



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

DEC 22 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: ^{ACTING} Regional Director, Great Plains Region

SUBJECT: Environmental Assessment Addendum and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued. The EA authorizes land use for the expansion of the existing Bear Den 04-20H, 05-31H and 07-17H well pads for the purpose of drilling 10 additional wells on the Fort Berthold Reservation, an Environmental Assessment (EA) Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI 40 CFR Section (1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)
Elgin Crows Breast, Tribal Historic Preservation Officer (with attachment)
Derek Enderud, BLM, Bureau of Land Management (with attachment)
Heather Smith, EOG Resources (with attachment)
John Shelman, US Army Corps of Engineers
Jeffrey Hunt, Fort Berthold Agency

**Finding of No Significant Impact
EOG Resources, Inc.**

**Addendum to Environmental Assessment to Authorize Land Use for
the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads,
for the Purpose of Drilling 10 additional Wells**

**Fort Berthold Indian Reservation
McKenzie County, North Dakota**

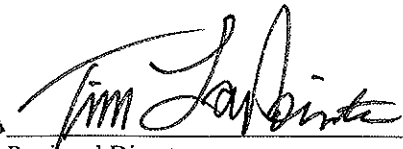
The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an Addendum to Environmental Assessment to Authorize Land Use for the expansion of the Bear Den 04-20H, 05-31H, & 07-17H well pads for the purpose of drilling 10 wells on the Fort Berthold Reservation. Associated federal actions by BIA include determinations of effect regarding cultural resources, approvals of leases, rights-of-way and easements, and a positive recommendation to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed actions to impact the human environment is analyzed in the attached Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed EA, I have determined that the proposed projects will not significantly affect the quality of the human environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement was solicited and environmental issues related to the proposal were identified.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternative.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).
4. The proposed actions are designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed projects will improve the socio-economic condition of the affected Indian community.

ACTING


Regional Director


Date

**ENVIRONMENTAL ASSESSMENT
Addendum**

**United States Department of the Interior
Bureau of Indian Affairs**

**Great Plains Regional Office
Aberdeen, South Dakota**



EOG Resources, Inc.

**Addendum to Environmental Assessment to Authorize Land Use for
the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads
for the Purpose of Drilling 10 Wells**

Fort Berthold Indian Reservation

December 2011

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources Management
115 4th Avenue SE, Aberdeen, South Dakota 57401
(605) 226-7656

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C	Bear Den 07-17H, 20-1708H, 106-1708H, & 108-1708H Well Pad Layout and Spacing Unit Plats

1. Purpose and Need for the Proposed Action

EOG Resources, Inc. (EOG) proposes to drill 10 oil and gas wells from three existing well pads in order to develop productive subsurface formations underlying oil and gas leases by EOG within the Fort Berthold Indian Reservation (Reservation). Assuming oil will be produced in paying quantities, production facilities would be installed at the referenced locations and commercial quantities of oil would be transported to market via trucks or pipelines. These developments have been proposed on lands held in trust by the United States in McKenzie County, North Dakota (Figures 1 and 2). The Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA manages surface lands held in title by the tribe and tribal members and subsurface mineral rights associated with the surface ownership. The proposed wells would target specific areas of known oil reserves located in the Bakken or Three Forks formations.

The purpose of the proposed action is to authorize land use by EOG for construction activities associated with the expansions of the existing Bear Den 04-20H, Bear Den 05-31H, and Bear Den 07-17H well pads (Figures 1 and 2). The proposed pad expansions are necessary in order to drill 10 additional wells on the three existing well pads. Refer to Tables 1, 2, and 3 for a listing of the 10 proposed wells. EOG also proposes installing underground utilities, such as electrical and fiber optic lines within the existing disturbance of the access road rights-of-way (ROW).

2. Authorities

Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, et seq.), the Indian Mineral Development Act of 1982 (25 USC 2101, et seq.), and the Energy Policy Act of 2005 (42 USC 15801, et seq.).

3. Legal Land Description for Proposed Action

The proposed well pad expansions are located on tribal land originating from Highway 22 northwest of Mandaree, North Dakota. More specifically, the Bear Den 04-20H pad is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 20, the Bear Den 05-31H is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 31, and the Bear Den 07-17H is located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 17, all within Township (T) 150 North (N), Range (R) 94 West (W), 5th Prime Meridian (P.M.), McKenzie County, North Dakota (Figure 1).

Table 1. Proposed Bear Den 04-20H Additional Wells.

Well	Surface Location	Bottom Hole Location
Bear Den #100-2017H	SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 20, Township (T) 150 North (N), Range (R) 94 West (W); 328 feet FSL, 397 feet FEL	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 17, Township (T) 150 North (N), Range (R) 94 West (W); 200 feet FNL, 500 feet FWL

Well	Surface Location	Bottom Hole Location
Bear Den #101-2019H	SE¼ SE¼ Section 20, Township (T) 150 North (N), Range (R) 94 West (W); 234 feet FSL, 429 feet FEL	NW¼ NW¼ Section 19, Township (T) 150 North (N), Range (R) 94 West (W); 500 feet FNL, 200 feet FWL
Bear Den #23-2019H	SE¼ SE¼ Section 20, Township (T) 150 North (N), Range (R) 94 West (W); 186 feet FSL, 446 feet FEL	NW¼ SW¼ Section 19, Township (T) 150 North (N), Range (R) 94 West (W); 1500 feet FSL, 200 feet FWL

Table 2. Proposed Bear Den 05-31H Additional Wells.

Well	Surface Location	Bottom Hole Location
Bear Den #21-3130H	SE¼ SE¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 646 feet FSL, 432 feet FEL	NW¼ NW¼ Section 30, Township (T) 150 North (N), Range (R) 94 West (W); 200 feet FNL, 500 feet FWL
Bear Den #22-31H	SE¼ SE¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 646 feet FSL, 482 feet FEL	NW¼ NW¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 2000 feet FNL, 500 feet FWL
Bear Den #106-3130H	SE¼ SE¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 646 feet FSL, 382 feet FEL	NE¼ NE¼ Section 30, Township (T) 150 North (N), Range (R) 94 West (W); 200 feet FNL, 550 feet FEL
Bear Den #107-3130H	SE¼ SE¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 646 feet FSL, 532 feet FEL	SW¼ SW¼ Section 31, Township (T) 150 North (N), Range (R) 94 West (W); 800 feet FSL, 500 feet FWL

Table 3. Proposed Bear Den 07-17H Additional Wells.

Well	Surface Location	Bottom Hole Location
Bear Den #20-1708H	SE¼ SE¼ Section 17, Township (T) 150 North (N), Range (R) 94 West (W); 279 feet FSL, 718 feet FEL	NW¼ NW¼ Section 08, Township (T) 150 North (N), Range (R) 94 West (W); 200 feet FNL, 2500 feet FWL
Bear Den #102-1708H	SE¼ SE¼ Section 17, Township (T) 150 North (N), Range (R) 94 West (W); 237 feet FSL, 744 feet FEL	NW¼ NW¼ Section 08, Township (T) 150 North (N), Range (R) 94 West (W); 500 feet FNL, 200 feet FWL

Well	Surface Location	Bottom Hole Location
Bear Den #108-1708H	SE¼ SE¼ Section 17, Township (T) 150 North (N), Range (R) 94 West (W); 365 feet FSL, 666 feet FEL	NW¼ SW¼ Section 08, Township (T) 150 North (N), Range (R) 94 West (W); 200 feet FNL, 600 feet FEL

4. Scope of Work for Proposed Action

EOG proposes expanding three existing well pads, drilling 10 wells, and installing underground utilities within the existing access road ROW's.

Bear Den 04-20H Well Pad

The existing Bear Den 04-20H well pad is approximately 4.5 acres in size. To accommodate three additional wells, EOG proposes expanding the well pad and disturbing 1.3 additional acres. The area of disturbance for the expanded well pad will total 5.8 acres. In order to optimize the existing well pad and minimize additional surface disturbance, the well pad will be expanded in an irregular shape. The northwest corner, southwest corner, and west edge of the well pad will be expanded while the remainder of the well pad will be relatively unchanged. See Figure 1 and Appendix A for a project area map and detailed schematics of the proposed well pad expansion.

Bear Den 05-31H Well Pad

The existing Bear Den 5-31H well pad is approximately 4.1 acres in size. To accommodate the additional four well bores EOG proposes expanding the well pad approximately 100 feet to the west equating to 1.2 acres of new disturbance. The area of disturbance for the expanded well pad will total 5.3 acres. See Figure 2 and Appendix B for a project area map and detailed schematics of the proposed well pad expansion.

Bear Den 07-17H Well Pad

The existing Bear Den 07-17H well pad is approximately 4.0 acres and would also require expansion to accommodate the additional three wells. In order to optimize the existing well pad and minimize additional surface disturbance, EOG proposes expanding the well pad on both the northern and southern ends. The pad expansion will create 1.0 acre of new disturbance and the area of disturbance for the expanded well pad will now total 5.0 acres. See Figure 1 and Appendix C for a project area map and detailed schematics of the proposed well pad expansion.

Site construction would follow design standards outlined in the Bureau of Land Management (BLM) Gold Book (BLM and U.S. Forest Service 2007¹) and all other construction and

¹ Bureau of Land Management and U.S. Forest Service
2007 Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development.
BLM/WO/ST-06/021+3071/REV 07. Bureau of Land Management. Denver, Colorado. 84 pp.

drilling operations of the additional wells will follow the methods described in the referenced Environmental Assessment for the Bear Den 04-20H, 05-31H, and 07-17H wells.

The pad expansion areas would be constructed to match the grade of the existing location and would be leveled by balancing cut and fill areas. Subsoil and the rock remaining from the new cuttings pit cut would be used to construct the location. Topsoil and spoil material from the pad expansion will be added to the existing spoil piles and the topsoil would be used for interim reclamation. Diversion ditches or berms would be constructed, as needed, along the perimeter of the well pad to reduce potential erosion from on and off site runoff.

A temporary pit for drill cuttings would be constructed within the cut portion of the well pad; no drilling liquids would be stored in the pit. The pit would be constructed so as not to leak, break, or allow discharge and in a way that minimizes the accumulation of precipitation runoff into the pit. A pit liner would have permeability less than 10^{-7} centimeters per second and burst strength greater than or equal to 300 pounds per square inch (psi) or puncture strength greater than or equal to 160 psi and grab tensile strength greater than or equal to 150 psi. A liner would be resistant to deterioration by hydrocarbons and would not be installed directly on a rock surface. Where necessary, bedding materials, such as sand or geotextile fiber liner, would be installed to prevent contact with exposed rock.

Prior to drilling, the existing fences would be re-routed around the exterior of the expanded well pads to prevent ingress by livestock or wildlife as determined at pre-construction on-site meetings.

Underground utilities including but not limited to fiber optic and power lines would be installed within the existing access road ROW and no new disturbance will occur as a result of the construction and installation activities.

Multiple underground pipelines including natural gas, oil, and water gathering lines from wells would be installed in the existing access road ROW. Gathering lines would be connected to trunk lines approved under other NEPA documents. All pipelines are clearly marked following the U.S. Department of Transportation's (USDOT's) rules and regulations, 49 CFR Parts 192 and 195. Markers would be placed within 1,000 feet of one another, at all public road crossings, railroad crossings, creek crossings, fence crossings, and at all points of major direction change.

Gathering lines are designed and sized to prevent erosion—which is an internal pipe condition caused by excessive abrasion of fine particles in the pipeline system or by excessive velocity of the transported product—by a safety factor of approximately two. Based on these criteria, the oil and gas pipelines would be steel and 12 inches or less in diameter and the water pipelines would be Fiberspar and 6 inches or less in diameter. The gathering lines would be coated with between 14 and 16 millimeters of fusion bonded epoxy, which helps protect the pipelines against corrosive elements in the soil. Field joints are also protected by shrink sleeves. Specialty coatings are also used, as applicable, for underground fittings and bore crossings, to provide additional levels of protection from leakage or corrosion. The coating and shrink sleeves are inspected thoroughly at the time of installation, both visually and electronically.

To prevent potential erosion or rupturing of the pipeline within critical areas near Lake Sakakawea or in drainages, the placement and bore depth of gathering lines is designed based on soil types in the area and surface drainage area within the vicinity of the bore. Gathering lines will be bored underneath drainages at a minimum depth of 8 feet. Additionally, bore pipes will be coated with specialty abrasion-resistant coating that provides substantial protection on the off chance that large erosion or flooding events occur.

Pipelines are also equipped with check valves and manual valves between the trunk line and gathering line, or lateral line, which provide connections to help limit the volume of potential spills. A Spill Response Plan (Plan) for pipeline construction and operation activities has been developed and will be followed by EOG and the pipeline installation company. The Plan includes spill prevention measures and monitoring protocols, notification procedures, spill detection and on-scene spill mitigation procedures, response activities, contacts, training and drill procedures, and response plan review and update procedures. EOG and the pipeline installation company are committed to adhering to the Plan as well as the procedures and requirements set forth by federal law (49 CFR Part 194).

Following installation of the gathering lines, the lines will be cleaned and inspected via internal tools (e.g., cleaning pigs and smart pigs), which helps to identify issues in the pipes. Hydrostatic testing is conducted to ensure that there is no leakage of the pipe. A cathodic survey using test stations, rectifier pads, and other means designed by cathodic protection specialists is also conducted. Any stress or damage issues identified in the pipelines can be quickly identified and remedied prior to backfill. Throughout the life of the gathering lines, an appropriate amount of cathodic active current is placed on pipeline segments and monitored in accordance with the strict pipeline safety requirements set forth in the USDOT's rules and regulations. In order to assure the quality of the installation and the effectiveness of its corrosion control systems, pig launchers and receivers are also installed on the trunk lines and primary laterals to identify pipeline conditions both internally and externally, in order to maintain the integrity.

Following trench backfilling and compaction, disturbed areas would be restored to the original land contour and the subsoil on the working side of the ROW and other work areas would be ripped to alleviate compaction. Topsoil would be redistributed over the ROW and graded and erosion control measures would be installed as appropriate. Replaced topsoil would be left in a roughened condition to discourage erosion and additional stabilization techniques may be required on steeper slopes, in areas that have highly erodible soils, and in areas adjacent to, or within, drainages. No unnatural depressions would be left that would trap water or form ponds; the trench would be compacted at 1- to 2-foot lifts to avoid subsidence. In no instance would the ROW or expanded work areas be lower than the natural grade.

No reclamation work would be completed when soils are frozen or overly wet and no depressions would be left to trap water or form ponds. If construction is stopped before interim reclamation can be completed due to winter weather conditions, the topsoil will be respread over the ROW after the trench is backfilled and matting or straw will be placed over the all bare ground as a barrier to aid in the prevention of subsidence. If construction is planned for winter months, the trench will be partially filled with useable, non-frozen, backfill soil to the extent possible. The trench would be backfilled and the topsoil distributed as soon as practicable after the soil has defrosted. Topsoil piles would be covered to eliminate the

potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events.

5. Surveys for Proposed Action

Bear Den 04-20H Well Pad

Representatives from BIA, Tribal Historic Preservation Office, EOG, Uintah Engineering and Land Surveying (Uintah), Seismic Land Management (SLM), and SWCA Environmental Consultants (SWCA) conducted onsite assessments of this location on June 16, 2011. SWCA conducted natural resource surveys for threatened and endangered species, migratory birds, bald and golden eagles, and wetlands on June 16 and August 10, 2011. BIA Environmental Specialist Jeff Desjarlais, and BLM Natural Resource Specialist, Dan Velder, conducted a follow up onsite of this location on August 10, 2011 and approved the proposed area of well pad expansion. No protected species were observed during the survey.

Bear Den 05-31H Well Pad

Representatives from BIA, EOG, Uintah, SLM, and SWCA conducted onsite assessments of this location on August 10, 2011. SWCA conducted natural resource surveys for threatened and endangered species, migratory birds, bald and golden eagles, and wetlands on July 12, August 10, and August 29, 2011. BIA Environmental Specialist Jeff Desjarlais, and BLM Natural Resource Specialist Dan Velder conducted a follow up onsite of this location on August 10, 2011 and approved the expanded well pad location of the on August 29, 2011. No protected species were observed during the survey.

Bear Den 07-17H Well Pad

Representatives from BIA, EOG, Uintah, SLM, and SWCA conducted onsite assessments of this location on August 10, 2011. SWCA conducted natural resource surveys for threatened and endangered species, migratory birds, bald and golden eagles, and wetlands on August 10 and 29, 2011. BIA Environmental Specialist Jeff Desjarlais, and BLM Natural Resource Specialist Dan Velder conducted a follow up onsite of this location on August 10, 2011 and approved the well pad's area of expansion. No protected species were observed during the survey.

Cultural resource inventories for these well pad expansion projects were conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. For the Bear Den 05-31H expansion project approximately 4.34 acres were inventoried on July 12, 2011 (Zietz 2011a). No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of no historic properties affected for this undertaking. This determination was communicated to the THPO on August 16, 2011; however the THPO did not respond within the allotted 30 day comment period. For the Bear Den 04-20H expansion project approximately 0.58 acre was inventoried on June 16, 2011 (Zietz 2011b) and for the Bear Den 7-17H expansion project approximately 8.1 acres were inventoried on July 12, 2011 (Zietz 2011c). No historic properties were located that

appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. On the basis of the information provided, BIA reached a determination of no historic properties affected for these undertakings. This determination was communicated to the THPO on September 6, 2011; however the THPO did not respond within the allotted 30 day comment period.

Zietz, Vanesa (2011a) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #05-31H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver.

(2011b) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #04-20H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver.

(2011c) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #7-17H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver.

6. Potential Effects

Potential impacts to cultural resource sites would occur as a result of direct disturbance and/or the loss of sites eligible for the National Register of Historic Places. Further, potential impacts to natural resources may include the loss of native vegetation and wildlife habitats; soil removal and mixing; and erosion during construction. However, potential impacts as a result of the proposed action were mitigated via field survey and subsequent avoidance of any eligible cultural resource sites within the proposed pad expansion, implementing erosion control features, completing reclamation of the disturbed areas with native grasses and other appropriate native vegetation, and stockpiling and re-using topsoil for reclamation. The proposed action would maintain a single access and single pad for the four producing wells. Optimizing a multi-well pad design minimizes the overall land use impacts compared to the disturbance from multiple well pads and access roads.

Potential indirect impacts to natural resources include noise and other disturbances to wildlife during construction and the introduction of noxious weeds. Impacts would be mitigated through avoidance of any federally listed threatened or endangered species or wetlands, avoidance of nesting migratory birds, implementing best management practices to control the introduction of noxious weeds, and minimizing the length of time between construction and reclamation. EOG proposes to mow the area of expansion for the described well pads or conduct migratory bird surveys within 5 days of initiating construction if construction is to occur between February 1 and July 15th. Mowing would occur outside the February 1 to July 15 nesting season. These mitigation measures are consistent with the previously approved National Environmental Policy Act (NEPA) EA document for the Bear Den 04-20H, 05-31H, & 7-17H well pads, which received a Finding of No Significant Impact in January 2010.

Based on resource survey findings, the supplementary assessment of the potential impacts of the proposed action, and the mitigation measures committed to by EOG, no significant impacts to natural and cultural resources are anticipated.

7. Applicable NEPA Document(s)

Environmental Assessment: EOG Resources, Inc., Three Bakken Exploratory Oil Wells: Bear Den 04-20H, Bear Den 05-31H, and Bear Den 07-17H (January 2010).

8. Other Relevant Documentation

Environmental Assessment: EOG Resources, Inc., Proposed Access Road Upgrade Township 150 North, Range 94 West, Sections 29 and 32 (November 2009).

Addendum to Environmental Assessment to Authorize Land Use for an Access Road Connecting the Mandaree 10-05H Access Road to the Bear Den 05-31H Well Pad (November 2010).

9. NEPA Adequacy Criteria

This document has identified a previously prepared NEPA document, *Environmental Assessment: EOG Resources, Inc., Three Bakken Exploratory Oil Wells: Bear Den 04-20H, Bear Den 05-31H, and Bear Den 07-17H (January 2010)*, which adequately describes the environmental consequences of the newly proposed action described herein, and meets the following NEPA Adequacy Criteria.

1. The proposed action is substantially the same action and at the site specifically analyzed in the existing NEPA document.
2. The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
5. The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA document.
6. The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)

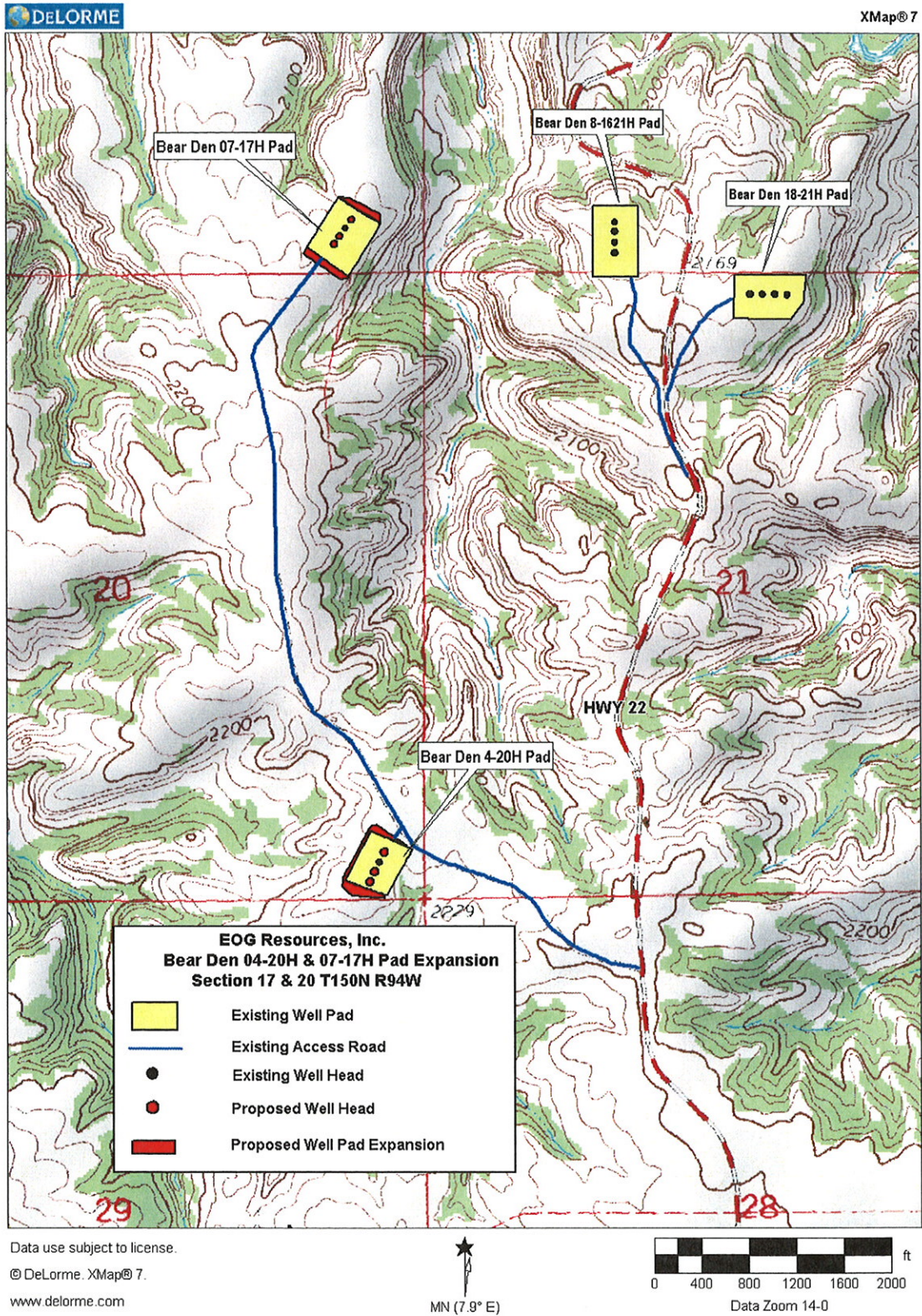


Figure 1. Proposed Expansion of the Bear Den 04-20H & 07-17H Well Pads.

Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E.
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

SEP 06 2011

Elgin Crows Breast, TJPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of the expansion of two oil well pads in McKenzie County, North Dakota. Approximately 8.68 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. No historic properties were located which appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of no historic properties affected for these undertakings. Catalogued as BIA Case Number AAO-1739/FB/10, the proposed undertakings, locations, and project dimensions are described in the following reports:

Zietz, Vanesa

- (2011a) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #04-20H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver.
- (2011b) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #7-17H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. We will adhere to the Standard Conditions of Compliance.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,


ACTING Regional Director

Enclosures

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency

*Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)*



United States Department of the Interior

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MC-208

AUG 16 2011

Elgin Crows Breast, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of a proposed oil well pad and an oil well pad expansion in McKenzie County, North Dakota. Approximately 20.34 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. No historic properties were located which appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for these undertakings. The proposed undertakings, locations, and project dimensions are described in the following reports:

Baer, Sara

(2011) A Class I and Class III Cultural Resource Inventory of the Mandaree #104-1716H Well Pad and Access Road/Utility Corridor on the Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver. Ms. on file (AAO-1896/FB/11)

Zietz, Vanesa

(2011) A Class I and Class III Cultural Resource Inventory for the Expansion of the EOG Bear Den #05-31H Well Pad, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for EOG Resources, Inc., Denver. Ms. on file (AAO-1739/FB/10)

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. We will adhere to the Standard Conditions of Compliance.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

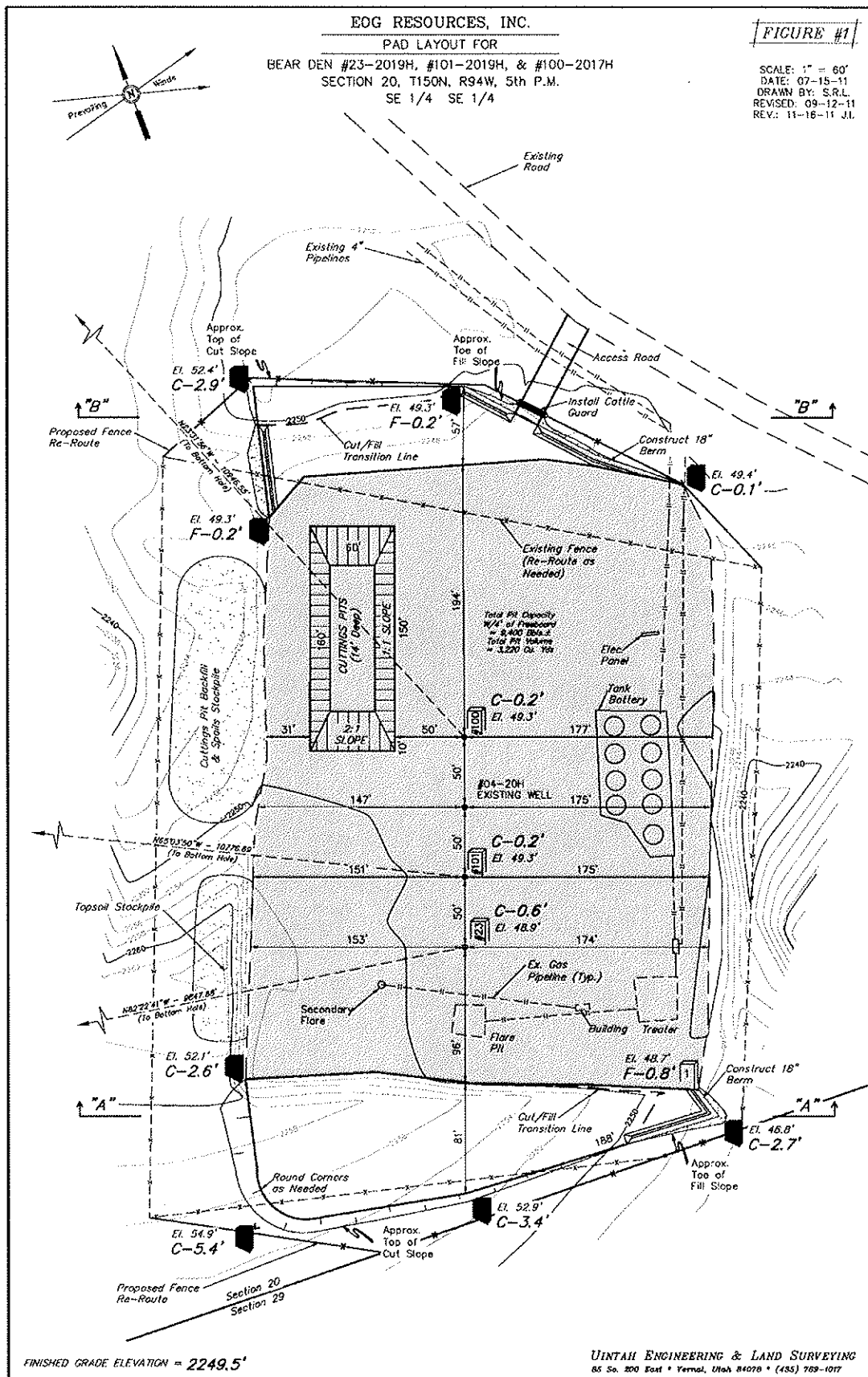
Regional Director

Enclosures

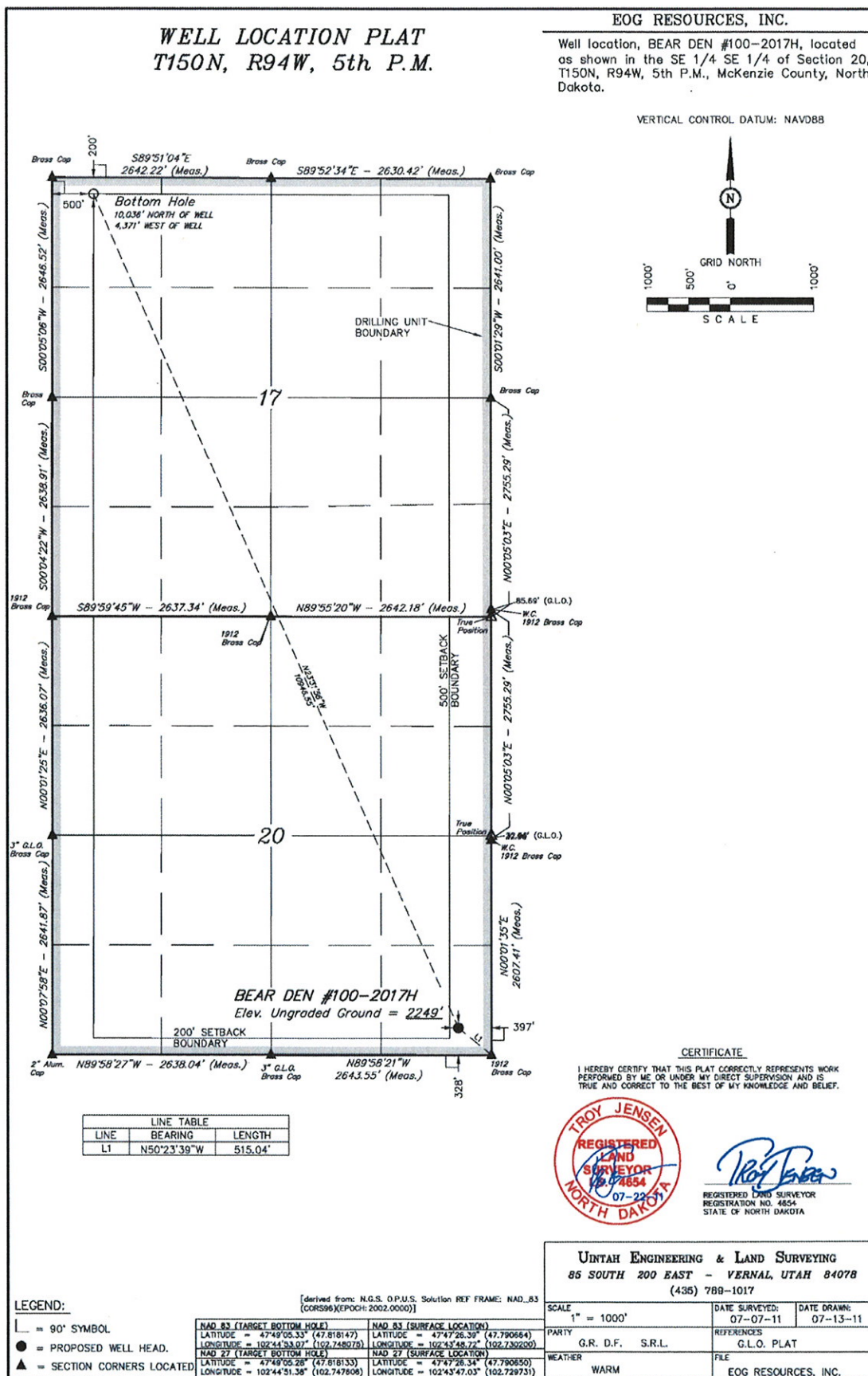
cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency

APPENDIX A
Bear Den 4-20H, 23-2019H, 100-2017H, & 101-2019H
Well Pad Layout and Spacing Unit Plats

Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)

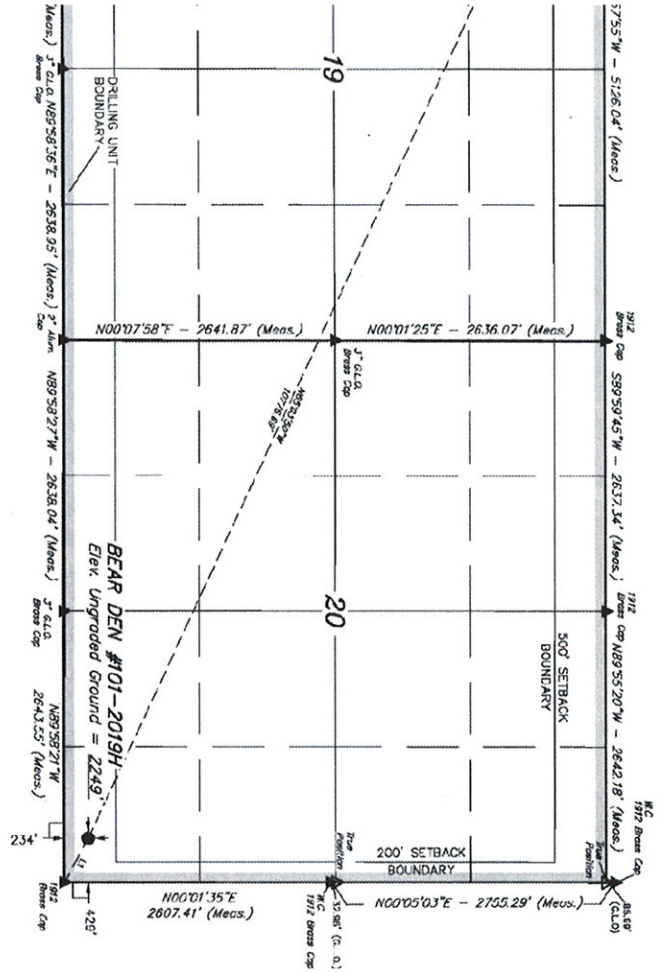


Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)

WELL LOCATION PLAT
T150N, R94W, 5th P.M.

EOG RE.
Well location, BEA
as shown in the S
T150N, R94W, 5th
Dakota

VERTICAL



LINE TABLE	
LINE	BEARING LENGTH
L1	N51°22'48\"/>

Source from: NEIS 02115, Section 107 FRANK, M.D. (20080808) (2008-2008-08-08)
 M.D. 05 (TRACT BOTTOM HOLD) M.D. 05 (SURFACE LOCATION)
 LATITUDE = 47°48'10.01\"/>

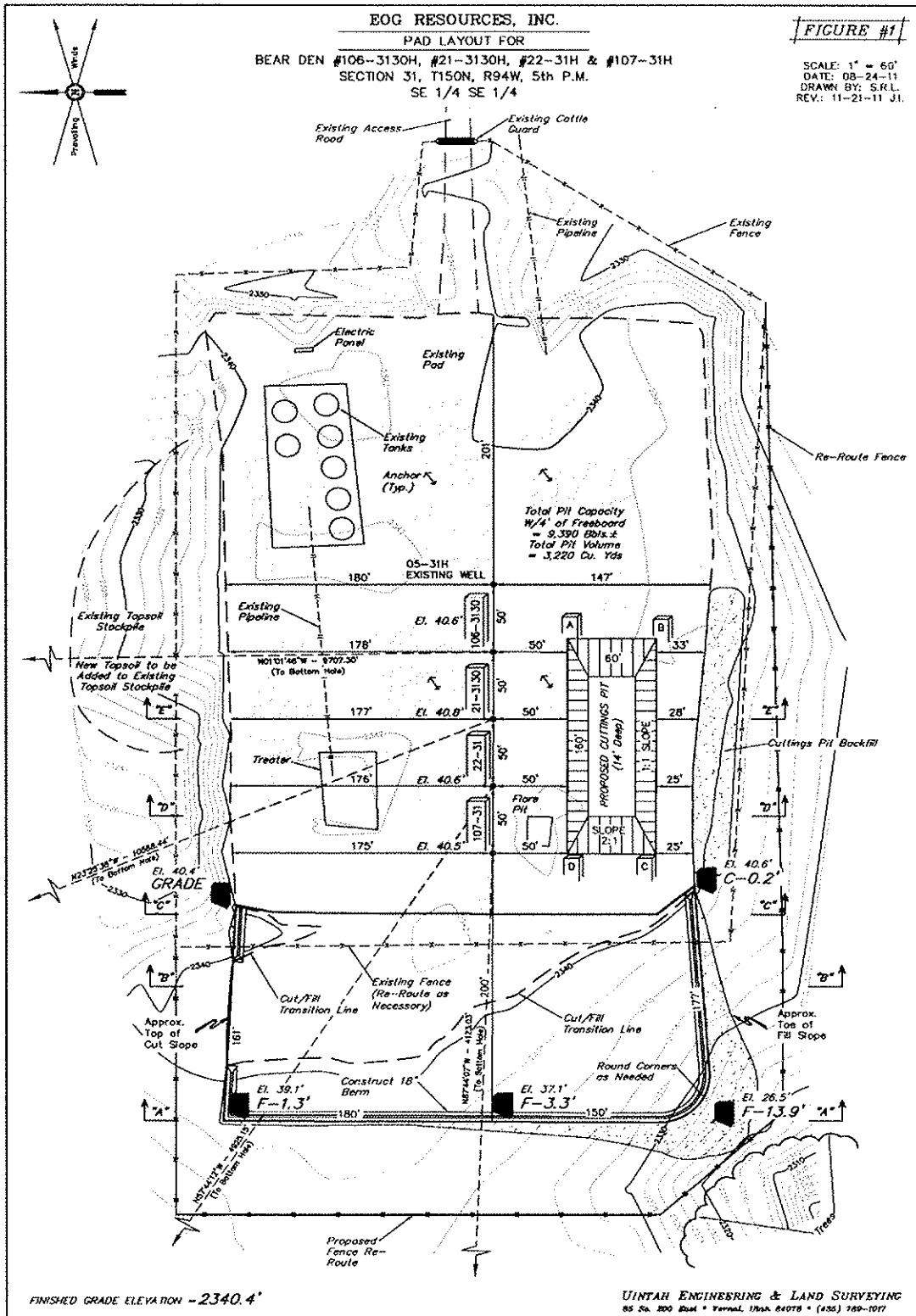
REV 07-14-11 S.R.L
 UTMAR ENGI
 85 SOUTH 200
 SCALE
 1" = 1000'
 PARTY
 D.G. E.W. D.P.
 WEATHER
 COOL



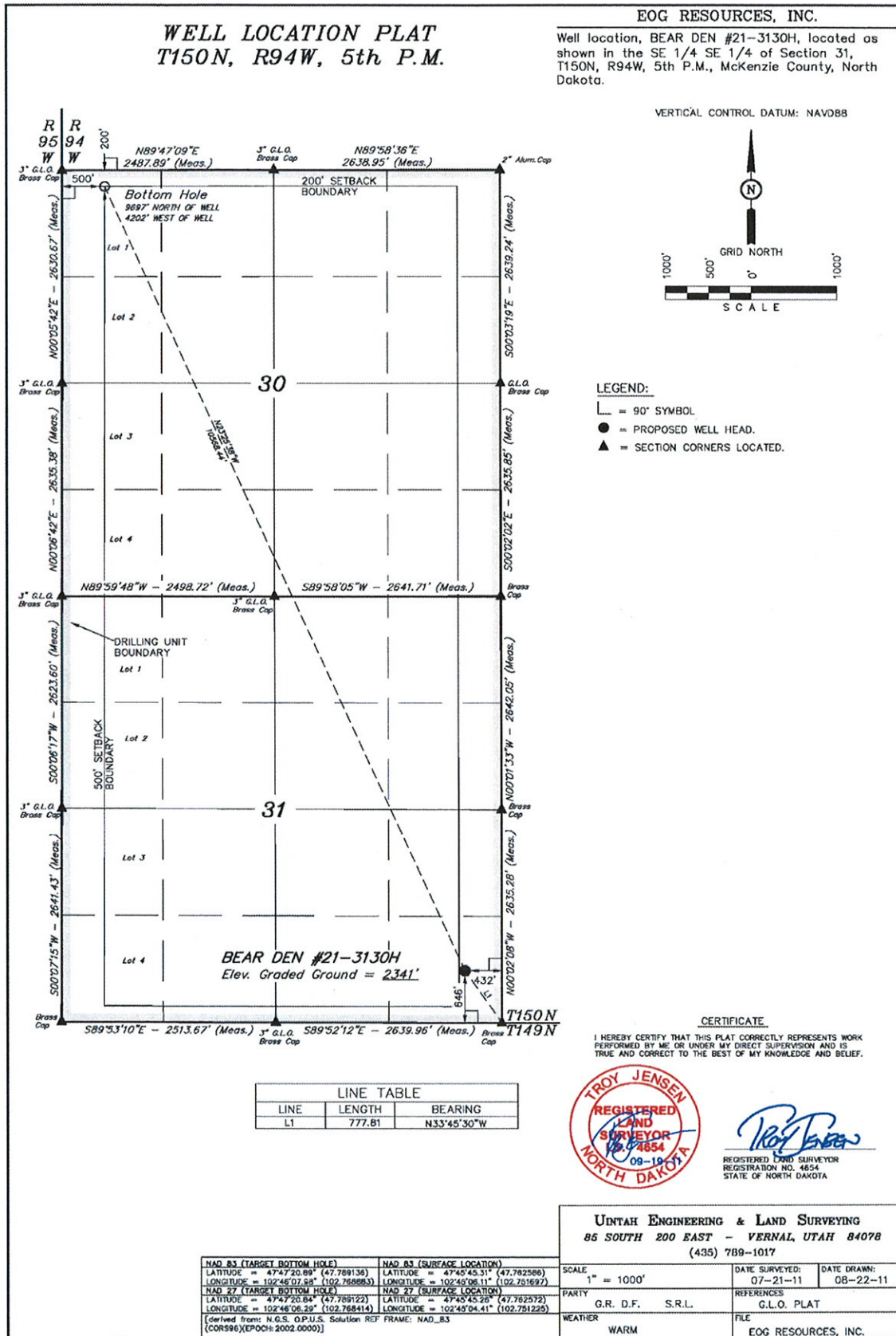
APPENDIX B

**Bear Den 05-31H, 21-3130H, 22-31H, 106-3130H, & 107-31H
Well Pad Layout and Spacing Unit Plats**

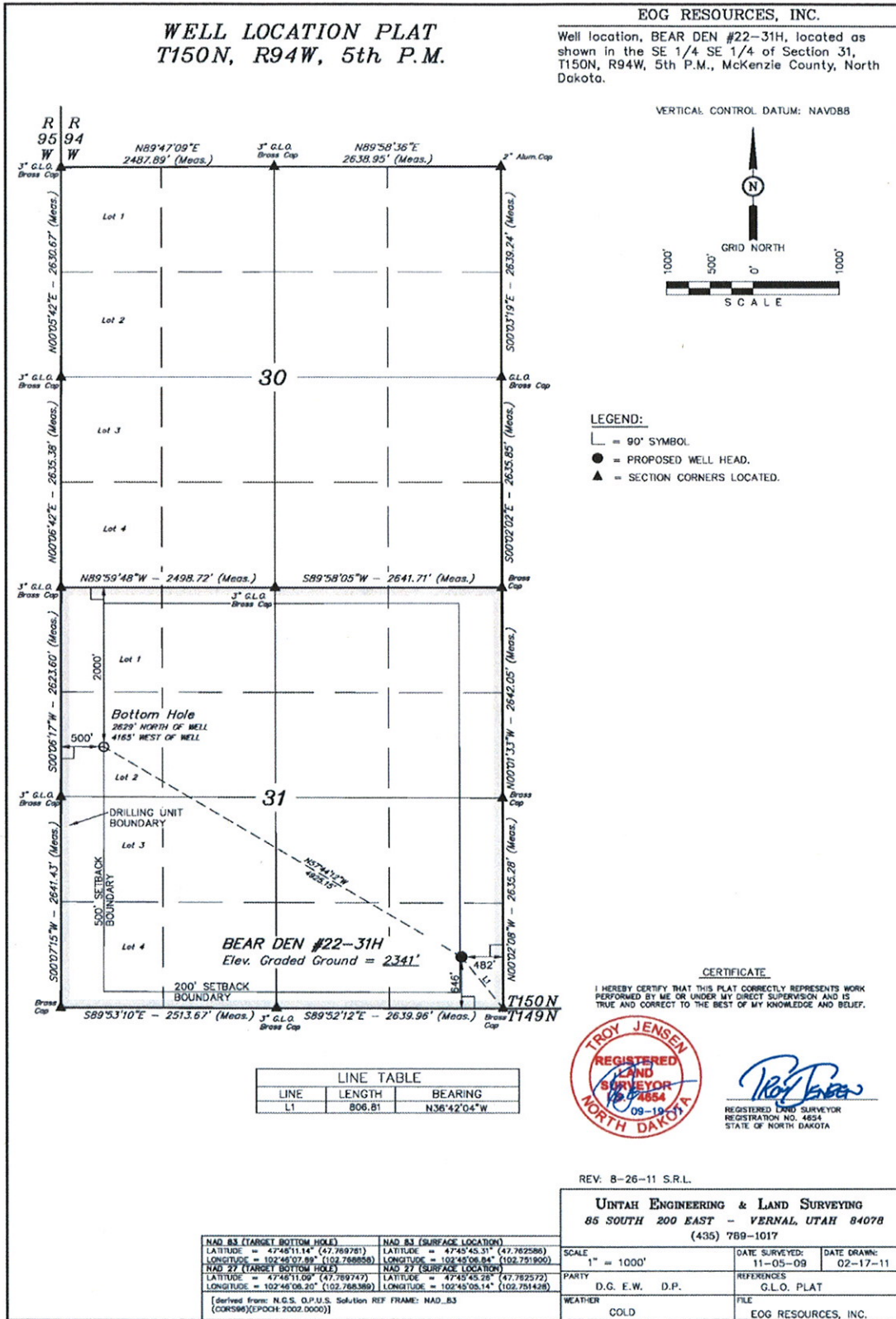
Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



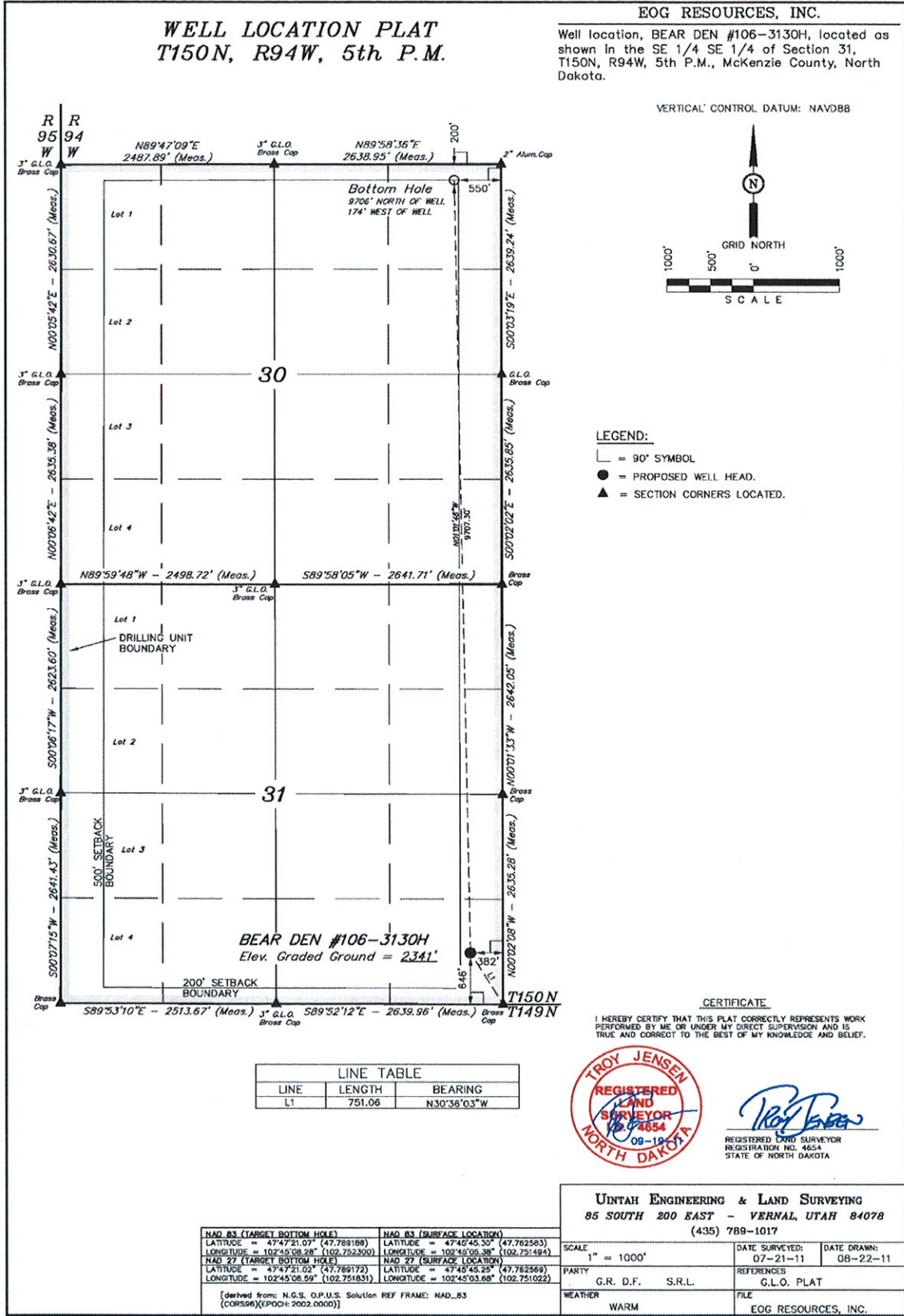
Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



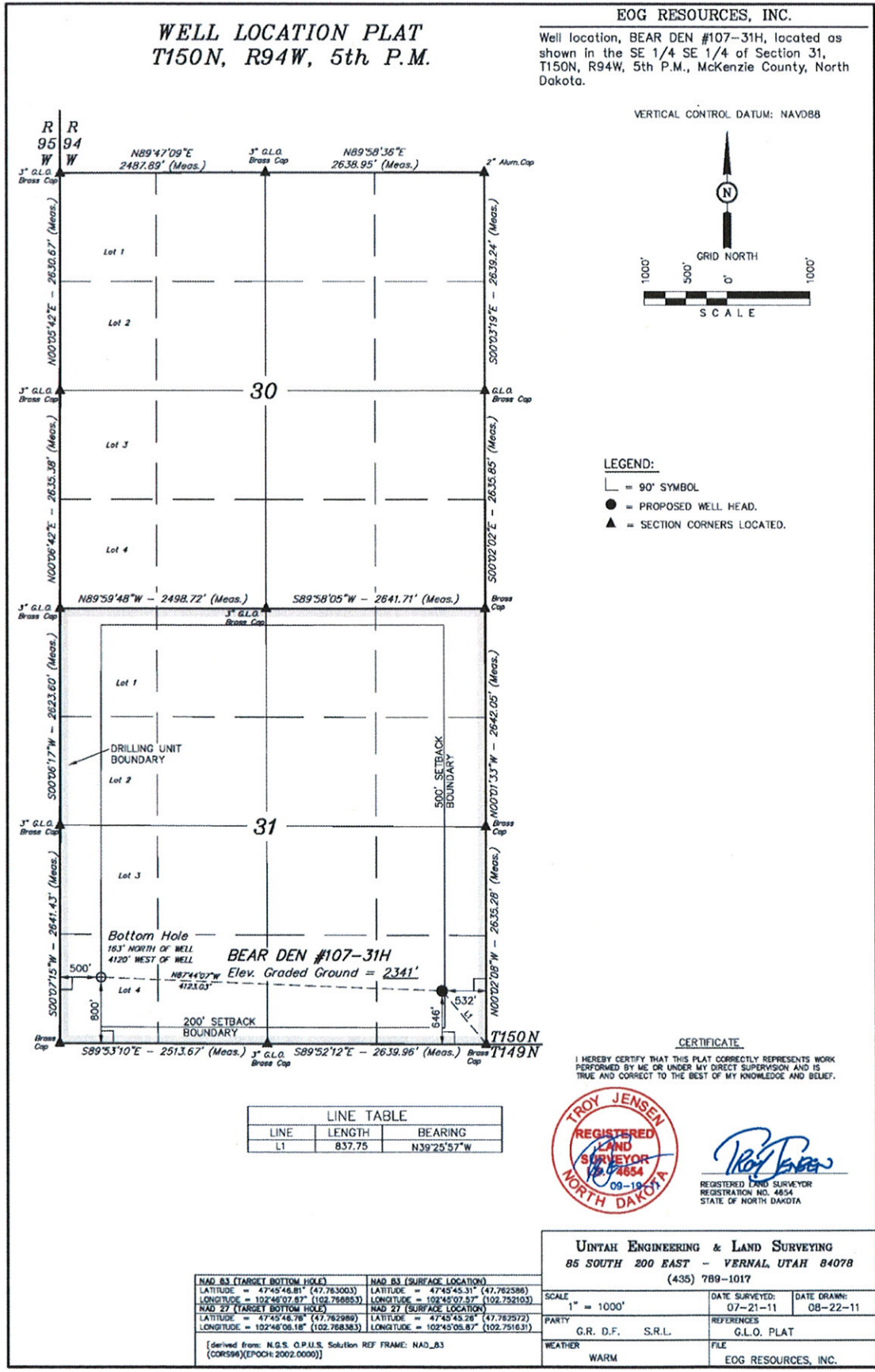
Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)

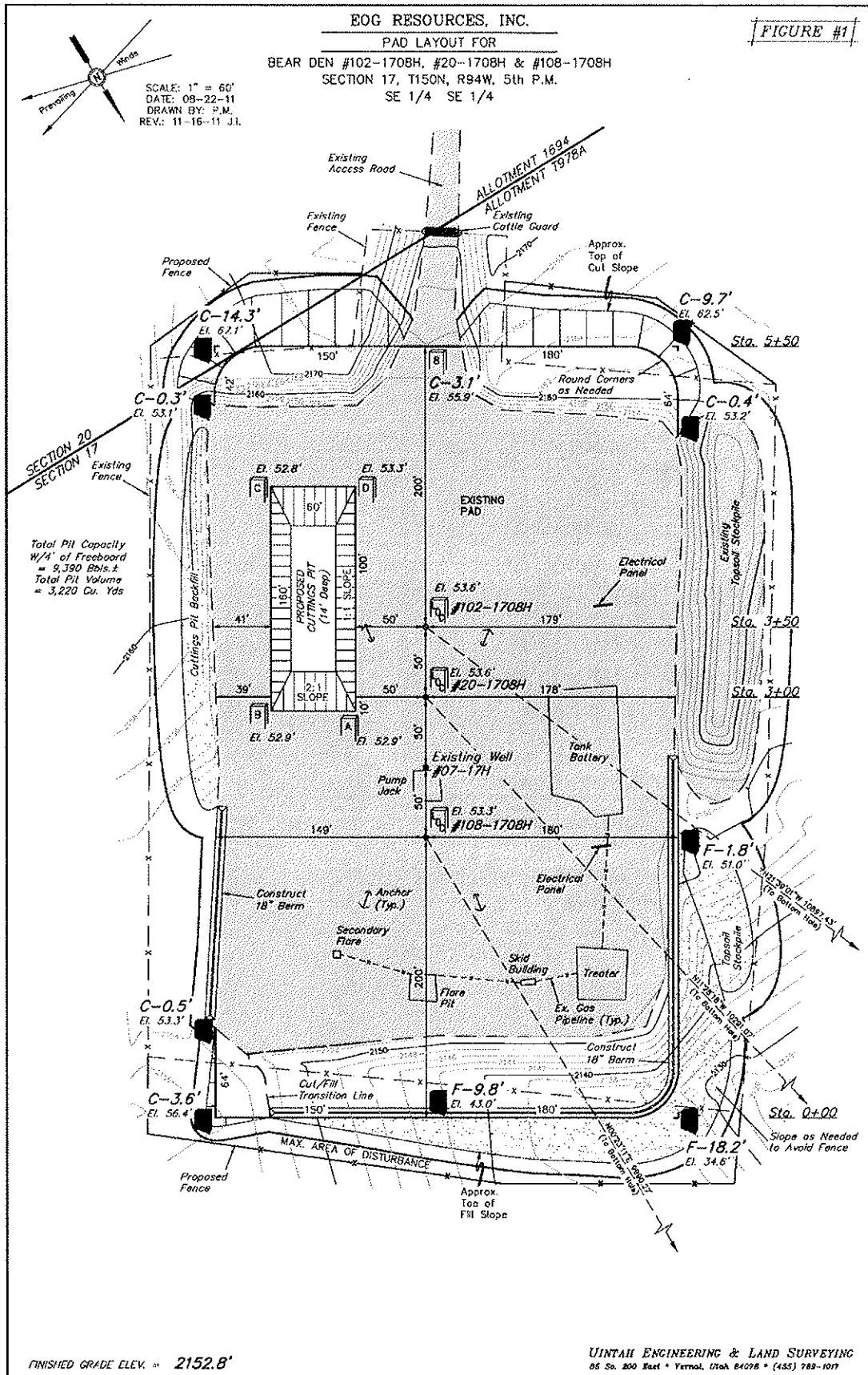


APPENDIX C

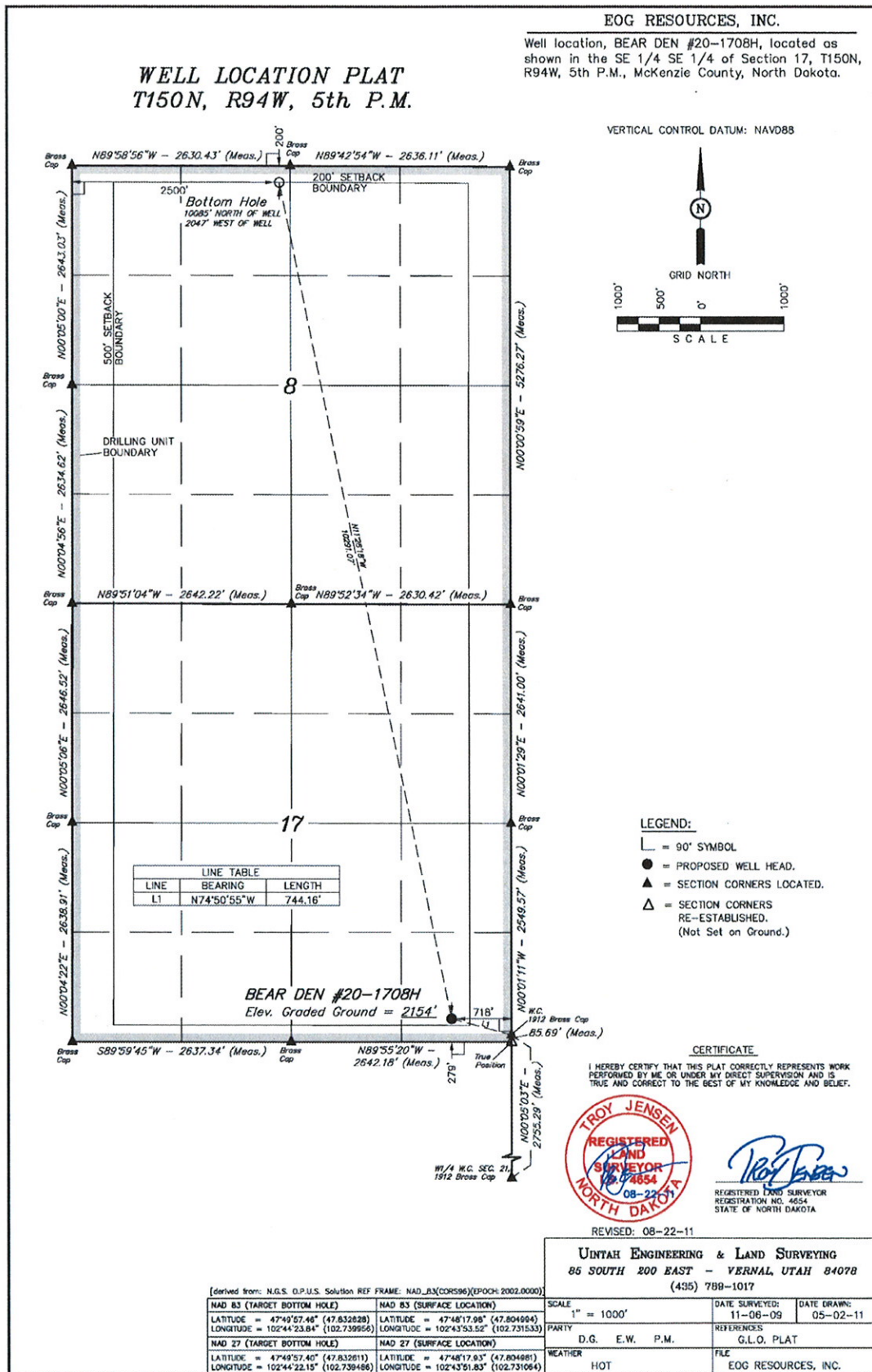
Bear Den 07-17H, 20-1708H, 102-1708H, & 108-1708H

Well Pad Layout and Spacing Unit Plats

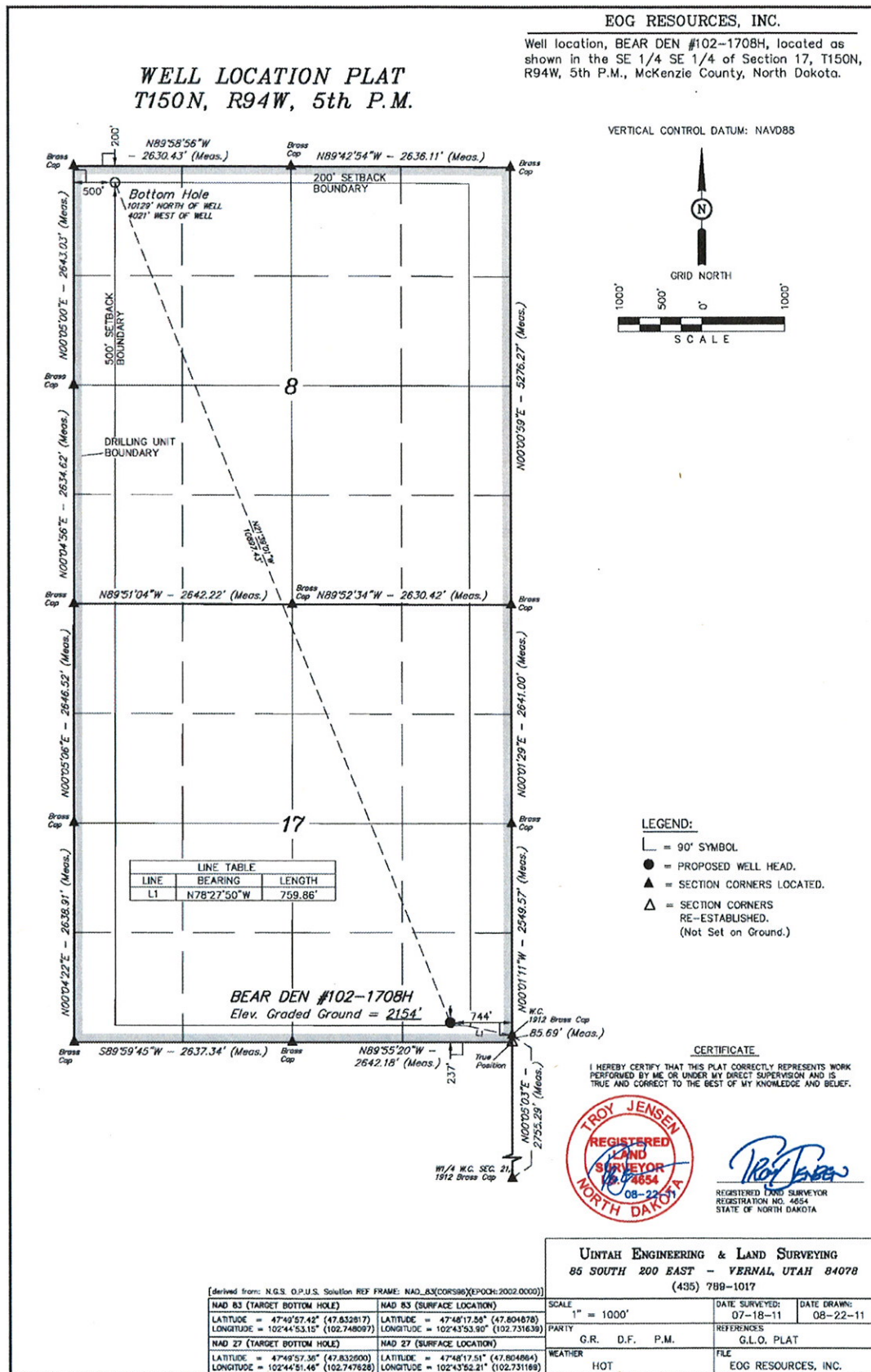
Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



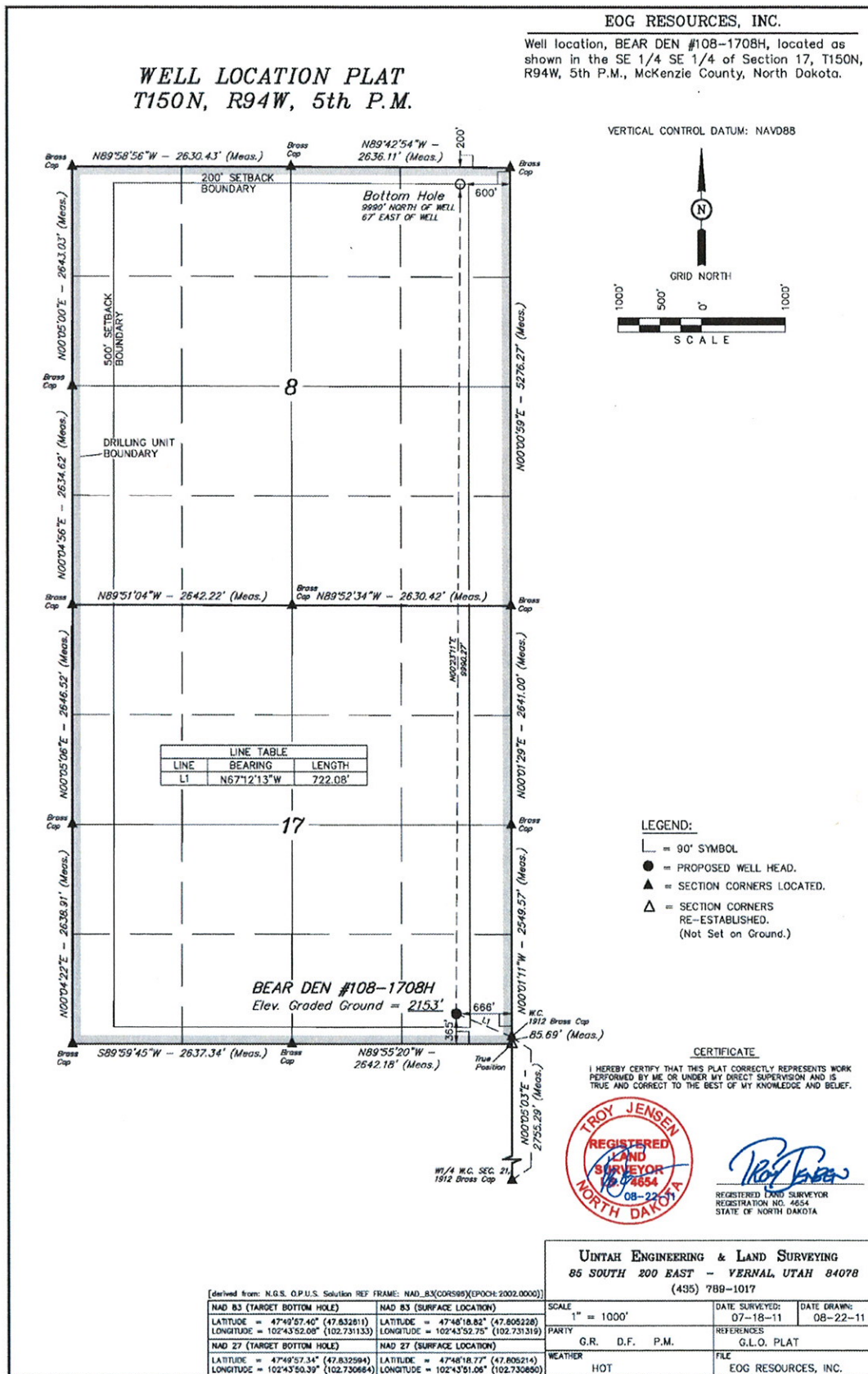
Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)



*Addendum to Environmental Assessment to Authorize Land Use for the Expansion of the
Bear Den 04-20H, 05-31H, & 07-17H Well Pads (December 2011)*



Notice of Availability and Appeal Rights

EOG: Addendum to Environmental Assessment to Authorize Land Use for
the Expansion of the Bear Den 04-20H, 05-31H, & 07-17H Well Pads
for the Purpose of Drilling 10 additional wells

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Addendum to Authorize Land Use for the Expansion of the existing Bear Den 04-20H, 05-31H, & 07-17H Well Pads for the purpose of drilling 10 additional wells, as shown on the attached map. Construction by EOG is expected to begin in 2012.

An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA’s decision to proceed with administrative actions *can* be appealed until January 20, 2012, by contacting:

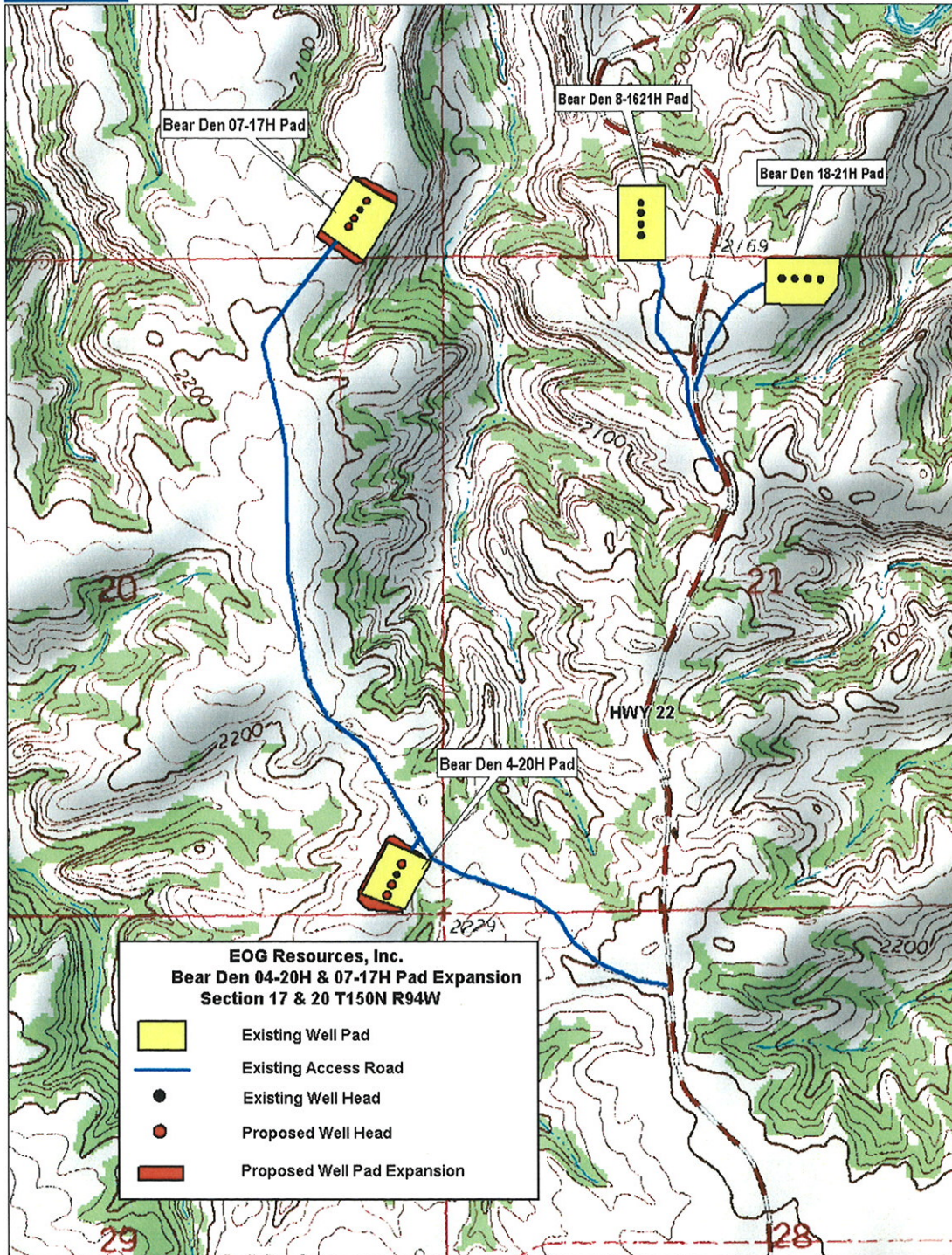
United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Indian Appeals
801 N. Quincy Street, Suite 300, Arlington, Va 22203.

Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.

Project locations.

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XMap® 7



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Data Zoom 14-0