00	-6,426.23	6,961.74	1,888,936.455	2,752,830.252	36.191274000	-107.732549000
PBHL/TD @ 14924.74 MD 4292.00 TVD									

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
G Lybrook 055 FTP 202 - plan misses target center by 19.79ft at 4996.94ft MD (4364.21 TVD, 651.24 N, 0.36 E) - Point	0.00	0.00	4,384.00	651.23	0.37	1,896,013.904	2,745,868.891	36.210734000	-107.756122000
G Lybrook 055 LTP 232 - plan hits target center - Point	0.00	0.00	4,292.00	-6,426.23	6,961.74	1,888,936.455	2,752,830.252	36.191274000	-107.732549000
G Lybrook 055 vs=0 - plan misses target center by 0.01ft at 5460.94ft MD (4364.00 TVD, 320.44 N, 325.74 E) - Point	0.00	0.00	4,364.00	320.44	325.74	1,895,683.110	2,746,194.264	36.209824560	-107.755019942
G Lybrook 055 vs=4500 - plan hits target center - Point	0.00	0.00	4,362.00	-2,887.74	3,481.29	1,892,474.936	2,749,349.808	36.201003918	-107.744333241

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2
2,812.88	2,670.00	9 5/8" Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
414.00	414.00	Ojo Alamo		-0.03	135.47
514.00	514.00	Kirtland		-0.03	135.47
737.00	737.00	Fruitland		-0.03	135.47
1,112.06	1,112.00	Pictured Cliffs		-0.03	135.47
1,237.61	1,237.00	Lewis		-0.03	135.47
1,490.37	1,485.00	Chacra		-0.03	135.47
2,667.30	2,542.00	Cliff House		-0.03	135.47
2,701.42	2,572.00	Menefee		-0.03	135.47
3,807.24	3,545.00	Point Lookout		-0.03	135.47
3,971.86	3,702.00	Mancos		-0.03	135.47
4,319.42	4,035.00	MNCS_A		-0.03	135.47
4,435.19	4,130.00	MNCS_B		-0.03	135.47
4,568.64	4,221.00	MNCS_C		-0.03	135.47
4,644.21	4,262.00	MNCS_Cms @ 0VS		-0.03	135.47

Planning Report - Geographic

Database:	DB_Decv0422v16	**Local Co-ordinate Reference:**	Well Greater Lybrook Unit No. 055H
Company:	Enduring Resources LLC	**TVD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Project:	San Juan County, New Mexico NAD83 NM W	**MD Reference:**	RKB+6802+28 @ 6830.00ft (Ensign 773)
Site:	Greater Lybrook 57 Pad (53,54,55,56 & 57)	**North Reference:**	Grid
Well:	Greater Lybrook Unit No. 055H	**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
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build
1,948.22	1,909.74	209.29	-96.80	Begin 28.45° tangent
3,764.50	3,506.72	994.54	-459.99	Begin 10°/100' drop/build/turn
4,635.11	4,257.45	893.82	-238.26	Begin 60.00° tangent
4,695.11	4,287.45	856.78	-201.82	Begin 10°/100' build/turn
4,995.36	4,364.21	652.36	-0.75	Begin 90.03° lateral
9,960.93	4,362.00	-2,887.74	3,481.29	Begin 2°/100' build
10,000.21	4,361.71	-2,915.74	3,508.83	Begin 90.81° lateral
14,924.74	4,292.00	-6,426.23	6,961.74	PBHL/TD @ 14924.74 MD 4292.00 TVD

WELL NAME: **GREATER LYBROOK UNIT 055H**

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

API Number: *not yet assigned*

AFE Number: *not yet assigned*

ER Well Number: *not yet assigned*

State: New Mexico

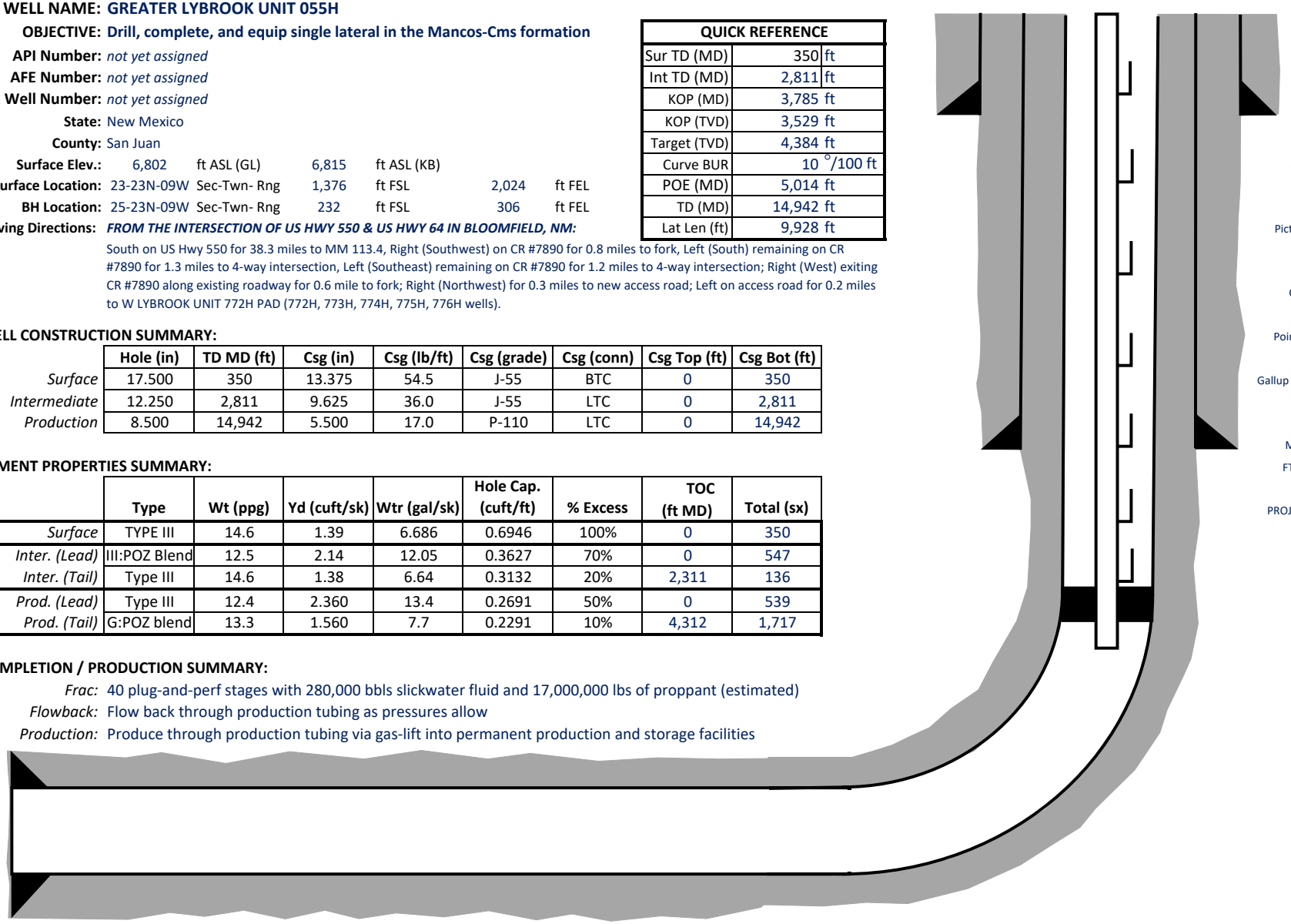
County: San Juan

Surface Elev.:	6,802	ft ASL (GL)	6,815	ft ASL (KB)		
Surface Location:	23-23N-09W	Sec-Twn- Rng	1,376	ft FSL	2,024	ft FEL
BH Location:	25-23N-09W	Sec-Twn- Rng	232	ft FSL	306	ft FEL

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

South on US Hwy 550 for 38.3 miles to MM 113.4, 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 1.2 miles to 4-way intersection; Right (West) exiting CR #7890 along existing roadway for 0.6 mile to fork; Right (Northwest) for 0.3 miles to new access road; Left on access road for 0.2 miles to W LYBROOK UNIT 772H PAD (772H, 773H, 774H, 775H, 776H wells).

QUICK REFERENCE		
Sur TD (MD)	350	ft
Int TD (MD)	2,811	ft
KOP (MD)	3,785	ft
KOP (TVD)	3,529	ft
Target (TVD)	4,384	ft
Curve BUR	10	°/100 ft
POE (MD)	5,014	ft
TD (MD)	14,942	ft
Lat Len (ft)	9,928	ft



Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	417	417
Kirtland	520	520
Fruitland	720	720
Pictured Cliffs	1,100	1,100
Lewis	1,222	1,223
Chacra	1,491	1,496
Cliff House	2,548	2,671
Menefee	2,573	2,699
Point Lookout	3,530	3,784
Mancos	3,675	3,940
Gallup (MNCS_A)	4,035	4,312
MNCS_B	4,146	4,444
MNCS_C	4,236	4,589
MNCS_Cms	4,276	4,663
FTP TARGET	4,384	5,014
PROJECTED TD	4,352	14,942

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	2,811	9.625	36.0	J-55	LTC	0	2,811
Production	8.500	14,942	5.500	17.0	P-110	LTC	0	14,942

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	547
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,311	136
Prod. (Lead)	Type III	12.4	2.360	13.4	0.2691	50%	0	539
Prod. (Tail)	G:POZ blend	13.3	1.560	7.7	0.2291	10%	4,312	1,717

COMPLETION / PRODUCTION SUMMARY:

Frac: 40 plug-and-perf stages with 280,000 bbls slickwater fluid and 17,000,000 lbs of proppant (estimated)

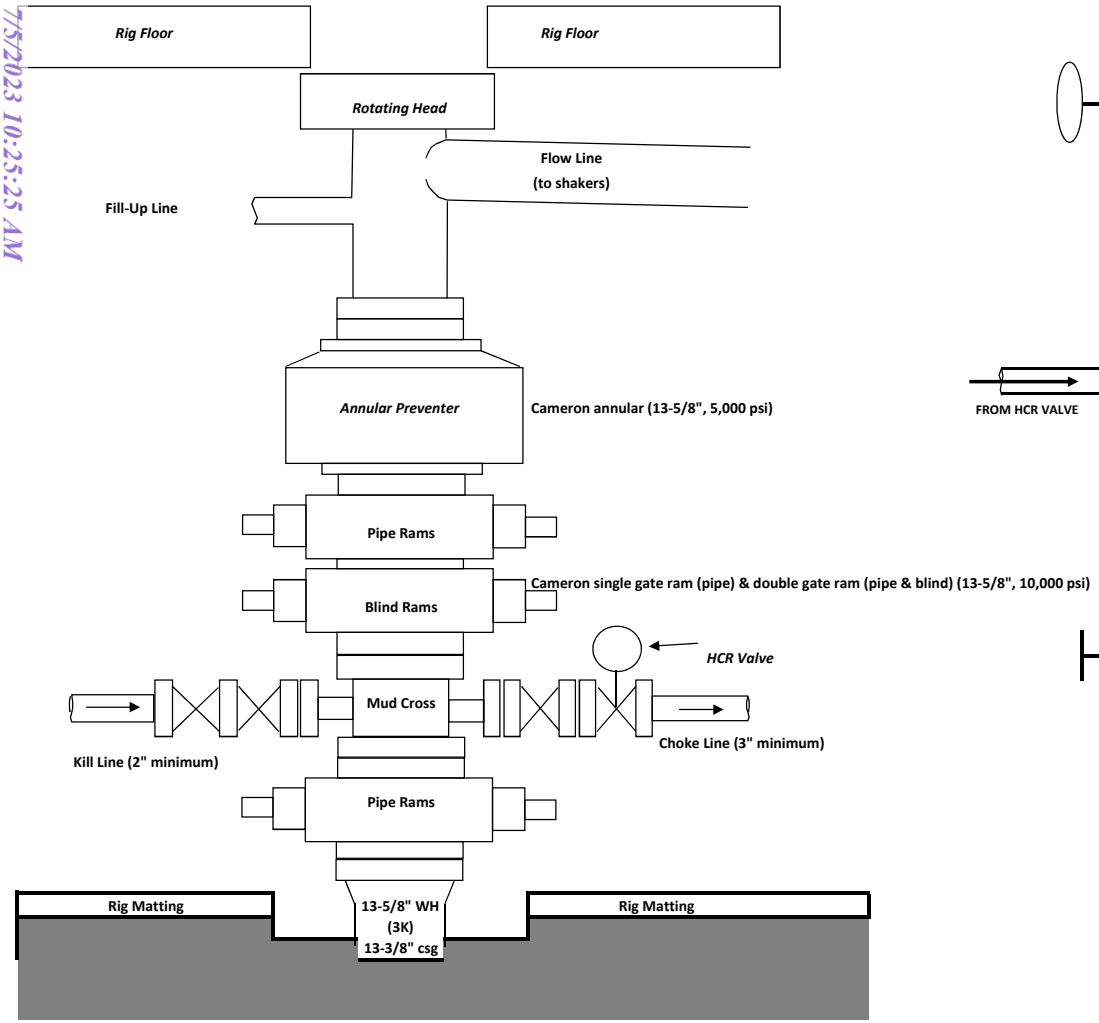
Flowback: Flow back through production tubing as pressures allow

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

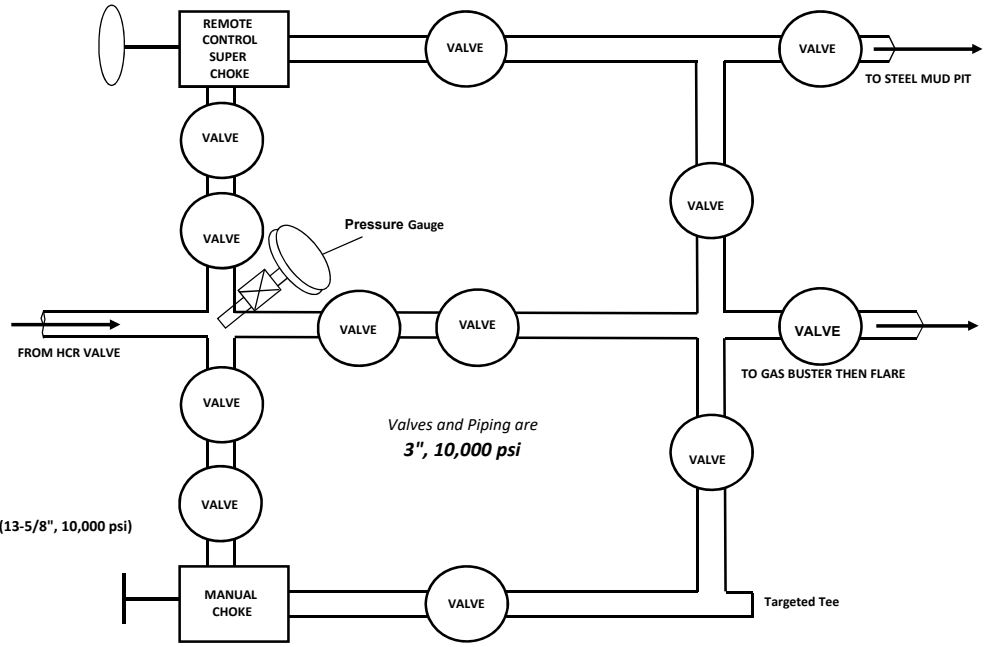
BOPE & CHOKE MANIFOLD DIAGRAMS

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 234617

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 234617
	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	7/5/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/5/2023
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	7/5/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	7/5/2023
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	7/5/2023