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IGPP/Los Alamos National Laboratory
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Miami University, Ohio
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Michigan State University
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University of Missouri at Rolla
Montana Tech of the University of Montana
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University of Nevada, Reno
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New Mexico State University
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State University of New York at Stony Brook
North Carolina State University
University of North Carolina, Chapel Hill
Northern Illinois University
Northwestern University
Oklahoma State University
The University of Oklahoma
University of Oregon
Oregon State University
Pennsylvania State University
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Princeton University
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Rice University
Rochester University
Rutgers, the State University of New Jersey
Saint Louis University
San Diego State University
San Jose State University
University of South Carolina
University of Southern California
Southern Methodist University
Stanford University
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University of Tennessee
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University of Washington
Washington University, St. Louis
West Virginia University
University of Wisconsin, Madison
University of Wisconsin, Milwaukee
University of Wisconsin, Oshkosh
Woods Hole Oceanographic Institution
Wright State University
University of Wyoming
Yale University



Robert W. Busby
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South Dakota One Call Notification Board
c/o Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

July 28, 2010

SUBJECT: Response to Complaint OC10-004, excavation on June 3, 2010

The complaint has two parts;

- a) that we excavated without a ticket or notification to One Call Center
- b) that the excavation contractor information was not accurate.

Response:

First, we want to recognize the valuable service the One Call system provides and that our overall interest is in the safety of our crews and the safety of the public.

a) We did file a One Call Ticket on June 2, it was valid beginning June 4. Our crew rescheduled which sites to construct over the weekend and did not recognize the permit was not yet valid (they knew it was entered) and completed the 3 hour job on June 3, their second of that day. The particular instance was the result of incomplete coordination between managers and field crew as to the start of the valid period within which work could be scheduled. We apologize for that oversight. The actual hazard was recognized and discussed with landowner, but the One Call process was not allowed to complete, allowing the gas company to confirm the location, in order to help insure safety.

b) The ticket as filed contains the excavation contractor's proper address and contact phone. The contractor files the notice, handles the responses and executes the excavation. The contractor listed the work as performed for National Science Foundation. Describing our Project accurately on such forms is difficult. The project in publicly distributed information is referred to as EarthScope, sponsored by NSF. In fact NSF has a cooperative agreement with the Incorporated Research Institutions for Seismology (IRIS), a consortium of US Universities incorporated as a nonprofit in Delaware in 1984 (see www.iris.edu), to operate and maintain earthquake monitoring stations worldwide and the USArray portion of the EarthScope

Project. IRIS hires the excavation contractor, Coastal Technical Services but IRIS personnel direct which site to construct when. IRIS received the Complaint at its Washington DC office and IRIS composed this response. We apologize if the information provided was misleading.

Specific Answers:

1. The amount of Damage: No damage to any property or utility equipment
2. The degree of threat to public safety. The threat to safety was limited to those performing the work (and we are grateful to the attention to this lapse) or the landowner observing the work being performed. The actual threat of excavating 400 yards from a gas line are minimal.
3. The public inconvenience caused. No public inconvenience
4. The respondent's plans and procedures to insure future compliance with statute and rules. On Monday July 19, the second business day after receiving complaint, we held a one hour meeting to clarify the responsibility of the construction coordinator and the onsite supervisor in regards to the status of dig permits. The construction supervisors are to be specifically told when the dig permit is valid (Not when entered) and to not begin any excavation until a permit is valid. Normally this is well established in the organization, but when the work area is moved dramatically (due to weather), the notice and valid period for dig permits requires increased vigilance.
5. Any history of previous violations? None, with 1200 sites constructed since 2004.
6. Other matters as justice requires? None expected.

We appreciate the Gas Company bringing the incident to our attention and we have revised our procedures as a result to insure the onsite crew foreman knows the valid period of dig permit for each and every location and utility response, if any.

We also want to recognize that the State has made the system easy to use, with web and email support for the written confirmation of tickets entered. Many states still rely on phone based entry and confirmation, which is much harder to share information accurately with the field crew.

Sincerely,



Robert W. Busby
IRIS, USArray Transportable Array Manager

Enclosures:
Complaint
One Call ticket receipt
Recon report

ONE CALL COMPLAINT FORM
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, Sd 57501-5070

COMPLAINT

Allegation of Probable Violation(s) of South Dakota One Call Laws

Received On June 29, 2010 10:14 am

I. ACTION REQUESTED BY:

COMPLAINT FILED BY: Company
PERSON FILING COMPLAINT: Jeff A. Anderson
COMPANY: Northern Natural Gas Company
ADDRESS: 1111 South 103rd Street, Omaha, NE 68124-1000
PHONE NUMBER: (402) 398-7260
EMAIL: jeff.anderson@nngco.com
DATE: June 29, 2010

ii. ACTION REQUESTED AGAINST:

NAME OF EXCAVATOR/FACILITY OPERATOR: EarthScope
PHONE NUMBER: (202) 682-2220
ADDRESS: 1200 New York Avenue, Suite 800 Washington, DC 20005
WAS A LOCATED REQUESTED FROM SD ONE CALL? Yes
LOCATE TICKET#: 101530117
START DATE ON TICKET: June 4, 2010
DID EXCAVATOR WAIT UNTIL THE START DATE/TIME ON THE TICKET BEFORE COMMENCING EXCAVATION? No
WERE BURIED FACILITIES EXPOSED BY HAND OR NON-INVASIVE EQUIPMENT PRIOR TO EXCAVATION? No

III. FACILITY INVOLVED (IF ANY)

TYPE OF FACILITY INVOLVED: 3-inch natural gas pipeline, Howard Branch Line SDB95801
OPERATOR OF FACILITY: Northern Natural Gas Company
OPERATOR ADDRESS: 1111 South 103rd Street Omaha, NE 68124
PHONE NUMBER: (402) 398-7200
DEPTH OF COVER: N/A
PRESSURE: 750 psig
VOLTAGE: N/A
NUMBER OF CABLE REPAIRS:

IV. MARKING

WERE FACILITIES MARKED? No

WAS THE MARKING COMPLETE PRIOR TO THE START TIME ON THE TICKET? No

DID EXCAVATOR PRE-MARK WITH WHITE PAINT? No

WAS THE FACILITY ACCURATELY MARKED (WITHIN 18 INCHES)? No

DID EXCAVATOR USE REASONABLE CARE TO MAINTAIN LOCATE MARKS FOR LIFE OF PROJECT? No

HAVE YOU DISCUSSED THE PREVIOUS STATEMENTS WITH THE OTHER PARTY? No

IS THERE AGREEMENT? No

IF NO, PLEASE EXPLAIN:

V. DAMAGE (IF ANY)

FATALITIES: 0

INJURIES: 0

LENGTH OF HOSPITALIZATION: None

ESTIMATED PROPERTY DAMAGE: \$0.00

NUMBER OF CUSTOMERS AFFECTED: 0

DAMAGED IN:

PHOTOS OF THE DAMAGED FACILITY: No

ADDITIONAL INFORMATION: Facilities not damaged.

VI. PROBABLE VIOLATION

SPECIFIC STATUE(S) OR RULE(S) THAT WAS VIOLATED: 49-7A-5; 49-7A-18

ADDRESS/LOCATION OF PROBABLE VIOLATION: 43714 232nd Street, Howard, South Dakota

DATE/TIME OF PROBABLE VIOLATION: June 3, 2010 10:00 am

HAVE YOU DISCUSSED THE PROBABLE VIOLATION WITH THE PARTY THE ACTION IS FILED AGAINST? False

IF YES, NAME THE PARTY WITH WHOM YOU DISCUSSED THE PROBABLE VIOLATION:

DESCRIPTION OF PROBABLE VIOLATION: Contractor completed excavation work prior to start date on one-call locate ticket, so Northern's Howard branch line was not marked. Work that was completed was 200 yards southeast of this line. Contractor that completed excavation work did not make the one-call locate request.

----- Original Message ----- From: "Ontry Automated Ticket Sender" <do_not_reply@1-call.com>
To: crstout@cox.net
Sent: Thursday, July 15, 2010 4:14 PM
Subject: Your requested copy of SD Ticket #101530117 From OCS ONTRY

South Dakota One Call SEQUENCE NUMBER 0117 CDC = XPR

Type: *** R O U T I N E ***

Transmit: 06/02/10 At: 0850 CDT

Prepared: 02-JUN-10 Time: 0850 CDT By: TRY

Ticket No.: 101530117

Operators Notified:

SRP=/ALLIANCECOM-CUS/ KIN=/KINGBROOK WATER/ CEE=/CENTRL ELEC-ELM/ NN1=/N NATURAL GAS /

Excavator Information:

Caller: RICK STOUT Phone: 757-282-6694

Excavator: COASTAL TECHNICAL SERVICE
Address: 2100 MEDITERRANEAN AVE ST
City: VIRGINIA BEACH, VA 23451
Phone: 757-282-6694 Fax: 757-228-1222
Email: RSTOUT@COX.NET

Contact: RICK STOUT Phone: 757-282-6694 Alt. Contact: Phone:

Location Information:

County: MINER City/Village: HOWARD

Map Ref: 44014-097276 Grids: 22
Exc. Site Address: 43714 232ND STREET
Nearest Intersection: 438 STREET Type of Work : SEISMIC STATIONS
Work Being Done For: NATIONAL SCIENCE FOUNDATION
Depth: 7 FT Explosives: N Tunnel/Bore: N
Start Date: 06/04/10 Time: 0900 CDT Duration: 21 DAYS Meeting Required: N Best Time to
Contact: 0800 - 0500
Exc. Site (Marking Instr.): R.O.W.: N TRSQ: 107N 55W 32-SW
50FT RADIUS OF WOODEN STAKE WITH ORANGE FLAGGING GPS NAD 83
LOCATION N44.02711 W97.46432
GPS Lat/Long: Remarks and Driving Directions:
EXPIRES JUN 25 @ 09:00 CDT
 *ON-TRY=SDRSTOUT10153094249

Total Grids: 22

44014-097276, 44014-097278, 44014-097280, 44016-097276, 44016-097278, 44016-097280, 44012097274A, 44012097276A, 44012097276B, 44012097278A, 44012097278B, 44012097280A, 44012097280B, 44012097282B, 44014097274A, 44014097274C, 44014097282B, 44014097282D, 44016097274A, 44016097274C, 44016097282B, 44016097282D

Total TRSQs: 9

107N 55W 32-SE, 107N 55W 32-SW, 107N 55W 32-NE, 107N 55W 32-NW, 106N 55W 05-NE, 106N 55W 05-NW, 106N 55W 06-NE, 107N 55W 31-SE, 107N 55W 31-NE

End Ticket

Reconnaissance Report

USArray Transportable Array

Site: I32A-2

Reported by: Kathleen Schwabe, Sarah DeHoogh
Visitors: Schwabe and DeHoogh
Date of Initial Recon: 09 July 2008
Revised: DL080926
Verified: LJ080926

Coordinates: 44.02711 – 97.46432

Elevation: 490 meters
Time Zone: Central
Construction: May 2010

Landowner:

Name: James and Bonnie Litterick
MAIL Address: 43714 232nd ST
Howard, SD 57349

Phone: (605) 772-4206
Cell: (605) 860-8439
E-Mail: N/A

SITE Address: pasture E of residence, along fence line
T107N, R55W, Henden County, SW ¼, sec 32

Contact:

Landowner, James Litterick, best time to call is between 12:00 and 1:00 PM

Driving Instructions:

From Madison, SD, head W on SD-34. Drive 17 miles.
Turn N onto 438 ST at (44.00800-097.45036). Drive 1 mile.
Turn W onto 232nd ST at (44.02244-097.45049). Drive .7 miles.
Turn N off from 232nd ST into grassy entrance at (44.02249-097.46373). Drive only a few meters.
Turn W at (44.02267-097.46378). Drive a few more meters. If you face N, you will see a gate.
Go N through the gate at (44.02282-097.46415). Drive to the NE corner of the pasture.

To residence:

Continuing W on 232nd ST, turn N into driveway at (44.02243-097.46778).

Recheck:	DL080926
Access:	Two Wheel Drive, impassable in wet/snow
Comm Type:	Verizon Digital Service
Fencing:	Required, standard
Eng. Approval:	DRL080926
Template Ver.	2007_11_20

Land Use:

Livestock (cattle), Farming

Proximity to initial location:

I32A-2 is 14.9 km, N63.1 T from initial location

Potential Noise:

SD HWY 34 is just over 1 mile S

232nd ST approximately 600 ft. S

Cattle in pasture

There will be farm equipment present near site during certain times of the year (planting, harvest, etc.)

Noise from house a possibility

Feasibility:

Comms: Verizon Digital Service

	Network	Signal	Activity	Service	Power	Cell_phone_dB
Verizon Type H4221-V	ON	ON	Blink	ON	ON	-68
Alltel	ON	Blink	Blink	OFF	ON	
Cingular Type H4222-S	Did	Not	Test		ON	

	RSSI in dBm	Channel	Carrier id	Tower id
Verizon Type H4221-V	-62	384	Verizon	
Alltel	-80	241	Alltel	
Cingular Type H4222-S				

Verizon

*NETIP	Network IP	166.161.106.228
*NETSTATE	Network State	Network Ready
*NETCHAN	Channel	384
*NETRSSI	RSSI (dBm)	-62

Alltel

*NETIP	Network IP	98.132.3.168
*NETSTATE	Network State	Network Dormant
*NETCHAN	Channel	241
*NETRSSI	RSSI (dBm)	-80

Power: 1 solar panel, 1 battery

Landowner: Extremely Helpful

Issues:

- Landowner required to be notified during construction/installation. All personnel must notify contact for permission to enter site area for any work in the future.
- EarthScope/USArray, at end of occupying site, will remove equipment and area will be returned to original condition.
- Fence off solar panel
- **NOTE: Mrs. Litterick brought up a good point that you might have a problem with here and elsewhere. Kochia is a widespread weed in the West that can exceed 8 feet in height and is bushy. This pasture has this weed in it but the cattle eat it and trample it down. The fence around the solar mast could, depending on its geometry, prevent the cattle from keeping it low and introduce a shade problem for the solar panel.**
- Wind from N and W
- **NOTE: Owner needs to be present when you enter the site, due the fact that the fence is electric**
- CAUTION: Fence that site is to be located beside is also electric
- Drive-up access to site: 2WD drive accessible, may be hard to access in winter or when wet
- Water available from hydrant at residence (ask landowner)
- Lodging available in Madison, SD (also 1 motel in Howard, SD)
- Supplies: Madison, Howard
- **Construction schedule for May 2010**

Initial Construction Plan:

Tank Vault Design A. The station consists of a 42 inch diameter plastic pipe embedded into the ground to a depth of 7', with a concrete base (1.0 cu yds) poured into the bottom. Within 23' of the pipe an 8' mast is installed on which is mounted solar panels, a GPS antenna and a cellular antenna. The plastic pipe encloses the sensor, electronics, and batteries. The top of the plastic pipe is typically completely covered with a mound of soil making it fairly unobtrusive.

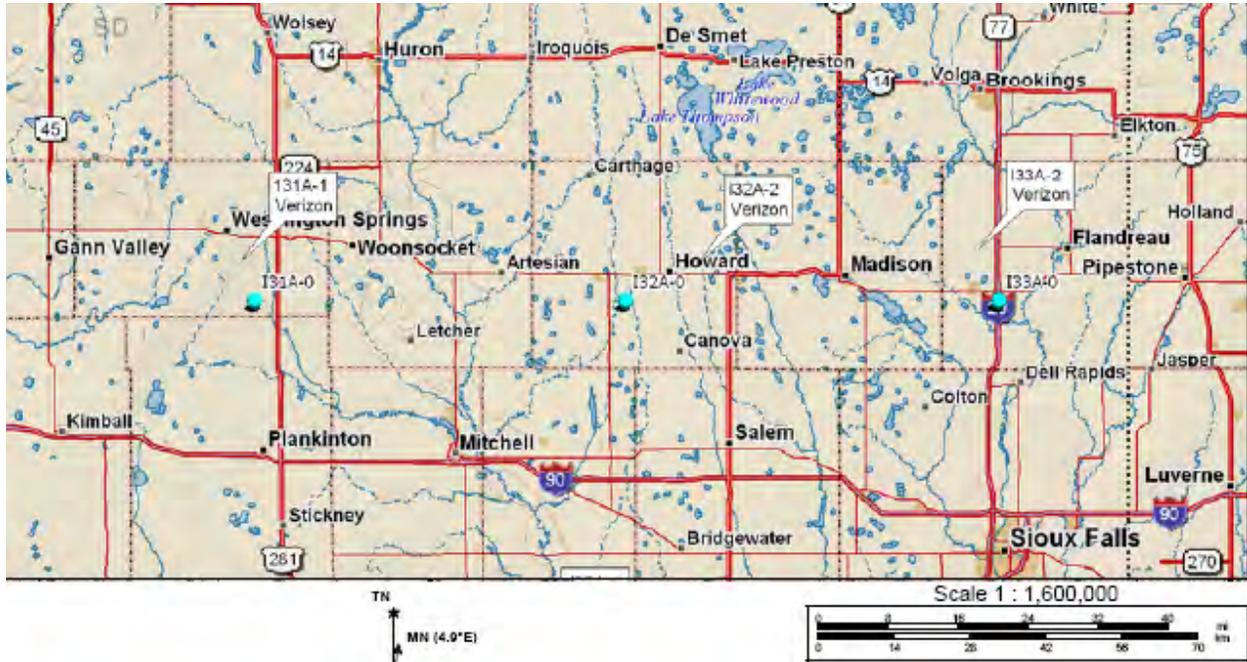
The location for the site should be away from road traffic (1 km), vehicle parking (200 m), irrigation pumps (1-3 km) or windy hilltops. We try to locate the station so that it bottoms onto competent rock so we often select hillsides or ridge saddles. In agricultural land, irrigation pumps are the main concern.

There are no hazardous materials used in the station or in construction. The environmental impacts are limited to a day or two of dust caused by digging the hole, and some increased noise during the construction. If there needs to be clearance for threatened or endangered species or cultural artifacts we hire specialists to perform this work. The complete site or just the mast used for telemetry purposes can be fenced to protect livestock and the equipment.

It usually takes us one day to construct the hole, backfilling the hole around the installed pipe and capping the pipe with a plastic lid by days end so there is no unattended open hole. It takes one day to install our sensors and complete the communications.

The communication equipment is to be located on the solar panel mast and consists of a Verizon or Cingular cellular transmitter.

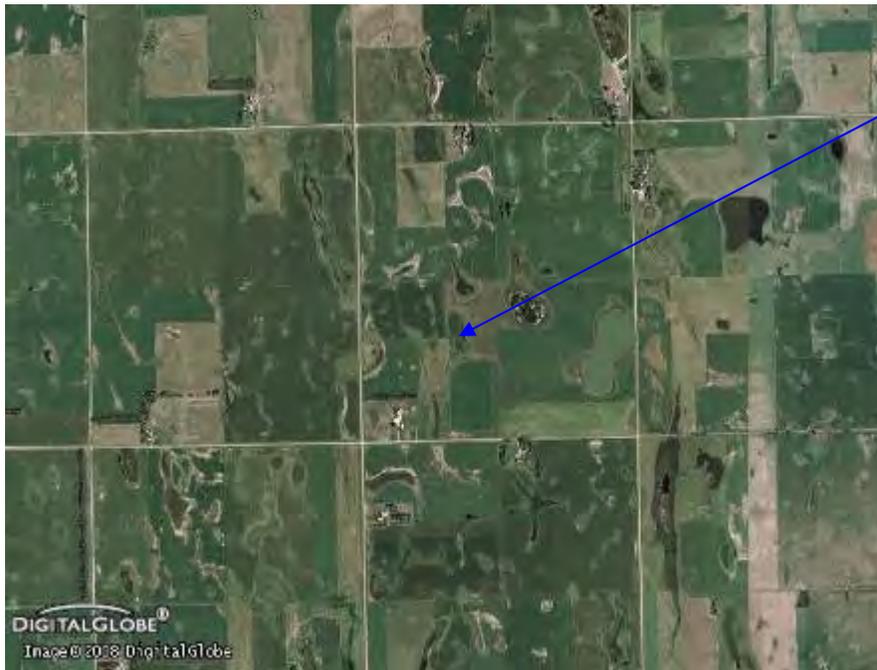
MAPS



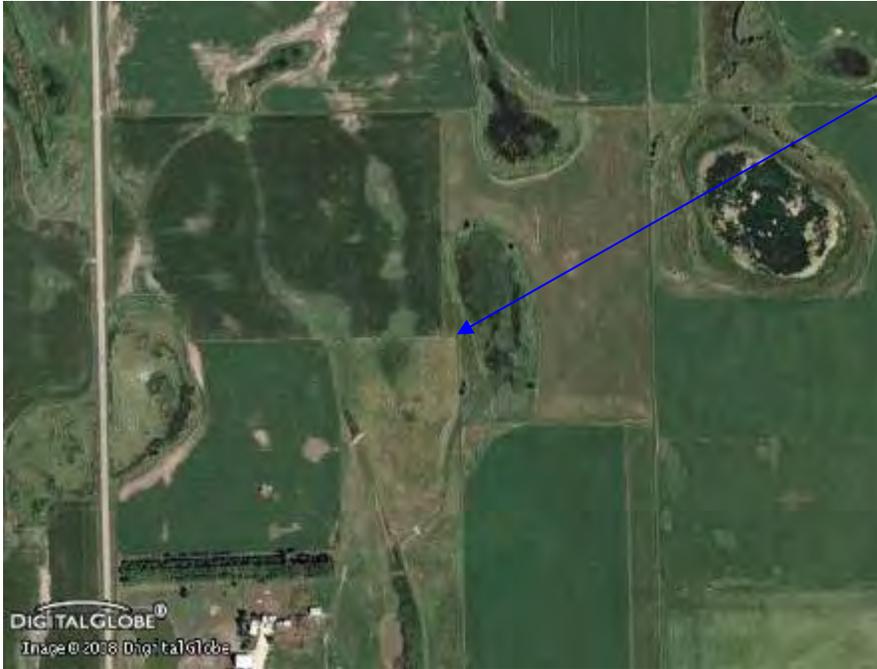
3.0.



General
area of site



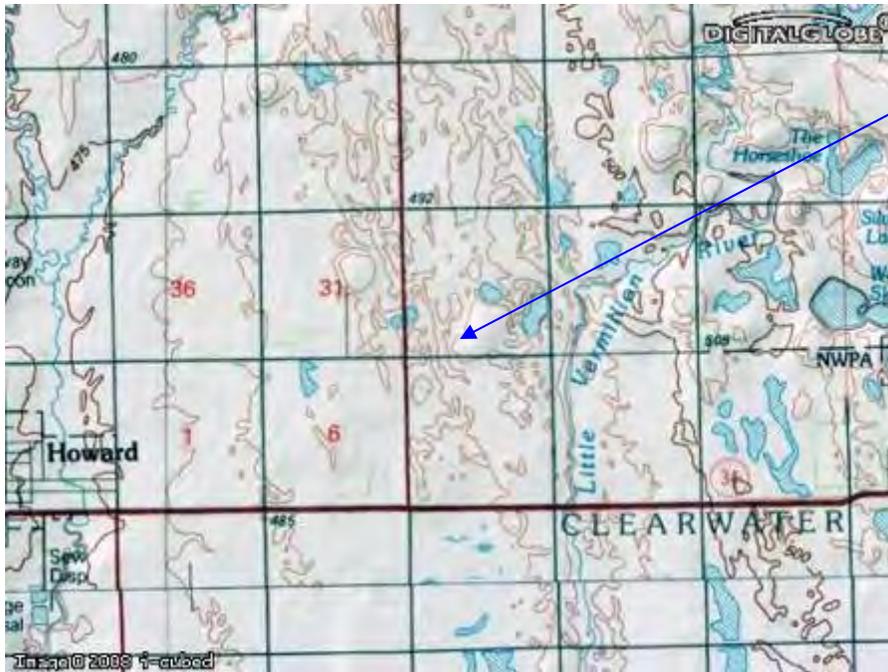
Site



Site I32A-2



General location of site



Landowners in the general area.



DIRECTIONAL PHOTOS:



Looking North



Looking East



Looking South



Looking West

ADDITIONAL PHOTOS:



Typical USArray Site. After instruments are installed the vault is covered with excess dirt for thermal protection and to protect from wind noise.

DIRECTIONS:



Turn N onto 438 ST at (44.00800-097.45036).



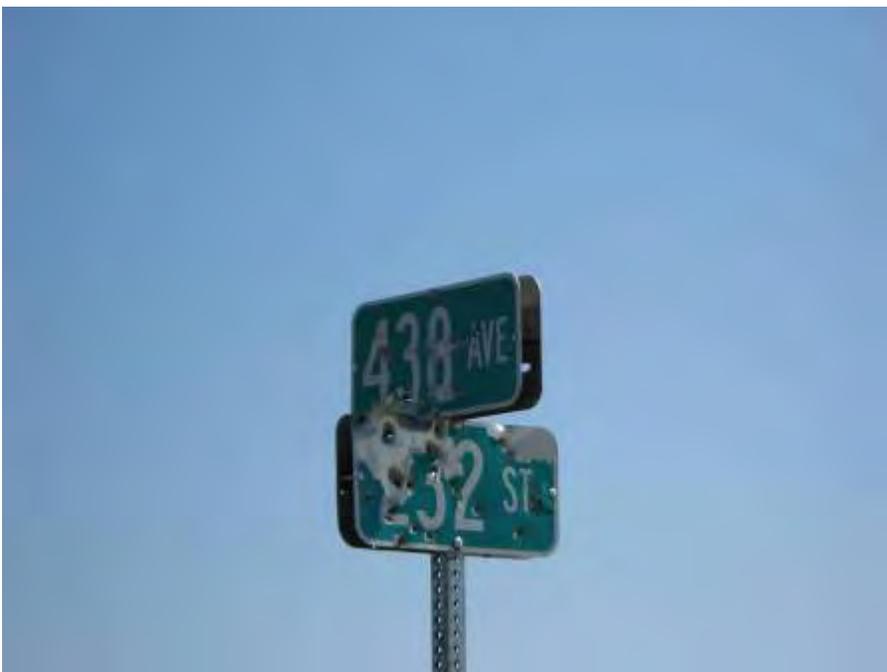
Close-up view of street signs at turn-off.



House sitting at corner of turn-off.



Turn W onto 232nd ST at (44.02244-097.45049).



Close-up street signs at turn-off.



Minimum Maintenance sign opposite of turnoff visible from road.



Turn N off from 232nd ST into grassy entrance at (44.02249-097.46373).



Closer view of gates into field



Go N through the gate at (44.02282-097.46415).

To Residence:



Continuing W on 232nd ST, turn N into driveway at (44.02243-097.46778).



Landowner's house.



Landowner's mailbox opposite of driveway.