

Permit 37-8856 -

Field Notes From Tim Luke
During Flow Meter Calibration.

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program – WD02
(Revised 7/2013)

Diversion Name ANDERSEN Asphalt Plant Well

Date of test: 10/15/14

Time: 11:00 AM

Examiner: Tim Luke

Examiner Confidence: ☐ Excellent 2% ☐ Good 5% ☐ Fair 10% ☐ Poor > 1%

Operator (if leased or operated by person other than owner)

Name _____

Home # _____

E-Mail _____

Cell # _____

SECTION I – Site Identification

Global Positioning System Data:

IDWR Site Tag ID No.: A0019822

Site Tag Location description: ON Power meter/Panel support pole next to well

SECTION II – Measurement Information

METER AND MOUNTING PIPE INFORMATION					
Meter Make/Model		Pipe Material	<u>Steel</u>		
Type	<u>GE PT878</u>	Pipe Outer Diameter	<u>6.65</u>		
Serial Number		Pipe Wall Thickness	<u>0.225</u>		
Diameter Distance Up		Mortar Lining Thickness			
Diameter Distance Dwn		Measured SNDSP	<u>4742</u>		
V or Z method	<u>✓</u>	Up Signal Strength (> 40)	Dw Signal Strength (> 40)	<u>61.9</u>	<u>61.9</u>
Transducer Frequency	<u>2MHz (403)</u>	Up Amplitude (> 20)	Dw Amplitude (> 20)	<u>28.6</u>	<u>28.1</u>
Spacing	<u>6.01</u>	Up P # (350-600)	Dw P # (350-600)	<u>486</u>	<u>485</u>
Discharge- Q					

Site Visit Comments: PT878 Log File: Log Andersen

11:16 2953.05 gpm

11:06 26075.39 "

3475.66 / 10 = 347.6 gpm ≈ 348 gpm

2nd Cpt for 274 gpm @ 11:07, flow ≈ 361 - 367 gpm during log & afterward

Log File Name: Log Andersen max flow obs = 367 gpm

Flow meter

McGrommeter 12-05716-08

MO308

ser# 12-05716

OD 7.125

ID 6.250

Time	gals	+100
Am 11:06 0:00	87746	⇒ 8774600
10:53:82 mins.	87786	→ 8778600
		= 4000 gals / 10.9 mins
0:00	88024	
3:26 min	88028	
		= 400 gals / 3.63 min
		= 116.62 gpm
		PT 878 ~~avg~~ = 117 gpm > V = 1.26 FPS

meter flow at top shutting down
Q to H₂O Bar & Asphalt Plant. ① 1:15 - 1:25 pm

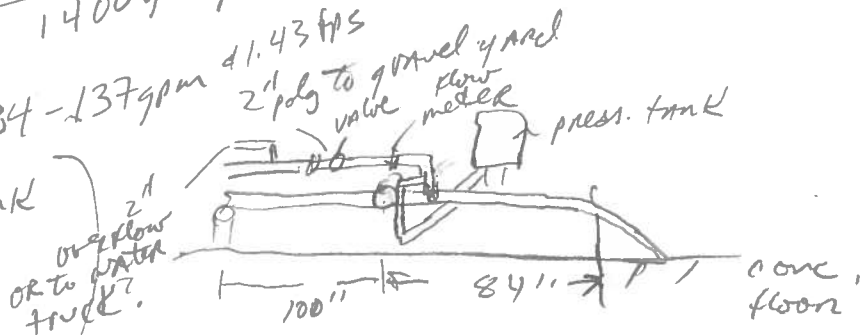
0:00 87984
9:47 min 87998
1400 gals / 9.78 min = 143 gpm

tested flow w PT 878

② 1:30 pm - 1:35 pm

got steady flow reading of 134-137 gpm

Note: well back pressure tank



meter installed 7/10/2012
Date Vol (GAL X 100)

7/10/12

0

3/14/13

74527

11.6 AF

3/10/14

45337

10/15/14

98000

flow dropped off to 112-120 gpm
& 1.24 FPS

10/15/14 Anderson Asphalt Field Exam

GPS FW = ANDERS ANDERSON

Well A0019822

No well tag obs.

Well = 10" diam casing

T = 0.225

Carbon Steel 6" ML

OD = 6.65"

VFD pump

Spring = 6.146

Transducer = 403 2 mgt/2

At Arrival, well near @ $\approx 88-90$ gpm (PT878)

Water running only to gravel wash AREA VIA
2" poly pipe

$\approx 10^{58}$ AM - Larry turned on H₂O to Asphalt plant
& water BAR, this $\uparrow$ flow to ≈ 360 gpm

logged flow @ 11⁰⁶ AM (PT878 time)

Noted flow dropped ≈ 100 gpm to 254 gpm

@ start of logging, then $\uparrow$ to ≈ 363 gpm

Larry thought this is about max flow typically,

Obs holding steady @ 361 - 363 gpm

from 11¹⁰ - 11¹⁵ AM

Walters
Ready
mch

→ Concrete Plant Doug Walters mgr

27 gallons per yd is typical water req for concrete

Plant has 2" Badger Flow meter XMTR model

PFT-3 17,36 pulses per gal

NO other serial #

83/40 sec ~~200~~ gpm = 126 gpm
gal OR
0.66 min

GPS FW = WALTERS

Well = sub mts pump 8" casing.

goes to pressure tank inside plant then to conc.
batch mixing.

Walters well

Use = conc. plant, domestic, office w/ restrooms
& Kitchen.

Also sometimes well used to fill 4,000 - 5,000 gal
storage tank in winter for large projects

seldom used - tank is heated for winter projects

Conc. Plant itself runs $\approx$ 5 mos out of year, occasional use ^{then} after 6 mos.

Davy owned 1/2 Ac of property, bought from
Walters has not used Andersen well.

Conc plant went in $\approx$ 1999 per Davy

Andersen Plant

Water Bar is for dust Abatement on track
dust control for gravel which is used for backfill,
road mix construction etc

Asphalt Plant - Larry says gravel goes into hopper,
then heated drum, then mixes w/ oil in drum, drops
to chute @ end of drum, then slat conveyor to storage bin,
drops asphalt, excess dust goes into Venturi scrubber
water @ into Venturi scrubber @ $\approx$ 150 gpm & then
@ back to pit w/ other water from ^{gravel} quarry.

Larry has 106 acres.

IDAHO DEPARTMENT OF WATER RESOURCES
Water Measurement Program

WATER MEASURING DEVICE CERTIFICATION

(Revised 7/2002)

District Water District 37

Diversion Name Anderson Asphalt Plant Well

Inventory Date _____

Inventory Examiner _____

PCC o.k.? ☐ Yes ☐ No

Test Date 10/15/2014

Person performing test Tim Luke

Exam complete? ☐ Yes ☒ No

Name:	<u>Heath Marshall Inc</u> (original Permittee)
Water Right No.:	<u>Permit 37-8856</u>
Legal Description:	<u>T__1N__ R__18E__ Sec__13__ ___¼ SE ¼ SW ¼</u>
Site Tag No.:	<u>A0019822</u>
Diversion Name:	<u>Anderson Asphalt Plant Well</u>

Current Owner

Name Anderson Asphalt Paving

Phone 208-788-4728

Address PO Box 759

Cell _____

City Hailey St ID Zip 83333

E-mail
andersonasphalt@svskylan.net

Operator (if leased or operated by person other than owner)

Name _____

Phone _____

Address _____

Cell _____

City _____ St _____ Zip _____

E-mail _____

Current Owner

Name _____

Phone _____

Address _____

Cell _____

City _____ St ID Zip _____

E-mail _____

Operator (if leased or operated by person other than owner)

Name Larry Anderson

Address _____

City _____ St _____ Zip _____

Phone 208-788-5841

Cell _____

E-mail _____

SECTION 1 – Well Site Identification

Global Positioning System Data:

Data Collection Filename _____ Offset _____

IDWR Site Tag Identification No. A0019822

Site Tag Location description: On power meter/ panel support pole next to well

PLS/USGS LOCATOR _____

For Department/District Use Only

Received by _____ Date _____

Reviewed by _____ Date _____

Data Entry By _____ Date _____

SECTION III – Certification for Calibration of a Water Measurement Meter

Measurement No. 1 (M₁) is the measured rate of flow from the permanently installed flow meter.

Measurement No. 2 (M₂) is the measured rate of flow from the measuring device being used to check the flow for the calibration. This method or device must be accurate to within $\pm 5\%$ error. Describe below the method and equipment used to perform this measurement.

$$\text{Percent Difference} = (M_1 - M_2) \div M_2 \times 100 = \pm \% \quad (\text{Acceptable is within } \pm 10\%) \quad (\text{equation 1})$$

$$\text{Calibration Multiplier} = M_2 \div M_1 \quad (\text{equation 2})$$

Is flowmeter installed according to manufacturer's specifications? ☒ Yes ☐ No ☐ Unsure

Describe any apparent problems with installation or operation _____

Flowmeter accuracy prior to any adjustments: _____ Totalizer reading _____

Flowmeter accuracy after final adjustment: _____ Totalizer reading _____

Flowmeter calibration multiplier: 0.95

FLOWMETER ACCURACY CALIBRATION TABLE

Installed meter (totalizer reading)	Time	Total Gallons	Average Flow Rate GPM (M ₁)	Standard total gallons	Average Flow Rate GPM (M ₂)	% diff. (±)	Comments and adjustments
8778600	10.9	4000	367	29551.05	348	+5.5%	Logged file = ANDRS
8774600	MWS			26075.39			
8799800	9.78	1400	143	—	136	+5.2%	no logged file observation only
8798400	MWS						

Notes – Comments – Calculations: measurement ① standard meter flow based on logged file results over 10 min interval use this measurement for calibration & MWS data entry

measurement #② was @ low flow rate cond. - did not use logged file, just observed steady reading between 134 gpm & 137 gpm & velocity @ 1.43 fps Assume avg rate @ 136 gpm

SECTION II – Installed Meter Information

METER AND MOUNTING PIPE INFORMATION			
Motor HP		Volume units	Acre-Feet <u>Gallons</u> Other (specify) _____
Meter Install Date	7/10/2012	Volume multiplier	
Manufacturer	McCrometer	Installation location	☐ Excel ☐ Fair ☒ Good ☐ Poor
Meter Type	<i>Propeller</i>	Pipe material	Steel
Meter Model	MO308	Outside diameter	6.65" OD
Serial Number	12-05716	Wall thickness	0.225"
Size (nominal)	6.25" ID	Inside diameter	
Measure Flow Rate?	☒ Yes ☐ No	Amount of straight pipe upstream from meter	<u>≈ 100</u> Inches <u>710</u> Pipe Lengths
Measurement Units	☐ CFS ☒ GPM Other (specify) _____	Amount of straight pipe downstream from meter	_____ Inches _____ Pipe Lengths
Flow Rate Multiplier		Standard Meter Type <i>GE PT878</i>	☒ Sonic ☐ Pyg ☐ Collins ☐ Hall ☐ Anub ☐ Dye/chem ☐ Other _____
Measure Cumulative Volume?	☒ Yes ☐ No	Standard Meter Confidence	☐ Excellent 2% ☒ Good 5% ☐ Fair 10% ☐ Poor > 10%

Multiple Flowmeters

Are multiple flowmeters used to measure diversions from this well? ☐ Yes ☒ No

If yes, how many? _____

(Attach separate form for each meter checked and/or calibrated.)

Multiple Wells

If this meter measures diversions from multiple wells, list names and locations of other wells:

WATER LEVEL DATA	
Does the well have access to measure water levels? ~ Yes ~ No (<i>check one</i>)	
Is this well part of USGS, IDWR, or another network of water level monitoring wells? ~ Yes ~ No (<i>check one</i>)	
Static Water Level _____ ft Date _____	Pumping Water Level _____ ft (at condition _____) Date _____

Sketch and/or photograph of installation:

I certify that the above information is true and correct to the best of my knowledge and ability and the measurements taken and recorded are in accordance with the standards and specifications of the equipment used.

Signature



(person performing measurements)

Date

10-15-2014