

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-33913

Exam Date: 8/26/2019

1. Current Owner:

MARK COOMBS and SUSAN COOMBS
29863 FARMWAY RD
CALDWELL, ID 83607
(208) 459-0414

2. Accompanied by: MARK COOMBS**3. Source:** GROUNDWATER**Method of Determination:** Field Exam, Well Construction database**B. OVERLAP REVIEW****1. Other water rights with the same place of use:**YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-2322	Wilson Slough	Irrigation	Decreed
63-2878	Elijah Drain	Irrigation	Decreed
65-2433	Payette River	Irrigation	Decreed
65-2900	Tunnel No 2 Drain	Irrigation	Decreed

Comments: These overlapping rights belong to Black Canyon Irrigation District and Bureau of Reclamation.**2. Other water rights with the same point-of-diversion:**NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments:**C. DIVERSION AND DELIVERY SYSTEM****1. Point(s) of Diversion:**

GROUND WATER NESE Township 06N, Range 03W Section 32

Payette County

Method of Determination: Field Exam, PLSS layer, Wells GIS layer, GPS**2. Place of Use:** Irrigation

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N	03W	32			15	10				9	36			26	40	40	38	33	247

Total Acres: 247

Method of Determination: 2017 NAIP imagery, PLSS, Field Exam**3. Supporting Documents:**

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

4. Diversion Pumps

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D Tag D0071720	Unknown	75			

D. FLOW MEASUREMENTS

1. Equipment

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow Meter	Ultrasonic	GE Panametrics	PT878			

2. **Measurement Description:** A 12" diameter casing comes straight up about 6 feet from the well, then makes a 90 degree turn with a 9" diameter pipe that is about 20 feet long and empties into the pond. The measurement was taken on the 9" diameter pipe near the 90 degree turn. The owner estimated flow around 500 gpm which is slightly less than the measurements.

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measurements:

Idaho Code §42-202(3) allows 0.02 cfs/acre for irrigation of more than 5 acres.

Measured Flow = 581 gpm / 448.4 (conversion factor) = 1.3 cfs

Permit allows: 1.8 cfs

License recommended for 1.3 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 247 \times 4.5 = 1111.5$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.3 \times 247 \times 1.9835 = 636.90185 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 637 \text{ af}$$

2. Volume Calculations for Other Uses: None

G. NARRATIVE/REMARKS/COMMENTS

The water from this well flows into an irrigation regulation pond. Black Canyon Irrigation District water also flows into the pond. The owner stated that his share from Black Canyon Irrigation District is 137 acres at 5 af per acre. The co-mingled water flows downhill about 10 feet in elevation and distance where 2 lift pumps send the water to fields on either side. The irrigated area consists of one large pivot, two smaller partial pivots, and some small water line areas.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Volume
IRRIGATION	3/1 to 11/15	1.3 CFS	637 AF
Totals:		1.3 CFS	637 AF

Not req. for supplemental use

2. Recommended Amendments:

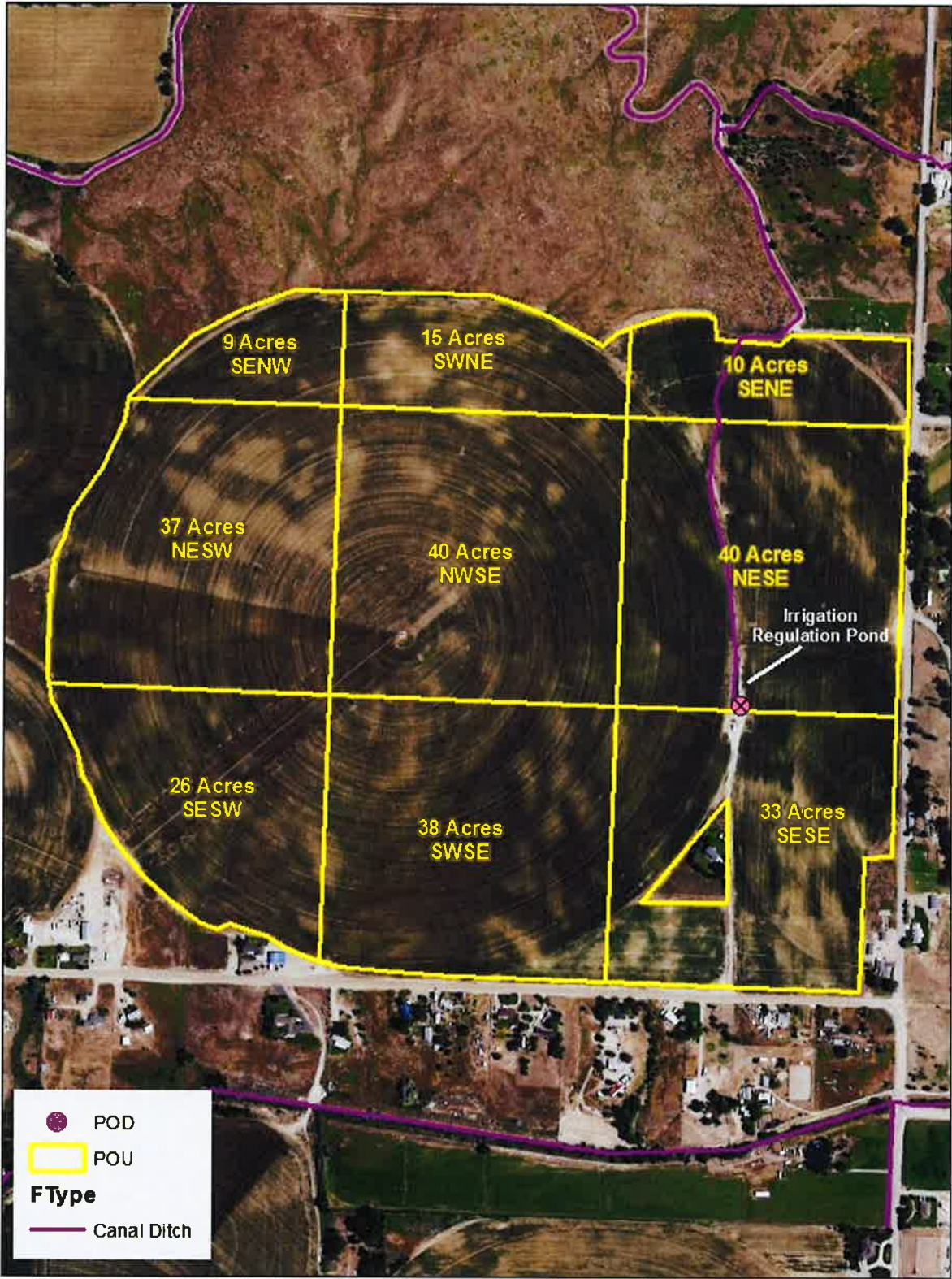
 Change P.D. as reflected above Add P.D. as reflected above X None

 Change P.U. as reflected above Add P.U. as reflected above X None

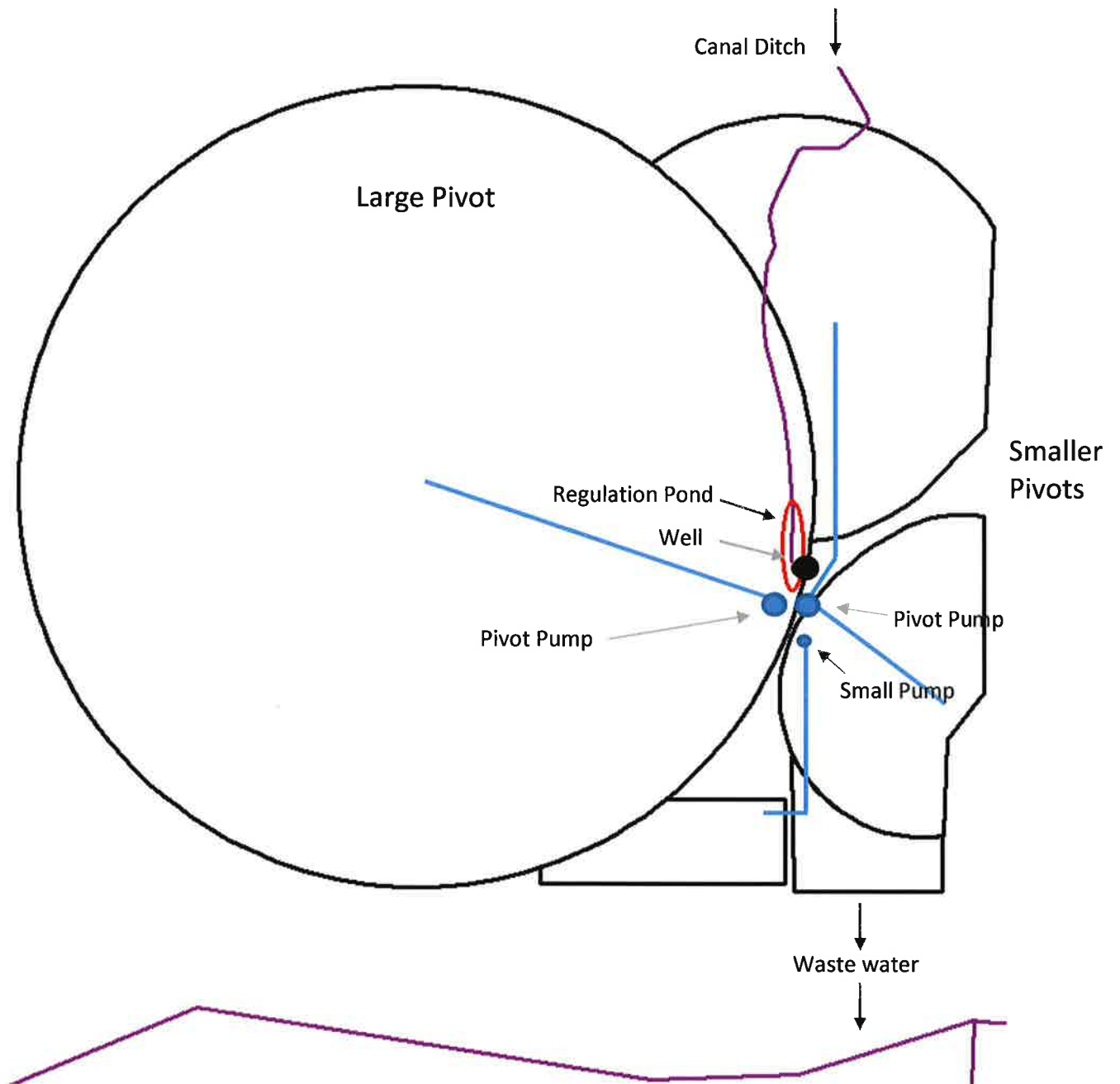
I. AUTHENTICATION

Field Examiner's Name Paula J. Dillon Date 9/27/19
Paula Dillon - GIS Analyst II

Reviewer Daniel A. Mc Date 9-30-19



System Diagram



Flow Measurements

Date/Time	Velocity ft/s	Volume gal/m	Fwd Totalizer gal
8/26/2019 9:55	3.639995816	581.7467684	1362192.816
8/26/2019 9:56	3.616741028	578.0301713	1362788.506
8/26/2019 9:57	3.634284947	580.8340531	1363359.505
8/26/2019 9:58	3.699224409	591.2127251	1363948.319
8/26/2019 9:59	3.683570158	588.7108513	1364526.605
8/26/2019 10:00	3.623122568	579.0500737	1365123.338
8/26/2019 10:01	3.608345317	576.6883628	1365710.126
8/26/2019 10:02	3.621530271	578.7955916	1366272.303
8/26/2019 10:03	3.622884212	579.0119794	1366860.344
8/26/2019 10:04	3.573484896	571.116945	1367426.568
8/26/2019 10:05	3.642931313	582.2159216	1368002.375
Average gpm		580.6739494	580.9558908

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0071720

Drilling Permit No. 971808-877865

Water right or injection well # 63-33913

2. OWNER: Mark Coombs

Name Mark Coombs Page 1 of 3

Address 29863 Farmway Rd

City Caldwell State ID Zip 83607

3. WELL LOCATION:

Twp 6 North ☒ or South ☐ Rge. 3 East ☐ or West ☒
Sec. 32 1/4 NE 1/4 SE 1/4

Gov't Lot _____ County Payette

Lot 43 : 48.650 (Deg. and Decimal minutes)

Long. 116 : 42.942 (Deg. and Decimal minutes)

Address of Well Site Oasis & Farmway Rd

City Caldwell

(Name of land owner or person in charge of land)

Lot _____ Blk. _____ Sub. Name _____

4. USE:

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

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment: ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☒ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lb or ft ³)	Placement method/procedure
3/4" Bentonite	0	8'	800 lbs	Poured
Cement/Grout	8'	290'	9.8 yds	Pumped

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	We-ced
12"	+3'	350'	.250	Steel	☒	☐	☒
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____Manufactured screen ☒ Y ☐ N Type Johnson

Method of installation Set In & Centralized

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
350'	490'	.030	-	12"	SS	.250

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lb or ft ³)	Placement method
8/16 Silica	290'	490'	7 yds	Poured

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 114 ft Static water level (ft) 127 ft

Water temp (°F) 68° Bottom hole temp (°F) 68°

Describe access port Metal Plate

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
147 ft.	2,077 gpm	1 hr.
101 ft.	1,507 gpm	1 hr.

Test method:

Pump	Bailer	Air	Flowing Artesian
☒	☐	☐	☐
☒	☐	☐	☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
24"	0	6'	Top Soil		X
24"	6'	8'	Tan Sand		X
19"	8'	18'	Tan Sand		X
19"	18'	26'	Tan Sandy Clay		X
19"	26'	34'	Tan Sand		X
19"	34'	41'	Tan Sandy Clay		X
19"	41'	57'	Tan Sand		X
19"	57'	64'	Tan Sandy Clay		X
19"	64'	71'	Tan Sand		X
19"	71'	73'	Tan Sandy Clay		X
19"	73'	77'	Tan Sand		X
19"	77'	87'	Tan Clay		X
19"	87'	95'	Tan Sand		X
19"	95'	125'	Tan Clay		X
19"	125'	130'	Tan Sand	X	
19"	130'	131'	Tan Clay		X
19"	131'	144'	Tan Sand	X	
19"	144'	148'	Tan Clay		X
19"	148'	161'	Tan Sand	X	
19"	161'	163'	Tan Clay		X
19"	163'	168'	Tan Sand	X	
19"	168'	169'	Tan Clay		X
19"	169'	182'	Tan Sand	X	
19"	182'	195'	Tan Sandy Clay		X
19"	195'	201'	Brown Clay		X
19"	201'	214'	Tan Clay		X
19"	214'	218'	Tan Sand	X	
19"	218'	226'	Tan Sandy Clay		X
19"	226'	229'	Tan Sand	X	
19"	229'	235'	Tan Clay		X
19"	235'	239'	Tan Sand	X	
			(Cont. on Page 2)		

Completed Depth (Measurable): 490 ft.

Date Started: 2/8/2016

Date Completed: 3/25/2016

14. DRILLER'S CERTIFICATION:

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

Company Name Post Drilling Inc.

Co. No 670

*Principal Driller

Date 4/4/2016

*Driller

Date 4/4/2016

*Operator II

Date

Operator I

Date

* Signature of Principal Driller and rig operator are required

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WATER RESOURCES
WESTERN REGION

IDAHO DEPARTMENT OF WATER RESOURCES
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Lat. 43 48.650 (Deg. and Decimal minutes)

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7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (bs or ft)	Placement method/procedure

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge Schedule	Material	Casing Liner	Threaded	Welded
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N MethodManufactured screen ☐ Y ☐ N Type

Method of installation

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

Length of Headpipe Length of Tailpipe

Packer ☐ Y ☒ N Type

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (bs or ft)	Placement method

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG)

Describe control device

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 114 ft. Static water level (ft) 127 ft.

Water temp. (°F) Bottom hole temp. (°F)

Describe access port Metal Plate

Well test:	Test method:
Drawdown (feet)	Pump
78 ft.	☒
Discharge or yield (gpm)	Boiler
1,077 gpm	☐
Test duration (minutes)	Air
4 hrs.	☐
	Flowing artesian
	☐

Water quality test or comments:

13. LITHOLOGIC LOG and/or repairs or abandonment:

Core Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
19"	239'	242'	Tan Clay		X
19"	242'	257'	Tan Sand Size 5/8	X	
19"	257'	258'	Tan Clay		X
19"	258'	266'	Tan Sand Size 5/8	X	
19"	266'	284'	Tan Clay		X
19"	284'	296'	Blue Clay		X
19"	296'	304'	Tan Clay		X
19"	304'	311'	Blue Clay		X
19"	311'	316'	Blue Sand	X	
19"	316'	326'	Blue Clay		X
19"	326'	329'	Blue Sand	X	
19"	329'	331'	Blue Clay		X
19"	331'	337'	Blue Sand	X	
19"	337'	343'	Blue Clay		X
19"	343'	346'	Blue Sand	X	
19"	346'	353'	Blue Clay		X
19"	353'	367'	Blue Sand	X	
19"	367'	373'	Blue Sandy Clay		X
19"	373'	379'	Blue Sand	X	
19"	379'	385'	Blue Sandy Clay		X
19"	385'	392'	Blue Sand	X	
19"	392'	397'	Blue Sandy Clay		X
19"	397'	400'	Blue Sand	X	
19"	400'	401'	Blue Sandy Clay		X
19"	401'	407'	Blue Sand	X	
19"	407'	412'	Blue Clay		X
19"	412'	418'	Blue Sand	X	
19"	418'	420'	Blue Clay		X
19"	420'	421'	Blue Sand	X	
19"	421'	423'	Blue Clay		X
19"	423'	446'	Blue Clay		X

(Cont. on Page 3)

Completed Depth (Measurable): 490 ft.

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Company Name Post Drilling Inc. Co No 670

Principal Driller Date 4/4/2016

Operator Date 4/4/2016

Operator II Date

Operator I Zack Lomus Date

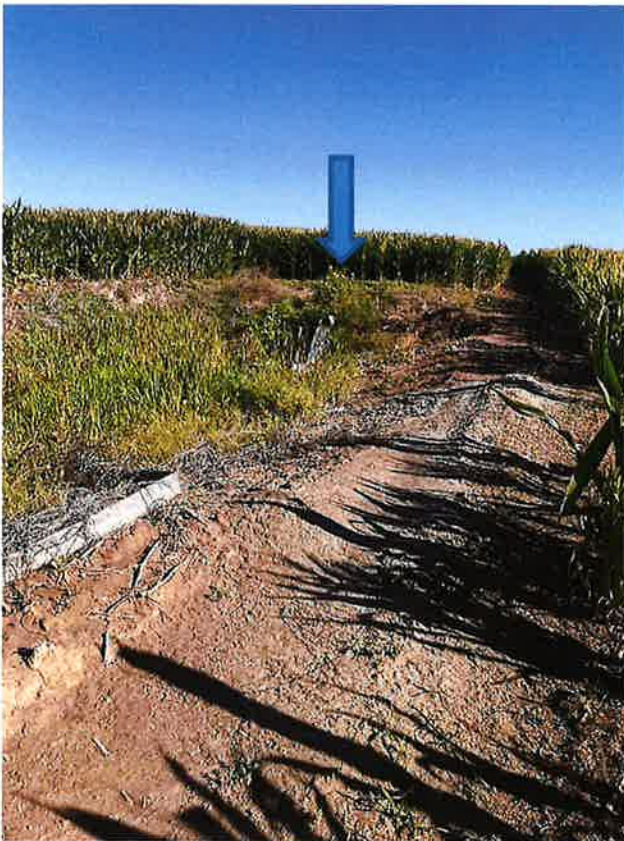
Signature of Principal Driller and rig operator are required

Operator 1 Lee C. Dilling Date _____

* Signature of Principal Driller and rig operator are required



Both photos show well water emptying into the irrigation regulation pond.
The arrow points to the location of the well, which is obscured by corn.



Canal water emptying into the regulation pond.



Valves and meter on well.



Irrigation regulation pond.



Regulation pond is behind the concrete structure. Pump to the large pivot is on the left. Small red pump on left supplies water to the non-pivot areas.



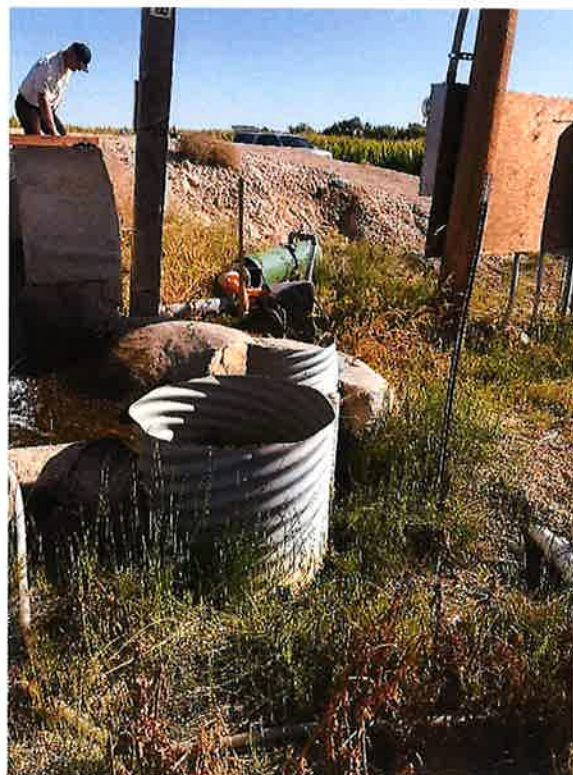
Photo of pump for the large pivot taken from the edge of pond. Power board for this pump.



Pump for the large pivot.



Power board for well and pump to small pivots.



Behind the power board and pump to small pivots.



Pressure gage for small pivots at 50 psi.



Irrigation on small pivot side.



Large pivot area of irrigation.



A portion of the non-pivot irrigated area.



Line to non-pivot areas.



Waste water drainage.