

9-15-09

RECEIVED
SEP 21 2009
DEPARTMENT OF
WATER RESOURCES

Monica Van Bussum

Re: Adjudication Claim # 75-4089

Dear Monica,

Here is the information we have gathered concerning our water rights for the S11 ditch. Our ranch where the waster is used is hay ground in the summer and pasture in the winter.

Included is:

- Soil Analysis
- Map for the soil analysis
- Map showing special irrigation sets
- Explanation of some sets
- Picture of water flow at headgate- Taken by Bob Foster, Idaho Water Resources.
- Water measurement table
- Well driller's reports

Our irrigation water returns to the river at or before the drain ditch that runs down the entire north side of the ranch. There is not another ditch diversion out of the Salmon River until the Norton ditch, which is in Salmon, about four miles down stream. Our flood irrigation also helps fill the water table underground from our ranch to Salmon. The run-off waters some of the wetlands along the river.

Thank you for your patience. If you have any questions please call me at (208) 756-2139.

Paul W. Edwards

Paul W. Edwards

P.O. Box 747

Salmon, Idaho 83467

Explanation of large sets

In 1961 a large cement head gate was put in on the S11 ditch after many land leveling projects were completed. These eliminated many ditches, swales, and dry humps to better utilize the water and eliminate many dams and much time spent irrigating. This head gate was designed with four major sets, shown on the color coded map. In the past these sets have required 52.4 CFS to get the water to cover the length of these sets. Included is a picture of the measurement taken by Bob Foster from Idaho Water Resources. These large sets cover a total of 232.32 acres in six days.

These include: Set 1: 18.63 acres in 24 hours.

 Set 2: 35.01 acres in 24 hours.

 Set 3: 53.36 acres in 48 hours.

 Set 4: 125.32 acres in 48 hours.

(Set 4 has five stop head gates that distribute the water over different sections of ground).

Paul irrigates these four sets once every 14-18 days throughout the growing season. After the sets are finished, the water is used for small lateral ditches which cover 93.65 acres. At that time the 23.8 CFS would be sufficient. Paul has built a new head gate and plans to install it in the ditch to better contain the water for use with the small lateral ditches. So basically, we need the 52.4 CFS to cover the four big sets, and 23.8 CFS would be sufficient for the small lateral ditches.

Soils Inventory Report

PAUL W EDWARDS

Tract	Land Unit	Map Unit Symbol	Acres	Percent
102	1	37	0.6	4%
102	1	19	6.3	46%
102	1	28	6.7	49%
Total:			13.6	
102	2	37	54.4	13%
102	2	19	171	40%
102	2	28	204.9	48%
Total:			430.3	
102	3	28	4.2	3%
102	3	263	18.1	11%
102	3	2	58.9	37%
102	3	37	76.4	48%
Total:			157.6	

37 - Cowbone-Tohobit complex, 0 to 3 percent slopes

Composition

Cowbone soil and similar inclusions - 45 percent
 Tohobit soil and similar inclusions - 35 percent
 Contrasting inclusions - 20 percent

Setting

Position on landscape: flood plain
 Elevation: 3,700 to 5,000 feet
 Average annual precipitation: 8 to 14 inches
 Average annual air temperature: 42 to 47 degrees F
 Frost-free season: 60 to 90 days

Characteristics of the Cowbone Soil

Typical profile:

0.5 to 0 inches - partially decomposed leaves and twigs
 0 to 16 inches - grayish brown silt loam
 16 to 24 inches - light brownish gray silt loam
 24 to 54 inches - light brownish gray fine sand loam and
 very fine sandy loam
 54 to 60 inches - light olive gray very cobbly loamy very
 fine sand

Depth class: very deep

Drainage class: poorly drained

Permeability: moderate in the upper part and rapid in the
 lower part

Available water capacity: 8.5 to 10.5 inches

Potential rooting depth: 60 or more inches

Runoff: slow

Hazard of water erosion: slight

Depth to high water table: 6 to 12 inches

months - March through July

Hazard of flooding: frequent

duration: brief

months flooding occurs - April through June

Characteristics of the Tohobit Soil

Typical profile:

0 to 9 inches - dark grayish brown silt loam
 9 to 21 inches - grayish brown and brown silt loam and
 fine sandy loam
 21 to 55 inches - multicolored extremely gravelly coarse
 sand and sand
 55 to 60 inches - light brownish gray loamy fine sand

Depth class: very deep

Drainage class: somewhat poorly drained

Permeability: moderate in the upper part and very rapid in
 the lower part

Available water capacity: 3.5 to 9.5 inches

Potential rooting depth: 60 or more inches

Runoff: slow

Hazard of water erosion: slight

Depth to high water table: 18 to 36 inches

months - March through October

Hazard of flooding: occasional

duration: brief

months flooding occurs - April through June

Contrasting Inclusions

- * Bursteadt soils on stream terraces: (5 percent).
- * Smout soils in convex areas on flood plains; (5 percent).
- * A very deep, somewhat poorly drained silt loam over loam soil on flood plains; (10 percent).

Major Uses of the Unit

Irrigated - hayland, pastureland, and rangeland

Range site name (Cowbone and Tohobit soils) - RIVERBOTTOM 10 TO 16 INCH PZ,
black cottonwood/western wheatgrass

Interpretive Groups

Land capability classification:

- Cowbone soil - 5w, nonirrigated and 5w, irrigated
- Tohobit soil - 4w, nonirrigated and 4w, irrigated

19 - Bock-Bromaglin complex, 1 to 4 percent

Composition

Bock soil and similar inclusions - 55 percent
Bromaglin soil and similar inclusions - 35 percent
Contrasting inclusions - 10 percent

Setting

Positions on landscape: stream terrace and alluvial fan
Elevation: 3,800 to 6,600 feet
Average annual precipitation: 11 to 13 inches
Average annual air temperature: 39 to 45 degrees F
Frost-free season: 75 to 100 days

Characteristics of the Bock Soil

Typical profile:

0 to 18 inches - brown and yellowish brown silt loam
18 to 48 inches - light brownish gray, grayish brown and
pale brown gravelly loam and fine sandy loam
48 to 60 inches - pale brown very gravelly loamy sand

Depth class: very deep

Drainage class: well drained

Permeability: moderate in the upper part and very rapid in
the lower part

Available water capacity: 7 to 10 inches

Potential rooting depth: 60 or more inches

Runoff: slow

Hazard of water erosion: slight

Characteristics of the Bromaglin Soil

Typical profile:

0 to 5 inches - brown silt loam
5 to 12 inches - brown very fine sandy loam
12 to 20 inches - light brownish gray sandy loam
20 to 60 inches - multicolored extremely gravelly loamy
coarse sand

Depth class: very deep

Drainage class: well drained

Permeability: moderate in the upper part and very rapid in
the lower part

Available water capacity: 3.5 to 5 inches

Potential rooting depth: 20 to 40 inches

Runoff: slow

Hazard of water erosion: slight

Contrasting Inclusions

* A very deep, moderately well drained, loam over very gravelly loamy sand soil in
depressions on stream terraces; (5 percent).
* A very deep, well drained, heavy silt loam over extremely gravelly sandy loam
soil, on lower stream terraces; (5 percent).

Major Uses of the Unit

Irrigated - hayland, cropland, pastureland and rangeland

Rangesite name (Bock soil) - LOAMY 11 TO 13 INCH PZ, Wyoming big
sagebrush/bluebunch wheatgrass

Rangesite name (Bromaglin soil) - LOAMY 8 TO 11 INCH PZ, Wyoming big

sagebrush/bluebunch wheatgrass

Interpretive Groups

Land capability classification:

Bock soil - 6e, nonirrigated and 3c, irrigated

Bromaglin soil - 6s, nonirrigated and 4e, irrigated

28 - Bursteadt-Tohobit complex, 0 to 3 percent slopes

Composition

Bursteadt soil and similar inclusions - 50 percent
 Tohobit soil and similar inclusions - 35 percent
 Contrasting inclusions - 15 percent

Setting

Position on landscape: flood plain
 Bursteadt soil - in linear to convex areas
 Tohobit soil - in linear to concave areas
 Elevation: 3,600 to 5,000 feet
 Average annual precipitation: 8 to 14 inches
 Average annual air temperature: 38 to 45 degrees F
 Frost-free season: 60 to 90 days

Characteristics of the Bursteadt Soil

Typical profile:

0 to 5 inches - grayish brown very fine sandy loam
 5 to 12 inches - grayish brown sandy loam
 12 to 20 inches - grayish brown and brown very fine sandy loam and fine sandy loam
 20 to 31 inches - brown fine sandy loam and sandy loam
 31 to 60 inches - multicolored extremely cobbly coarse sand

Depth class: very deep

Drainage class: moderately well drained

Permeability: moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 4.5 to 6.5 inches

Potential rooting depth: 60 or more inches

Runoff: slow

Hazard of water erosion: slight

Depth to high water table: 24 to 36 inches

months - March through October

Hazard of flooding: occasional

duration: brief

months flooding occurs - April through June

Characteristics of the Tohobit Soil

Typical profile:

0 to 9 inches - dark grayish brown silt loam
 9 to 21 inches - grayish brown and brown silt loam and fine sandy loam
 21 to 60 inches - multicolored and light brownish gray extremely gravelly coarse sand, sand and loamy fine sand

Depth class: very deep

Drainage class: somewhat poorly drained

Permeability: moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 9.5 inches

Potential rooting depth: 60 or more inches

Runoff: slow

Hazard of water erosion: slight

Depth to high water table: 18 to 36 inches

months - March through October

Hazard of flooding: occasional

duration; brief

28.txt
months flooding occurs - April through June

Contrasting Inclusions

- * Cowbone soils in depressions on flood plains; (10 percent).
- * Bromaglin soils on flood plains; (5 percent).

Major Uses of the Unit

Irrigated - hayland, pastureland and cropland

Range site name (Bursteadt soil) - ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

Range site name (Tohobit soil) - RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

Interpretive Groups

Land capability classification:

Bursteadt soil - 3w, nonirrigated and 3w, irrigated
Tohobit soil - 4w, nonirrigated and 4w, irrigated

2 - Aqueuts-Riverwash complex, nearly level^{2.txt}

Composition

Aqueuts soil and similar inclusions - 75 percent
Riverwash soil and similar inclusions - 20 percent
Contrasting inclusions - 5 percent

Setting

Position on landscape: flood plain
Elevation: 4,000 to 6,000 feet
Average annual precipitation: 8 to 14 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 40 to 70 days

Characteristics of the Aqueuts Soil

Example profile:

0 to 2 inches - light brownish gray very cobbly fine sandy loam
2 to 60 inches - light yellowish brown, light brownish gray and multicolored extremely cobbly loamy fine sand, extremely gravelly loamy sand and extremely gravelly loamy coarse sand
Depth class: very deep
Drainage class: poorly drained
Permeability: rapid
Available water capacity: 1 to 6 inches
Potential rooting depth: 60 or more inches
Runoff: slow
Hazard of water erosion: slight
Depth to high water table: 6 to 12 inches
months - January through December
Hazard of flooding: frequent
duration: long
months flooding occurs - April through July

Characteristics of Riverwash

Riverwash is unstabilized, recently water deposited sediments, that are flooded, washed and reworked frequently by water.

Major Use of the Unit

Wildlife habitat and recreation

Interpretive Groups

Land capability classification:

Aqueuts soil - 8, nonirrigated
Riverwash soil - 8, nonirrigated

EQIP 2004 Soils Map

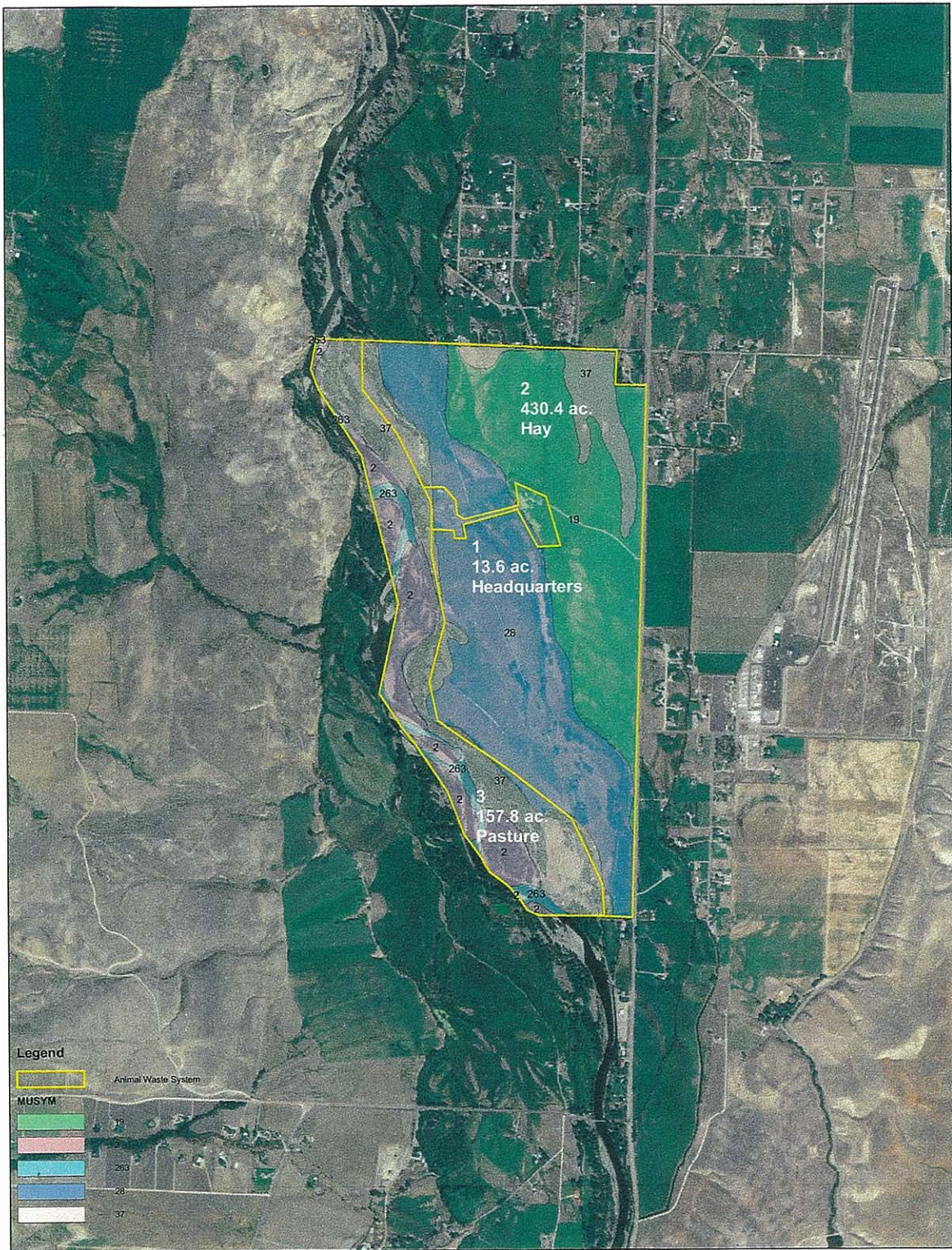
Customer(s): PAUL W EDWARDS

District: LEMHI SOIL & WATER CONSERVATION DISTRICT

Field Office: SALMON SERVICE CENTER

Agency: USDA-NRCS

Assisted By: Mark Olson



1,200 0 1,200 2,400 3,600 4,800 Feet





 Natural Resources Conservation Service United States Department of Agriculture		Paul Edwards Ranch		Date: 08/18/2009	
File Name		TED		08/18/2009	
Drawing Name Paul Edwards.dwg		TED		08/18/2009	
Sheet of		Checked			
		Approved			

F:\ENGINEERING\TWS PROJECTS\PROJECTS\PAUL EDWARDS\PAUL EDWARDS.DWG, Tab: HP-550 PORTRAIT, Date: 08/18/2009, 10:10:42 AM, File Last Updated: Tue, 18 Aug 2009



75-4089 Paul Edwards

S-12 Broadcrested ramp flume reading 1.5 on 5/12/2009

S11

SALMON RIVER - S11

WATER MEASUREMENT TABLE

BROAD-CRESTED WEIR

27" CREST HEIGHT
36" CREST LENGTH
9' CREST WIDTH
VERTICAL SIDE WALLS

FLOW EQUATION
 $Q = K1 * (HEAD + K2)^U$
28.040 = K1
0.00000 = K2
1.5440 = U

HEAD (feet)	FLOW RATE (cfs)
0.30	4.4
0.31	4.6
0.32	4.8
0.33	5.1
0.34	5.3
0.35	5.5
0.36	5.8
0.37	6.0
0.38	6.3
0.39	6.6
0.40	6.8
0.41	7.1
0.42	7.3
0.43	7.6
0.44	7.9
0.45	8.2
0.46	8.5
0.47	8.7
0.48	9.0
0.49	9.3
0.50	9.6
0.51	9.9
0.52	10.2
0.53	10.5
0.54	10.8
0.55	11.1
0.56	11.5
0.57	11.8
0.58	12.1
0.59	12.4
0.60	12.7
0.61	13.1
0.62	13.4
0.63	13.7
0.64	14.1
0.65	14.4
0.66	14.8
0.67	15.1
0.68	15.5
0.69	15.8
0.70	16.2
0.71	16.5
0.72	16.9
0.73	17.2
0.74	17.6
0.75	18.0
0.76	18.4
0.77	18.7
0.78	19.1
0.79	19.5

HEAD (feet)	FLOW RATE (cfs)
0.80	19.9
0.81	20.3
0.82	20.6
0.83	21.0
0.84	21.4
0.85	21.8
0.86	22.2
0.87	22.6
0.88	23.0
0.89	23.4
0.90	23.8
0.91	24.2
0.92	24.7
0.93	25.1
0.94	25.5
0.95	25.9
0.96	26.3
0.97	26.8
0.98	27.2
0.99	27.6
1.00	28.0
1.01	28.5
1.02	28.9
1.03	29.3
1.04	29.8
1.05	30.2
1.06	30.7
1.07	31.1
1.08	31.6
1.09	32.0
1.10	32.5
1.11	32.9
1.12	33.4
1.13	33.9
1.14	34.3
1.15	34.8
1.16	35.3
1.17	35.7
1.18	36.2
1.19	36.7
1.20	37.2
1.21	37.6
1.22	38.1
1.23	38.6
1.24	39.1
1.25	39.6
1.26	40.1
1.27	40.6
1.28	41.0
1.29	41.6

HEAD (feet)	FLOW RATE (cfs)
1.30	42.0
1.31	42.5
1.32	43.0
1.33	43.6
1.34	44.1
1.35	44.6
1.36	45.1
1.37	45.6
1.38	46.1
1.39	46.6
1.40	47.1
1.41	47.7
1.42	48.2
1.43	48.7
1.44	49.2
1.45	49.8
1.46	50.3
1.47	50.8
1.48	51.4
1.49	51.9
1.50	52.4
1.51	53.0
1.52	53.5
1.53	54.1
1.54	54.6
1.55	55.2
1.56	55.7
1.57	56.3
1.58	56.8
1.59	57.4
1.60	57.9
1.61	58.5
1.62	59.1
1.63	59.6
1.64	60.2
1.65	60.8
1.66	61.3
1.67	61.9
1.68	62.5
1.69	63.0
1.70	63.6
1.71	64.2
1.72	64.8
1.73	65.4
1.74	65.9
1.75	66.5
1.76	67.1
1.77	67.7
1.78	68.3
1.79	68.9

Form 238-7
6/02

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Well ID No. _____
Inspected by _____
Twp _____ Rge _____ Sec _____
Lat: 1/4 _____ 1/4 _____ 1/4 _____
Long: _____

1. WELL TAG NO. D D0020949

DRILLING PERMIT NO.

Water Right or Injection Well No

2. OWNER:

Name Paul Edward

Address PO Box 747

City State Zip Salmon, ID 83467

3. LOCATION OF WELL by legal description

Township 21N

Range 22E

Section 30

Gov't Lot

Latitude 450720

Address of Well Site PO Box 747 Salmon, ID 83467

Edward's Ranch

Lot Block

SE
1/4 SW 1/4 NW 1/4

County LEMHI

Longitude -1135415

Subdivision

4. USE

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK

Check all that apply

☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other

7. SEALING PROCEDURE

Seal Material	From	To	Weight/Volume	Seal placement method
Bentonite dry granular	0	18	350 Pounds	Overbore

Was drive Shoe used ☒ Y ☐ N Shoe Depth(s) 40

Was drive shoe tested ☐ Y ☒ N How?

8. CASING/LINER

Diameter	From	To	Gauge	Material	Casing Liner	Welded Threaded
6	0	40	0.25	Steel	☒	☐

Length of headpipe

Packer ☐ Y ☒ N

Length of tailpipe

Type

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation method Star Perforator

Screen Type & Method of Installation

From	To	Slot Size	Number	Diam	Material	Casing Liner
24	34	0.1875	140		Steel	☒

10. FILTER PACK

Filter Material	From	To	Weight/Vol	Placement Method

11. STATIC WATER LEVEL

4 ft. below land surface.

Artesian pressure

lb.

Depth flow encountered

Ft. Describe access port or control devices:
sanitary well seal

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
18		44	2

Water temp cold

Bottom hole temp. cold

Water Quality test or comments clear

Depth First Water Encountered

28

13. LITHOLOGIC LOG (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water
12	0	2	Topsoil	☐ Y ☒ N
12	2	18	Boulders	☐ Y ☒ N
6	18	28	Boulders W/Gravel	☒ Y ☐ N
6	28	32	Sand W/Gravel	☒ Y ☐ N
6	32	34	Clay Brown	☐ Y ☒ N
6	34	37	Clay Gray	☐ Y ☒ N
6	37	44	Claystone Hard Gray	☐ Y ☒ N

RECEIVED

DEC 13 2006

Department of Water Resources
Bureau of Water

Completed Depth 44

Date started 11/15/2006

Completed 11/15/2006

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Harber Drilling, Inc

Firm No. 0430

Principal Driller
and

Date 11/28/2006

Driller or Operator II

Date 11/28/06

Operator I

Date

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator

FORWARD WHITE COPY TO WATER RESOURCES

SEP 13 1973

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

Department of Water Administration
Eastern District Office

days after the completion or abandonment of the well.

1. WELL OWNER
Name EUGENE EDWARDS
Address BOX 114 SALMON, IDAHO 85467
Owner's Permit No. _____

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE
☒ Domestic ☐ Irrigation ☐ Test
☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED
☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION
Diameter of hole 6 inches Total depth 37 feet
Casing schedule: ☒ Steel ☐ Concrete
Thickness Diameter From To
.250 inches 6 inches + 1 foot 37 feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feet
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☒ Torch
Size of perforation 1/4 inches by 6 inches
Number From To
24 perforations 25 feet 35 feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal? ☒ Yes ☐ No To what depth 18 feet
Material used in seal ☐ Cement grout ☒ Puddling clay

6. LOCATION OF WELL
Sketch map location must agree with written location.

County L.F.M.H.I.
NE 1/4 NE 1/4 Sec. 31 T. 21 N. R. 22 E.W.

7. WATER LEVEL
Static water level 17 feet below land surface
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Temperature _____ F. Quality good
Artesian closed-in pressure _____ p.s.i.
Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA
☐ Pump ☒ Bailer ☐ Other
Discharge G.P.M. 20 Draw Down 2 FEET Hours Pumped _____

9. LITHOLOGIC LOG 41177
Hole Diam. Depth Material Water
From To Yes No
6" 0 7 SOLID ☒ ☒
 7 21 BOWTIEPS ☒ ☒
 21 24 (L.M.) GRAVEL ☒ ☒
 24 37 SAND & GRAVEL ☒ ☒

10. Work started July 7/73 finished July 12/73

11. DRILLER'S CERTIFICATION
This well was drilled under my supervision and this report is true to the best of my knowledge.
Guthrie Well Drilling Number 226
Driller's or Firm's Name
P.O. BOX 355 SALMON, IDAHO 85467
Address
J.T. Guthrie Signed By
Date Sept 11/73

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT