

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 87-7141

Exam Date: 10/31/2007

1. Current Owner: UNIVERSITY OF IDAHO REGENTS
C/O REAL ESTATE OFFICER
ADMINISTRATIVE AFFAIRS
PO BOX 443162
MOSCOW ID 83844-3162

2. Accompanied by: MICHAEL HOLTHAUS

Phone No: 208-885-6288

Address: DEPT. OF FACILITIES, U OF I, MOSCOW ID 83844

Relationship to Permit Holder: EMPLOYEE

3. SOURCE

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 87-2031, 87-7012, 87-7026, 87-2018, 87-2014
2. Other water rights with the same point of diversion: NONE

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER	SE1/4SE1/4	Sec. 12.	Twp 39N,	Rge 06W, B.M.
LATAH County				
GROUND WATER	NE1/4NE1/4	Sec. 13,	Twp 39N,	Rge 06W, B.M.
LATAH County				
GROUND WATER	SE1/4SE1/4	Sec. 12,	Twp 39N,	Rge 06W, B.M.
LATAH County				

Method of Determination:

GPS

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
39N	05W	7											33.0	35.0			5.5		73.5
													L 4						
39N	05W	18	6.5	28.0			40.0	41.0	41.0	40.0	20.0	41.0	41.0	11.0					309.5
								L 1	L 2				L 3	L 4					
39N	05W	19					2.3	5.1											7.4
								L 1											
39N	06W	12											6.1	26.0			23.0	31.0	86.1
													L 4						

39N 06W 13	40.0	40.0	40.0	40.0	40.0	8.1	9.1	40.0		1.5	.5	.7	260.9
						L 1	L 2						

Total Acres: 737.4

PLACE OF USE: COMMERCIAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
39N 05W 7											X L 4	X			X		
39N 05W 18		X	X		X	X L 1	X L 2	X	X	X L 3	X L 4	X					
39N 05W 19					X	X L 1											
39N 06W 12										X L 4	X				X	X	
39N 06W 13	X	X	X	X	X	X L 1	X L 2	X					X	X		X	

PLACE OF USE: DOMESTIC

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
39N 05W 7											X L 4	X			X		
39N 05W 18		X	X		X	X L 1	X L 2	X	X	X L 3	X L 4	X					
39N 05W 19					X	X L 1											
39N 06W 12										X L 4	X				X	X	
39N 06W 13	X	X	X	X	X	X L 1	X L 2	X					X	X		X	

Method of Determination:

3. ☐ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
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*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>

2. Measurements:

*See Attached***E. FLOW CALCULATIONS**

____ Additional Computation Sheets Attached

Measured Method:

*See Attached***F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 566 \times 3 = 1698 \text{ AF}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.08 \times 246 \times 1.9835 = 526.9$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

↓

Limited to 147.3 AF by protest

G. NARRATIVE/REMARKS/COMMENTS

THIS SYSTEM USES GROUNDWATER FOR DOMESTIC, COMMERCIAL AND IRRIGATION. THEY HAVE 3 WELLS THAT THEY FILL RESEARCH TANKS WITH AND KEEP A CONSTANT FLOW THROUGH THE TANKS. THE OVER FLOW AND WHEN THEY EMPTY THE TANKS THE WATER FLOWS TO A POND THAT IS THEN PUMPED OUT OF FOR LAWN IRRIGATION OF 566 ACRES OF THE CAMPUS GROUNDS. THE DOMESTIC USE IS FOR THE RESEACH FACILITY. THIS PERMIT WAS PROTESTED AND ONE OF THE CONDITIONS WAS THE ANUAL VOLUME LIMITATION OF 147.3 AF.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	1.080 CFS	147.30 AF
COMMERCIAL	01/01 to 12/31	1.080 CFS	147.30 AF
DOMESTIC	01/01 to 12/31	1.080 CFS	147.30 AF
<u>Totals:</u>		1.080 CFS	147.30 AF

2. Recommended Amendments

☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☒ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name

Date 1-9-08

Reviewer

Date 1/31/08

PUMP EQUATIONS WATER RIGHT No. 87-7141						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	5	221.7755102	0.8	83	60
Q =	0.159 cfs		71.4 gpm			

PUMP EQUATIONS WATER RIGHT No. 87-7141						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	15	286.7755102	0.8	148	60
Q =	0.369 cfs		165.5 gpm			

PUMP EQUATIONS WATER RIGHT No. 87-7141						
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	25	321.7755102	0.8	183	60
Q =	0.548 cfs		245.9 gpm			

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTTYPEWRITER OR
BALLPOINT PENState law requires that this report be filed with the Director, Department of Water Resources
within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name University of Idaho
Address Moscow Idaho
Drilling Permit No. 12-39N-6W
Water Right Permit No. 87-90-N-28

7. WATER LEVEL

Static water level 83 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow 250
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures
such as liners, screen, materials, plug depths, etc. in lithologic
log, section 9.)

8. WELL TEST DATA

☐ Pump ☐ Baller ☒ Air ☐ Other _____

Discharge G.P.M. Pumping Level Hours Pumped

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Monitor
☒ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Auger ☐ Reverse rotary
☐ Cable ☐ Mud ☐ Other _____
(backhoe, hydraulic, etc.)

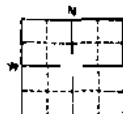
5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other _____
Thickness Diameter From To
380 inches 12 inches + 2 feet 245 feet
_____ inches _____ inches _____ feet _____ feet
_____ inches _____ inches _____ feet _____ feetWas casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☒ Yes ☐ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun
Size of perforation? _____ inches by _____ inches
Number From To
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feetWell screen installed? ☒ Yes ☐ No
Manufacturer Johnson Type Stainless
Top Packer or Headpipe _____
Bottom of Tailpipe _____Diameter 12 Slot size 30 Set from 160 feet to 180 feet
Diameter 12 Slot size 20 Set from 220 feet to 230 feet
Gravel packed? ☐ Yes ☒ No Size of gravel _____
Placed from _____ feet to _____ feetSurface seal depth 70 Material used in seal: ☒ Cement grout
☐ Bentonite ☐ Pudding clay ☐ _____
Sealing procedure used: ☐ Slurry pt
☐ Temp. surface casing ☒ Overbars to seal depth
Method of joining casing: ☐ Threaded ☒ Welded
☐ Solvent Weld ☐ Cemented between strata

Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County Latah Sec 12 T 39N R 6WS 10 1/4 NE 1/4 Sec 12 T 39 S R 6 W

11. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were
complied with at the time the rig was removed.Firm Name William H. Drift Firm No. 125Address Farm Idaho Date May 92Signed by Drilling Supervisor W. H. Drift

and _____

(Operator) William H. Drift
(If different than the Drilling Supervisor)

10.

Work started Jan 1991 finished Mar 1991

RECEIVED

MAR 31 1992

NORTHERN REGION
I.D.W.R.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

MAR 24 1993

USE TYPEWRITER OR
BALLPOINT PEN

WELL DRILLER'S REPORT

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

1. WELL OWNER

Name UNIVERSITY OF IDAHO
Address MOSCOW IDAHO 83843
Drilling Permit No. 87-92-N-44
Water Right Permit No. 87-07141

7. WATER LEVEL

Static water level 148' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

2. NATURE OF WORK

- ☒
- New well
- ☐
- Deepened
- ☐
- Replacement
-
- ☐
- Well diameter increase
- ☐
- Modification
-
- ☐
- Abandoned (describe abandonment or modification procedures
-
- such as liners, screen, materials, plug depths, etc. In lithologic
-
- log, section 9.)

9. WELL TEST DATA

☐ Pump ☐ Baler ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
200±		

3. PROPOSED USE

- ☐
- Domestic
- ☐
- Irrigation
- ☐
- Monitor
-
- ☒
- Industrial
- ☐
- Stock
- ☐
- Waste Disposal or Injection
-
- ☐
- Other _____ (specify type)

8. LITHOLOGIC LOG

104724

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
10	0	62	Silty Clay, Brn		X
8	62	73	Basalt Dark Brn Weathered		X
8	73	77	Basalt light brn w/clay		X
8	77	85	Basalt Drk/Brn Med. Hard		X
8	85	94	Basalt light Brn Fractured		X
8	94	120	Basalt Blk Hard		X
8	120	145	Basalt light Brn fractured w/Water apx 30 to 40 gpm	X	
8	145	235	Basalt Blk Hard		X
8	235	250	Basalt Blk Fractured		X
8	250	270	Silty Sand Brn	X	
8	270	279	Silty Sand w Weed	X	
8	279	288	Sand coarse w/Water	X	
8	288	305	Sand finer w/Water	X	
8	305	342	Sand w/some Gravel w/Water	X	
8	342	351	Silty Sand hard Packed		X

4. METHOD DRILLED

- ☒
- Rotary
- ☒
- Air
- ☐
- Auger
- ☐
- Reverse rotary
-
- ☐
- Cable
- ☐
- Mud
- ☐
- Other _____
-
- (backhoe, hydraulic, etc.)

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____Pull thickness Diameter From To
2.50 inches 8 inches 2 feet 62 feet
2.50 inches 6 inches 2 feet 314.5 feet
_____ inches _____ inches _____ feet _____ feetWas casing drive shoe used? ☐ Yes ☒ NoWas a packer or seal used? ☒ Yes ☐ No 2-5" K PackerPerforated? ☐ Yes ☒ NoHow perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun

Size of perforation? _____ inches by _____ inches

Number From To

_____ perforations _____ feet _____ feet

_____ perforations _____ feet _____ feet

_____ perforations _____ feet _____ feet

Well screen installed? ☒ Yes ☐ NoManufacturer _____ Type Stainless SteelTop Packer or Headpipe 309' to 315.9Bottom of Tailpipe 342 to 348Diameter 5 Slot size 20 Set from 315 feet to 342 feet

Diameter _____ Slot size _____ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____

Placed from _____ feet to _____ feet

Surface seal depth g.p. Material used in seal: ☐ Cement grout☒ Bentonite ☒ Pudding clay ☐ _____Sealing procedure used: ☒ Slurry pit☒ Temp. surface casing ☒ Overbore to seal depthMethod of joining casing: ☐ Threaded ☒ Welded☐ Solvent Weld ☐ Cemented between struts

Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.

Subdivision Name _____
West 6th Street
Lot No. _____ Block No. _____
County Latah
Address of Well Site Agriculture Research Facility
(give at least name of road)T. 39 N ☒ or S ☐SW ☐ SE ☐ W Sec. 12 R. 6 E ☐ or W ☒

11. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were
complied with at the time the rig was removed.Firm Name H2O WELL SERVICE Firm No. 448Address HAYDEN LAKE, ID Date 2-11-93Signed by Drilling Supervisor [Signature]

and

(Operator) [Signature]

(if different than the Drilling Supervisor)

RECEIVED
JUN 01 1993

RECEIVED

STATE OF IDAHO JUN 17 1993
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR
BALLPOINT PEN

WELL DRILLER'S REPORT

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

1. WELL OWNER

Name UNIVERSITY OF IDAHO WELL #7
Address MDSCOW IDAHO 83844-1231 Facilities Management
Drilling Permit No. 87-93-N-2-000
Water Right Permit No. 87-7141

7. WATER LEVEL

Static water level 183 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)

8. WELL TEST DATA

☐ Pump ☐ Bailor ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
200+		

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Monitor
☒ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

9. LITHOLOGIC LOG

114725

Bore Diam.	Depth		Material	Water	
	From	To		Yes	No
16	0	15	CLAY MED BROWN		X
14	15	70	CLAY MED BROWN		X
12	70	81	BASALT BROKEN W/CLAY & SAND	X	
12	81	140	BASALT DARK GRAY MEDIUM		X
12	140	148	BASALT FRACTURED W/YELLOWSESSX		
12	148	235	BASALT DARK GRAY HARD		X
12	235	260	SILT STONE BROKEN W/SAND		X
10	260	307	SAND W/WOOD W/W COURSE		X
10	307	315	SILT STONE GRAY MED HARD		X
10	315	340	SAND MED COURSE W/WATER		X
10	340	349	SAND STONE HARD		X

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Auger ☐ Reverse rotary
☐ Cable ☐ Mud ☐ Other _____
(backhoe, hydraulic, etc.)

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____
Thickness: .250 inches 16 inches + 1 foot 15 feet
.250 inches 14 inches 1.5 feet 70 feet
.250 inches 10 inches 2.0 feet 284 feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a pecker or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun
Size of perforation? _____ inches by _____ inches
Number _____ From _____ To _____
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet

Well screen installed? ☒ Yes ☐ No
Manufacturer Cook Type Stainless Tele-scoping
Top Packer or Headpipe 283 to 285
Bottom of Tailpipe 349

Diameter 6 Slot size 20 Set from 290 feet to 300 feet
Diameter 6 Slot size 30 Set from 317 feet to 338 feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet

Surface seal depth 70 Material used in seal: ☐ Cement grout
☒ Bentonite ☐ Pudding clay ☐ _____
Sealing procedure used: ☐ Slurry pit
☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded
☐ Solvent Weld ☐ Cemented between strata
Hole Plug 3/8 55 BAGS
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.
Subdivision Name _____
Lot No. _____ Block No. _____
County LATAH
Address of Well Site AGRICULTURE RESEARCH FACILITY
(give at least name of road)
SW 14 SE 4 Sec. 12 T. 39 N 10 or S 0
R. 6 E 0 or W 13

10.

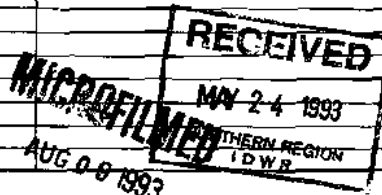
Work started 04/15/93 finished 05/04/93

11. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name F20 WELL SERVICE Firm No. #448
Address 582 W HAYDEN AVE Date 05/04/93
Signed by Drilling Supervisor [Signature]
and [Signature]
(Operator) [Signature]
(if different than the Drilling Supervisor)

USE ADDITIONAL SHEETS IF NECESSARY -- FORWARD THE WHITE COPY TO THE DEPARTMENT

87-7141



87-7141



-  Pou.shp
-  Administrative BasinsAdminbas.shp
-  Township/Range
-  Sections
-  Right POD
-  GCDB39N06W GCDB
-  GCDB39N05W GCDB





PLACE OF USE



WELL 1



WELL 2



WELL 3



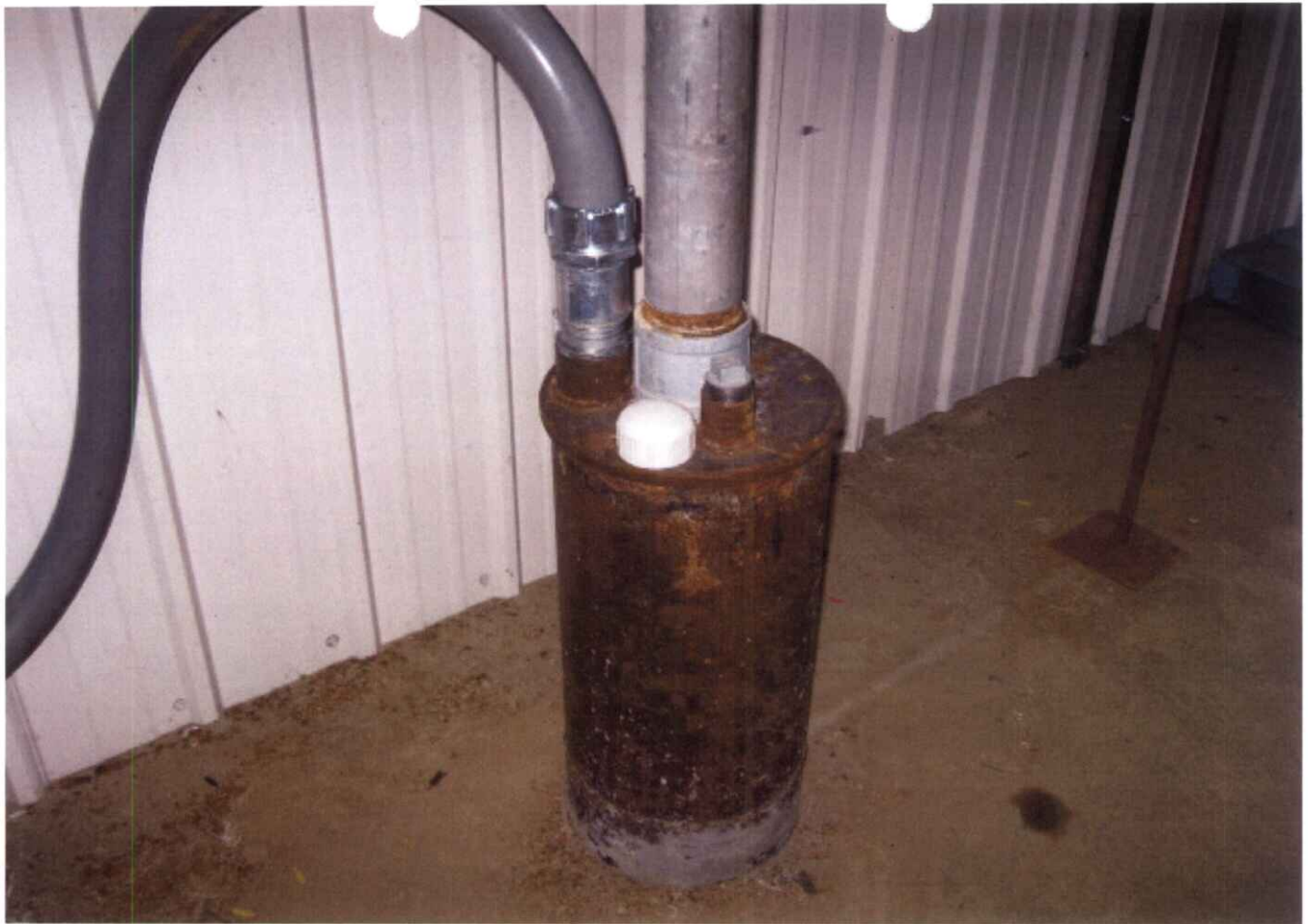
WELL HOUSE

87-7141



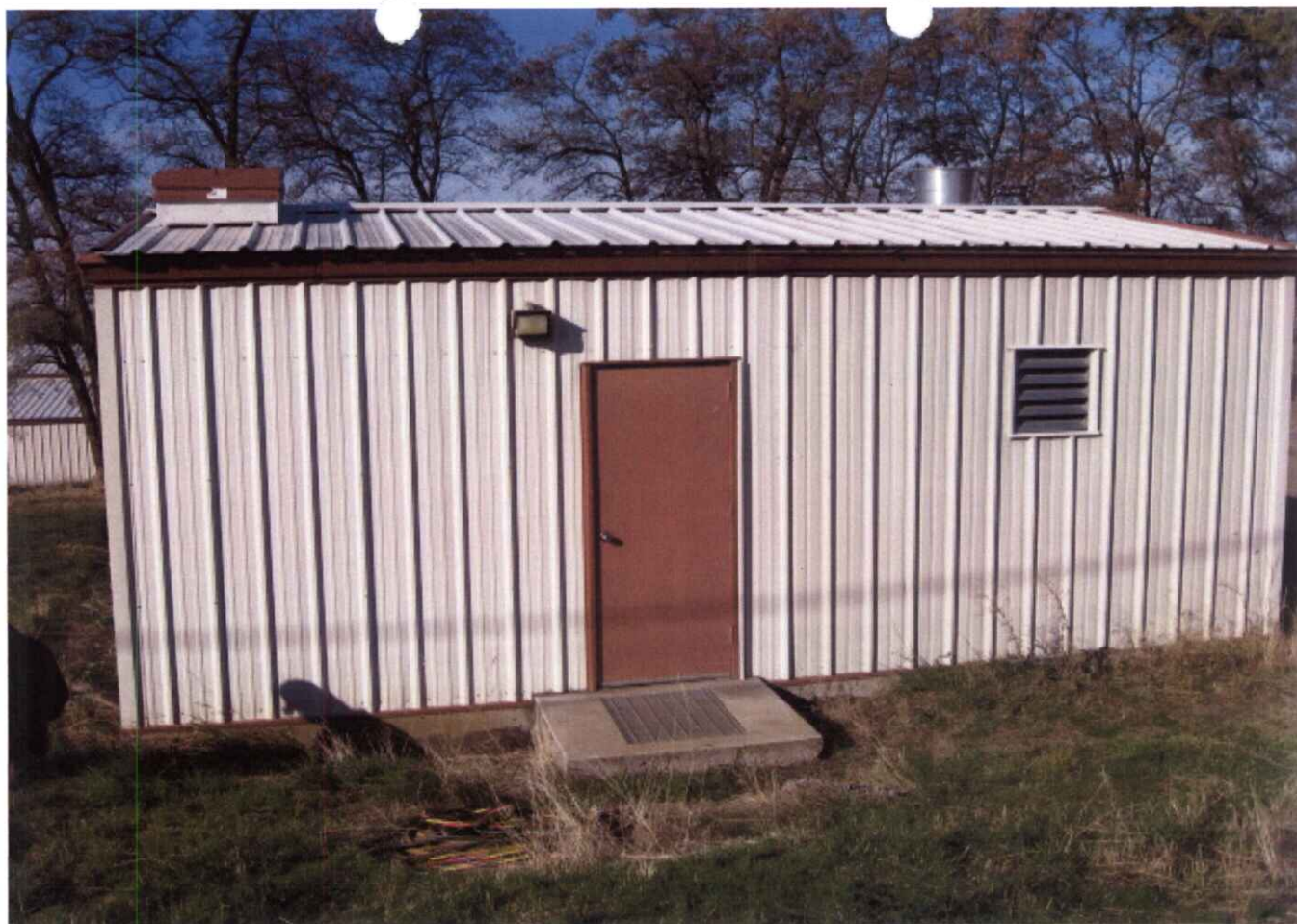
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