

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

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NOV 30 2018

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. 63-122531. Owner Lavar ThorntonPhone No. 208-922-5779Current address 2800 Forrey Rd, Kuna ID 836342. Examiner's name Scott N. King, P.E., CWRE #133EXAM DATE July 25, 20183. Accompanied by Lavar Thornton

Email _____

Address 2800 Forrey Rd, Kuna ID 83634Relationship to permit holder samePhone No. 208-922-57794. Source Ground Water

tributary to _____

B. OVERLAP REVIEW1. Other water rights with the same place of use 63-3280, 63-3368, 63-7933, 63-7993, 63-32355, 63-12254, 63-122552. Other water rights with the same source and point of diversion 63-3280, 63-3368, 63-7933, 63-7993, 63-32355, 63-12254, 63-12255, 63-10228, 63-33937, 63-33938**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
								see Attachment B	Field Exam, GPS, Aerial Photo

2. Place(s) of Use:

Method of determination Field Exam, Aerial Photos (See Attachment B)

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

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
see Attachment B					

*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
Panametrics Portable Flowmeter	Ultrasonic	GE	PT878	7140	various	4/18/2018

2. **Measurements:** _____
 see Attachment C

E. NARRATIVE/REMARKS/COMMENTS

Currently, a total of 8.6 cfs and 3620.6 afa is decreed for irrigation of 960.3 acres within a 1004.1-acre PPU from 4 wells under water rights 63-3280, 63-3368, 63-7933, 63-7993 and 63-32355. Due to the water rights capacity and acre limit, irrigation was rotated throughout the PPU. To increase system capacity with the addition of two more wells, permits 63-12253, 63-12254, and 63-12255 were filed and approved as follows:

Permit 63-12253 - 2.78 cfs, limited to 625.5 afa applicable to 139 acres within PPU (6/2/1995 priority)

Permit 63-12254 - 3.25 cfs, limited to 2416.5 afa applicable to 537 acres within PPU (7/31/1995 priority)

Permit 63-12255 - 1.77 cfs, limited to 1327.5 afa applicable to 295 acres within PPU (7/31/1995 priority)

The examiner found a six well integrated system currently supplying water within the PPU. The permits do not authorize irrigation of land not previously irrigated. Because irrigation was historically rotated throughout the PPU, all acres within the PPU have been irrigated sometime prior and during the permits' development periods as evidenced on dated aerial photography. Based on the exam findings, the permits can be licensed for their authorized flow rate and volume amounts listed above and limited to 971 acres irrigation when combined.

The recommended 1003-acre PPU encompasses the same general area as the currently authorized PPU, but has been slightly modified for a better, more accurate depiction of areas that have been historically and currently irrigated.

Well #5 was found to be about 10 ft south of the quarter-quarter line and located in Section 1 SWNW, not NWNW.

When combined, rights 63-3280, 63-3368, 63-7933, 63-7993, 63-32355, 63-12253, 63-12254, and 63-12255 are recommended to be limited to 16.4 cfs ($8.6 + 2.78 + 3.25 + 1.77$), 4369.5 afa, and the irrigation of 971 acres.

When combined, rights 63-3280, 63-3368, 63-7933, 63-7993, 63-32355, 63-12253, 63-12254, 63-12255, 63-10228, 63-33937, and 63-33938 are recommended to be limited to 19.33 cfs.

Exam Attachments are included with the report for 63-12253

Attachment A: Field Exam Map

Attachment B: POD & PPU Supplement, Well Logs, System Components and Diagrams

Attachment C: Flow Measurements

Attachment D: Exam Photos

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:

Discharge was measured at 20.69 cfs

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 139 \times 4.5 \text{ afa/acre} = 625.5$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 2.78 \times 260 \text{ days} \times 1.9835 = 1,434$$

$$V = \text{Smaller of } V_{I,R} \text{ and } V_{D,R} = 625.5$$

2. Volume Calculations for Other Uses:

None

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	2.78 cfs	626 afa
Totals:			2.78 cfs	626 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

Scott N. King

Date

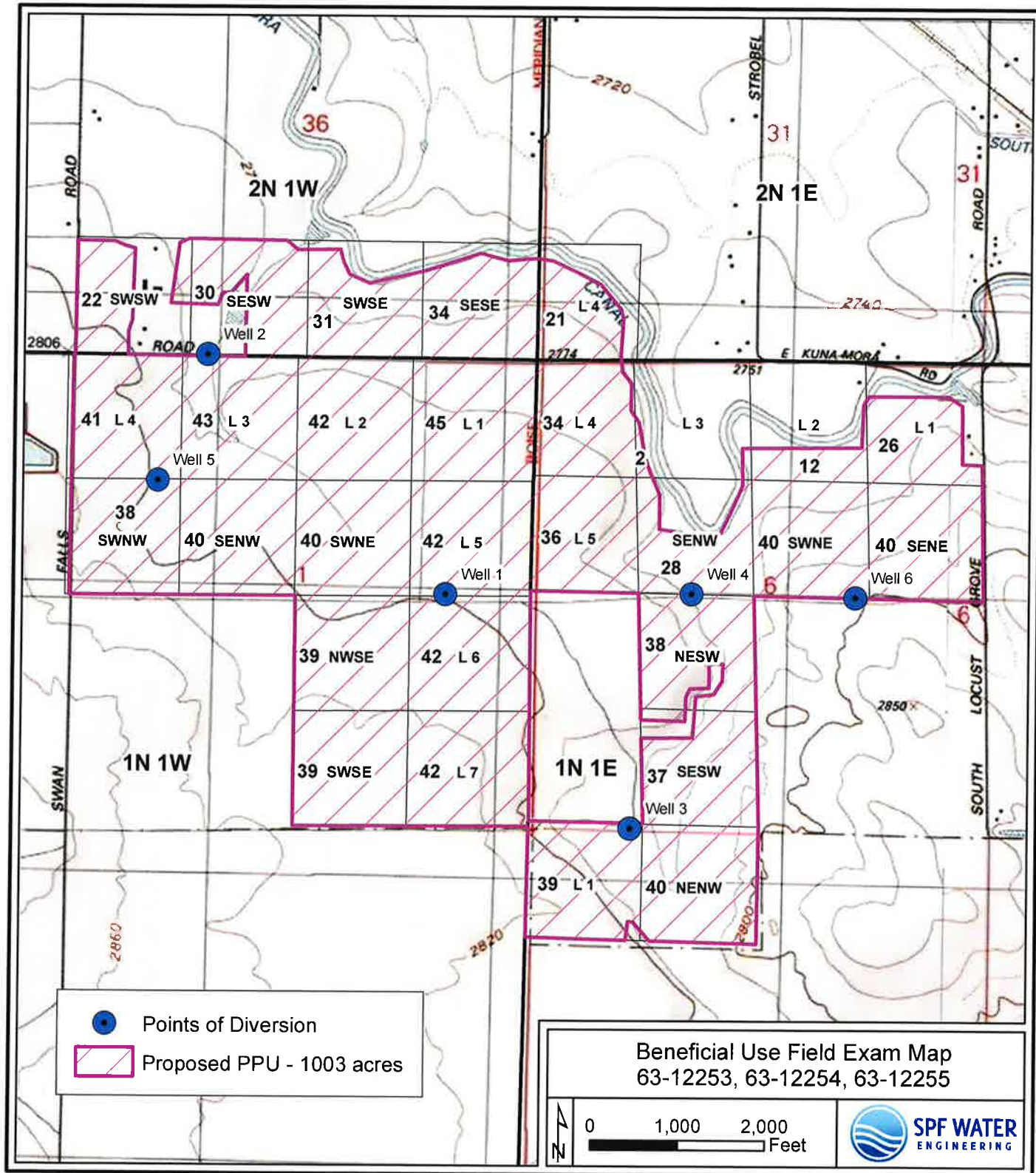
11/30/2018

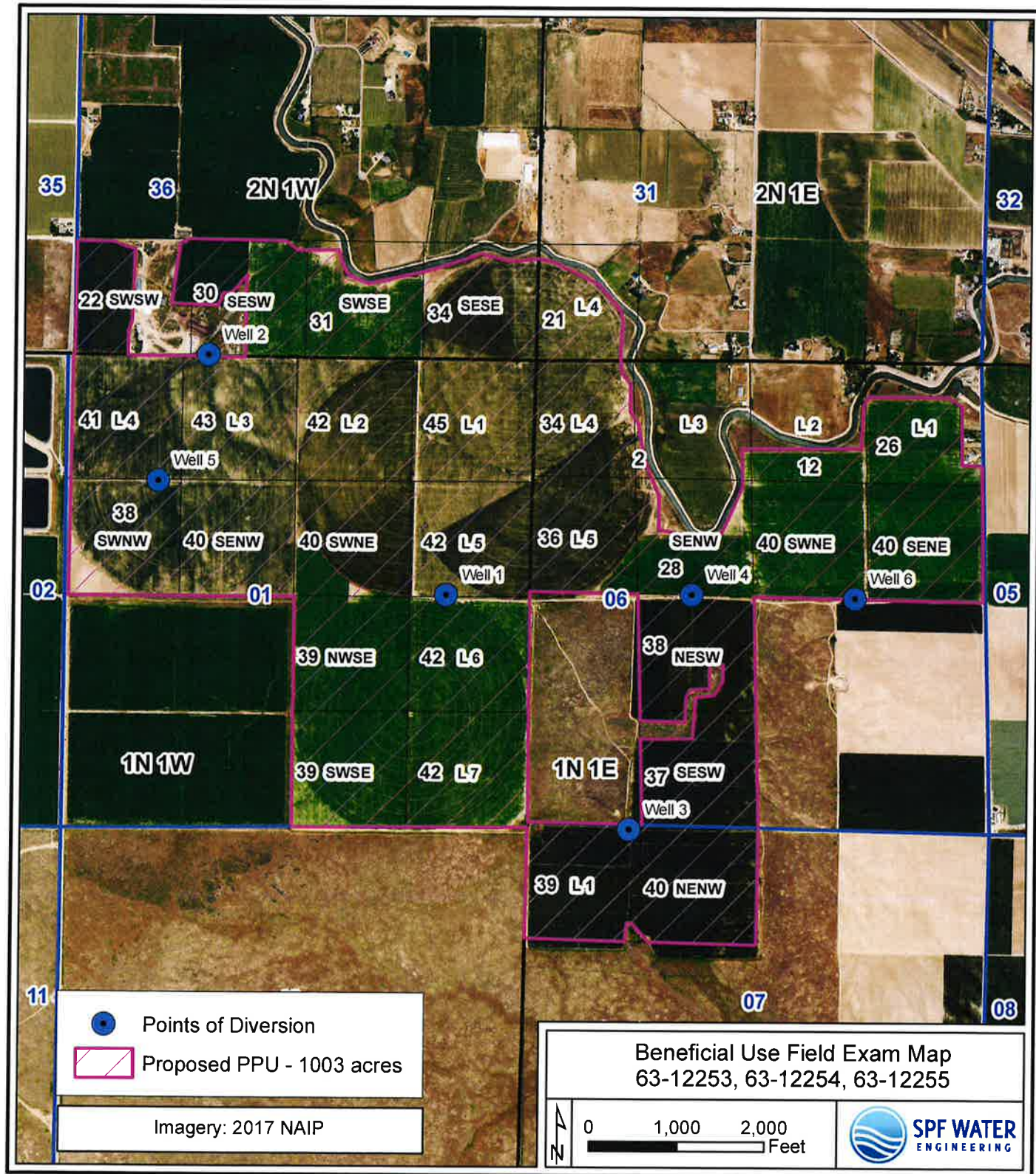
Reviewer

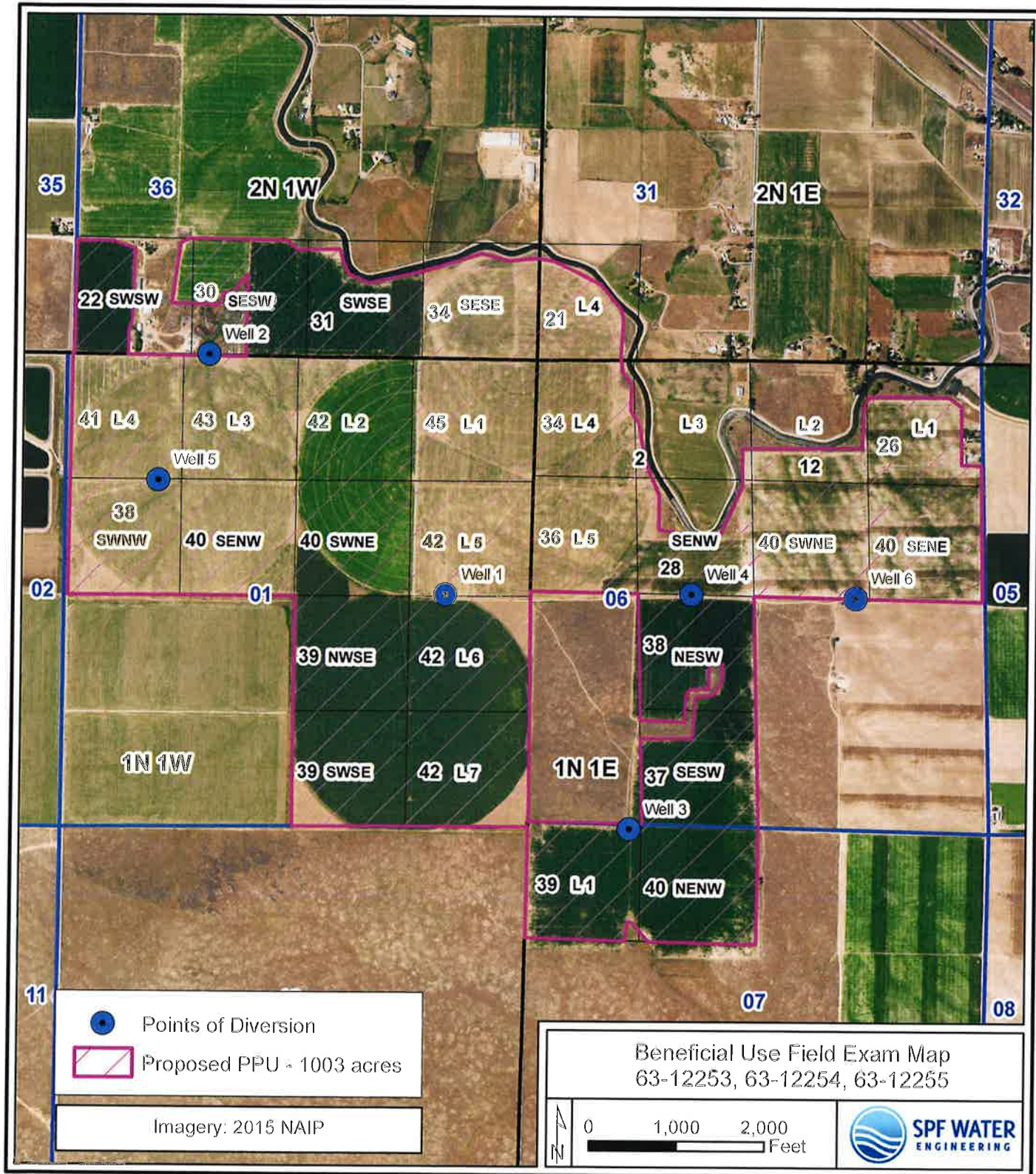
Date

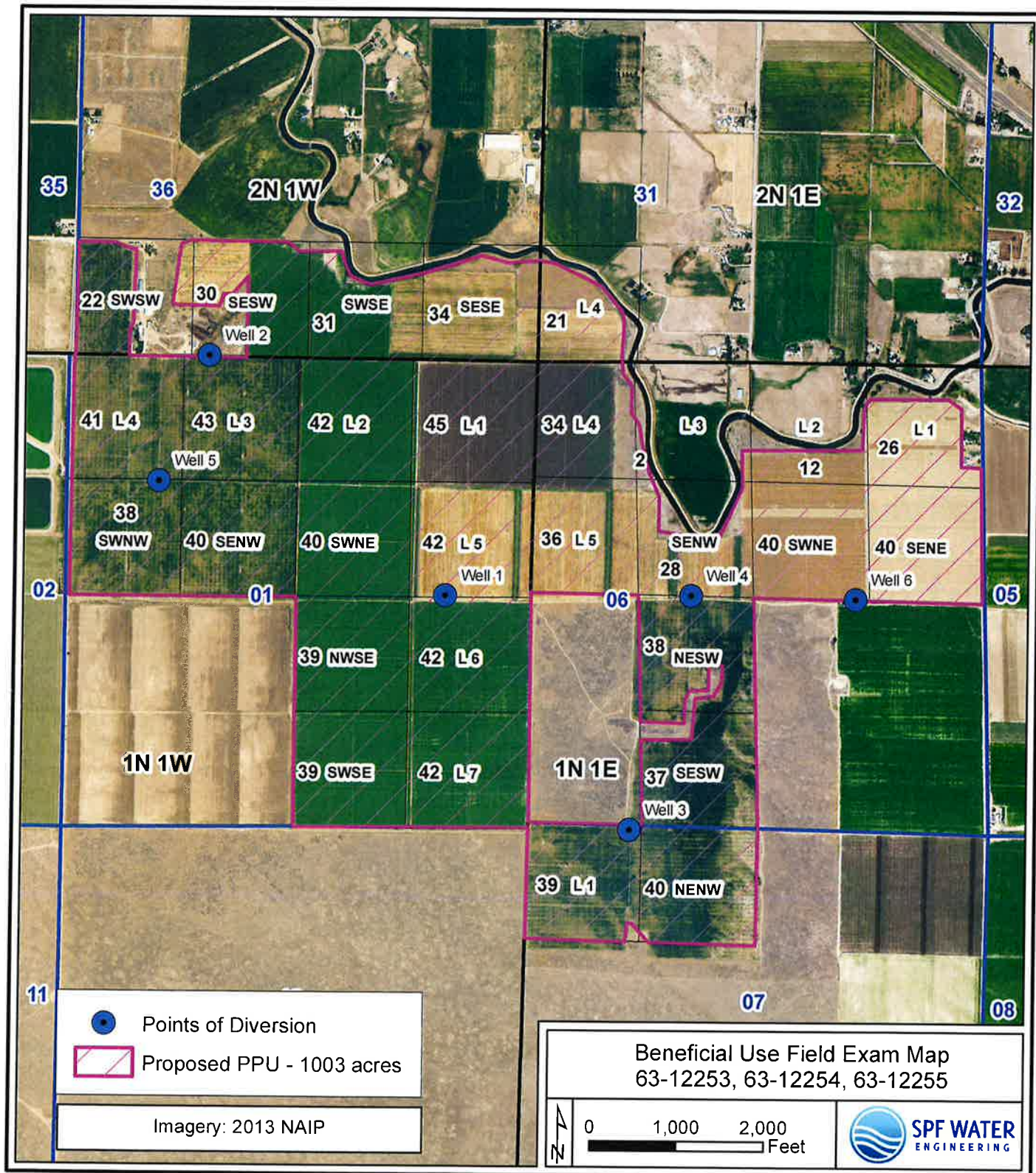


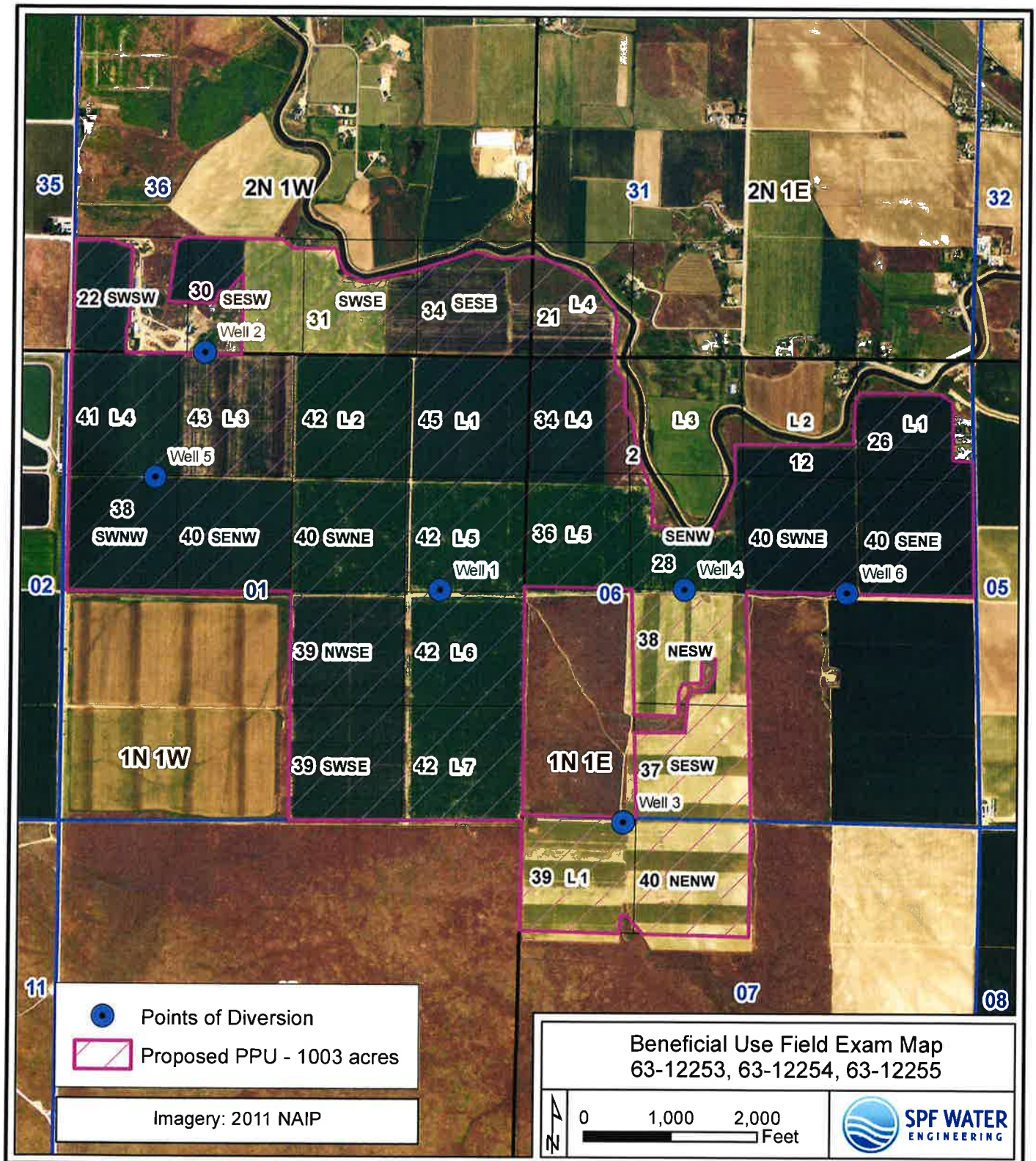
Attachment A
Field Exam Maps











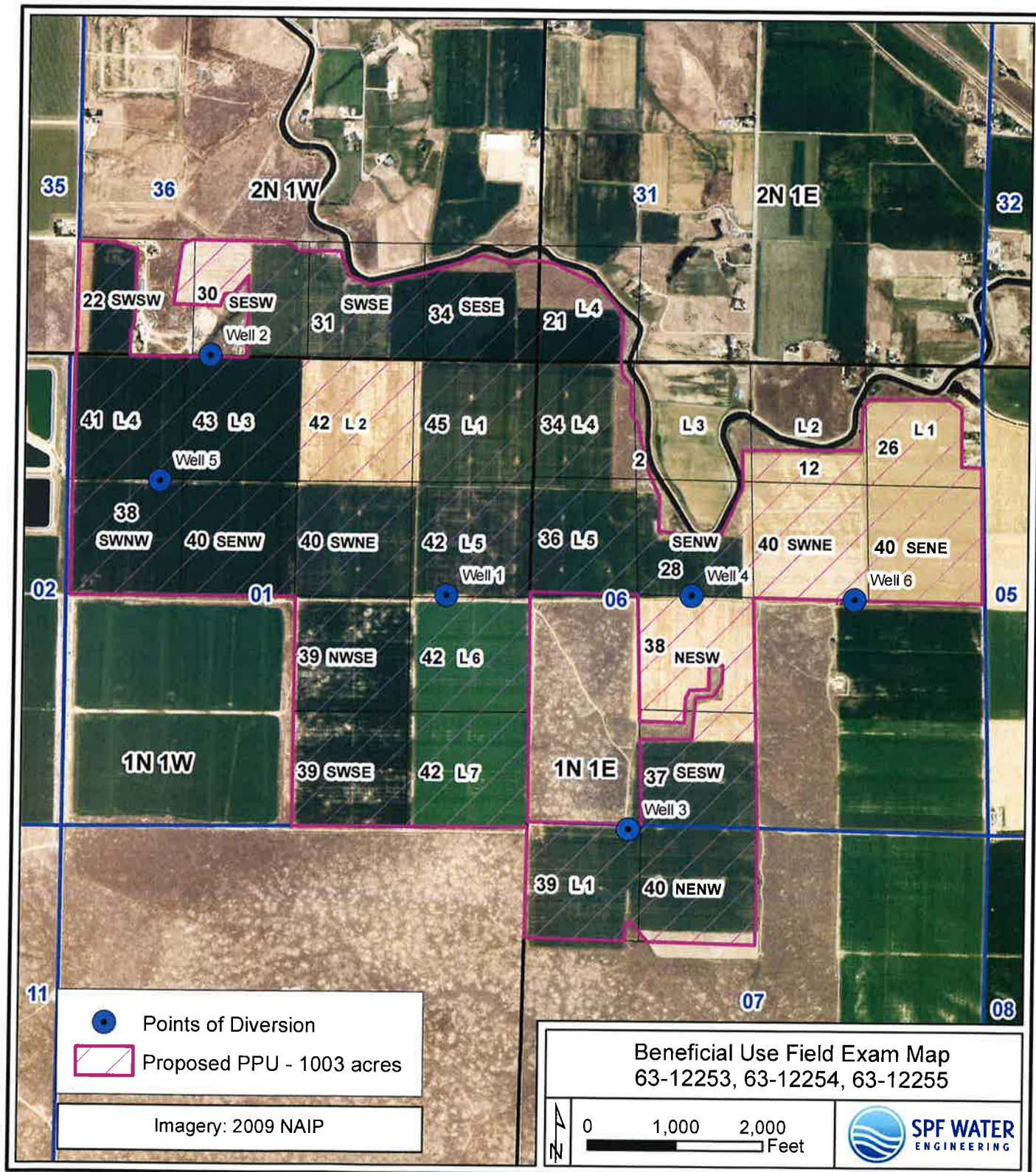


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**DEPARTMENT OF
WATER RESOURCES**

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 - ii. Report table C.4.
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2. Beneficial Use Field Exam, 63-12254
3. Beneficial Use Field Exam, 63-12255

Attachment B
Well Logs, System Components and
Diagrams

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Ident. No. 63-12253
63-12254 & 63-12255

Point of Diversion/Place of Use Supplement

Attachment to: ☐ Application for Permit to Appropriate Water ☐ Application for Transfer** ☐ Adjudication Claim
☐ Application for Amendment of Permit ☒ Beneficial Use Field Report ☐ Statutory Claim

Location of points of diversion (POD):

New POD?	Twp	Rge	Sec	Govt Lot	¼	¼	¼	County	Source	Local name or well/diversion tag #
☐ Yes	1N	1E	6			SW	NE	Ada	Ground Water	#6 / 885854
☐ Yes	1N	1E	6			SE	NW	Ada	Ground Water	#4 / 879846
☐ Yes	1N	1E	7	1		NW	NW	Ada	Ground Water	#3 / 855013
☐ Yes	1N	1W	1	5		SE	NE	Ada	Ground Water	#1 / 36377
☐ Yes	1N	1W	1			SW	NW	Ada	Ground Water	#5 / 790634
☐ Yes	2N	1W	36			SE	SW	Ada	Ground Water	#2 / 864084
☐ Yes										
☐ Yes										
☐ Yes										
☐ Yes										

Description of place of use (POU):

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
			L1	L2			L3	L4	L5										
1N	1E	6	26	12	40	40	2	34	36	28	38			37					293
								L1											
1N	1E	7					40	39											79
													L4						
2N	1E	31											21						21
1N	1W	1	L1	L2		L5	L3	L4							L6			L7	
			45	42	40	42	43	41	38	40					42	39	39	42	493
2N	1W	36											22	30			31	34	117

BUFE C.4.

Well or Diversion Identification No	Motor Make	HP	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
#1	US Motors	200	1404538	Johnston	10-inch
#2	North American Electric	200	1101042	Unknown	8-inch
#3	US Motors	200	1030122	Johnston	PG1519-1
#4	US Motors	200	X067648026-0002	Unknown	10-inch
#5	US Motors	200	1088192	Layne & Bowler	D01506
#6	General Electric	200	ELJ528114	Unknown	10-inch

Points of Diversion (6 Wells)

Well	Completion Date	Casing Dia. (inches)	Depth (feet)	Well Owner	Drilling Firm	Drilling Permit No.
1N1ES6 SWNE	6/1/2018	16	435	Lavar Thornton	Riverside Drilling	885854
1N1ES6 SENW	10/6/2016	16	395	Lavar Thornton	Riverside Drilling	879846
1N1ES7 NWNW	7/1/2009	16	376	Lavar Thornton	Johnston Drilling	855013
1N1WS1 SENE	8/10/1962	16	417	Lavar Thornton	Russell Cowe	36377
1N1WS1 NWNW	5/20/2003	12	395	Lavar Thornton	Johnston Drilling	790634
2N1WS36 SESW	6/20/2013	16	400	Lavar Thornton	Johnston Drilling	864084

Combined Rights Review

Right	Combined Use Limits									
	cfs	afa	acres	cfs/acre	af/acre	cfs	acres	cfs/acre	afa	afa/acre
Lavar Thornton										
63-3280	3.08	720	160	0.019	4.50					
63-3368	4.6	1687.5	375	0.012	4.50					
63-7933	2.8	630	140	0.020	4.50					
63-7993	1.2	583.1	160	0.008	3.64					
63-32355	1.12	0	125.3	0.009	0.00					
63-12253	2.78	625.5	139	0.020	4.50					
63-12254	3.25	1676	537	0.006	3.12					
63-12255	1.77	912.8	295	0.006	3.09					
Layne Thornton										
63-10228	0.53	166.5	37.0	0.014	4.50					
63-33937 (overlapped by 63-33938)	1.49	344.7	76.6	0.019	4.50					
63-33937 (not overlapped by 63-33938)	0.47	109.8	24.4	0.019	4.50					
63-33938 (recommended)	0.44	42.3	123.0	0.004	0.34					
Recommendations in yellow										
63-33938 provides 0.44 cfs to bring irrigation of 123 acres up to 0.02 cfs/acre and volume to 4.5 afa/acre. It also provides 9.4 new acres.										
Total Measured Diversion Rate	20.69 cfs									
CFS available for Lavar Pmts	9.16									
CFS of Lavar Pmts	7.8									

63-33938 provides 0.44 cfs to bring irrigation of 123 acres up to 0.02 cfs/acre and volume to 4.5 afa/acre. It also provides 9.4 new acres.

Well #1

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

RECEIVED
SEP 21 1962

36377

Permit No. 9 30424 Well No. _____ County BlaineOwner L. ThorntonAddress Kuna, IdahoDriller Russel CoweAddress Boise, IdahoWell location SE 1/4 NE 1/4 Sec. 1 T. 1 N. 1 R. 1 E. WSize of drilled hole 16" and 10"

Locate well in section

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

Total depth of well 423'Give depth to standing water from the ground 188' Water temp. _____ °Fahr.On "Pumping Test" delivery was 1800 g.p.m. or _____ c.f.s. Drawdown was 34 feet.Size of pump and motor used to make test 300 HLength of time of test 6 hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____

(TYPE AND SIZE OF VALVE, ETC.)

Water will be used for irrigation Weight of casing per lineal foot 64 lb.Thickness of casing 1/2 Casing material steel

(STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing _____

(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER;
CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
16"	0	309		
10"	265	417		

Number and size of perforations 16" 1/2 by 4 located 275 feet to 300 feet from ground10" 3/16 by 4" 265 417Date of commencement of well June 11, 1962 Date of completion of well Aug. 10, 1962

IN-1W-1 SENE

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
0	37	black lava rock		
37	60	gravel		
60	75	sandy shale		
75	85	brown sand		
85	95	white sand sharp		
95	102	brown shale		
102	140	brown sand		
140	192	brown sandy shale		
192	227	brown sand		
227	231	brown clay		
231	276	sand		
276	281	gravel		
281	285	shale		
285	302	sand		
302	307	gray shale		
307	335	sand fine		
335	360	sandy shale		
360	392	sand		
392	415	shale		
415	423	sand		
If more space is required use Sheet No. 2				

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed

Russel Gore

By

Dated Aug. 24, 1962, 19

License No. 65

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0063959

Drilling Permit No. 915463-864084 ✓

Water right or injection well # 63-12253, 63-12254, 63-12255

2. OWNER: Lamar Thornton

Name Lamar Thornton

Address 2800 S. Ten Mile

City Kuna State 10 Zip 83634

3. WELL LOCATION:

Twp. 2 North ☒ or South ☐ Rge. 1 East ☐ or West ☒

Sec. 36 1/4 SE 1/4 SW 1/4

Gov't Lot _____ County Ada

Lat. 43 ° 27.559 (Deg. and Decimal minutes)

Long. 116 ° 24.469 (Deg. and Decimal minutes)

Address of Well Site 3224 Swan Falls Rd.

City Kuna

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 (lbs or ft³)	Placement method/procedure
<u>Bentonite 7/8</u>	<u>0</u>	<u>42</u>	<u>6,350 lbs.</u>	<u>overturn, dry pour</u>

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
<u>16</u>	<u>+3</u>	<u>287</u>	<u>1/4</u>	<u>steel</u>	☒	☐	☐	☒
<u>12</u>	<u>283</u>	<u>400</u>	<u>1/4</u>	<u>steel</u>	☐	☒	☐	☒

Was ☒ Y ☐ N Shoe Depth(s) 287, 400

9. PERFORATIONS/SCREENS: none on top of 12"

Perforations ☒ Y ☐ N Method machine slotted

Manufactured screen ☐ Y ☐ N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
<u>175</u>	<u>282</u>	<u>3x3/32</u>	<u>3424</u>	<u>16</u>	<u>steel</u>	<u>1/4</u>
<u>295</u>	<u>395</u>	<u>3x3/32</u>	<u>3200</u>	<u>12</u>	<u>steel</u>	<u>1/4</u>

Length of Headpipe 12' Length of Tailpipe 5', 5'

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	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) 155 Static water level (ft) 172

Water temp. (°F) 67 Bottom hole temp. (°F) 67

Describe access port 1 1/2 pipe welded into casing

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
<u>25</u>	<u>1650</u>	<u>8 Hrs.</u>

Test method:

Pump ☒ Bailor ☐ Air ☐ Flowing artesian ☐

Water quality test or comments: GOOD

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
<u>24</u>	<u>0</u>	<u>205</u>	<u>TOPSOIL</u>		
	<u>5</u>	<u>20</u>	<u>Basalt</u>		
<u>24</u>	<u>20</u>	<u>26</u>	<u>ASH - CINDERES BROWN</u>		
<u>20</u>	<u>26</u>	<u>35</u>	<u>Basalt</u>		
<u>20</u>	<u>35</u>	<u>42</u>	<u>ASH / Gravel</u>		
<u>16</u>	<u>42</u>	<u>82</u>	<u>Gravel</u>		
	<u>82</u>	<u>140</u>	<u>Clay - yellow</u>		
	<u>140</u>	<u>191</u>	<u>sand - yellow clay pebbles</u>		☒
	<u>191</u>	<u>243</u>	<u>sand - 1/20</u>		☒
	<u>243</u>	<u>260</u>	<u>Fine sand</u>		☒
	<u>260</u>	<u>268</u>	<u>sand - gravel - pebbles</u>		☒
<u>16</u>	<u>268</u>	<u>287</u>	<u>clay gray-brown</u>		
<u>12</u>	<u>287</u>	<u>294</u>	<u>sand clay</u>		☒
	<u>294</u>	<u>301</u>	<u>clay white sticky SAND</u>		☒
	<u>301</u>	<u>313</u>	<u>CLAY</u>		
	<u>313</u>	<u>320</u>	<u>SANDY CLAY</u>		☒
	<u>320</u>	<u>323</u>	<u>CLAY</u>		
	<u>323</u>	<u>338</u>	<u>SAND</u>		☒
	<u>338</u>	<u>346</u>	<u>CLAY</u>		
	<u>346</u>	<u>360</u>	<u>SAND</u>		☒
	<u>360</u>	<u>364</u>	<u>CLAY</u>		
	<u>364</u>	<u>369</u>	<u>SAND - FINE</u>		☒
	<u>369</u>	<u>388</u>	<u>SAND GOOD</u>		☒
	<u>388</u>	<u>390</u>	<u>SAND - FINE</u>		☒
	<u>390</u>	<u>400</u>	<u>SAND - GOOD</u>		☒

CONCRETE PLUG IN BOTTOM.

RECEIVE

SEP 25 2013

Completed Depth (Measurable): 400

WATER RESOURCES
WESTERN REGION

Date Started: OCT 2 2012 Date Completed: JUNE 20 2013

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 Johnson Drilling Co. No. 92

*Principal Driller Sam Johnson Date JULY 24 2013

*Driller Sam Johnson Date JULY 24 2013

*Operator II Sam Johnson Date JULY 24 2013

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

63

Form 238-7
6/02

Jell #3

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

855013

Office Use Only

Well ID No. 424647

Inspected by

Twp Rge Sec

1/4 1/4 1/4

Lat: Long:

1. WELL TAG NO. D 0053534
DRILLING PERMIT NO. 907443-855013
Water Right or Injection Well No. 63-12253 63-12254

2. OWNER:

Name Lavar Thornton
Address 2800 S. Ten Mile Rd.
City Kuna State ID Zip 83634

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 1 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 7 NE 1/4 NW 1/4 NW 1/4
Gov't Lot 40 acres 160 acres
County ADALat: 43 : 26' 679 Long: 116' 23.365
Address of Well Site One mile east of Swan Fall Rd. on
Barker Rd. City Kuna

(Give at least name of road - Distance to Road or Landmark)

Lt. Blk. Sub. Name

4. USE:

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

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other

6. DRILL METHOD:

☐ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Bentonite	0	50	7500 #s	Dry pack over bore

Was drive shoe used? ☒ N ☐ Shoe Depth(s) 290 376
Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER: Heavy band top of 12 in

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16	+2	290	1/4	Steel	☒	☐	☒	☐
12	285	376	1/4	Steel	☐	☒	☒	☐

Length of Headpipe Length of Tailpipe

Packer ☐ Y ☒ N Type

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method Rotary slot

Screen Type & Method of Installation

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
185	285	1/8 x 3	3200	16	Steel	☒	☐
285	376	1/8 x 3	2184	12	Steel	☐	☒

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

170 ft. below ground Artesian pressure lb.

Depth flow encountered 170 ft. Describe access port or control devices:

2 in capped pipe welded to casing

12. WELL TESTS:

☐ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
NOT TESTED			

Water Temp. 68 Bottom hole temp. 68

Water Quality test or comments: Good

Depth first Water Encounter 120

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water
				Y N
20	0	3	TOPSOIL	
1	3	14	Light gravel layers	
20	14	40	Sand and gravel	
16	40	65	brown clay	
	65	85	white clay	
	85	155	sand	
	155	170	sand coarse and	☒
	170	175	Brown clay	
	175	198	Brown sand	☒
	198	208	Sandy clay layer some water	☒
	208	213	white clay	
	213	216	sand - fine	☒
	216	218	clay	
	218	226	sand fine	☒
	226	230	clay	
	230	239	sand pebbles	☒
	239	241	clay	
	241	253	sandy clay some water	☒
	253	260	white clay	
	260	263	sand	☒
16	283	290	clay white	
12	290	298	clay white	
	298	313	sand - some gravel	☒
	313	316	clay	
	316	321	sand	☒
	321	335	grey clay	
	335	338	sandy clay	
	338	376	sand - some gravel	☒

RECEIVED

JUL 30 2009

5 ft cement plug in bottom

WATER RESOURCES

WESTERN REGION 376

(Measurable)

Date: Started April 20 2009 Completed JUL 1 2009

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 Johnston Drilling Firm No. 92

Principal Driller and Operator Scott Johnston Date JUL 27 2009

Date

Operator I Date

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

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

OCT 24 2016

WATER RESOURCES
WESTERN REGION

1. WELL TAG NO. D 0073019

Drilling Permit No. 973789 - 879846

Water right or injection well # 63-33938, 63-12255, 63-12253,

2. OWNER: Lavar Thorton

63-12254

Name

Address 2800 S. Forrey Rd

City Kuna State ID Zip 83634

3. WELL LOCATION:

Twp. 01 North ☒ or South ☐ Rge. 01 East ☒ or West ☐

Sec. 06 1/4 SE 1/4 NW 1/4

Gov't Lot County Ada

Lat. 43 27.122 (Deg and Decimal minutes)

Long. -116 23.217 (Deg and Decimal minutes)

Address of Well Site

City Kuna

(Give at least name of road - Distance to Road or 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 Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite chips	0	221	35,000	Dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
16	+2	144	.250	Steel	☒	☐	☐	☒
16	144	254	.375	Steel	☒	☐	☐	☒
16	274	300	.375	Steel	☒	☐	☐	☒

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

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N MethodManufactured 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
254	274	.030		16	Stainless	
300	390	.030		16	Stainless	

Length of Headpipe Length of Tailpipe 5'

Packer ☐ Y ☒ N Type

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method
#8x16 Sand	221	395	39,000	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) Static water level (ft) 166'

Water temp. (°F) 53° Bottom hole temp. (°F)

Describe access port 2" pipe on side

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
29	2000	420

Test method:

Pump	Bedder	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
26	0	6	Top soil		X
26	6	25	Large gravel		X
26	25	39	Fine - medium sand		X
26	39	44	Rusty tan clay		X
26	44	46	Fine - medium sand		X
26	46	51	Rusty tan clay		X
26	51	82	Fine - medium sand	X	
26	82	86	Rusty tan clay		X
26	86	89	Fine - medium sand	X	
26	89	95	Rusty tan clay		X
26	95	97	Fine-med rusty brown sand	X	
26	97	102	Rusty tan clay		X
26	102	107	Medium - coarse sand	X	
26	107	111	Rusty tan clay		X
26	111	139	Fine-coarse sand w/sm clay streaks	X	X
26	139	143	Rusty tan clay		X
26	143	152	Fine sand	X	
26	152	166	Brown rusty clay		X
26	166	185	Fine-medium sand	X	
26	185	200	Tan clay		X
26	200	274	Fine-coarse sand some sm gravel	X	
26	274	279	Tan clay		X
26	279	284	Fine - medium sand	X	
26	284	297	Tan clay		X
26	297	298	Fine - medium sand	X	
26	298	305	Tan clay		X
26	305	318	Fine - medium sand	X	
26	318	322	Tan clay		X
26	322	357	Fine - medium sand	X	
26	357	363	Tan clay		X
26	363	390	Fine - coarse sand	X	
26	390	395	Tan clay		X

Completed Depth (Measurable): 395'

Date Started: Aug 30, 2016

Date Completed: Oct 6, 2016

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

Date 10-11-16

*Driller

Date 10/11/16

*Operator II

Date

Operator I

Date

* Signature of Principal Driller and rig operator are required.

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

1. WELL TAG NO. D

0029090
DRILLING PERMIT NO. 875260-790634
Water Right or Injection Well No. 4840 TRANSFER

2. OWNER:

Name LALEAR K THORNTON
Address 2500 SOUTH TEN MILE RD
City KUNA State ID Zip 83634

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 1 North ☒ or South ☐
Rge. 1 East ☐ or West ☒
Sec. 1 1/4 NW1/4 NW1/4
Gov't Lot 4 County ADH 10 acres 160 acresLat: : : Long: : :
Address of Well Site SAGECity RECEIVED
Lt. : Blk. : Sub. Name : JUN 12 2003WATER RESOURCES
WESTERN REGION

4. USE:

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

5. TYPE OF WORK check all that apply

☐ New Well ☐ Modify ☐ Abandonment ☒ Other REPLACEMENT

6. DRILL METHOD:

☐ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
RENTCHITE	0	20	2600 #S	OVERBORG

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 300' 395'
Was drive shoe seal tested? ☐ Y ☒ N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12	290	395	1/4	STEEL	☐	☒	☒	☐

Length of Headpipe 5' Length of Tailpipe 0
Packer ☐ Y ☒ N Type

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method FACTORY SLATS
Screen Type & Method of Installation perforated pipe - driven

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
196	296	1/4 X 3	3200	16	steel	☒	☐
295	395	1/4 X 3	2400	12	steel	☐	☒

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

19.2 ft. below ground Artesian pressure 0 lb.
Depth flow encountered 198 ft. Describe access port or control devices:
1/2 copper pipe weld to casing

12. WELL TESTS:

☒ Pump ☐ Bailor ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
2100	14	211	7 HRS

Water Temp. 70 Bottom hole temp. 70

Water Quality test or comments: good

Depth first Water Encounter 198

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
24	0	8	TOPSOIL		
	8	30	INJECT		
16	30	73	CEMENTED GRAVEL		
	73	106	WHITE CLAY		
	106	140	YELLOW SAND & CLAY		
	140	150	SAND		
	150	167	CLAY - SAND		
	167	175	SAND		
	175	182	SAND		
	182	192	SAND		
	192	198	CLAY		
	198	212	SAND		
	212	217	CLAY		
	217	236	LAYERS SAND - CLAY		
	236	242	CLAY		
	242	250	GRAVEL		
	250	260	SAND		
	260	270	GRIND SAND		
	270	280	CLAY		
	280	290	CEMENTED SAND		
16	290	300	SAND GRAVEL		
12	300	306	SAND GRAVEL		
	306	309	CLAY		
	309	330	SAND		
	330	338	SAND CLAY		
	338	350	FINE DIRTY SAND		
	350	362	SAND GRAVEL		
	362	382	CLAY - YELLOW		
	382	395	SAND		
			CEMENT PLUG PLACED IN BOTTOM		

Completed Depth 395 (Measurable)

Date: Started 3/10/03 Completed 5/20/03

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 Johnston Drilling Firm No. 92

Principal Driller Don Johnston Date 6/6/03

Driller or Operator II Date

Operator I Date

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

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0078473

Drilling Permit No. 885854

Water right or injection well #

2. OWNER: Lavar Thorton

Name

Address 2800 S Forrey Rd

City Kuna State ID Zip 83634

3. WELL LOCATION:

Twp. 01 North ☒ or South ☐ Rge. 01 East ☒ or West ☐

Sec. 6 1/4 SW 1/4 NE 1/4

Gov't Lot County Ada

Lat. 43° 27.121 (Deg. and Decimal minutes)

Long. -116° 22.817 (Deg. and Decimal minutes)

Address of Well Site On S. Locust Grove Rd approx. 3/4 mile

City Kuna

(Give at least name of road + Distance to Road or 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 Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
3/4" Bentonite	0	253	35,000 lbs	Dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing	Liner	Threaded	Welded
16	+2	78	.250	Steel	☒	☐	☐	☒
16	78	275	.375	Steel	☒	☐	☐	☒
16	365	378	.375	Steel	☒	☐	☐	☒

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

9. PERFORATIONS/SCREENS:

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

Method of installation Lower in one string set

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
275	365	.030		16	Stainless	
378	408	.030		16	Stainless	
410	430	.030		12	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
#8x16 Sand	253	430	30,000 lbs	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) 210 Static water level (ft) 204'

Water temp. (°F) 56°

Bottom hole temp. (°F)

Describe access port 2" pipe on side

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
CUSTOMER	DID NOT WANT	WELL TEST

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	8	Top soil		X
24	8	15	Brown hard clay, caliche		X
24	15	77	Sand, Large-medium gravel		X
24	77	88	Tan, rusty clay		X
24	88	138	Fine-coarse sand		X
24	138	148	Tan clay		X
24	148	155	Fine sand		X
24	155	169	Tan clay		X
24	169	188	Coarse sand w/ tan clay seam		X
24	188	210	Tan clay		X
24	210	215	Fine-medium sand	X	
24	215	241	Tan, rusty clay		X
24	241	248	Medium sand	X	
24	248	253	Tan clay		X
24	253	311	Medium-coarse sand	X	
24	311	315	Tan clay		X
24	315	365	Coarse sand w/ sm gravel streak	X	
24	365	375	Tan, rusty clay		X
24	375	430	Fine-coarse sand w/sm clay streaks	X	X
24	430	435	Tan clay		X

NOTE: 16"x12" Reducer 408' to 410'

RECEIVED

JUN 29 2018

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 430'

Date Started: May 14, 2018

Date Completed: Jun 6, 2018

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

Date 6-25-18

*Driller

Date 6/25/18

*Operator-I

Date

Operator II

Date 6/25/18

* Signature of Principal Driller and rig operator are required.

Attachment C

Flow Measurements

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 1, 1962
 POD Location: 1N 1W 1 Lt 5 (SENE)
 Tag No:
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
7/25/2018 9:47	1559	48474	646	0
7/25/2018 9:48	1549	50011	646	0
7/25/2018 9:49	1548	51569	646	0
7/25/2018 9:50	1559	53037	646	0
7/25/2018 9:51	1560	54679	646	0
7/25/2018 9:52	1564	56253	646	0
7/25/2018 9:53	1565	57736	646	0
7/25/2018 9:54	1565	59311	646	0
7/25/2018 9:55	1567	60886	646	0
7/25/2018 9:56	1567	62437	646	0
7/25/2018 9:57	1567	64083	646	0

Time	10 minutes
Volume	15609 gallons
Rate	1561 gpm
Rate	3.48 cfs

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 2, Mint Still
 POD Location: 2N 1W 36 SESW
 Tag No: D0063959
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
7/25/2018 10:54	1561	48372	0	0
7/25/2018 10:55	1564	50032	0	0
7/25/2018 10:56	1566	51552	0	0
7/25/2018 10:57	1566	53127	0	0
7/25/2018 10:58	1559	54716	0	0
7/25/2018 10:59	1552	56299	0	0
7/25/2018 11:00	1557	57788	0	0
7/25/2018 11:01	1558	59376	0	0
7/25/2018 11:02	1562	60943	0	0
7/25/2018 11:03	1559	62461	0	0
7/25/2018 11:04	1560	64027	0	0

Time	10 minutes
Volume	15655 gallons
Rate	1566 gpm
Rate	3.49 cfs

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 3, Vaca
 POD Location: 1N 1E 7 Lt 1 (NWNW)
 Tag No: D0053534
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
7/25/2018 11:42	1482	77702	0	0
7/25/2018 11:43	1497	79204	0	0
7/25/2018 11:44	1475	80703	0	0
7/25/2018 11:45	1486	82174	0	0
7/25/2018 11:46	1490	83675	0	0
7/25/2018 11:47	1494	85177	0	0
7/25/2018 11:48	1486	86658	0	0
7/25/2018 11:49	1493	88156	0	0
7/25/2018 11:50	1502	89666	0	0
7/25/2018 11:51	1494	91148	0	0
7/25/2018 11:52	1489	92654	0	0

Time	10 minutes
Volume	14952 gallons
Rate	1495 gpm
Rate	3.33 cfs

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 4, Corn Field
 POD Location: 1N 1E 6 NESW
 Tag No: D0073019
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
7/25/2018 12:33	1469	25306	0	0
7/25/2018 12:34	1463	26798	0	0
7/25/2018 12:35	1461	28289	0	0
7/25/2018 12:36	1464	29757	0	0
7/25/2018 12:37	1465	31179	0	0
7/25/2018 12:38	1465	32649	0	0
7/25/2018 12:39	1465	34140	0	0
7/25/2018 12:40	1460	35542	0	0
7/25/2018 12:41	1463	37030	0	0
7/25/2018 12:42	1459	38516	0	0
7/25/2018 12:43	1464	39985	0	0

Time	10 minutes
Volume	14679 gallons
Rate	1470 gpm
Rate	3.28 cfs

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 5, South of House
 POD Location: 1N 1W 1 SWNW
 Tag No: D0029090
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
7/25/2018 13:25	1579	57072	0	0
7/25/2018 13:26	1540	58664	0	0
7/25/2018 13:27	1602	60214	0	0
7/25/2018 13:28	1584	61835	0	0
7/25/2018 13:29	1523	63430	0	0
7/25/2018 13:30	1576	65015	0	0
7/25/2018 13:31	1576	66528	0	0
7/25/2018 13:32	1575	68133	0	0
7/25/2018 13:33	1579	69650	0	0
7/25/2018 13:34	1573	71260	0	0
7/25/2018 13:35	1603	72868	0	0

Time	10 minutes
Volume	15796 gallons
Rate	1580 gpm
Rate	3.52 cfs

Permit: 63-12253, 63-12254, 63-12255, 63-33938
 Owner: Thornton, Lavar; Thornton, Layne
 Site Name: Well 6
 POD Location: 1N 1E 6 SWNE
 Tag No: D0078473
 Meter: GE TransPort PT878
 Type: Portable Ultrasonic Time Flight Liquid Flow Meter
 Serial Number: 7140
 Calibration Date: April 18, 2018
 Operator: Scott King

Date/Time	Volume (gal/m)	(+)Total (gal)	(-)Total (gal)	Error #
9/25/2018 9:36	1613	9389	0	0
9/25/2018 9:37	1615	11014	0	0
9/25/2018 9:38	1612	12657	0	0
9/25/2018 9:39	1608	14292	0	0
9/25/2018 9:40	1612	15909	0	0
9/25/2018 9:41	1601	17467	0	0
9/25/2018 9:42	1616	19082	0	0
9/25/2018 9:43	1615	20725	0	0
9/25/2018 9:44	1619	22270	0	0
9/25/2018 9:45	1593	23907	0	0
9/25/2018 9:46	1611	25539	0	0

Time	10 minutes
Volume	16149 gallons
Rate	1615 gpm
Rate	3.60 cfs

Attachment D
Exam Photos

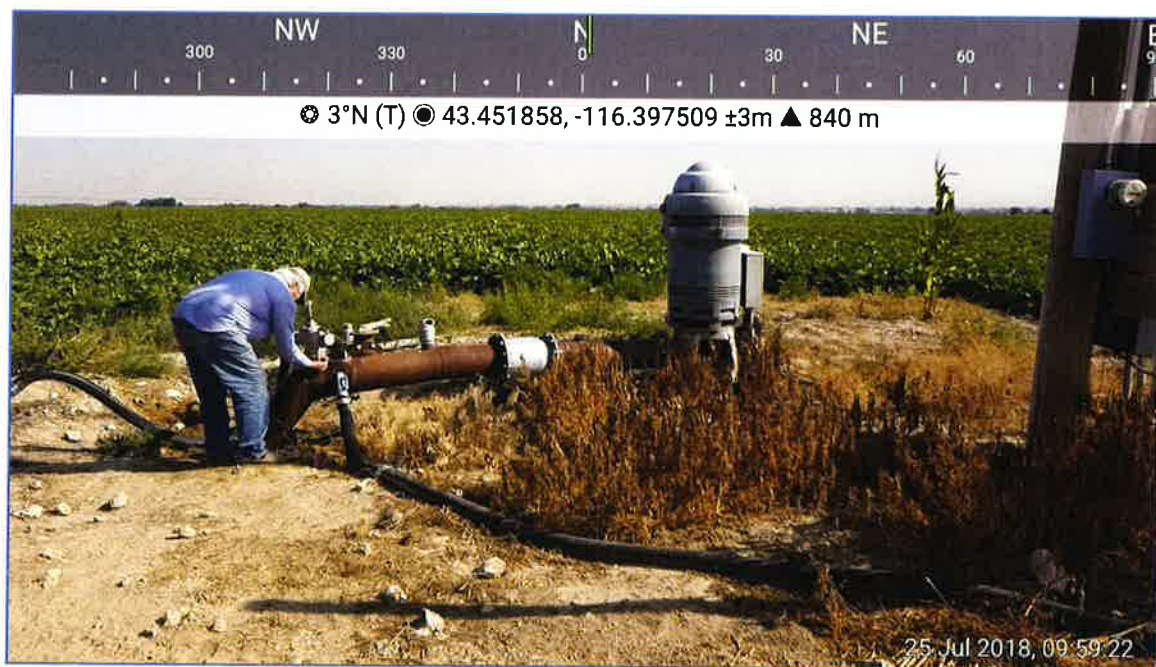


Figure 1: Well 1 aka “1962”

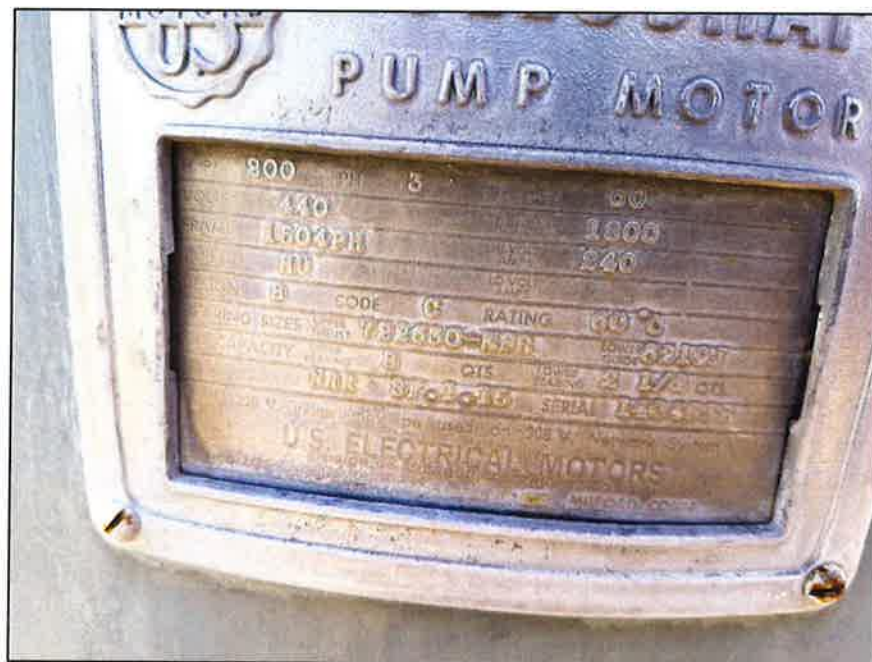


Figure 2: Well 1 motor nameplate



Figure 3: Well 2 aka "Mint Still"

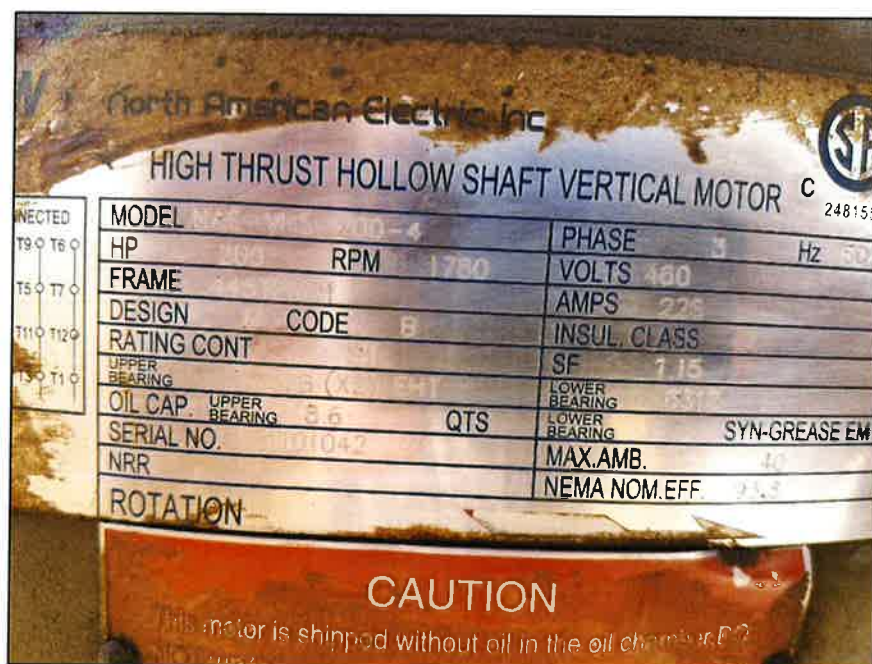


Figure 4: Well 2 motor nameplate.



Figure 7: Well 4 aka "Corn Field".

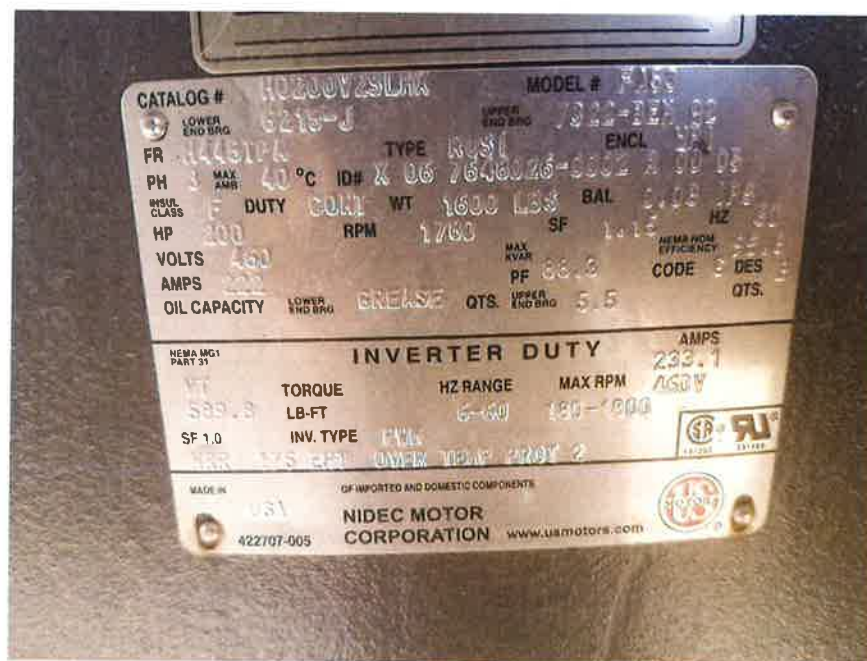


Figure 8: Well 4 motor nameplate.



Figure 9: Well 5 aka "South of house".



Figure 10: Well 5 motor nameplate.



Figure 11: Well 6.



Figure 12: Well 6 motor nameplate.

New Well in 2014	
April 1 2017	158.88
June 1 2017	181.00 6.0 in
Aug. 2 2017	185.50 1.0 in
Aug 15 2017	164.18
Sept. 18 2017	162.90
Sept 29	179.08 55 in
Oct 1	162.80
Nov 1	160.45
Nov. 30	159.92 148.34
Dec 30	159.08
2018 Jan 30	158.87
Feb. 28	158.25
March 30	157.88
April 30	158.35
May 30	170.85 47 in
May 31	160.15
June 30	180.52 57.92

Figure 13: Owner's water level measurement records.