

CORRECTED

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

RECEIVED

AUG 16 2006

DEPT. OF WATER RESOURCES
SOUTHERN REGION

1. Name: JEROME JOINT SCHOOL DISTRICT NO. 261
107 3RD AVE WEST
JEROME ID 83338
(208)324-5311

2. Source: GROUND WATER

3. Location of Point of Diversion:

- #1 GROUND WATER NE1/4SE1/4NE1/4 Sec. 13, Twp 08S, Rge 16E, B.M.
JEROME County
- #2 GROUND WATER NE1/4SE1/4NE1/4 Sec. 13, Twp 08S, Rge 16E, B.M.
JEROME County

4. Water will be used for the following purposes:

<u>Purpose</u>	<u>From</u> <u>To</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
HEATING	01/01 to 12/31	0.45 CFS	

5. Total quantity to be appropriated is: 0.45 CFS

6. Proposed diverting works:

POINT OF DIVERSION #1

- a. Type and size of devices used to divert water from the source:
- b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;
- c. Proposed well diameter is 8 inches;
Proposed depth of well is 320 feet.
- d. Is ground water with a temperature of greater than 85F being sought? N
- e. If well is already drilled, when? _____;
Drilling Firm _____;
Drilling Permit No. _____.

**STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES**

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

POINT OF DIVERSION #2

- a. Type and size of devices used to divert water from the source:
- b. Height of storage dam _____ feet;
 Active reservoir capacity _____ acre-feet;
 Total reservoir capacity _____ acre-feet;.
- c. Proposed well diameter is 8 inches;
 Proposed depth of well is 320 feet.
- d. Is ground water with a temperature of greater than 85F being sought? N
- e. If well is already drilled, when? _____;
 Drilling Firm _____;
 Drilling Permit No. _____.

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 2 year(s).

8.

PLACE OF USE: HEATING

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
08S 16E 13				X													

9a. Who owns the property at the point of diversion? If other than applicant, describe the arrangement enabling the applicant to make this filing.

APPLICANT

9b. Who owns the land to be irrigated or place of use? If other than applicant, describe the arrangement enabling the applicant to make this filing.

APPLICANT

10. Remarks:

Two production wells will provide water to heat the new elementary school via closed-loop heat exchangers, with all water being discharged back into the aquifer through an injection well 300 feet deep; the proposed use will be totally non-consumptive.

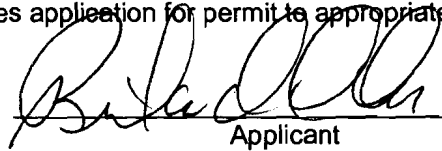
STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

11. Map of proposed point of diversion and place of use attached? ☐

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.


Applicant

Received by  Date 8-16-06 Time 1:00 p Preliminary check by 
Publication prepared by _____ Date _____ Published in _____
Publication approved _____ Date _____

Receipt No. S028778

Date: _____

Received by: _____

New Middle School

Wells



App 36-16440

SW/NE Sec. 13

New Jerome Elementary School

App 36-16441



Wells

**SE/NE Sec. 13
T. 8S R. 16E**

MUSGROVE ENGINEERING, P.A.
Over 30 Years Of Engineering Excellence
410 S. Orchard, Suite 184
Boise, Idaho 83705
208.384.0585, Fax 208.384.0765

JOB Jerome Elementary
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE 8/14/06
CHECKED BY _____ DATE _____
SCALE _____

Cooling:

Total heat of rejection = 1,730,000 Btu/H

$$\text{With } 22^{\circ}\text{DT Flow} = \frac{1,730,000}{(500)(22)} = \underline{\underline{157.2 \text{ GPM}}}$$

Heating

Total heat required = 678,900 Btu/H

$$\text{With } 7^{\circ}\text{DT Flow} = \frac{678,900}{(500)(7)} = \underline{\underline{193.9 \text{ GPM}}}$$

Worse case Flow = 194 GPM. Rounded up to 200 GPM

RECEIVED

AUG 16 2006

DEPT. OF WATER RESOURCES
SOUTHERN REGION

Customer: **ITT Heat Transfer Plate & Frame Specific**

QuotationNo : 001

Att :

Ref :

Item : 78

Friday, March 24, 2006

PHE-Type P20-140-TL		Hot side	Cold side
Flowrate	(g.p.m.)	200.00	200.00
Inlet temperature	(°F)	55.00	45.00
Outlet temperature	(°F)	48.00	52.00
Pressure drop	(PSI)	4.96	4.87
Heat exchanged	(Btu/h)	702610	
Thermodynamic properties:		Water	Water
Density	(Lb/Ft³)	62.36	62.37
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.34	0.34
Mean viscosity	(cP)	1.29	1.35
Wall viscosity	(cP)	1.35	1.29
LMTD	(°F)	3.0	
Excess Surface	(%)	19.1	
Inlet branch		F1	F3
Outlet branch		F4	F2
Design of Frame / Plates:			
Plate arrangement (passes*channel)		1 x 69 + 0 x 0	
Plate arrangement (passes*channel)		1 x 70 + 0 x 0	
Number of plates		140	
Effective heat surface	(Ft²)	297.08	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	789 / 940	
Plate material		0.0197 inch AISI 316	
Gasket material		Nitril HT	
Max. working temperature	(°F)	302	
Working/test pressure	(PSI)	150.0 / 195.0	
Frame type		IS	
Connections HOT side		2.00 " Steel Female NPT	
Connections COLD side		2.00 " Steel Female NPT	
Liquid volume	(Ft³)	2.18	
Carry Bar Length	(Ft)	3.28	Max. No. of Plates 148
Net weight	(Lb)		
		Approval	

ITT Heat Transfer

175 Standard Parkway

Cheektowaga, NY 14227

Tel: 800-447-7700

Fax: 716-897-1777

Heat Transfer Unit & Frame Specification

Revision No: 001

Att:

Item: 78

Ref:

Friday, March 24, 2006

PHE-Type P20-140-TL		Hot side	Cold side
Flowrate	(g.p.m.)	199.90	200.08
Inlet temperature	(°F)	85.00	55.00
Outlet temperature	(°F)	62.39	77.53
Pressure drop	(PSI)	4.92	4.85
Heat exchanged	(Btu/h)	2254933	
Thermodynamic properties:		Water	Water
Density	(Lb/Ft³)	62.21	62.27
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*F*F)	0.35	0.35
Mean viscosity	(cP)	0.93	1.03
Wall viscosity	(cP)	1.03	0.93
LMTD	(°F)	7.4	
Excess Surface	(%)	0.0	
Inlet branch		F1	F3
Outlet branch		F4	F2
Design of Frame / Plates:			
Plate arrangement (passes*channel)		1 × 69 + 0 × 0	
Plate arrangement (passes*channel)		1 × 70 + 0 × 0	
Number of plates		140	
Effective heat surface	(Ft²)	297.08	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	1021 / 1021	
Plate material		0.0197 inch AISI 316	
Gasket material		Nitril HT	
Max. working temperature	(°F)	302	
Working/test pressure	(PSI)	150.0 / 195.0	
Frame type		IS	
Connections HOT side		2.00 " Steel Female NPT	
Connections COLD side		2.00 " Steel Female NPT	
Liquid volume	(Ft³)	2.18	
Carry Bar Length	(Ft)	3.28	Max. No. of Plates 148
Net weight	(Lb)		
		Approval	



**New Jerome Elementary
And Middle Schools
Site Improvements**
Jerome Joint School District No. 261
Jerome, Idaho

LEATHAM - KROHN - VANOCKER
ARCHITECTS
1735 Federal Way
Bellevue, Idaho 83705
(208) 398-5445

DATE: 27 APRIL 2008
REVISIONS
JOB NO.: -
DRAWN BY: M.S.
CHECKED BY: W.T.

Jerome Schools
CG-4

Engineers Inc.
621 N. COLLEGE RD., SUITE 10
TWIN FALLS, IDAHO 83301
PH. 208/734-6666 FAX 208/734-6046
E-MAIL: ehnm@ehnm-inc.com

3) NOT SCALE DRAWINGS
DIMENSIONS SHALL VARY ALL
POSITIONS AND DIMENSIONS AT THE
SITE AND NOTIFY THE ENGINEER
OF ANY DIMENSIONAL ERRORS,
OMISSIONS, OR DISCREPANCIES
BEFORE BEGINNING OR RESUMING
ANY WORK.

