

**COMMITTEE ON NATURAL RESOURCES**  
**118<sup>th</sup> Congress**  
**Hearing - July 13, 2023, 2:00 PM**

**H.R. 4374 (Rep. Crane), the "Energy Opportunities for All Act"**

**Questions from Rep. Westerman** for Anita Ashland, Senior Land Consultant,  
Enduring Resources:

1. In Deputy Director Culver's testimony, she says that getting rid of the withdrawal will leave cultural sites, objects, and landscapes vulnerable to impacts from oil and gas and solid mineral extraction.
  - a. Is this true - do companies like yours destroy cultural sites when producing energy?

No, Enduring Resources operates in full compliance with the National Historic Preservation Act ("NHPA"), which through Section 106, directs the Bureau of Land Management to require applicants to survey potential areas of disturbance. Enduring Resources retains qualified consultants who adhere to NHPA's Archeology Guidance. Before any surface is disturbed for a well pad, road or a pipeline, Enduring Resources is required to retain a cultural resource expert to conduct a pedestrian survey of the entire footprint of the proposed surface installation, plus a buffer zone in a radius around the site, in order to identify any cultural resources or archeological sites that would be impacted by the proposed surface facility. This consultant is required to hold a permit for archeological surveys. If any cultural resource or archeological site has been identified, the consultant will make a recommendation as to whether or not the site is eligible for listing on the National Register, and should be avoided, or if that is not possible, how any impact may be mitigated. The consultant's survey and recommendations are then reviewed by the BLM, which may agree or disagree with the recommendation.

- b. Can you walk us through the process that Enduring and other companies go through with the BLM if a cultural resource is identified at a location where you have drilling plans?

Any surface occupancy on federal or tribal lands is heavily regulated, with many checks and balances in place to protect cultural resources or archeological sites. *See e.g.* Antiquities Act of 1906 (protecting historic, prehistoric artifacts on federal lands); Historic Sites Act of 1935 (protecting historic sites, buildings and objects on federal land); Archeological and Historic Preservation Act of 1974 (protects scientific, historic and archeological material and data that might be damaged by federal projects); Archeological Resources Protection Act of 1979 (preservation and custody of excavated materials, records and data on federal lands); Native American Graves and Protection and Repatriation Act (1979) (protects human remains, and sacred objects of cultural patrimony); BLM, “Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources” (rev. 2021) and several related manuals (MS-8100, 8110, 8120, 8130, 8140, 8150) and other guidance. The NHPA requires the BLM to consult at every step in the process with the State Historical Preservation Office and in the case of allotted lands, with the Navajo Nation Heritage and Historic Preservation Department. If an archeological site is eligible for listing on the National Register, the proposed surface disturbance may be moved, rerouted, or, as a last resort, any impact must be mitigated. The appropriate type of mitigation must be approved by all agencies involved in the review process. Even if the site or object is not eligible for listing on the National Register, the operator and the agencies involved must agree on appropriate protective measures or modifications to the planned surface disturbance.

Enduring Resources recently had this situation arise in its Haynes Canyon Unit, a federal unit located in Rio Arriba County, NM. The archeological survey identified a cultural or archeological resource in an area that had been surveyed for a well pad. As a result of discussions with the BLM about potential accommodations, Enduring decided to relocate the well pad in order to avoid any surface disturbance.

2. In your testimony you say that undeveloped federal and allottee leases will expire due to the withdrawal, could you explain why?

Issued, but undeveloped, federal and allottee leases in the withdrawal area that are not currently included in an approved federal unit will expire because it has been, and with the withdrawal will continue to be, impossible to acquire needed, additional federal leases on adjoining unleased federal tracts. As explained below, large federal units that combine checker-boarded federal and allottee leases are necessary for development.

For example, the last lease sale for this area was held in 2019. BLM still has not issued the three leases awarded to Enduring regardless of the fact that Enduring paid significant bonus dollars and first year rental payments in March 2019 that BLM retains. Without those unissued federal leases, the federal unit cannot be formed, development cannot proceed and the issued federal and allottee leases that were planned for that unit will expire at the end of their lease terms due to lack of development.

Enduring produces in the Mancos shale formation using horizontal drilling and multi-stage hydraulic fracturing completions. The Mancos formation is developed by drilling wells approximately one mile below the surface, with laterals up to three miles in length. Drilling long laterals requires large blocks of minerals. Four to eight laterals can be drilled from one 3-acre well pad.

In order to drill across tracts with mixed ownership, it is necessary to form large federal units in order to pool the interests in the drilling block being drained by multiple well pads. No new federal leases in the withdrawal area means no future lease bonus payments, rentals or royalties will be paid to allottees because without federal leases on the federally owned tracts contiguous with the allotted tracts, it is uneconomic and infeasible to lease or to develop only allottee leases.

3. How much money did Enduring pay to Navajo Nation allottees in 2022?

In 2022, Enduring paid \$39,908,770.64 in royalties to Navajo Nation allottees.

4. What percentage of Enduring's workforce are members of the Navajo Nation?

Members of the Navajo Nation represent 15% of Enduring's workforce.

5. Can you explain why you think that the BLM erred in asserting that only 47 wells will be prevented from development in its' analysis?

In the "Proposed Chaco Area Withdrawal, Environmental Assessment" (November 2022) ("Withdrawal EA"), the BLM based its analysis on its Mineral Potential Report. Because BLM's "low potential" estimate in the Mineral Potential Report is so far off the mark, for the three reasons we discuss below, the BLM's analysis of impacts to future oil and gas development

is significantly flawed.

Based on Enduring Resources' actual experience as the operator of 247 high-producing Mancos oil wells in the area, and its knowledge of the geophysical and other data the company relies on to make investment-backed decisions in the development of a lease, the BLM has grossly underestimated the fluid mineral resource potential in the withdrawal area. Contrary to BLM's argument that the potential is low, Enduring knows that the developable fluid mineral resource north of CCHNP is substantial. As explained in detail below, rather than 47 wells, over 233 wells will be forgone along with significant oil and gas and mineral revenues to the federal government and allottees.

In reaching its new conclusion of "low potential," BLM makes three errors.

1. Reservoir analysis. The BLM does not accurately consider the oil saturation and the porosity of the reservoir rocks (SoPhiH calculation) to correctly estimate the fluid minerals potential in this area. In understanding the potential of a reservoir for development, Enduring follows standard industry practice and relies on a SoPhiH measurement. This is because SoPhiH is the primary measurement of reservoir quality needed to calculate an oil-in-place volume. SoPhiH is the Oil Saturation x Average Porosity of the oil saturated reservoir rock x Thickness of saturated reservoir rock. In addition to the development of the Mancos-Gallup, Enduring also has successfully developed and produced from the Mancos silt interval. We know that in areas where the Mancos Silt and the Gallup are mapped as having a SoPhiH value above 1, wells drilled and completed in these intervals produce significant volumes of oil.

North of the CCHNP, where Enduring has mapped a SoPhiH >1, the oil-in-place is calculated as being greater than 4 million barrels of oil per section. See **Exhibit A** (map illustrating areas with SoPhiH >1 in the withdrawal area). Moreover, based on Enduring's experience in the Kimbeto Wash and Greater Lybrook Units, both partially within the withdrawal area (*see* Exhibit A), a reasonable recovery factor for Mancos Silt/Gallup horizontal wells is 10% of the oil-in-place. Therefore, assuming current 1200' well spacing (four wells per section), four horizontal wells, with a lateral length of 1-mile, drilled in a section with greater than 4 million barrels of oil per section can be expected to produce >100,000 barrels of oil per well. Again, based on actual results in the Kimbeto Wash and Greater Lybrook Units, a conservative gas to oil ratio in this area is 300 bcf/bbl.

In Enduring's experience, reserves below SoPhiH >1 would be doubtful to be drilled. Based only on the development potential for unleased acreage within the withdrawal area with a SoPhiH >1, Enduring estimates that 233 total horizontal wells, including

39 Mancos Silt wells and 194 Gallup wells, will be forgone as a result of the 10-mile withdrawal. Based on reserve reports from adjacent and nearby wells in the Kimbeto Wash and Greater Lybrook Units, Enduring can conservatively estimate that a 50 well/year industry (several companies) drilling program to develop the 233 wells (five wells per pad) could be expected to produce over 86,000,000 barrels of oil and 25.85 billion cubic feet of natural gas. Enduring's calculations that support these conclusions are contained in **Exhibit B** (spreadsheet).

2. Development plan. The BLM analyzes productivity based on a lease-by-lease development basis rather than the industry standard in the basin of large unit development to calculate developable reserves. This has the effect of raising costs and lowering the amount of recovery. The estimates described by Enduring in Exhibit B are based on current practice in this part of the San Juan Basin to use large units combining federal, state and allottee acreages in order to drill long horizontal wells. This allows operators to recover reserves economically and efficiently with minimal surface impact. A one-and-a-half-mile horizontal well costs approximately \$6.5 million and returns an average of \$6 million per year in revenue, with a projected 20-year life cycle. Providing the necessary access roads, pipelines, water handling facilities and power lines for this undeveloped withdrawal area would add several million dollars to that cost. In order to justify the investment required to construct multi-well pads, surface facilities, water recycling facilities and pipelines, operators must pool allottee leases with adjacent federal and state leases in large federal units managed by the BLM. Yet, in the Mineral Potential Report, the BLM uses an unrealistic lease-by-lease development scenario that ignores the realities of actual development practices in the withdrawal area, and drives up the costs, in order to support its new, "low potential" assessment of the withdrawal area.
3. High water cut error. The BLM's third error is to extrapolate a high water cut from one well to the entire northern part of the withdrawal area in order to again increase costs and lower development potential in an area BLM had once classified as medium to high development potential. The BLM argues that all Mancos wells north of the CCHNP, to Nageezi and Counselor, should now be viewed as low potential due to "an increase in water production from wells and a decrease in oil and natural gas production. . . .Wells near the withdrawal boundary yield about 80% water in the production stream, hindering economic justification for infill drilling." Mineral Potential Report, at p. 43. The BLM explains its change in resource potential from the previously identified medium potential to low potential as "due to the high water cut in production." *Id.*

To Enduring's knowledge, there is only one well in the area north of CCHNP with a water cut in the 80% range, the Enduring West Lybrook Unit #767H. This well is an anomaly and is offset by tens of adjacent wells with much lower water cuts. The BLM's decision to write off the entire withdrawal area north of CCHNP based on one data point from an anomalous well is arbitrary. Moreover, a high water cut well can be economically developed with water disposal systems that are commonly in use in the San Juan and Permian Basins in New Mexico.

Looking at the allottees alone, Enduring believes approximately 56,320 acres, outside of currently existing Mancos/Gallup units, could be developed in the withdrawal area. Of that, 10,720 acres or 19% of those acres are Navajo allottee tracts, and the remaining 45,600 acres (81%) are Federal/other. Based on estimated production and a royalty rate of 16.66%, the combined federal and allottee royalties forgone will be \$1,122,997 per year, for a total of \$1,022,459,948 over the 20-year withdrawal. Thus, the total lost royalty for allottees will be \$194,267,390. *See Exhibit B, Tab 2.* This amount of royalty spread over two decades would make a profound difference to the lives of the allottees and, in particular, to their elders who live at or below the poverty line.

6. In Mr. Atencio's testimony, he refers to a spill that occurred in 2019. The 2023 EPA report indicating that the reclaimed area had been restored to pre-spill functionality and has remained stable was introduced into the record.
  - a. Can you provide additional information about the nature of the spill and whether it caused any contamination to land, water or livestock?

On February 17, 2019, there was a spill of flowback liquids from a frozen flowline at the Enduring North Escavada Unit #315H well location (API 30-043-21888). A cam lock on an aboveground flowline outside of a tank battery containment berm failed, resulting in the release of approximately 1,400 barrels (bbl.) of flowback liquids, of which 300 bbl. was estimated to be crude oil. (Mr. Atencio translated these official figures into gallons in his testimony.) There were no hydraulic fracturing operations occurring as alleged by Mr. Atencio.

This undesired, but relatively small spill occurred in the NW/4SW/4 Section 10, Township 22 North, Range 7 West, in Sandoval County near Counselor, New Mexico. The location of the spill was approximately 16.6 miles from the outermost boundary of the CCHNP and outside the ten-mile withdrawal buffer area. It was near an ephemeral wash (a drainage area that is dry sometimes of the year) and the spill area is not near, nor connected to, any major waterbody including the San Juan River or Colorado River. The spill occurred on Allotment 155, owned by Rose Sam, Willie Harvey and Mary Harvey and their heirs. It is unclear if Mario

Atencio is part of their family, as he claims in his testimony.

The frozen flowline was detected the evening of February 17, 2019, and Enduring Resources personnel immediately rushed to the site and began diversion and containment efforts in the wash. The BLM and the Federal Indian Mineral Office (“FIMO”) were notified of the spill that evening. The FIMO is the federally approved point of contact for allottees receiving mineral royalties, and for that reason there is a level of trust between allottees and FIMO.

The next day, February 18, 2019, FIMO contacted all allottees who lived in the area around the spill to notify them of the spill and the efforts being made to contain and mitigate the spill. Enduring Resources also notified the Navajo Nation Environmental Protection agency, but that agency deferred to the U.S. Environmental Protection Agency (“EPA”) to oversee the containment and reclamation activities. Because the spill occurred on fee surface (Indian Allotted) land over federal minerals, agencies reviewing the cleanup work included the Bureau of Land Management, FIMO, U.S. EPA Region 9 and the U.S. Army Corps of Engineers (“USACE”). The Navajo Nation EPA was also kept involved.

The USACE, which works in coordination with U.S. EPA, was the lead agency on the cleanup. The USACE determined that there were no hazardous or toxic substances that would require the use of Clean Water Act Nationwide Permit 38 (“Cleanup of Hazardous and Toxic Wastes”) and elected to use a Clean Water Act Nationwide 20 (“Response Operations for Oil or Hazardous substances”) permit. Enduring Resources retained an environmental consulting firm with expertise in this type of work, as well as a law firm with Clean Water Act expertise, to ensure that the work was done according to relevant law.

On October 4, 2019, the USACE sent a letter directing Enduring Resources to take corrective actions including the preparation of a restoration plan for the area of the ephemeral wash and the related upland areas. On November 22, 2019, Enduring Resources submitted an “Ephemeral Wash Reclamation Plan and an Upland Reclamation Plan.”

Enduring Resources and its contractor implemented the Plans. On June 15, 2023, EPA confirmed that the bank stabilization and reconstruction for the North Escavada Unit #315H Ephemeral Wash reclamation was in full compliance with EPA’s Clean Water Act 401 certification and restored to pre-disturbance functionality, as stated in the document introduced at the subcommittee hearing.

All restoration work has been completed and is stable. There was no lasting damage to land or water sources as confirmed by subsequent soil and water testing. There was no damage to livestock. FIMO received no complaints nor claims of damages from allottees living in the area. No fines were assessed by any agency because there were no environmental violations. Enduring Resources was commended by the agencies for its immediate response, and thorough remediation and reclamation procedures. Enduring Resources has been released from all further work or reporting.

## Questions from Rep. Grijalva for Ms. Anita Ashland

1. Are Enduring Resources' current royalty payments to Navajo Allottees impacted by Public Land Order No. 7923?

Although the Navajo Allottees' current royalty payments are not immediately impacted by Public Land Order No. 7923 (PLO No. 7923), their future payments over both the short and long-term will be impacted. **PLO No. 7923 will have these short and long-term impacts on allottees:**

### 1. Short-term.

1. No new leasing of withdrawn federal acres. *New* leasing of adjacent allottee acres is unlikely without the now withdrawn federal leases. This means no *new* bonus payments to allottees.
2. Also in the immediate short term there is at least one Enduring development proposal that can't go forward—the proposed Lone Road Unit, that is located entirely within the withdrawal area. This development is missing necessary federal leases (BLM did not lease in the withdrawal area for last 10 years). These federal minerals are now withdrawn and won't be leased; without the unleased federal minerals the allottee leases will not be developed, and no royalties will be paid to the allottees.

### 2. Long-term.

1. Over the next 3-5 years the allottees will feel the impact of PLO No. 7923 withdrawal of Federal minerals.
2. Existing leases in and adjacent to the withdrawal area will expire due to the inability to develop allottee minerals without federal minerals. For example, two of Enduring Resource's most productive units, the Greater Lybrook and Rodeo Units, lie partially within and partially outside of the withdrawal area (*see* Exhibit A attached). As these existing units are fully drilled and developed over the next several years, Enduring planned to expand those units in order to drill additional wells on federal and allottee leases. Without the now withdrawn federal leases, the existing allottee and federal leases outside the existing unit will expire, and those lease bonus and rental payments will not be replaced.
3. Lease rentals will be paid during the term of these existing leases, but no royalties will be paid on those leased, but undeveloped minerals because without the federal leases it is uneconomic to develop only allottee leases.
4. No new leases, lease bonus payments, rentals and royalties in the withdrawal area because it is uneconomic to develop only the allottee leases.

Enduring testified that the withdrawal of federal minerals **will prevent the development of 233 horizontal wells or over 86,000,000 barrels of oil and 25.85 billion cubic feet of natural gas.** *See* attached Exhibits A and B. Based on these estimated production numbers and



a royalty rate of 16.66% the **forgone royalties for the Navajo allottees tracts alone** would be **\$194,267,390** over the **20-year** withdrawal. The BLM's predicted impacts in the Withdrawal EA on revenue, jobs and environmental justice communities, primarily the Navajo allottees, are much greater than disclosed in the Withdrawal EA.