

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-16547

Exam Date: 8/19/2015

1. Current Owner: EUGENE FLAMAND
4970 N MFG WAY STE 2
COEUR D ALENE ID 83815-6082
(208) 667-4976

And/Or

NANCY FLAMAND
4970 N MFG WAY STE 2
COEUR D ALENE ID 83815-6028
(208) 667-4976

2. Accompanied by: Eugene Flamand

3. SOURCE

FERNAN LAKE

TRIBUTARY

COEUR D ALENE LAKE

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

FERNAN LAKE L3 NW1/4SE1/4 Sec. 17, Twp 50N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS and maps. POD location at 47° 40.620, 116° 43.738

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
50N 03W 17	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	1.1

Total Acres: 1.1

PLACE OF USE: FIRE PROTECTION

Twp Rge Sec	NE				NW				SW				SE				Totals
50N 03W 17	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	L 3

Method of Determination:

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

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
	McDONALD	3			

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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N/A

2. Measurements:

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

Measured Method: APPLICANT PROVIDED PUMP SCHEMATICS AND EMAIL ABOUT PURCHASE OF PUMP AND EQUIPMENT. THEORETICAL PUMPING EQUATION ESTIMATES $(3)(8.8)(0.8) / 300 + (40 \times 2.3087) 0.05$ CFS

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1.1 \text{ AC} \times 3 \text{ AF} = 3.3 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \times 246 \times 1.9835 = 14.6 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 3.3 \text{ AF}$$

2. Volume Calculations for Other Uses:**G. NARRATIVE/REMARKS/COMMENTS**

FIELD EXAM SHOWED IRRIGATION OF ONLY 1.1 ACRES. APPLICANT HAD 3 HP PUMP AT BOTTOM OF HILL THAT HAD TO PUMP UP 300 FEET TO IRRIGATION LOCATION. LICENSE WILL BE ISSUED FOR 0.05 CFS FOR IRRIGATION AND FIRE PROTECTION WITH AN ANNUAL VOLUME OF 3.3 AF.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.030 CFS	3.30 AF
FIRE PROTECTION	01/01 to 12/31	0.050 CFS	
<u>Totals:</u>		0.050 CFS	3.30 AF

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 Adam Friedman Date 12-18-2015

Reviewer Keith E. Frankeloni Date 12/31/2015

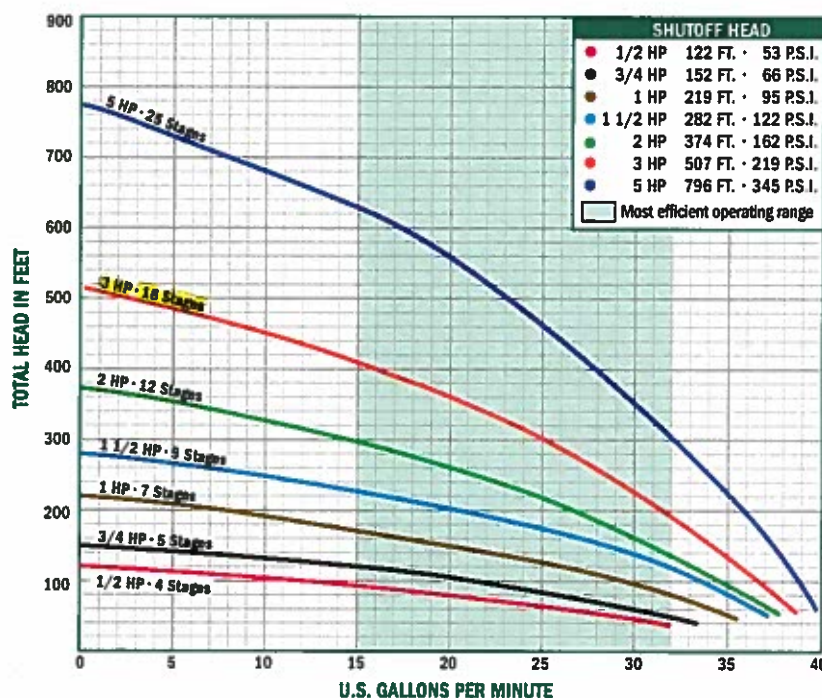
SUBMITTAL DATA SHEET

23000 Series 4" Stainless Steel Submersible Pumps

M Series - 25 GPM



All M Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).



Models Available

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
23050M2A	1/2	4	115	10.94"	9.53"	24
23050M2	1/2	4	230	10.94"	9.53"	24
23075M2	3/4	5	230	12.02"	10.66"	26
23100M2	1	7	230	14.17"	11.75"	31
23150M2	1 1/2	9	230	16.32"	15.12"	40

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
23050M3A	1/2	4	115	10.94"	9.53"	24
23050M3	1/2	4	230	10.94"	9.53"	24
23075M3	3/4	5	230	12.02"	10.66"	26
23100M3	1	7	230	14.17"	11.75"	30
23150M3	1 1/2	9	230	16.32"	13.62"	36
23200M3	2	12	230	19.54"	15.12"	41
23300M3	3	16	230	23.83"	19.06"	53
23500M3	5	25	230	34.88"	29.62"	83

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
23150M3Z	1 1/2	9	230	16.32"	11.75"	32
23150M3Y	1 1/2	9	460	16.32"	11.75"	33
23200M3Z	2	12	230	19.54"	13.62"	38
23200M3Y	2	12	460	19.54"	13.62"	38
23300M3Z	3	16	230	23.83"	16.04"	46
23300M3Y	3	16	460	23.83"	16.04"	46
23500M3Z	5	25	230	34.88"	23.62"	69
23500M3Y	5	25	460	34.88"	23.62"	69

**All three wire pumps are available in three phase by selecting pump end and appropriate motor and contactor.

NO-LEAD: The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.



A.Y. McDonald Mfg. Co.
P.O. Box 508
Dubuque, IA 52004-0508

Toll Free: 1-800-292-2737
Fax: 1-800-832-9296
Hours: 7:00 a.m. - 5:00 p.m., CST

sales@aymcdonald.com
www.aymcdonald.com

A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

Submitted by:

SUBMITTAL DATA SHEET

23000 Series 4" Stainless Steel Submersible Pumps

M Series - 25 GPM



All M Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'												
	0	34.97	29.23	22.43	13.64												
	30	15.93	2.93														
	40	4.38															
3/4 HP	PSI	25'	50'	75'	100'	125'	150'										
	0	36.08	31.97	27.33	21.88	14.91	2.74										
	30	23.22	16.71	6.80													
	40	17.27	7.85														
	50	8.81															
1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'								
	0	38.23	35.39	32.34	29.02	25.34	21.13	16.10	9.38								
	30	29.81	26.22	22.15	17.35	11.16											
	40	26.50	22.48	17.75	11.71	1.28											
	50	22.80	18.14	12.24	2.61												
	60	18.53		3.73													
1 1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'					
	0	40.00	37.82	35.52	33.08	30.47	27.63	24.52	21.01	16.91	11.76	3.56					
	30	33.65	31.08	28.30	25.26	21.85	17.91	13.07	6.06								
	40	31.28	28.52	25.50	22.13	18.24	13.49	6.76									
	50	28.74	25.74	22.40	18.56	13.90	7.42										
	60	25.98		18.87	14.29	8.04											
2 HP	PSI	50'	100'	150'	200'	250'	300'	350'									
	0	38.07	34.66	30.92	26.74	21.91	15.98	7.38									
	30	33.26	29.37	24.97	19.79	13.16	1.33										
	40	31.52	27.42	22.70	16.98	9.04											
	50	29.68	25.33	20.23	13.75	2.92											
	60	27.75	23.09	17.47	9.80												
3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'						
	0	39.30	36.84	34.22	31.42	28.38	25.02	21.23	16.75	11.09	1.27						
	30	35.85	33.16	30.28	27.12	23.62	19.61	14.78	8.24								
	40	34.63	31.86	28.86	25.55	21.84	17.51	12.08	3.58								
	50	33.38	30.50	27.37	23.90	19.94	15.19	8.85									
	60	32.08	29.09	25.82	22.14	17.87	12.56	4.51									
5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	
	0	40.43	38.86	37.23	35.53	33.76	31.90	29.93	27.85	25.63	23.22	20.59	17.64	14.23	10.04	3.94	
	30	38.24	36.58	34.86	33.05	31.15	29.15	27.01	24.72	22.24	19.50	16.39	12.74	8.05			
	40	37.48	35.79	34.03	32.19	30.24	28.18	25.98	23.60	21.01	18.12	14.79	10.75	5.13			
	50	36.71	34.99	33.19	31.30	29.30	27.18	24.90	22.44	19.72	16.65	13.04	8.46	0.75			
	60	35.93	34.17	32.33	30.39	28.34	26.15	23.79	21.21	18.35	15.06	11.10	5.67				

Pump end discharge
1 1/4" FNPT

3 3/4" diameter
with cable guard

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

Pump end discharge
1 1/4" FNPT

3 3/4" diameter
with cable guard



FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

NO-LEAD: The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.



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Submitted by:

Frederick, Adam

From: Gene Flamand [dustyf60@msn.com]
Sent: Thursday, August 06, 2015 3:48 PM
To: Frederick, Adam
Subject: FW: Equipment installed for MA DeAtley Construction in 2009
Attachments: Pump Troubleshooting.pdf; Submersible Pump Installation Instructions.pdf; 23000MSubData.pdf; 132162.pdf; 132159.pdf; Franklin AIM 2015.pdf

Hi Adam: Attached is info for Gene Flamand Fernan Lake equipment installed by RC Worst.

See you on 8-20 between noon and 2:00.

Thank you,

From: Scott Jessick [<mailto:scott.jessick@rcworst.com>]
Sent: Wednesday, May 27, 2015 10:13 AM
To: Dusty Flamand
Cc: Joe Fox
Subject: Equipment installed for MA DeAtley Construction in 2009

Dusty,

I finally located the project. It was all done under DeAtley Construction so it took me some searching to find it. So now that I can see what we are talking about I have pulled together the manuals for the main pieces of equipment. They are attached. The pump in this case will be enclosed in a PVC "intake structure" which is placed on the lake bed by a diver.

The main pieces of equipment in your system are:

- A.Y. McDonald 23300M 25 GPM 3HP pump
- Franklin Electric 3HP motor
- Franklin Electric 3HP deluxe control box
- 1500 feet of 1.5" 200PSI poly pipe
- PVC intake structure
- Banner DX80G9M6S6P6 Gateway with 6 discrete I/O
- Banner DX80N9X6S6P6 Node with 6 discrete I/O

Let us know if we can be of service.

Thanks.

Scott Jessick



R.C. Worst & Company Inc.
625 Best Ave.
Coeur d'Alene, ID 83814
208.664.2133 phone
208.770.2550 direct
208.667.8775 fax

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Department of Water Resources
Water Right License
95-16547
Irrigation



State of Idaho
Department of Water Resources
Water Right License

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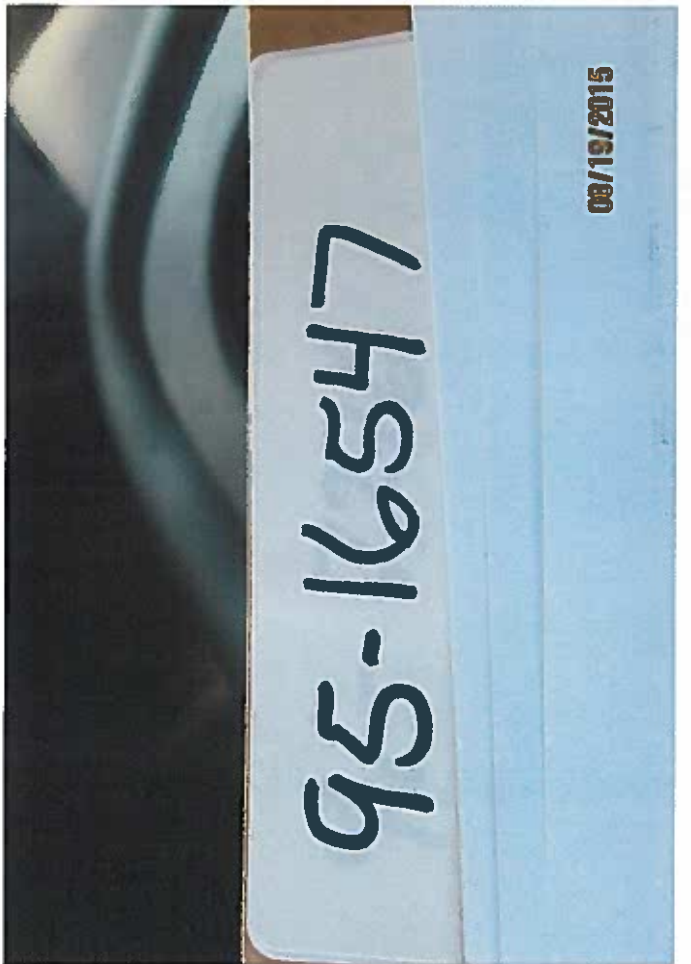
Fire Protection



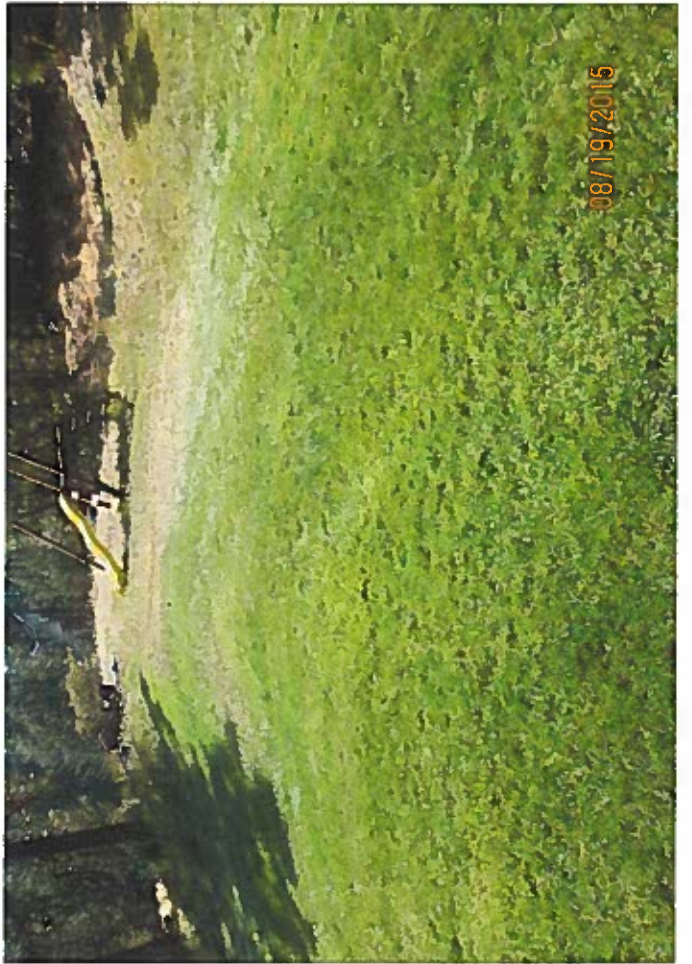
-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections

0 0.04 0.08 0.16 Miles





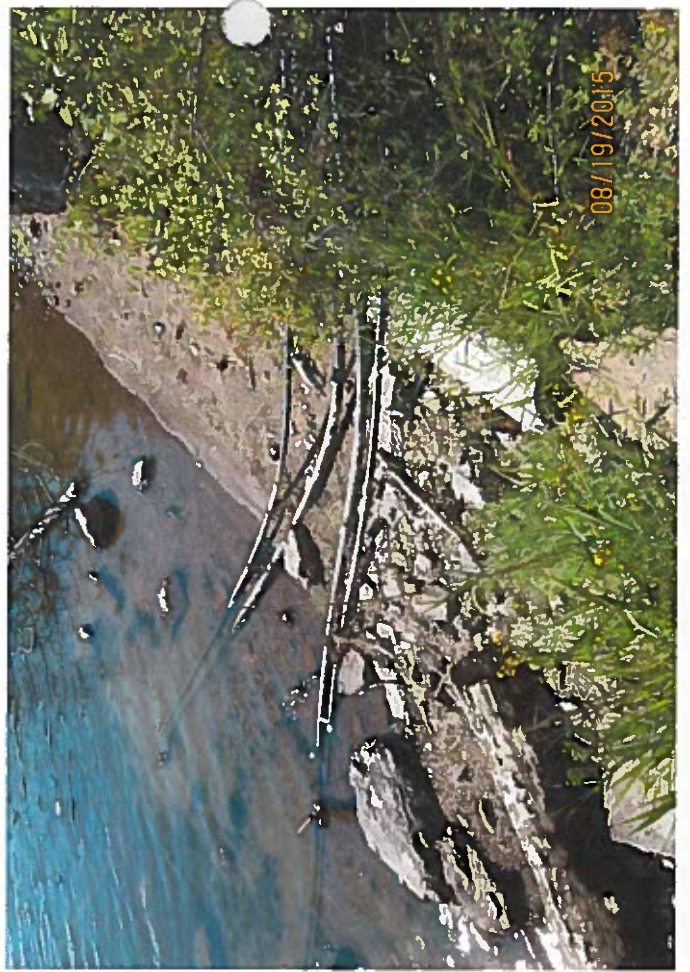
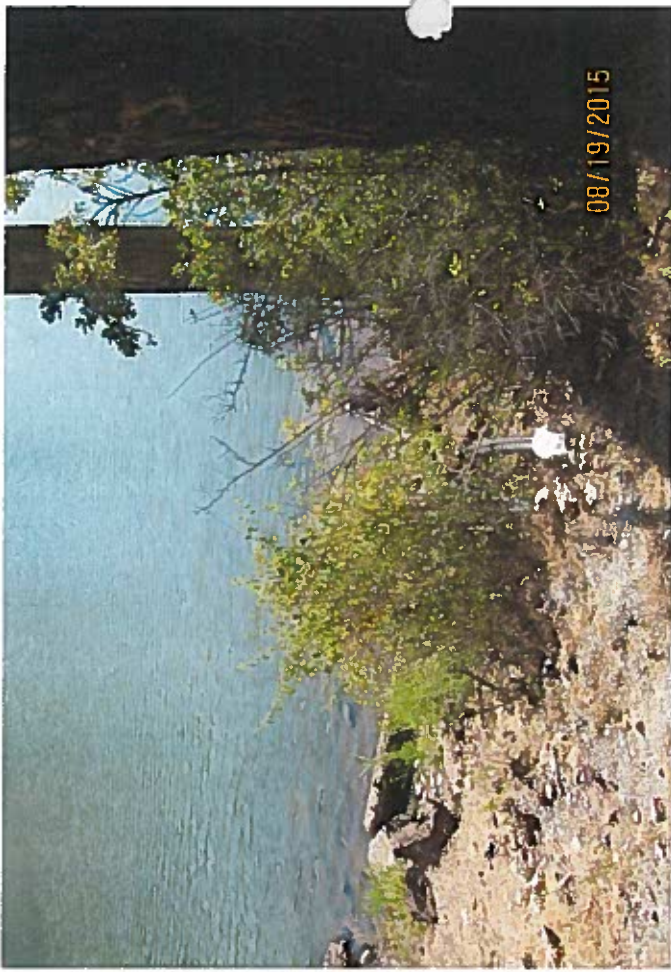
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