

1645-3

1. Considered SEPTEMBER 13, 1978
2. Name of Applicant HERMOSA WATER USERS ASSOC.
3. Post Office Address HERMOSA, S.D.
4. Amount of Water claimed 1.5
5. Source of Water supply 1-1947' & 1-1771' DEEP WELLS DAKOTA & LAKOTA
6. Water to be used for RURAL WATER SYSTEM
- Acres to be irrigated —
7. Water to be diverted and used in CUSTER County
about 45 & 3 miles EAST of HERMOSA
8. Proof of Publication Received ~~IF~~ 9-6-78
- Not Received _____
9. Application Approved _____
- Subject to _____
- Not Approved _____
- Action Deferred _____

10. Remarks:

No. 1645-2Map No. 1409-2 Water Division No. 2 BATTLE CREEK
(Blanks to be Filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE--Draw a line through items not applicable)

1. Name of Applicant Hermosa Water User Association
 Postoffice address Hermosa, State South Dakota 57744
 If a corporation show date and place of incorporation Mar 7, 1975 Hermosa, Custer County, So. Dak.
2. Method of accomplishing work (contract, employment of others, or by direct labor) contract
3. Name of diversion work Hermosa Water User Well #1 and Well #2, former Titan site wells.
4. Amount of water claimed (cubic feet per second) 1.5
5. Source of water supply two deep wells
6. Location of point of diversion SW⁴ NE¹ Sec. 22, T. 3S Range 8 East B.H.M.

Custer County

7. Annual period or periods during which water is to be used January thru December
8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) domestic
9. For irrigation use, Total number of acres to be irrigated none

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system two years years. Additional time required to complete application of water to the proposed beneficial use one year years.
11. Choice of newspaper for Notice of Intent to Appropriate Water publication Custer County Chronicle
12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source.
two deep wells already existing as Titan Missile Site abandoned wells.

B. Works proposed to transport water to place of use.
approximately 150 miles of pipeline complete with reservoirs, pumps, valves meters etc.

C. Works proposed to apply water to beneficial use.

Estimated Total Cost \$ 675,000.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
 (See instructions concerning preparation.)

STATE OF SOUTH DAKOTA)
) ss.
 County of Custer)

I, Hermosa Water User Assn. the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.

Signed [Signature] President, Hermosa Water Uses Assn.
 Subscribed and sworn to before me this 14th day of August, 19 78
[Signature]
 Notary Public (or other qualified officer)



LEGEND:

- Major Highway
- Railroad
- Suction Corner
- Pipeline to be Constructed
- Lift Station
- Hydrant
- Property Boundary
- House

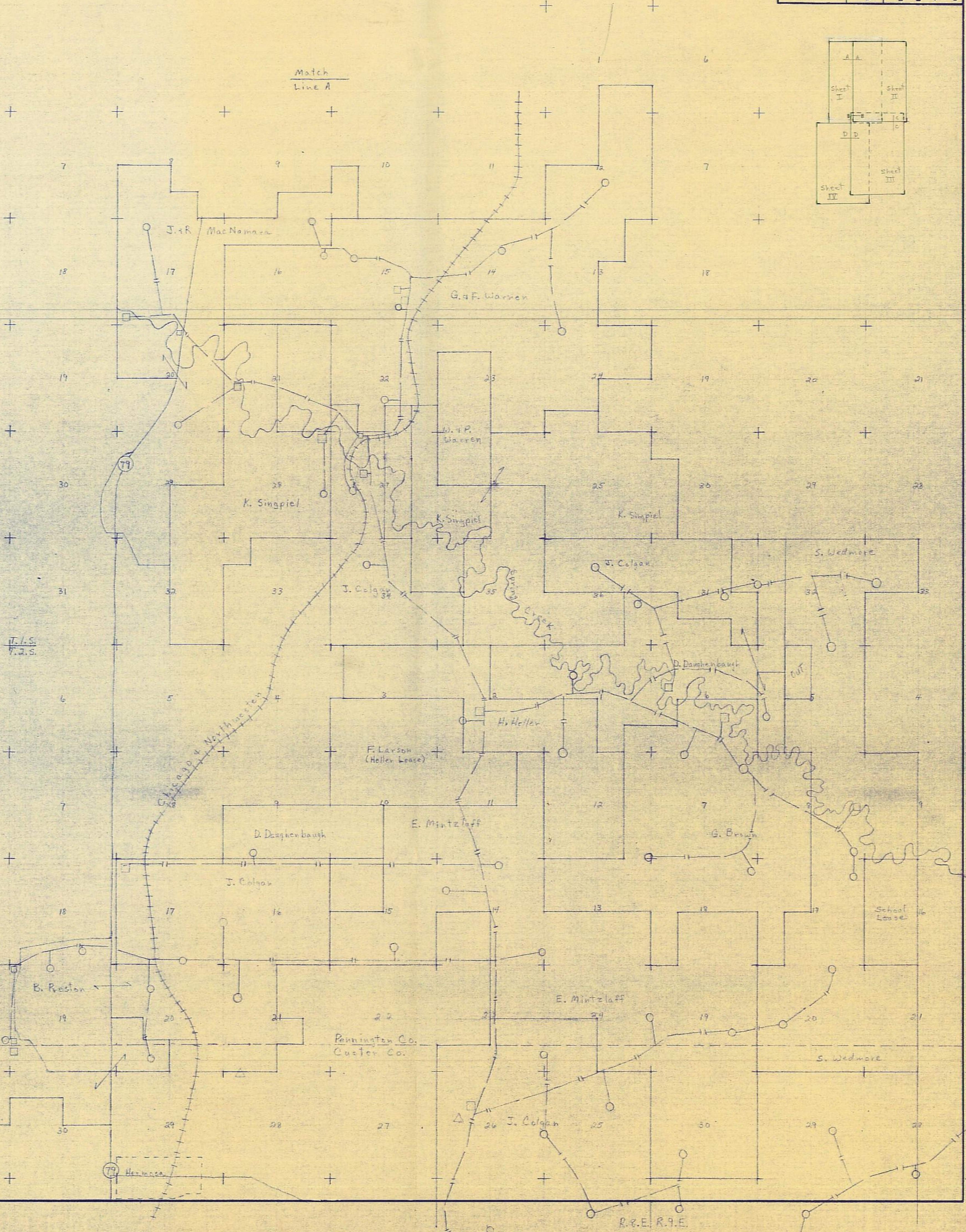
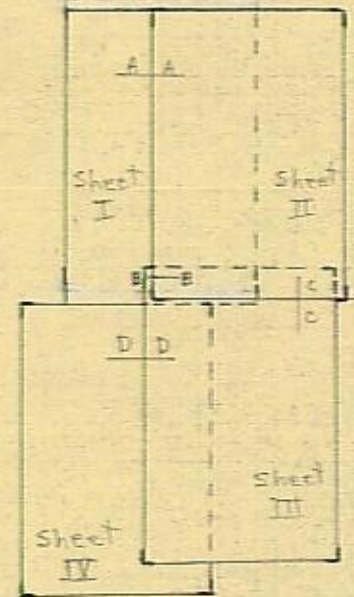
Exhibit #1 Sheet 1 of 4
Plan View of North Main Line
Black Hills RCD Proposal No. 320
Hermosa Area Pipeline

Custer & Pennington Counties, S.D.
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Date	Approved by	Title	Drawn by	Traced by	Checked by
5-11-58	J. Wiley		J. Wiley		
5-11-58					
5-11-58					
5-11-58					

MAP No 1409-2-2 APPL. # 1645-2

Match
Line A



R.8.E | R.9.E

Exhibit #1 Sheet 2 of 4
Plan View of North Main Line

Black Hills R.C. & D. Proposal No. 320

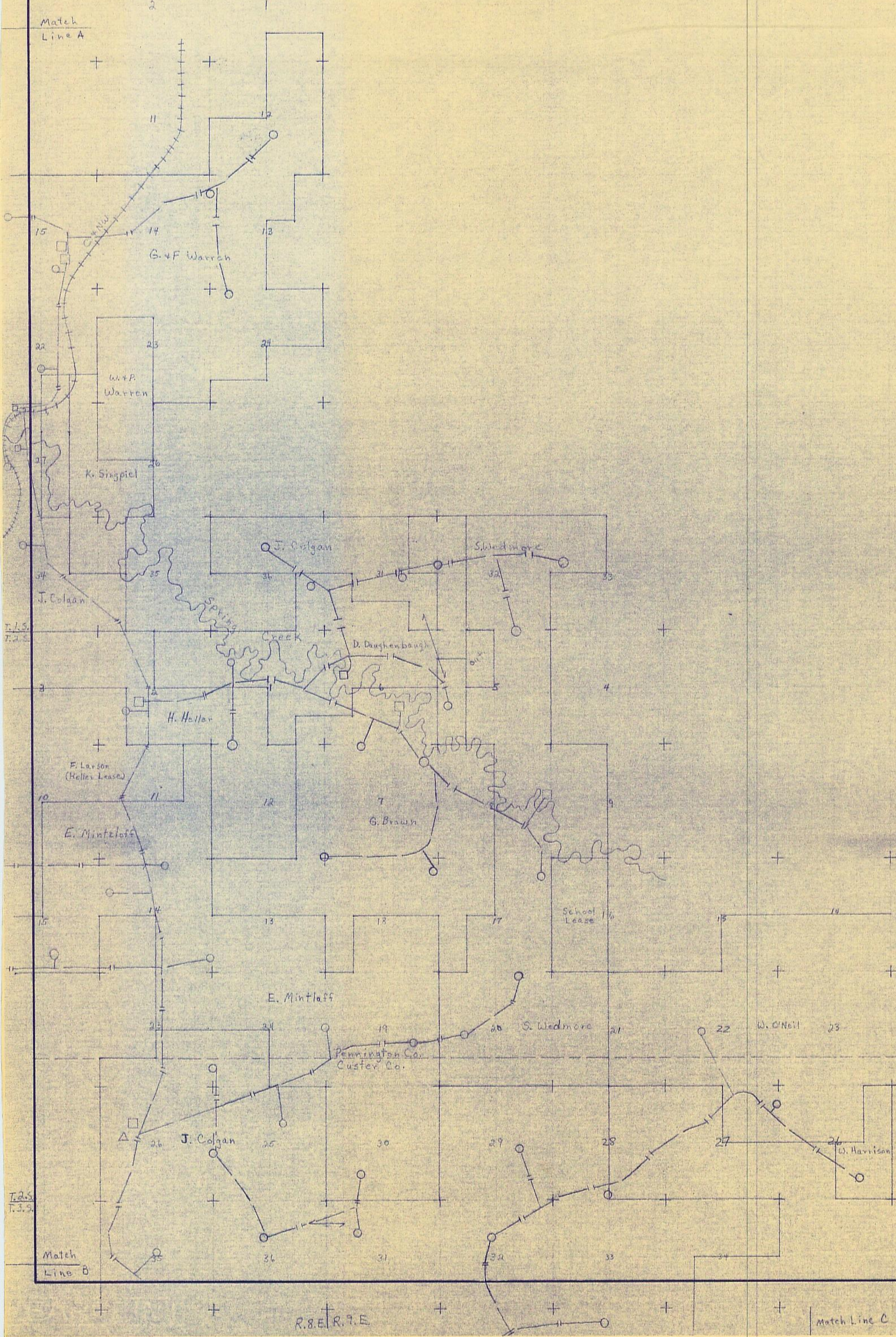
Hermosa Area Pipeline

Custer & Pennington Counties, S.D.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Date	4-28-57
Designed by	L. J. Wiley
Drawn by	L. J. Wiley
Traced by	David Myron
Checked by	Rick March
Sheet No.	2
Drawing No.	1645-2

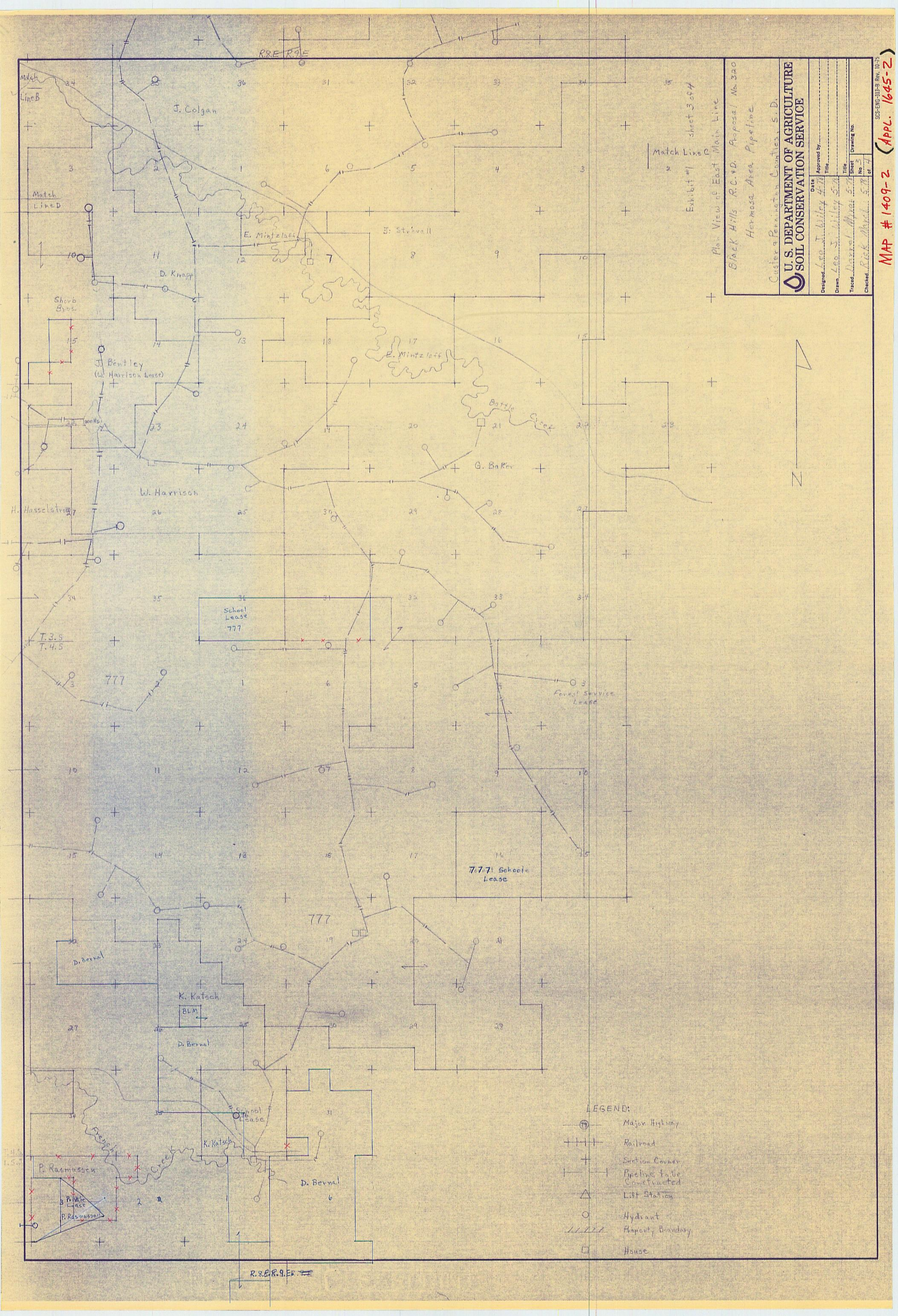
MAP No 1409-2 Appl 1645-2



LEGEND:

- +++ Railroad
- + Section Corner
- - - Pipeline to be Constructed
- △ Lift Station
- Hydrant
- ||||| Property Border
- House

Cons. Board
K. Stover
H. Cox
C. Johnson
W. White
H. Marshall
L. Ernst



Black Hills R.C. & D. Proposal No. 320
Hermosa Area Pipeline
Custer & Pennington Counties, S.D.

**U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE**

Designed	Leo J. Wiley	Date	4-18
Drawn	Leo J. Wiley	Title	
Traced	Daniel M. M. M.	Sheet	5 of 7
Checked	Rich M. M.	Drawing No.	

- LEGEND:
- Major Highway
 - Railroad
 - Section Corner
 - Pipeline to be Constructed
 - Light Station
 - Hydrant
 - Property Boundary
 - House

MAP # 1409-2 (APPL. 1645-2)

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 1645-2

HERMOSA WATER USER ASSN.
(Applicant)

% JOHN T. COLGAN, PRES.
(Post Office Address)

HERMOSA, S.D. 57744 With the following modifications:
(State)

The ~~well~~ well approved under this Permit is located near domestic wells which may obtain water from the same aquifer. The ~~well~~ well owner, under this Permit, shall control his ~~withdrawals~~ withdrawals so there is not a reduction of needed water supplies in ~~domestic~~ domestic wells.

Date of first receipt of application AUGUST 17, 19 78

Date of return to applicant for correction, amendments or changes required _____, 19 _____

Date of receipt of corrected application _____, 19 _____

Approved SEPTEMBER 13, 19 78, Recorded in Book 20 Page 74

WATER RIGHT PERMIT NO. 1645-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 1645-3 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is AUGUST 17, 19 78
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before SEPTEMBER 13, 19 79
3. The whole of said work is to be completed on or before SEPTEMBER 13, 19 80⁸³
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is SEPTEMBER 13, 19 81⁸⁴
5. The water appropriated shall be used for the purpose of RURAL WATER SYSTEM

6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

7. The amount of the appropriation herein granted shall not exceed 1.5 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for ~~beneficial use~~ ~~and if for the irrigation purposes said appropriation must be limited to not more than 3 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is~~

USED FOR RURAL WATER SYSTEM PURPOSES
actually and beneficially ~~applied for irrigation~~ on or before SEPTEMBER 13, 19 81⁸⁴, said water to be used during the following described annual period: CONTINUOUSLY

extension granted 9/25/80

Witness my hand this 20th day of SEPTEMBER, 19 78

WATER RIGHTS COMMISSION

By:

John Hatch
Chief Engineer, Executive Officer

Certificate of Construction Issued _____, 19 _____

Water License Issued _____, 19 _____

12. Principal Features of the Proposed Water Supply System (continued.)

D. Well Information or Estimates Hermosa Water Users Well #1 or USACE (E-5A-A)(1) Drill Hole, Diameter 22"-310 $\frac{1}{2}$ " 16 $\frac{1}{4}$ "-1470 $\frac{1}{2}$ ", reamed to 24" from 1420 $\frac{1}{2}$ "-1758 $\frac{1}{2}$ ", Depth 1947(2) Casing, Type steel, Diameter 18"-300 $\frac{1}{2}$ " 12 $\frac{3}{4}$ ", Thickness .375"
(wood, concrete, steel, etc) 1470 $\frac{1}{2}$ "

(3) Perforated Screen. stainless steel diameter 8"

Type stainless steel, Diameter 8", Length unknown about 476 ft.(4) Gravel Pack. Thickness 6", Length of gravel pack unknown

E. Dugout Information or Estimates.

(1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

(1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials Dakota and Lakota formationsDepth to top of water bearing material 1469' to top of DakotaDepth to bottom of water bearing material 1730'Thickness of water bearing material 172' not counting the fuson shaleDepth to water (ground surface to water level) 250' SWL 190'

(2) Distance to nearest existing household or livestock watering wells. about one mile

On same owner's property _____ rds. On property owned by others 320 rds.

G. Water Storage Dams.

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.

Hermosa Water User Association

Signature of Applicant

by Robert T. Colgan
President Hermosa Water User Assn.

12. Principal Features of the Proposed Water Supply System (continued.)

D. Well Information or Estimates Hermosa Water Users Well #2 or USACE (E-5A-B)

- (1) Drill Hole, Diameter 22"-305 1/2: 16"-1771, Depth 1771'
18"-301, 12 3/4-1237'
(2) Casing, Type steel Diameter 10 3/4-1471 Thickness .375 and .279
(wood, concrete, steel, etc)
(3) Perforated Screen.

Type stainless steel, Diameter 6", Length unknown about 300'

- (4) Gravel Pack. Thickness 3", Length of gravel pack unknown

E. Dugout Information or Estimates.

- (1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

- (1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials Dakota and Lakota formations

Depth to top of water bearing material 1469' to top of Dakota

Depth to bottom of water bearing material 1730'

Thickness of water bearing material 172' not counting the fuson shale

Depth to water (ground surface to water level) 457'

- (2) Distance to nearest existing household or livestock watering wells.

On same owner's property _____ rds. On property owned by others 320 rds.

G. Water Storage Dams.

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.

Hermosa Water User Association

Signature of Applicant

by John T. Calgan

President Hermosa Water User Assn.

SOUTH DAKOTA GEOLOGICAL SURVEY--Western Field Office

WELL INFORMATION SHEET

FIELD DATA

Date: 8-26-74

Owner USACE (E-5A-A) Address IAFB
Sec. 22 T. 3S R. 8E BLM
County Custer State South Dakota
Driller M & G Drilling Date Drilled 8-3-59 to 11-24-59
Elevation 3403 KB, 3393 GR Depth 1947
Hole Diameter 22"-310 1/2, 16 1/4-1470 1/2, Casing 18"-300 1/2, 12 3/4-1470 1/2,
9 7/8-1946 1/2, reamed to 8" stnls steel screen
24" from 1420 1/2-1758 1/2.
Water Level 250 Date 11-10-59
Yield 165 (max 295 gpm) Use Domestic
Taste - Temp. 96° BIT Logs E-log
Odor - Color - Samples -
Sampled by - Source of data WFO Files

LABORATORY DATA 1/

Date: 11-12-59

Iron (Fe) <u>0</u> * <u>.3</u>	Bicarbonate (HCO ₃) <u>305</u>
Manganese (Mn) <u>0</u> * <u>.05</u>	Carbonate (CO ₃) <u>0</u>
Calcium (Ca) <u>80</u>	Sulfate (SO ₄) <u>99</u> * <u>500</u>
Magnesium (Mg) <u>24</u>	Chloride (Cl) <u>12</u> * <u>250</u>
Sodium (Na) (+K) <u>33</u>	Fluoride (F) <u>0</u> * <u>.9-1.2</u>
Potassium (K) <u> </u>	Nitrate (NO ₃) <u>1.6</u> * <u>10.0</u>
Silica (SiO ₂) <u>0</u>	Boron (B) <u> </u>
pH <u> </u>	Color <u> </u>
Dis. Solids: (Calculated) <u>407</u>	(180°c evap.) <u>393</u>
Total Hdns. (CaCO ₃) <u>283</u> * <u>1000</u>	Non. Carb. Hdns. (CaCO ₃) <u>none</u>
Alkalinity as CaCO ₃ <u>PP-0, NO-250</u>	Spec. Cond. (MMohs 25°c) <u> </u>
% Na <u> </u> SAR <u> </u>	Irrigation Class <u> </u>

1/ C & GL #14880

Rw @ 25°C = 1700 ohm-crn

*Optimum amounts allowed by State Health Dept.

CHEMICAL & GEOLOGICAL LABORATORIES

Casper

Farmington

Glendive

Sterling

WATER ANALYSIS REPORT

Field

Well No. E 5A-A ✓

Operator M & G Drilling Company

Location

Sampled by

Date

Formation

Depths

How sampled

Other pertinent data

Analyzed by

CED

Date

November 25, 1959

Lab. No.

14880

CONSTITUENTS

PPM

MEQ.

MEQ. %

TOTAL SOLIDS IN PARTS PER MILLION:

Sodium	33	1.44	9.73
Calcium	80	3.99	26.96
Magnesium	24	1.97	13.31
Sulfate	99	2.06	13.92
Chloride	12	0.34	2.30
Carbonate			
Dicarbonate	305	5.00	33.78
Hydroxide			

By evaporation..... 407

After ignition..... 393

Calculated..... 398

PROPERTIES OF REACTION IN PERCENT:

Primary salinity..... 19.46

Secondary salinity..... 12.98

Primary alkalinity..... 0.00

Secondary alkalinity..... 67.56

Chloride salinity..... 14.18

Sulfate salinity..... 85.82

Observed pH 7.7

Resistivity @ 68°F.
 ohms/meter

17.00

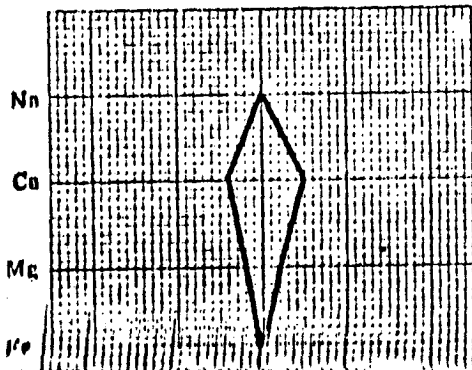
Remarks

Note: PPM=Milligrams per liter (1 PPM is equivalent to 0.0001% by weight). MEQ=Milliequivalents per liter. MEQ%=Milliequivalents per liter in percent.

WATER ANALYSIS PATTERN

Sample above described

Scale
 MEQ per Unit



Cl 10

HCO₃ 1

SO₄ 1

CO₃ 1

Na

Ca

Mg

Fe

Cl

HCO₃

SO₄

CO₃

S. (4 303

DRILLERS WELL LOG

ESA-A & ESA-B

0-20	Surface soils
20-40	Gravel and boulders
40-58	Shale
58-1 1/4	Gravel and sticky clay
1 1/4-265	Sticky clay
265-430	Shale
430-435	Bentonite
435-741	Shale
741-800	Shale and shells
800-850	Shale, Bentonite and sand strks
850-1 1/2	Shale, lime and sand strks
1 1/2-1135	Shale and sandy shale
1135-1150	Shale, sand and lime strks
1150-1210	Brown limey sand and shale
1210-1225	Shale and bentonite
1225-1245	Sand
1245-1280	Shale, bentonite and sand
1280-1361	Shale and sand
1361-1490	Shale w/bentonite strks
1480-1600	Shale w/hd br lime strks
1600-1605	Sand
1605-1755	Sand and shale
1755-1785	Shale and clay
1785-1893	Shale and sandy strks
1893-1958TD	Sand w/shale strks

FORMATION TOPS

Greenhorn	-	95'	
Graneros	-	230'	
Muddy	-	1230'	
Dakota	-	1469'	select
Fuson	-	1538'	
Lakota	-	1627'	
Morrison	-	1730'	1771
Gundance	-	1882'	

SOUTH DAKOTA GEOLOGICAL SURVEY--Western Field Office

WELL INFORMATION SHEET

FIELD DATA

Date: 8-27-74

Owner USACE (E-5A-B) Address IAFB
 _____ Sec. 22 T. 3S R. 8E BLM _____
 County Custer State South Dakota
 Driller M & G Drilling Date Drilled 9-29-59 to 12-26-59
 Elevation 3403 KB Depth 1771
 Hole Diameter 22"-305 1/2; 16"-1771 Casing 18"-301, 12 3/4-1237, 10 3/4-1471, 6"
 Water Level 457 Date 12-13-59 Stnls. Steel Screen.
 Yield 85 gpm (max. 278 gpm) Use Domestic
 Taste - Temp. - Logs E-log
 Odor - Color - Samples -
 Sampled by - Source of data WFO files

LABORATORY DATA ^{1/}Date: 12-21-59

Iron (Fe) <u>0</u> * <u>.3</u>	Bicarbonate (HCO ₃) <u>293</u>
Manganese (Mn) <u>0</u> * <u>.05</u>	Carbonate (CO ₃) <u>0</u>
Calcium (Ca) <u>74</u>	Sulfate (SO ₄) <u>131</u> * <u>500</u>
Magnesium (Mg) <u>21</u>	Chloride (Cl) <u>8</u> * <u>250</u>
Sodium (Na) (+K) <u>54</u>	Fluoride (F) <u>0</u> * <u>.9-1.2</u>
Potassium (K) <u>-</u>	Nitrate (NO ₃) <u>0</u> * <u>10.0</u>
Silica (SiO ₂) <u>0</u>	Boron (B) <u>-</u>
pH <u>7.0</u>	Color <u>-</u>
Dis. Solids: (Calculated) <u>432</u>	(180°c evap.) <u>420</u>
Total Hdns. (CaCO ₃) <u>272</u> * <u>1000</u>	Non. Carb. Hdns. (CaCO ₃) <u>32</u>
Alkalinity as CaCO ₃ <u>PP-0, MO-240</u>	Spec. Cond. (MMohs 25°c) _____
% Na _____ SAR _____	Irrigation Class _____

^{1/} C & G.L. #A4959

Kw @ 25° C = 1420

*Optimum amounts allowed by State Health Dept.

CHEMICAL & GEOLOGICAL LABORATORIES

Casper Farmington Glendive Sterling

WATER ANALYSIS REPORT

Field South Dakota Well No. E 5A-B
 Operator M & G Drilling & Supply Company Location _____
 Sampled by _____ Date _____
 Formation _____ Depths _____ How sampled _____
 Other pertinent data _____

Analyzed by DM Date December 21, 1959 Lab. No. 14959

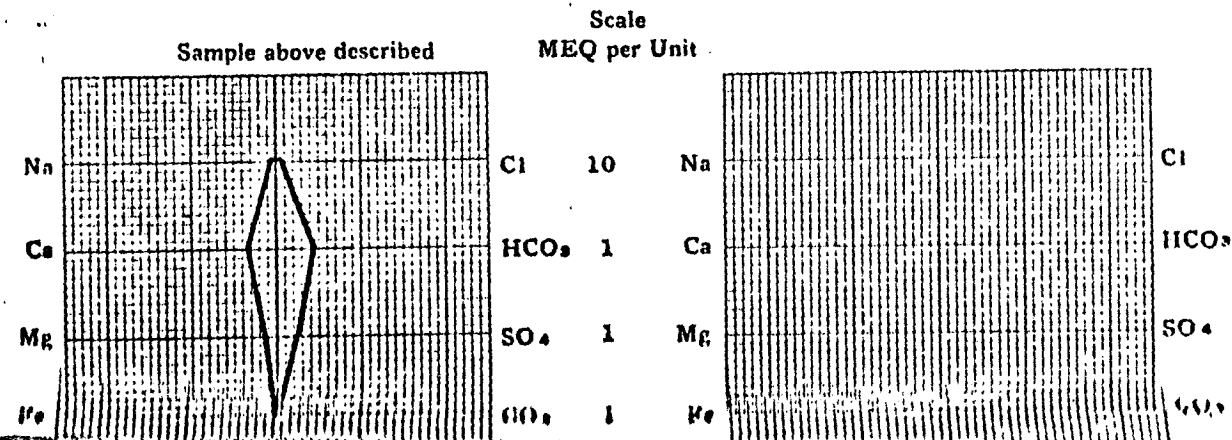
CONSTITUENTS	PPM	MEQ.	MEQ. %	TOTAL SOLIDS IN PARTS PER MILLION:
Sodium	<u>54</u>	<u>2.34</u>	<u>15.08</u>	By evaporation <u>432</u>
Calcium	<u>74</u>	<u>3.69</u>	<u>23.78</u>	After ignition <u>420</u>
Magnesium	<u>21</u>	<u>1.73</u>	<u>11.14</u>	Calculated <u>432</u>
Sulfate	<u>131</u>	<u>2.72</u>	<u>17.53</u>	PROPERTIES OF REACTION IN PERCENT:
Chloride	<u>8</u>	<u>0.23</u>	<u>1.48</u>	Primary salinity <u>30.16</u>
Carbonate	<u>-</u>	<u>-</u>	<u>-</u>	Secondary salinity <u>7.86</u>
Bicarbonate	<u>293</u>	<u>4.81</u>	<u>30.99</u>	Primary alkalinity <u>0.00</u>
Hydroxide	<u>-</u>	<u>-</u>	<u>-</u>	Secondary alkalinity <u>41.98</u>
				Chloride salinity <u>7.79</u>
				Sulfate salinity <u>92.21</u>

Observed pH 7.0 Resistivity @ ⁷⁷ ~~25~~°F. 14.20
 ohms/meter

Remarks _____

Note: PPM=Milligrams per liter (1 PPM is equivalent to 0.0001% by weight). MEQ=Milliequivalents per liter. MEQ%=Milliequivalents per liter in percent.

WATER ANALYSIS PATTERN



DRILL HOLE WELL LOG

E5A-A & E5A-B

0-20	Surface soils
20-25	Gravel and boulders
25-30	Shale
30-40	Gravel and sticky clay
40-45	Sticky clay
45-50	Shale
50-55	Bentonite
55-60	Shale
60-65	Shale and shells
65-70	Shale, Bentonite and sand strks
70-75	Shale, lime and sand strks
75-80	Shale and sandy shale
80-85	Shale, sand and lime strks
85-90	Brown limey sand and shale
90-95	Shale and bentonite
95-100	Sand
100-105	Shale, bentonite and sand
105-110	Shale and sand
110-115	Shale w/bentonite strks
115-120	Shale w/hd br lime strks
120-125	Sand
125-130	Sand and shale
130-135	Shale and clay
135-140	Shale and sandy strks
140-145	Sand w/shale strks

FORMATION TIES

Greenhorn	-	95'	
Graneros	-	230'	
Muddy	-	1230'	
Dakota	-	1469'	52444
Fuson	-	1538'	
Lakota	-	1627'	
Morrison	-	1730'	1771
Gardance	-	1882'	

No. 1645-2

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Custer) ss.

notice of water hearing

I, Jessie Y. Sundstrom

certify that the annexed printed copy of

Water was taken from the Custer

A newspaper which during the whole time
herein after stated, has been and is printed

city Custer of Custer

County of Custer
that the said notice was published in
two dates:

August 24, 1978

August 31, 1978

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE
WATER

Pierre, South Dakota 57501

August 18, 1978

Notice is hereby given that the
Hermosa Water Users
Association whose post office address
is Hermosa, South Dakota, has made
an application in accordance with the
provisions of SDCL 46-1-1 thru 46-
1-8; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1
thru 46-5-8, 46-5-10 thru 46-5-22, 46-5-41,
46-6-3, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14

and Commission Rules ARSD
52:01:01:01 thru 52:01:01:13, for a per-
mit to appropriate for beneficial use
1.5 cubic feet of water per second
of time from groundwater (two wells)
through the Hermosa Water User Well
No. 1 and No. 2, the points of diversion
of which are to be located in the
SW 1/4 NE 1/4 of Section 22, Twp. 3S

Range 8E. Said water to be used for
the purpose of providing water supplies
for a rural water system.

This Application no. 1645-2 will be
considered by the
Water Rights Commission at the 4-H
Fairground Meeting Hall, west of
Mitchell, SD on Hwy. 16 upon the
13th day of September 1978 at 10
A.M. The Commission is authorized to
make a determination on this applica-
tion at the hearing. All interested per-
sons may appear and be heard.

Any person who may be affected by a
Commission decision who desires to
present evidence or cross-examine wit-
nesses according to SDCL 1-26 may
notify the Commission in writing prior
to the hearing or orally at the hearing.

WATER RIGHTS COMMISSION

/s/ Betty Westlund

Water Rights Specialist I

212 8-31-78

Jessie Y. Sundstrom
(Signature)

Publisher

(Title)

September 4, 1978

(Date Signed)



Publish first publication, on or before September 1, 1978

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE WATER

Pierre, South Dakota 57501

August 18, 1978

Notice is hereby given that the Hermosa Water Users Association whose post office address is Hermosa, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-8; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1 thru 46-5-8, 46-5-10 thru 46-5-22, 46-5-41, 46-6-3, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate for beneficial use 1.5 cubic feet of water per second of time from groundwater (two wells) through the Hermosa Water User Well No. 1 and No. 2, the points of diversion of which ~~is~~ ^{are} to be located in the SW 1/4 NE 1

of Section 22, Twp. 35 Range 6E. Said water to be used for the purpose of providing ~~irrigation on portions of the following described land:~~

water supplies for a rural water system

This Application No. 1645-2 will be considered by the Water Rights Commission at the 4-H Fairground Meeting Hall, west of Mitchell, SD on Hwy. 16 upon the 13th day of September 1978 at 10 A.M. The Commission is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Commission decision who desires to present evidence or cross-examine witnesses according to SDCL 1-26 may notify the Commission in writing prior to the hearing or orally at the hearing.

NOTE: The final proof of publication must be received before the hearing date for the Commission to take action.

WATER RIGHTS COMMISSION

Betty Westlund,
Water Rights Specialist I

cc: Hermosa Water Users Assoc., & John T. Colgan, Pres., Hermosa, SD 57744

HERMOSA WATER USERS
Hermosa, South Dakota
RC&D PM #320

PRELIMINARY INVESTIGATION AND REPORT

- A. 1. The proposed works of improvement will serve approximately 93,000 acres; 26 individual operators, 18 headquarters with 23 houses, and 6,240 head of livestock. The proposal covers an area from 5 miles north of Hermosa to 5 miles south of Fairburn (approximately 30 miles from north end to south end). The area covered is approximately 14 miles wide at the widest point. In addition, the Town of Fairburn (10 houses) requests a supply of water. It is estimated that 90% of the water pumped will be used for livestock consumption. (See Exhibit #1.)
2. The wells are located in an abandoned Titan missile site approximately $4\frac{1}{2}$ miles south and $2\frac{1}{2}$ miles east of Hermosa. The ground elevation at the wells is approximately 3,390' above sea level. The lowest outlet point is 3,050' and the highest outlet is 3,705' above sea level.
3. The project is needed because of the low quality of limited available water and stock ponds in the area are not dependable in periods of dry conditions.
- B. 1. Individuals in the group have limited shallow wells, which are insufficient, and are required to haul water to supplement short supplies. Some pastures are over used during dry periods because other pastures do not have water available for livestock use.
- C. 1. The storage facilities will consist of butyl-rubber bags placed in a pit with a building for cover. The pumps will be submersible pumps (in the wells at the present time) capable of producing the design flow. The distribution system will require 6 booster pumps to overcome head loss and elevation differences. The pipeline size varies from 6" PVC to 1" PVC. The two wells are capable of producing 250 (165 and 85) gallons a minute. The system is designed with 4 main lines (one main going in each of the principal directions).
2. Arrangements are being made for the land around the well site to be transferred to the group's jurisdiction and commitments have been made on easements of the land in the project.
- D. 1. The water supply will be from the 2 wells mentioned above. A copy of the water quality analysis is attached (Exhibit #2). Water treatment will be in accordance with State Health requirements. Storage for the system will be in covered butyl-rubber bags and in individual storage systems at ranches and hydrants. Pressure at the houses will be between 20 psi and 60 psi as pressure regulators will be installed. Static pressure will be reduced by using regulators to comply with FMHA requirements (not to exceed $\frac{2}{3}$ of the pipe strength value). Pasture or field hydrants are designed to provide 2 to 3 gallons per minute with some pressure.

2. The main lines are designed according to the number of houses and the number of cattle listed by the operators. The peak demand for household connections was taken from FmHA data (Exhibit 3) plotted by DeWild, Grant, Rechert & Associates in September, 1972. The rate used for water for the cattle was 1 gpm per 100 head.

The feeder lines were designed by using Exhibit #3 for household water. Water for field hydrants was determined according to the livestock numbers.

- E. 1. The pipeline length is approximately 130 miles. (Exhibit #4). Hydrants with guard post protectors will be installed. Water bars will be constructed where runoff water might erode the backfill in the trench. Air release valves will be installed where necessary. (Exhibit #5).

Hydraulic calculations from main lines eg. W-A, N-A, etc. and for feeder lines that have special problems are attached. (Exhibit #6).

2. The estimated cost of the project is:

Development and construction	\$572,000.00
Land and rights	-0-
Legal and miscellaneous	8,000.00
Engineering (SCS not estimated)	-0-
TOTAL	\$580,000.00

3. No costs are anticipated for Conservation Districts.

- F. 1. Income will be received according to the amount of metered water at headquarters and Fairburn plus monthly charges per hydrant.
2. Other similiar water systems for a maintenance cost comparison are not available. It is estimated that the annual maintenance and operation cost will be \$5,000.
3. Method of financing:

FmHA Loan	\$247,250.00
ASCS Pooling Agreement	244,750.00
State Small Water Development Grant	55,000.00
Membership Assessment	33,000.00
TOTAL	\$580,000.00

4. SCS Costs

(See Page 2A and 2B)

SCS Costs:

1. Field Surveys:

GS-11	60 Hours	Engr., DC
GS-7	80 Hours	Eng. Tech.
GS-6	80 Hours	Cons. Tech.
GS-2	60 Hours	WAE

2. Preliminary Design:

GS-13	24 Hours	SCE
GS-12	80 Hours	AC, SD Eng. Sect.
GS-11	160 Hours	DC, Engr.
GS-7	160 Hours	Engr. Tech.
GS-4	160 Hours	Stud. Trainee
GS-2	80 Hours	WAE

Final Design & Specifications:

GS-13	16 Hours	SCE
GS-12	60 Hours	AC, SD Eng. Sect.
GS-11	60 Hours	DC, Engr.
GS-7	40 Hours	Engr. Tech.
GS-4	40 Hours	Stud. Trainee

Assisting with Contracting:

GS-13	40 Hours	SCE, SAO
GS-12	48 Hours	AC, So, PC
GS-11	100 Hours	DC, Engr.

Layout & Construction Inspection:

GS-12	160 Hours	SD Engr. Sect.
GS-11	400 Hours	DC, Engr.
GS-7	1,200 Hours	Engr. Tech., Cons. Tech.
GS-5	240 Hours	Stud. Trainee
GS-4	480 Hours	Engr. Aid
GS-2	240 Hours	WAE

5. The group has indicated a willingness to provide personnel, if needed, to assist with field surveys and construction supervision. Personnel would be members of the corporation.

6. Status of Land Treatment in the Area:

Nineteen members of the group have basic conservation plans developed, and the others are District cooperators with plans in various stages of development. The practices, planned and installed, are all oriented toward proper range and cropland management systems.

7. Assessment of Social and Environmental Impact:

An adequate water distribution system will enable landowners to have adequate livestock water during periods of low rainfall. It will enable them to improve grazing systems to maintain or improve range conditions, increase weight gains on livestock, improve quality of livestock water, and eliminate the need for replacing or cleaning present stock dams and dugouts.

Wildlife in the area -- antelope and deer will benefit from an available water source. Proper range utilization practices will enhance the wildlife habitat for, not only the "Big Game", but for the upland game in the area.

Adequate household water will improve the quality of living conditions.

Environmental effects of the project should be conducive to enhancing the overall quality of the area.

8. Legal Clearances or Easements Required:

The group have been incorporated as a non-profit corporation under the laws of South Dakota.

Easements to enter on lands to survey and construct the project are being obtained by the corporation.

The group is working with the State Water Resource Commission for proper water rights and registrations.

The corporation has a commitment from the Department of HEW to obtain access to the wells and to use the wells as a source of water for the system.

The corporation has retained an attorney to assist with legal problems.

9. Organization to Operate and Maintain the Facility:

The operation and maintenance of the facility will be taken care of by the corporation, "Hermosa Water Users Association, Inc."

Contract Time Calculations

Assume:

2-Wheel trenchers (minimum); 1-Chain trencher
 2-Backfill and hydrant crews
 10-Hour day
 5-Day week
 8-Ft./min. average travel rate of trencher
 60% efficiency

NOTE:

To allow some flexibility, the contract time will be calculated for 2-wheel trenchers. Also, two weeks will be allowed for "clean-up" after trenching is completed.

Trenching per trencher per day:

$$\begin{array}{rcl}
 8\text{-ft/min.} \times 60\% \times 600 \text{ min.} & = & 2,880\text{-ft/day} \\
 2 \text{ trenchers} - \frac{5,760}{5,280} & = & 1.09 \text{ mi/day}
 \end{array}$$

Total days needed for trenching:

$$\frac{130 \text{ mi.}}{1.09 \text{ mi/day}} = \underline{\underline{119.2}} \text{ working days}$$

Assume Notice to Proceed issued 8/2/76; work will start 8/16/76.
 Five holidays, 120 working days, contract time would end 2/18/77.

Contract time = 185 Calendar Days

RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 7607

July 21

PIERRE, _____, 19____

Samuel W. Crabb for Hermosa Water Users Asso., 508 7th St. Rapid City, SD

RECEIVED OF _____

the following amount in fees for services rendered as provided for by law:

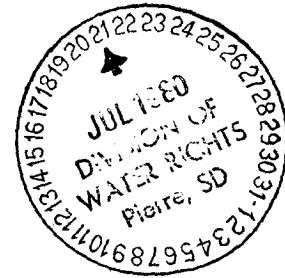
Fee for Application for Permit to Appropriate Water No. _____ (examination, processing, recording and filing) _____		
Fee for inspecting Construction, and issuing Cert. of Construction No. _____		
Fee for inspecting Beneficial Use, and issuing Water License No. _____		
Fee for issuing Location Certificate-Dry Draw, No. _____		
Fee for filing _____		
Fee for certified copy of _____		
Fee for Print copy of map _____		
Fee for Certifying _____		
an extension of time on Permit No. 1645-2		2 50
Fee for _____		
(any other work as provided by law)		
TOTAL		2 50

WATER RIGHTS COMMISSION

By _____
Chief Engineer, Executive Officer

JUL 21 1907

(12)



APPLICATION FOR EXTENSION OF TIME

TO: Water Rights
Foss Building
Pierre, South Dakota 57501

Date ✓ June 19, 1980

Dear Sirs:

In Water Right Permit No. 1645-2 it is specified that the water diversion system is to be completed by September 30, 1980 and that the water is to be put to the limit of beneficial use by September 30, 1981.

I hereby request that the date for completing the diversion system be extended to September 30, 1983 and that the date for putting the water to the limit of beneficial use be extended to September 30, 1984.

The extension of time for the completion of these works is requested for the following reasons: ✓ The contract for the construction of this rural water system was signed on May 1, 1980, and the contractor was required to commence work within 15 days thereafter. Since the project is to be completed within 180 calendar days, this project should be completed by November 10, 1980, unless there are shutdowns due to weather. There was a delay in awarding this contract since the bids received exceeded the available funds for this project each time bids were requested. This contract was the result of negotiations with the contractor and obtaining additional funds to pay for the project.

Enclosed herewith is a fee of Two Dollars and Fifty Cents (\$2.50) to pay the cost of filing this request for extension of time. Hermosa Water User Association

John T. Colgan
(Signed) **President**

1645-2
Permit Number

APPROVED:

Board of Water Management

BY:

April 29, 1980

Alfred C. Mielke
Hermosa,
South Dakota 57744

Dear Mr. Mielke:

Enclosed please find a copy of the minutes of the Water Rights Commission meeting held in Mitchell on September 13 and 14, 1978, at which time Permit No. 1645-2 was approved (pages 11-13). These are the minutes you requested during our conversation of April 25, 1980.

As we discussed, the Water Rights Staff is making plans to construct observation wells in your area to monitor water levels in the various formations. This is done to collect information on the geology and hydrology of the formations.

If you have any questions, please contact this office.

Sincerely,

JEANNE CHRISTENSEN
Water Resources Engineer

JL:kw

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

October 19, 2001

1645-2

Hermosa Water User Association
c/o Duane Smith
HCR 89, Box 322
Hermosa SD 57754

Dear Mr. Smith:

On August 16, 2001 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 1645-2, was completed by Donald E Stroup, a staff engineer with our program. Your final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee from you, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program".

The licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of the water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

Karen Schlaak
Environmental Scientist
Water Rights Program
(605) 773-3352

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

416973

Pierre, November 16, 20 01

RECEIVED OF Hermosa Water Users Association, PO Box 41, Hermosa, SD 57744
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct
and to put water to beneficial use _____

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. 1645-2

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

50 00

50 00

By

Harland Ebel

Chief Engineer

gm

**Permit No. 1645-2
Custer County**

To: Chief Engineer, Water Rights Program, DENR Foss Bldg., Pierre, SD 57501
Other permit/license(s) associated with project: **None**
Contact Person & Address: **Duane Smith, Hermosa, SD**

Report Of Examination of Works

On **August 16, 2001**, I made a thorough examination of the water use system authorizing the appropriation of **1.5** cubic feet per second (cfs) of water from **two (2) deep wells for a rural water system** and bearing a priority date of August 17, 1978.

The wells and system are in **good condition**. The wells are located South of Hermosa in the **SW¼ NE¼ Section 22 T3S R8E 3749 feet East and 1954 feet South of the Northwest corner of Section 22 (N43° 46.578' W103° 08.679')** at the old Titan Missile Site. Each well is capable of producing 0.30 cfs of water.

Review of Permit Qualifications and Regulations:

- 1) Special qualifications to permit being abided by: **Yes**
- 2) All structures, wells and lands on map: **Yes**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: **NA**
- 4) Exceptions to compliance are: **None**

Report on the Specifics of the System

Diversion Point Information:

- | | |
|--|------------------------------------|
| 1) Well Drilling Firm: U.S. Army Corps of Engineers | 2) No. of Wells: 2 |
| 3) Depth(s): #1-1947' #2-1771' | 4) Well logs available: Yes |

Casing:

- 1) Diameter: **18 & 12.75 inch**
- 2) Length: **300 & 1470 feet**
- 3) Type: **Steel**

Screen:

- | | |
|---|--|
| 1) Type: Stainless Steel 8" Perforated | 2) Length: approximately 476 & 300 feet |
| 3) Static water level: 190 feet | |

Pump\ Motor:

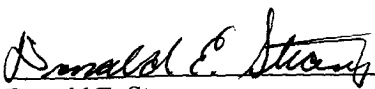
- | | |
|--|------------------------------------|
| 1) Pump Make: Unknown | 2) Pump Model: NA |
| 3) Capacity: 135 gpm | 4) Motor Make: NA |
| 5) Motor Model No.: Electric, Unknown | 6) Horsepower rating: 30 hp |

Distribution System:

- 1) Type: **Booster Pumps, Reservoirs, Valves, & Approximately 150 miles 6 & 1 inch PVC Lines**
- 2) Length: **Approximately 150 Miles**

COMMENTS:

The wells and pumping system are capable of supplying a combined total of 0.60 cfs of water to the association users. The system should be licensed for 0.60 cfs for Rural Water System use.



Donald E. Stroup
Natural Resources Project Engineer
DENR, Water Rights Program

9/10/01
Date

MAF 5 - 1960

DRILLER'S LOG OF WELL

Location of Well: NE 1/4, Section 22, Township 3 South, Range 8E 4N

Well to be drilled for: Corps of Engineers, 1709 Jackson Street, Omaha 2, Nebraska
(Name) (Address)

Owner of land (if other than above) (Name) (Address)

Date well drilling started October 1, 1959 finished December 26, 1959

Purpose of well Auxiliary Missile Site, Ellsworth A.F.B., South Dakota
(domestic, irrigation, municipal, industrial, other)

Well E5A-B

Diameter 16-22 inches			
0	Feet	Surface soils	Ground Surface Elevation: 3393.2 (If Available)
20	Feet	Gravel & Boulders	Kind and thickness of casing to be installed: 18"00, 70.59#, 3/8" wall, LP 12 3/4"00, 49.56#, 3/8" wall, LP 10 3/4"00, 45.50#, 0.400" wall, csg
45	Feet	Shale	Size of casing to be installed: 300 feet of 18 inches diameter 965 feet of 12 3/4 inches diameter 359 feet of 10 3/4 inches diameter
95	Feet	Limey shale	Type of seal between casing sizes: None
230	Feet	Shale	Kind of perforated screen to be installed: Material Stainless steel (steel, wood, concrete, etc.)
1221	Feet	Sandy shale (Muddy)	Size of screen: Diameter 6.5/8 inches Length 288 feet Size openings 0.050 inches
1271	Feet	Shale	
1460	Feet	Sand & Shale Dakota Fuson Lakota	
1721	Feet	Water bearing material	Depth below ground surface to which water rises in well 457 feet.
1771	Total Depth		

MAR 5 - 1960

DRILLER'S LOG OF WELL

Location of Well: NE 1/4, Section 22, Township 3 South, Range 8E 68M

Well to be drilled for: Corps of Engineers, 1709 Jackson St., Omaha 2, Nebraska
(Name) (Address)

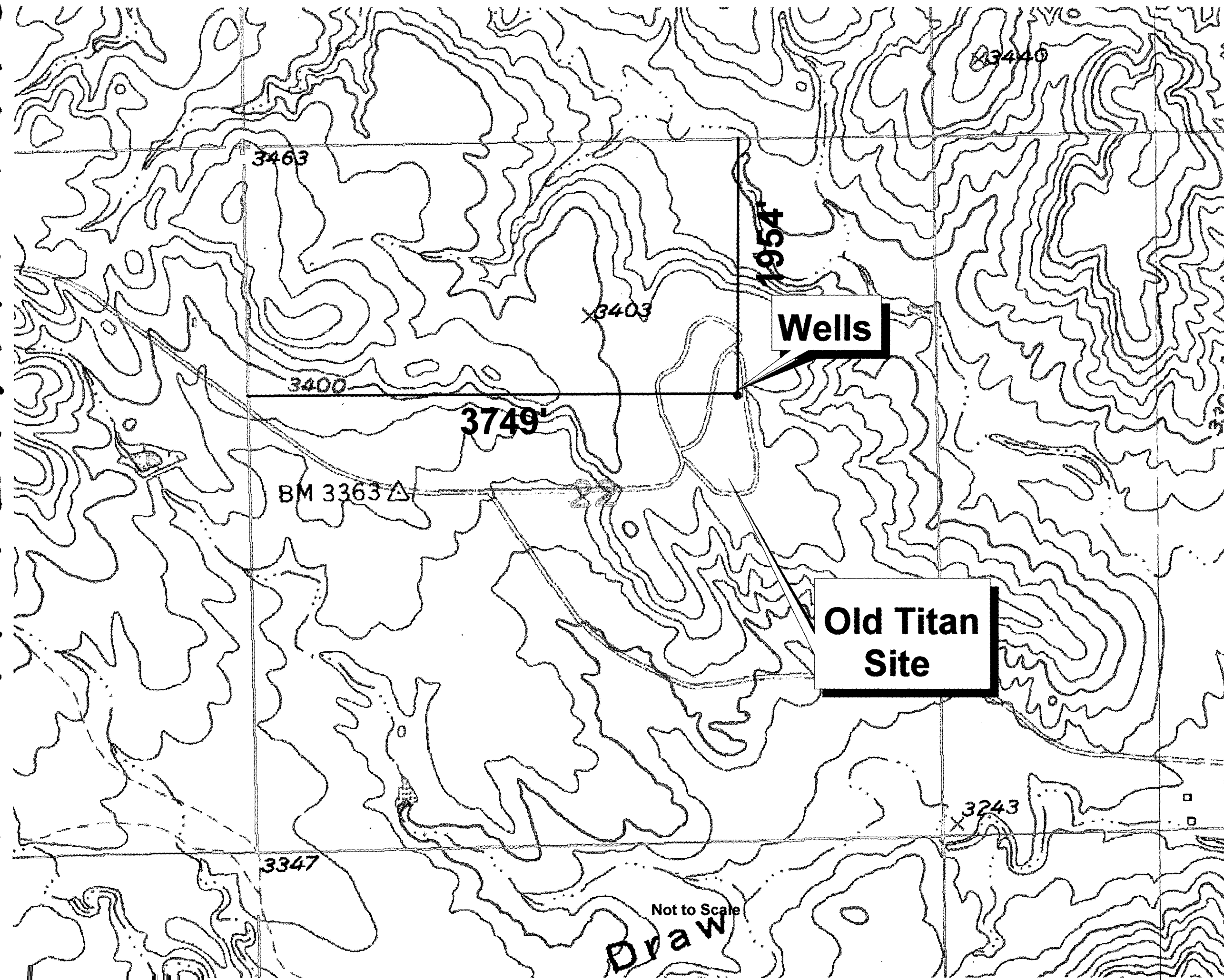
Owner of land (if other than above) (Name) (Address)

Date well drilling started August 7, 1959 finished November 24, 1959

Purpose of well Auxiliary Missile Site, Ellsworth A.F.B., South Dakota
(domestic, irrigation, municipal, industrial, other)

Well E5A-A

Diameter <u>16-24</u> inches			
0	Feet	Surface soils	Ground Surface Elevation: <u>3393.8</u> (If Available)
20	Feet	Gravel & Boulders Describe kind of materials drilled through (add layers on back of form if necessary)	Kind and thickness of casing to be installed: <u>18"00, 70.59#, 3/8" wall, LP</u> <u>12 3/4"00, 49.56#, 3/8" wall, LP</u>
45	Feet		Size of casing to be installed: <u>300</u> feet of <u>18</u> inches diameter <u>1192</u> feet of <u>12 3/4</u> inches diameter feet of inches diameter
95	Feet	Shale	Type of seal between casing sizes: <u>None</u>
230	Feet	Limey shale	Kind of perforated screen to be installed: Material <u>Stainless steel</u> (steel, wood, concrete, etc.) Size of screen: Diameter <u>8 5/8</u> inches Length <u>288</u> feet Size openings <u>0.050</u> inches
1221	Feet	Shale	
1271	Feet	Sandy shale (Muddy)	Depth below ground surface to which water rises in well <u>250</u> feet.
1460	Feet	Shale	
	Feet	Sand & Shale Dakota Fuson Lakota Water bearing material	
1721'			
1947'	Total Depth		



Donald E. Stroup
Donald E. Stroup
Natural Resources Project Engineer
DENR Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1645-2

(1) Hermosa Water User Association, c/o Duane Smith, HCR 89, Box 322, Hermosa SD 57754 made Application No. 1645-2, August 17, 1978 for a water permit to divert 1.5 cubic feet of water per second from groundwater (two wells), Custer County, South Dakota for rural water system purposes. Permit No. 1645-2, with a priority date of August 17, 1978 was approved September 13, 1978 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before September 13, 1983 and for the application to beneficial use of said water on or before September 13, 1984.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.60 cubic feet of water per second for beneficial use. The location of the diversion points are approximately 3,749 feet east and 1,954 feet south of the northwest corner of Section 22-T3S-R8E (SW ¼ NE ¼).

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Hermosa Water User Association, c/o Duane Smith, HCR 89, Box 322, Hermosa SD 57754 the holder and/or owner of Water Right No. 1645-2 is issued a license to appropriate water, the right to use 0.60 cubic feet of water per second from groundwater (two wells) with a priority date of August 17, 1978 from the location specified in (2) of this license for rural water system purposes. This license is subject to any limitations or qualifications listed in Water Right No. 1645-2 and subject to South Dakota State Law.



GARLAND ERBELE, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAR 04 2002

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

MAR 04 2002

1645-2

Hermosa Water User Association
%Duane Smith
HCR 89 Box 322
Hermosa, SD 57754

Dear Mr. Smith:

Enclosed is Water License No. 1645-2. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 416973 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 1645-2, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

A handwritten signature in black ink that reads "Garland Erbele". The signature is written in a cursive, flowing style.

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

1645-2

COSTELLO, PORTER, HILL, HEISTERKAMP,
BUSHNELL & CARPENTER, LLP

ATTORNEYS AT LAW

DENNIS H. HILL
KENNETH L. HEISTERKAMP
GENE R. BUSHNELL
EDWARD C. CARPENTER
THOMAS H. BARNES
DONALD A. PORTER
GREGORY G. STROMMEN
PATRICIA A. MEYERS

200 SECURITY BUILDING ■ 704 ST. JOSEPH STREET
MAILING ADDRESS P. O. BOX 290
RAPID CITY, SD 57709

605-343-2410
TELECOPIER NO. 605-343-4262
E-MAIL: lawfirm@costelloporter.com

JOSEPH R. LUX
HEATHER M. LAMMERS
MELVIN D. WEDMORE
JEREMIAH J. LUEBBE
JESS M. PEKARSKI
JOHN W. STEKLY

RETIRED
J.M. COSTELLO
WILLIAM G. PORTER

January 14, 2004

South Dakota Department of Environment and Natural Resources
Ms. Karen Schlaak
PMB 2020
Joe Foss Building
523 East Capitol Avenue
Pierre, SD 57501-3182

RECEIVED
JAN 15 2004
WATER RIGHTS
PROGRAM

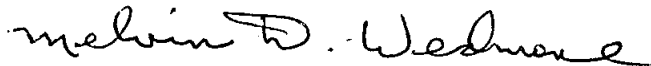
Re: Hermosa Water Users Association

Dear Karen:

Our office currently represents the Hermosa Water Users Association. I am writing to check on what water rights or permits might be on file in your office regarding the Hermosa Water Users Association. If you could please send me a copy (preferably certified) of any such rights or permits it would be appreciated. Should there be a fee for such a service or if you have any questions, please feel free to give either me or John Stekly a call at the above address and telephone number.

Thank you.

Yours very truly,



Melvin D. Wedmore

c Hermosa Water Users Association



January 26, 2004

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

Melvin D Wedmore
Costello, Porter, Hill, Hiesterkamp,
Bushnell & Carpenter, LLP
PO Box 290
Rapid City SD 57709

RE: Hermosa Water Users Association

Dear Mr. Wedmore:

As requested, enclosed are copies of Water Right No. 1645-2 and Water Permit No. 2489-2.

Water Right No. 1645-2 authorizes 0.60 cubic feet of water per second (270 gallons per minute) from two wells (Inyan Kara Formation) located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 22-T3S-R8E.

Water Permit No. 2489-2 authorizes 0.56 cubic feet of water per second (250 gallons per minute) from one well (Madison Formation) located on the quarter-quarter line between in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 23-T3S-R7E.

Also enclosed is a copy of a letter dated January 8, 2004 sent to Association, requesting the amount of water diverted from the Madison Formation well authorized by Water Permit No. 2489-2. Qualification No. 4 of the permit indicates this permit requirement.

If you have any additional questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352

c: Hermosa Water Users Association

enclosures