

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

MAY 27 2015

DEPARTMENT OF
WATER RESOURCES

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 63-339111. Owner A J P Farms Inc. and JLP Farms Inc.Phone No. 208-585-5834Current address A J P: 23546 Hartley Ln, Middleton 83644; JLP: Attn: Jerry Payne, 27333 Fountain Rd, Parma 836602. Examiner's name Peter Cooper, P.E. (Examiner 15-155)EXAM DATE 5/21/20153. Accompanied by Jerry PayneEmail fountain06@frontiernet.netAddress listed aboveRelationship to permit holder Farmer/ownerPhone No. 208-941-1489 (cell)4. Source Ground water

tributary to _____

B. OVERLAP REVIEW1. Other water rights with the same place of use Black Canyon Irrigation District water2. Other water rights with the same source and point of diversion None**C. DIVERSION AND DELIVERY SYSTEM**

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County	Method of Determination/Remarks
			NE	NE	18	5N	4W	Canyon	Exam, 2013 photo

2. Place(s) of Use:

Method of determination Exam, 2013 photo

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
5N	4W	18	38	38	38	36									32				182

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.

Scale: 1" = _____

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0068880	US Motors	150	1407099	Hydroflo 14HL	2 stage, 9.18" Trim, 12" Disch.

*Code to correspond with no. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Portable Flowmeter	Ultrasonic	GE	PT878	7140	various	March 30, 2015

2. Measurements: _____

Examiner measured a total of 5.40 cfs from the well. 3.52 cfs was directed to the west branch and 1.88 cfs was directed to the east branch.

E. NARRATIVE/REMARKS/COMMENTS

The examiner found the well equipped with a 150 hp vertical turbine pump with a measured system capacity of 5.40 cfs. The well supplies supplemental ground water to a gravity irrigation system consisting of pipe and concrete ditches as identified on the maps included as Attachment D. Ground water from the well is discharged into an above ground 12-inch steel pipe manifold with branches to the east and west. From the manifold, buried 12-inch 100 psi PIP runs underground approximately 50 feet to the east to an 8-inch pipe that open discharges into a gravity ditch along the north edge of the NENE for irrigation of the NENE. Also from the manifold, buried 12-inch 100 psi PIP runs underground approximately 250 feet to the west to three additional 8-inch pipes that open discharge to a system of 8-inch pipes that feed gravity ditches along the north edges of the NWNE, SWNE, SENE, and NESE for gravity irrigation of those fields. Surface water from Black Canyon Irrigation District is directed through the same system of gravity irrigation ditches/pipes and serves as the primary irrigation source for the property. Ground water will be used for irrigation when surface water is not available or sufficient. With the exclusion of roads and ditches, 182 acres were found irrigated.

Based on the exam findings, permit 63-33911 is recommended to be licensed for one well up to the permitted 2.40 cfs, allowing 0.0132 cfs/acre and full volume. Recommended licensing conditions include:

1. Standard supplemental ground water conditions

Attachment A: permit, amendment of permit, and proof of beneficial use

Attachment B: well driller's report and pump curve

Attachment C: system capacity flow calculation

Attachment D: topographical map, 2013 aerial photo

Attachment E: photos of POU and well

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS☒ Additional computation sheets attached

Measured Method:

See section D.2. referencing flow determinations

Examiner measured 5.40 cfs for the well

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 182 \times 4.5 = 819$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 2.4 \times 260 \times 1.9835 = 1237.7$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 819$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion	Annual Volume
	From	To	Q (cfs)	V (afa)
Irrigation	3/1	11/15	2.4 cfs	819 afa
Totals:			2.4 cfs	819 afa

2. Recommended Amendments

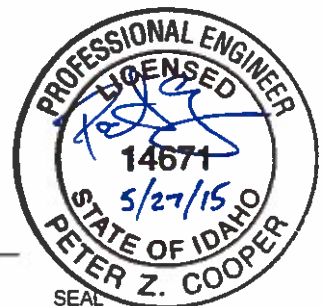
☐ Change P.D. as reflected on page 1☐ Add P.D. as reflected on page 1☐ None☐ Change P.U. as reflected on page 1☐ Add P.U. as reflected on page 1☐ Other**I. AUTHENTICATION**

Field Examiner's Signature



Date

5/27/15



Reviewer

Date

ATTACHMENT A

PERMIT, AMENDMENT OF PERMIT, AND PROOF OF BENEFICIAL USE

State of Idaho
Department of Water Resources
Permit to Appropriate Water

NO. 63-33911

Priority: February 03, 2014

Maximum Diversion Rate: 2.40 CFS

This is to certify, that A J P FARMS INC
23546 HARTLEY LN
MIDDLETON ID 83644

And

JLP FARMS INC
ATTN JERRY PAYNE
27333 FOUNTAIN RD
PARMA ID 83660

have applied for a permit to appropriate water from:

Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
IRRIGATION	03/01 to 11/15	2.40 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER NW1/4NE1/4 Sec. 18, Twp 05N, Rge 04W, B.M. CANYON County

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
05N	04W	18	40.0	40.0	40.0	36.0									30.0				186.0

Total Acres: 186

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before June 01, 2015.
2. Subject to all prior water rights.
3. This right does not grant any right-of-way or easement across the land of another.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
5. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
6. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

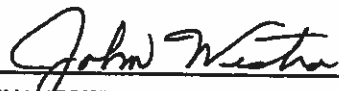
State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 63-33911

7. The right holder shall make full beneficial use of all surface water rights available to the right holder for irrigation of the lands authorized to be irrigated under this right. The right holder shall limit the diversion of ground water under this right to those times when the surface water supply is not available or the surface water supply is not reasonably sufficient to irrigate the place of use authorized under this right.
8. If the surface water right(s) appurtenant to the place of use is abandoned, forfeited, sold, transferred, leased or used on any other place of use, this right to divert ground water shall not be used without an approved transfer pursuant to Section 42-222, Idaho Code, or approval of the Department if a transfer is not required.
9. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 837.0 af at the field headgate for the place of use.
10. Use of this right is combined with water from Black Canyon Irrigation District.
11. This right when combined with all other rights shall provide no more than 4.5 afa per acre at the field headgate for irrigation of the place of use.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 16th day of May, 2014.


JOHN WESTRA, Western Regional Manager

State of Idaho
Department of Water Resources
Amendment of Permit

NO. 63-33911

Priority: February 03, 2014

Maximum Diversion Rate: 2.40 CFS

This is to certify, that A J P FARMS INC
23546 HARTLEY LN
MIDDLETON ID 83644

And

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PARMA ID 83660

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Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

BENEFICIAL USE

IRRIGATION

PERIOD OF USE

03/01 to 11/15

RATE OF DIVERSION

2.40 CFS

LOCATION OF POINT OF DIVERSION:

GROUND WATER NE1/4NE1/4 Sec. 18, Twp 05N, Rge 04W, B.M., CANYON County

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	
05N 04W 18	40.0	40.0	40.0	36.0									30.0				186.0

Total Acres: 186

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **June 01, 2015**.
2. Subject to all prior water rights.
3. This right does not grant any right-of-way or easement across the land of another.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
5. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.

State of Idaho
Department of Water Resources
Amendment of Permit

NO. 63-33911

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This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 17th day of April, 2015.



JEFF PEPPERSACK

Interim Western Region Manager

ATTACHMENT B

WELL DRILLER'S REPORT & PUMP CURVE

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

PAGE 1 of 2

1. WELL TAG NO. D 0068880
Drilling Permit No. 968374 - 874431
Water right or injection well # 63-33911
2. OWNER: AJP Farms Inc

Name _____
Address 23546 Hartley Ln
City Middleton State ID Zip 83644

3. WELL LOCATION:

Twp. 05 North ☒ or South ☐ Rge. 04 East ☐ or West ☒
Sec. 18 1/4 NE 1/4 NE 1/4

Gov't Lot _____ County Canyon
Lat. 43 46.680 (Deg and Decimal minutes)
Long 116 51.492 (Deg and Decimal minutes)
Address of Well Site 1/2 mile west of Market and Fountain Rd
City Parma

(Use at least number of feet - Distance to Road - Landmark)
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 Reverse

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite chips	0	71	18,000 lbs	Dry pour
Bentonite Chips	131	172	4,500 lbs	Dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner Threaded Welded
16	+2	199	.375	Steel	☒ ☐ ☐ ☒
16	219	222	.375	Steel	☒ ☐ ☐ ☒
16	272	322	.375	Steel	☒ ☐ ☐ ☒
16	352	370	.375	Steel	☒ ☐ ☐ ☒

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____
Manufactured screen ☒ Y ☐ N Type Wire Wrap
Method of installation Lower in

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
199	219	.030		16	Stainless	
222	272	.030		16	Stainless	
322	352	.030		16	Stainless	

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
#8-16 Sand	172	390	45,000 lbs	Dry pour
3/8" Gravel	71	131	675 ft ³	Dry pour

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) 76' Static water level (ft) 76'
Water temp. (°F) 62° Bottom hole temp. (°F) _____
Describe access point 2" Pipe on side

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
58	2500	480

Test method:

Pump	Sailer	Ar	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
28	0	6	Top soil		X
28	6	8	Hard brown clay		X
28	8	20	Caliche, sm layer coarse brown sand		X
28	20	29	Coarse brown sand		X
28	29	33	Caliche		X
28	33	59	Medium-coarse brown sand		X
28	59	71	Brown clay		X
28	71	120	Fine sand, small clay layer	X	
24	120	139	Fine sand, small clay layer	X	
24	139	146	Brown clay		X
24	146	157	Fine-medium brown sand	X	
24	157	172	Brown, blue clay		X
24	172	190	Medium-coarse brown sand	X	
24	190	193	Grey clay		X
24	193	219	Medium-coarse brown sand	X	
24	219	223	Blue clay		X
24	223	271	Fine-coarse blue sand, sm clay layer	X	X
24	271	325	Blue clay		X
24	325	350	Fine-coarse blue sand	X	
24	350	370	Blue clay		X
24	370	374	Fine-medium blue sand	X	
24	374	380	Blue clay		X
24	380	382	Fine sand	X	
24	382	385	Blue clay		X
24	385	405	Sandy clay		X
24	405	417	Blue clay		X
24	417	421	Fine blue sand	X	
24	421	423	Blue clay		X
24	423	429	Fine blue sand	X	
24	429	513	Blue clay		X
24	513	515	Fine blue sand	X	
24	515	545	Blue Clay		X

Completed Depth (Measurable) 385'

Date Started: Feb 20, 2015

Date Completed: Mar 16, 2015

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 Riverside Inc Co. No. 333

*Principal Driller [Signature] Date 4-3-15

*Driller [Signature] Date 4/8/15

*Operator II [Signature] Date _____

Operator I [Signature] Date 4-6-15

Signature of Principal Driller and rig operator are required.

APR 10 2015

WATER RESOURCES
WESTERN REGION

Company: Riverside Inc.
Name:
Date: 3/30/2015



Pump:

Size: 14HL (2 stage)
Type: Vertical
Synch speed: 1800 rpm
Curve: 122211
Specific Speeds:
Dimensions:
Vertical Turbine:
Speed: 1770 rpm
Dia: 9.18 in
Impeller: 14HL ENCL. SS
Ns: —
Nss: —
Suction: 10 in
Discharge: 12 in
Bowl size: 14 in
Max lateral: 1 in
Thrust K factor: 17 lb/ft

Search Criteria:

Flow: 2500 US gpm Head: 155 ft

Fluid:

Water
Density: 62.32 lb/ft³
Viscosity: 0.9945 cP
Temperature: 68 °F
Vapor pressure: 0.3391 psi a
Atm pressure: 14.7 psi a
NPSHa: —

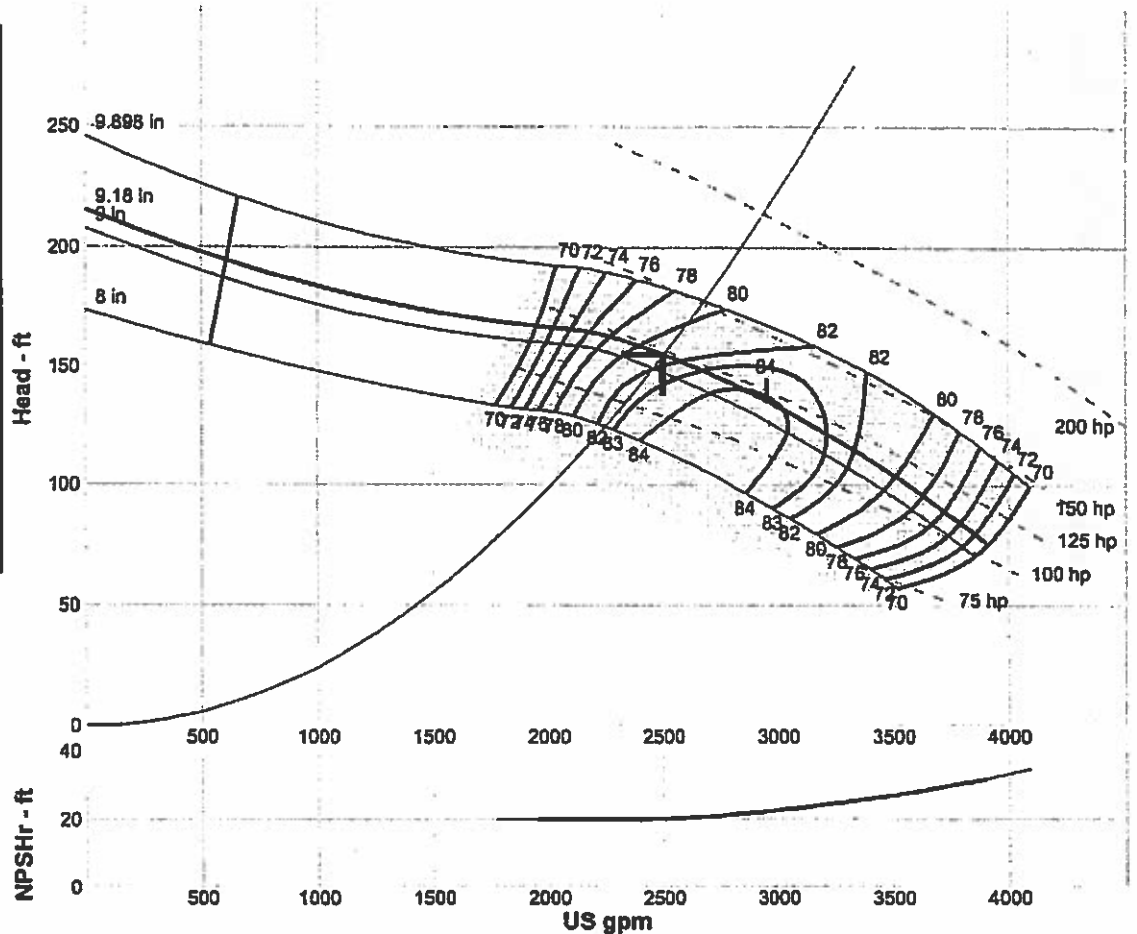
Motor:

Standard: NEMA
Enclosure: WP1
Size: 125 hp
Speed: 1800 rpm
Frame: 40ST
Sizing criteria: Max Power on Design Curve

Pump Limits:

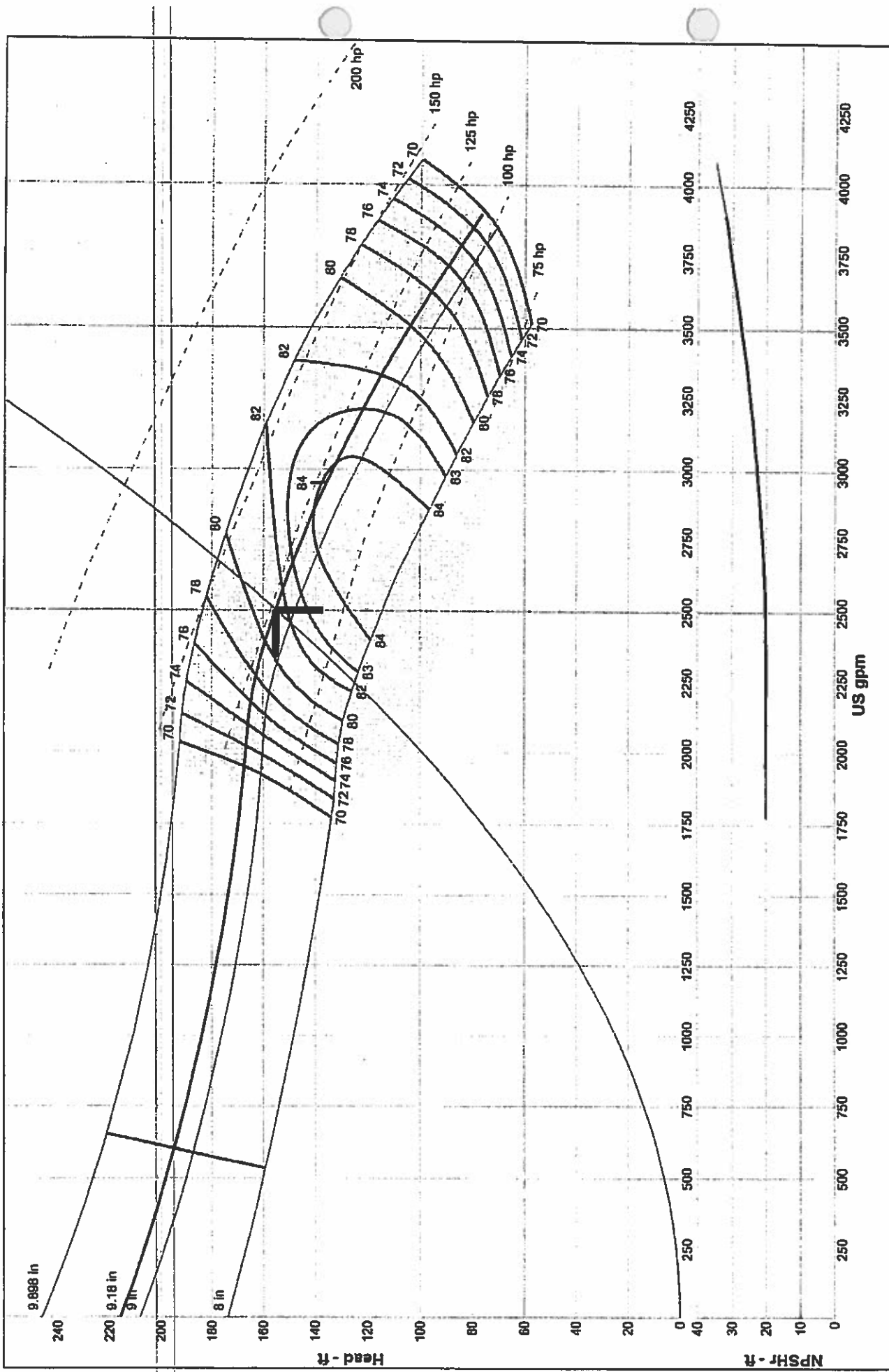
Temperature: 140 °F
Pressure: 330 psi g
Sphere size: 1.5 in
Power: 600 hp
Eye area: —

Dry Point	
Flow:	2501 US gpm
Head:	155 ft
Eff:	81.2%
Power:	120 hp
NPSHr:	20.2 ft
Design Curve	
Shutoff head:	215 ft
Shutoff dP:	93.3 psi
Min flow:	590 US gpm
BEP:	84% @ 2952 US gpm
NOL power:	121 hp @ 2574 US gpm
Max Curve	
Max power:	155 hp @ 3159 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
3000	1770	133	84	120	22.8
2500	1770	155	81.2	120	20.2
2000	1770	167	71.5	118	20
1500	1770	178	57.6	115	20
1000	1770	191	43.8	111	20



Company: Riverside Inc.

Name: 3/30/2015

Hydroflo Pumps USA, Inc.

Catalog: Hydroflo VS Pumps.60, Vers 18.3

Vertical - 1800 rpm

Design Point: 2500 US gpm, 155 ft

Size: 14HL (2 stage)

Speed: 1770 rpm

Dis: 9.18 in

Curve: 122211

Impeller: 14HL ENCL. SS

ATTACHMENT C
FLOW CALCULATIONS

West Branch

Permit:	63-33911				
Owner:	A J P Farms Inc. and JLP Farms Inc.				
Site Name:	West Branch - NENE Well Discharge				
POD Location:	T5N R4W Section 18 NENE				
Tag No:	D0068880				
Meter:	GE TransPort PT878				
Type:	Portable Ultrasonic Time Flight Liquid Flow Meter				
Serial Number:	7140				
Calibration Date:	3/30/2015				
Operator:	Peter Cooper, P.E.				
Date/Time	Volume (gal/m)	Velocity (ft/s)	(+)Total (gal)	Error #	
5/21/2015 9:50	1592.1	4.7	453556.4	0	
5/21/2015 9:51	1592.7	4.7	455175.6	0	
5/21/2015 9:52	1590.3	4.7	456711.6	0	
5/21/2015 9:53	1591.1	4.7	458350.6	0	
5/21/2015 9:54	1587.3	4.7	459885.1	0	
5/21/2015 9:55	1574.9	4.7	461492.1	0	
5/21/2015 9:56	1577.3	4.7	463084.3	0	
5/21/2015 9:57	1579.5	4.7	464704.3	0	
5/21/2015 9:58	1574.2	4.7	466227.2	0	
5/21/2015 9:59	1578.2	4.7	467852.3	0	
5/21/2015 10:00	1573.3	4.7	469358.8	0	
Time:	10 minutes				
Total Volume	15802.5 gallons				
Average Flow Rate	1580.2 gpm				
Average Flow Rate	3.52 cfs				

West Flow Rate	1580.2 gpm	3.52 cfs
East Flow Rate	843.6 gpm	1.88 cfs
Total Flow Rate	2423.9 gpm	5.40 cfs

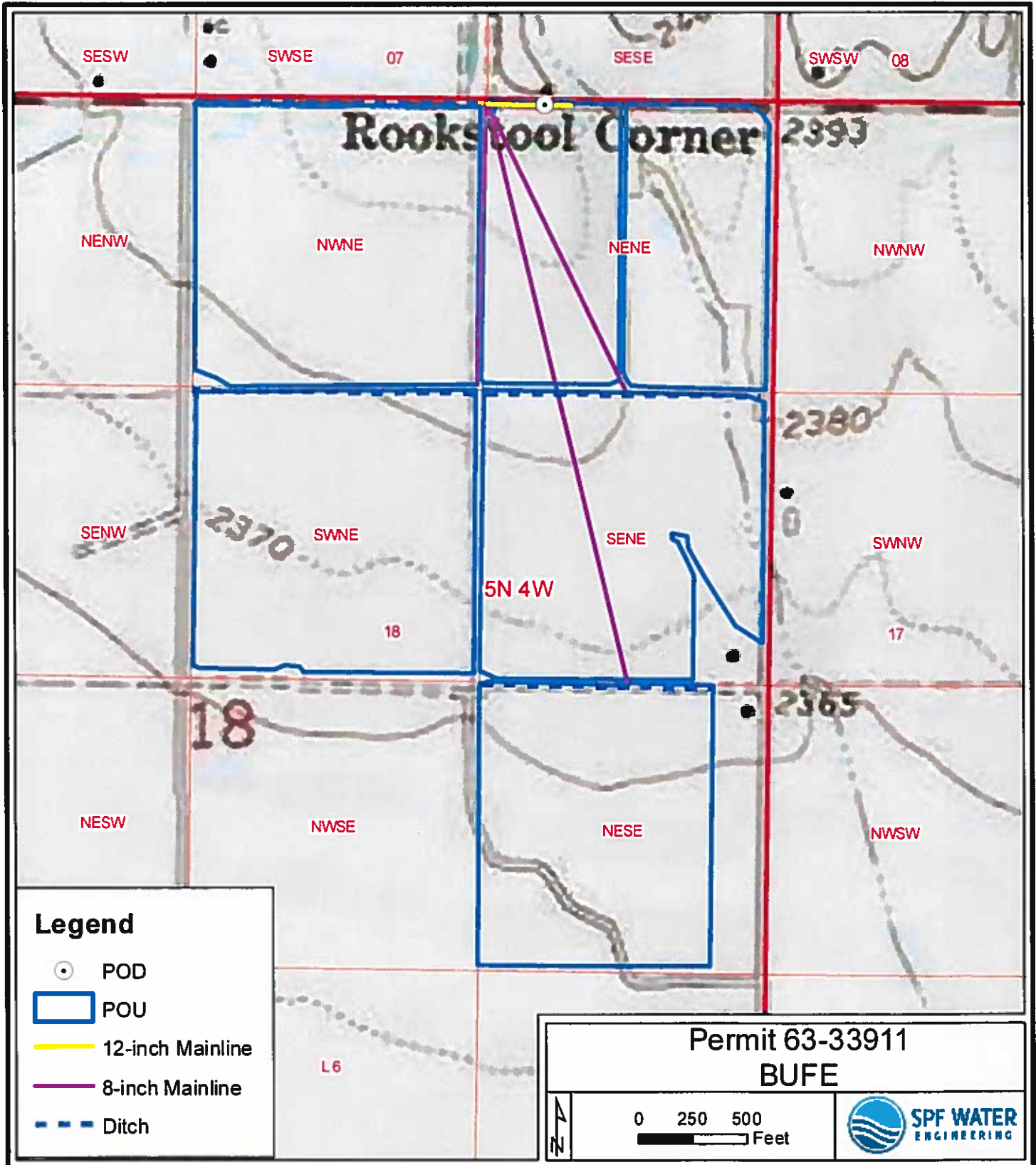
East Branch

Permit:	63-33911				
Owner:	A J P Farms Inc. and JLP Farms Inc.				
Site Name:	East Branch - NENE Well Discharge				
POD Location:	T5N R4W Section 18 NENE				
Tag No:	D0068880				
Meter:	GE TransPort PT878				
Type:	Portable Ultrasonic Time Flight Liquid Flow Meter				
Serial Number:	7140				
Calibration Date:	3/30/2015				
Operator:	Peter Cooper, P.E.				
Date/Time	Volume (gal/m)	Velocity (ft/s)	(+)Total (gal)	Error #	
5/21/2015 10:10	853.1	2.5	477967.5	0	
5/21/2015 10:11	853.4	2.5	478831.0	0	
5/21/2015 10:12	867.4	2.6	479670.0	0	
5/21/2015 10:13	837.5	2.5	480530.3	0	
5/21/2015 10:14	830.2	2.5	481352.6	0	
5/21/2015 10:15	833.9	2.5	482196.2	0	
5/21/2015 10:16	844.6	2.5	483018.6	0	
5/21/2015 10:17	846.9	2.5	483875.9	0	
5/21/2015 10:18	840.8	2.5	484741.1	0	
5/21/2015 10:19	835.0	2.5	485547.5	0	
5/21/2015 10:20	833.8	2.5	486403.9	0	
Time:	10 minutes				
Total Volume	8436.4 gallons				
Average Flow Rate	843.6 gpm				
Average Flow Rate	1.88 cfs				

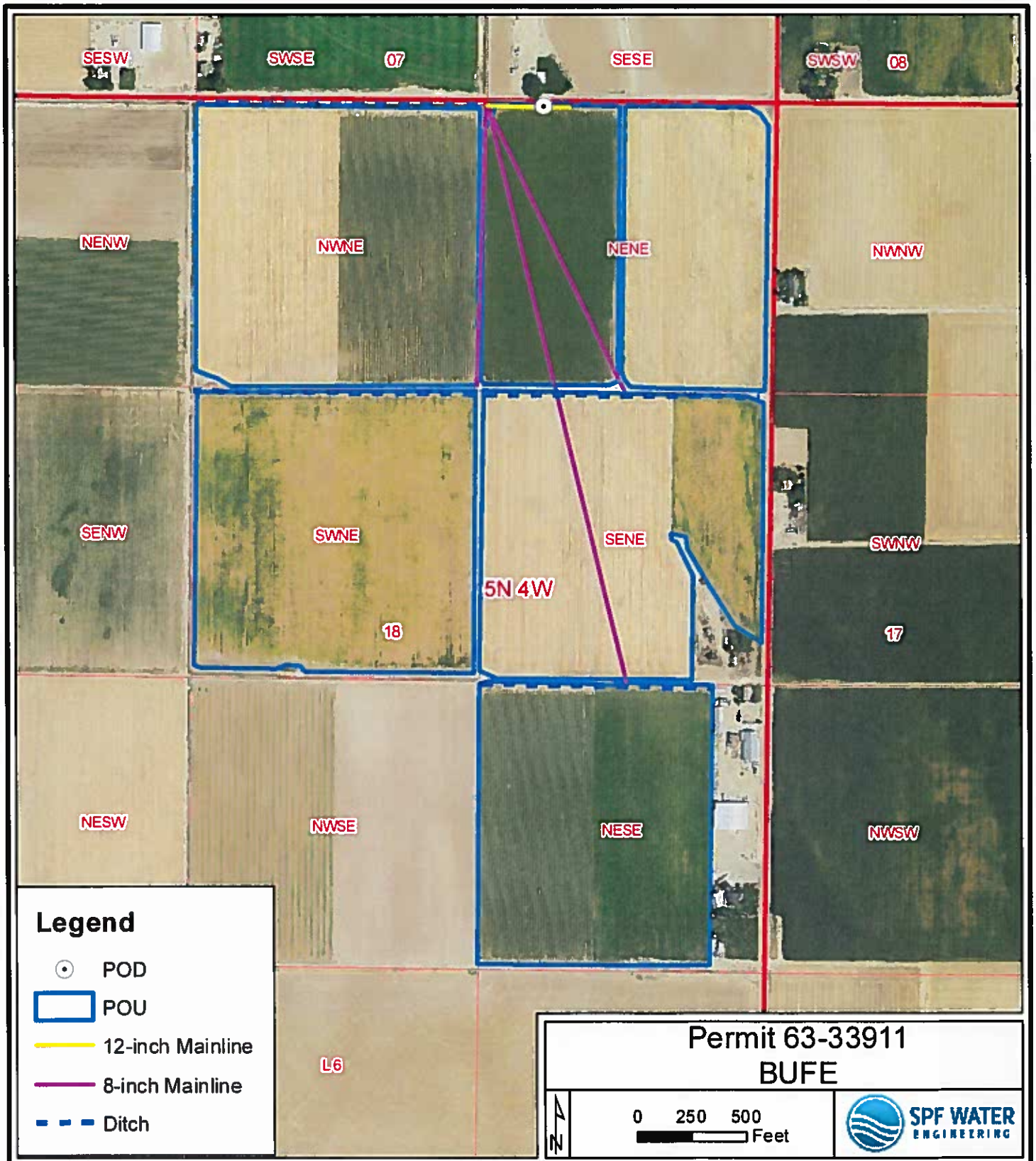
ATTACHMENT D

TOPOGRAPHICAL MAP AND AERIAL PHOTO

Topo Map



2013 Photo Map



ATTACHMENT E
PHOTOS



Figure 1: NENE well facing westerly. Ground water from the NENE well is discharged into an above ground 12-inch steel manifold with branches to the east and west. From the manifold, the steel pipe dives into the ground, and 12-inch 100 psi PIP runs underground to the east to one 8-inch open discharge pipe, and to the west to three additional 8-inch open discharge pipes into concrete field ditches.



Figure 2: IDWR Drilling Permit ID Tag.



Figure 3: Motor tag showing 150 hp motor installed



Figure 4: Three 8-inch open discharge points approximately 250 feet west of the well. Siphon tubes are used to draw water from the concrete delivery ditches once the water has been discharged from the well into the ditches.



Figure 5: One 8-inch open discharge point approximately 50 feet east of the well.



Figure 6: Typical delivery ditch.