

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED**APR 30 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. 65-137711. Owner Gem Mobile Home Park, LLCPhone No. 909-985-7252Current address 1317 W. Foothill Blvd, Ste 226, Upland, CA 917862. Examiner's name Peter Cooper, P.E. (Examiner 15-155)EXAM DATE April 28, 20153. Accompanied by Phil SpurlingEmail n/aAddress 100 NW 16th Street, Fruitland, ID 83619Relationship to permit holder ManagerPhone No. 208-452-41004. Source Ground Water

tributary to _____

B. OVERLAP REVIEW1. Other water rights with the same place of use Municipal water from the City of Fruitland2. 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	1/4	1/4	1/4	Sec	Twp	Rge	County	Method of Determination/Remarks
			NE	NE	22	8N	5W	Payette	Exam, Aerial Photo

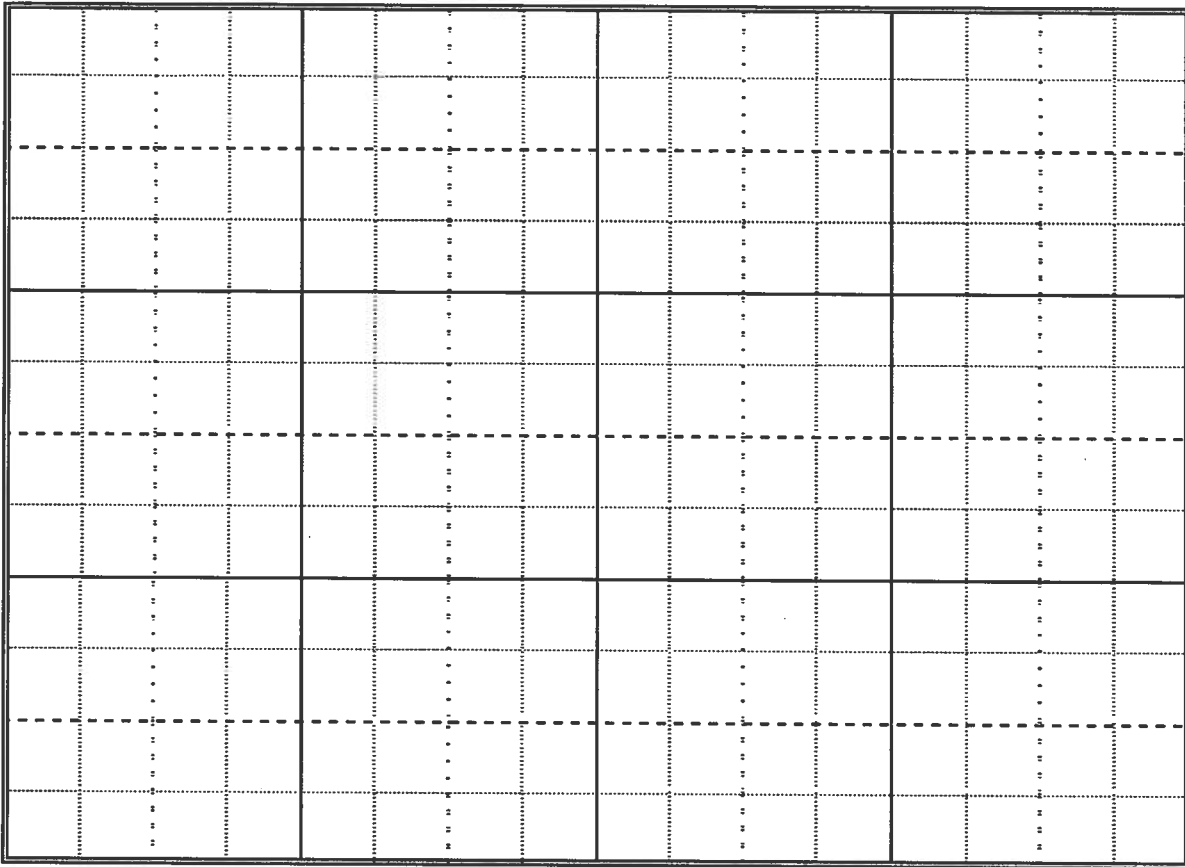
2. Place(s) of Use:

Method of determination Exam, Aerial 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	
8N	5W	22	8																8

5.2 acres irrigation within an 8.0 acre permissible place of use

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
D0007792		3	submersible turbine	Goulds 33GS30	2-inch Discharge, 14 stage

*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 0.05 cfs from the authorized well on 4/27/2015. At the time well was drilled in 1998, Stevens & Sons completed a well pump test sustaining 0.12 cfs. Additional documentation in our file shows an October 1998 Well Test log sustaining 0.09 to 0.11 cfs. Following 2013 re-development, Down Right Drilling produced 0.08 cfs.

E. NARRATIVE/REMARKS/COMMENTS

An 8-inch well equipped with a 3 hp submersible pump supplies water to 58 mobile home lots and common area within Desert Rose Estates. The distribution system consists of 2-inch above ground and 1 1/4" below ground PVC mainline as shown on the map/plat documents included in Attachment D. The permit development period was from August 1998 to August 2001. Proof of completion of works during the development period is evidenced by the well driller's report showing the well was completed September 29, 1998, Goulds Pump document showing Gould's Model 33GS30 pump was installed April 5, 1999 (included in Attachment B), and a 1997 aerial photo (included in Attachment D) showing the park fully developed. Although irrigation was occurring prior to completion of the well, the water right back-file indicates the intent of the permit was to replace City municipal water for irrigation use within the park development. The mobile home park consists of 120 total lots, but ground water from the well is provided to only 58 of the total lots plus common area. The remaining 62 lots continue to use municipal water from the City of Fruitland for irrigation. The amount of area irrigated from the well was determined by digitizing all of the common area and a sample of the 58 lawn areas. The common area encompasses approximately 0.6 acre and the lawns average 0.08 acre/lot for a total of 4.6 acres. The 58 lots and common area cover a total of 8.0 acres. For simplicity, 5.2 acres within an 8.0 acre permissible place of use (PPU) have been recommended for irrigation.

The examiner measured a flow rate of 0.05 cfs being discharged from the well, however, based on review of the well flow data file documentation described in D.2 above and included in Attachment C, and review of the pump curve data included in Attachment B, permit 65-13771 is recommended to be licensed at 0.08 cfs.

Overlap Review: Although within their service areas, Farmers Cooperative Irrigation Company and Lake Reservoir Company confirmed the place of use is not delivered and/or assessed surface water. Municipal water from the City of Fruitland is used for potable water and incidental lawn watering.

Attachment A: permit, assignment of permit, deed, reinstatement request, proof of beneficial use

Attachment B: well driller's report and pump curve

Attachment C: system capacity flow calculation, pump test documentation

Attachment D: topographical map, 1997 and 2013 aerial photo, plat map

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?

Condition 3: Engineer's surface seal confirmation letter included with Proof of Beneficial Use (Attachment A)

F. FLOW CALCULATIONS☒ Additional computation sheets attached

Measured Method:

See section D.2. referencing flow determinations and historical well pump test data.

Historical pump tests described in D.2 indicate 100' pumping level. Pump curve indicates TDH = 220' would produce 0.08 cfs and approximately 52 psi at the irrigation system manifold with 100 ft pumping level indicated on pump tests. Examiner measured 0.05 cfs from the authorized well indicating decline in well or pump function.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.2 \times 4.5 \text{ afa} = 23.4 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 0.08 \times 246 \times 1.9835 = 39.0 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 23.4 \text{ afa}$$

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	3/15	11/15	0.08 cfs	23.4 afa
Totals:			0.08 cfs	23.4 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

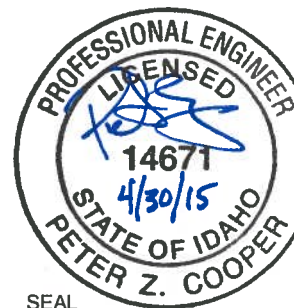


Date

4/30/2015

Reviewer

Date



ATTACHMENT A

**PERMIT RECORD, ASSIGNMENT OF PERMIT, CHAIN OF OWNERSHIP
DEED, REQUEST TO REINSTATE PERMIT LAPSED MORE THAN 60
DAYS, AND PROOF OF BENEFICIAL USE**

[Close](#)

IDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

4/29/2015

WATER RIGHT NO. 65-13771

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	GEM MOBILE HOME PARK LLC 3605 FEDERAL WAY BOISE, ID 83705 (208)342-2235

Priority Date: 01/14/1998
Status: Lapsed

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	3/15	11/15	0.3 CFS	
Total Diversion			0.3 CFS	

Location of Point(s) of Diversion:

GROUND WATER|NENE|Sec. 22|Township 08N|Range 05W|PAYETTE County

Place(s) of use:

Place of Use Legal Description: IRRIGATION PAYETTE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
08N	05W	22		NENE	15									

Total Acres: 15

Conditions of Approval:

1. R65 This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.5 afa per acre at the field headgate for irrigation of the lands above.
2. 004 The issuance of this right does not grant any right-of-way or easement across the land of another.
3. The well authorized by this right must be drilled and cased at least sixty feet (60') below land surface, and the annular space must be sealed according to department standards for the first sixty feet (60') of depth. An engineer must be present during the seal placement and certify that the seal was properly placed according to department standards. Place of use is located within Gem Mobile Park Manor.
4. 120 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 needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary 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.
5. 01M 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 determine the amount of water diverted from power records and shall annually report the information to the department.
6. 26A Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
7. 046 Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code.

Dates:

Proof Due Date: 08/01/2001

Proof Made Date:

Approved Date: 08/03/1998

Moratorium Expiration Date:

Enlargement Use Priority Date:

Enlargement Statute Priority Date:

Application Received Date: 01/14/1998

Protest Deadline Date:

Number of Protests: 0

Field Exam Date::

Date Sent to State Off:

Date Received at State Off:

Other Information:

State or Federal:

Owner Name Connector:

Water District Number:

Generic Max Rate per Acre:

Generic Max Volume per Acre:

Swan Falls Trust or Nontrust:

Swan Falls Dismissed:

DLE Act Number:

Cary Act Number:

Mitigation Plan: False

Close

SCANLAN ENGINEERING

Groundwater and Environmental Engineering

October 5, 1998

Ann Hampton, Property Manager
Gem Mobile Home Park LLC
3605 Federal Way
Boise, ID 83705

Subject: Surface Seal – Gem Mobile Home Park Irrigation Well

Dear Ann:

This letter is provided as certification that the surface seal for the Gem Mobile Home Park Well was installed per specification on September 29, 1998. I was present during installation of the seal. The well was sealed with approximately 225 gallons of bentonite grout. This grout mixture contained approximately 700 lbs of bentonite. The grout was pumped into the borehole annulus through 63 feet of tremie pipe.

Please contact me with any questions.

Sincerely,



Terry M. Scanlan, P.E., P.G.
Engineer/Hydrogeologist

ATTACHMENT B

WELL DRILLER'S REPORT AND PUMP CURVE

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

065678

Office Use Only
Inspected by _____
Twp. _____ Rge. _____ Sec. _____
1/4 1/4 1/4
Lat. : : Long. : :
☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

1. DRILLING PERMIT NO. 65-98-W-0334-000
Other IDWR No. water right # 65-13771

2. OWNER: tag 7792
Name Cam Mobile Home Park
Address 3605 Federal Way
City Boise State ID Zip 83705

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N
W E S
Twp. 8 North ☒ or South ☐
Rge. 5 East ☐ or West ☒
Sec. 22 1/4 N/E 1/4 N/E 1/4
Gov't Lot _____ County Payette
Lat: _____ Long: _____

Address of Well Site NW 16th St
City Fruitland

(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/FILTER PACK			AMOUNT		METHOD
Material	From	To	Sacks or Pounds		
bentonite grout	0	65	20 sk		pumped
10-20 sand	65	145	26 sk		poured
bentonite grout	145	200	15 sk		pumped

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

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+18"	83'	.322	steel	☒	☐	☐	☐
8	88	113	.322	steel	☒	☐	☐	☐
8	133	143	.322	steel	☒	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
☒ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
83'	88	.20		8	stnls	☒	☐
113	133	.20		8	stnls	☒	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

31' ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

Yield gal/min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
12	0	23	sandy topsoil		X
	23	44	sand & gravel	X	
	44	48	blue clay		X
	48	52	gravel	X	
	52	82	blue clay & blue shale		X
	82	88	fine black sand	X	
	88	102	blue clay & silty blue clay		X
	102	105	blue shale		X
	105	106	black sand streaks	X	
	106	112	black cemented fine sand		X
	112	133	fine black sand	X	
	133	148	blue clay		X
	148	200	blue clay & blue shale		X

RECEIVED

OCT 14 1998

WATER RESOURCES
WESTERN REGION

RECEIVED

OCT 15 1998 MICROFILMED

Department of Water Resources
Completed Date 8/31/98 (Measurable)
Date: Started 8/31/98 Completed 9/29/98

13. DRILLER'S CERTIFICATION

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

Firm Name Stevens & Sons Firm No. 153

Firm Official Ron Stevens Date 10/10/98

and Supervisor or Operator [Signature]

(Sign only Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

65-98-W-033 000

RECEIVED

STEVENS & SONS 065679

OCT 16 1998

WELL DRILLING, INC.

Department of Water Resources

3709 HAWTHORNE DRIVE • BOISE, IDAHO 83703-4529 • PHONE: 208 • 344-0726 • FAX: 208 • 344-0769

GEM MOBILE HOME WELL TEST

TIME	PUMPING LEVEL	GPM	COMMENTS
10:35			
10:37	95'	100	
10:39	89'11"	90	meter started to move erratically
10:41	90'9"	90	
10:46	93'8"	90	checked with 30 gal can
10:50	95'8"	85	
10:55	97'4½"	85	
11:05	99'8"	79	
11:15	99'8"	79	end of tubing, water must be
11:20	90'9"	53	cascading from top screen
11:30	86'	53	
11:45	87'4"	53	
12:00	88'	53	
12:15	88'6"	53	
12:30	89'½"	53	
12:45	89'6"	53	
1:00	89'4"	53	
1:30	90'8½"	53	*Note:
2:00	91'5"	53	9/29/98 water level was 31'
2:30	92'1"	53	9/30/98 static was 38'5"
2:35	off	53	during drilling next morning
2:36	70'		it was 23'
2:37	66'9"		
2:38	62'10"		
2:39	60'4"		
2:40	58'9"		
2:45	55'0"		
2:50	53'3"		
2:55	51'11"		
3:00	51'2"		
3:05	50'6"		
3:30PM	48'4"		
9:30AM	42'6" by sounder 10/1/98		

MICROFILMED

NOV 04 1998



Goulds Pumps 2-3-5 ProSurance® Five Year Submersible Pump Protection Plan

P468240

See the Terms and Conditions on the back. For claims contact the Goulds Pumps Authorized Dealer listed below.
PLEASE PRINT CLEARLY, (black ink please). All capital letters, one letter per box with one space between words.

GOULDS PUMPS AUTHORIZED DEALER

Goulds Pumps Dealer Number

52711

Name

IDAHO PUMP & PLUMBING CORP

P.O. Box

Dealer's Phone Number

208 376 1181

Street/Address

9975 FAIRVIEW

208 562 1181

City

BOISE

(BILL)

FAX - 562 - 1184

US State

ID ZIP 83704

Canada

Prov.

Code

Dealer's Signature

Bonnie K. Schert Truss

484-4853

BONNIE

PURCHASER

Name

GEM PARK

P.O. Box

Purcha

Phone Number

208 375 1976

Street/Address

City

FRUITLAND

US State

ID ZIP 83619

Canada

Prov.

Code

Purchaser's Signature

2, 3, & 5 HP SUBMERSIBLE PUMP COVERAGE - \$60

Installation Date

04 05 99

Submersible Depth

105

feet

Pump Model No.

333530412

Pump Serial No.

B9913129

Page 1 - Mail to ProSurance® Administrator,

Page 2 - Purchaser Copy

Page 3 - Dealer Copy

Page 4 - Dis

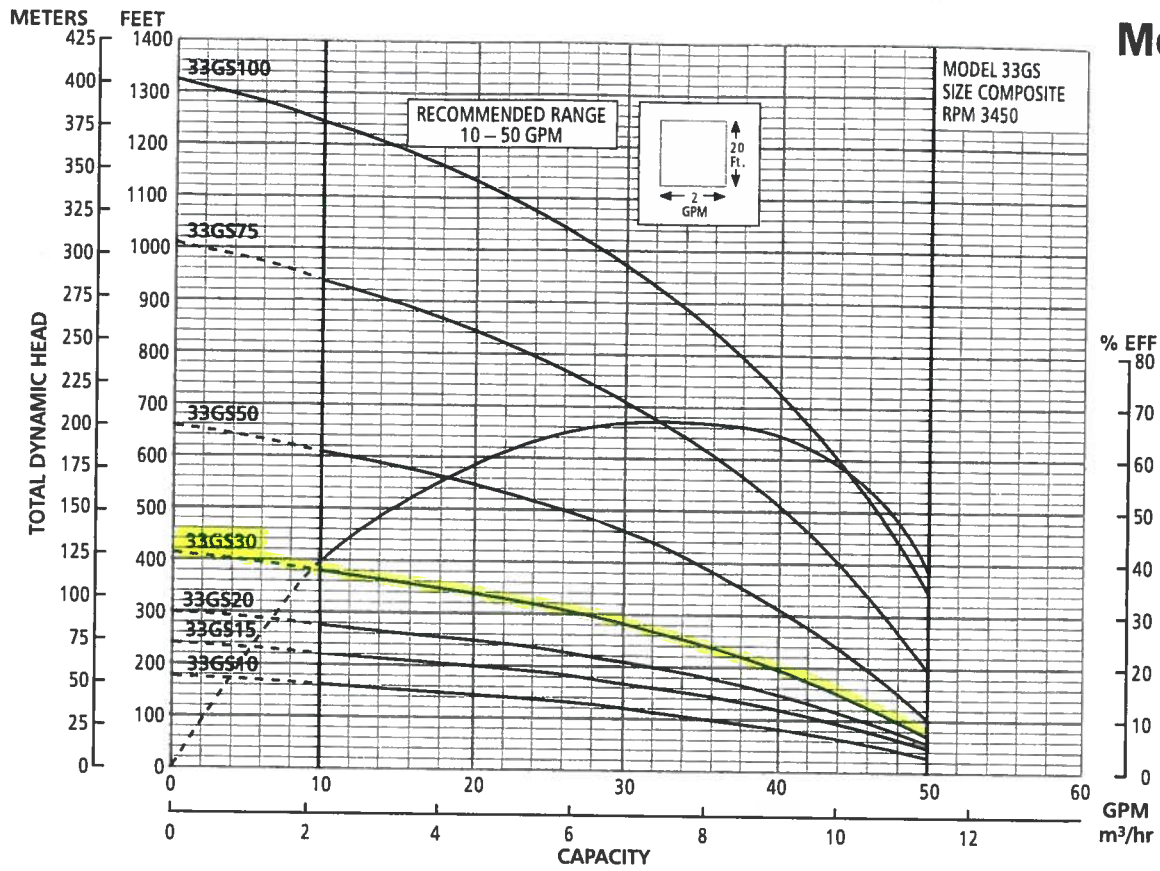


GOULDS PUMPS, INC.
WATER TECHNOLOGIES GROUP

PAGE 2

P468240

Model 33GS



ATTACHMENT C

**SYSTEM CAPACITY FLOW CALCULATION, PUMP TEST
DOCUMENTATION FROM FILE**

Permit: 65-13771
 Owner: Desert Rose Estates - (formerly Gem Mobile Home Park)
 Site Name: NENE Well
 POD Location: T8N R5W Section 22 NENE
 Tag No: D0007792
 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 #
4/27/2015 14:32	22.38	2.14	149078.8	0
4/27/2015 14:33	22.28	2.13	149100.9	0
4/27/2015 14:34	22.25	2.13	149123.1	0
4/27/2015 14:35	22.19	2.12	149146.2	0
4/27/2015 14:36	22.24	2.13	149167.4	0
4/27/2015 14:37	22.30	2.13	149190.6	0
4/27/2015 14:38	22.38	2.14	149211.9	0
4/27/2015 14:39	22.33	2.13	149235.1	0
4/27/2015 14:40	22.39	2.14	149257.4	0
4/27/2015 14:41	22.36	2.14	149279.9	0
4/27/2015 14:42	22.35	2.14	149302.4	0

Time: 10 minutes
 Total Volume 223.6 gallons
 Average Flow Rate 22.4 gpm
 Average Flow Rate 0.05 cfs

STEVENS & SONS

WELL DRILLING, INC.

3709 HAWTHORNE DRIVE • BOISE, IDAHO 83703-4529 • PHONE: 208 • 344 0726 • FAX: 208 • 344-0769

GEM MOBILE HOME WELL TEST

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11:20	90'9"	53	cascading from top screen
11:30	86'	53	
11:45	87'4"	53	
12:00	88'	53	
12:15	88'6"	53	
12:30	89'½"	53	
12:45	89'6"	53	
1:00	89'4"	53	
1:30	90'8½"	53	*Note:
2:00	91'5"	53	9/29/98 water level was 31'
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2:35	off	53	during drilling next morning
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2:38	62'10"		
2:39	60'4"		
2:40	58'9"		
2:45	55'0"		
2:50	53'3"		
2:55	51'11"		
3:00	51'2"		
3:05	50'6"		
3:30PM	48'4"		
9:30AM	42'6" by sounder 10/1/98		

WATER TEST LOG

Oct 9th
22nd

	GPM		# PSI
1500	41	62'	50
1700	40	62'	50
1800	40	62'	50
1900	38	63'	49
2000	37	65'	48
2100	36	65'	48
2200	42	64'	48
2300	40	67'	48
2400	41	68'	48
0100	40	68'	48
0200	41	68'	47

23rd

	GPM		# PSI
0700	34	72'	40
0900	43	72'	39
1100	40	74'	40
1500	42	74'	40
1900	38	73'	40
2400	41	75'	37

24th

	GPM		# PSI
0700	40	78'	40
0730	50	80'	35
0800	53	81	35
0900	50	84	35
1000	54	85	34
1100	48	85	34
1200	50	86	35

Gem Mobile Park
Well

24th

1300	51 GPM
1500	50
1700	50
1930	54
2200	49
2400	50
0215	50

86'
87'
87
87
88
87
87

35 [#] PSI
35
35
34
35
35
35

25th

0800	47 GPM
0900	40
1000	40
1200	50
1300	51
1600	50
1900	40
2200	40
2400	45

95'
89'
87'
88'
92'
93'
87'
86'
88'

32 PSI
39
40
40
33
34
35
40
35

shut off pump at 2400

DOWN RIGHT DRILLING & PUMP INC.

6025 LITTLE FREEZEOUT RD.
CALDWELL, ID 83607

454-3098 FAX 454-0010

Invoice

DATE

7/3/2013

INVOICE#

2796

Bill To

Desert Rose Estates
100 NW 16th St., #121
Fruitland, ID 83619
208-452-4100

W.O. No.

P-120-13

P.O. No.

TERMS

20% 10 Net 30

DUE DATE

7/15/2013

QTY	DESCRIPTION	CASH PRICE	LIST PRICE	EXTENDE...
	6-18-13 Pulled pump set 105' 2" galv. with #10-3 w/grd wire. Pump, pipe & well are coated & plugged with iron algae/bacteria. Well needs treated, brushed & blown & a new pump installed. Ordered chemical from Cotey. 7-1-13 Arrived 10:00am Blew out the well after chlorinating & brushing. Poured in Welgicide chemical & began swabbing & brushing. Stopped at 3:00 pm, picked up & left jobsite at 3:30 pm. 7-2-13 Arrived 7:00 am, left 2:00 pm Brushed & swabbed for an hour. Installed pipe & blew well until clean. Installed new pump, motor, wire, torque arrestor & press. relief valve at the well, and new controll box on the building wall. Flushed well with 400 gallons of peroxide treated water and pump it out. Well is producing 36 gpm at this time, pumping level is 100'. the pump is set 105' on 2" galv. pipe.			
Please call if you have any questions! <i>OK B.P.</i>		Discounted Total		\$5,610.62

ATTACHMENT D

TOPO MAP, 1997 AND 2013 AERIAL PHOTO, PLAT MAP

T8N R5W

15

14

0.096 ac

0.066 ac

0.086 ac

22

NENE

23

Legend

● Well Location

--- Mainline

Proposed PPU

Common area (0.6 ac)

Sample Lot Irrig (.08 ac average)

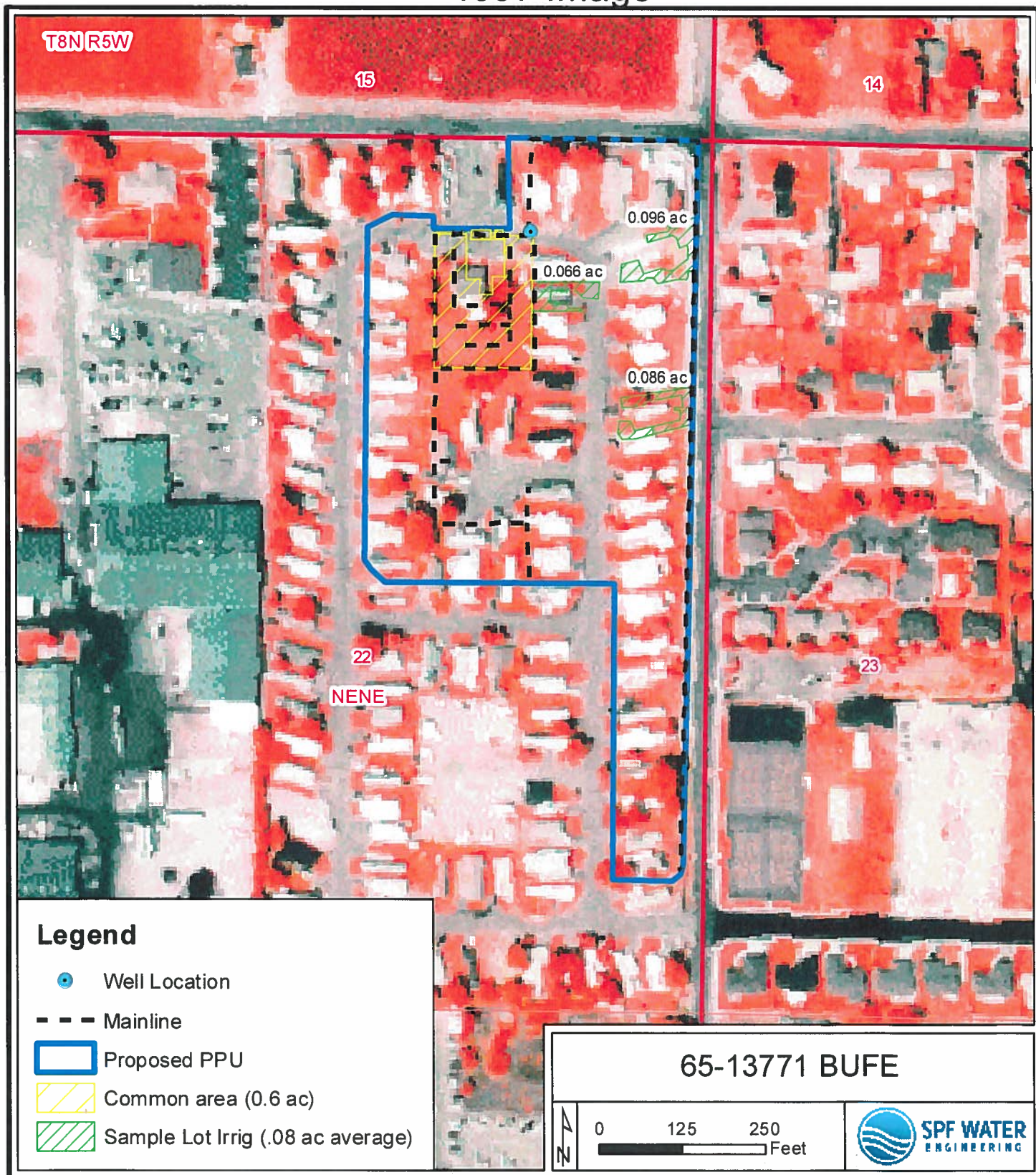
65-13771 BUFE



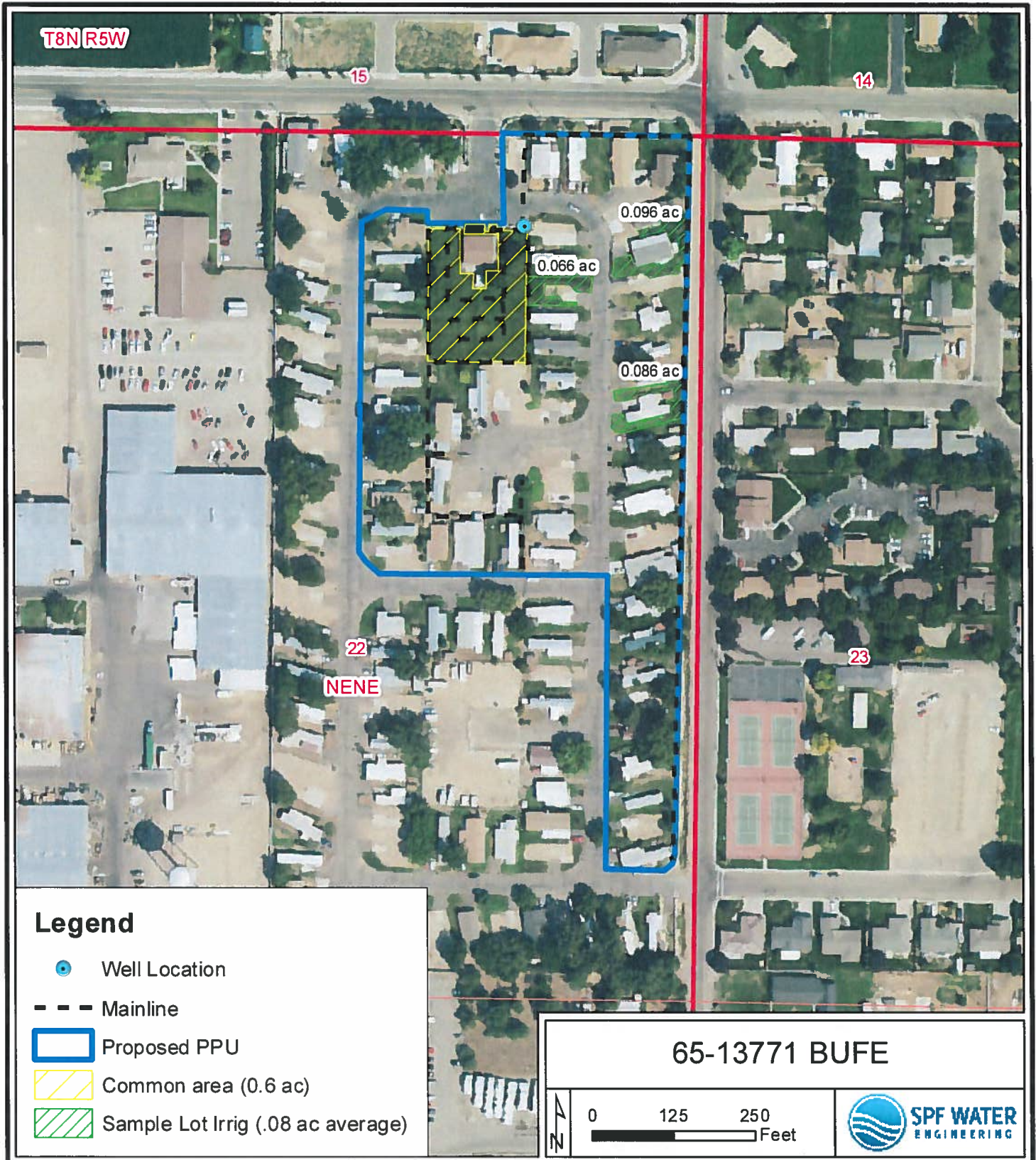
0 125 250
Feet



1997 Image

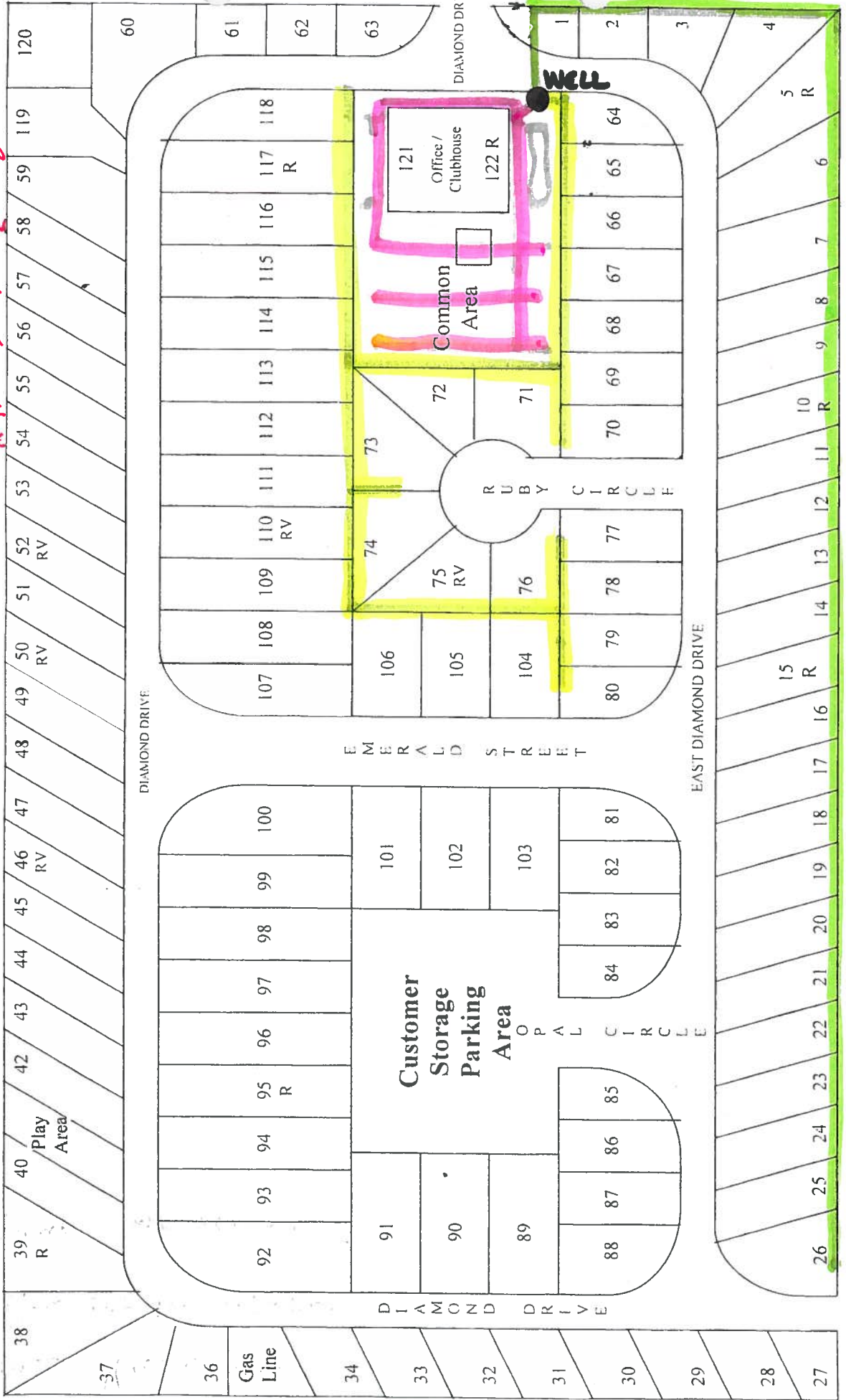


2013 Photo



LEGEND

- COMMON
AREA BURIED
1 1/4" Mainline
SPRINKLER SYSTEM
(6 ZONES)
- NORTH
CENTRAL BLOCK
2" PVC mainline
with 1/2" riser each
lot
- NORTH
AND EAST BLOCK
2" PVC MAINLINE
WITH 1/2" PVC
RISER EACH
LOT



North Pennsylvania Avenue

ATTACHMENT E
PHOTOS



Figure 1: NENE well facing northerly. Ground water from the NENE well is discharged into an above ground 2-inch Sch. 40 pvc manifold that is used to direct the well water to three separate irrigation zones: (1) an underground 1-1/4 inch pvc mainline feeding a 6 zone underground sprinkler system for the clubhouse and common area (west/left branch in photo), (2) a 2-inch above ground pvc mainline with 1/2-inch risers and spigots for each of the 32 home lots in the northern central block (east/right branch in photo), and (3) a 2-inch above ground pvc mainline with 1/2-inch risers and spigots for each of the 26 home lots in the outer northeast block (north branch/straight branch in photo).



Figure 2: IDWR Drilling Permit ID Tag.



Figure 3: Typical 1/2-inch riser and spigot to irrigate a home lot.



Figure 4: Typical 2-inch above ground PVC mainline running along the backside of the home lots.



Figure 5: Irrigation sprinkler boxes for common area buried 6-zone sprinkler system.