

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 45-13412
Exam Date: 08/13/2014

1. Current Owner:
CITY OF MURTAUGH PO BOX 157 MURTAUGH ID 83344
2. Accompanied by: Kevin McClain, Public Works Director; Jana Reeder, IDWR Agent.

3. SOURCE:
GROUND WATER

Method of Determination: Site visit and ArcMap aerial imagery; interview with Kevin McClain

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
45-7207	Ground Water	Municipal	Decreed

Comments: The permit and water right 45-7207 have a combined use limit not to exceed a total diversion rate of 0.90 cfs.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
45-7207	Ground Water	Municipal	Decreed

Comments: Department records, Site visit and ArcMap aerial imagery; interview with Kevin McClain

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER L6 (NW¼ SW¼), Sec. 6, Twp 11S, Rge 20E, B.M. TWIN FALLS County
GROUND WATER L6 (NW¼ SW¼), Sec. 6, Twp 11S, Rge 20E, B.M. TWIN FALLS County

Method of Determination: Site visit and ArcMap aerial imagery; interview with Kevin McClain

2. PLACE OF USE:

LAND WITHIN THE CITY OF MURTAUG MUNICIPAL WATER SYSTEM SERVICE AREA

Method of Determination: As described in the departments' data base.

3. ATTACHMENTS

____ 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.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
E0007858	G E	25	9657564	Vert/Line	N/A
E0007859	G E	30	06-06400-06	N/A	N/A

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Panametrics	Sonic	G E	PT 878	277960	N/A	Annually

2. Measurements: See Attached Logs.

Using the Panametrics flow meter, measurements were taken to determine the flow capacity of wells #1 & #2.

Well # 1 (existing well) ten minute average = 446.7 gpm = 0.995 cfs or 1.0 cfs.

Well # 2 (new well) ten minute average = 533.141 gpm = 1.187 or 1.19 cfs

The new well produces above the permitted amount of 0.90 cfs.

Therefore I recommend to license permit 45-13412 for 0.90 cfs

E. FLOW CALCULATIONS

 X Additional Computation Sheets Attached

Measured Method: See attached sheets

F. VOLUME CALCULATIONS

A volume calculation is not required per IDAPA 37.03.02 Beneficial Use Exam Rules because Municipal use by an incorporated city of other entity serving users throughout an incorporated city, are exempt from the volume reporting requirement

G. NARRATIVE/REMARKS/COMMENT

Application for permit 45-13412 was filed on December 4, 2001 by the City of Murtaugh for the diversion of 0.9 cfs and to add an additional well to the system. The permit was issued on February 7, 2002 with proof due by February 1, 2004. The City of Murtaugh submitted a request for extension of time on March 12, 2005 after the proof due date. The permit was reinstated and the priority of permit 45-13412 was advance to January 13, 2002. The proof due date was extended to February 1, 2007. An application for amendment of permit was filed on April 14, 2005 to add a third well to the system. The amendment of permit was approved on June 9, 2005. Proof of Beneficial Use was filed on September 21, 2006.

On August 13, 2014 Jana Reeder and I met Kevin McClain at the City's diversion system to perform the field exam. During the exam, photos were taken of the points of diversion and pumping systems. The system consists of two wells; well #1 (existing well) is a 25 HP motor and pump with three booster pumps and a 25,000 gallon storage tank. Well #2 (new well) is a 30 HP motor and pump with three booster pumps and a 200,000 gallon storage tank (see pictures). These two systems are hooked together, with the new well used as the primary well and the existing well as back up. A measurement was taken for the new well, that was developed and the existing well under water right 45-7202 to determine the system capacity. The new well's measurement produced sufficient water to achieve the proposed diversion rate of 0.90 cfs for permit 45-13412 (see measurement). Permit 45-13412 is conditioned that when combined with water right 45-7202, shall not exceed a total diversion rate of 0.90 cfs. A third well was drilled and two pump tests were conducted during construction of the third well, resulting in an insufficient amount of water, and quality, to meet the City's needs. This well was not hooked up to the City's system and the property and well have been sold. This point of diversion will be removed as an authorized point of diversion when licensed. The City's place of use is comprised of land within the City of Murtaugh Municipal Water Service Ares as described in the department's data base.

According to the 2017 Census Estimates the City of Murtaugh population has increased by approximately 39%, to an estimated population of 160 residents as of 2017. The City has also grown with the development of an 18 lot subdivision, and two manufacturing facilities within their service area.

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

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	
MUNICIPAL	01/01 to 12/31	0.90 CFS	

Totals: 0.90 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 ☒ None

I. AUTHENTICATION

Benny Walker - Water Resource Agent, Senior

Field Examiner's Name Benny Walker Date 5/8/2019
 Reviewer _____ Date _____

Permit 45-13412



Above: Existing well pump house and water tank.

Below: Existing well and measuring device



Field Exam 45-13412

Permit 45-13412



Above: Flow measurement of existing well.

Below: Existing well booster pumps system



Field Exam 45-13412

Permit 45-13412



Above: New well pump house and water tank.

Below: Well head



Field Exam 45-13412

Permit 45-13412



Above: New well motor and pump

Below: Existing well booster pumps system



Field Exam 45-13412

Log Name	LOG09.LOG
Log Title	City of Murtaugh
Records	3
Interval	60
Error Flags	8208
Cyclic Flags	2

Item #	Label	Symbol	UnitType	Channel	Comport	Computer
0	Velocity	ft/s		578	0	0 PT878
1	Volume	gal/m		846	0	0 PT878
2	(+)Total	gal		1160	0	0 PT878

Time	Velocity (ft/s)	Volume (gal)	(+)Total (gal)	Error #
1:25:08 PM	11.17856519	451.0748	1956.463057	0
1:26:08 PM	11.46466033	462.6192	2401.299276	0
1:27:10 PM	11.35366781	458.1405	2855.396009	0
1:28:08 PM	10.93574013	441.2763	3313.940852	0
1:29:08 PM	11.00624541	444.1214	3742.335575	0
1:30:08 PM	10.92526721	440.8537	4193.427884	0
1:31:08 PM	10.94451782	441.6305	4642.082434	0
1:32:09 PM	10.96205047	442.338	5083.95756	0
1:33:08 PM	11.07180403	446.7668	5516.092303	0
1:34:08 PM	11.16125916	450.3764	5962.766293	0
1:35:09 PM	10.84316347	437.5407	6423.559982	0

446.7096925
446.7 gpm

Log Name E0007859.LOG
Log Title
Records 3
Interval 60
Error Flags 8208
Cyclic Flags 2

Item #	Label	Symbol	UnitType	Channel	Comport	Computer	Decimal
0	Velocity	ft/s	578	0	0	PT878	4
1	Volume	gal/m	846	0	0	PT878	4
2	(+)Total	gal	1160	0	0	PT878	4

Time	Velocity (ft/s)	Volume (g)	(+)Total (g)	Error #
9:34:48 AM	5.45872051	533.0716	6289.631	0
9:35:48 AM	5.478944897	535.0466	6807.302	0
9:36:48 AM	5.484946398	535.6327	7355.742	0
9:37:49 AM	5.505705598	537.6599	7905.564	0
9:38:48 AM	5.458256812	533.0263	8431.407	0
9:39:48 AM	5.454211953	532.6313	8952.944	0
9:40:48 AM	5.443334133	531.569	9496.59	0
9:41:49 AM	5.486314138	535.7663	10041.73	0
9:42:48 AM	5.431312553	530.3951	10554.98	0
9:43:48 AM	5.432436328	530.5048	11098.89	0
9:44:49 AM	5.467046538	533.8847	11621.04	0

Panametrics= 533.141 gpm
 Mc Crometer=550 gpm

