

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED
OCT 01 2009
DEPARTMENT OF
WATER RESOURCES

A. GENERAL INFORMATION

Permit No. 63-12448

1. Owner: City of Eagle Phone No.: (208) 939-6813

Current Address: PO Box 1520 Eagle, ID 83616

2. Accompanied by: Brent Arte EXAM DATE: September 28 & 29, 2009

Address: same Phone No. _____

Relationship to Permit Holder: Lead Water Operator

3. Source: Ground Water tributary to _____

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-11413, 63-12017

2. Other water rights with the same point of diversion: 63-11413, 63-12017

C. DIVERSION AND DELIVERY SYSTEM

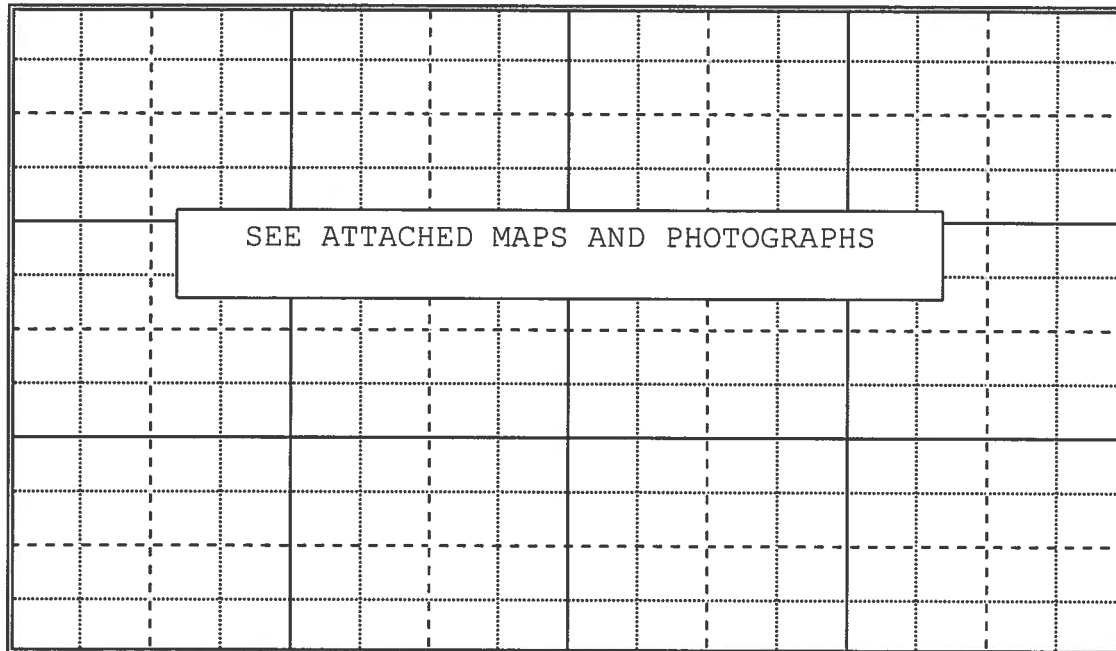
1. Point(s) of Diversion:

Ident No.	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
1			SW	SW	3	4N	1E	Ada	GPS, USGS 24K Quad, Aerial Image
2			NW	SW	3	4N	1E	Ada	GPS, USGS 24K Quad, Aerial Image
3			SW	SW	4	4N	1E	Ada	GPS, USGS 24K Quad, Aerial Image

2. Place(s) of Use: City Of Eagle Municipal Water Service Boundary

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 id as applicable.



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
1. Well #1	Unknown (Two Submersible Pumps)	75 & 25	Unknown	Unknown	Unknown. 6" discharge pipe Unknown. 3" discharge pipe
2. Well #2	Franklin (Submersible)	75	Unknown	Unknown	Unknown. 6" discharge pipe
3. Well #3 (D0047605)	Unknown (Submersible)	100	Unknown	Berkeley	Unknown. Model 8T100-950

*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
Well #1. Installed Flowmeters for 75-hp and 25-hp discharge pipes	Magnetic	McCrometer	10DX3311GDE1 7P1B2BA1138X 1AAAC1	01W034909	6-inch	Unknown
	Magnetic	McCrometer	10DX3311GDBE 14P1B2BA1138 X1AAAC1	01W034908	3-inch	Unknown
Well #2. Installed Flowmeter	Propeller	McCrometer		92 6 1165	6-inch	Unknown
Well #3. Installed Flowmeter	UltraMag	McCrometer	UM06-08	UM20070563	8-inch	Before Aug 2007

2. **Measurements:** _____ Well #1 (Lexington): This well is equipped with two submersible pumps having a combined rated flow capacity of 850 gpm at 292 feet TDH (see the design engineer's report). Two flowmeters are installed (one for each pump). During the water system operator's regular readings of flowmeters, the operators have observed and documented on pump house logs a maximum discharge of approximately 780 gpm with both 25-hp and 75-hp pumps operating.

_____ Well #2: This diversion is equipped with a McCrometer flowmeter. However, the pump has not been needed or used for several years. Theoretical calculations of pumping capacity for a 75-hp submersible pump is 617 gpm. The motor is controlled by a Variable Speed Drive.

_____ Well #3 (Brookwood): During the water system operator's regular readings of the flowmeter, they have observed a maximum discharge of approximately 850 gpm during normal operation. Pump curve indicates a capacity of 900 gpm at about 270 ft TDH, and 800 gpm at 294 ft TDH. The design engineer's report indicates a rated capacity of 800 gpm at 294 feet TDH. This pump has a rated minimum recommended motor rating of 75-hp. A 100-hp motor is installed and controlled by a Variable Speed Drive.

E. NARRATIVE/REMARKS/COMMENTS

Three wells serve this permit. These include Well #1, Well #2, and Well #3 (aka Brookwood). Well #1 and Well #3 are currently used as the primary suppliers, alternately operating to provide water directly to the City's distribution system and to fill a storage tank. These two can operate simultaneously during very high demand situations, such as during fire-fighting. Well #2 is a back-up.

Well #1 is equipped with two submersible pumps, including one 25-hp and one 75-hp. These pumps can operate individually or simultaneously.

Well #3, completed under this permit, is screened from 244 to 314 feet below ground surface. Wells #1 and #2, completed under prior permits, are screened from 215 to 385, and 499 to 602 feet, respectively. All three wells meet the requirements of condition (4) requiring a water bearing zone from 183 to 602 feet.

Well #3 was brought on-line in late December 2008. Well #4, proposed at T4N R1E Section 4 NESE was not constructed. Order condition (6) requires annual reporting of total volume of ground water diverted from these two wells. The City plans to submit their first report in January 2010. This report will not include diversions from Well #4 since it was not constructed.

Condition (10) of the September 2005 order requires that "Rights no. 63-11413, no. 63-12017, and no. 63-12448, when combined, shall not exceed a total maximum diversion rate of 3.25 cfs and a total annual maximum diversion volume of 1,455 acre-feet." Wells #1 and #3 are not typically operated simultaneously and therefore maximum diversion rates are maintained at levels that do not exceed the 3.25 cfs limit applied by the condition. Diversion capacity is sufficient to meet the 3.25 cfs limit.

Have conditions of permit approval been met? yes no

F. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

**Well #1: City has observed combined discharges (both pumps operating) of 1.74 cfs.
Theoretical capacity for 25-hp and 75-hp submersible pumps together is 1.84 cfs.**

Well #2: Theoretical capacity for the 75-hp submersible pump is 1.37 cfs.

**Well #3: Recorded maximum discharge from flowmeter readings = 1.89 cfs.
Designed pumping rate per pump curve is 2.0 cfs at 380 ft TDH.**

Total capacity for the three wells is 1.74 + 1.37 + 1.89 = 5.00 cfs.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I,R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

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

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Municipal	1/1	12/31	3.25 cfs	

2. Recommended Amendments

Change P.D. as reflected above
 Add P.D. as reflected above
 None
 Change P.U. as reflected above
 Add P.U. as reflected above
 Other

I. AUTHENTICATION

Field Examiner's Name SCOTT N KING Date October 1, 2009

Field Examiner's Signature Scott N King

Reviewer _____ Date _____



**ATTACHMENT A
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE**

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY	
Amt. of Fee \$: _____	_____
Receipt No.:	_____
Receipt By:	_____
Date Received:	_____

The Idaho Department of Water Resources considers this form a statement by the permit holder(s) that development of a water right has been **completed and** that water has been applied to beneficial use to the extent described below. **This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner.** Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, please contact any Department office or visit the Department's website at: www.idwr.idaho.gov for an *Assignment of Permit* form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

1. Permit No. 63-12448 Telephone No. (208) 939-6813

2. Name of Permit Holder(s): City of Eagle

3. Mailing Address: P.O. Box 1520 City Eagle
State ID Zip 83616 Email: _____

4. Source of Water: Ground Water If **GROUND WATER** (well), Date Drilled: mo. 03 / yr. 07

Well Driller: Riverside Inc Drilling Permit Number: 897368-843489

5. Extent of use(s) completed (as authorized by the water right permit):
Tag D0047605

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): _____ Other: Municipal, 3.25 cfs

6. Total rate of diversion or storage volume for which proof is submitted: 3.25 cfs OR _____ acre-feet.

7. Compliance with a measuring device requirement, lockable controlling device requirement, and/or other conditions of permit: **Refer to the approval conditions on your permit and respond accordingly. The Department will not issue a license if permit conditions are not met.**

Measuring Device: Is a measuring device required? Yes No
If yes, has the measuring device been installed? Yes No

Lockable Controlling Device: Is a lockable device required to control the diversion? Yes No
If yes, has the lockable device been installed? Yes No

Other Conditions of Permit: Do the approval conditions on your permit require you to submit additional information in connection with your proof of beneficial use? If yes, list the conditions below and attach documents with the required information.

(6) Annual volume reporting. Diversion began Dec. 2008. The first report will be submitted Jan 2010 Completed? Yes No

8. Fee Enclosed: \$ N/A See fee schedule on back of the instructions for filing proof of beneficial use. Proofs filed without an appropriate fee, will be considered incomplete.

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: Beneficial Use Field Report by SPF Water Engineering, LLC Telephone Number: _____

Mailing Address: _____ City _____

State _____ Zip _____ Email: _____

The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

Signature of permit holder: [Signature] - Lead Water Operator Date: 9/29/9
(include your title if on behalf of company or organization)

Attachment 1
Statement of Completion
City of Eagle
Permit 63-12448

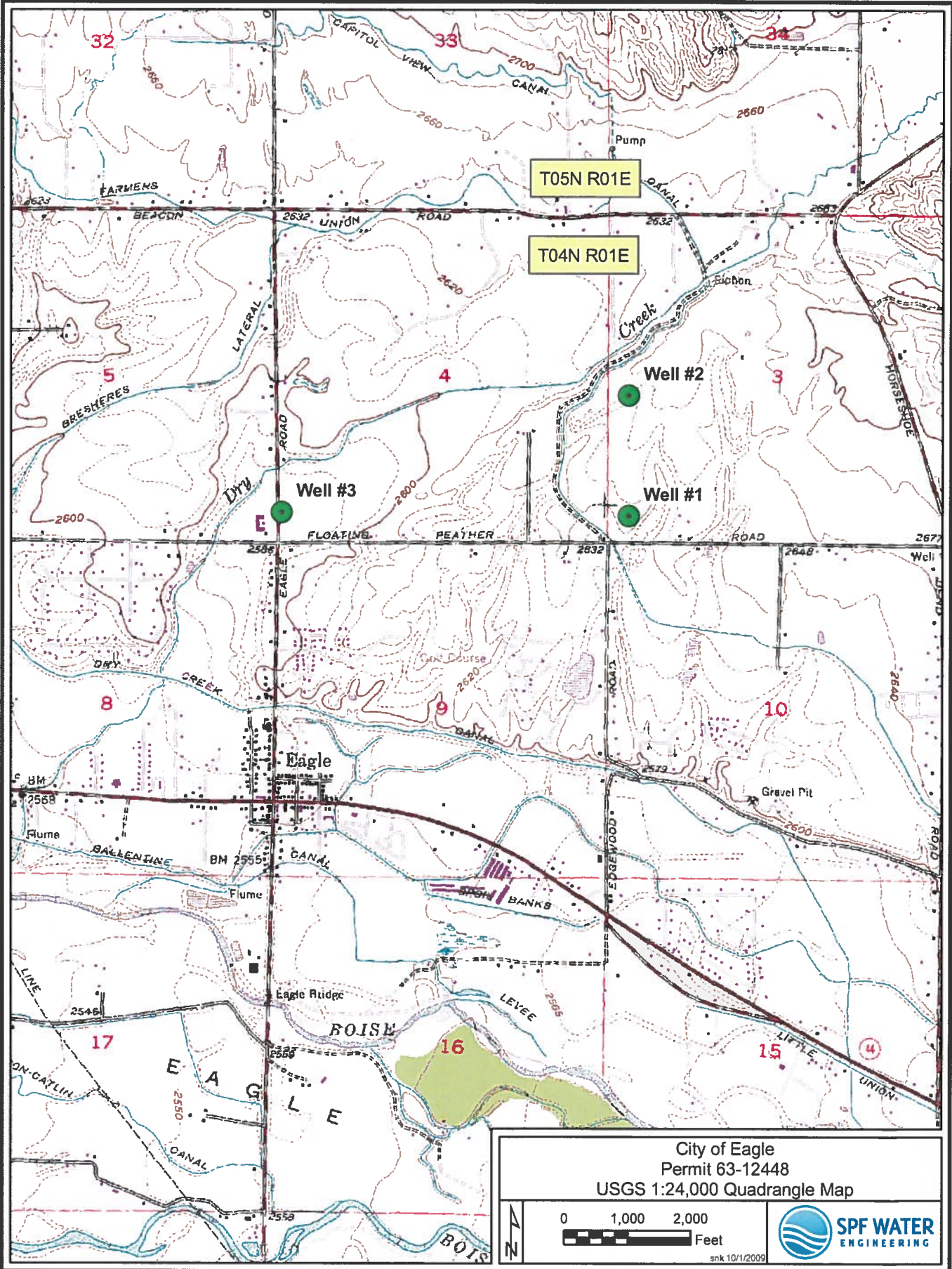
4. Three wells are used to deliver water under permit 63-12448, including the following:

Well #1. Completed March 1991 by Pete Cope Drilling Co., Inc, Drilling Permit 63-91-W-044 under water permit 63-11413.

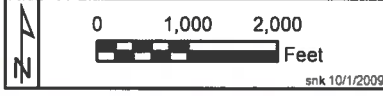
Well #2. Completed April 1992 by Pete Cope Drilling, Drilling Permit 63-92-W-170 under water permit 63-11413.

Well #3. Completed March 2007 by Riverside Inc., Drilling Permit 897368-843489 under water permit 63-12448.

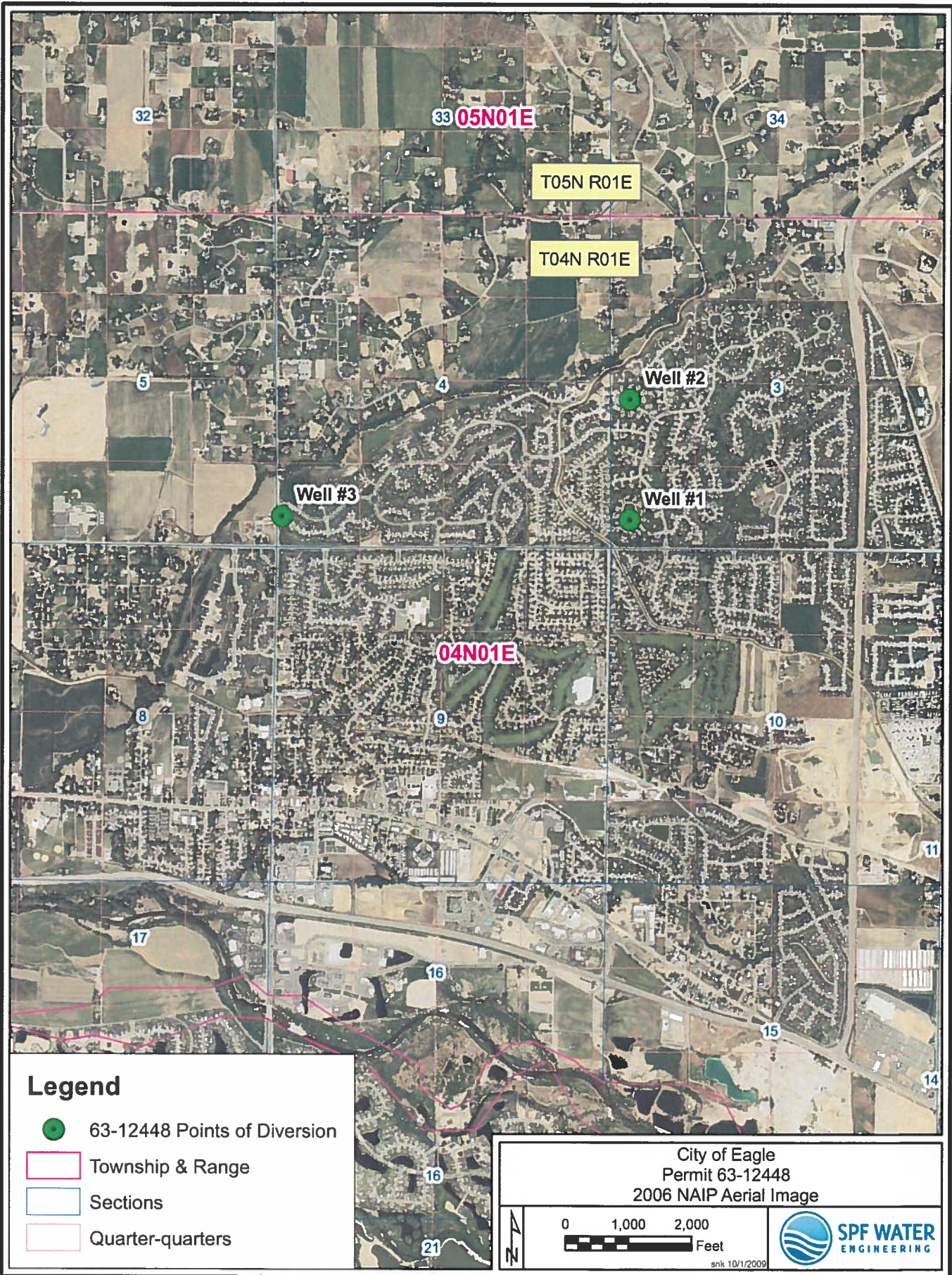
**ATTACHMENT B
QUADRANGLE AND IMAGE MAPS**



City of Eagle
 Permit 63-12448
 USGS 1:24,000 Quadrangle Map



snk 10/1/2009



Legend

- 63-12448 Points of Diversion
- Township & Range
- Sections
- Quarter-quarters

City of Eagle
Permit 63-12448
2006 NAIP Aerial Image

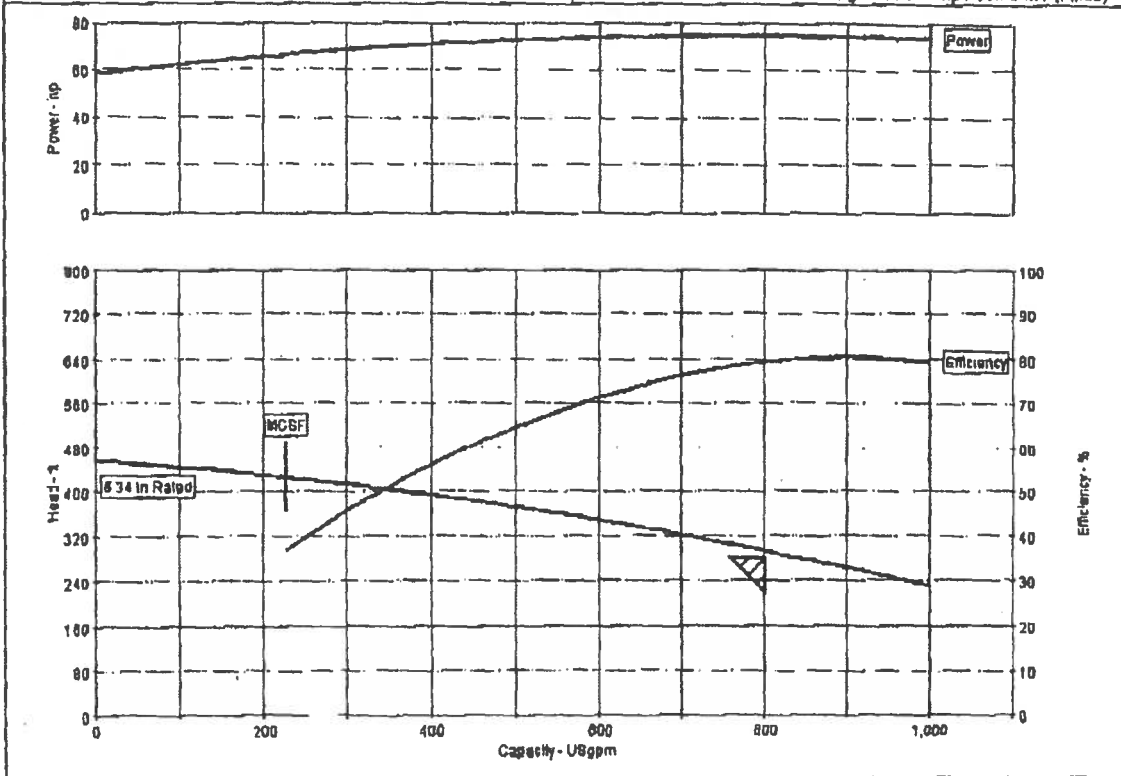
0 1,000 2,000
Feet

snk 10/1/2009

**ATTACHMENT C
WELL #3 PUMP CURVE
AND
DESIGN ENGINEER'S REPORT FOR THE BROOKWOOD AND
LEXINGTON PUMPS AND WELLS**

Pump Performance Datasheet

Customer	:		Quote number	:	
Customer reference	:		Pump size	:	8T75-950
Item number	:		Stages	:	4
Service	:		Based on curve number	:	8T75-950(2@6.34x5 2816 + 2@5.5x4.5)
Quantity of pumps	:	1	Date last saved	:	10 Sep 2007 3:20 PM
Operating Conditions			Liquid		
Flow, rated	:	800.0 USgpm	Liquid type	:	--Water
Head, rated (requested)	:	280.0 ft	Additional liquid description	:	
Head, rated (actual)	:	283.6 ft	Solids diameter, max	:	0.00 in
Suction pressure, rated / max	:	0.00 / 0.00 psi.g	Temperature, max	:	66.00 deg F
NPSH available, rated	:	Ample	Fluid density, rated / max	:	0.998 / 0.998 SG
Frequency	:	60 Hz	Viscosity, rated	:	1.00 cP
Performance			Material		
Pump speed, rated	:	3,525 rpm	Material requested	:	Auto
Impeller diameter, rated	:	6.34 in	Material selected	:	Not specified
Impeller diameter, maximum	:	6.34 in	Pressure Data		
Impeller diameter, minimum	:	6.34 in	Maximum working pressure	:	197.4 psi.g
Efficiency	:	79.44 %	Maximum allowable working pressure	:	510.0 psi.g
NPSH required / margin required	:	N/A / 0.00	Maximum allowable suction pressure	:	N/A
Specific speed / Suction specific speed	:	N/A / 0 US units	Hydrostatic test pressure	:	N/A
MCSF	:	227.0 USgpm	Driver & Power Data		
Head, maximum, rated diameter	:	456.0 ft	Driver sizing specification	:	Rated power
Head rise to shutoff	:	N/A %	Margin over specification	:	0.00 %
Flow, best eff. point (BEP)	:	699.8 USgpm	Service factor	:	1.15 (used)
Flow ratio (rated / BEP)	:	88.91 %	Power, hydraulic	:	59.18 hp
Diameter ratio (rated / max)	:	100.00 %	Power, rated	:	74.50 hp
Head ratio (rated dia / max dia)	:	95.41 %	Power, maximum, rated diameter	:	74.54 hp
Viscosity coefficients (CQ / CH / CE)	:	1.00 / 1.00 / 1.00	Minimum recommended motor rating	:	75.00 hp / 55.93 kW (Fixed)
Selection status	:	Acceptable			



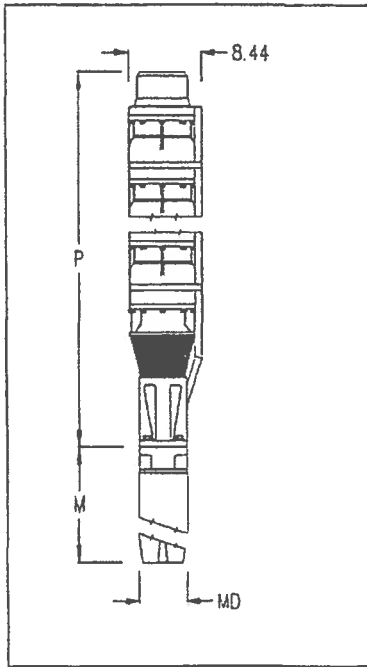
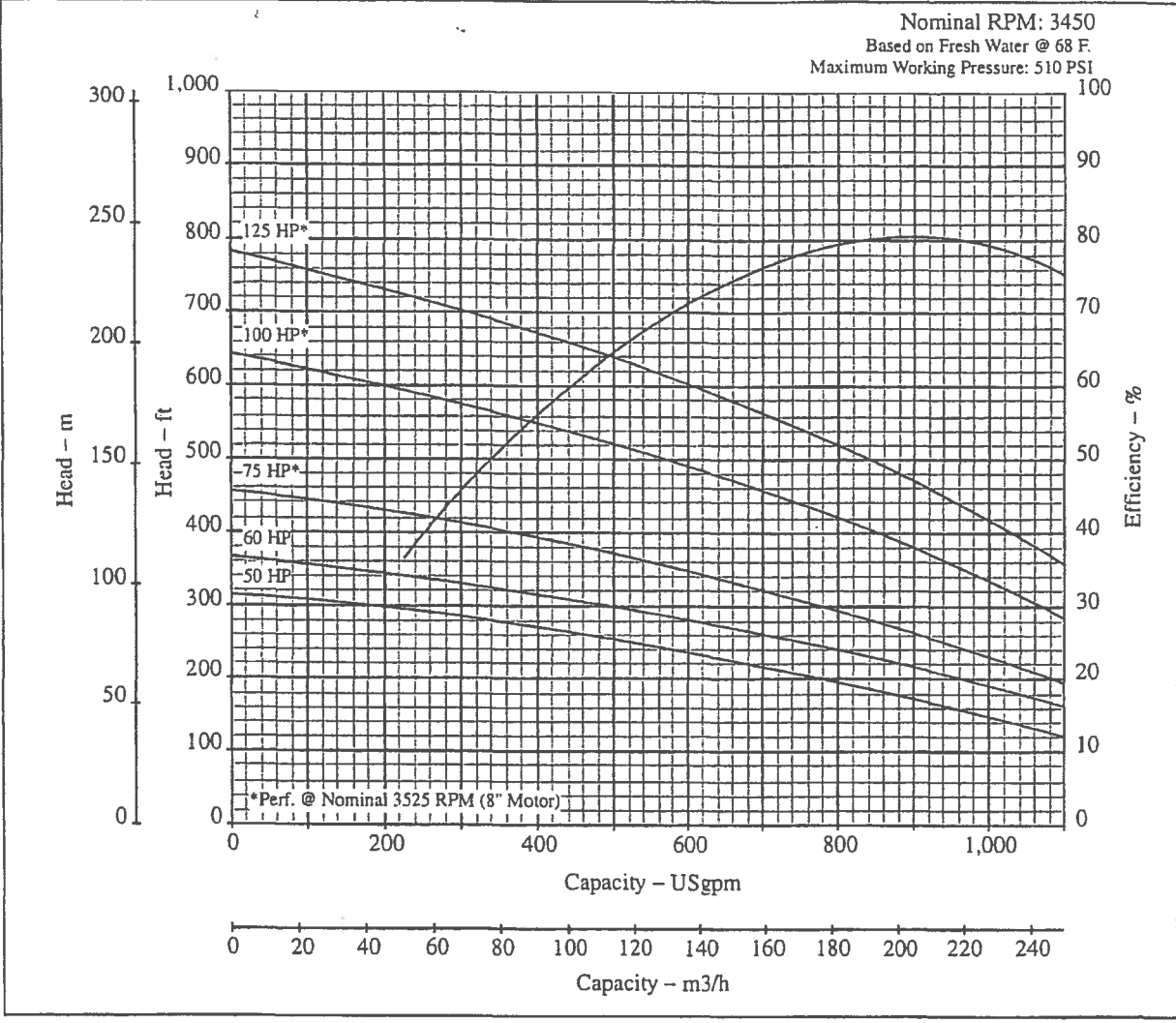
BERKELEY Pumps / Pentair Water • 283 Wright Street • Delevan, Wisconsin 53115
 phone: 1-888-237-5353 • fax: 1-800-426-9446



**SUBMERSIBLE
TURBINE**

8T-950

Nominal RPM: 3450
Based on Fresh Water @ 68 F.
Maximum Working Pressure: 510 PSI



OUTLINE DIMENSIONS / WEIGHTS

HP	stages	Motor size	P length	M* length	MD* dia.	Mtr. wt.	Pump wt.
50	3	6"	36.00	52.20	5.51	251	176
50	3	8"	36.75	38.80	7.69	350	181
60	3	6"	36.00	55.70	5.51	269	176
60	3	8"	36.75	41.80	7.69	385	181
75	4	8"	43.25	54.90	7.69	424	213
100	5	8"	49.75	58.90	7.69	469	245
125	6	8"	56.25	68.80	7.69	700	277

Note: dimensions = inches; weight = U.S. lbs.

M Maximum length
MD Motor diameter

SPECIFICATIONS

Minimum Well I.D.	10.0 Inches
Minimum Submergence @ BEP (above inlet)	10.0 Feet
Capacity Range	450 - 1000 GPM
Discharge	6" F NPT
See manufacturer's data for motor cooling requirements	

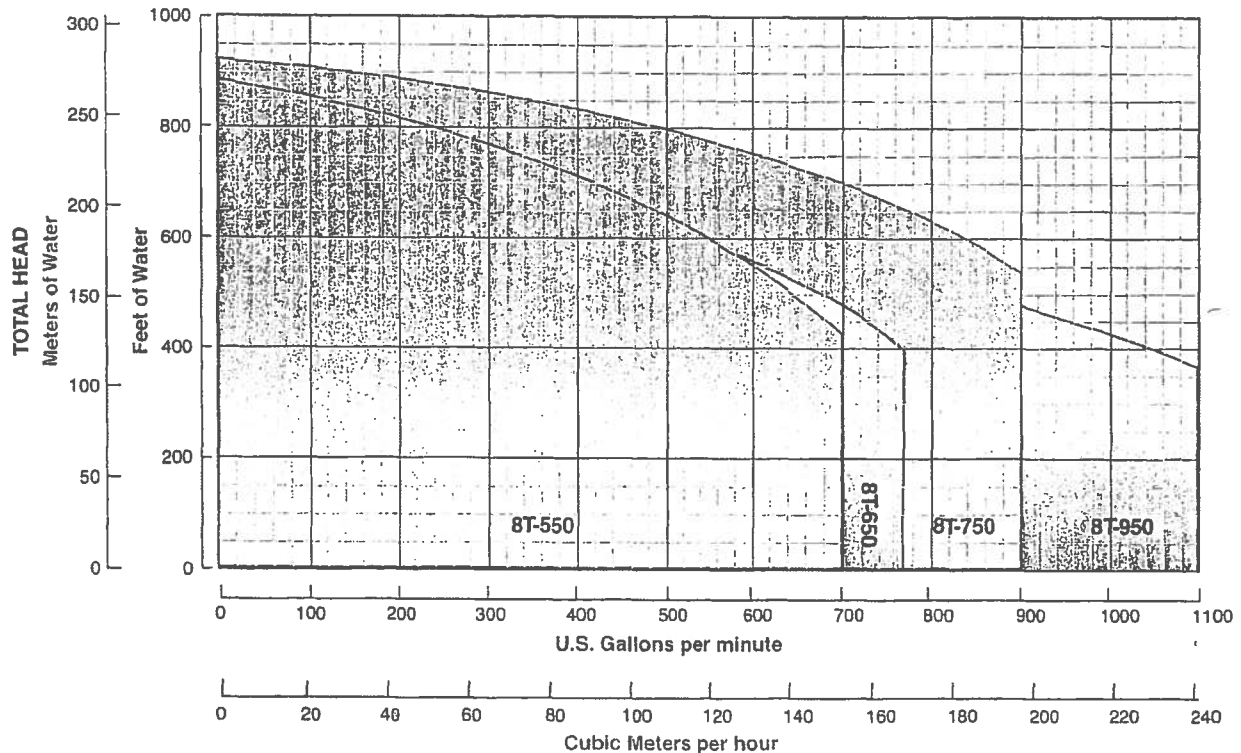
SUPERSEDES
All Previous

Date 04/01/05
Section **8T**
Page 4.02

MATERIALS OF CONSTRUCTION

Part Name	Material	Spec Number
Discharge Adapter	Cast Iron	ASTM A48 Class 30
Top Bowl*	Cast Iron	ASTM A48 Class 30
Intermediate Bowl*	Cast Iron	ASTM A48 Class 30
Bearings, Top and Suction Case	Bronze	ASTM B144-3B (SAE 660)
Impeller	Bronze	ASTM B584 UNS C83600
Pump Shaft	Stainless Steel	AISI 416
Impeller Collets	Steel	AISI 1215
Suction Bracket	Cast Iron	ASTM A48 Class 30
Bowl Bearing	Bronze	ASTM B505 C93200
Sand Cap	Bronze	ASTM B144-3B (SAE 660)
Strainer	Stainless Steel	AISI 302 UNS S30200
Cable Guard	Stainless Steel	AISI 302 UNS S30200
Shaft Coupling	Stainless Steel	AISI 416 UNS S41600
Wear Ring (8T-950 only)	Bronze	B505 C93200

*Note: 8" Bowls are Thernec Porta-Pox N140 Epoxy Coated. Flanged Bowl Design on 8T-550, 650 & 750. Threaded Bowls on 8T-950 are pinned.



**Pentair
Water™**

Pentair Water
293 Wright Street
Delavan, WI 53115
Phone: 262-728-5551
Fax: (800) 426-9446
www.pentairwater.com

PENTAIR SOLUTIONS

- BERKELEY 6" - 10" highly efficient pump designs, to 2200 GPM, to 1400 ft.
- PENTEK 6" and 8" motors and controls offering leading edge technology.
- PENTEK pump controllers for maximizing pump functionality.
- BEC2 powerful application software @ www.bec2.net unparalleled in the industry.
- Highly-trained customer service staff providing quick solutions at 1-888-BERKELEY.
- 2-year extended warranty program when BERKELEY pump is installed with a PENTEK motor.

all supplies. To isolate one well house from the system, the systems operator must first notify the Operations Managers prior to any well house isolation or shut down. The Operations Manager will then grant permission of the isolation or shutdown event. The Operations Manager will then start the Notification of the City of Eagles Affected Public Service entities i.e. Cities Fire Department, Public Works Dept., etc... so they may be knowledgeable in case of a fire event or other emergency situation that may be affected by the lower water output. Prior to any shutdown event, the operator must first verify the proper operation of the remaining well house. Once the operator has been granted permission to proceed with a shutdown, they may start to slowly close the discharge isolation valve in the well house, at the entrance to the distribution system. Place all HOA switches to the 'off' position on the local control panel. If the piping in the well house is to be drained open the drain valve on the supply line.

Reservoir:

The supply isolation valves for the reservoir allow isolating the reservoir while maintaining pressure to the entire distribution system, including the 'velodrome' and skate park. Slowly close the supply isolation valve at the reservoir to isolate the tank from the distribution system. Be sure that all well pumps in the Eastern Zone are set to run on well house pressure and not reservoir level. Slowly open drain valve and monitor pond depth, reduce drain flow if pond begins to overflow. Before bringing reservoir back on-line, follow all rules and guidelines in the AWWA Standard for Disinfection of Water-Storage Facilities

Refer to **exhibit 11** for AWWA Standard C652-92, Disinfection of Water-Storage Facilities.

System Depressurization: All customers including emergency services (fire, police, etc...), system owner (City of Eagle) and regulatory agencies must be notified of this event and system pressures monitored by placing a pressure gauge on a fire hydrant relative to the system. Follow the sequences outlined above for each well house. Depressurizing the distribution system should only occur in extreme circumstances. This event would require notification of all affected customers including emergency services (fire, police, etc...), system owner (City of Eagle) and regulatory agencies. Notification to all customers must include the prepared notification for bacterial contamination in Exhibit H and all established procedures must be followed in the Emergency Response – Depressurization section of this manual when re-pressurizing the system. To depressurize the system, place all pumps in both well houses to the 'off' position on the local control panel, close the supply isolation valve at each United Water back-up PRV, close the reservoir isolation valve, then open the drain valve for each well house.

1.3 Pumps

Brookwood

Brookwood well house is equipped with one submersible pump designed to provide for all average and peak flow needs. The pump speed is controlled using a VFD and has a variable pump speed (flow output) based on system pressure and time at maximum speed (reference Normal Operation section of this manual). The pump is 100 H.P. and has a rated capacity of 800 gpm at 294 feet of TDH. The pump has a programmed lockout that will not allow the pump to run if the well level drops below 125 feet.

Lexington

The Lexington well house is equipped with two submersible pumps. The Lexington pumps have a combined flow capacity of 850 gpm at 292 feet of TDH. The lead pump is 25 hp capable of pumping 250 gpm, and programmed to initiate whenever the system pressure, as measured at the well house, drops

below 85 psi. The lag pump is 75hp and capable of pumping 600 gpm, and programmed to initiate whenever the system pressure, as measured at the well house, drops below 84 psi. Both pumps will run until the system demand, based on pressure at the individual well house, slows each individual pump below 40 % of its' maximum speed (reference Normal Operation section of this manual). A check valve has been installed on the discharge line of the 75HP pump to prevent system pressure from 'back flowing' the pump during routine operation (reference Check Valve section of this manual). The 25 hp pump is equipped with a foot valve to prevent system pressure from 'back flowing' the pump during routine operation.

1.4 Wells

Brookwood well is 314 feet deep and fitted with a 12" steel casing. Brookwood well is currently rated for a maximum of 1758 gpm. Lexington well is 615 feet deep and fitted with a 16" steel casing. Lexington well is currently rated for a maximum of 750 gpm. Both wells are equipped with a stainless steel well screen with .30 slot openings. Brookwood well is also equipped with a level transducer which measures the liquid level in the casing. This depth is used to gauge the well performance as well as provide protection for the pump (reference Normal Operation section of this manual). The well construction reports are on-file with DEQ. Reference the Master Plan dated November, 2005 for more information on well capacities and design.

Please refer to **exhibit 2**, for as-built information regarding the design and construction of the wells.

1.5 Pump Controls

The pumps in both well houses are equipped with VFD's, which control the pumps individual speed settings based on actual system demand, communicated to the pump Variable Frequency Drive (VFD) controls via the Programmable Logic Controller (PLC), normally based on reservoir level or backed-up by the system pressure in the well house (reference Normal Operation section of this manual). Each pump is has an HOA switch on the local control panel to allow the operator to run the pumps on hand or remove it from service. If the pump is in the 'off' mode, the PLC will continue with the programmed timing as previously set. The transducer will monitor the liquid level in the pump casing and send a 4-20 ma signal to the PLC in the local control panel. The PLC is programmed to 'lock out' the Brookwood pump whenever the case level drops below 125 feet.

The pumps, when called for, are set to pump at full capacity until the reservoir maximum operating level is attained (28 feet) or, if set to pressure control on the SCADA system, will reduce speed and shut-off based on the pressures level as described under 'Normal Operations'.

1.6 Normal Operation

Each well house is programmed to normally work in sequence with the other. Static reservoir level is set to modulate from 23 feet to 28 feet. The control function is as follows.

Reservoir level drops to 23 feet: Lead well starts pump(s) at full speed

Reservoir level drops to 22 feet: Lag well starts pump(s) at full speed

Reservoir level rises to 28 feet: all pumps to 'off'

ATTACHMENT D
WELL DRILLER REPORTS FOR WELLS #1, #2 & #3

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

USE TYPEWRITER OR
BALLPOINT PEN

WELL
#1

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

MAY 1 1991

<p>1. WELL OWNER</p> <p>Name <u>Floating Feather Hills, Inc.</u></p> <p>Address <u>2417 Bank Drive-Suite 101</u> <u>Boise, ID 83705</u></p> <p>Owner's Permit No. <u>63-91-W-044</u> <u>63-11413 (App. Pending)</u></p>	<p>7. WATER LEVEL Department of Water Resources Western Regional Office</p> <p>Static water level <u>68</u> feet below land surface.</p> <p>Flowing? <input type="checkbox"/> Yes <input type="checkbox"/> No G.P.M. flow _____</p> <p>Artesian closed-in pressure _____ p.s.i.</p> <p>Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug</p> <p>Temperature <u>44</u> OF. Quality _____</p> <p><i>Describe artesian or temperature zones below.</i></p>																																																																																																																																																																												
<p>2. NATURE OF WORK</p> <p><input checked="" type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement</p> <p><input type="checkbox"/> Well diameter increase</p> <p><input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)</p>	<p>8. WELL TEST DATA</p> <p><input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped																																																																																																																																																																									
Discharge G.P.M.	Pumping Level	Hours Pumped																																																																																																																																																																											
<p>3. PROPOSED USE</p> <p><input type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input checked="" type="checkbox"/> Test <input type="checkbox"/> Municipal</p> <p><input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection</p> <p><input type="checkbox"/> Other _____ (specify type)</p>	<p>9. LITHOLOGIC LOG 075684</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th rowspan="2">Water Yes No</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>28"</td><td>0</td><td>3</td><td>Top Soil</td><td></td></tr> <tr><td></td><td>3</td><td>15</td><td>Sandy Loam</td><td></td></tr> <tr><td></td><td>15</td><td>25</td><td>Coarse Sand & Pea Gravel</td><td></td></tr> <tr><td></td><td>25</td><td>40</td><td>Med. to Crse. Sand</td><td></td></tr> <tr><td></td><td>40</td><td>75</td><td>River Rock</td><td></td></tr> <tr><td></td><td>75</td><td>85</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>85</td><td>87</td><td>Lite Brn. Clay</td><td></td></tr> <tr><td></td><td>87</td><td>106</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>106</td><td>108</td><td>Lite Brn. Clay</td><td></td></tr> <tr><td></td><td>108</td><td>124</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>124</td><td>130</td><td>Lt. Brn. Clay</td><td></td></tr> <tr><td></td><td>130</td><td>165</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>165</td><td>175</td><td>Gldn.Fn./Med.Sand with some clay in spots.</td><td></td></tr> <tr><td></td><td>175</td><td>182</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>182</td><td>185</td><td>Lt.Brn.Clay & Fine Sand</td><td></td></tr> <tr><td></td><td>185</td><td>189</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>189</td><td>193</td><td>Fine to crse. Sand</td><td></td></tr> <tr><td></td><td>193</td><td>195</td><td>Med./Crse. Sand & Clay Mxd.</td><td></td></tr> <tr><td></td><td>195</td><td>198</td><td>Lt. Brn. Clay</td><td></td></tr> <tr><td></td><td>198</td><td>205</td><td>Fine to Med. Sand</td><td></td></tr> <tr><td></td><td>205</td><td>209</td><td>Fine/Crse.Sand & Lt.Brn. Clay Mxd.</td><td></td></tr> <tr><td></td><td>209</td><td>211</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>211</td><td>215</td><td>Fine/Med.Sand & Lt.Brn.Clay</td><td></td></tr> <tr><td></td><td>215</td><td>225</td><td>Fine Sand</td><td></td></tr> <tr><td></td><td>225</td><td>235</td><td>Sandwiched Sand & Clay (1/2)</td><td></td></tr> <tr><td></td><td>235</td><td>265</td><td>Gray Sand</td><td></td></tr> <tr><td></td><td>265</td><td>275</td><td>Sand-Clay (50-50)</td><td></td></tr> <tr><td></td><td>275</td><td>282</td><td>Gray Clay</td><td></td></tr> <tr><td></td><td>282</td><td>290</td><td>Fine Gray Sand</td><td></td></tr> <tr><td></td><td>290</td><td>300</td><td>Gray Clay</td><td></td></tr> <tr><td></td><td>300</td><td>305</td><td>Fine Gray Sand</td><td></td></tr> <tr><td></td><td>305</td><td>311</td><td>Gray Clay w/sm.at.fine sand</td><td></td></tr> <tr><td></td><td>311</td><td>315</td><td>Brn. & Gray Clay</td><td></td></tr> </tbody> </table>	Bore Diam.	Depth		Material	Water Yes No	From	To	28"	0	3	Top Soil			3	15	Sandy Loam			15	25	Coarse Sand & Pea Gravel			25	40	Med. to Crse. Sand			40	75	River Rock			75	85	Fine Sand			85	87	Lite Brn. Clay			87	106	Fine Sand			106	108	Lite Brn. Clay			108	124	Fine Sand			124	130	Lt. Brn. Clay			130	165	Fine Sand			165	175	Gldn.Fn./Med.Sand with some clay in spots.			175	182	Fine Sand			182	185	Lt.Brn.Clay & Fine Sand			185	189	Fine Sand			189	193	Fine to crse. Sand			193	195	Med./Crse. Sand & Clay Mxd.			195	198	Lt. Brn. Clay			198	205	Fine to Med. Sand			205	209	Fine/Crse.Sand & Lt.Brn. Clay Mxd.			209	211	Fine Sand			211	215	Fine/Med.Sand & Lt.Brn.Clay			215	225	Fine Sand			225	235	Sandwiched Sand & Clay (1/2)			235	265	Gray Sand			265	275	Sand-Clay (50-50)			275	282	Gray Clay			282	290	Fine Gray Sand			290	300	Gray Clay			300	305	Fine Gray Sand			305	311	Gray Clay w/sm.at.fine sand			311	315	Brn. & Gray Clay	
Bore Diam.	Depth		Material	Water Yes No																																																																																																																																																																									
	From	To																																																																																																																																																																											
28"	0	3	Top Soil																																																																																																																																																																										
	3	15	Sandy Loam																																																																																																																																																																										
	15	25	Coarse Sand & Pea Gravel																																																																																																																																																																										
	25	40	Med. to Crse. Sand																																																																																																																																																																										
	40	75	River Rock																																																																																																																																																																										
	75	85	Fine Sand																																																																																																																																																																										
	85	87	Lite Brn. Clay																																																																																																																																																																										
	87	106	Fine Sand																																																																																																																																																																										
	106	108	Lite Brn. Clay																																																																																																																																																																										
	108	124	Fine Sand																																																																																																																																																																										
	124	130	Lt. Brn. Clay																																																																																																																																																																										
	130	165	Fine Sand																																																																																																																																																																										
	165	175	Gldn.Fn./Med.Sand with some clay in spots.																																																																																																																																																																										
	175	182	Fine Sand																																																																																																																																																																										
	182	185	Lt.Brn.Clay & Fine Sand																																																																																																																																																																										
	185	189	Fine Sand																																																																																																																																																																										
	189	193	Fine to crse. Sand																																																																																																																																																																										
	193	195	Med./Crse. Sand & Clay Mxd.																																																																																																																																																																										
	195	198	Lt. Brn. Clay																																																																																																																																																																										
	198	205	Fine to Med. Sand																																																																																																																																																																										
	205	209	Fine/Crse.Sand & Lt.Brn. Clay Mxd.																																																																																																																																																																										
	209	211	Fine Sand																																																																																																																																																																										
	211	215	Fine/Med.Sand & Lt.Brn.Clay																																																																																																																																																																										
	215	225	Fine Sand																																																																																																																																																																										
	225	235	Sandwiched Sand & Clay (1/2)																																																																																																																																																																										
	235	265	Gray Sand																																																																																																																																																																										
	265	275	Sand-Clay (50-50)																																																																																																																																																																										
	275	282	Gray Clay																																																																																																																																																																										
	282	290	Fine Gray Sand																																																																																																																																																																										
	290	300	Gray Clay																																																																																																																																																																										
	300	305	Fine Gray Sand																																																																																																																																																																										
	305	311	Gray Clay w/sm.at.fine sand																																																																																																																																																																										
	311	315	Brn. & Gray Clay																																																																																																																																																																										
<p>4. METHOD DRILLED</p> <p><input type="checkbox"/> Rotary <input type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input checked="" type="checkbox"/> Reverse rotary</p> <p><input type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____</p>	<p>10.</p> <p>Work started <u>2/26/91</u> finished <u>3/7/91</u></p>																																																																																																																																																																												
<p>5. WELL CONSTRUCTION</p> <p>Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>.250</u> inches</td> <td><u>16</u> inches</td> <td><u>18</u> feet</td> <td><u>215</u> feet</td> </tr> <tr> <td><u>.250</u> inches</td> <td><u>16</u> inches</td> <td><u>265</u> feet</td> <td><u>375</u> feet</td> </tr> <tr> <td><u>.250</u> inches</td> <td><u>16</u> inches</td> <td><u>385</u> feet</td> <td><u>405</u> feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Was casing drive shoe used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch <input type="checkbox"/> Gun</p> <p>Size of perforation _____ inches by _____ inches</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> <p>Well screen installed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Manufacturer's name <u>Roscoe Moss</u></p> <p>Type <u>Hvy. Stainless Steel</u> Model No. <u>Wirewrap</u></p> <p>Diameter <u>16</u>" Slot size <u>040</u> Set from <u>215</u> feet to <u>265</u> feet</p> <p>Diameter <u>16</u>" Slot size <u>040</u> Set from <u>375</u> feet to <u>385</u> feet</p> <p>Gravel packed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Size of gravel <u>3/8</u>-</p> <p>Placed from <u>315</u> feet to <u>190</u> feet</p> <p>Surface seal depth <u>90</u>' <input type="checkbox"/> Cement grout <input checked="" type="checkbox"/> Seal also at <u>190-180</u></p> <p><input type="checkbox"/> Bentonite <input type="checkbox"/> Pudding clay <input type="checkbox"/></p> <p>Sealing procedure used: <input type="checkbox"/> Slurry pit <input type="checkbox"/> Temp. surface casing</p> <p><input type="checkbox"/> Overbore to seal depth</p> <p>Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent Weld</p> <p><input type="checkbox"/> Cemented between strata</p> <p>Describe access port <u>2"</u></p>	Thickness	Diameter	From	To	<u>.250</u> inches	<u>16</u> inches	<u>18</u> feet	<u>215</u> feet	<u>.250</u> inches	<u>16</u> inches	<u>265</u> feet	<u>375</u> feet	<u>.250</u> inches	<u>16</u> inches	<u>385</u> feet	<u>405</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	<p>11. DRILLERS CERTIFICATION</p> <p>I/We certify that all minimum well construction standards were complied with at the time the rig was removed.</p> <p><u>PETE COPE DRILLING CO., INC.</u> Firm No. <u>213</u></p> <p>Address <u>6505 W. Chinden Blvd.</u> Date <u>#3/12/91</u> <u>Meridian, ID</u></p> <p>Signed by (Firm Official) <u>Joseph Jones</u></p> <p>and (Operator) <u>Kevin Chastain</u></p>																																																																																																																																												
Thickness	Diameter	From	To																																																																																																																																																																										
<u>.250</u> inches	<u>16</u> inches	<u>18</u> feet	<u>215</u> feet																																																																																																																																																																										
<u>.250</u> inches	<u>16</u> inches	<u>265</u> feet	<u>375</u> feet																																																																																																																																																																										
<u>.250</u> inches	<u>16</u> inches	<u>385</u> feet	<u>405</u> feet																																																																																																																																																																										
_____ inches	_____ inches	_____ feet	_____ feet																																																																																																																																																																										
Number	From	To																																																																																																																																																																											
_____ perforations	_____ feet	_____ feet																																																																																																																																																																											
_____ perforations	_____ feet	_____ feet																																																																																																																																																																											
_____ perforations	_____ feet	_____ feet																																																																																																																																																																											
<p>6. LOCATION OF WELL</p> <p>Sketch map location must agree with written location.</p> <p>Subdivision Name <u>_____</u></p> <p>Lot No. _____ Block No. _____</p> <p>County <u>Ada</u></p> <p>SW¼ SW¼ Sec. <u>3</u> T. <u>4N</u> S <input type="checkbox"/> R. <u>1E</u> W <input type="checkbox"/></p>	<p>7. LOCATION OF WELL</p> <p>Sketch map location must agree with written location.</p> <p>Subdivision Name <u>_____</u></p> <p>Lot No. _____ Block No. _____</p> <p>County <u>Ada</u></p> <p>SW¼ SW¼ Sec. <u>3</u> T. <u>4N</u> S <input type="checkbox"/> R. <u>1E</u> W <input type="checkbox"/></p>																																																																																																																																																																												

Well
#1

NOTIFIED
JUL 08 1992

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

USE TYPEWRITER OR
BALLPOINT PEN

WELL
#2

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

pg 1

<p>1. WELL OWNER Name <u>LEXINGTON HILLS INC.</u> Address <u>2417 BANK DR BOISE ID 83705</u> Drilling Permit No. <u>63-92-W-170</u> Water Right Permit No. <u>63-11413</u></p>	<p>7. WATER LEVEL Static water level <u>90</u> feet below land surface. Flowing? <input type="checkbox"/> Yes <input type="checkbox"/> No G.P.M. flow _____ Artesian closed-in pressure _____ p.s.i. Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Plug Temperature _____ °F. Quality _____ <i>Describe artesian or temperature zones below</i></p>																																																																																																																																																																																																										
<p>2. NATURE OF WORK <u>NEW WELL</u> <input type="checkbox"/> New well <input type="checkbox"/> Deepened <input type="checkbox"/> Replacement <input type="checkbox"/> Well diameter increase <input type="checkbox"/> Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)</p>	<p>8. WELL TEST DATA <u>NOT AVAILABLE</u> <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Air <input type="checkbox"/> Other _____</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Discharge G.P.M.</th> <th style="width: 33%;">Pumping Level</th> <th style="width: 33%;">Hours Pumped</th> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped																																																																																																																																																																																																							
Discharge G.P.M.	Pumping Level	Hours Pumped																																																																																																																																																																																																									
<p>3. PROPOSED USE <u>MUNICIPAL</u> <input type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> Test <input type="checkbox"/> Municipal <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Waste Disposal or Injection <input type="checkbox"/> Other _____ (specify type)</p>	<p>9. LITHOLOGIC LOG <u>075686</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Bore Diam.</th> <th colspan="2">Depth</th> <th rowspan="2">Material</th> <th colspan="2">Water</th> </tr> <tr> <th>From</th> <th>To</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>0</td><td>4</td><td>TOPSOIL</td><td></td><td>X</td></tr> <tr><td></td><td>4</td><td>10</td><td>SANDY LOAM</td><td></td><td>X</td></tr> <tr><td></td><td>10</td><td>15</td><td>GLEACHE</td><td></td><td>X</td></tr> <tr><td></td><td>15</td><td>30</td><td>CRSE SAND</td><td></td><td>X</td></tr> <tr><td></td><td>30</td><td>33</td><td>BROWN CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>33</td><td>50</td><td>CRSE SAND</td><td></td><td>X</td></tr> <tr><td></td><td>50</td><td>56</td><td>BRN CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>56</td><td>101</td><td>CEMENTED GRAVEL</td><td>X</td><td></td></tr> <tr><td></td><td>101</td><td>115</td><td>BRN CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>115</td><td>123</td><td>FINE BRN SAND</td><td>X</td><td></td></tr> <tr><td></td><td>123</td><td>126</td><td>BRN CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>126</td><td>143</td><td>FINE BRN SAND</td><td>X</td><td></td></tr> <tr><td></td><td>143</td><td>172</td><td>BRN CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>172</td><td>235</td><td>GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>235</td><td>350</td><td>SANDY GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>350</td><td>353</td><td>FINE TO CRSE SAND</td><td>X</td><td></td></tr> <tr><td></td><td>353</td><td>451</td><td>SANDY GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>451</td><td>469</td><td>FINE GREY SAND</td><td>X</td><td></td></tr> <tr><td></td><td>469</td><td>475</td><td>FINE SAND AND CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>475</td><td>478</td><td>FINE SAND</td><td>X</td><td></td></tr> <tr><td></td><td>478</td><td>499</td><td>SANDY GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>499</td><td>513</td><td>FINE TO MED SAND</td><td>X</td><td></td></tr> <tr><td></td><td>513</td><td>519</td><td>GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>519</td><td>528</td><td>FINE TO MED SAND</td><td>X</td><td></td></tr> <tr><td></td><td>528</td><td>553</td><td>GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>553</td><td>555</td><td>FINE TO MED SAND</td><td>X</td><td></td></tr> <tr><td></td><td>555</td><td>561</td><td>GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>561</td><td>575</td><td>FINE TO MED SAND</td><td>X</td><td></td></tr> <tr><td></td><td>575</td><td>592</td><td>GREY CLAY</td><td></td><td>X</td></tr> <tr><td></td><td>592</td><td>598</td><td>FINE TO MED SAND</td><td>X</td><td></td></tr> <tr><td></td><td>598</td><td>615</td><td>GREY CLAY</td><td></td><td>X</td></tr> </tbody> </table>	Bore Diam.	Depth		Material	Water		From	To	Yes	No	28							0	4	TOPSOIL		X		4	10	SANDY LOAM		X		10	15	GLEACHE		X		15	30	CRSE SAND		X		30	33	BROWN CLAY		X		33	50	CRSE SAND		X		50	56	BRN CLAY		X		56	101	CEMENTED GRAVEL	X			101	115	BRN CLAY		X		115	123	FINE BRN SAND	X			123	126	BRN CLAY		X		126	143	FINE BRN SAND	X			143	172	BRN CLAY		X		172	235	GREY CLAY		X		235	350	SANDY GREY CLAY		X		350	353	FINE TO CRSE SAND	X			353	451	SANDY GREY CLAY		X		451	469	FINE GREY SAND	X			469	475	FINE SAND AND CLAY		X		475	478	FINE SAND	X			478	499	SANDY GREY CLAY		X		499	513	FINE TO MED SAND	X			513	519	GREY CLAY		X		519	528	FINE TO MED SAND	X			528	553	GREY CLAY		X		553	555	FINE TO MED SAND	X			555	561	GREY CLAY		X		561	575	FINE TO MED SAND	X			575	592	GREY CLAY		X		592	598	FINE TO MED SAND	X			598	615	GREY CLAY		X
Bore Diam.	Depth		Material	Water																																																																																																																																																																																																							
	From	To		Yes	No																																																																																																																																																																																																						
28																																																																																																																																																																																																											
	0	4	TOPSOIL		X																																																																																																																																																																																																						
	4	10	SANDY LOAM		X																																																																																																																																																																																																						
	10	15	GLEACHE		X																																																																																																																																																																																																						
	15	30	CRSE SAND		X																																																																																																																																																																																																						
	30	33	BROWN CLAY		X																																																																																																																																																																																																						
	33	50	CRSE SAND		X																																																																																																																																																																																																						
	50	56	BRN CLAY		X																																																																																																																																																																																																						
	56	101	CEMENTED GRAVEL	X																																																																																																																																																																																																							
	101	115	BRN CLAY		X																																																																																																																																																																																																						
	115	123	FINE BRN SAND	X																																																																																																																																																																																																							
	123	126	BRN CLAY		X																																																																																																																																																																																																						
	126	143	FINE BRN SAND	X																																																																																																																																																																																																							
	143	172	BRN CLAY		X																																																																																																																																																																																																						
	172	235	GREY CLAY		X																																																																																																																																																																																																						
	235	350	SANDY GREY CLAY		X																																																																																																																																																																																																						
	350	353	FINE TO CRSE SAND	X																																																																																																																																																																																																							
	353	451	SANDY GREY CLAY		X																																																																																																																																																																																																						
	451	469	FINE GREY SAND	X																																																																																																																																																																																																							
	469	475	FINE SAND AND CLAY		X																																																																																																																																																																																																						
	475	478	FINE SAND	X																																																																																																																																																																																																							
	478	499	SANDY GREY CLAY		X																																																																																																																																																																																																						
	499	513	FINE TO MED SAND	X																																																																																																																																																																																																							
	513	519	GREY CLAY		X																																																																																																																																																																																																						
	519	528	FINE TO MED SAND	X																																																																																																																																																																																																							
	528	553	GREY CLAY		X																																																																																																																																																																																																						
	553	555	FINE TO MED SAND	X																																																																																																																																																																																																							
	555	561	GREY CLAY		X																																																																																																																																																																																																						
	561	575	FINE TO MED SAND	X																																																																																																																																																																																																							
	575	592	GREY CLAY		X																																																																																																																																																																																																						
	592	598	FINE TO MED SAND	X																																																																																																																																																																																																							
	598	615	GREY CLAY		X																																																																																																																																																																																																						
<p>4. METHOD DRILLED <u>REVERSE ROTARY</u> <input type="checkbox"/> Rotary <input type="checkbox"/> Air <input type="checkbox"/> Hydraulic <input type="checkbox"/> Reverse rotary <input type="checkbox"/> Cable <input type="checkbox"/> Dug <input type="checkbox"/> Other _____</p>	<p>10. Work started <u>4/4/92</u> finished <u>4/14/92</u></p>																																																																																																																																																																																																										
<p>5. WELL CONSTRUCTION <u>SEE ATTACHED</u> Casing schedule: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ Thickness _____ inches Diameter _____ inches From _____ feet To _____ feet Was casing drive shoe used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Was a packer or seal used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Perforated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No How perforated? <input type="checkbox"/> Factory <input type="checkbox"/> Knife <input type="checkbox"/> Torch <input type="checkbox"/> Gun Size of perforation _____ inches by _____ inches Number _____ From _____ To _____ _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet _____ perforations _____ feet _____ feet Well screen installed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Manufacturer's name <u>ROSCOE MOSS</u> Type <u>STAINLESS</u> Model No <u>HEAVY</u> Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Size of gravel <u>3/8"</u> Placed from <u>115</u> feet to <u>615</u> feet Surface seal depth <u>15</u> Material used in seal: <input checked="" type="checkbox"/> Cement grout <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Puddling clay <input type="checkbox"/> _____ Sealing procedure used: <input type="checkbox"/> Slurry pit <input type="checkbox"/> Temp. surface casing <input checked="" type="checkbox"/> Overbore to seal depth Method of joining casing: <input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Solvent Weld <input type="checkbox"/> Cemented between strata Describe access port <u>2" PIPE</u></p>	<p>6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name _____ Lot No. _____ Block No. _____ County <u>ADA</u></p>																																																																																																																																																																																																										
<p>6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name _____ Lot No. _____ Block No. _____ County <u>ADA</u></p>	<p>DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>PETE COPE DRILLING</u> Firm No. <u>213</u> Address <u>6505 W CHINDEN</u> Date <u>4/14/92</u> Signed by (Firm Official) <u>Joseph Jones</u> and (Operator) <u>Joseph Jones</u></p>																																																																																																																																																																																																										

Well #2

LEXINGTON HILLS INC
2417 BANK DRIVE
BOISE ID 83705
Permit# 63-92-W-170

C 075687

WEU
#2
CONT

pg. 2

"16" casing record .250 wall welded

1.5	-	499	500.5
509	-	519	10
529	-	554	25
574	-	592	10
602	-	612	10

563.5 total casing

16" Screen record .30 slot Stainless Steel Roscoe Moss Continuous wire.

499	-	509	10
519	-	529	10
554	-	574	20
592	-	602	10

50 total screen

613.5 total casing + screen

PROCESSED

JUL 08 1992

4N 1E Sec 3

WELL #3

63

843489

Form 238-7
6/02

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only				
Well ID No.	413671			
Inspected by				
Twp	Rge	Sec		
1/4	1/4	1/4		
Lat:	:	Long:	:	:

1. WELL TAG NO. D 0047605
 DRILLING PERMIT NO. 897368-843489
 Water Right or Injection Well No. 63-12448

2. OWNER:
 Name CITY OF EAGLE
 Address PO BOX 1520
 City EAGLE State ID Zip 83616

3. LOCATION OF WELL by legal description: WELL #3
 You must provide address or Lot, Blk, Sub. or Directions to well.
 Twp. 4 North or South
 Rge. 1 East or West
 Sec. 4 1/4 SW 1/4 SW 1/4
 Gov't Lot _____
 County ADA
 Lat: N43: 42: 476 Long: W116: 21: 215
 Address of Well Site APPROX 300 FT NORTH OF EAGLE RD +
FLOATING FEATHER City EAGLE
(Give at least 1/4 mile of road + Distance to Road or Landmark)
 Lt. _____ Blk. _____ Sub. Name BROOKWOOD SUB.

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 REVERSE

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
BENTONITE	0	206	28,000	DRY POUR
BENTONITE	330	364	5,000	DRY POUR

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
12	+3	244	.315	STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	314	324	.375	Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe _____ Length of Tailpipe 10'
 Packer Y N Type _____

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____
 Screen Type & Method of Installation JOHNSON WIRE WRAP

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
244	314	.030		12	S.S.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
#8 - 1/2 SAND	206	330	27,000	DRY POUR

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
87 ft. below ground Artesian pressure _____ lb.
 Depth flow encountered _____ ft. Describe access port or control devices:
1 1/2" PIPE ON SIDE

12. WELL TESTS:

<input checked="" type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input type="checkbox"/> Air	<input type="checkbox"/> Flowing Artesian
Yield gal./min.	Drawdown	Pumping Level	Time
<u>1000 gpm</u>	<u>25'</u>	<u>52</u>	<u>72 hrs</u>

Water Temp. _____ Bottom hole temp. _____
 Water Quality test or comments: _____

13. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
8"	0	8	TOP SOIL		
8"	8	54	MED - COARSE SAND, RIVER CORRALES		
8"	54	75	BRN CLAY		
8"	75	94	MED - COARSE BRN SAND		
8"	94	100	BRN CLAY		
8"	100	108	SAND		
8"	108	113	BRN CLAY		
8"	113	165	MED - COARSE SAND, PEA GRAVEL		
8"	165	167	BRN CLAY		
8"	167	204	FINE - MED SAND		
8"	204	206	BRN CLAY		
8"	206	244	MED - COARSE SAND		
8"	244	284	FINE - MED SAND		
8"	284	324	MED - COARSE SAND		
8"	324	354	FINE SAND		
8"	354	364	FINE - COARSE SAND		

RECEIVED

MAR 20 2007

WATER RESOURCES
WESTERN REGION

Completed Depth 324' (Measurable)
 Date: Started 11-27-06 Completed 3-2-07

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 Firm No. 333
 Principal Driller _____ Date 3-15-07
 and _____
 Driller or Operator II Jeff Alesh Date 3-15-07
 Operator I _____ Date _____
 Principal Driller and Rig Operator Required.
 Operator I must have signature of Driller/Operator II.

ATTACHMENT E
THEORETICAL CAPACITY CALCULATIONS FOR WELL #2

Estimated Pumping Rate Calculator

Flow Analysis Performed by: Scott King, SPF Water Engr Date: 10/1/2009

Record ID		Designed Flow:	
Water Right No. 63-12448		HP/Eff Flow:	1.38 cfs
Name City of Eagle			
pod Well #2, 75-HP Pump, T04N R01E Sec 3 NWSW			
year: 2009			
Curve/Pump Design: <input type="text"/> gpm =			
Horsepower / Efficiency Method			
Horsepower	<input type="text"/> 75	hp	
PWL	<input type="text"/> 200	ft	Assumed
Disch Psi	<input type="text"/> 80	psi	
PUMP Eff Estimate	<input type="text"/> 80%		
TDH	<input type="text"/> 385	ft	
OHP	<input type="text"/> 60	hp	OHP = horsepower * Pump efficiency
Flow	<input type="text"/> 617	gpm	Flow (gpm) = OHP * 3960 / TDH
		=	1.38 cfs

Comments / Data Supplied:

City was advised by prior diversion owner that the pump is a 75-hp submersible. Further information was not available.

**ATTACHMENT F
PHOTOGRAPHS OF WELL #1**



Figure 1: Well #1 pump house.



Figure 2: Well #1 with two discharge pipes with 6-inch mainline from 75-hp pump on left and 3-inch mainline from 25-hp pump on right.



Figure 3: Well #1. Flush pipe discharges to outside of pump house on right.



Figure 4: Well #1 discharges on left into municipal supply system.

**ATTACHMENT G
PHOTOGRAPHS OF WELL #2**



Figure 5: Well #2 pump house.



Figure 6: Well #2 well head and 6-inch discharge pipe to left.



Figure 7: Well #2 discharge piping with flush control valve on right.



Figure 8: Well #2 discharge pipe with flowmeter (blue) and discharge to system on left side.

**ATTACHMENT H
PHOTOGRAPHS OF WELL #3**



Figure 9: Well #3 pump house.

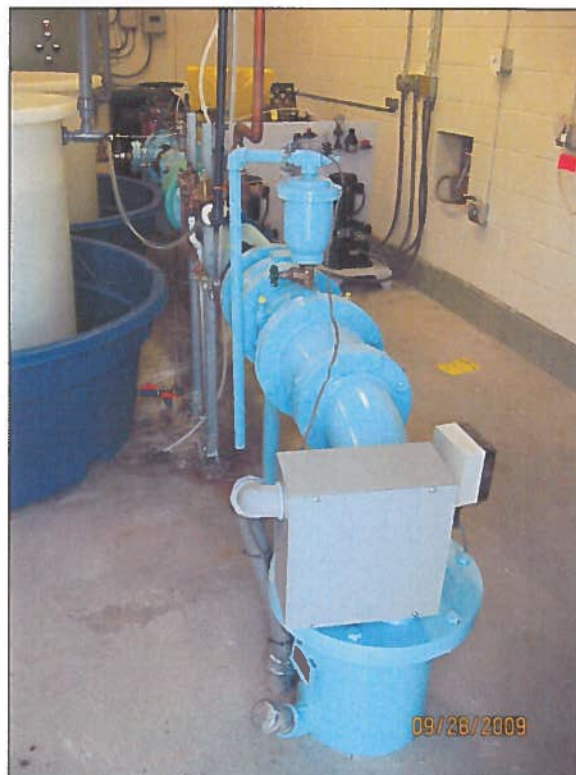


Figure 10: Well #3 in foreground with discharge piping.



Figure 11: Well #3 and discharge piping.



Figure 12: Well #3 discharge piping. Magnetic-type flowmeter is green and located left of photo center.



Figure 13: Well #3 McCrometer UltraMag flowmeter.



Figure 14: Well #3 discharge pipe into City's distribution system.