



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E., Suite 400
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

DEC 27 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 Addendum has been completed and a Finding of No Significant Impact (FONSI) has been issued. The addendum authorizes the well pad expansion of Petro Hunt, LLC well pad 11-1H to drill an additional well (Fort Berthold 152-94-14C-11-2H).

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files is a copy of the EA Addendum, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the (40 C.F.R. 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)
Damien Reinhart, SWCA (with attachment)
Jonathon Shelman, Corps of Engineers
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

***Petro Hunt, LLC (Petro Hunt)
Petro Hunt, LLC December 2011 Addendum
Expansion of 11-1H Well Pad and Drilling of 11-2H Oil and Gas Well***

***Addendum to:
Petro Hunt, LLC February 2010 Environmental Assessment
Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells***

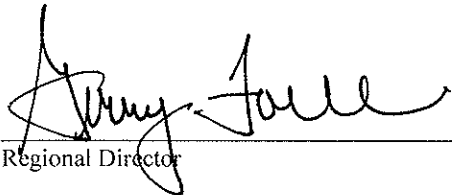
Fort Berthold Indian Reservation

The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to the above referenced Environmental Assessment (EA). The proposal is to enlarge the 11-1H well pad addressed in the previous EA to accommodate an additional well on the same well pad. The name of the new well would be Fort Berthold 152-94-14C-11-2H. The well pad is located in Section 14, Township 152 North, Range 94 West, 5th P.M. Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources and positive recommendations to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed action to impact the human environment is analyzed in the following Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the EA, I have determined that the proposed project will not significantly affect the quality of the human or natural 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 solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
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.


Regional Director

ACTING

12/27/2011

Date

Notice of Availability and Appeal Rights

Petro Hunt, LLC: Addendum to Environmental Assessment to Authorize Land Use for the expansion of Fort Berthold #11-1H Well Pad to Drill an additional well Fort Berthold 152-94-14C-11-2H.

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Addendum to Environmental Assessment to Authorize a Well Pad Expansion for the Drilling of Fort Berthold 152-94-14C-11-2H on the Fort Berthold Reservation as shown on the attached map. Construction by Petro Hunt, LLC 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 25, 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.

ENVIRONMENTAL ASSESSMENT

Addendum

United States Bureau of Indian Affairs

Great Plains Regional Office
Aberdeen, South Dakota



Petro Hunt, LLC

Petro Hunt, LLC December 2011 Addendum
Expansion of 11-1H Well Pad and Drilling of 11-2H Oil and Gas Well

Addendum to:

Petro Hunt, LLC February 2010 Environmental Assessment
Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas 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
115 4th Avenue SE
Aberdeen, South Dakota 57401
605-226-7656*

CONTENTS

1	Purpose and Need for the Proposed Action	1
2	Authorities	4
3	Legal Land Description of Proposed Action	4
4	Scope of Work for Proposed Action	4
5	Applicable National Environmental Policy Act (NEPA) Documents	4
6	Assessment of Environmental Impacts	4
	A. Land Use Impacts	5
	B. Vegetation	7
	C. Cultural Resources	7
7	Permits	7
8	Environmental Commitments/Mitigation	7
9	Nepa Adequacy Criteria	9

FIGURES

Figure 1, Project Overview Map	2
Figure 2, Well Pad Dimension Comparisons	3
Figure 3, Well Pad Vegetation View East	5
Figure 4, Well Pad Vegetation View West	6
Figure 5, Well Pad Vegetation View South	6

1 PURPOSE AND NEED FOR THE PROPOSED ACTION

Petro Hunt, LLC (Petro Hunt) proposes to authorize the expansion of one of the four well pads covered by the previously authorized EA dated February 2010, for which a FONSI was issued. The expansion of the 11-1H well pad would be used to drill an additional well, Fort Berthold 152-94-14C-11-2H. The well pad is located in the SW¼ of Section 14, Township 152 North, Range 94 West, 5th P.M. The proposed well pad expansion would impact the same general native rangeland as the original well pad location. The access road location remained as previously authorized through an EA Addendum, FONSI signed October 6, 2010. ***Please refer to Figure 1, Project Overview Map.***

The well pad would be extended 50 feet to the north. The extended pad would increase the pad dimensions to 565 x 350 feet. ***Please refer to Figure 2, Well Pad Dimension Comparisons.*** By expanding the well pad, an additional 0.4 acres of land would be converted from its present use to use for oil and gas development. The disturbance caused by the existing well pad and pad expansion would total 5.02 acres, and the total disturbed area located within the fence would total 7.77 acres. The ten acre survey area was re-evaluated during an on-site assessment July 26, 2011 and August 25, 2011. ***Please refer to the Well Location Plat located in Appendix A.***

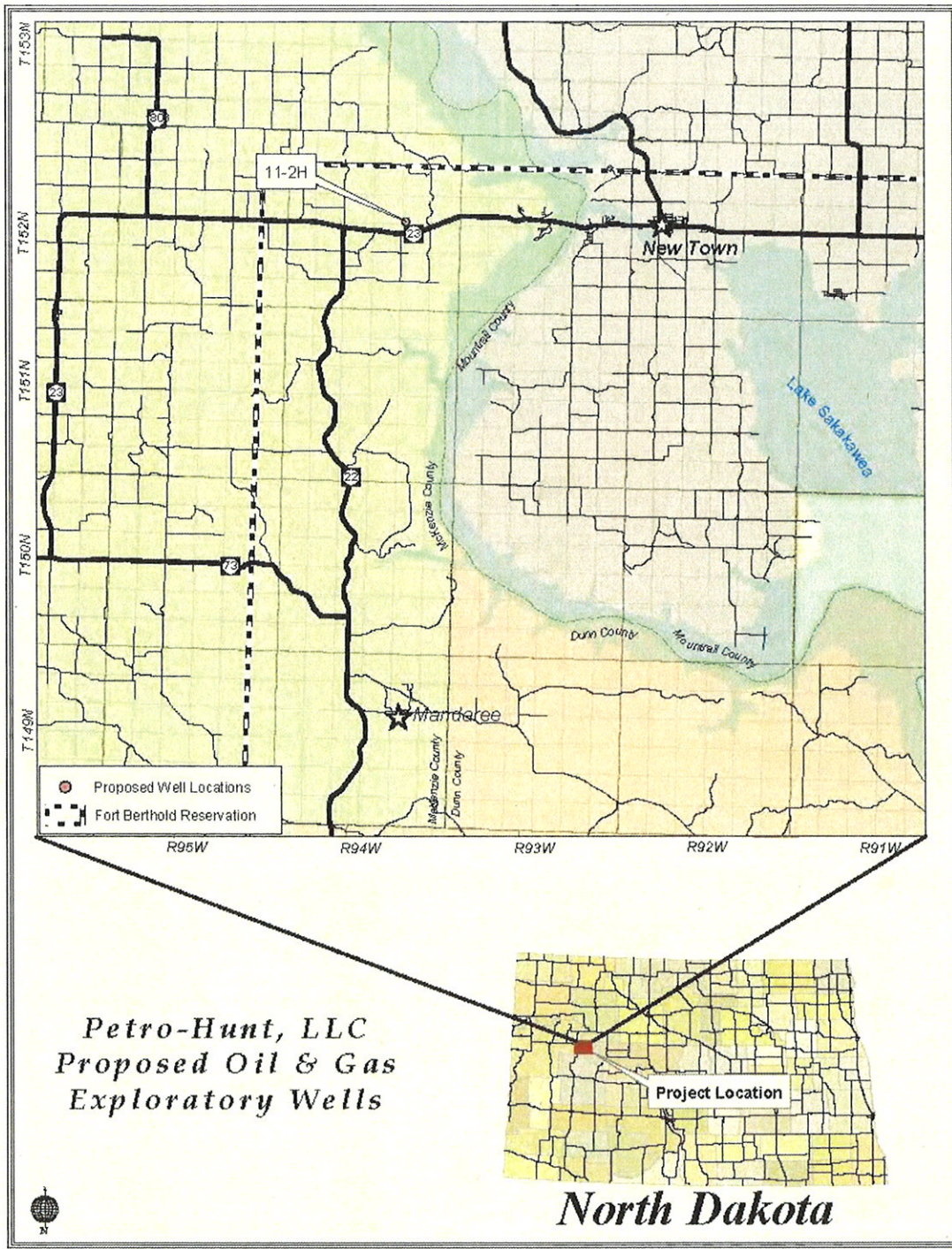


Figure 1, Project Overview Map

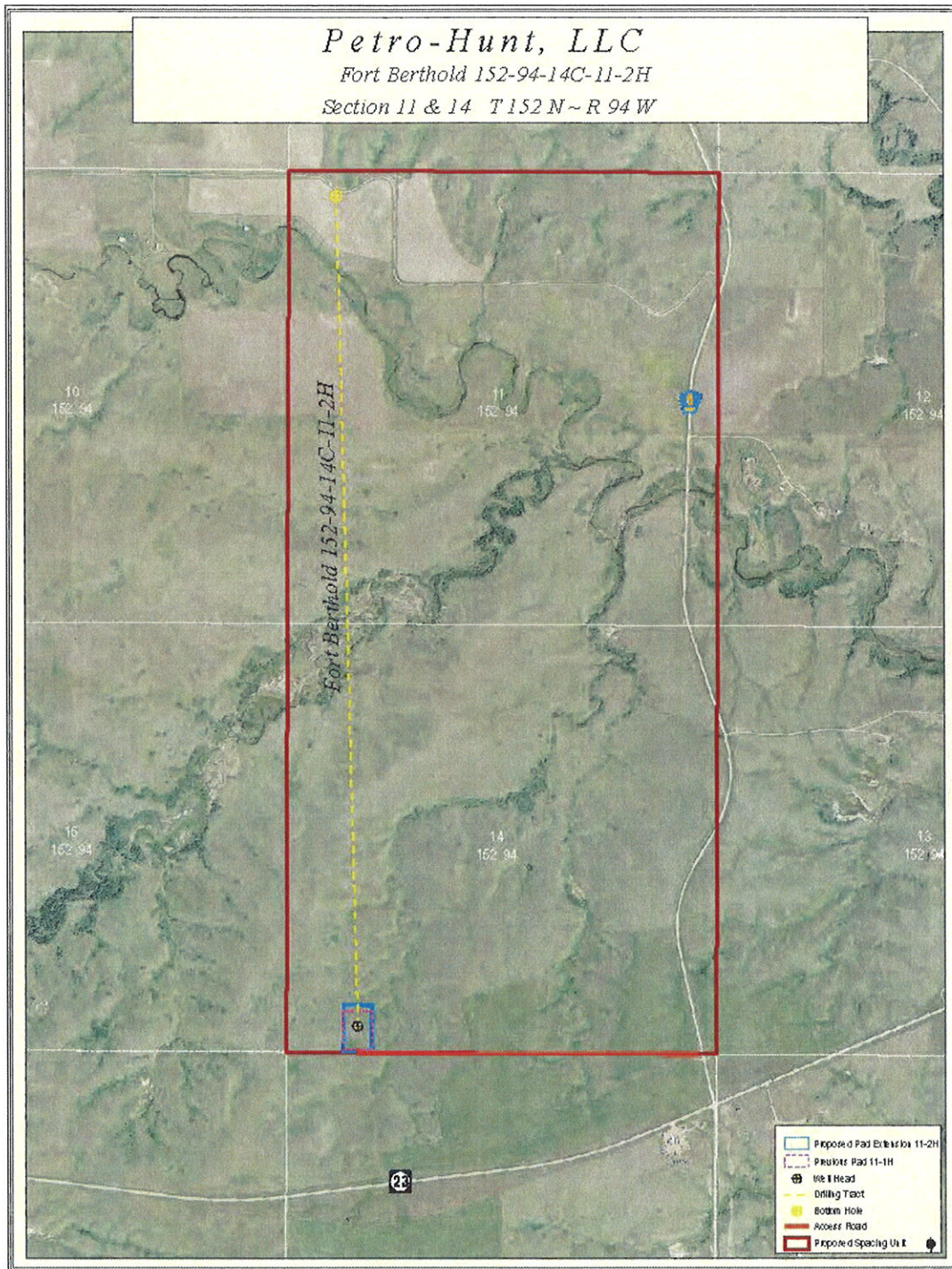


Figure 2, Well Pad Dimension Comparisons

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 OF PROPOSED ACTION

The proposed well pad expansion would be constructed in the SW¼ SW¼ of Section 14, T152N, R94W, 5th P.M. The access road would follow the same road alignment as was previously authorized through an EA Addendum for the proposed well, FONSI signed October 6, 2010.

4 SCOPE OF WORK FOR PROPOSED ACTION

The proposed well pad expansion would be constructed on the north side of the previously approved well pad. The access road would remain in the previously approved location. The dimensions of the proposed well pad would be increased from 515 X 350 feet to 565 X 350 feet. Additional environmental impacts aside from those disclosed in the previously referenced NEPA document are anticipated from construction of the proposed well pad expansion.

5 APPLICABLE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTS

The following NEPA documents have been previously approved by BIA for the proposed action:

- Environmental Assessment, Petro Hunt, LLC, Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells, Fort Berthold Indian Reservation, February 2010.
- Addendum to the above mentioned Petro Hunt EA to reroute the access road. Addendum to the EA was authorized by BIA on October 6, 2010.

6 ASSESSMENT OF ENVIRONMENTAL IMPACTS

The following discussion addresses environmental and social impacts as a result of the well pad expansion. Impacts are only discussed if the well pad expansion has changed the impact assessment reflected in the February 2010 EA, or to note why the impacts assessment has not changed.

A. LAND USE IMPACTS

Construction of the well pad expansion would result in the conversion of an additional 0.4 acres of land from its current use into an oil and gas well pad. This conversion is not anticipated to result in a trend towards changing land use patterns. In addition, disturbance required for construction would be minimized by drilling two wells atop a single well pad. No mitigation is proposed. ***Please refer to Figure 3, Well Pad Vegetation View East, Figure 4, Well Pad Vegetation View West, and Figure 5, Well Pad Vegetation View South.***



Figure 3, Well Pad Vegetation View East



Figure 4, Well Pad Vegetation View West



Figure 5, Well Pad Vegetation View South

B. VEGETATION

Construction of the well pad expansion will disturb an additional 0.4 acres of vegetation. Upon completion of the wells, a portion of the well pad would be reclaimed to mitigate disturbance to vegetation. Per BIA guidance, interim reclamation measures would occur within six months of completion of construction; however, if conditions prevent interim reclamation from occurring within this timeframe, Petro Hunt would contact BIA to request an extension.

C. CULTURAL RESOURCES

The proposed project area has been surveyed for cultural resources as part of the NEPA processes discussed above. There was a finding of *No Historic Properties Affected* for a ten acre survey area included in the original EA document. In addition, a literature review of the State Historical Society of ND manuscript files was searched on July 13, 2011 and a Class III cultural resource survey was completed on July 27, 2011. A tribal monitor from the Tribal Historic Preservation Office (THPO) accompanied KL&J into the field during the survey. The follow up survey revealed no new or previously recorded cultural resource properties 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. In addition, the tribal monitor did not observe any areas of tribal importance. A *No Historic Properties Affected* recommendation was proposed for the project. As construction activities associated with the proposed well pad expansion would utilize areas that have achieved cultural resource clearance, it is anticipated that the proposed project would not impact cultural resources.

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 October 11, 2011; however, the THPO did not respond within the allotted 30 day comment period.

7 PERMITS

Petro Hunt would be required to acquire the following permits prior to construction:

- Application for Permit to Drill – Bureau of Land Management
- Synthetic Minor Source Permit – Environmental Protection Agency

8 ENVIRONMENTAL COMMITMENTS/MITIGATION

The following commitments have been made by Petro Hunt:

- A closed loop drilling system will be utilized. As part of this, Petro Hunt would implement a closed circulation drilling mud system, whereby drilling fluid is circulated from the well into steel mud tanks and the drill cuttings are separated from the drilling fluid. The cuttings would then be hauled to an approved location off-site.

- Berming will be utilized around the pad to prevent runoff from entering or leaving the pad and, where BIA determines necessary, soil stockpiles will be used to divert drainage outside of the fill slopes.
- All efforts will be made for construction activities to begin after July 15 and end prior to February 1, in order to avoid impacts to migratory birds during the breeding/nesting season. In the event that a construction activity needs to take place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities. Mowing the sites prior to the nesting/breeding season would prevent birds from nesting at the site. Petro Hunt may choose to implement mowing in lieu of the pre-construction survey.
- Measures implemented during construction to avoid the taking of migratory bird species will include: the use of suitable mufflers on all internal combustion engines; certain compressor components to mitigate noise; only utilizing approved roadways; placing wire mesh or grate covers over barrels or buckets placed under valves and spigots to collect dripped oil.
- Topsoil would be segregated and stored on-site to be used in the reclamation process. All Disturbed areas would be re-contoured to original elevations as close as possible as part of the reclamation process.
- BMPs (may include, but are not limited to, erosion mats and biologs) would be implemented to minimize wind and water erosion of soil resources. Soil stockpiles would be positioned to help divert runoff around the well pad.
- The proposed well pad expansion would avoid surface waters. The proposed project would not alter stream channels or change drainage patterns.
- All spills or leaks of chemicals and other pollutants would be reported to the BLM and EPA, as required. The procedures of the surface management agency shall be followed to contain leaks or spills.
- Woody vegetation cleared from the site would be chipped on-site and incorporated into topsoil stockpiles.
- The proposed well would be cemented and cased to isolate aquifers from potentially productive hydrocarbon and disposal-injection zones.
- Wetland and riparian areas would be avoided.
- Disturbed vegetation would be re-seeded in kind upon completion of the project, and a noxious weed management plan would be implemented. The re-seeded site would be maintained until such time that the vegetation is consistent with surrounding undisturbed areas and the site is free of noxious weeds. Seed would be obtained from a BIA/BLM approved source.
- The proposed well pad expansion would avoid impacts to cultural resources. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.
- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.

- Petro Hunt would ensure all contractors working for the company would adhere to all local, county, tribal, and state regulations and ordinances regarding rig moves, oversize/overweight loads, and frost law restrictions.
- Utility modifications would be identified during design and coordinated with the appropriate utility company.
- An H₂S Contingency Plan would be submitted to the BLM as part of the APD.
- Established load restrictions for state and BIA roadways would be followed and haul permits would be acquired as appropriate.
- The well and associated facilities would be painted in earth tones, based on standard colors recommended by the BLM, to allow them to better blend in with the natural background color of the surrounding landscape.
- If a whooping crane is sighted within one-mile of a well site or associated facilities while it is under construction, all work would cease within one-mile of that part of the project and the USFWS would be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.
- If a bald or golden eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.
- Re-seeding of native species shall occur as needed on stockpile areas and slope areas during reclamation.
- The site shall include interim reclamation as soon as possible after the production phase.
- If electrical lines are installed, the lines would be buried to prevent the potential for bird strikes.

9 NEPA ADEQUACY CRITERIA

This document has identified two previously prepared NEPA document: *Environmental Assessment, Petro Hunt, LLC, Drilling of 15-1H, 11-1H, 24-1H, and 19-1H Exploratory Oil and Gas Wells, Fort Berthold Indian Reservation, February 2010* and an addendum to the above mentioned Petro Hunt EA to reroute the access road.

1. The proposed actions are substantially the same actions and at the sites specifically analyzed in the existing NEPA documents.
2. The range of alternatives is reasonable with respect to the current proposed actions in the existing NEPA documents, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The existing analysis and conclusions are adequate in the existing NEPA documents. The analysis is still valid in light of new studies and/or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA documents continues to be appropriate for the proposed actions.

5. The direct and indirect impacts of the proposed actions are unchanged from those identified in the existing NEPA documents.
6. The cumulative impacts that would result from implementation of the proposed actions are unchanged from those analyzed in the existing NEPA documents.
7. A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA documents.

Appendix A

Well Location Plat

WELL LOCATION PLAT

Petro-Hunt, L.L.C.

258 119 Avenue S.W. Killdeer, ND 58640

Fort Berthold 152-94-14C-11-2H

375 feet from the south line and 900 feet from the west line (surface location)

Section 14, T. 152 N., R. 94 W., 5th P.M.

250 feet from the north line and 600 feet from the west line (bottom location)

Section 11, T. 152 N., R. 94 W., 5th P.M.

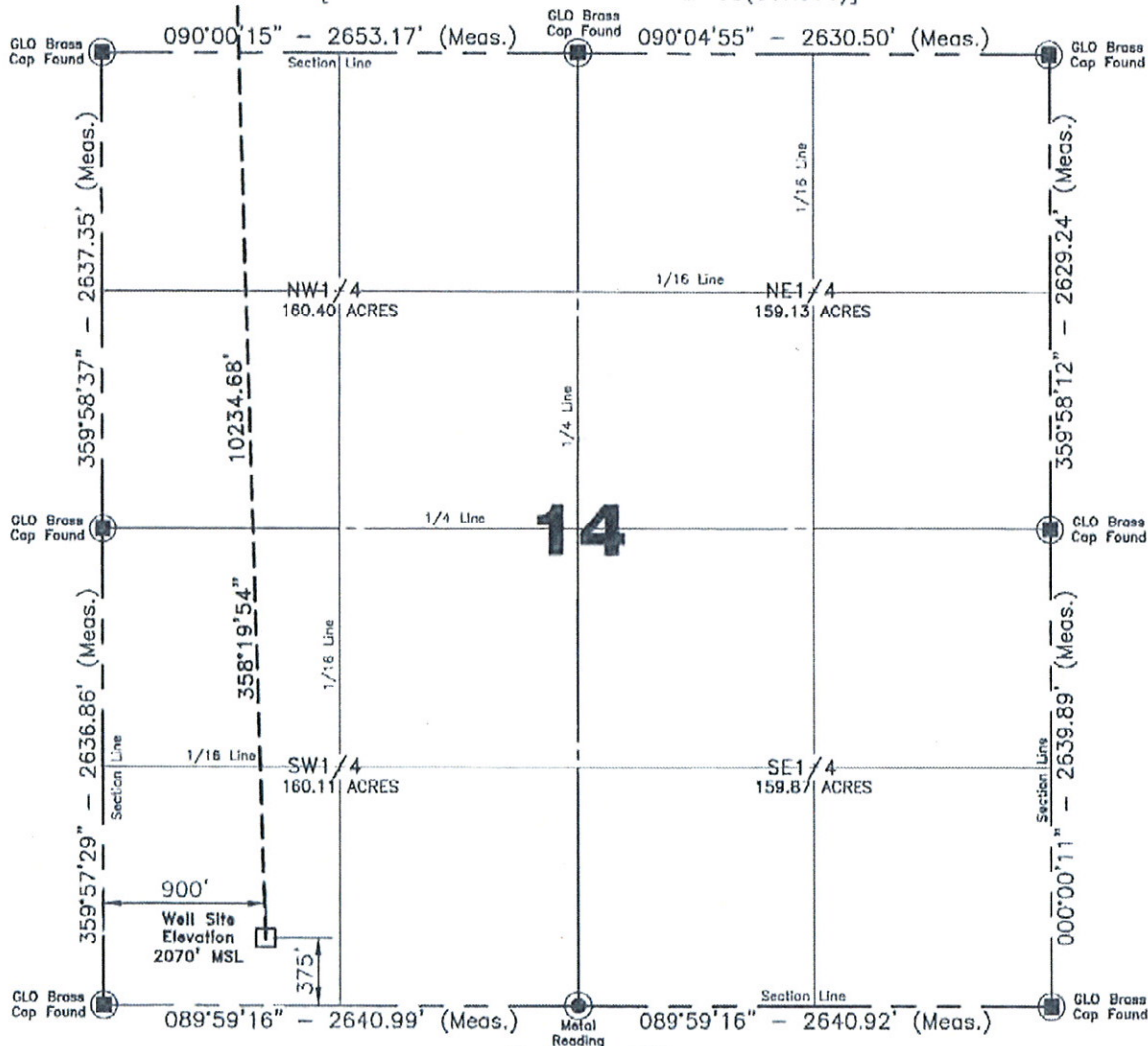
McKenzie County, North Dakota

Surface owner @ well site - Three Affiliated Tribes

Latitude 47°58'43.580" North; Longitude 102°40'55.660" West (surface location)

Latitude 48°00'24.528" North; Longitude 102°41'00.056" West (bottom location)

[Derived from OPUS Solution NAD-83(CORS96)]



Scale 1"=1000'

Confidentially Notice: The information contained on this plat is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

NOTE: All land corners are assumed unless otherwise noted. The well location shown hereon is not an as-built location.

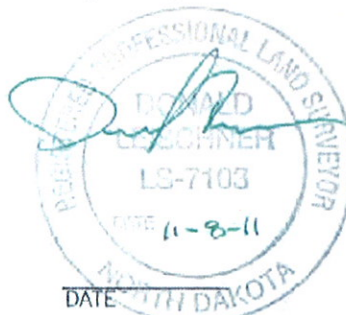
I, Donald Luischma, Professional Land Surveyor, N.D. No. 7103, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

Alvin R. Lambert 8/02/2011
 Surveyed By N.D.P.L.S. # 1241 Date

Vertical Control Datum Used
 Sea-Level Datum of NAVD 88
 Based on elevation derived from OPUS Solution on
 GPS/CP Sec 14 (iron rebar) Located in the
 NE1/4NE1/4 of Section 23 T.152N., R.94W., 5th P.M.
 being at 2082.96' Elevation MSL.

Professional Consulting Engineers
 and Surveyors
 Registered in
 North Dakota, South Dakota
 Montana, Wyoming & Minnesota
 Tele-Fax No. 701-572-2019
 Bus. Phone No. 701-572-6352
 222 Airport Road
 Williston, North Dakota 58801-2976
 Certificate of Authorization #C-061

Project No. 8711229
 Book 0-113 Pg. 36-37 Staking



Kadmas
 Lee &
 Jackson
 Engineers Surveyors
 Planners

HORIZONTAL SECTION PLAT

Petro-Hunt, L.L.C.

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Fort Berthold 152-94-14C-11-2H

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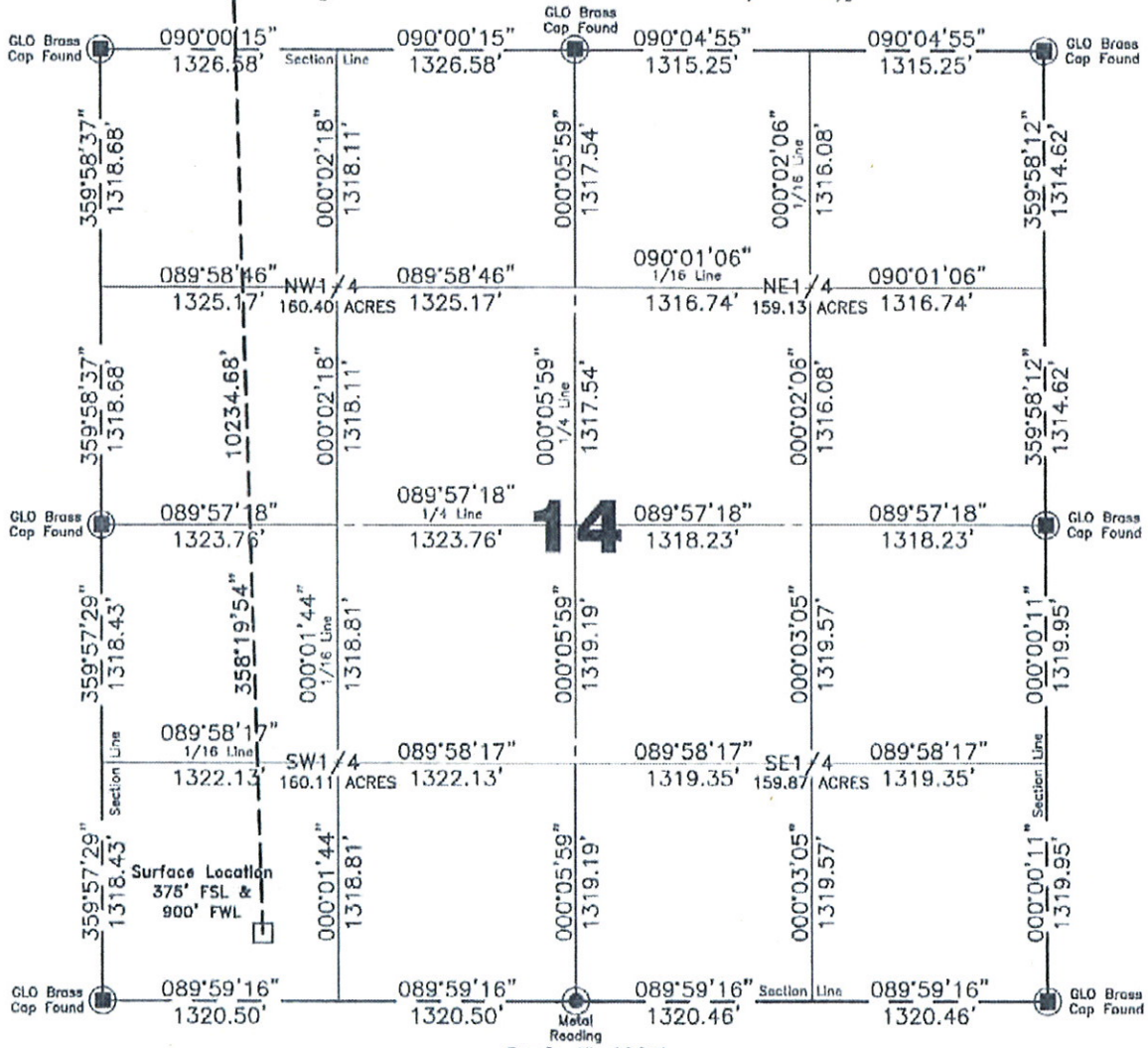
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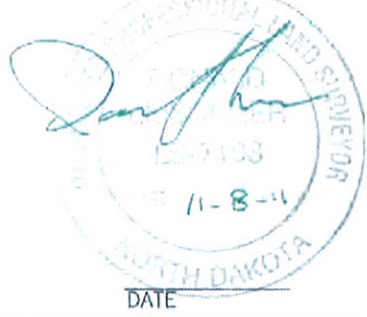


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I, Donald Leischner, Professional Land Surveyor, N.D. No. 7103, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief.

All corners shown on this plat were found in the field during Petro-Hunt, L.L.C., Fort Berthold 152-94-14C-11-2H oil well survey on 8/02/2011. Distances to all others are calculated. All azimuths are based on the north line of Section 11, being on an azimuth of 090°03'14".



Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

Surveyed By A. Lambert	Field Book 0-113
Computed & Drawn By D. Flinders	Project No. 8711229

DATE

HORIZONTAL SECTION PLAT

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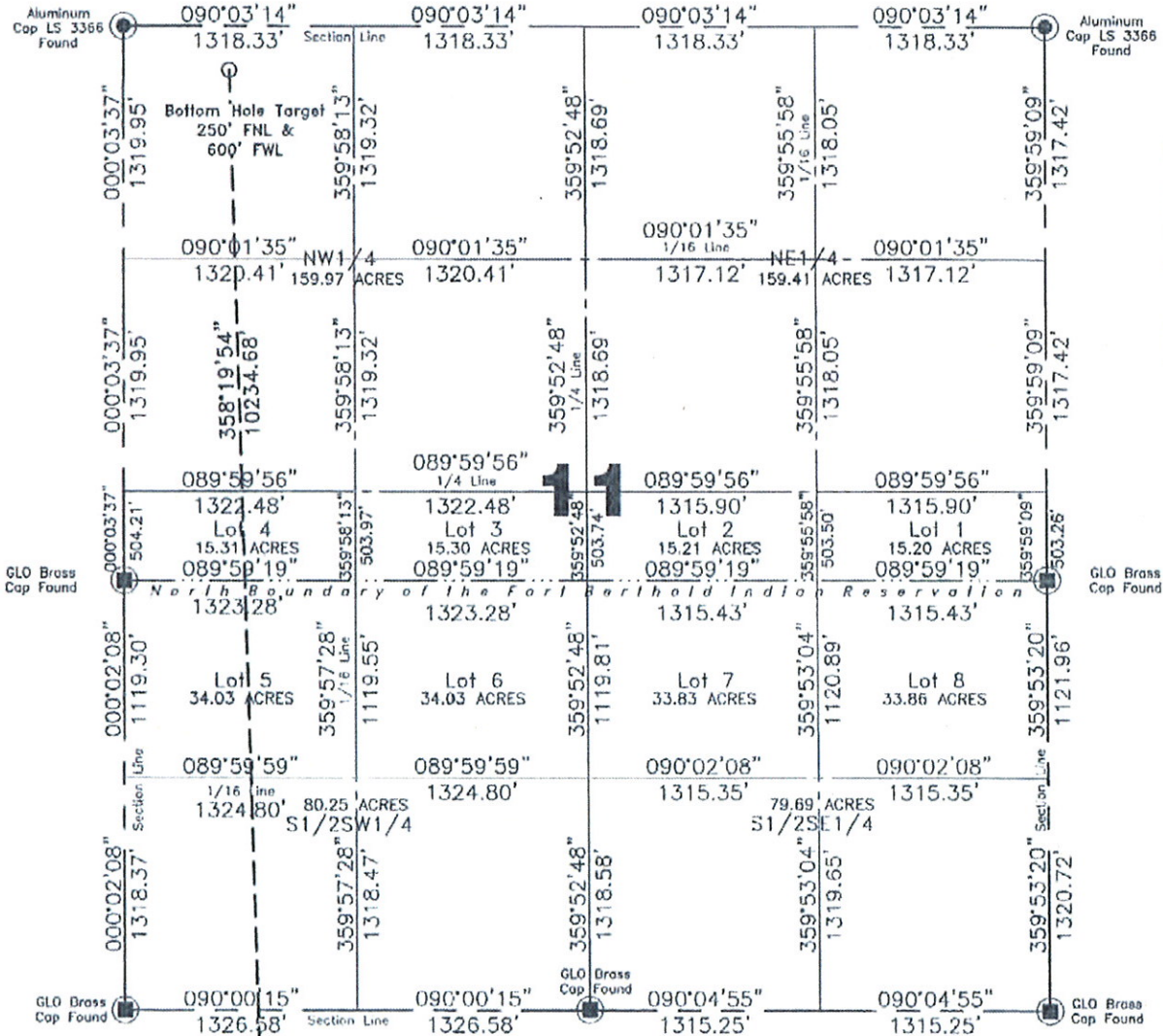
McKenzie County, North Dakota

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Latitude 47°58'43.580" North; Longitude 102°40'55.660" West (surface location)

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[Derived from OPUS Solution NAD-83(CORS96)]

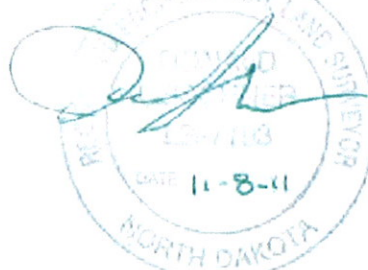


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Surveyed By A. Lambert	Field Book 0-113
Computed & Drawn By D. Flinders	Project No. 8711229

DATE

Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

BOTTOM HOLE LOCATION PLAT

Petro-Hunt, L.L.C.
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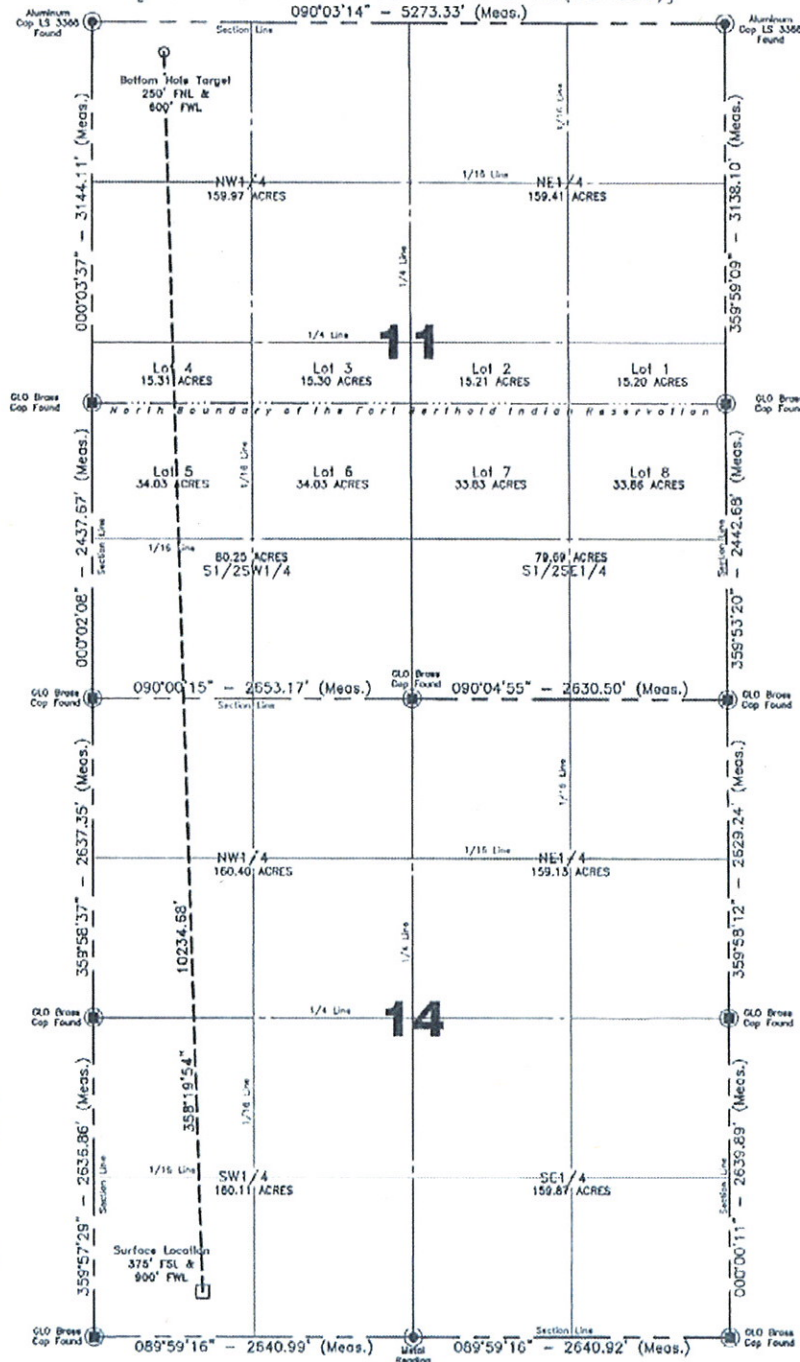
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[Derived from OPUS Solution NAD-83(CORS96)]



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Computed & Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1"=1500'	Date 10/28/2011
Field Book 0-113	Material B.H. Layout	Revised -	Project No. 8711229	Drawing No. 4

Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

Petro-Hunt, L.L.C.
 Fort Berthold 152-94-14C-11-1H &
 Fort Berthold 152-94-14C-11-2H
 Section 14, T. 152 N., R. 94 W., 5th P.M.
 McKenzie County, North Dakota

Fort Berthold 152-94-14C-11-2H	2070.2' MSL
Existing Pad Elevation	2069.0' MSL
Excavation for Addition/Unreclaim	12,495 C.Y.
Embankment	6,085 C.Y.
Plus Shrinkage (+30%)	1,825 C.Y.
	7,910 C.Y.
Stockpile Top Soil (6")	4,050 C.Y.
Road Embankment & Stockpile from Pad	535 C.Y.
Disturbed Area From Pad	5.02 Acres
Total Fenced Area	7.77 Acres

NOTE :

All cut end slopes are designed at 2:1 slopes &
 All fill end slopes are designed at 2:1 slopes

Fort Berthold
 152-94-14C-11-1H
 Existing Well

300' FSL
 900' FWL

Fort Berthold
 152-94-14C-11-2H
 Proposed Well

375' FSL
 900' FWL

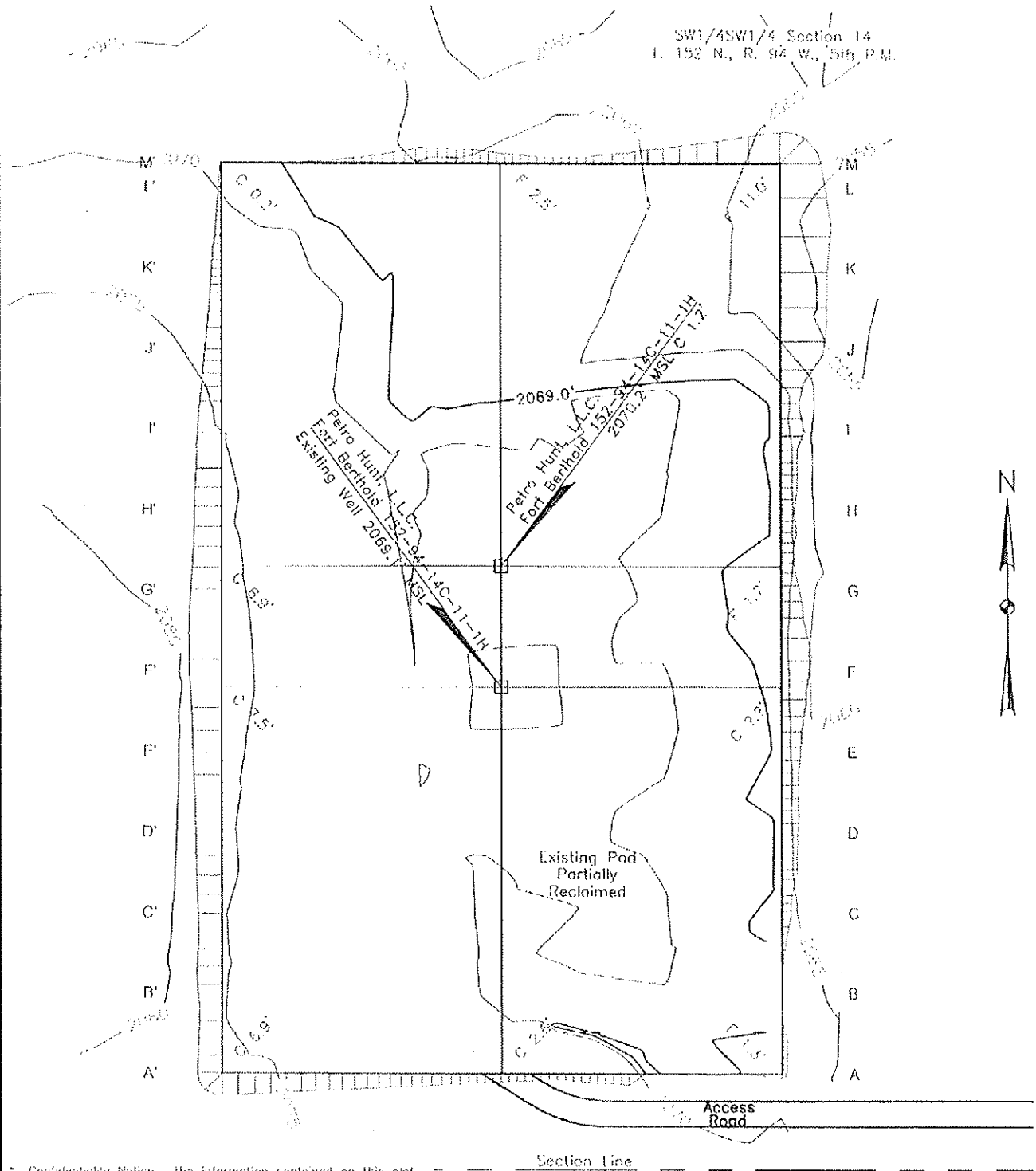
Confidentiality Notice:
 The information contained
 on this plot is legally
 privileged and confidential
 information intended only
 for the use of recipients.
 If you are not the
 intended recipients, you
 are hereby notified that
 any use, dissemination,
 distribution or copying of
 this information is strictly
 prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale None	Date 10/28/2011
Field Book 0-113	Material Quantities	Revised 12/09/2011	Project No B/11229	Drawing No 5

Kadmas
 Lee &
 Jackson
Engineers Surveyors
 Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Original Ground

SW1/4SW1/4 Section 14
T. 152 N., R. 94 W., 5th P.M.



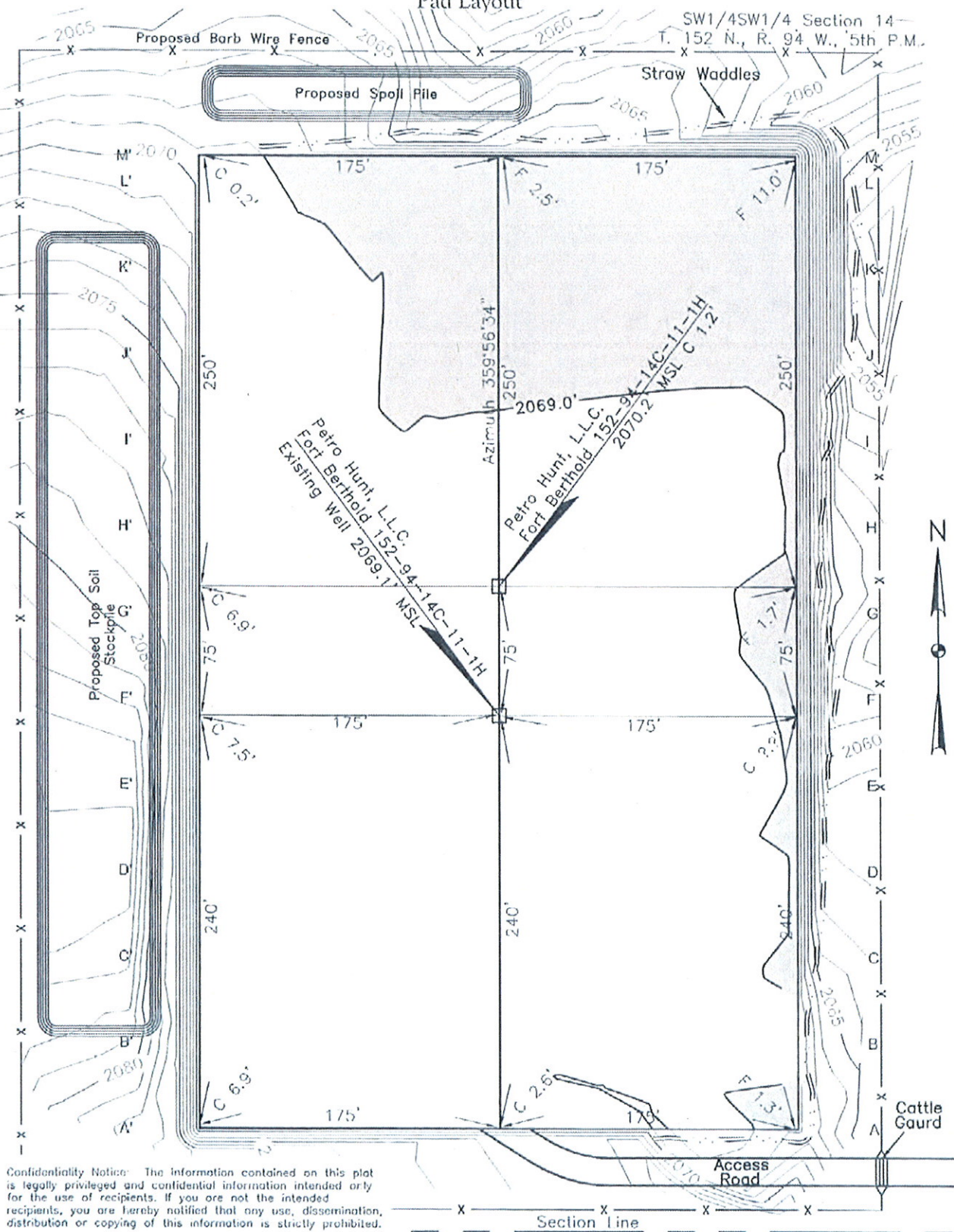
Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipient, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 10/28/2011
Field Book 0 113	Material Original Ground	Revised 12/09/2011	Project No. 8711229	Drawing No. 6

Kadmas
Lee &
Jackson
Engineers Surveyors
Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Pad Layout

SW1/4SW1/4 Section 14
T. 152 N., R. 94 W., 5th P.M.

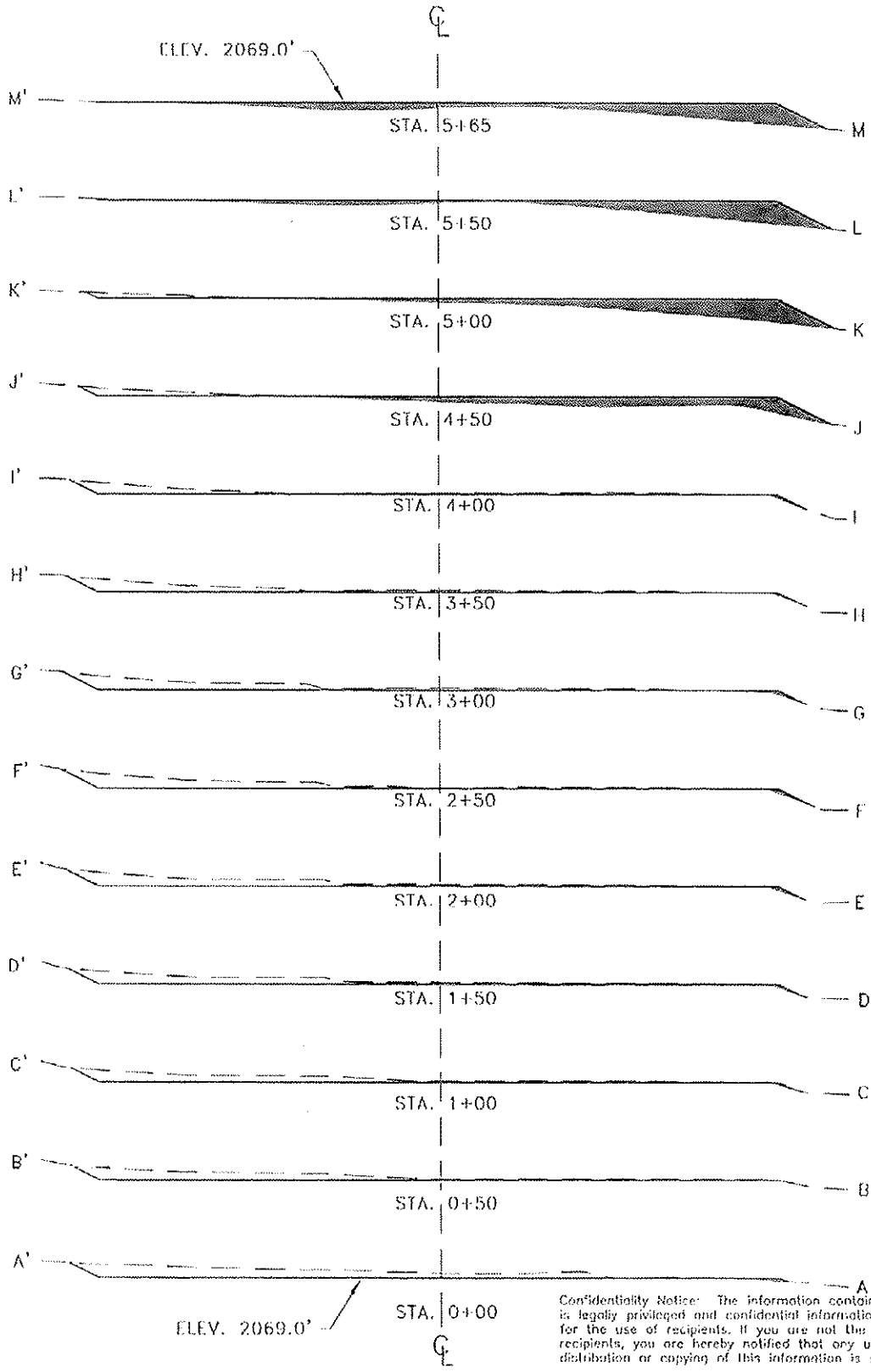


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Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 10/28/2011
Field Book 0-113	Material Pad Layout	Revised 12/09/2011	Project No. 8711229	Drawing No. 7

**Kadmas
Lee &
Jackson**
Engineers Surveyors
Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Cross Sections



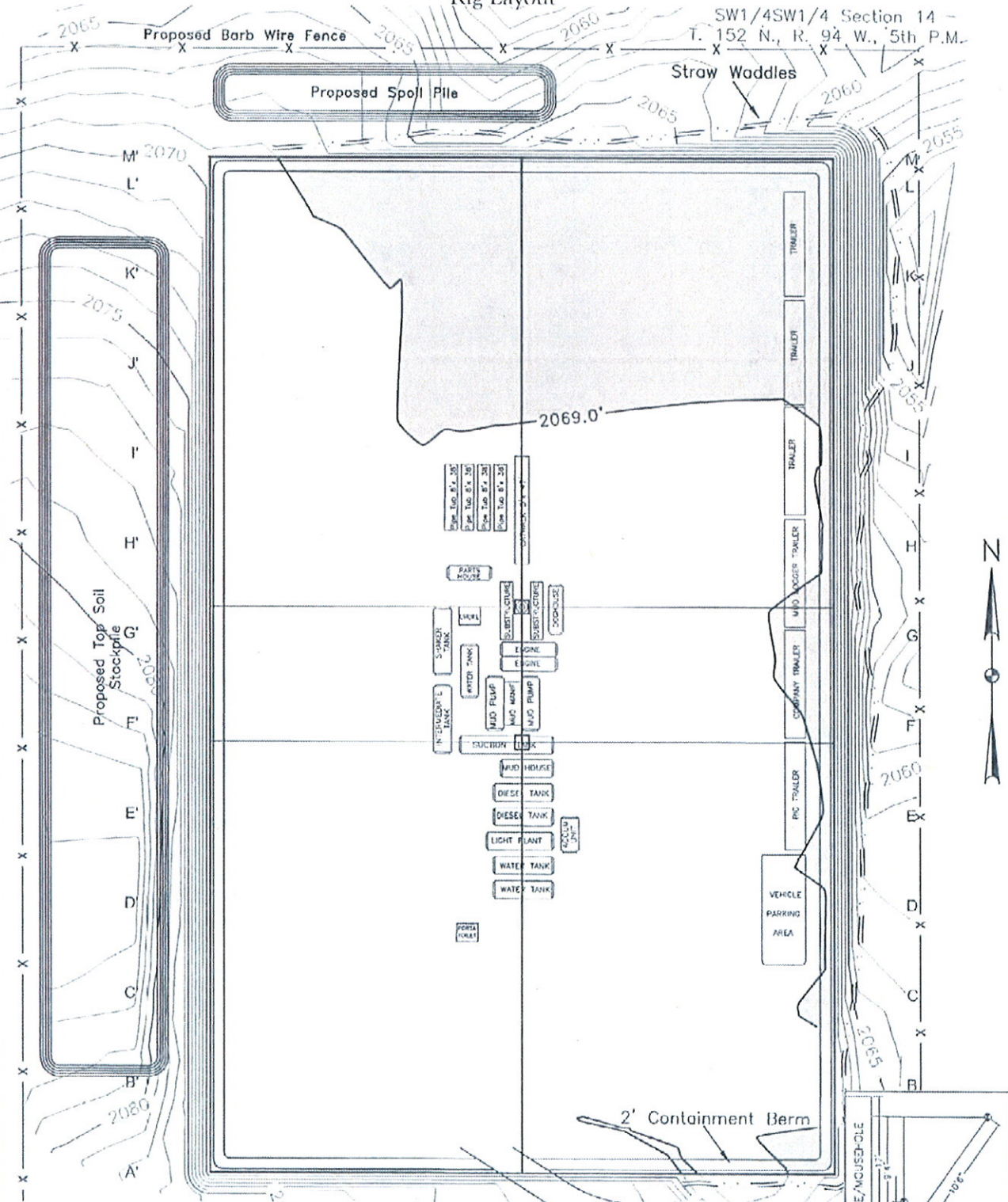
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Drawn By D. Plinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 100'	Date 10/28/2011
Field Book 0-113	Material Cross Sections	Revised -	Project No. 8/11229	Drawing No. 8

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Jackson
Engineers Surveyors
Planners

Fort Berthold 152-94-14C-11-2H Rig Layout

SW1/4SW1/4 Section 14 -
T. 152 N., R. 94 W., 5th P.M.



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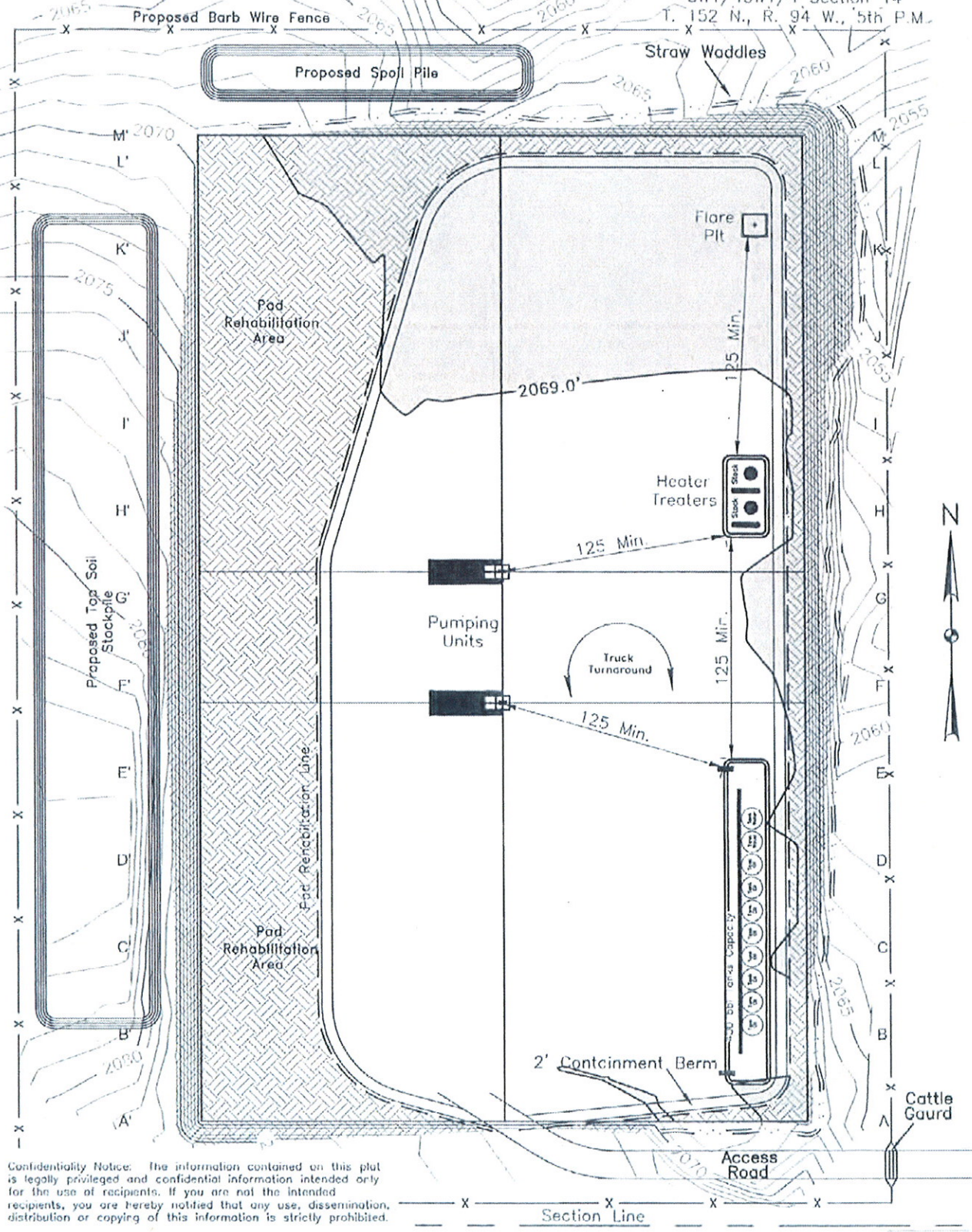
Section Line

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 10/28/2011
Field Book 0-113	Material Rig Layout	Revised 12/09/2011	Project No. 8711229	Drawing No. 9

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Jackson**
Engineers, Surveyors
Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Production Layout

SW1/4SW1/4 Section 14-
T. 152 N., R. 94 W., 5th P.M.



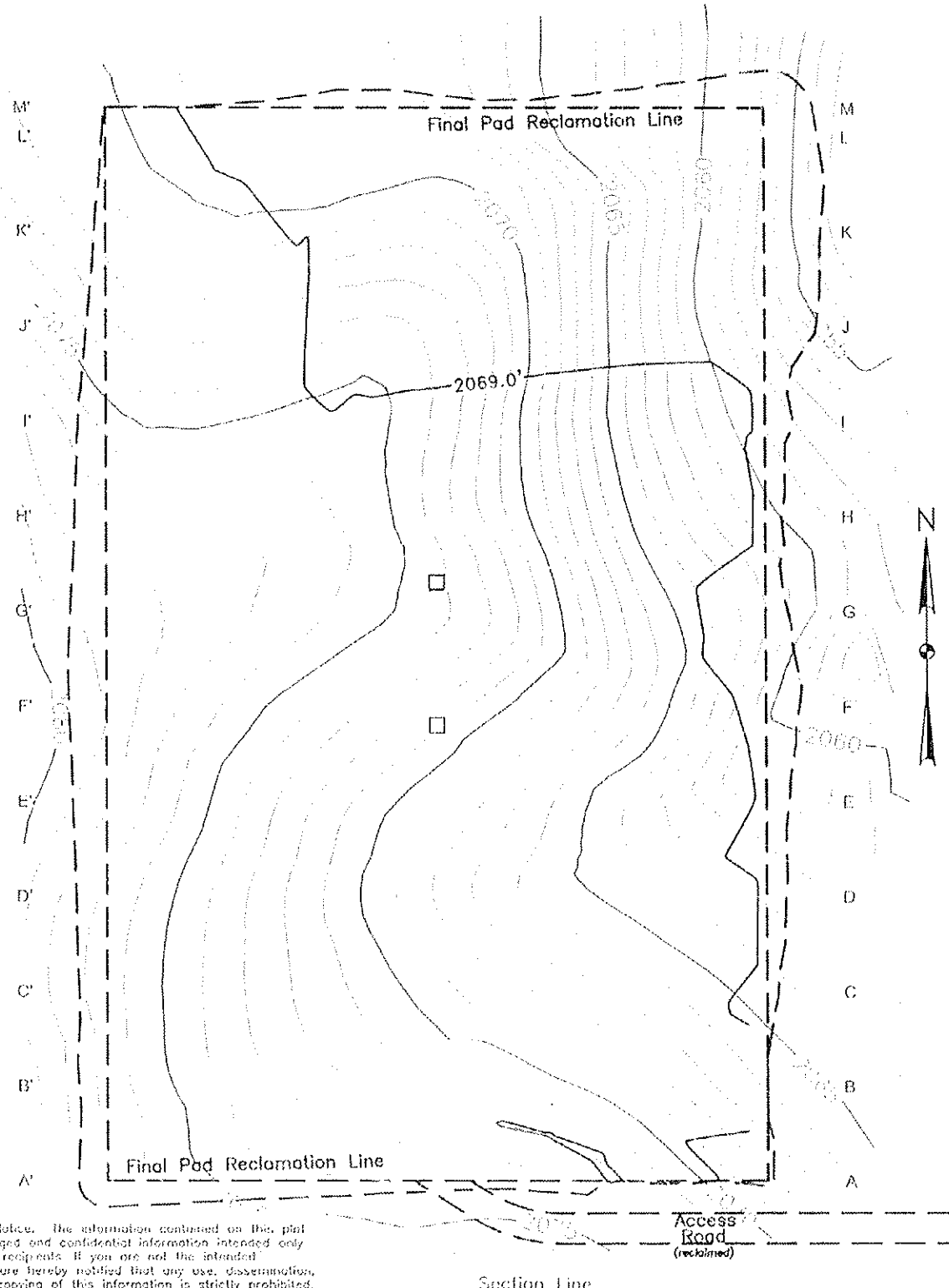
Confidentiality Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 10/28/2011
Field Book 0-113	Material Prod Layout	Revised 12/09/2011	Project No. 8711229	Drawing No. 10

**Kadmas
Lee &
Jackson**
Engineers Surveyors
Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Reclamation Layout

SW1/4SW1/4 Section 14
T. 152 N., R. 94 W., 5th P.M.

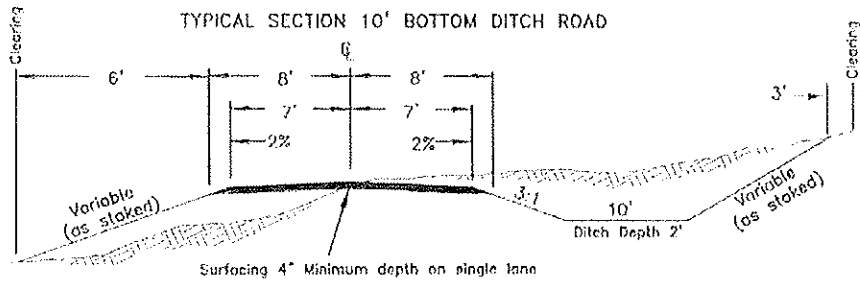


Confidentiality Notice. The information contained on this plan is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipient, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.

Drawn By D. Flinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale 1" = 80'	Date 10/28/2011
Field Book 0-113	Material Reclam Layout	Revised 12/09/2011	Project No. 8711229	Drawing No. 11

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Jackson**
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Planners

Fort Berthold 152-94-14C-11-1H & Fort Berthold 152-94-14C-11-2H Roadway Typical Sections



TYPICAL "B"

No Scale

FILL SLOPES

3:1 Under 4' Height
2:1 Over 4' Height
(-) Slopes steeper than 2:1 will be subject to FS approval

FILL WIDENING

2' to 5' high/add 1'
Over 5' high/add 2'

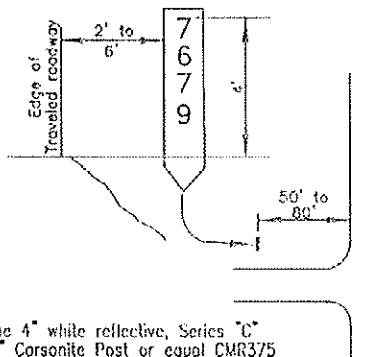
CUT SLOPES

3:1 Under 10' height
2:1 10' to 20' height
(-) Variable over 20' height W/FS approval

CURVE WIDENING

130 / R

TYPICAL SECTION VERTICAL ROUTE MARKER

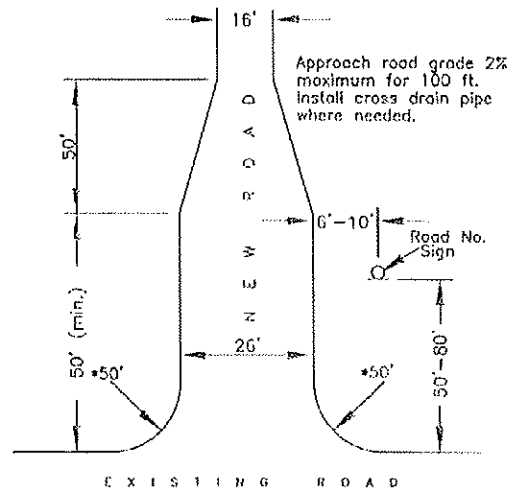


Letters shall be 4" white reflective, Series "C" on Brown 6" 6" Corusite Post or equal CMR375
Figure 11-28 - Typical Signage for Vertical Route Markers

TYPICAL "F"

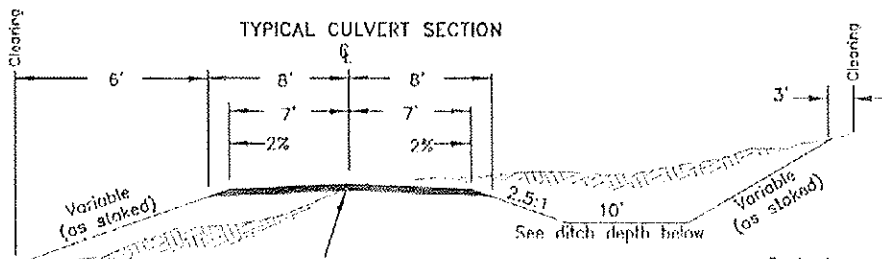
No Scale

TYPICAL APPROACH ROAD CONNECTION



Approach road grade 2% maximum for 100 ft. Install cross drain pipe where needed.

*As noted on road sheets



TYPICAL "A"

No Scale

Fill slopes are VI H1.5 (1.5:1) or as staked

Ditch width shall be the larger of the following:
A. Standard ditch width
B. 2 times the pipe diameter
C. 4.25'

Ditch depth shall be:
CMP diameter Ditch depth
18" 2.5'
24" 3.0'
36" 4.0'
48" 5.0'

Back slopes are VI III (1:1) or as staked

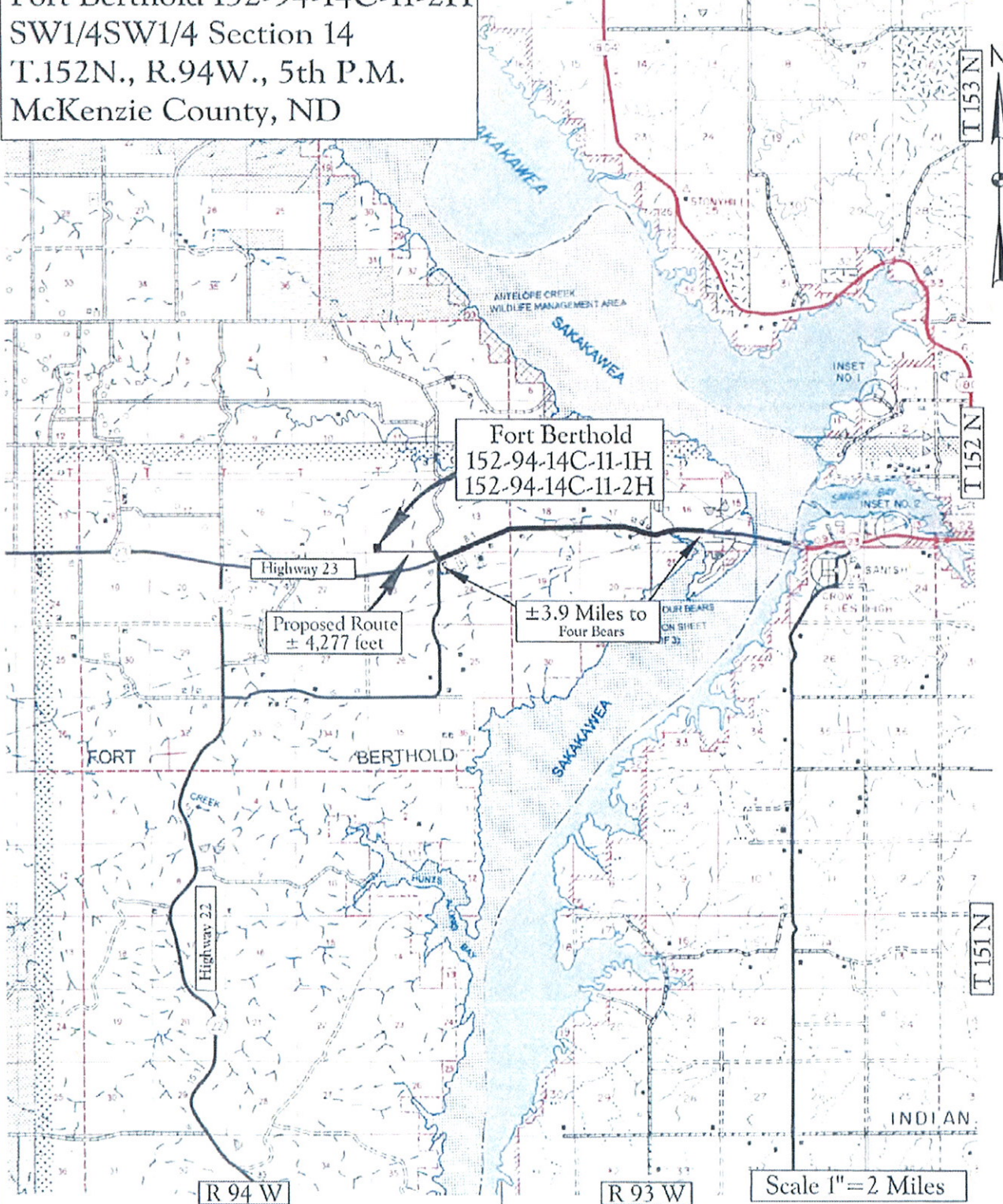
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Drawn By D. Hinders	Surveyed By A. Lambert	Approved By D. Leischner	Scale None	Date 10/28/2011
Field Book D-113	Material Road Typical	Revised	Project No. B/11229	Drawing No. 12

**Kadmas
Lee &
Jackson**
Engineers Surveyors
Planners

Petro-Hunt L.L.C.
 Fort Berthold 152-94-14C-11-1H
 Fort Berthold 152-94-14C-11-2H
 SW1/4SW1/4 Section 14
 T.152N., R.94W., 5th P.M.
 McKenzie County, ND

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Map "A"
 County Access Route

Legend

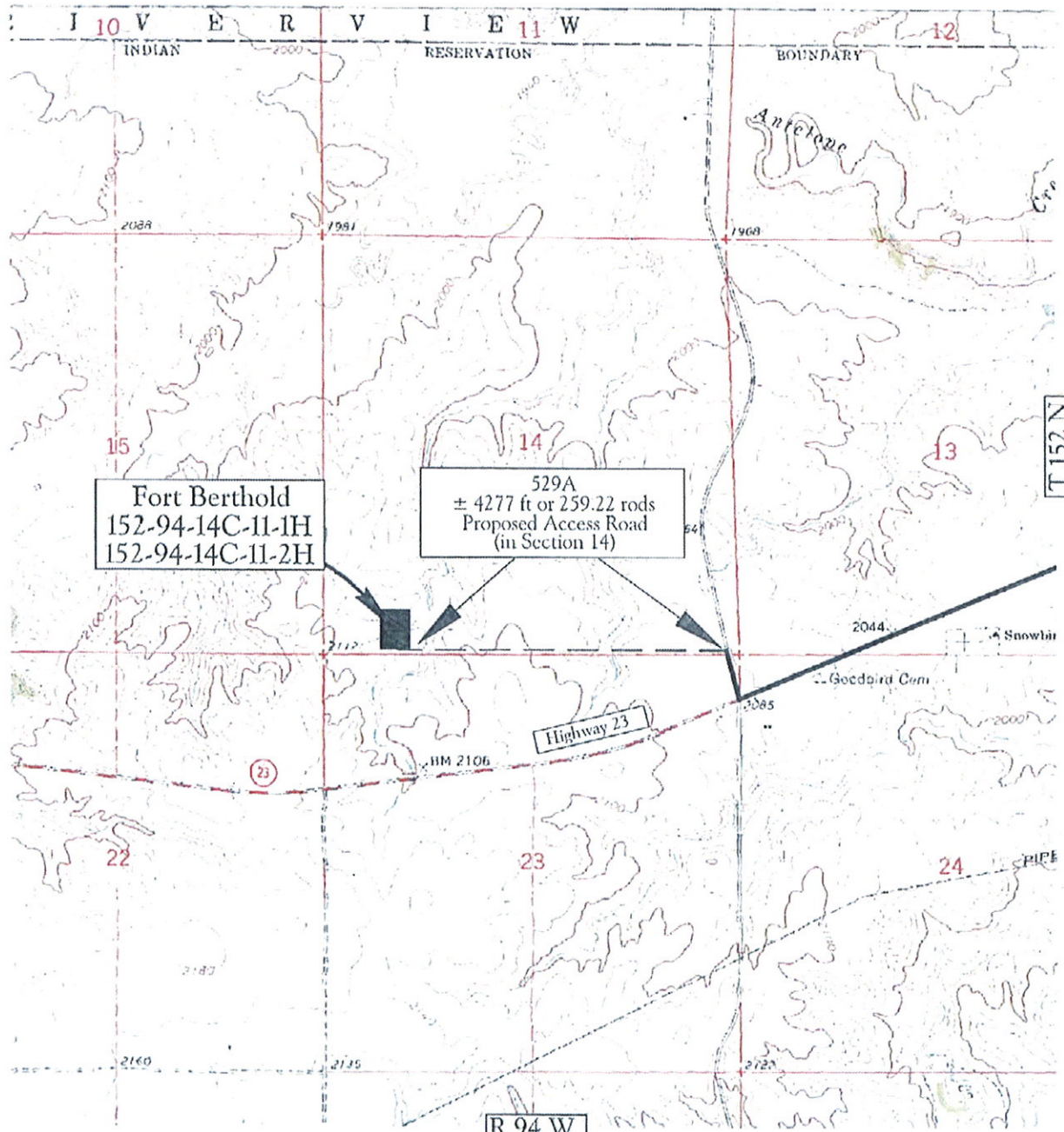
Existing Roads —————

Proposed Roads - - - - -

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Petro-Hunt L.L.C.
 Fort Berthold 152-94-14C-11-1H
 Fort Berthold 152-94-14C-11-2H
 SW1/4SW1/4 Section 14
 T.152N., R.94W., 5th P.M.
 McKenzie County, ND

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Fort Berthold
 152-94-14C-11-1H
 152-94-14C-11-2H

529A
 ± 4277 ft or 259.22 rods
 Proposed Access Road
 (in Section 14)

Map "B"
 Quad Access Route

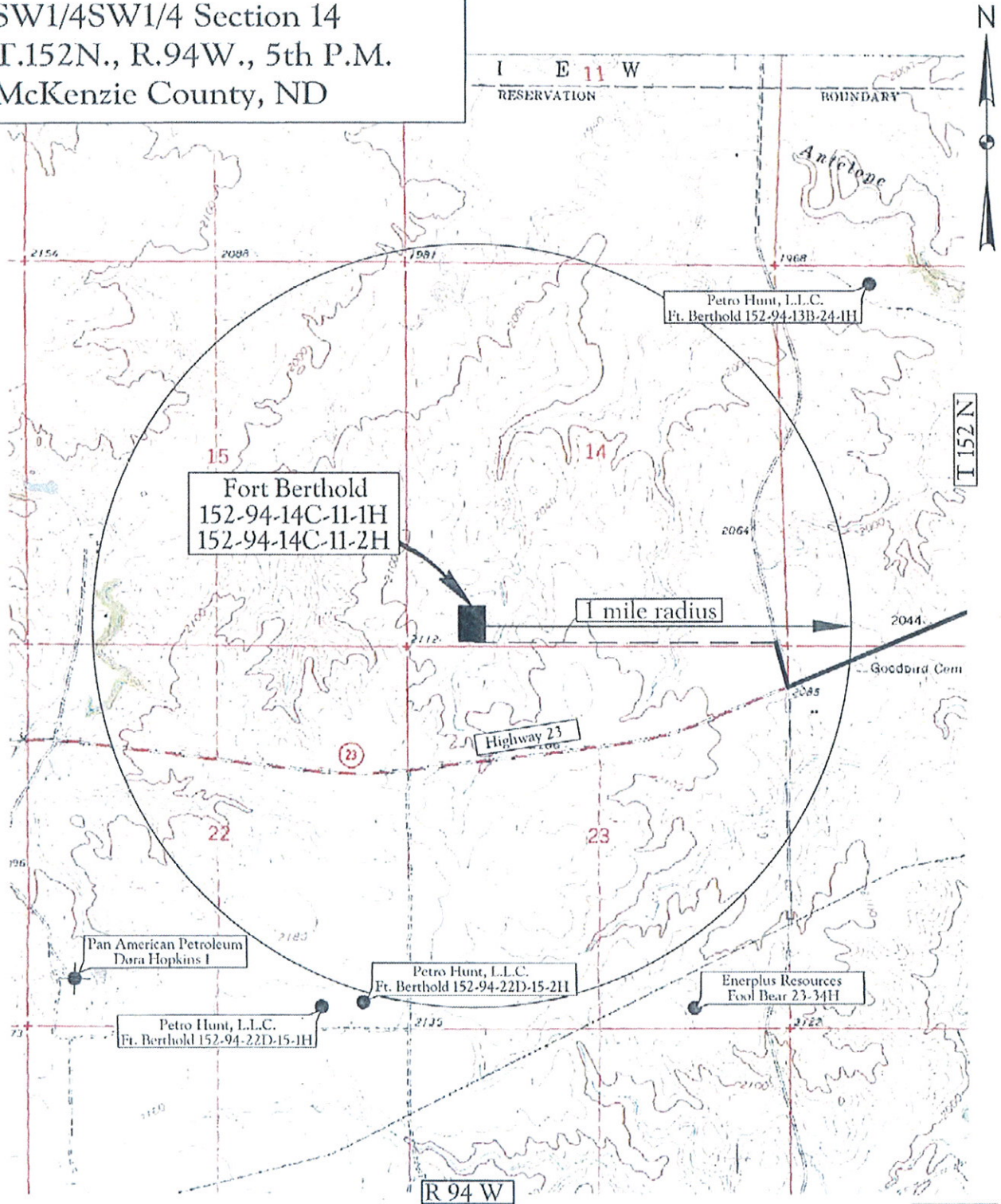
Legend
 Existing Roads —————
 Proposed Roads - - - - -

Scale 1" = 2000'

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Petro-Hunt L.L.C.
 Fort Berthold 152-94-14C-11-1H
 Fort Berthold 152-94-14C-11-2H
 SW1/4SW1/4 Section 14
 T.152N., R.94W., 5th P.M.
 McKenzie County, ND

Confidentially Notice: The information contained on this plot is legally privileged and confidential information intended only for the use of recipients. If you are not the intended recipients, you are hereby notified that any use, dissemination, distribution or copying of this information is strictly prohibited.



Map "C"
 One Mile Radius Map

Legend

Existing Roads —————

Proposed Roads - - - - -

Scale 1" = 2000'

Kadmas
 Lee &
 Jackson
 Engineers Surveyors
 Planners

Legend

wells

STATUS, WELL_TYPE

✱	A, AGD	○	DRL, AI	○	LOC, GASD
⊙	A, AI	○	DRL, GASC	○	LOC, OG
⊙	A, CBM	○	DRL, GASD	○	LOC, SWD
⊙	A, DF	○	DRL, OG	○	LOC, WI
⊙	A, DFP	○	DRL, SWD	✦	PA, DF
✱	A, GASC	○	DRL, WI	✦	PA, GASC
✱	A, GASD	⊖	DRY, GASC	✦	PA, GASD
✱	A, GASN	⊖	DRY, GASD	✦	PA, GS
●	A, OG	⊖	DRY, OG	✦	PA, OG
△	A, SWD	⊖	DRY, ST	✦	PA, SWD
⊙	A, WI	✱	EXP, GASD	✦	PA, WI
⊙	A, WS	●	EXP, OG	✦	PA, WS
⊙	A, AI	⚠	EXP, SWD	⊖	PNC, GASD
⊙	AB, AI	⊙	EXP, WS	⊖	PNC, OG
⊙	AB, DF	⊙	IA, AI	⊖	PNC, SWD
⊙	AB, DFP	⊙	IA, CBM	⊗	TA, AI
✱	AB, GASC	⊙	IA, DF	⊗	TA, GASC
✱	AB, GASD	⊙	IA, DFP	⊗	TA, GASD
⊙	AB, GI	✱	IA, GASC	⊗	TA, OG
●	AB, OG	✱	IA, GASD	⊗	TA, SWD
△	AB, SWD	●	IA, OG	⊗	TA, WI
⊙	AB, WI	△	IA, SWD	⊗	TA, WS
⊙	AB, WS	⊙	IA, WI	⊗	TAO, GI
●	Confidential, Confidential	⊙	IA, WS	⊗	TAO, OG
		⊙	IA, AI	⊗	TAO, WI
		○	LOC, GASC		

A - Active, AB - Abandoned, DRL - Drilling, Dry - Dry, EXP - Expired, IA - Inactive, LOC - Location, PA - Producer Abandoned, PNC - Permit Now Cancelled
IA - Temporarily Abandoned, TAO - Temporarily Abandoned Observation.

AGD - Acid Gas Disposal, AI - Air Injection, DF - Dump Flood, DFP - Dump Flood Producing, GASN - Nitrogen Gas Well, GASC - Gas Condensate, GASD - Gas Dry,
GI - Gas Injection, GS - Gas Storage, OG - Oil or Gas Well, SWD - Salt Water Disposal, WI - Water Injection, WS - Water Supply, ST - Strat Test

Exhibit "D"
GIS Well Symbols



Prepared by NDEIC 08/01/08



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E., Suite 400
Aberdeen, South Dakota 57401



OCT 11 2011

IN REPLY REFER TO:
DBSCRM
MC-208

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 six proposed oil well pads in McKenzie County, North Dakota. Approximately 191.3 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. One previously recorded archaeological site (32MZ2159) was revisited and two archaeological sites (32MZ2229, 32MZ2230) were located that may 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 which 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 reached a determination of **no historic properties affected** for these undertakings, as one of the well pad projects has been canceled and an access road has been rerouted to avoid the remaining archaeological site. The proposed undertakings, locations, and project dimensions are described in the following reports:

Macy, Jennifer N.

- (2011a) Fort Berthold 152-94-15A-22-5H, Fort Berthold 152-94-15B-22-6H & Fort Berthold 152-94-15B-22-7H Triple Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011b) Fort Berthold 152-94-13B-24-2H Well Pad: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011c) Fort Berthold 152-93-19C-1H & Fort Berthold 152-93-19C-2H Dual Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1884/FB/11)
- (2011d) Fort Berthold 152-94-11B-14-5H, Fort Berthold 152-94-11B-14-6H & Fort Berthold 152-94-11B-14-7H Triple Well Pad and Access Road: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Bismarck. Ms. on file (AAO-1884/FB/11)

(2011e) Fort Berthold 152-94-14C-11-2H Well Pad Expansion: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, Denver. Ms. on file (AAO-1620/FB/09)

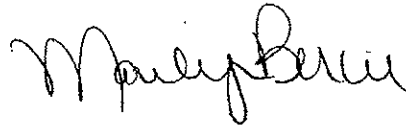
Mitchell, Mary

(2011) Fort Berthold 152-93-9B-10-7H: A Class III Cultural Resource Inventory, McKenzie County, North Dakota. KLJ Cultural Resources for Petro-Hunt, LLC, Bismarck. Ms. on file (AAO-1884/FB/11)

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