

2

WATER PERMIT NO. 2352-3

Name of Applicant: USAF, Ellsworth AFB

Address: 28 CES/CEUR, Ellsworth AFB, SD

Phone: 605 385-2675

Contact Person: Karl Primdahl, Rust E & I, 3033 Campus Dr., Ste 175, Minneapolis MN 55441

Phone: 612 551-2475

Amount of Water Claimed: 0.22 cfs (100 gpm)

Total Acres: NA

Source of Water Supply: groundwater

Water to be used for: remediation purposes

County: Pennington and Meade

Type of Waste Disposal System:

Location: within or adjacent to Ellsworth AFB

PRIORITY Date Received: 11-6-95

Fee: \$225.00

Corrected Application Received: 1-9-96

Period of Annual Use: January 1 - December 31

Remarks:

Diversion Point: SW 1/4 NE 1/4 Sec 1, SW 1/4

SE 1/4 Sec 12, NW 1/4 SE 1/4, N 1/2 SW 1/4

Sec 13, NE 1/4 SE 1/4 Sec 14, N 1/2 NE 1/4

Sec 24; all in T2N-R8E and N 1/2 NW 1/4

Sec 18-T2N-R9E

Land to be Irrigated: NA

Depth of Well or Trenches: 17 - 56 feet

Well Driller:

Remarks:

Type of Map: Plat

Prepared by: Keith J. Anderson

Reviewed and the Number Assigned on: 1-10-96

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

FORM 2: Application for uses other than irrigation
(type or print)

Mail to:
Water Rights Division
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181
605 773-3352

No. 2352-2 Hydrologic Unit 1012011
Basin Upper Cheyenne
Newspaper Rapid City Journal, Rapid City, SD
Meade Co. Times Tribune, Sturgis, SD (office use only)



Application For Permit To Appropriate Water Within The State Of South Dakota

Check use of water:

☐ Municipal ☐ Suburban Housing ☐ Recreational ☐ Institutional
☐ Rural Water System ☐ Commercial ☐ Fish & Wildlife ☐ Geothermal Heat
☐ Domestic ☐ Industrial ☒ Other Remediation
(over 18 gpm)

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) ☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) _____

1. Name of Applicant United States Air Force, Ellsworth AFB Phone 605 385-2625
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 28 CES/CEUR Ellsworth AFB State SD 57706-4711
(Street, RR, or Box) (City) (Zip Code)

2. Amount of water claimed 0.22 *CFS or 100 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet -- storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Total of 23 extraction wells

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W-2nd 1/4 sec. Meade Co.)
Section 12-T2N-R0E, 2 wells in SW1/4 SE1/4 Section 18-T2N-R0E, 4 wells in NE1/4 NE1/4 Section 24-T2N-R0E, 3 wells in NW1/4 SE1/4 Section 13-T2N-R0E, 8 wells in SW1/4 NW1/4 Section 12-T2N-R0E
Pennington, Co. see attached sheet County _____

5. County or counties where water will be used Meade and Pennington

6. Annual period during which water is to be used Entire Year Jan 1 - Dec 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
Ground water extraction will be performed at seven sites within or adjacent to Ellsworth AFB. At each site ground water extraction will be performed continuously using level controllers to stop extraction at low water level. Intermittant pump operation is expected.

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

STATE OF SOUTH DAKOTA)

County of Meade^{ss}

I, JOHN B. DE YOE, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Signed John B. De Yoe

Subscribed and sworn to before me this 3rd day of November 19 95

Beverly S. Neffzer
Notary Public

My commission expires 25 Sept 2000

**SOUTH DAKOTA
WATER PERMIT NO. 2352-2**

Date of first receipt of application November 6, 1995.

Date of return to applicant for corrections, amendments or changes November 16, 1995.

Date of receipt of corrected application January 9, 1996.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2352-2 to USAF, Ellsworth Air Force Base, 28 CES/CEUR, Ellsworth AFB SD 57706-4711 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2352-2 appropriates 0.22 cubic feet of water per second (100 gallons per minute) from 23 wells or trenches, 17 feet to 56 feet deep (Pierre Shale and Terrance Deposits) located in the SW 1/4 NE 1/4 Section 1, SW 1/4 SE 1/4 Section 12, NW 1/4 SE 1/4, N 1/2 SW 1/4 Section 13, NE 1/4 SE 1/4 Section 14, N 1/2 NE 1/4 Section 24; all in T2N-R8E and the NE 1/4 NW 1/4, NW 1/4 NE 1/4 Section 18-T2N-R9E.
2. The water appropriated shall be used for the purpose of extracting contaminated ground water and may not exceed the amount of water needed for beneficial use for ground water remediation purposes.
3. The water is to be used during the following described annual period: January 1 - December 31
4. The date of approval of Permit No. 2352-2 is March 11, 1996.
5. The date from which applicant may claim right is November 6, 1995.
6. One-fifth of the construction is to be completed on or before September 11, 1998.
7. All construction is to be completed on or before March 11, 2001.
8. Water is to be put to beneficial use on or before March 11, 2005.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

WATER MANAGEMENT BOARD

By: 
John Hatch, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 3 1996
date



Form 2A
(Complete applicable portions only)

Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 15 1/2"-36" Depth 17' - 56'
- b) Casing Type HDPE, PVC, EC ^{Steel} Diameter 8"-24" Thickness 8'-19'
- c) Screen Type PVC, HDPE, & SS Diameter 8"-24" Thickness 10'-45'
- d) Gravel Pack Thickness 15 1/2"-36" Length of Gravel Pack 11'-46'
- e) Depth to Top of Water Bearing Material 12' - 30'
- f) Depth to Water (ground surface to water level) 12' - 30'
- g) Distance to nearest existing domestic well:
On applicants property _____ On property owned by others 300 ft.

2. Wastewater Disposal System Information NA

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ c) Year Constructed _____
- d) Connected to the City of _____ Sanitary System.

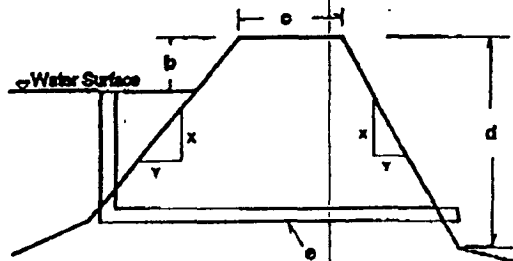
3. Dugout Information NA

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams NA

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

414751

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ January 9, 19 96

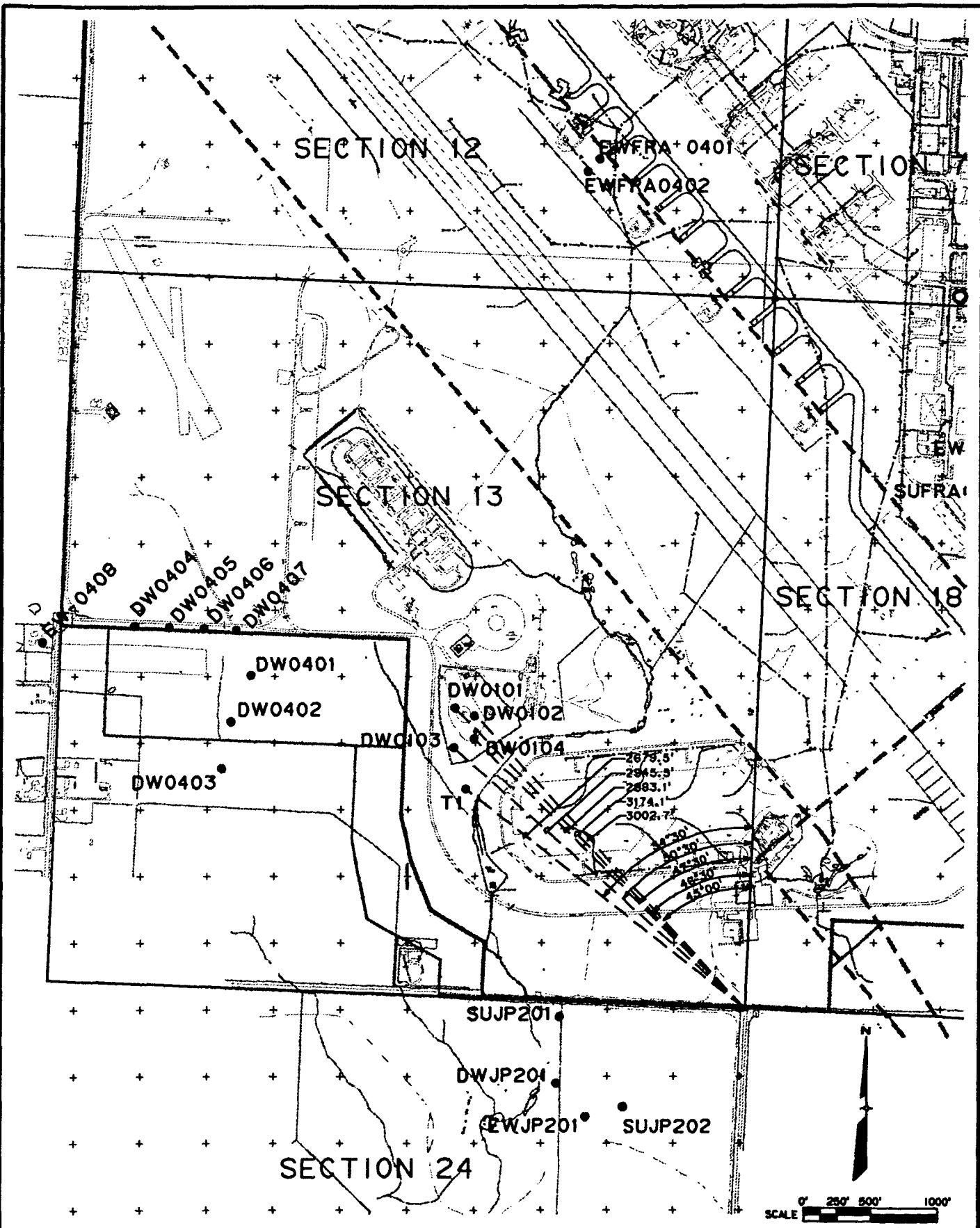
RECEIVED OF Rust L & I (Ellsworth AFB), 3033 Campus Dr., Ste 175, Minneapolis, MN 55441
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>2352-2</u> to Appropriate Water, to construct and to put water to beneficial use _____	225	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	225 00

By John Hatch
Chief Engineer

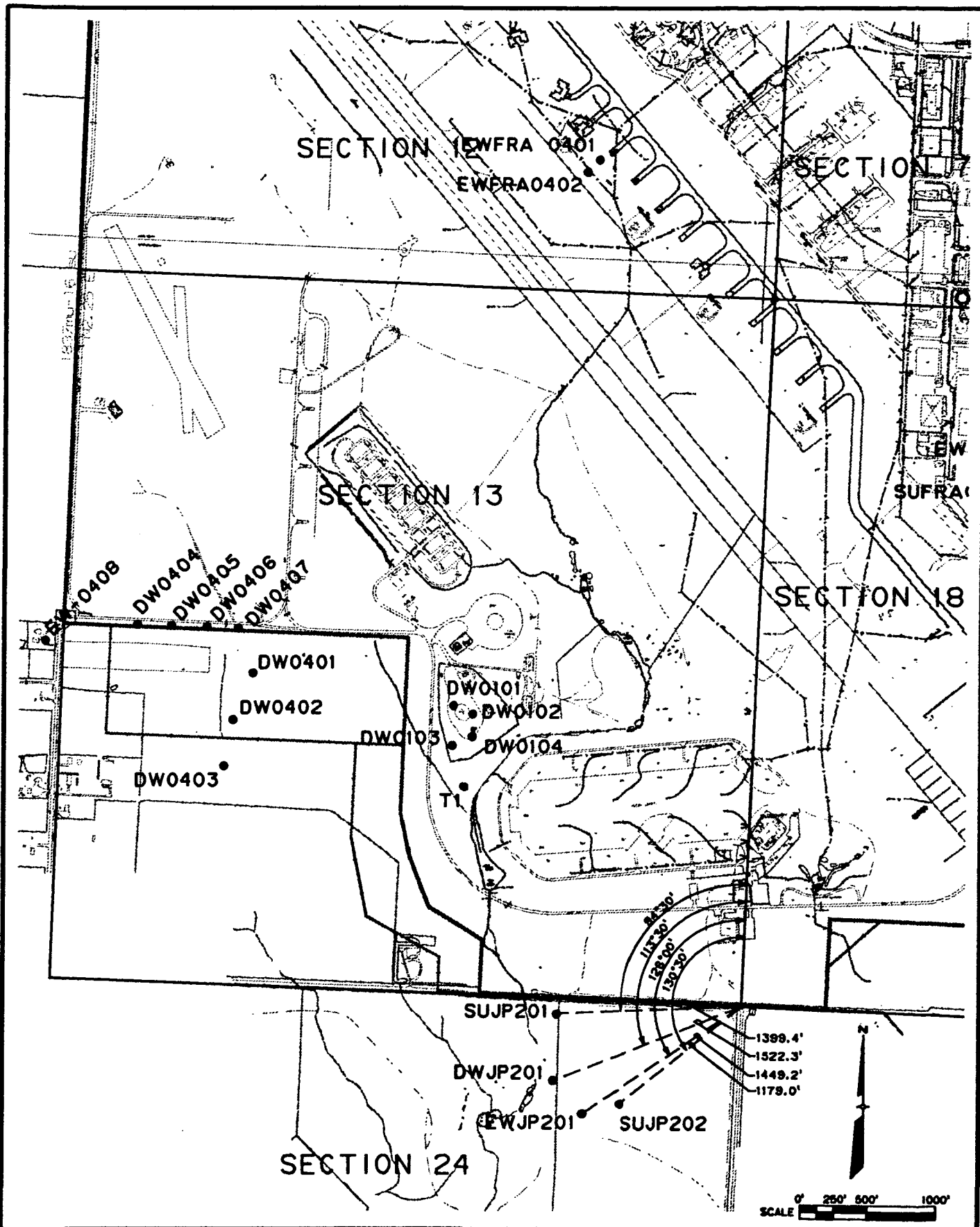
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OU-1 WELL LOCATIONS

ELLSWORTH AFB, SOUTH DAKOTA
 PREPARED FOR U.S. ARMY CORPS OF ENGINEERS

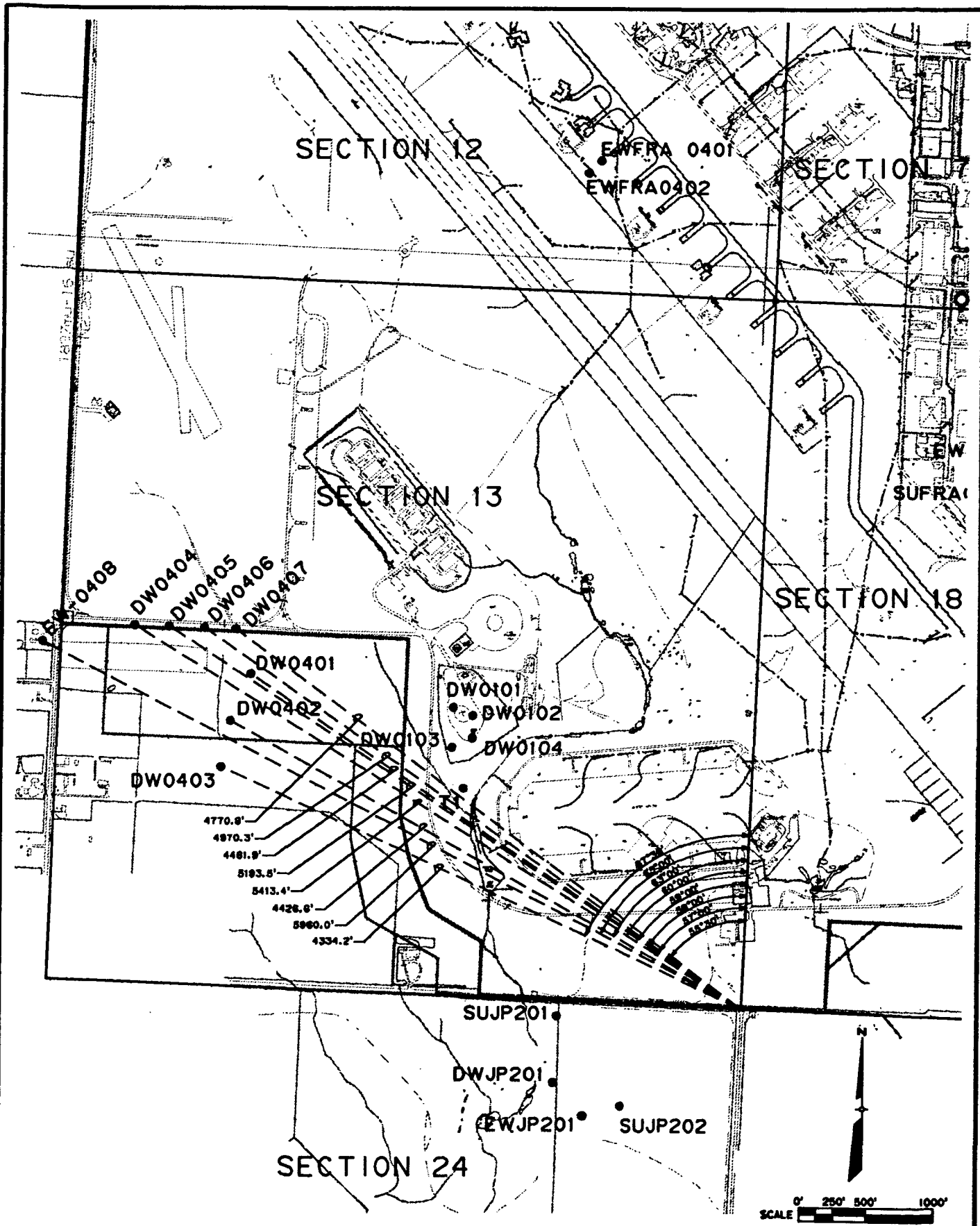
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OU-2 WELL LOCATIONS

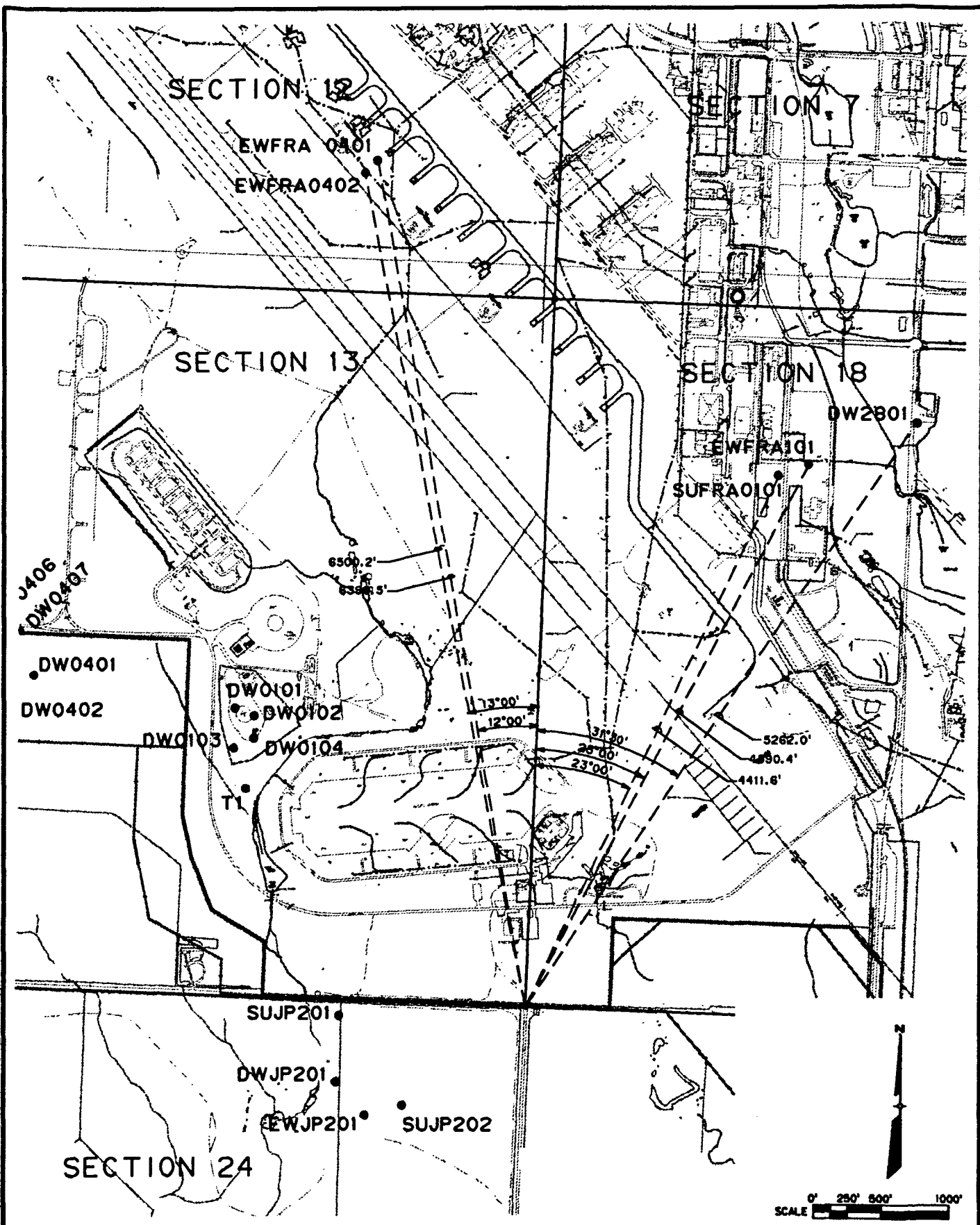
ELLSWORTH AFB, SOUTH DAKOTA
 PREPARED FOR U.S. ARMY CORPS OF ENGINEERS

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LEVELS = 1-63
LEVELS = 1-63
LEVELS = 1-63



OU-4 WELL LOCATIONS

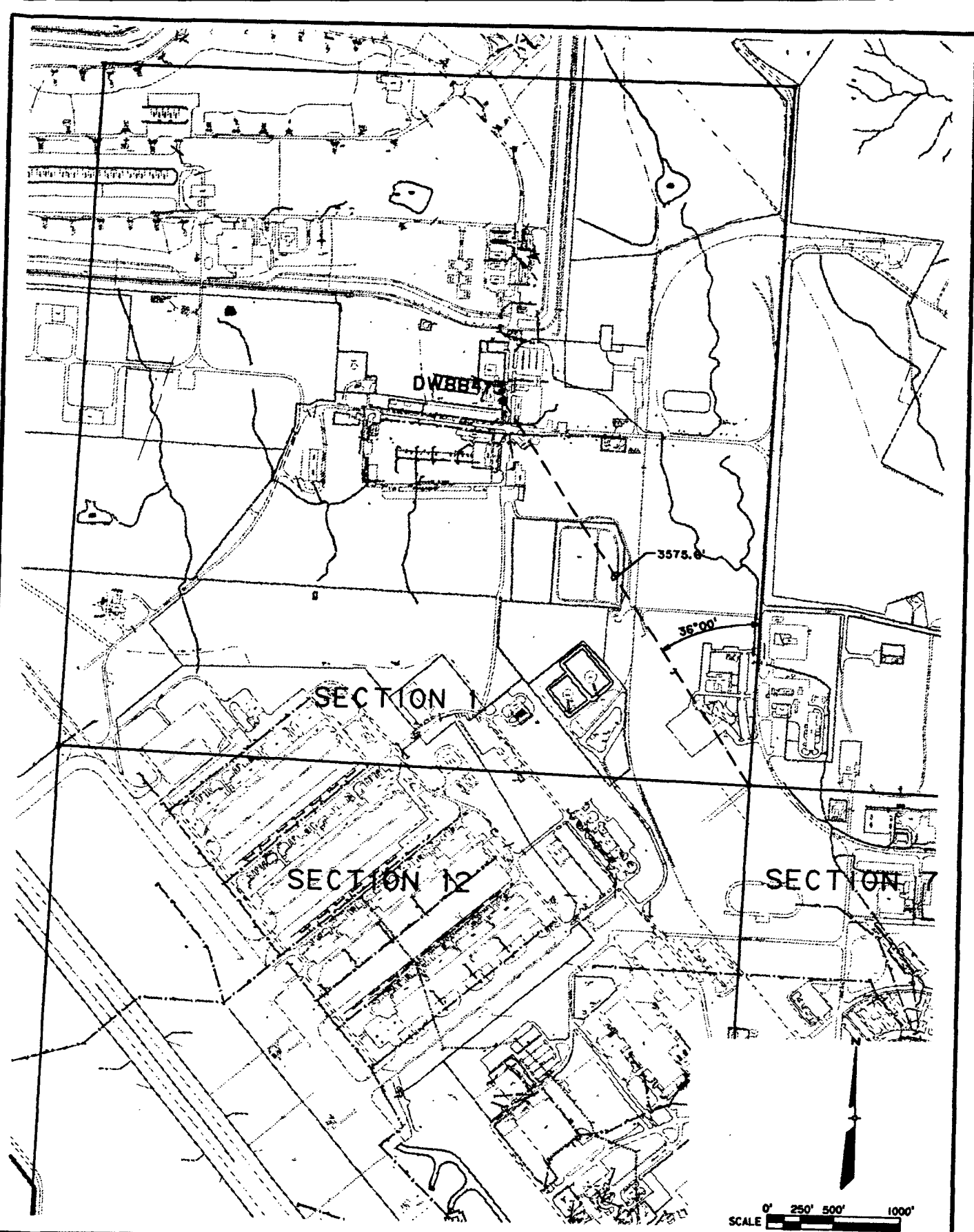
ELLSWORTH AFB, SOUTH DAKOTA
PREPARED FOR U. S. ARMY CORPS OF ENGINEERS



PH-1, PH-4 WELL LOCATIONS

ELLSWORTH AFB, SOUTH DAKOTA
PREPARED FOR U.S. ARMY CORPS OF ENGINEERS

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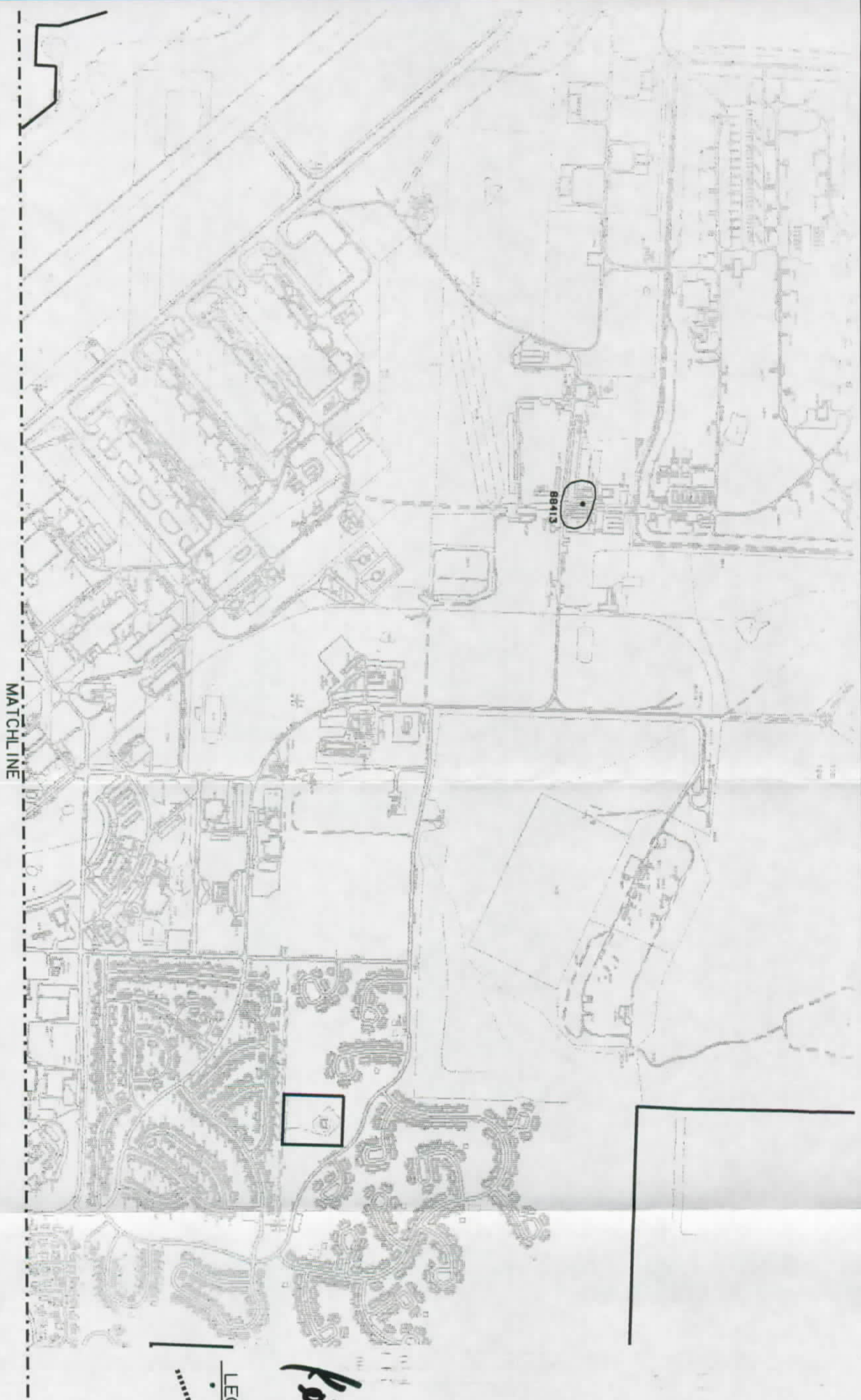
DW88413 WELL LOCATION
ELLSWORTH AFB, SOUTH DAKOTA
PREPARED FOR U. S. ARMY CORPS OF ENGINEERS



Kathy Anderson

LEGEND
• EXTRACTION WELL
----- EXTRACTION TRENCH

FIGURE 1
EXTRACTION POINT LOCATIONS
ELLSWORTH AFB, SOUTH DAKOTA
PREPARED FOR U.S. ARMY CORPS OF ENGINEERS



Kelly J. Anderson

- LEGEND
- EXTRACTION WELL
 - EXTRACTION TRENCH

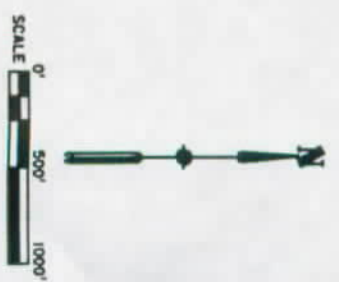


FIGURE 1A
EXTRACTION POINT LOCATIONS
ELLSWORTH AFB, SOUTH DAKOTA
PREPARED FOR U.S. ARMY CORPS OF ENGINEERS

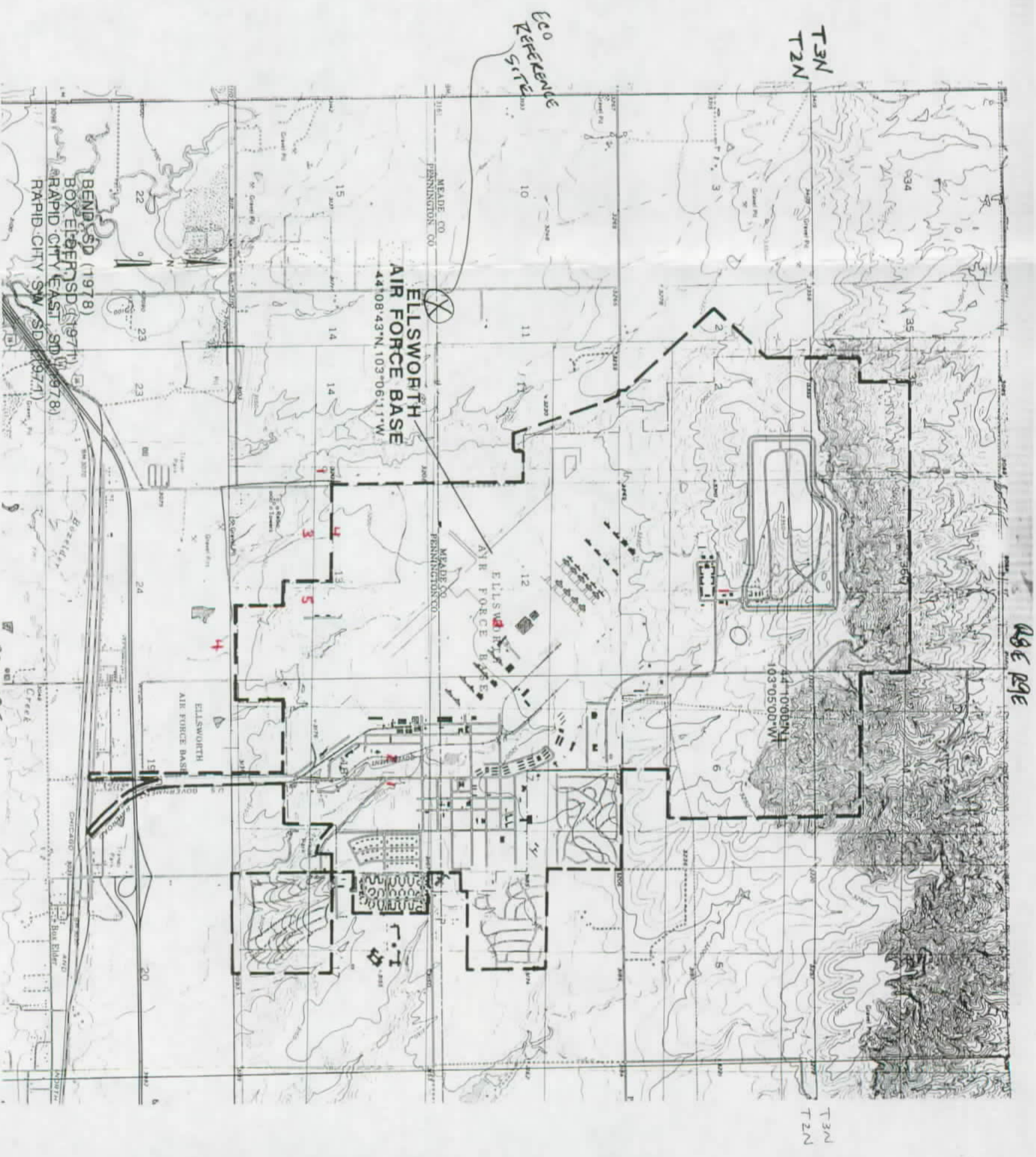


Figure 2. Local site location map and 1990 photo index, Bend, South Dakota.
Approximate scale 1:36,950.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

May 23, 1995

Dell Petersen, PE
Chief, Installation Restoration Program
28 CES/CEVR
Ellsworth Air Force Base, SD 57706-4711

RE: Application For Permit To Appropriate Water Within The State Of South Dakota

Dear Mr. Petersen:

It has come to my attention that the Department's Water Rights Division requires a permit to appropriate water in cases where extraction systems for groundwater remediation are implemented. This requirement will apply to the groundwater extraction systems planned for the Interim Remedial Actions at Operable Units 1 and 4, and Early Actions at Off-Base JP-4 Plume and the Flightline Refueling Area. Enclosed is an Application For Permit To Appropriate Water Within The State Of South Dakota. Please have your staff or your contractors fill out two completed copies of the permit application and immediately submit the application to the address listed at the top of the application.

As we discussed in our teleconference call this morning, the permit process could be handled in various ways: 1) permit on-Base and off-Base areas separately; 2) permit on-Base and the two off-Base areas separately; 3) place all extraction systems under one permit; or, 4) permit off-Base areas together or separately and pursue the CERCLA exclusion for on-Base water use whereby "no Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such remedial action is selected and carried out in compliance with this section".

Very little gain would be realized by pursuing Option 4 because on-Base systems can just as easily be permitted under an off-Base permit. Also, CERCLA requires complying with the substantive requirements though obtaining the actual permit is not required. Due to the simplified water permit process, I recommend including the on-Base extraction systems in the permit application. Water Rights Division personnel explained to me that a temporary permit can be issued, alleviating concerns of construction delays. The Chief Engineer will review the application, a public notice will be published and, if no one contests the water permit, a permanent permit could be issued without review by the Water Management Board.

If you, your staff or your contractors have any questions about the application process, please give me a call at (605) 773-3296 or call Eric Gronlund, Water Rights Division, at (605) 773-3352. Thank you.

Sincerely,

Ron Holm, Hydrologist II
Ground-Water Quality Program

cc: Jim Ramm, RUST E&I, w/attach
✓ Eric Gronlund, DENR Water Rights Division



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

DIVISION I

**TEMPORARY PERMIT TO USE PUBLIC WATERS
FOR GROUNDWATER REMEDIATION PURPOSES**

This temporary permit to use public waters for groundwater remediation purposes is issued to Rust E & I, of 3033 Campus Drive, Suite 175, Minneapolis, MN 55441 authorizing withdrawal of 6,500,000 gallons of water at a maximum daily rate of 72,000 gallons from groundwater (trenches and extraction wells) located in Sections 12, 13 & 24, T2N, R8E and Section 18, T2N, R9E (Meade & Pennington Counties). The groundwater remediation will take place at Ellsworth Airforce Base.

This temporary permit becomes effective October 1, 1995. The temporary permit will expire on December 31, 1995 or on the approval date of a regular water permit, if the permit is approved prior to December 31, 1995.

This permit does not provide necessary right-of-way. Such arrangements should be made with the proper land owner.

Issued: June 6, 1995

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

c: Steve Pirner, Division of Environmental Regulation
Tim Olson, Dept. of Game, Fish and Parks



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

November 16, 1995

Rust E & I
Karl Primdahl
3033 Campus Dr Ste 175
Minneapolis MN 55441

Dear Mr. Primdahl:

We received the water permit application for the USAF, Ellsworth AFB. Enclosed is the map submitted with the application. On the map, please show the location of the wells in relation to a government section corner or quarter corner by direction and distance. Ron Holm, from this Department's Groundwater Quality Program, provided me a map entitled "Figure 2. Local site location map and 1990 photo index" which provides reference to section corners in the project area. From comparing this map and the map submitted with the application, I was able to approximate legal descriptions to determine if the well locations corresponded with those on the water permit application. Some of the well locations did not appear to correspond. Also, the application states 21 extraction wells. From the map, it appears there are 23 wells. For purposes of the public notice, it is necessary to have the correct quarter-quarter section-township-range location for the wells.

As you are aware the filing fee for this application is \$225.00. Do you require an invoice for this amount? If so, please let me know and one will be prepared.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Environmental Scientist
605 773-3352

enclosure

**Water Rights Division
File Documentation**

NAME OF PERSON OR FILE: Jim Boull - Rust E & I

ADDRESS: Minneapolis MN

DATE: 11-29-95 TELEPHONE: 612 551-2430

RE: Application for Ellsworth AFB

COMMENTS:

Jim Boull called regarding my letter dated November 16, 1995. I explained to him what was required on the map regarding the well locations.

I further stated if they needed an invoice for the filing fee, they would have to contact me and I would have one prepared.



Karen Schlaak
Environmental Scientist

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Ellsworth AFB water permit application

ADDRESS: COUNTY:

DATE: 12/11/95 TELEPHONE:

RE: Rust Environmental -- call to Jeff Hove (612-551-2475)

COMMENTS:

Mr Hove returned my call. We concurred on the following legal description of the extraction Wells.

DW88413	- SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T2N, R8E
OU-2 (set of wells)	- N $\frac{1}{2}$ NE $\frac{1}{4}$ Section 24, T2N, R8E
PH-4 (2 wells)	- SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12, T2N, R8E
PH-1 (3 wells)	- NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 18, T2N, R9E
OU-1 (4 wells/1 trench)	- NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 13, T2N, R8E
OU-4 (8 wells)	- N $\frac{1}{2}$ SW $\frac{1}{4}$ Section 13 and NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 14, T2N, R8E

Mr. Hove also stated that an invoice on the application filing fee should be faxed to Karl Primdahl at (612) 551-2499.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Lundberg



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

* INVOICE *

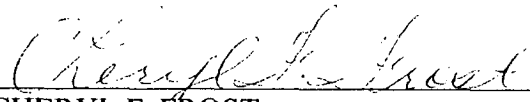
Invoice No. 20211-28-12/11/95

Karl Primdahl
Rust Environment & Infrastructure
3033 Campus Dr., Ste. 175
Minneapolis, MN 55441

Application fee for water permit for United States Air Force, Ellsworth AFB.

PLEASE PAY THIS AMOUNT:

\$225.00

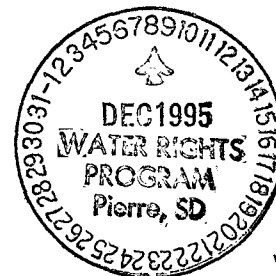

CHERYL F. FROST
Secretary
Water Rights Program
(605) 773-3352

RUST Rust Environment & Infrastructure Inc.

A Rust International Company
3033 Campus Drive North
Suite 175
Minneapolis, MN 55441

Phone 612.551.1001
Fax 612.551.2499

December 6, 1995



Karen Schlaak
Environmental Scientist
South Dakota DENR
523 East Capitol
Pierre, South Dakota

Re: Water Permit Application

Dear : Ms. Schlaak

Enclosed are the items requested. I appreciate the clarification and assistance given to Jim Boell of our CADD department and hope that the information enclosed is what you desired. If, at any time, you need clarification to the figures or table please do not hesitate to call. I am aware that some of the numbers may be difficult to read due to the quality of the copy so we will keep the original on-hand if you have any questions.

Sincerely,

Jeff Hove
Project Geologist
(612) 551-2475

enclosure



Extraction Wells, Ellsworth AFB



Extraction Well ID

Legal Description

DW88413

SW1/4, NE1/4 of Sec. 1 T2N, R8E

OU-2

SUJP201

DWJP201

EWJP201

SUJP202

N/2
~~NE 1/4~~, NE1/4 of Sec. 24 T2N, R8E

PH-4

EWFRA 0401

EWFRA 0402

SW 1/4
~~SE 1/4~~, SE1/4 of Sec. 12 T2N, R8E .

PH-1

SUFRA 0101

EWFRA 101

DW2801

N/2
~~NW 1/4~~, NW1/4 of Sec. 18 T2N, R9E

OU-1

DW0101

DW0102

DW0103

DW0104

T1 (Existing Trench)

NW1/4, SE1/4 of Sec. 1 T2N, R8E

OU-4

DW0401

DW0402

DW0403

DW0404

DW0405

DW0406

DW0407

DW0408

N/2
~~NW 1/4~~, SW1/4 of Sec. 13 T2N, R8E
NE 1/4 SE 1/4 Sec. 14 - T2N - R8E



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

DIVISION 1

**TEMPORARY PERMIT TO USE PUBLIC WATERS
FOR GROUND WATER REMEDIATION PURPOSES**

This temporary permit to use public waters, for ground water remediation purposes is issued to Ellsworth Air Force Base, of 28 CES/CEVR, Ellsworth AFB, SD 57706-4711 authorizing withdrawal of 6,000,000 gallons of water at a maximum daily rate of 72,000 gallons from ground water (trenches and extraction wells) located in the SW 1/4 NE 1/4 Section 1; N 1/2 NE 1/4 Section 24; SW 1/4 SE 1/4 Section 12; NW 1/4 SE 1/4, N 1/2 SW 1/4 Section 13; NE 1/4 SE 1/4 Section 14, T2N, R8E and NE 1/4 NW 1/4, NW 1/4 NE 1/4 Section 18, T2N, R9E in Meade and Pennington Counties.

This temporary permit becomes effective January 2, 1996. This temporary permit will expire on December 31, 1996 or on the approval of the regular water permit if the permit is approved prior to December 31, 1996 (application is currently pending).

This permit does not provide necessary right-of-way. Such arrangements should be made with the proper land owner.

Issued: January 2, 1996

Gale N Selken, PE

Natural Resources Engineer IV

for for JOHN HATCH, Chief Engineer
Water Rights Program
605 773-3352

c: Jenny Hegg, Environmental Services
Ron Holm, Hydrologist, Ground Water Quality Program
Tim Olson, Dept. of Game, Fish and Parks
Keith Anderson, Rust E & I, 3033 Campus Drive, Minneapolis, MN 55441

WATER PERMIT APPLICATION NO. 2352-2
USAF, ELLSWORTH AFB
JANUARY 17, 1996

Water Permit Application No. 2352-2 proposes to appropriate 0.22 cubic feet of water per second (100 gallons per minute) from 23 wells or trenches, 17 feet to 56 feet deep located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12, NW $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$ Section 13, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 14, N $\frac{1}{2}$ NE $\frac{1}{4}$ Section 24; all in T2N-R8E and the NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 18, T2N-R9E. The water will be extracted as part of a groundwater remediation project.

AQUIFER: Pierre Shale and Terrace Deposits

General Information:

Review of the areal geology (Darton, 1925) and completion reports from the numerous monitoring wells completed in the areas proposed for this project indicate that recovery wells 17 to 56 feet deep may be completed into the Pierre Shale, Quaternary aged Terrace Deposits, or possibly the Fox Hills Formation. The Pierre Shale is a marine shale that can be calcareous, siliceous, or organic rich. Soil borings from the area report that the shale is very fractured and weathered to depths exceeding 25 feet.

Thin beach and bar sandstones often occur near the top of the formation, and there is generally a sandy, silty transition from the Pierre Shale to the overlying Fox Hills Formation. Geologic logs from several monitoring wells completed in the area report penetrating thin sandstone layers. It is possible that these layers are technically basal Fox Hills Formation but for the purpose of this report they will be considered part of the Pierre Shale. Several monitoring well logs identify terrace deposits (sand and gravel) overlying shale and sandy shale in places. The terrace deposits, where present, vary in thickness to a maximum thickness reported of 17' thick. Most monitoring wells recorded static water levels below the bottom of any overlying terrace deposits. The weathered Pierre Shale is under unconfined conditions and the water table ranges from approximately 8-28 feet below grade in the project. The Water Rights Program does not monitor any wells into the Pierre Shale.

AFFECTS ON EXISTING RIGHTS:

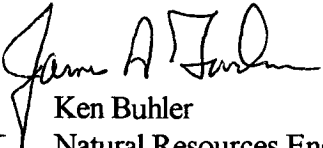
The Water Rights Program has record of several domestic wells completed into the Pierre shale and/or the terrace deposits in this area. There are two water permits/rights which appropriate ground water in this area, they are:

Number	Owner	Aquifer	Use
1282-2	Knecht Industries,	Alluvium	SHD
1804-2	Keith Kuchenbecker	Alluvium	COM

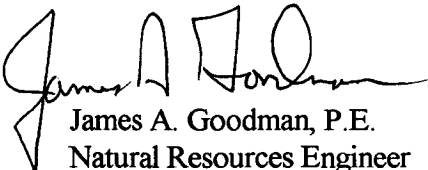
Any influence this proposed use would have on existing water rights is not expected to be adverse.

CONCLUSIONS:

1. This application proposes to extract groundwater as part of a remediation project. This is an ongoing project and has been issued two temporary permits by the Chief Engineer for these purposes. the temporary permit will expire on December 31, 1996 or upon approval of this application.
2. Interference with existing users is not expected to be a problem.
3. DENR-Air & Surface Water Program is working with EAFB to insure proper disposal of the water.

FOR 
Ken Buhler
Natural Resources Engineer

approved by


James A. Goodman, P.E.
Natural Resources Engineer

REFERENCES:

Darton, N.H., Paige, S., 1925, Geologic Atlas of the United States, Central Black Hills Folio, USGS Folio No. 219.

Water Rights Program, 1996, "Domestic Well Log Files, Observation Well Files, and Water Permit Files", DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501.

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2352-2, United States Air Force, Ellsworth AFB**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2352-2, United States Air Force, Ellsworth AFB, %John B. DeYoe, 28 CES/CEUR, Ellsworth AFB, SD 57706-4711.

The Chief Engineer is recommending APPROVAL of Application No. 2352-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use; water available at these points of diversion is contaminated, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest because failure to pump ground water at these points of diversion may result in additional pollution or otherwise impair the use of the ground water for other uses.

See report on application for additional information.

A handwritten signature in black ink, appearing to read "John Hatch", is positioned above the printed name.

JOHN HATCH, Chief Engineer
February 6, 1996

Instruction to Newspaper - Publish first Notice on February 21, 1996, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 2352-2 to Appropriate Water

Notice is given that United States Air Force, Ellsworth AFB, 28 CES/CEUR, Ellsworth AFB, SD 57706-4711 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (100 gallons per minute) from 23 wells or trenches, 17 feet to 56 feet deep (Pierre Shale and Terrace Deposits) located in the SW 1/4 NE 1/4 Section 1, SW 1/4 SE 1/4 Section 12, NW 1/4 SE 1/4, N 1/2 SW 1/4 Section 13, NE 1/4 SE 1/4 Section 14, N 1/2 NE 1/4 Section 24; all in T2N-R8E and the NE 1/4 NW 1/4, NW 1/4 NE 1/4 Section 18-T2N-R9E. The water will be extracted as part of a groundwater remediation project.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2352-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use; water available at these points of diversion is contaminated with petroleum hydrocarbons, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest because failure to pump groundwater at these points of diversion may result in additional pollution or otherwise impair the use of the groundwater for other uses. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by March 11, 1996.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPERS RIGHT AWAY.

February 8, 1996

United States Air Force
Ellsworth AFB
%John B. DeYoe
28 CES/CEUR
Ellsworth AFB, SD 57706-4711

Dear Mr. DeYoe:

Water Permit Application No. 2352-2 for remediation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Rapid City Journal printed at Rapid City, SD (Ph # (605) 394-8300) and the Meade Co. Times Tribune printed at Sturgis, SD (Ph # (605) 347-2503). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the papers can eliminate delays. The publishers have been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspapers have been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

c: Karl Primdahl, Rust E & I, 3033 Campus Dr., Ste. 175, Minneapolis, MN 55441



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

February 8, 1996

Rapid City Journal
P.O. Box 450
Rapid City, SD 57709-0450

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 2352-2 to be published twice. Please publish the first notice on February 21, 1996, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is USAF, Ellsworth AFB, 28 CES/CEUR, Ellsworth AFB, SD 57706-4711 (Ph # (605) 385-2675).

A copy of BOTH publications must be SENT to the WATER RIGHTS PROGRAM. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

February 8, 1996

Meade Co. Times Tribune
Box 69
Sturgis, SD 57785-0069

ATTENTION: Legal Department

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

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Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County of Pennington) SS

I, Patricia K. Van Patten

certify that the attached printed Notice was

taken from the Rapid City
Journal

printed and published in Rapid City

County of Pennington and State of

South Dakota. The notice was published in
 the newspaper on the following two dates:

February 21, 1996

February 28, 1996

Cost of Printing: Eighty-six
dollars and seventy-two cents.
 (\$82.76)

Patricia K. Van Patten
 (Signature)

Legal Advertising
 (Title)

2/28/96
 (Date Signed)

Feb. 21, 28 L1220
 NOTICE OF APPLICATION
 NO. 2352-2

TO APPROPRIATE WATER

Notice is given that United States Air Force, Ellsworth AFB, 28 CES/CEUR, Ellsworth AFB, SD 57706-4711 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (100 gallons per minute) from 23 wells or trenches, 17 feet to 56 feet deep (Pierre Shale and Terrace Deposits) located in the SW¼ NE¼ Section 1, SW¼ SE¼ Section 12, NW¼ SE¼, N½ SW¼ Section 13, NE¼ SE¼ Section 14, N½ NE¼ Section 24; all in T2N-R8E and the NE¼ NW¼, NW¼ NE¼ Section 18, T2N-R9E. The water will be extracted as part of a groundwater remediation project.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2352-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use; water available at these points of diversion is contaminated with petroleum hydrocarbons, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest because failure to pump groundwater at these points of diversion may result in additional pollution or otherwise impair the use of the groundwater for other uses. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

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The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner; or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Grontund at the above Water Rights Program address to request copies of information pertaining to this application.

Nettie H. Myers
 Secretary
 Department of Environment
 and Natural Resources



Water application

NOTICE OF APPLICATION
NO. 2352-2 to Appropriate Water

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUN

Faye D. Pate, being duly sworn, says: That the Meade Tribune, is and, during all the times hereinafter mentioned, newspaper as defined in SDCL 17-2-2, as amended, published in Meade County, South Dakota, by Allison Publishing, is and, during all of said times, was employed as an employee of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or printed copy of which is attached, was published in the newspaper for successive issues, bearing the following dates:

February 21	199	6	
February 28	199	6	
	199		
	199		
	199		

that the full amount of the fee charged for publishing the sum of \$ 44.21, inures solely to the benefit of the publisher of said newspaper; that no agreement or division of the fee has been made with any person; and that the division of the fee has been agreed to be paid to any other

Faye D. Pate

Subscribed and sworn to before me this

28 day of February,

Malina S. Griffl

Notary Public, South Dakota

Notice is given that United States Air Force, Ellsworth AFB, 28 CES/CEUR, Ellsworth AFB, SD 57706-4711 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (100 gallons per minute) from 23 wells or trenches, 17 feet to 56 feet deep (Pierre Shale and Terrace Deposits) located in the SW 1/4 NE 1/4 Section 1, SW 1/4 SE 1/4 Section 12, NW 1/4 SE 1/4, N 1/2 SW 1/4 Section 13, NE 1/4 SE 1/4 Section 14, N 1/2 NE 1/4 Section 24; all in T2N-R8E and the NE 1/4 NW 1/4, NW 1/4 NE 1/4 Section 18-T2N-R9E. The water will be extracted as part of a ground water remediation project.

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Publ Feb. 21 and 28, 1996
Meade County Times-Tribune

2002



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

APR 3 1996

USAF, Ellsworth Air Force Base
%John B. DeYoe
28 CES/CEUR
Ellsworth AFB, SD 57706-4711

Dear Mr. DeYoe:

Enclosed is Water Permit No. 2352-2 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
605 773-3352

enclosures

PLEASE NOTE: Certain changes may be made to your water permit usually without affecting the priority date. The location of a point of diversion may be changed or additional points of diversion may be approved if the water source remains unchanged; no additional water is appropriated; and, if irrigating, no additional land is irrigated. The change may be allowed without application or publication, if the Water Rights Program is contacted and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

A new water permit application is required to change water sources, increase the permitted diversion rate, or increase the irrigated acreage. If the application is approved, the water permit will receive a new priority date.

**Water Rights Program - DENR
Conversation File Documentation**

NAME OF PERSON OR FILE: USAF Permit No. 2352-2
Rita Krebs
605-385-2688

ADDRESS: Ellsworth Air Force Base
1940 EP Howe Drive
Ellsworth AFB, SD 57706

COUNTY: Pennington County

DATE: February 5, 2016 **TELEPHONE:** (605) 385-2688

RE: Cancellation of Water Permit No. 2352-2

COMMENTS:

I contacted personnel at Ellsworth on February 5, 2016 concerning temporary permit No. 2352-2. This permit was set to expire December 31, 1995 but no documentation was included in the permit beyond the actual approval of the permit. Eventually I was referred to Rita Krebs who is part of the base Water Quality Project Office at Ellsworth. She explained that the temporary permit identified 23 groundwater remediation wells, some of which were located outside Ellsworth AFB and some located within the base perimeter. All of the remediation wells outside of the base have been abandoned. There are currently more than 30 functioning wells located inside the base perimeter. Pumping from all wells located inside the base was terminated in 2012 but the base is ordered to keep operational status "ready" and the treatment system turned on if needed. This is a Superfund site under CERCLA regulation. Current remediation treatment involves using bacteria to "eat" any remaining petroleum contamination. If the bacteria fails to remediate the pollution then the wells may need to be turned back on. Once the site fell under superfund CERCLA regulations, state water rights statutes no longer had any bearing. EPA regulations dictate operation now and the lead person for the state is Joane Lineburg, So. Dak. DENR, 773-3296. Therefore this permit can be cancelled and removed from the unlicensed permit data base.

NAME: Steven Quissell, Water Rights Inspector

A handwritten signature in black ink, appearing to read "Steven Quissell", with a stylized, overlapping loop at the end.

WATER RIGHTS PROGRAM -- FILE DOCUMENTATION

Water Permit No. 2352-2 was issued to Ellsworth AFB in March, 1996 and authorized extraction wells or trenches to be used for ground water remediation.

On February 5, 2016, Steve Quissell spoke with Rita Krebs who is part of the Water Quality Project Office at Ellsworth. Ms. Krebs explained the remediation wells outside of the base have been abandoned however there are currently 30 functioning wells inside the base perimeter.

Pumping from the wells was terminated in 2012 however the Base is required to keep the wells operational in the event treatment is needed again. Since the wells are operational and ready to be used if needed, they likely meet legal excuse and/or exception to nonuse.

DENR will not pursue cancellation at this time.



Genny McMath
Water Rights Program