

WATER PERMIT NO. 2335-2

Phone: 303 831-1912

Name of Applicant: Advantage Resources, Inc.

Post Office Address: 1775 Sherman St, Suite 1375, Denver CO 80203

Amount of Water Claimed: 50 gpm (0.11 cfs) Total Acres: NA

Source of Water Supply: groundwater

Water to be used for: secondary recovery - oil well County: Fall River

Location: very southwest corner of the state

PRIORITY Date Received: 4-3-95 Fee: \$150.00

Corrected Application Received: _____ Period of Annual Use: Jan 1- Dec 31

Remarks: _____

Diversion Point: SW 1/4 SE 1/4 Sec 9-T12S-R1E

Land to be Irrigated: _____

			9		
			⊗		

Well Log: Driller: _____ Licensed: YES _____ NO _____

Depth of Well: 4240 feet REMARKS: _____

Type of Map: plat Prepared By: Robert W. Peterson Reviewed and the Number

Signed on: 4-3-95 By: Karen Schlaak

**SOUTH DAKOTA
WATER PERMIT NO. 2335-2**

Date of first receipt of application April 3, 1995.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2335-2 to Advantage Resources, Inc., 1775 Sherman Street, Suite 1375, Denver CO 80203 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. 2335-2 appropriates 50 gallons per minute (0.11 cubic feet of water per second) from one well (Minnelusa Formation) 4240 feet deep located in the SW 1/4 SE 1/4 Section 9-T12S-R1E. The water will be pumped from this well into injector wells using a flood water method.
2. The water appropriated shall be used as a secondary recovery method for oil production from area oil wells and for domestic and livestock purposes and may not exceed the amount of water needed for beneficial use.
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. 2335-2 is June 26, 1995.
5. The date from which applicant may claim right is April 3, 1995.
6. One-fifth of the construction is to be completed on or before December 26, 1997.
7. All construction is to be completed on or before June 26, 2000.
8. Water is to be put to beneficial use on or before June 26, 2004.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

The well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04 when the oil recovery project is completed.

WATER MANAGEMENT BOARD

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

AUG 7 1995

date

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. 2335-2 Hydrologic Unit 10120108
Basin Upper Cheyenne
Newspaper Edgemont Herald-Tribune
(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 - Livestock ☐ Industrial ☒ Other Secondary Recovery - Water Flood
(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.) _____

- Name of Applicant Advantage Resources, Inc. Phone (303) 831-1912
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 1775 Sherman Street, Suite 1375 Denver State Colorado 80203
(Street, RR, or Box) (City) (Zip Code)
- Amount of water claimed 0.11 *CFS or 50 **GPM _____ ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Converted dry hole to water supply well from Bell Sand at depth of 4045 feet.
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) _____
C-SW-SE-Section 9-Township 12 South-Range 1 East
County Fall River
- County or counties where water will be used Fall River
- Annual period during which water is to be used from start of water injection until oil is depleted
(APPROX. 8 YEARS)
- 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)

See attached map

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 DENVER)^{SS}

I, Edward J. Ackman, President of Advantage Resources, Inc., 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 ☒ Edward J. Ackman, President
Subscribed and sworn to before me this 29th day of March 19 95

My Commission expires 10-13-98

Gretchen D. Farson, Notary Public

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter 7-7/8" Depth 4240' K.B.
- b) Casing Type J-55 Diameter 5-1/2" Thickness 14#/ft.
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 4045' - 4139' Perforations in Bell Sand
- f) Depth to Water (ground surface to water level) 4035'
- g) Distance to nearest existing domestic well:
- On applicants property none On property owned by others none to this depth

2. Dugout Information Estimates

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

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should 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 _____

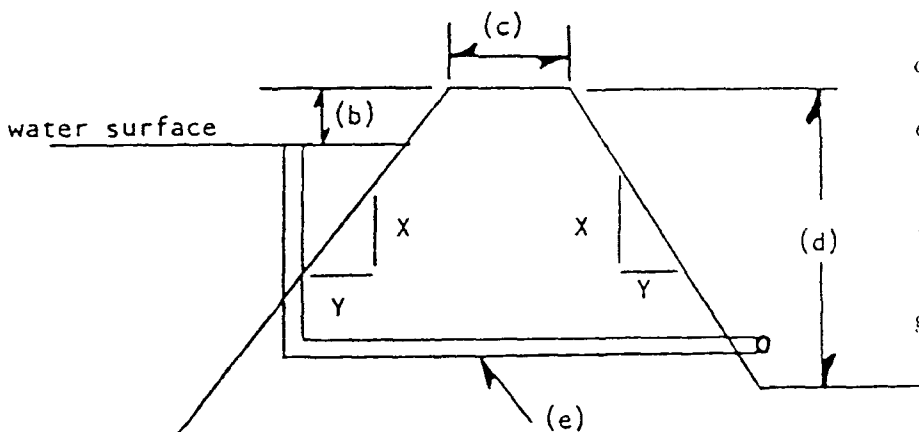
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



Signature of Applicant Edward J. Ackman, President
Advantage Resources, Inc.

RECEIPT

414453

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, ~~XXXX~~ April 3, 19 95

RECEIVED OF Advantage Resources, Inc., 1775 Sherman St, Ste 1375, Denver, CO 80203
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>2335-2</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	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	150 00

By

Chief Engineer

John Hatch

INDIAN CREEK FIELD FALL RIVER COUNTY, SOUTH DAKOTA FIELD MAP

SCALE 1"=1,000'

R1E

8

9

X *Robert W. Peterson*
Robert W. Peterson
Registered Engineer
#6027, State of Colorado
Expire: 5-31-96

10-9
D +2109
Mo +1831
SP +1320
Min +736
R.S. +382
2nd Leo +219

1-9 (13-9)
D +2128
Mo +1848
SP +1303
Min +755
R.S. +372
2nd Leo +224

14-9
D +2114
Mo +1824
SP +1308
Min +744
R.S. +360
2nd Leo +210

15-9
D +2102
Mo +1814
SP +1352
Min +736
R.S. +365
2nd Leo +198

T12S

2-17
D +2108
Mo +1830
SP +1327
Min +756
R.S. +383
2nd Leo +224

4-16
D +2073
Mo +1773
SP +1273
Min +726
R.S. +353
2nd Leo +205

3-16
D +2085
Mo +1798
SP +1277
Min +720
R.S. +339
2nd Leo +189

7-17
D +2078
Mo +1791
SP +1301
Min +711
R.S. +340
2nd Leo +178

8-17
D +2061
Mo +1801
SP +1280
Min +721
R.S. +362
2nd Leo +208

5-16
D +2056
Mo +1767
SP +1248
Min +669
R.S. +325
2nd Leo +169

6-16
D +2052
Mo +1767
SP +1243
Min +689
R.S. +314
2nd Leo +156

7-16
D +1997
Mo +1736
SP +1217
Min +640
R.S. +277
2nd Leo +117

9-17
D +2017
Mo +1739
SP +1241
Min +657
R.S. +285
2nd Leo +121

● OIL STORAGE TANK
■ TREATER

— OIL PIPE LINE
- - - WATER PIPE LINE

● PRODUCER
● PLUGGED PRODUCER
● S.I. SHUT IN PRODUCER
▲ POTENTIAL INJECTOR
▲ WATER SUPPLY WELL

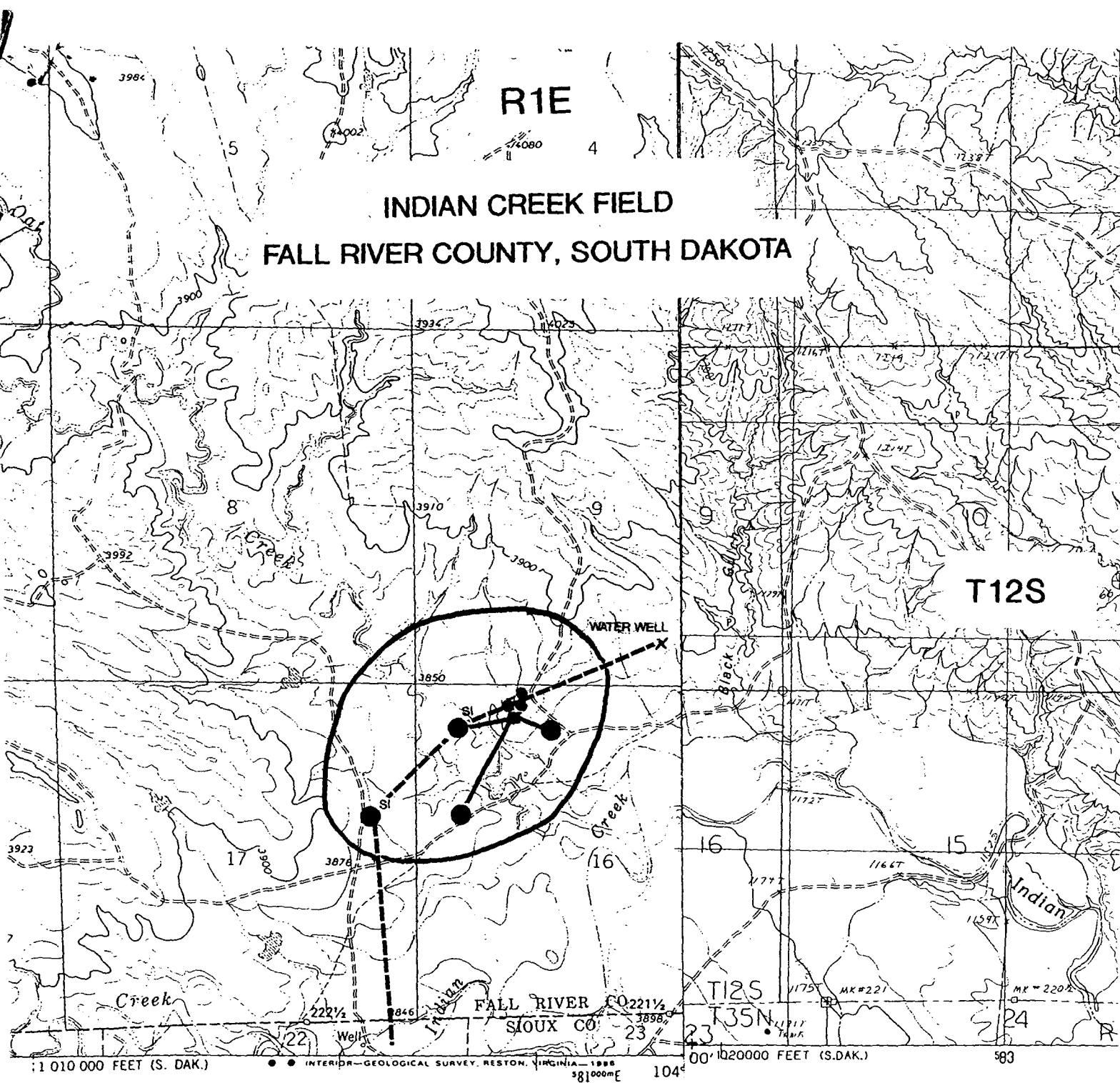
SOUTH DAKOTA
NEBRASKA

FALL RIVER COUNTY
SIOUX COUNTY

3" PVC LINE

2335-2

ATTACHMENT 2



ROAD CLASSIFICATION

- | | |
|------------------------------------|--|
| Primary highway,
hard surface | Light-duty road, hard or
improved surface |
| Secondary highway,
hard surface | Unimproved road |
| Interstate Route | U. S. Route |
| | State Route |

- OIL WELL
- ^{SI} SHUT IN OIL WELL
- OIL STORAGE TANK
- TREATER
- OIL PIPE LINE
- - - WATER PIPE LINE

OAT CREEK, WYO.—S. DAK.—NEBR.

43104-A1-TF-024

1978

TOPOGRAPHIC MAP

SCALE 1"=2,000'

ATTACHMENT 1



ADVANTAGE
RESOURCES, INC.

1775 Sherman Street
Suite 1375
Denver, Colorado 80203
303 / 831-1912
Fax: 303 / 832-6048

March 30, 1995



Mr. John Hatch
Department of Environment and Natural Resources
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3131

RE: C-SW-SE-Sec. 9-T12S-R1E
Fall River County, South Dakota

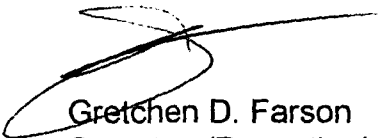
Dear Mr. Hatch:

Enclosed please find the appropriate documents for filing a Water Permit Application for the above captioned location:

- 1) Form 2
- 2) Form 2A - (two completed copies)
- 3) Signed Map (showing the Indian Creek Field)
- 4) Well Log for #15-9 Federal-Stagecoach
- 5) Filing Fee: Check #019092 for \$150.00

Please advise us if the enclosed is not satisfactory; otherwise, we will anticipate receiving your decision on our application.

Thank you,


Gretchen D. Farson
Secretary/Receptionist

Encls: as stated
GDF:gf
mw-ldnr.gf



ADVANTAGE
RESOURCES, INC.

1775 Sherman Street
Suite 1375
Denver, Colorado 80203
303 / 831-1912
Fax: 303 / 832-6048



April 4, 1995

Mr. John Hatch
Department of Environment and Natural Resources
Water Rights Division
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3131

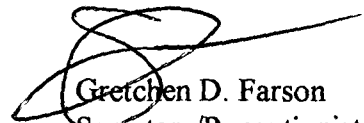
RE: C-SW-SE-Sec. 9-T12S-R1E
Fall River County, South Dakota
Water Permit Application

Dear Mr. Hatch:

Enclosed please find a Letter Agreement dated 2/21/95 between Advantage Resources, Inc. and Quinto Limited Partnership by Joe Falkenburg and Nancy S. Falkenburg. This Letter Agreement is to be included with the documents we sent to you on 3/30/95 regarding our application for a water permit.

If you have any questions regarding this enclosure, please contact our office.

Thank you,


Gretchen D. Farson
Secretary/Receptionist

Encls.: as stated
GDF:gf
mw-ldnr1.gf



ADVANTAGE
RESOURCES, INC.

1775 Sherman Street
Suite 1375
Denver, Colorado 80203
303 / 831-1912
Fax: 303 / 832-6048

MAR 27 1995

February 21, 1995

Mr. Joe Falkenburg
Quinto Limited Partnership
P.O. Box 8
Edgemont, South Dakota 57735

RE: Secondary Recovery
Operations
Indian Creek Unit
Fall River Co., S.D.

Dear Mr. Falkenburg:

Advantage Resources Inc. would like to start secondary recovery operations in the Indian Creek Unit, Fall River County, South Dakota. To serve our operations Advantage would like to use the water well in the SW/4SE/4 of Section 9, Township 12 South, Range 1 East.

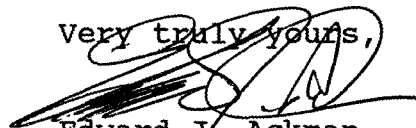
Advantage hereby requests your permission to utilize said water well for its waterflood operations, including the right to prepare the well for pumping, to lay a pipeline, and to run an electrical line to the well.

Please indicate your approval of the above operations by executing and returning two (2) copies of this letter to Advantage's office in the enclosed envelope. Upon receipt, a copy of this letter will be furnished to the State of

February 21, 1995
Quinto Limited Partnership
PAGE 2

South Dakota confirming your agreement with these operations. Thank you for your consideration in this regard.

Very truly yours,



Edward J. Ackman
President

AGREED TO and ACCEPTED this 24th day of March,
1995.

QUINTO LIMITED PARTNERSHIP

BY: Joe Falkenburg
Joe Falkenburg, General Partner

BY: Nancy S. Falkenburg
Nancy S. Falkenburg, General Partner

EJA:gf

ltr-flkl.ea
(2-21-95)

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES****OIL AND GAS PROGRAM**

2050 West Main, Suite #1

Rapid City, SD 57702

Telephone 605-394-2229

FAX Number 605-394-5317

FAX COVER SHEET

TO:

Mack McGillivray - O&G

FROM:

Ken Buhler - WR (273-4048)

DATE:

5-5-95

PAGES:

6

MESSAGE:

Info requested - Let me know if you
have questions -

Form 9-330
(Rev. 5-83)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN **DUPLICATE**
 (See other instructions on reverse side)

Form approved,
Budget Bureau No. 42-R355.5.**WELL COMPLETION OR RECOMPLETION REPORT AND LOG ***1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other Water Well

5. LEASE DESIGNATION AND SERIAL NO.

M-37244 (SD)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Stagecoach-Federal

9. WELL NO.

15-9

10. FIELD AND POOL, OR WILDCAT

Indian Creek

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 9-T12S-R1E

1b. TYPE OF COMPLETION:

NEW WELL ☒WORK OVER ☐DEEP-EN ☐PLUG BACK ☐DIFF. RESVR. ☐

Other _____

2. NAME OF OPERATOR

P & M Petroleum Management

3. ADDRESS OF OPERATOR

1600 Broadway, Suite 1705, Denver CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 730' fsl, 1910 fel

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

9795/7/80

12. COUNTY OR PARISH

Fall River

13. STATE

So. Dakota

15. DATE SPUDDED

5/2/80

16. DATE T.D. REACHED

5/16/80

17. DATE COMPL. (Ready to prod.)

N A

18. ELEVATIONS (OF. RES. RT. GR. ETC.)*

3870 (KB)

19. ELEV. CASINGHEAD

3858'

20. TOTAL DEPTH, MD & TVD

4308'

21. PLUG. BACK T.D. MD & TVD

4258'

22. IF MULTIPLE COMPL. HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

Surf-TDNONE

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

NONE

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Laterolog, Neutron-Density, Cyberlook

27. WAS WELL CORED

Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	24	133	12 1/4	125 Sx	NONE
5 1/2"	14	4305	7 7/8	150 Sx	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

3797-3801, 4/ft3734-37, 4/ft4045-4139, 1/ft

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
<u>3797-3801</u>	<u>1238 Gallons Acid</u>
<u>3734-37</u>	
<u>4045-4139</u>	<u>None</u>

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
<u>N/A</u>		

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Donald G. McNeil TITLE EngineerDATE 7/23/80

*(See Instructions and Spaces for Additional Data on Reverse Side)

EDWARD J. ACKMAN
1600 BROADWAY
1940 COLORADO STATE BANK BUILDING
DENVER, COLORADO 80202



#15-9 Stagecoach Federal
SWSE 9, T12S, R1E
Fall River County, South Dakota

Operator:
Contractor: Big "A" Drilling
Elevation:

5/1/80 Moving in Big "A" Drilling Rig 101

5/2/80 Rigging up, should spud tomorrow.

5/3/80 Depth 159', waiting on cement. Bit #1 12 $\frac{1}{4}$ ", DTJ (0'-159'). Spudded at 10:00 A.M. on May 2, 1980, ran 3 joints of 8 5/8", 24# casing. Set at 133 K.B. Cemented with 125 sacks of 50/50 pozmix, 3% CaCl, 1/4# celflex/sack, 6# gilsonite/sack, good returns. Plug down at 12:45 A.M. on May 3, 1980. Deviation Survey 1 $\frac{1}{2}$ " at 159'.

5/4/80 Drilling at 1076', made 912' in 24 hours, drilling with clear water. Bit #1 7 7/8" Smith DTJ made 917' in 14 $\frac{1}{2}$ hours, weight 25,000, 120 RPM, pump pressure 300 psi. Checked blowout preventer at 1000#. Deviation survey at 680' 3/4".

5/5/80 Drilling at 1738', made 662' in 24 hours, drilling with clear water. Bit #1 DTJ: 159'-1463', made 1304' in 20 $\frac{1}{2}$ hours, 65'/hour. Bit #2, Smith F-2: In at 1463', made 275' in 6 hours, 46'/hour. Weight 30,000, 60 RPM, pump pressure 500, 66 strokes. Rig time: 12 hours drilling, 6 3/4 hours tripping, 1/2 hour rig service, 1/4 hour survey, 4 hours unplug drill collars. Deviation Survey at 1463' 1".

5/6/80 Drilling at 2525', made 787' in 24 hours, drilling with clear water. Bit #2, 7 7/8" Smith F-2, in at 1463', made 1062' in 29 hours. Weight 30,000, 40 RPM, pump pressure 500. Rig time: Drilling 23 hours, 3/4 hours service, 1/4 hour repairs.

TOPS: Sundance Sand 2535' (18' low to west offset)

5/7/80 Drilling at 3036', made 511' in 24 hours. Mud weight 8.8, viscosity 31, water loss 12.6, PH 8.5, mud cost \$3,836.00. Bit #2: 1463'-1573, in 52 $\frac{1}{2}$ hours, averaged 32'/hr., pump pressure 500, weight 30,000 60 RPM.

5/8/80 Drilling at 3390', made 354' in 24 hours. Mud weight 8.9, viscosity 34, water loss 8.0, PH 9.5, mud cost \$5,702.00. Bit #2, Smith in at 1463' made 1927' in 75 $\frac{1}{2}$ hours, weight 40,000, 60 RPM, pump pressure 500.

Rig Time: Drilling 23 $\frac{1}{2}$ hours
Rig Service 3/4 hour

5/9/80 Drilling at 3580', made 190' in 24 hours. Mud weight 9.2, viscosity 35, water loss 7.8, PH 9.5, mud cost \$8,317.00.

Bit #2 Smith F-2 1463-3422

Made 1959' in 79 $\frac{1}{2}$ hours

Bit #3, Smith F-2, in at 3422

Made 158' in 13 $\frac{1}{2}$ hours

Weight 30,000, RPM 60, pump pressure 1000

#15-9 Stagecoach Federal (page 2)

Deviation Survey at 3422'-1°

Rig Time: Drilling 17½ hours
Tripping 1½ hours
Service Rig ½ hour

TOPS: Converse Sand 3450'
Red Shale Marker 3534'
(Extra joint in hole, depths may be 30' off)

5/10/80 Drilled to 3632, tripped for Core No. 1, mud weight 9.3, viscosity 41, water loss 7.6, PH 9.5, mud cost \$9,143.00.

5/11/80 Cored at 3741', pulled core #1 from 3632 to 3692, went in hole for Core No. 2 from 3692-3750. Weight on bit 25,000, RPM 40, pump pressure 1500.

Rig Time: Coring 16½ hours
Tripping 5 hours
Service Rig 1½ hours
Circulating 1/4 hour
Lay down core 2 hours

5/12/80 Total depth 3750'. Going in hole with Bit #3.

DST #1 (3640-3750)
10"-60"-105"-120"

Weak blow throughout

Recovered: 160' of total fluid

30' slightly gas cut mud with trace of oil

110' gas cut and slightly oil cut mud

20' gas cut mud

IFHP 1750-1711

IFSP 65-65

FSP 78-116

IFSIP 1359-1255

Going in hole with Bit #3 to drill to the Bell Sand

Core No. 1 from 3632-3692

3632-3643 Dolomite, dense, with no shows

3643-3656 Dolomite, no porosity, oil stain

3656-3668 Dolomite and shale, no shows

3668-3669 Dolomite, tight, oil stained

3669-3676 Shale and Dolomite, no shows

3676-3680½ Dolomite, tight, oil stain

3679-3680½ Shale

3679-3686 Dolomite, tight, oil stain

3686-3687½ Shale

3687½-3688 Dolomite, tight, oil stain

3688-3692 Dolomite and Shale, no shows

#15-9 Stagecoach Federal (Page 3)

Core No. 2 from 3692-3750

3692-3699 Dolomite, no shows
 3699-3703 Shale
 3703-3707 Dolomite, tight, oil show
 3707-3710 $\frac{1}{2}$ Shale
 3710 $\frac{1}{2}$ -12 Dolomite, tight, oil stain
 3712-3713 Anhydrite
 3713-3717 Dolomite, tight, oil stain
 3717-3722 Shale
 3722-3728 Anhydrite
 3728-3739 Sand and Shale, no shows
 3739-3747 Siltstone, tight, oil stain
 3747-3750 Sand and Shale, no shows



5/13/80 Drilling at 3989, made 239' in 24 hours. Mud weight 9.3, viscosity 50, water loss 7.2, PH 9.0

Rig Time: Drilling 24 hours

250' Off of the Bell Sand, will drill to the Bell Sand and run logs.

5/14/80 Drilling at 4205', will drill 50' and then log. Mud weight 9.6, viscosity 45, weight on bit 30,000, RPM 60, pump pressure 1000

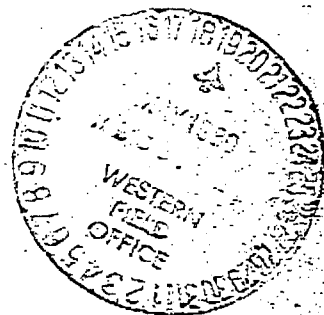
TOPS: Madison 4180'

Rig Time: Drilling 23 $\frac{1}{2}$ hours
 Service Rig $\frac{1}{2}$ hour

5/15/80 Total depth 4239', ran Schlumberger logs, preparing to run 5 $\frac{1}{2}$ " casing.

Log Tops:	Greenhorn	952'
	Dakota	1768'
	Lakota	1908'
	Morrison	2056'
	Sundance	2260'
	Spearfish	2518'
	Minnekahta	2920'
	Opeche	2955'
	Minnelusa	3134'
	Red Shale Marker	3505'
	2nd Leo	3653'
	Bell Sand	4045'
	Madison	4164'
	Total Depth	4239'

5/16/80 Total depth 4308'. Drilled 69' in 24 hours.
 Bit #4 R.R. 7 7/8" Smith F-S, 3 13/32 jets.
 4239-4308, 69' in 5 $\frac{1}{2}$ hours.
 5 $\frac{1}{2}$ hours drilling
 1 3/4 hours circulating
 3/4 hour ream
 5 hours lay down pipe
 13 $\frac{1}{2}$ hours running casing & cement



#15-9 Stagecoach Federal (page 4)

Ran 107 joints, 5½", 14# new casing. Set at 4305'. Cemented with 150 sacks, 50/50 pozmix, 2% Gel, 3% CaCl. Displaced with 104 barrels of 2% KCL water. Plugged down at 9:30 A.M. with 1500#.
WOCT

5/27/80 Moving in completion rig.

5/28/80 Rigged up Goodwell perforator, ran GR Neutron from 4258-3300. Perforated 3797-3801 with 4 holes per ft., 3434-3437 with 4 holes per ft. Ran 23/8" tubing with RTTS & R.B.P. Set B.P. at 3837', set packer at 3768'. Spotted acid on perfation with 620 gallons, soaked 10 min., broke down formation at 1450#, broke to 450# with 1/4 bbl/min., pumped 300 gallons at 2 bbls/min at 750#, 318 gallons, 4 bbls/min at 1250#.

Instant Shut in, 500#
5 Minutes, 300#
10 Minutes, 250#
Maximum rate 4 bbls/min at 1250#
Average rate 3 bbls/min at 1800#

Started swabbing at 8:45 A.M., swabbed 7 times to 10:15, 6th run - 1100' Brackich water, 7th run - 750' brackich water. Will swab rest of day and treat upper tomorrow.

5/29/ 80 No report.

5/30/80 Lower zone - 2.7 bbls brackich water an hour. In hole with RBP at 3758, RTTS 3737. Straddling perforations from 3734-3737. Swabbed down and tested, will treat later to day.



Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Advantage Resources - Application No.2335-3

ADDRESS: COUNTY:

DATE: 6/12/95

TELEPHONE:

RE: Regarding adding domestic and livestock watering to application

COMMENTS:

Nancy Faulkenberg (459-2608) -- they own the land in which the well is located. She stated they have an agreement with Advantage Resources to provide 15,000 gpd for domestic and livestock watering purposes.

I then contacted Sharon (303 831-1912) with Advantage Resources and she acknowledged that an agreement had been entered into. She asked that we amend the application to include domestic and livestock watering purposes.

I called Barb Ryan (662-7201) with the Edgemont newspaper and requested that she add the following sentence to the end of the first paragraph of the second publication of the notice of hearing: "Water will also be used for domestic and livestock watering purposes".

Called Nancy Faulkenberg and let her know what action I had taken.

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 Handlund

WATER PERMIT APPLICATION NO. 2335-2
ADVANTAGE RESOURCES, INC.
MAY 5, 1995

Water Permit Application No. 2335-2 proposes to appropriate 50 gallons per minute (0.11 cubic feet of water per second) from one well 4,240 feet deep located in the SW 1/4 SE 1/4 Sec.9, T12S-R1E. The water is to be used for a waterflood operation in the Indian Creek Oil Field. The waterflood will enhance the recovery of oil from the reservoir by pumping water from this well into injector wells near producing oil wells. The project is expected to take approximately 8 years.

AQUIFER: Minnelusa Formation

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Minnelusa Formation is a assemblage of alternating beds of sandstone, anhydrite, limestone and dolomite with lesser amounts of red and black shale and chert. The Well Completion Report and Log for this well indicates the overall thickness of the Minnelusa is approximately 1,000 feet at this site. The top of the Minnelusa Formation is 3,134 feet below ground surface at this well site. The upper part of the formation consists primarily of sandstone, although, locally a thin limestone cap may be found at the top of the formation. This upper portion of the formation contains a medium to coarse grained sandstone known as the "Converse" sand. Approximately 350 feet below the base of the Converse is a thin red shale known as the "Red Marker". The zone between the Converse Sand and the Red Marker consists of dolomite and anhydrite and thin beds of sandstones and red shales. Below the Red Marker is a zone 300-400 feet thick consisting of thin beds of sandstones, dolomite, and shales. One to four distinct sandstone layers known as the "Leo" sands are found in this zone. The lowest 300-350 feet of the Minnelusa Formation consists of shales, sandstone, limestone, anhydrite and a basal sand known as the "Bell" Sand. In general, the formation can be separated into three distinct lithologic units: (1) the upper unit containing the Converse Sand; (2) the middle unit, containing the Leo Sands; and (3) the basal unit containing the Bell Sand. "Each of these lithologic units functions as a separate hydrologic unit; the upper and lower units locally yield large quantities of water to wells and the middle unit typically does not;" (Woodward-Clyde, 1981). The hydraulic connection (leakage) between these units has not been quantified. The completion information for this well indicates it has been completed into the "Bell" Sand (perforated from 4,045'-4,139'). The areal extent of the Bell Sand has not been delineated, and the amount of recoverable water in storage in the unit has not been quantified. However, the extent of the unit is clearly demonstrated by the fact that is distinguishable on a regional scale. This regionally extensive aquifer (Bell Sand) is virtually untapped in this area. In fact, there are only four Water Permits/Rights appropriating water from entire Minnelusa Formation (Converse Sand + Leo Sand + Bell Sand) in all of Fall River County. These Permits/Rights are all in the Hot Springs area (over 35 miles from this well site). The Division of Water Rights does not have any record of domestic wells completed into this unit in this area.

SPECIAL CONSIDERATIONS:

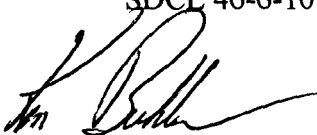
I. The well proposed to supply this permit was a converted "dry" oil well completed in 1980. The oil well completion focused on isolating the potential producer from water bearing zones, so only the bottom $\pm$ 1,000' of production casing was grouted. The result of this type of completion is that the

water bearing zones above the Minnelusa Formation (Greenhorn, Inyan Kara, Sundance, Minnekahta, and possibly even the Upper Minnelusa) producing strata are susceptible to communication and possible degradation. There is evidence that the Inyan Kara waters changed composition as the ground water migrated upward from the Minnelusa to the Lakota and Fall River Formations and then basinward within the Inyan Kara aquifers. (Keene, 1973). It has been hypothesized that the water moves between the aquifers through naturally occurring breccia pipes. However, Gries (personal communication, 1995) expressed skepticism concerning the role of breccia pipes and attributed improperly completed wells such as this to contributing significantly to the communication between aquifers. SDCL 46-6-10 requires that "The water management board shall require every well to be so constructed and finished as to prevent waste of its waters or underground leakage of these waters into other reservoirs." The current South Dakota Well Construction Standards do not allow this completion technique for water wells, regardless of whether the well is a converted oil well or originally constructed as a water well. In addition, locally, the water quality of the upper member of the Inyan Kara (Fall River Sandstone) is extremely corrosive to steel well casing, therefore structural integrity of this well's casing is also questionable.

II. ARSD 74:02:01:07 requires that map prepared by a South Dakota licensed land surveyor, a South Dakota registered professional engineer, or a government employee who regularly prepares such maps as part of employment shall be submitted as part of the application. The map included with this application does not meet this board requirement.

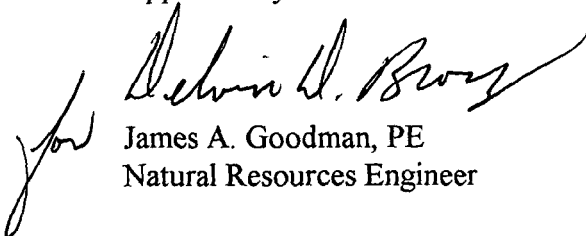
CONCLUSIONS:

1. This application proposes to appropriate 0.11 cfs from the Bell Sand which is a unit within the Minnelusa Formation.
2. Unappropriated water is available from the Bell Sand for this applicant's needs.
3. Interference with existing water rights is not expected to be a problem.
4. The construction of the well to be used supply this application is questionable. The completion does not meet the SD Well Construction Standards, and may be in violation of SDCL 46-6-10.



Ken Buhler
Natural Resources Engineer

Approved by:



James A. Goodman, PE
Natural Resources Engineer

REFERENCES:

Division of Water Rights, 1995, "Water Permit/Right Files and Domestic Well Log Files", DENR-Water Rights Division, Joe Foss Building, Pierre, SD 57501

Gries, J.P., 1995, Personal communication

Keene, J.R., 1973, Ground-Water Resources of Western Half of Fall River County, S.D., Report of Investigations, No. 109, SD Geological Survey, Vermillion, SD

Woodward Clyde, 1981, Well Field Hydrology Technical Report, for ETSI Coal Slurry Pipeline Project, U.S. Dept. of Interior, Bureau of Land Management

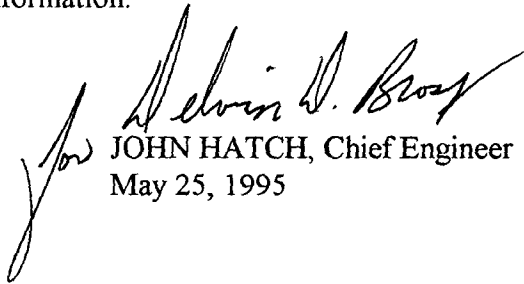
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2335-2, Advantage Resources, Inc.

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 2335-2, Advantage Resources, Inc., c/o Edward J. Ackman, 1775 Sherman Street, Suite 1375, Denver, CO 80203.

The Chief Engineer is recommending APPROVAL of Application No. 2335-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 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 with the following qualification:

The well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04 when the oil recovery project is completed.

See report on application for additional information.


JOHN HATCH, Chief Engineer
May 25, 1995



**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 NEWSPAPER RIGHT AWAY.

June 1, 1995.

Edward J. Ackman
Advantage Resources, Inc.
1775 Sherman Street, Suite 1375
Denver, CO 80203

Dear Mr. Ackman:

Water Permit Application No. 2335-2 for secondary recovery - oil well 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 Edgemont Herald-Tribune printed at Edgemont, SD (Ph # 605-662-7201). 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 newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has 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 newspaper has 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.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

June 1, 1995

Edgemont Herald-Tribune
Box 660
Edgemont, SD 57735-0660

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 2335-2 to be published twice. Please publish the first notice on June 7, 1995, 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 Advantage Resources, Inc., c/o Edward J. Ackman, 1775 Sherman Street, Suite 1375, Denver, CO 80203 (Ph # 303-831-1912).

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. 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 Division
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

Instruction to Newspaper - Publish first Notice on June 7, 1995, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 2335-2 to Appropriate Water

Notice is given that Advantage Resources, Inc., 1775 Sherman Street, Suite 1375, Denver, CO 80203 has filed an application for a water permit to appropriate 50 gallons per minute (0.11 cubic feet of water per second) from one well (Minnelusa Formation) 4240 feet deep located in the SW 1/4 SE 1/4 section 9-T12S-R1E. The water will be pumped from this well into injector wells using a water flood method. This is a secondary recovery method for oil production from area oil wells.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2335-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. 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 Division, 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 June 26, 1995.

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 Division address to request copies of information pertaining to this application. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County of Fall River) ss

I, Barb Bryan

certify that the attached printed Notice was

taken from the Edgemont
Herald-Tribune

printed and published in Edgemont

County of Fall River and State of

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

June 7, 1995

June 14, 1995

Cost of Printing: \$ 36.29

Barb Bryan
 (Signature)

Published/Editor
 (Title)

June 14, 1995
 (Date Signed)



#129
 NOTICE OF
 APPLICATION NO. 2335-2
 TO APPROPRIATE WATER

Notice is given that Advantage Resources, Inc., 1775 Sherman Street, Suite 1375, Denver, CO 80203 has filed an application for a water permit to appropriate 50 gallons per minute (0.11 cubic feet of water per second) from one well (Minnelusa Formation) 4240 feet deep located in the SW 1/4 SE 1/4 section 9-T12S-R1E. The water will be pumped from this well into injector wells using a water flood method. This is a secondary recovery method for oil production from area oil wells. Water will also be used for domestic and livestock purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2335-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. 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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 (June 7-14) (23-24)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

AUG 7 1995

Edward J. Ackman
Advantage Resources, Inc.
1775 Sherman Street, Suite 1375
Denver, CO 80203

Dear Mr. Ackman:

Enclosed is Water Permit No. 2335-2 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 Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 16, 2002

2335-2

Quinto Limited Partnership
PO Box 69
Edgemont, SD 57735

Dear Sir:

I am contacting you in regard to Water Permit No. 2335-2 listed in the name of Advantage Resources. Enclosed is a copy for your review.

It is our understanding that the current owner of the well is transferring ownership of the well to you. If this is the case, the water permit should also be transferred to your name. Enclosed is a partially completed Notice of Transfer of Ownership form for use in filing the ownership change. Please review the form and sign it in the presence of a notary public. Upon completion, please return the form to our office with a required filing fee of \$2.50. The check or money order for the fee can be made payable to the Water Rights Program.

If you have any questions concerning the permit or filing the transfer of ownership, please get in touch with me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352

enclosures

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

417151

Pierre, April 24, 20 02

RECEIVED OF Quinto LLC, Box 69, Edgemont, SD 57735

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. _____

Fee for Filing Transfer Form 2335-2

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

2 50

2 50

By

Darland Erbe
Chief Engineer
gm

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

RECEIVED

APR 24 2002

WATER RIGHTS
PROGRAM

No. 2335-2

Date: 4-24-02

I/We request that Water Permit No. 2335-2

formerly owned by: Advantage Resources, Inc, 1775 Sherman Street, Denver CO

be transferred to: (name & address) Quinto LLC, P.O. 69

Edgemont S.D. 57735

Telephone No. 605-459-2608

Title to the following described land(s)/property has been transferred as described above:

well location: SW ¼ SE ¼ Section 9, T12S, R1E

I/We understand that the validity of Water Permit No. 2335-2 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note). To be used for domestic use. Madison well

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

STATE OF SOUTH DAKOTA)

County of Fall River)

I/We Joe Falckenberg being first duly sworn on my oath depose and say that my relation to the above described undertaking is that of Owner, that I have read the above foregoing statement, and that I know of my own personal knowledge that the information herein stated is true.

Joe Falckenberg
(Signed by new owner)

Subscribed and sworn to before me this 23 day of April, 20 02

Judith Porter
(Notary Public)
My Commission Expires: 07-12-07

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 25, 2002

2335-2

Joe Falkenburg
Quinto LLC
PO Box 69
Edgemont, SD 57735-0069

Dear Mr. Falkenburg:

Thank you for following up on the ownership change for Water Permit No. 2335-2. The transfer has been completed. The water permit formerly listed in the name of Advantage Resources Inc., is now listed in the name of Quinto L.L.C.

Enclosed is your Receipt No. 417151 in the amount of \$2.50. If I can answer any questions for you, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

Permit No. 2335-2
Fall River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, 11/23/2009, made a thorough examination of the water use system constructed by **Quinto Limited Partnership** of **P.O. Box 69, Edgemont, SD 57735** holder of Permit No. 2335-2, bearing the priority of 04/03/1995 authorizing the diversion of 0.11 cu. ft. per second of the waters of the Bell Sand of the **Minnelusa Formation aquifer** for **domestic/livestock watering** purposes, in **Fall River** County.

Inspection contact & relationship **Joe Falkenburg—permit holder**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: P & M Petroleum Management—Big “A” Drilling
- 2) No. of Wells 1
- 3) Depth(s) 4,240 feet
- 4) Well log is available Yes
- 5) Comment: Log in file

Casing:

- 1) Diameter 8 5/8 inches Length 133 feet Type (see file)
- 2) Diameter 5 1/2 inches Length 4,305 feet Type (see file)

Screen:

- 1) Type Perforation
- 2) Length ~100 feet
- 3) Static water level 110-150 feet

Pump:

- 1) Make Grundfos
- 2) Model
- 3) Size 10 hp
- 4) Capacity 50 GPM

Motor:

- 1) Make Franklin

- 2) Model No. 2343285202
3) Horsepower rating 7.5 hp

B. Works used to transport water to place of use: (line from well to storage tank)

- 1) Type PVC 2) Size 3 inches 3) Length ~3,000 feet
1) Type PVC 2) Size 2 inches 3) Length ~7,000 feet

C. Works used to apply water to beneficial use:

20,000 gallon storage tank
3" main line from tank to house (~4 miles)
2" line from main line to watering tanks (~unknown length)

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period N/A
3) Exceptions to compliance are: list

The system is in good condition with the point of diversion located as follows: **625 feet north and 1,950 feet west of the southeast corner of Section 9, Township 12 South, Range 1 East, with approximate latitude/longitude coordinates of 43.01645, -10400177.** The works are capable of diverting and conveying to the place of use **0.11** cu. ft. per second of water which is to be used for **domestic/livestock watering.** Water has been put to beneficial use to the maximum extent as follows:

Water is pumped from the well to a 20,000 gallon storage tank located on top of the hill less than two miles north. From the storage tank, a 3-inch water main line flows (by gravity) approximately four miles southeast, to the house. Two-inch laterals come off the main to various tanks for livestock watering and the license should be issued for **0.11** cfs.

All structures, wells and lands on map **No, only the well and storage tank are on the map.**

Report of Examination of Works

Permit No. 2335-2

Comments or other permit(s) associated with the project:

The well for this permit was originally drilled as an oil test hole and converted to a water well. Current South Dakota Well Construction Standards do not allow this completion technique for water wells regardless of the purpose of the well.



Hayes Haas
Natural Resources Engineer
DENR, Water Rights Program

Date report completed: **5/26/2010**

Permit 2335-2
Quinto Ranch
Falkenburg



Hayes Haas

Hayes Haas
Natural Resources Engineer
DENR Water Rights Program
November 2009



South Dakota



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

May 28, 2010

2335-2

Joe Falkenburg
Quinto LTD Partnership
PO Box 69
Edgemont SD 57735

Dear Mr. Falkenburg:

On November 23, 2009 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 2335-2, was completed by Hayes Haas, 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".

Your 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 your water use system or payment of the fee, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6/2, 2010

RECEIVED OF Joe A Falkenburg PO Box 69 Edgemont SD 57735

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	50	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. <u>2335-2</u>		
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No. **04566**

By [Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

September 17, 2010

NOTICE

TO: Joe Falkenburg
Quinto LLC
PO Box 69
Edgemont SD 57735

FROM: Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Amendment of Qualification on Water Permit No. 2335-2, Quinto LLC

In 1995, Advantage Resources obtained a water permit to convert a "dry" oil well to a water supply well for secondary oil recovery. The water permit is enclosed. This water permit was transferred to Quinto LLC when Advantage Resources ceased the operation at this location

A condition placed on the original permit was for Advantage Resources to plug the well when the oil recovery project is complete. This condition was placed on the permit because the well construction does not comply with the South Dakota Well Construction Standards. Only a portion of the well casing was grouted (ie. sealed in the hole with cement). The standards require all of the casing to be grouted. This well is constructed in a manner that allows for potential communication and possible degradation between the water bearing zones. In addition, the upper member of the Inyan Kara (Fall River Sandstone) in this locality is corrosive to steel well casing raising concern for the structural integrity of the well. Ken Buhler's original report on the application is attached.

During the public notice phase of the permitting process, Nancy Faulkenberg called and requested that domestic and livestock watering be added as an intended use based on an agreement you as the landowner had with Advantage Resources. Subsequently, those uses were added while the plugging requirement remained. Now that Advantage Resources is not operating at this location and the well has been transferred to Quinto LLC, the qualification to plug the well is in conflict with the continuing livestock watering use being made. This matter came to Water Rights' attention when Hayes Haas, staff engineer was out last November to review the water system for the purpose of licensing the water right.

Pursuant to SDCL 46-1-14, the Water Management Board will conduct a hearing to amend the qualification at 9:00 AM (Central Time) on Tuesday, October 5, 2010 in the Floyd Matthew Training Center, Joe Foss Building 523 E Capitol Avenue, Pierre SD. As Chief Engineer, I am

recommending deletion of the qualification requiring plugging so you can continue using the well for livestock water purposes and addition of a new qualification requiring annual water level measurement and water quality analysis. This new qualification is an effort to show compliance with SDCL 46-6-10 by annually assessing the water level and a water quality parameter to detect if problems exist with the well's casing that may result in underground leakage and degradation of the Minnelusa Aquifer. See Attachment A for proposed new qualification. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) delete the qualification, 2) add qualifications, 3) defer, or 4) take no action based on the evidence presented at the hearing. The applicable statutes are attached for your reference.

Under state law, the owner of the property is the owner of the well. As such, the property owner has liability if the well becomes abandoned or forfeited for plugging the well. In addition, the well owner is responsible to keep the well in good repair, including preventing the waste of water through underground leakage. This is an issue that the owner must be aware of due to the well's construction.

If you have any questions, please contact Eric Gronlund at 605 773-3352.

Enclosures

C: Diane Best, Assistant Attorney General

Attachment A

Qualification to Water Permit No. 2335-2, Quinto LLC

The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once in April of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before June 1st of each year.

Applicable Statutes

- 46-1-14 Terms and conditions of permits and licenses--Amendment. The Water Management Board may issue any permit or license subject to terms, conditions, restrictions, qualifications, quantifications, or limitations on perpetuity consistent with this chapter which it considers necessary to protect the public interest and which are related to matters within the jurisdiction of the board. Water rights issued pursuant to this section may be amended by the board and priority is retained upon amendment. Upon amendment the board may alter terms, conditions, restrictions, qualifications, or quantifications consistent with this chapter.
- 46-6-10. Wells to be constructed so as to prevent waste--Methods of construction, specification by board. The Water Management Board shall require every well to be so constructed and finished as to prevent waste of its waters or underground leakage of these waters into other reservoirs. To this end it may specify methods of construction, kinds, size, and number of casings used, valves or other control devices to regulate artesian flow, and any other device or construction which may be necessary to prevent waste through faulty construction or through corrosion.

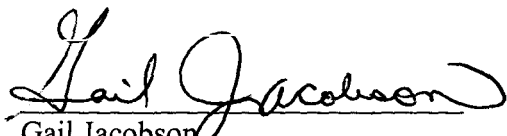
CERTIFICATION

I hereby certify that on September 17, 2010, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated September 17, 2010 regarding amendment of qualifications on 2335-2, Quinto LLC addressed as stated below:

Joe Falkenburg, Quinto LLC, PO Box 69, Edgemont SD 57735

A copy of the above described Notice was sent to:

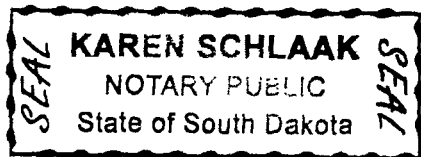
Diane Best, Assistant Attorney General, 300 N Dakota Ave., Suite 403, Sioux Falls SD 57104


Gail Jacobson
Secretary/Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 17th day of September, 20 10.


Karen Schlaak
Notary Public
My Commission expires April 1, 2013





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

September 29, 2010

NOTICE

TO: Joe Falkenburg
Quinto LLC
PO Box 69
Edgemont SD 57735

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Change in Hearing Date and Time for Amendment of Qualification on Water Permit
No. 2335-2, Quinto LLC

The hearing date and time before the Water Management Board to consider amendment to a qualification on Water Permit No. 2335-2 is rescheduled due to unexpected changes in the agenda. The current qualification required plugging of the well authorized by the water right once Advantage Resources completed its oil recovery project at this location. The Chief Engineer's recommendation is to delete the present qualification and replace it with proposed new qualification for annual water level measurement and electric conductivity analysis. The intent of the new qualification is to detect if problems are occurring with the well.

The Water Management Board will now conduct the hearing to amend the qualification on Water Permit No. 2335-2 at **9:30 AM (Central Time) on Wednesday, October 6, 2010** in the Floyd Matthew Training Center, Joe Foss Building 523 E Capitol Avenue, Pierre SD. Applicable provisions of the notice dated September 17, 2010 will still apply at this hearing

If you have any questions, please contact Eric Gronlund at 605 773-3352.

C: Diane Best, Assistant Attorney General

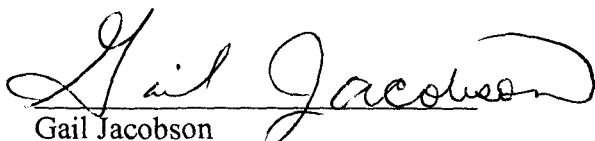
CERTIFICATION

I hereby certify that on September 29 2010, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated September 29, 2010 regarding a change of hearing time for 2335-2, Quinto LLC addressed as stated below:

Joe Falkenburg, Quinto LLC, PO Box 69, Edgemont SD 57735

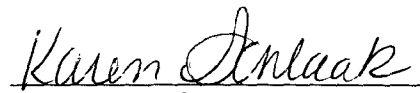
A copy of the above described Notice was sent to:

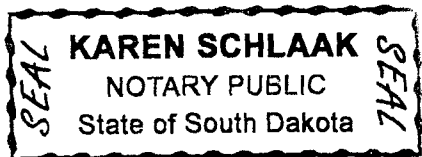
Diane Best, Assistant Attorney General, 300 N Dakota Ave., Suite 403, Sioux Falls SD 57104


Gail Jacobson
Secretary/Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 29th day of September, 2010.


Karen Schlaak
Notary Public
My Commission expires April 1, 2013



RECEIVED

SEP 3 0 2010

WATER RIGHTS
PROGRAM

To: Water Management Board

From: Quinto Ranch L.L.C.
Jodi K Thomsen
Box 69
Edgemont, SD 57735

Subject: Amendment of Qualification on Water Permit No. 2335-2, Quinto LLC

We, the Falkenburg and Thomsen families, are asking you to consider deleting the qualification requiring the plugging of the well on Water Permit No. 2335-2.

Quinto Ranch L.L.C. is a family owned cattle ranching operation and we live off the land. The natural environment is respected and we live in harmony with nature. Over the last 30 years, we have worked with the USFS, and other entities to introduce grazing plans in order to protect wildlife, water quality, and our cattle. We strive to control erosion and protect creek bottoms. Three generations currently work and live on Quinto Ranch.

In 1995, Advantage Resources ceased a secondary oil recovery on a well on our ranch. We were given permission to use the well for domestic and livestock watering purposes. This allowance has given us the chance to graze livestock on land, during a prolonged drought over the past 10 years. The dams in our area are often stagnate and not fit for livestock use, and unfortunately our ranch does not have other options for watering purposes.

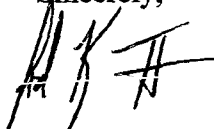
We live in a very poor, undeveloped, remote area of South Dakota. Our ranch is surrounded by Federal lands, and very few privately owned ranches. The land is not very productive. The local economy depends heavily upon private landowners and we depend heavily upon our water sources, so we can properly graze and maintain pasture conditions.

This well is our primary water source for our livestock, and there are no shallow water sources available. The static water level has not changed since we took over the well in 1995. There are only four water permit/rights from the Minnelusa Formation in all of Fall River County. The other permits are near Hot Springs, over 50 miles from our ranch. In 1995, nearly \$100,000 was spent by Advantage Resources on cementing to insure no leakage between zones, and no contamination of other water sources.

This water is extremely hard, but it has saved us from losing our ranch. This area suffered from an ongoing drought from 1999-2009, and we had to sell over 100 cow/calf pairs. The well saved us from losing the ranch. The land has little to no value without this well, as it is the only viable water source.

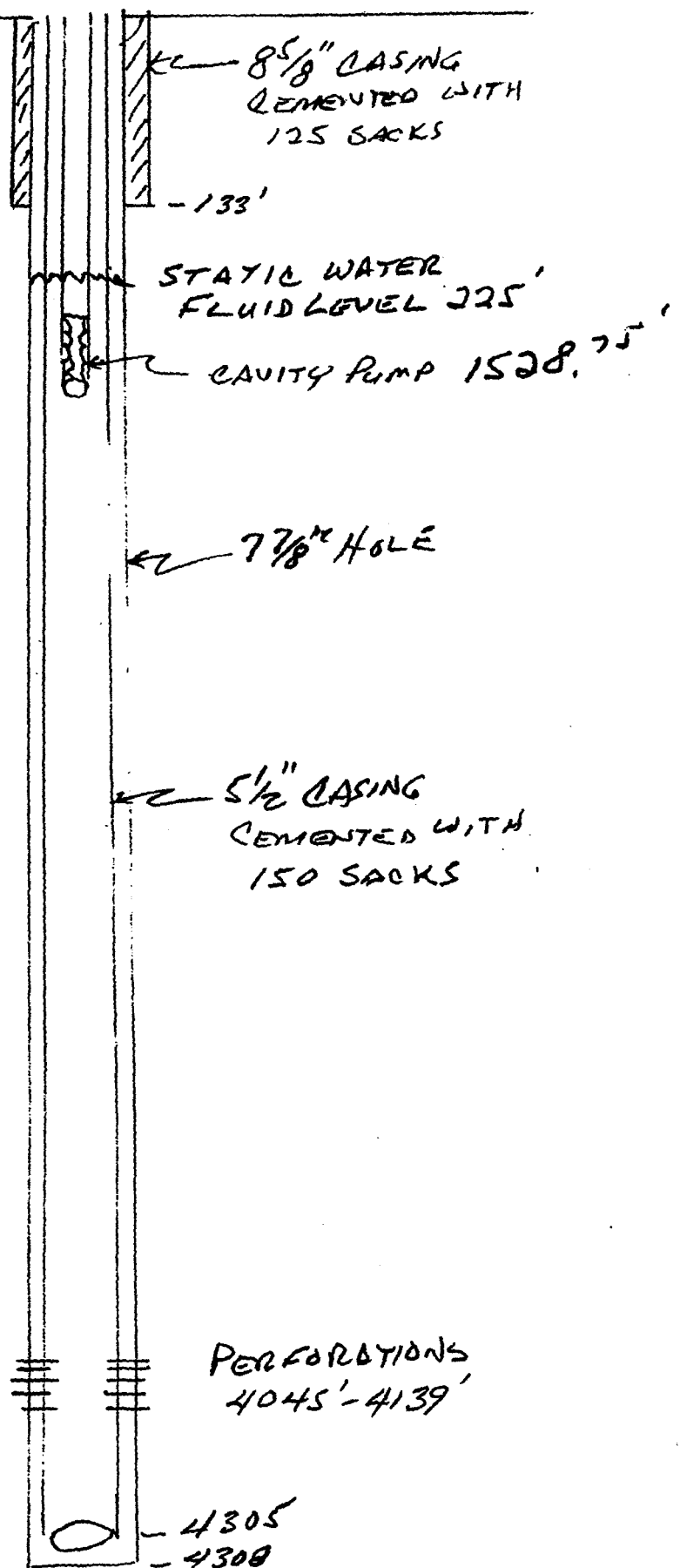
I have included more information for your viewing. Please allow us to continue using the well. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jodi K. Thomsen', with a stylized flourish at the end.

Jodi K. Thomsen

- Surface casing grouted 133'
- and approx 1000 feet of grout plus up the hole leaving approximately 2900 of ungrouted casing



NEWCASTLE, WYOMING

OPERATOR P & M Petroleum
WELL NO. Stagecoach Fede:
FIELD Indian Creek
COUNTY Fall River
STATE South Dakota

1-80 LAB NO. 33430
9-12S-1E
Sand
-4170

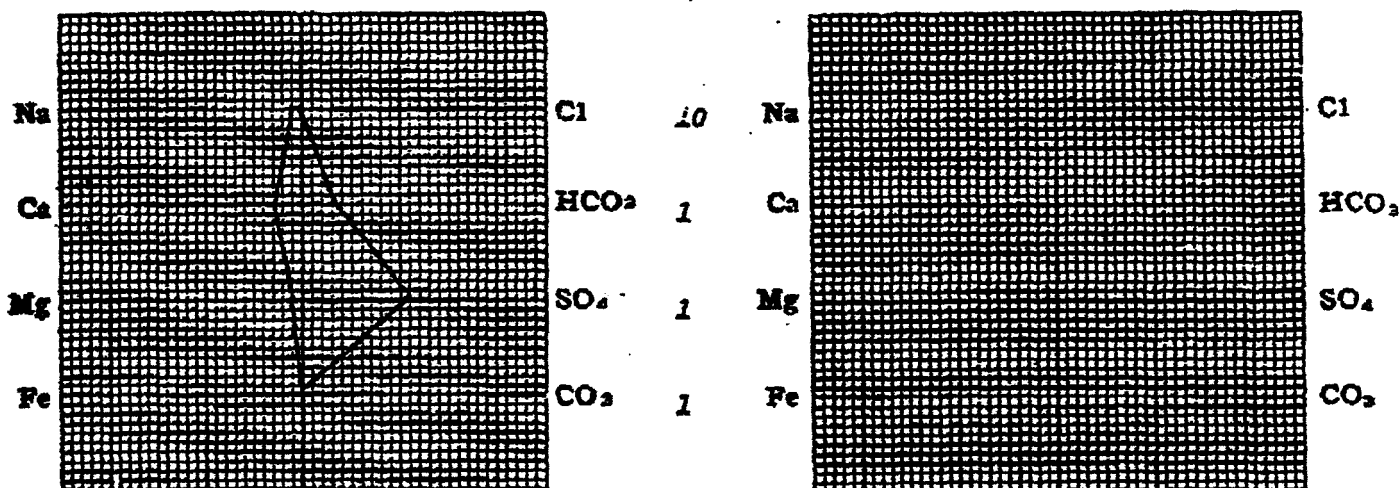
REMARKS & CONCLUSIONS:

Total hardness as CaCO_3 , mg/l ----- 248
Hard water. Mineral solids are at upper limit for domestic use.
This water would normally be classified as usable.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	214	9.30	Sulfate	540	11.23
Potassium	63	1.61	Chloride	58	1.64
Lithium	-	-	Carbonate	-	-
Calcium	78	3.89	Bicarbonate	183	3.00
Magnesium	13	1.07	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		15.87	Total Anions		15.87
Total dissolved solids, mg/l		10.56	Specific resistance @ 68°F.:		
NaCl equivalent, mg/l		755	Observed	7.40	ohm-meters
Observed pH		7.5	Calculated	7.80	ohm-meters

WATER ANALYSIS PATTERN

Sample above described Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l=Milligrams per liter Meq/l= Milligram equivalents per liter
Sodium chloride equivalent by Dunlop & Hawthorne calculation from components

25



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

OCT 22 2010

2335-2

Quinto LLC
Joe Falkenburg
PO Box 69
Edgemont SD 57735

Dear Mr. Falkenburg:

Enclosed is Water License No. 2335-2. This is the final water right document completing the process of obtaining a Water Right. Enclosed is the receipt for \$50.00 which you paid for the investigation and issuance of the Water License. Also, included with your license is a map prepared by the staff engineer who conducted the investigation.

On October 6, 2010, the Water Management Board amended the qualification on the permit as follows:

- The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once between April 1st through June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th of each year.

This condition is intended to assess the well's condition and detect if a problem exists. While this well is integral to your ranching operation, you need to be aware that the well's construction may pose future problems which will be the responsibility of the well owner.

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,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2335-2

(1) Advantage Resources, Inc. made Application No. 2335-2, April 3, 1995 for a water permit to divert 0.11 cubic feet of water per second from groundwater (one well), Fall River County, South Dakota for a secondary recovery method for oil production from area wells and for domestic and livestock purposes. Permit No. 2335-2, with a priority date of April 3, 1995 was approved June 26, 1995 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 26, 2000 and for the application to beneficial use of water on or before June 26, 2004.

On April 24, 2002, Water Permit No. 2335-2 was transferred to Joe Falkenburg, Quinto LLC, PO Box 69, Edgemont SD 57735.

An investigation conducted for licensing purposes found the existing well no longer being used for a secondary oil recovery project. The well is being used for domestic and livestock purposes only. On October 6, 2010, the Water Management Board amended the qualification on the permit to reflect the current usage [see (3) below].

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 2335-2 is issued a license, bearing a priority date of April 3, 1995 to appropriate 0.11 cubic feet of water per second from groundwater (one well) for domestic and livestock use.

The diversion point is located: 625 feet north and 1,950 feet west of the southeast corner of Section 9-T12S-R1E (SW ¼ SE ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 2335-2 including the following now applicable qualification:

- The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once between April 1st through June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th of each year.



Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 22 2010

date



2335-2

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Cheyenne, WY 800-598-7175 • Rapid City, SD 800-672-1225 • College Station, TX 800-888-2218

ANALYTICAL SUMMARY REPORT

June 10, 2011

Quinto Ranch
P O Box 69
Edgemont, SD 57735

Workorder No.: R11050497

Project Name: Water Right No. 457-2

RECEIVED

JUN 22 2011

WATER RIGHTS
PROGRAM

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Quinto Ranch on 5/31/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R11050497-001	Well No. 457-2	05/30/11 10:00	05/31/11	Drinking Water	Conductivity

Thank you for submitting your samples to Energy Laboratories, Inc. - Rapid City. The following pages contain the results of your sample analysis.

The samples were analyzed in accordance with the methods specified on the analytical reports. All analyses were accompanied by applicable quality assurance samples throughout the test. Where applicable, the results of these quality assurance samples will be included with your analytical data.

If you have any questions regarding the analyses performed or the results of these analyses, please feel free to call Linda Larson at (888)672-1225, (605)342-1225 or llarson@energylab.com.

Sincerely,

Jennifer Hartman
Inorganic Analyst/Supervisor
Energy Laboratories, Inc.
Rapid City, SD

Report Approved By:

SupervisorDigitally signed by
Jennifer Hartman
Date: 2011.06.13 11:17:06 -06:00

static water level 196'

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Glen Dale, WY 800-888-7175 • Rapid City, SD 800-872-1228 • College Station, TX 800-898-2218

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Quinto Ranch
Project: Water Right No. 457-2
Lab ID: R11050497-001
Client Sample ID Well No. 457-2

Report Date: 06/10/11
Collection Date: 05/30/11 10:00
Date Received: 05/31/11
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PARAMETERS							
Conductivity @ 25 C	1420	umhos/cm		5.0		A2510 B	06/07/11 13:25 / sp

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: Quinto Ranch LLC		Project Name, PWS, Permit, Etc. Water Right No. 457-2		Sample Origin State: S.D.		EPA/State Compliance: Yes ☐ No ☒	
Report Mail Address: Box 69 Edgemont S.D. 57735		Contact Name: Joe Falkenburg		Phone/Fax: 605-459-2608		Email: Joe Falkenburg	
Invoice Address: Box 69 Edgemont S.D. 57735		Invoice Contact & Phone: 605-459-2608		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats: ☐ DW ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____ ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC		Number of Containers Sample Type: AW/SVB/DW In Water Solids Vegetation Exposure Other DW - Drinking Water Conductivity		ANALYSIS REQUESTED SEE ATTACHED Standard Turnaround (TAT)		Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page Comments:	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX		Shipped by: Cooler ID(s): Receipt Temp 19.4 °C On Ice Y N Custody Seal On Bottle Y N On Cooler Y N Intact Y N Signature Match Y N	
Well No. 457-2		5-30	10:00	X		BUDSO490004	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Custody Record MUST be Signed		Relinquished by (print): Joe Falkenburg Date/Time: 5-31-11 10:00 Signature: Joe Falkenburg		Received by (print): Steve Falkenburg Date/Time: 5-31-11 15:00 Signature: Steve Falkenburg		Relinquished by (print): Steve Falkenburg Date/Time: 5-31-11 15:00 Signature: Steve Falkenburg	
Sample Disposal:		Return to Client:		Lab Disposal:			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

For more information, please visit our website at www.energy-lab.com for additional information, downloadable forms, and links.

RECEIVED

JUN 21 2012

WATER RIGHTS
PROGRAM

Mr. Buhler,

This is the conductivity and static level reports on the Advantage Deep Well.

If you need anything else please call me @ 459-2610 or fax @ 459-2609 or email @ bnjthom@hotmail.com.

Thanks,



Jodi Thomsen

The static level is 204 feet.

www.energylab.com
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Cottonwood, WY 866-886-7175 • Rapid City, SD 866-872-1225 • College Station, TX 800-688-2218

ANALYTICAL SUMMARY REPORT

June 14, 2012

Quinto Ranch
P O Box 69
Edgemont, SD 57735

RECEIVED

JUN 21 2012

WATER RIGHTS
PROGRAM

Workorder No.: R12060222

Project Name: Not Indicated

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Quinto Ranch on 6/13/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12060222-001	Advantage Deep Well	06/13/12 9:00	06/13/12	Aqueous	Conductivity

Thank you for submitting your samples to Energy Laboratories, Inc. - Rapid City. The following pages contain the results of your sample analysis.

The samples were analyzed in accordance with the methods specified on the analytical reports. All analyses were accompanied by applicable quality assurance samples throughout the test. Where applicable, the results of these quality assurance samples will be included with your analytical data.

If you have any questions regarding the analyses performed or the results of these analyses, please feel free to call Linda Larson at (888)672-1225, (605)342-1225 or llarson@energylab.com.

Sincerely,

Jennifer Hartman
Inorganic Analyst/Supervisor
Energy Laboratories, Inc.
Rapid City, SD

Report Approved By:

Branch Manager

Digitally signed by
Linda Larson
Date: 2012.06.14 11:51:16 -06:00



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: Quinto Ranch LLC		Project Name, PWS, Permit, Etc.		Sample Origin State:		EPA/State Compliance: Yes ☐ No ☐	
Report Mail Address: Box 69 Edgemont, SD 57735		Contact Name: Jodi		Phone/Fax: 605-459-2610		Email:	
Invoice Address: Box 69 Edgemont, SD 57735		Invoice Contact & Phone: FAX 459-2609		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats: ☐ DW ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____ ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC		Number of Containers Sample Type: A W S V B O DW Air Water Solids/Solids Vegetation Bioassay Other DW - Drinking Water		ANALYSIS REQUESTED SEE ATTACHED Standard Turnaround (TAT) RUSH		Contact ELD prior to RUSH sample submittal for charges and scheduling - See Instruction Page Comments:	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX		Shipped by: Cooler ID(s): Receipt Temp 28.6 °C On Ice: Y N Custody Seal On Bottle Y N On Cooler Y N Intact Y N Signature Match Y N	
ADVANTAGE DEEP WELL		6-13-12	9:00	CONC		212060222-001A	
Custody Record MUST be Signed		Received by (print): Jodi K. Thomsen	Date/Time: 6-13-12	Signature: Jodi K. Thomsen		Received by (print): Steve Fairland	
Sample Disposal:		Return to Client:		Lab Disposal:		Date/Time: 6-13-12	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.



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Gallatin, WY 800-888-7173 • Rapid City, SD 800-672-1225 • College Station, TX 800-688-2218

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Quinto Ranch
Project: Not Indicated
Lab ID: R12060222-001
Client Sample ID Advantage Deep Well

Report Date: 06/14/12
Collection Date: 06/13/12 09:00
Date Received: 06/13/12
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PARAMETERS							
Conductivity @ 25 C	916	umhos/cm		5.0		A2510 B	06/14/12 10:16 / nh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Joe Falkenburg
Project: Not Indicated
Lab ID: R13060227-001
Client Sample ID: Deep Well

Report Date: 06/29/13
Collection Date: 06/06/13 11:00
Date Received: 06/13/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
PHYSICAL PARAMETERS								
Conductivity @ 25 C	1880	umhos/cm		5.0		1	A2510 B	06/17/13 15:31/tb

State Water Dept 108'

RECEIVED

JUL 12 2013

**WATER RIGHTS
PROGRAM**

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: Joe Falkenburg	Project Name, PWS, Permit, Etc. .	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address (Required): 437 Edgemont Rd Harrison NE 69346	Contact Name:	Phone/Fax: 605-459-2608	Cell:
☐ No Hard Copy Email:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Invoice Address (Required):	Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water	ANALYSIS REQUESTED										SEE ATTACHED Standard Turnaround (TAT)	R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling - See instruction Page Comments:	Shipped by:		
☐ No Hard Copy Email:															Cooler ID(s):		
Special Report/Formats: ☐ DW ☐ EDD/EDT (Electronic Data) ☐ POTW/WWTP ☐ Format: _____ ☐ State: _____ ☐ LEVEL IV ☐ Other: _____ ☐ NELAC											Receipt Temp 27.4 °C						
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX											On Ice: Y N		
1 Deep Well		6-6-13	11:00		X											Custody Seal On Bottle Y N On Cooler Y N	
2																Intact Y N	
3																Signature Match Y N	
4																LABORATORY USE ONLY	
5																	
6																	
7																	
8																	
9																	
10																	

Custody Record MUST be Signed	Relinquished by (print): Joe Falkenburg	Date/Time: 6-13-13	Signature: <i>Joe Falkenburg</i>	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal:	Return to Client:	Lab Disposal:	Received by Laboratory: Steve Frailant	Date/Time: 6-13-13 1037	Signature: <i>Steve Frailant</i>

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.



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Analytical Excellence Since 1852

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Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-690-2218

ANALYTICAL SUMMARY REPORT

June 29, 2013

Joe Falkenburg
457 Edgemont Rd
Harrison, NE 69346

Workorder No.: R13060227

Project Name: Not Indicated

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Joe Falkenburg on 6/13/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R13060227-001	Deep Well	06/06/13 11:00	06/13/13	Aqueous	Conductivity

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2013.06.29 15:46:47 -06:00

2335-2

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LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Quinto Ranch
Project: Not Indicated
Lab ID: R14060222-001
Client Sample ID: Deep Well

Report Date: 06/16/14
Collection Date: 06/12/14 14:00
Date Received: 06/13/14
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/		Method	Analysis Date / By
					QCL	DF		
PHYSICAL PARAMETERS								
Conductivity @ 25 C	1370	umhos/cm		5.0		1	A2510 B	06/16/14 13:56/srb

S W/L = 200 feet
per 1 JULY 2014 phone call
with Joe FALKENBURG
& Jodi Thompson
KR

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

RECEIVED

JUN 19 2014



Chain of Custody and Analytical Request Record

Drinking Water Program Page ____ of ____

Company Name: Quinto Ranch LLC		Project Name, PWS, Permit, Etc.		Sample Origin State: SD		EPA/State Compliance: Yes ☐ No ☐	
Report Mail Address (Required): Box 69 Edgemont, SD 57735		Contact Name: Jodi Thomsen (PH) 605 459 2610		Phone/Fax: (F) 459 2609		Cell: Sampler: (Please Print)	
☐ No Hard Copy Email:		Invoice Contact & Phone:		Purchase Order:		Quote/Bottle Order:	
Invoice Address (Required): Box 69 Edgemont SD 57735		☐ No Hard Copy Email:		Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page		Shipped by:	
Special Report/Formats: ☐ DW ☐ EDD/EDT (Electronic Data) ☐ POTW/WWTP ☐ Format: _____ ☐ State: _____ ☐ LEVEL IV ☐ Other: _____ ☐ NELAC		Number of Containers Sample Type: AWS V B O DW Air Water Solids/Solids Vegetation Glossary Other DW - Drinking Water		ANALYSIS REQUESTED SEE ATTACHED Standard Turnaround (TAT)		Receipt Temp 23.4 °C On Ice: Y N	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		Custody Seal On Bottle Y N On Cooler Y N Intact Y N Signature Match Y N	
1 Deep Well		6-12		2:00		R U S H LABORATORY USE ONLY	
2							
3							
4							
5							
6							
7							
8							
9							
10							
Custody Record MUST be Signed		Relinquished by (print): Jodi Thomsen Relinquished by (print): Date/Time: 6-13-14 Signature: [Signature]		Received by (print): Received by (print): Date/Time: 6-13-14 1346 Signature: [Signature]		Signature: Signature:	
Sample Disposal: Return to Client		Lab Disposal:					

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

06/16/2014 MON 15:14 FAX 605 342 1397 Energy Laboratories, Inc.

005/005

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Greeley, WY 888-886-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-688-2210**ANALYTICAL SUMMARY REPORT**

June 16, 2014

Quinto Ranch
P O Box 69
Edgemont, SD 57735Work Order: R14060222
Project Name: Not Indicated

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Quinto Ranch on 6/13/2014 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R14060222-001	Deep Well	06/12/14 14:00	06/13/14	Aqueous	Conductivity

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

Digitally signed by
Theresa Bultsma
Date: 2014.06.16 14:34:32 -06:00



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

June 22, 2016

2335-2

Quinto LLC
Joe Falkenburg
PO Box 69
Edgemont SD 57735

Dear Mr. Falkenburg:

On October 6, 2010, the Water Management Board amended your Water Right No. 2335-2 (copy enclosed) for domestic and livestock purposes with the following qualification:

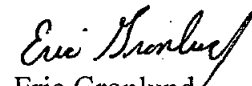
- The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once between April 1st through June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th of each year.

A review of Water Right No. 2335-2 indicates this information was last submitted June 19, 2014.

This condition is intended to assess the well's condition and detect if a problem exists. While this well is integral to your ranching operation, you need to be aware that the well's construction may pose future problems which will be your responsibility as the well owner.

If you have any questions, please contact me.

Sincerely,


Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

enclosure



MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

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2335-2

Page 1 of 1

Sample Site: Thomsen, Brad -
Quinto Ranch
Location: Deep Well SW Fall River
County
Sampled: 06/23/15 at 12:00 AM
Sample Matrix: Water

Lab ID#: 20150624861
Received: 06/24/15 at 04:35 PM
by Kate Shreves
Account: 8500 - Valued Customer...

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date	
Physical Properties								
Total Dissolved Solids	977	mg/L	100ml	8.28	50.0	SM 2540 C	JMO	06/25/15
Non-Metallics								
Alkalinity (CaCO3)	135	mg/L	1	0.411	10.0	SM 2320 B	JAM	06/26/15
Nitrogen, Nitrate (NO3)	< 0.050	mg/L	1	0.010	0.050	SM 4500-NO3 F	BLL	06/25/15
Sulfate (SO4)	566	mg/L	10	6.79	10.0	SM 4500-SO4 E	BLL	06/25/15

Report Approved By:

Steve Disten

Report Approved On: 6/29/2015 8:22:13 AM



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TESTING LABORATORIES, INC.

2335-2

Page 1 of 1

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 - www.thechemistrylab.com

Sample Site: Thomsen, Brad -
Quinto Ranch
Sampled: 06/27/16 at 01:00 PM
Sample Matrix: Water

Lab ID#: 20160627895
Received: 06/27/16 at 04:20 PM
by Kate Shreves
Account: 8500 - Valued Customer...

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Physical Properties							
Electrical Conductivity	1490	µmhos/cm	1	0.400	5.00	SM 2510B	JAM 06/29/16

Report Approved By:

Steve Disten

Report Approved On: 6/30/2016 8:48:32 AM

Static Water level
tested via airline
attached to pump.
Pump at 750'. 215 pounds
per square inch $\times 2.31 =$
496.65 total feet of water
over pump subtracted from
750 = static level @ 253.35
feet

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VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

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JUN 20 2018

WATER RIGHTS
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Sample Site:

Sampled:

Sample Matrix:

Thomsen, Brad -
Quinto Ranch

05/23/18 at 12:00 AM
by Brad Thomsen

Water

Lab ID#: 20180523926

Received: 05/23/18 at 03:50 PM
by Tanya Nelsen

Account: 8500 - Valued Customer...

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Physical Properties							
Electrical Conductivity	1360	µmhos/cm	1	0.470	5.00	SM 2510B	JAM 05/24/18

Report Approved By:

Steve Distau

Report Approved On: 5/25/2018 11:05:08 AM

Chief Engineer,

*Please include this
water level and conductivity
in our file for our well.
permit # 2335-2*

+ Thank you

Brad Thomsen

Quinto Ranch LLC

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GWPD 13—Measuring water levels by use of an air line

115

JUN 20 2018
WATER RIGHTS
PROGRAM

WATER-LEVEL MEASUREMENT FIELD FORM

Air Line Measurement: Pressure Gauge



SITE INFORMATION

SITE ID (C1)	Equipment ID & Pressure Range	k = Air-line Constant (k)	Date of Field Visit
Quinto Ranch LLC			
		Station name (C12)	

WATER-LEVEL DATA

	1	2	3	4	5
Time					
Gauge Reading	210 psi				
Gauge Correction					
Corrected Gauge Reading					
Conversion to Feet (x 2.307)	484.47				
Air-Line Constant, K	750				
WL Below MP	265.53				
MP Correction					
WL Above LSD					

Measured by Brad Thomsen COMMENTS*

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)	BEGINNING DATE (C321)	ENDING DATE (C322)	M.P. HEIGHT (C323) NOTE: (-) for MP below land surface
	month day year	month day year	
	month day year	month day year	

Final Measurement for GWSI

WATER LEVEL TYPE CODE (C243)

L	M	S
below	land	sea
land	meas.	level
surface	pt.	

DATE WATER LEVEL MEASURED (C235)

TIME (C709)

STATUS (C238)

METHOD (C239)

TYPE (C243)

WATER LEVEL (C237)

06-10-2018
month day year

A

265.53

METHOD OF WATER-LEVEL MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gage	calibrated press. gage	geophysical logs	manometer	non-rec. gage	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS FOR WATER LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently	flowing	nearby	nearby	injector	injector	plugged	measure	obstruc	pumping	recently	nearby	nearby	foreign	well	surface	other	static

Figure 3. Water-level measurement field form for air line measurement using a pressure gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.



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SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

July 13, 2020

Quinto LLC
Joe Falkenburg
PO Box 69
Edgemont SD 57735

Dear Mr. Falkenburg:

On October 6, 2010, the Water Management Board amended your Water Right No. 2335-2 (copy enclosed) for domestic and livestock purposes with the following qualification:

- The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once between April 1st through June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th of each year.

A review of Water Right No. 2335-2 indicates this information was last submitted June 20, 2018.

This qualification is intended to assess the well's condition and detect if a problem exists. While this well is integral to your ranching operation, you need to be aware that the well's construction may pose future problems which will be your responsibility as the well owner.

If you have any questions, please contact me.

Sincerely,

Adam Mathiowetz, PE
Water Rights Program
605 773-3352
adam.mathiowetz@state.sd.us

enclosure

8/1/2020



WATER-LEVEL MEASUREMENT FIELD FORM Air Line Measurement: Altitude Gauge



SITE INFORMATION

Equipment ID & Altitude Range _____ k = _____
 Air-line Constant (k) _____ Date of Field Visit _____
 SITE ID (C1) Spearhead Ranch LC Station name (C12) _____

WATER-LEVEL DATA

	1	2	3	4	5
Time					
Gauge Reading	220psi				
Gauge Correction					
Corrected Gauge Reading	508.2				
Air-Line Constant, K	750				
WL Below MP	241.8				
MP Correction					
WL Above LSD					

Measured by Brad Thomsen COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324) _____
 BEGINNING DATE (C321) 08-01-2020 ENDING DATE (C322) _____
 M.P. HEIGHT (C323) NOTE: (-) for MP below land surface 241.80

Final Measurement for GWSI

DATE WATER LEVEL MEASURED (C235) 08-01-2020 TIME (C709) _____ TIME DATUM (C402) _____ STATUS (C238) _____ METHOD (C239) A TYPE (C243) _____
 WATER LEVEL TYPE CODE (C243) LMS WATER LEVEL (C237) 241.80
 below below sea land meas. level surface pt.

METHOD OF WATER-LEVEL MEASUREMENT (C239)

GWPD 13
 A B C E G H L M N R S T V Z
 airline, analog, calibrated airline, estimated, pressure gage, calibrated press. gage, geophysical logs, manometer, non-rec. gage, reported, steel tape, electric tape, calibrated elec. tape, other

SITE STATUS FOR WATER LEVEL (C238)

D E F G H I J M N O P R S T V W X Z BLANK
 dry, recently flowing, flowing, nearby flowing, nearby recently flowing, injector site, injector site monitor, plugged, measurement discon., obstruction, pumping, recently pumped, nearby pumping, nearby recently pumped, foreign substance, well destroyed, surface water effects, other, static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.

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AUG 14 2020

WATER RIGHTS PROGRAM



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TESTING LABORATORIES, INC.

Page 1 of 1

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*Deep Well
2020*

Sample Site: Thomsen, Brad -
Spearhead Ranch LLC.
Sampled: 07/27/20 at 03:00 PM
Sample Matrix: Water

Lab ID#: 20200728814
Received: 07/28/20 at 09:35 AM
by System Account
Account: 8500 - Valued Customer...

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date	
Physical Properties								
Electrical Conductivity	1840	µmhos/cm	1	0.237	5.00	SM 2510B	JAM	07/29/20
Total Dissolved Solids	1250	mg/L	100ml	14.7	50.0	SM 2540 C	JNM	07/29/20
Non-Metallics								
Alkalinity (CaCO3)	127	mg/L	1	0.226	10.0	SM 2320 B	JAM	07/31/20
Nitrogen, Nitrate (NO3)	< 0.050	mg/L	1	0.009	0.050	SM 4500-NO3 F	BLL	07/29/20
Sulfate (SO4)	732	mg/L	10	5.08	100	SM 4500-SO4 E	BLL	07/29/20
Bacteria								
E. coli	Absent		1			SM 9223 B (P/A)	JMH	07/28/20
Total Coliform	Absent		1			SM 9223 B (P/A)	JMH	07/28/20

Notes:
House

Report Approved By:

Steve Pistan

Report Approved On: 8/3/2020 7:53:53 AM

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AUG 14 2020
WATER RIGHTS
PROGRAM

2335-2



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SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

August 13, 2020

Brad Thomsen
Spearhead Ranch LLC
PO Box 69
Edgemont SD 57735

RE: Water Right Nos. 457-2, 2335-2 and Vested Water Right Nos. 1896-2, 1897-2 & 1898-2

Dear Mr. Thomsen:

I am writing in follow-up to your phone conversation with Adam Mathiowetz in our program about the need for an ownership/name change for all water rights held by Quinto LTD or Quinto LLC.

Enclosed are partially completed "Notice of Transfer of Ownership" forms for use in filing the changes. Please review and complete as needed. Upon completion, please sign and return the forms to our office with a required filing fee of \$50 each (total of \$250). The check or money order for the fee can be made payable to the Water Rights Program.

If needed, I can send you copies of the water rights if you do not have them or you can download them from our website at: <https://denr.sd.gov/des/wr/wr.aspx> Once you get to the website, the left hand side of the page is a link to databases. Click on databases and then on water rights. You will be able to enter in a water right number and view the entire administrative file for each one.

Also included is a non-irrigation water permit application form and instruction sheet. Please give us a call if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Genny McMath".

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

enclosures

2335-2

RECEIPT

WATER RIGHTS PROGRAM
 South Dakota Department of Environment and Natural Resources

Date August 27, 2020RECEIVED OF Spearhead Ranch LLC PO Box 69 Edgemont SD 57735

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. _____	\$
Fee for Filing Transfer Form <u>2335-2</u>	\$50.00
Fee for _____	\$
Fee for Issuing New Well Driller's License No. _____	\$
Fee for Renewal of Well Driller's License No. _____	\$
Fee for Issuing Well Pump Installer's License No. _____	\$
Fee for Renewal of Well Pump Installer's License No. _____	\$
(Any Other Work Provided by Law)	
TOTAL	\$50.00

By *Eric Bronlund*
 Chief Engineer

VM

NOTICE OF TRANSFER OF OWNERSHIP

PAID

AUG 27 2020

Ck# 1125

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

RECEIVED

AUG 27 2020

WATER RIGHTS
PROGRAM

No. 2335-2

Date: 8/18/2020

I/We request that Water Right No. 2335-2

formerly owned by: Quinto LLC

be transferred to: (name & address)

Speechwood Ranch LLC

Po Box 69

Edgemont SD 57735 Telephone No. 605 459 2610

Title to the following described land(s)/property has been transferred as described above:

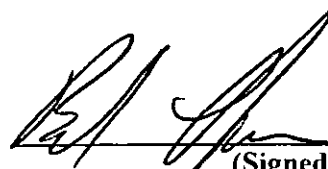
Well: SW ¼ SE ¼ Section 9, T12S, R1E

I/We understand that the validity of Water Right No. 2335-2 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We Brad Thomsen, the new owner, certify that the above information is true and correct.



(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

2335-2



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

August 28, 2020

Brad Thomsen
Spearhead Ranch LLC
PO Box 69
Edgemont SD 57735-0069

RE: Water Right Nos. 457-2 & 2335-2 and Vested Water Right Nos. 1896-2, 1897-2 & 1898-2

Dear Mr. Thomsen:

I am writing to acknowledge receipt of the transfer forms and filing fees you submitted for changing ownership on the above listed water rights and vested water rights.

The changes have been completed. Water Right Nos. 457-2 & 2335-2 and Vested Water Right Nos. 1896-2, 1897-2 & 1898-2 formerly listed under Quinto LTD or Quinto LLC are now listed under Spearhead Ranch LLC.

Enclosed for your records are receipts for the filing fees that were paid. If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Genny McMath". The signature is fluid and cursive, written in a professional style.

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

enclosures



2335-2

**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

December 6, 2021

Brad Thomsen
Spearhead Ranch LLC
PO Box 538
Edgemont SD 57735-0069

Mr. Thomsen:

I am writing to acknowledge receipt of the required annual electrical conductivity and water level data measurements for the well authorized by Water Right No. 2335-2. We greatly appreciate the timeliness of this information.

If you have any questions or concerns, feel free to contact us at (605) 773-3352.

Sincerely,

Adam Mathiowetz
Natural Resources Engineer
SD DANR-Water Rights Program



MIDCONTINENT
TESTING LABORATORIES, INC.

2335-2

Page 1 of 1

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 — www.thechemistrylab.com

Sample Site: Thomsen, Brad -
Spearhead Ranch LLC.

Sampled: 11/04/21 at 12:00 AM
Sample Matrix: Water

Lab ID#: 20211104849
Received: 11/04/21 at 04:22 PM
by Jennifer Hill
Account: 8500 - Valued Customer...

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
-----------	--------	-------	----	-----	-----	--------	--------------

Physical Properties

Electrical Conductivity	1470	µmhos/cm	1	0.153	5.00	SM 2510B	JAM 11/08/21
-------------------------	------	----------	---	-------	------	----------	--------------

Report Approved By:

Steve Pistau

Report Approved On: 11/10/2021 9:21:09 AM

pulled pump for repairs
on Aug 10th, 2021
Static Water Level
was at 240 feet.



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TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 — www.thechemistrylab.com

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

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NOV 09 2022

Page 1 of 1

OFFICE OF
WATER
Sample Site: Thomsen, Brad -
Spearhead Ranch LLC.
Sampled: 11/01/22 at 11:00 AM
Sample Matrix: Water

Lab ID#: 20221102843
Received: 11/02/22 at 02:40 PM
by Jennifer Hill
Account: 8500 - Valued Customer...

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Physical Properties							
Electrical Conductivity	1630	µmhos/cm	1	0.200	5.00	SM 2510B	JAM 11/03/22

Report Approved By:

Steve Pistau

Report Approved On: 11/4/2022 9:39:17 AM

2022

NOV 09 2022



WATER-LEVEL MEASUREMENT FIELD FORM

Air Line Measurement: Altitude Gauge



SITE INFORMATION

SITE ID (C1)

Equipment ID & Altitude Range

k =

Air-line Constant (k)

Date of Field Visit

Spearhead Ranch

Station name (C12)

WATER-LEVEL DATA

1

2

3

4

5

Time

Gauge Reading

Gauge Correction

Corrected Gauge Reading

Air-Line Constant, K

WL Below MP

MP Correction

WL Above LSD

		750		
200 psi	x 2.307	= 461.4		
		288.6		
750 ft				
288.6				

Measured by _____ COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)

BEGINNING
DATE
(C321)ENDING
DATE
(C322)M.P. HEIGHT (C323)
NOTE: (-) for MP
below land surface

month	day	year	month	day	year	feet	inches

Final Measurement for GWSI

WATER LEVEL TYPE
CODE (C243)

L	M	S
below	below	sea
land	meas.	level
surface		pt.

DATE WATER LEVEL MEASURED
(C235)TIME
(C709)TIME DATUM
(C402)STATUS
(C238)METHOD
(C239)TYPE
(C243)WATER LEVEL
(C237)

month	day	year	hour	minute	second	status	method	type	feet	inches
9	20	2022					A		288	60

GWPD 13

METHOD OF WATER-LEVEL
MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gage	calibrated press. gage	geophys- ical logs	manometer	non-rec. gage	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS
FOR WATER
LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently flowing	flowing	nearby flowing	nearby recently flowing	injector site	injector site monitor	plugged	measure- ment discon.	obstruc- tion	pumping	recently pumped	nearby pumping	nearby recently pumped	foreign sub- stance	well des- troyed	surface water effects	other	static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.



WATER-LEVEL MEASUREMENT FIELD FORM Air Line Measurement: Altitude Gauge



2023

SITE INFORMATION

SITE ID (C1)	Equipment ID & Altitude Range	k = Air-line Constant (k)	Date of Field Visit
Spearhead Ranch			
		Station name (C12)	

WATER-LEVEL DATA

	1	2	3	4	5
Time			750 ±1		
Gauge Reading	212 psi	X 2.307 =	489.084		
Gauge Correction			260.9		
Corrected Gauge Reading					
Air-Line Constant, K	750				
WL Below MP	260.9				
MP Correction					
WL Above LSD					

Measured by _____ COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)	BEGINNING DATE (C321)	ENDING DATE (C322)	M.P. HEIGHT (C323) NOTE: (-) for MP below land surface
	month day year	month day year	
	month day year	month day year	

Final Measurement for GWSI

WATER LEVEL TYPE CODE (C243)

L M S

DATE WATER LEVEL MEASURED (C235)

TIME (C709)

TIME DATUM (C402)

STATUS (C238)

METHOD (C239)

TYPE (C243)

WATER LEVEL (C237)

9-30-2023
month day year

GWPD 13

METHOD OF WATER-LEVEL MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gage	calibrated press. gage	geophysical logs	manometer	non-rec. gage	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS FOR WATER LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently flowing	flowing	nearby flowing	nearby recently flowing	injector site	injector site monitor	plugged	measure-ment discon.	obstruction	pumping	recently pumped	nearby pumping	nearby recently pumped	foreign substance	wall destroyed	surface water effects	other	static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.

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NOV 20 2023

OFFICE OF
WATER



MIDCONTINENT

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2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

VALUED CUSTOMER
2381 S. PLAZA DR.
RAPID CITY, SD 57702

Sample Site: Thomsen, Brad -
Spearhead
Ranch LLC.

Location: D. Well

Sampled: 09/13/23 at 12:00 AM

Sample Matrix: Water

Lab ID#: 20230914855

Received: 09/14/23 at 03:10 PM
by Jennifer Hill

Account: 8500 - Valued
Customer...

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Physical Properties							
Electrical Conductivity	1470	µmhos/cm	1	0.168	5.00	SM 2510B	JAM 09/19/23

Report Approved By:

Steve Distau

Report Approved On: 9/19/2023 2:21:19 PM

RECEIVED

NOV 20 2023

OFFICE OF
WATER



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

2335-2

April 3, 2024

Spearhead Ranch LLC
c/o Brad Thomsen
PO Box 538
Edgemont SD 57735

Mr. Thomsen:

This letter is a reminder to submit your required annual static water level and electric conductivity water sample data, on or before July 15, 2024, for Water Right No. 2335-3, as required by the Water Management Board.

On October 6, 2010, the Water Management Board amended Water Right No. 2335-2, for domestic and livestock purposes with the following qualification:

“The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours once between April 1st and June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th of each year.”

A copy can be obtained from our webpage or by contacting the Water Rights Program.

A review of Water Right No. 2335-2 indicates this information was last submitted November 20, 2023. This qualification is intended to assess the well's condition and detect if a problem exists. While this well is integral to your ranching operation, you need to be aware that the well's construction may pose future problems which will be your responsibility as the well owner.

If you have questions, feel free to contact our office at 605-773-3352.

Sincerely,

Amanda Dewell
Water Rights Permitting Administrator
605-773-3352
amanda.dewell@state.sd.us

2335-2

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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. _____ Hydrologic Unit _____
	Basin _____
	Newspaper _____
	(office use only)

Application for Permit to Appropriate Water in South Dakota

Check use(s) of water:

☐
☐
☒

Municipal
Rural Water System
Domestic (over 18 gpm)

☐
☐
☐

Water Distribution System
Commercial
Industrial

☐
☐
☐

Recreational
Fish & Wildlife
Other _____

☐
☐

Institutional
Geothermal

Type of Application:
(check one)

☐
☐
☐

New

☐

Vested Right (Use predates Mar 2, 1955)

☐

Future Use Reservation

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 to Appear on Water Permit Spearhead Ranch LLC, c/o Brad Thomsen

Mailing Address PO BOX 69

(Address)

Edgemont

(City)

SD 57735

(State)

(Zip Code)

Phone 605-459-2610

Mobile 308-665-5812

Email bnjthom@hotmail.com

2. Amount of water claimed N/A *CFS or N/A **GPM and N/A ***AF or N/A Gallons

Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam dugout or annual use)

3. Source of water supply ~~MNLS Aquifer~~ Madison Aquifer

4. Location of point of diversion SE 1/4, SW 1/4, Sec 9-125-1E

(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County Fall River

If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☐ No

If "Yes," where will water be used? _____

(example - NW 1/4 section 12-T104N-R53W)

5. County or counties where water will be used Fall River

6. Annual period during which water is to be used 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)

Requesting permission for test well. Looking to replace old well authorized by Water Right No 2335-2

I, Brad Thomsen Spearhead Ranch LLC, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

2021-08

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable)

☒ Drilling new well(s) ☐ Using existing well(s)

- a) If new wells, how many 1 Have test holes been drilled? ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)
- b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

- c) Well Depth (required) 4000 Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____
- d) Distance to nearest domestic well on applicant's property _____ Property owned by others _____

2. Wastewater Disposal System Information

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

3. Dugout Information

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

4. Water Storage Dams

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 (e.g. 3 to 1 is a typical slope)

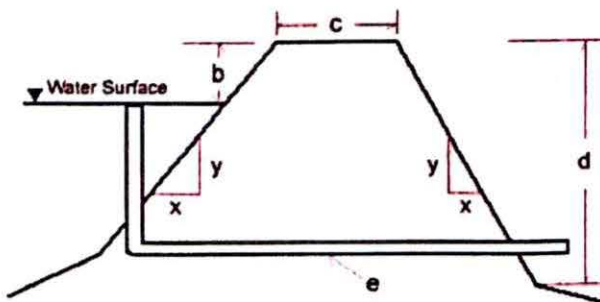
Upstream _____

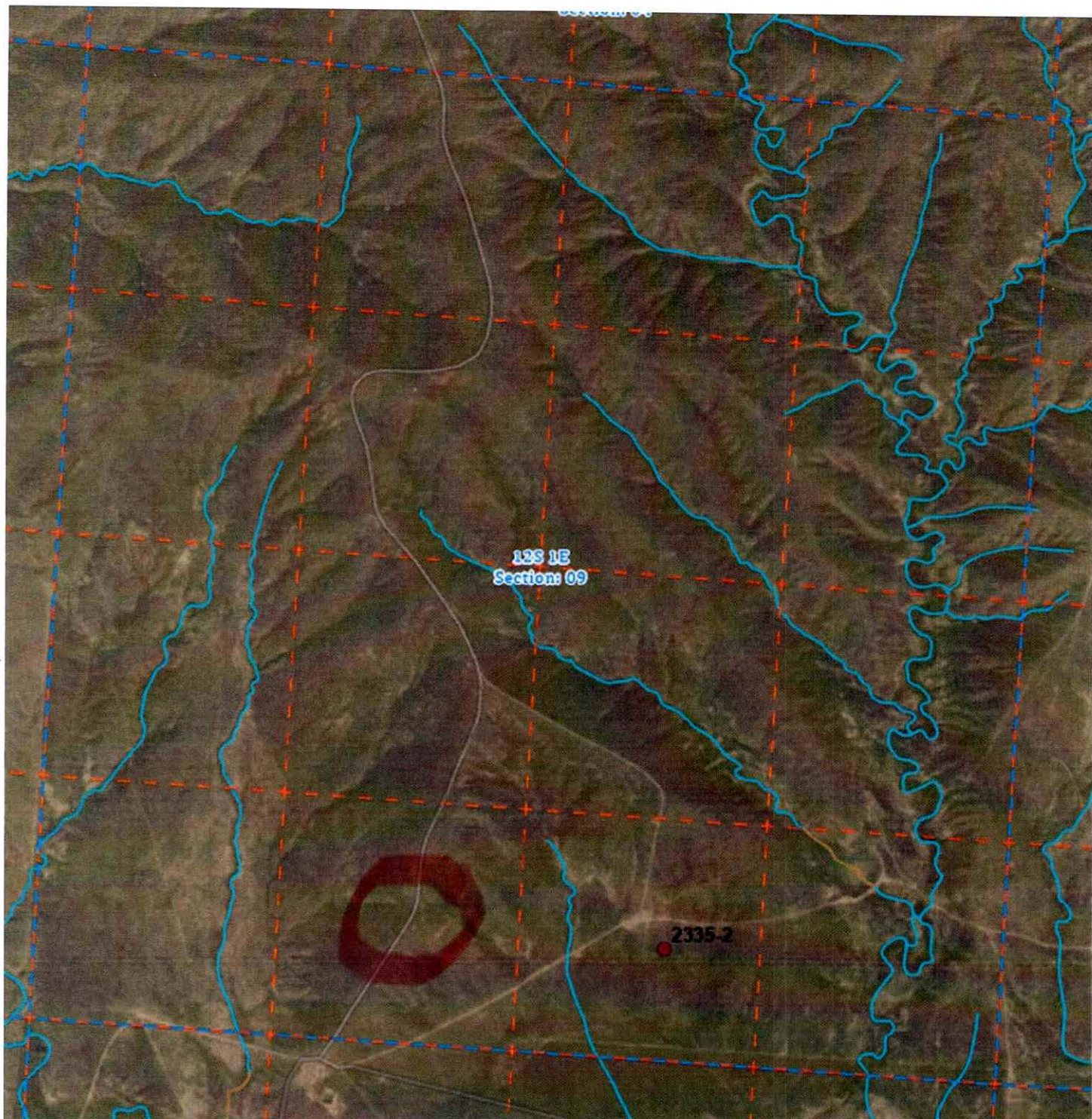
Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres







**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 21, 2024

Spearhead Ranch LLC
Brad Thomsen
PO Box 69
Edgemont SD 57735

Dear Mr. Thomsen:

As requested by email on May 21, 2024 pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to have a South Dakota Licensed Well Driller construct a test well prior to approval of a water permit. The test well will be located in the SE ¼ SW ¼ Sec. 9-T12S-R1E in Fall River County. The well will be approximately 4,400 feet deep. The target aquifer is the Madison aquifer. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes or test wells that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used in excess of domestic use as defined by South Dakota Codified Law 46-1-6(7) or for uses other than domestic use. All test or permanent wells to be constructed under this test well permission must be constructed using the methods described in Administrative Rule of South Dakota (ARSD) 74:02:04:28. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit. If you have questions regarding permitting, please call Amanda Dewell at (605) 773-3352.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605)773-3352

2335-2



WATER-LEVEL MEASUREMENT FIELD FORM

Air Line Measurement: Altitude Gauge



SITE INFORMATION

SITE ID (C1)

Equipment ID & Altitude Range

 $k =$
 Air-line Constant (k)

Date of Field Visit

Spearhead Ranch

Station name (C12)

WATER-LEVEL DATA

1

2

3

4

5

Time

Gauge Reading

Gauge Correction

Corrected Gauge Reading

Air-Line Constant, K

WL Below MP

MP Correction

WL Above LSD

205	x	2.307	=	472.9
				277.1
750 ft				

Measured by _____ COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)

BEGINNING
DATE
(C321)ENDING
DATE
(C322)M.P. HEIGHT (C323)
NOTE: (-) for MP
below land surface

month	day	year	month	day	year	feet	inches

Final Measurement for GWSI

WATER LEVEL TYPE
CODE (C243)

L M S

below below sea
land meas. level
surface pt.DATE WATER LEVEL MEASURED
(C235)TIME
(C709)TIME DATUM
(C402)STATUS
(C238)METHOD
(C239)TYPE
(C243)WATER LEVEL
(C237)

month	day	year	hour	minute	second	datum	status	method	type	water level
5	5	2024						A		277.10

GWPD 13

METHOD OF WATER-LEVEL
MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gauge	calibrated press. gauge	geophys- ical logs	manometer	non-rec. gauge	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS
FOR WATER
LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently flowing	flowing	nearby flowing	nearby recently flowing	injector site	injector site monitor	plugged	measure- ment discon.	obstruc- tion	pumping	recently pumped	nearby recently pumped	nearby recently pumped	foreign sub- stance	well des- troyed	surface water effects	other	static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.

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JUN 13 2024

OFFICE OF
WATER

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date	
<u>Physical Properties</u>								
Electrical Conductivity	1480	umhos/cm	1	0.363	5.00	SM 2510B	JAM	06/04/24

Report Approved By:

Steve Distau

Report Approved On: 6/4/2024 1:07:34 PM

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JUN 13 2024

OFFICE OF
WATER



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

April 2, 2025

2335-2

Spearhead Ranch LLC
c/o Brad Thomsen
PO Box 538
Edgemont SD 57734

Dear Mr. Thomsen:

This letter is a reminder to submit your required annual static water level and electric conductivity water sample date, no later than July 15, 2025, for Water Right No. 2335-3, as required by the Water Management Board.

On October 6, 2010, the Board amended Water Right No. 2335-2, for domestic and livestock purposes, with the following qualification:

“The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours, once between April 1st and June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually, by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th, of each year.”

A copy may be obtained from our webpage, or by calling the Water Rights Program.

A review of Water Right No. 2335-2 indicated this information was last submitted on July 13, 2024.

~~This qualification is intended to assess the well's condition and detect if a problem exists. While this~~
well is integral to your ranching operation, you need to be aware that the well's construction may pose future problems which will be your responsibility as the well owner.

If you have questions, please contact Adam Mathiowetz, with our Program at (605) 773-3352.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us



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TESTING LABORATORIES, INC.

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JUL 15 2025

2335-2

Page 1 of 1

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

OFFICE OF
WATER

Sample Site: Old Deep Well
Sampled: 06/26/25 at 08:00 AM
by Brad
Sample Matrix: Water

Lab ID#: 20250626819
Received: 06/26/25 at 12:18 PM
by Josh Bucknall
Account: 4193
Thomsen, Brad

BRAD THOMSEN
PO BOX 538
EDGEMONT, SD 57735

Spearhead Ranch LLC

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
<u>Physical Properties</u>							
Electrical Conductivity	1470	µmhos/cm	1	0.168	5.00	SM 2510B	JAM 07/01/25

Approved By: _____

Steve Piston

Approved On: 7/1/2025 1:40:35 PM

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JUL 15 2025

OFFICE OF
WATER

114 Groundwater Technical Procedures of the U.S. Geological Survey

2025



WATER-LEVEL MEASUREMENT FIELD FORM

Air Line Measurement: Altitude Gauge



SITE INFORMATION

SITE ID (C1)

Equipment ID & Altitude Range

k =

Air-line Constant (k)

Date of Field Visit

Spearhead Ranch

Station name (C12)

WATER-LEVEL DATA

Time

Gauge Reading

Gauge Correction

Corrected Gauge Reading

Air-Line Constant, K

WL Below MP

MP Correction

WL Above LSD

	1	2	3	4	5
Time			750		
Gauge Reading	200	* 2.307	= 461.4		
Gauge Correction			288.6		
Corrected Gauge Reading					
Air-Line Constant, K	750				
WL Below MP					
MP Correction					
WL Above LSD					

Measured by _____ COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)

BEGINNING
DATE
(C321)ENDING
DATE
(C322)M.P. HEIGHT (C323)
NOTE: (-) for MP
below land surface

month

day

year

month

day

year

below land meas. surface pt.

Final Measurement for GWSI

DATE WATER LEVEL MEASURED
(C235)TIME
(C709)TIME DATUM
(C402)STATUS
(C238)METHOD
(C239)TYPE
(C243)WATER LEVEL
(C237)WATER LEVEL TYPE
CODE (C243)

L M S

below land meas. surface pt.

6 - 30 - 2025

month

day

year

GSPD 13

A

289.

METHOD OF WATER-LEVEL
MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gage	calibrated press. gage	geophys- ical logs	manometer	non-rec. gage	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS
FOR WATER
LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently flowing	flowing	nearby flowing	nearby recently flowing	injector site	injector site monitor	plugged	measure- ment discon.	obstruc- tion	pumping	recently pumped	nearby pumping	nearby recently pumped	foreign sub- stance	well des- troyed	surface water effects	other	static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

April 9, 2026

2335-2

Spearhead Ranch LLC
c/o Brad Thomsen
PO Box 538
Edgemont SD 57734

Dear Mr. Thomsen:

On October 6, 2010, the Water Management Board amended Water Right No. 2335-2, for domestic and livestock purposes, with the addition of the following qualification:

'The well owner shall measure the static water level of the well after the well has been idle for at least 48 hours, once between April 1st and June 30th of each year. In addition, a water sample shall be taken from the well and analyzed for electric conductivity annually, by a laboratory approved by the South Dakota Department of Health. The water level and water quality analysis shall be submitted to the Chief Engineer on or before July 15th, of each year.'

This qualification is intended to assess the well's condition and detect if a problem exists. While this well is integral to your operation, you need to remain aware that the well's construction may post future problems which will be your responsibility as the well owner.

This letter is intended to be a reminder to submit the required static water level and electric conductivity water sample data, no later than July 15, 2026, for Water Right No. 2335-2, as required by the Water Management Board. A review of Water Right No. 2335-2 indicates this information was last submitted on July 15, 2025.

If you have any questions, please contact Adam Mathiowetz, Acting Chief Engineer of the Water Rights Program (605) 773-3352.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
(605) 773-3352
Amanda.Dewell@state.sd.us



MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 – www.thechemistrylab.com

Spearhead Ranch LLC

BRAD THOMSEN
PO BOX 538
EDGEMONT, SD 57735

RECEIVED

MAY 22 2026

OFFICE OF
WATER

Sample Site: Well
Sampled: 05/11/26 at 10:00 AM
by Brad
Sample Matrix: Water

Lab ID#: 20260511856
Received: 05/11/26 at 12:58 PM
by System Account
Account: 4193 - Thomsen, Brad
(Spearhead Ranch)

Parameter	Result	Units	DF	Method	Analyst	Date
Physical Properties						
Electrical Conductivity	1500	µmhos/cm	1	SM 2510B	JAM	05/12/26

Report Approved By: _____

Steve Distau

Report Approved On: 5/13/2026 8:16:57 AM

MAY 22 2026



WATER-LEVEL MEASUREMENT FIELD FORM

Air Line Measurement: Altitude Gauge

OFFICE OF
WATER

SITE INFORMATION

Equipment ID & Altitude Range

 $k =$
Air-line Constant (k)

Date of Field Visit

SITE ID (C1)

Spearhead Ranch

Station name (C12)

WATER-LEVEL DATA

Time

Gauge Reading

Gauge Correction

Corrected Gauge Reading

Air-Line Constant, K

WL Below MP

MP Correction

WL Above LSD

	1	2	3	4	5
Time					
Gauge Reading	200	2.307	750		
Gauge Correction			46.4		
Corrected Gauge Reading			288.6		
Air-Line Constant, K	750				
WL Below MP					
MP Correction					
WL Above LSD					

Measured by _____ COMMENTS* _____

*Comments should include quality concerns and changes in: M.P., ownership, access, locks, dogs, measuring problems, et al.

MEASURING POINT DATA (for MP Changes)

M.P. REMARKS (C324)

BEGINNING
DATE
(C321)
--
month day year
ENDING
DATE
(C322)
--
month day year
M.P. HEIGHT (C323)
NOTE: (-) for MP
below land surface
.
below land surface

Final Measurement for GWSI

WATER LEVEL TYPE
CODE (C243)

L	M	S
below	below	sea
land	land	meas.
surface	pt.	level

DATE WATER LEVEL MEASURED
(C235)TIME
(C709)TIME DATUM
(C402)STATUS
(C238)METHOD
(C239)TYPE
(C243)WATER LEVEL
(C237)
--
month day year

GWPD 13

METHOD OF WATER-LEVEL
MEASUREMENT (C239)

A	B	C	E	G	H	L	M	N	R	S	T	V	Z
airline	analog	calibrated airline	estimated	pressure gauge	calibrated press. gauge	geophysical logs	manometer	non-rec. gauge	reported	steel tape	electric tape	calibrated elec. tape	other

SITE STATUS
FOR WATER
LEVEL (C238)

D	E	F	G	H	I	J	M	N	O	P	R	S	T	V	W	X	Z	BLANK
dry	recently flowing	flowing	nearby flowing	nearby recently flowing	injector site	injector site monitor	plugged	measure- ment discon.	obstruc- tion	pumping	recently pumped	nearby pumping	nearby recently pumped	foreign sub- stance	well des- troyed	surface water effects	other	static

Figure 2. Water-level measurement field form for air line measurement using an altitude gauge. This form, or an equivalent custom-designed form, should be used to record field measurements.