Water Quality Equipment Calibration Form

Project: Terrington GROundwater Date: 9/7/08

Water Quality Parameter Meter

Unit Name/ID: Oakton Unit 1 Serial Number:

Calibrated By: Royanne Barringer Assigned User: Royanne Barringer

Temp 27.1 °C - 1130

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 1130		Time:		Time: 1820	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0	RD	~~X~~					
Buffer 4.0		X	4.01		1	4.06	✓
Buffer 7.0		X	7.02			7.05	✓
Buffer 10.0		X	10.02			10.02	✓
Conductivity							± 5%
447 uS/cm			484			487	✓
1413 uS/cm		X	1418			1400	✓
8974 uS/cm			8900			8892	✓
15,000 uS/cm							
ORP							± 5%
220 mv							
Dissolved Oxygen							± 5%
Open Air mg/L							
Zero Oxy Std mg/L							
Barometer (mm Hg)							

1820 - Temp. 29.7

Turbidity Meter

Unit Name/ID: Micro Unit 3 Serial Number:

Calibrated By: Royanne Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1820	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		X	0.02			0.05	✓
10.0 Standard		X	10.08			10.06	✓
1,000 Standard		X	1009			1008	✓

P Barrett

QC Review:
P Barrett
9/22/08

Water Quality Equipment Calibration Form

Project: 3Q 2008 GWM Date: 9/7/08

Water Quality Parameter Meter

Unit Name/ID: YSI #1 Serial Number:
Calibrated By: P Bassett Assigned User: T Richards

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1645	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	6/2010	✓	3.99			3.98	✓
Buffer 7.0	5/2010	✓	7.03			7.04	✓
Buffer 10.0	6/2010	✓	9.98			9.98	✓
Conductivity							±5%
447 uS/cm	4/2009		523			509	✓
1413 uS/cm	5/2009	✓	1402			1401	✓
8974 uS/cm	6/2009		8695			8867	✓
15,000 uS/cm							
ORP							±5%
220 mv	4/2009	✓	220.0			217.1 @ 27.81	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	~~6.83~~ 6.76				✓
Zero Oxy Std mg/L			0.05			0.07	✓
Barometer (mm Hg)			649.2			647.8	✓

Turbidity Meter

Unit Name/ID: Micro #1 Serial Number:
Calibrated By: P Bassett Assigned User: T Richards

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time:	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	4/2009	✓	0.02			0.02	✓
10.0 Standard	3/2009	✓	9.99			10.09	✓
1,000 Standard	4/2009	✓	1000			999.2	✓

P Bassett

QC Review:
PBassett
9/22/08

Water Quality Equipment Calibration Form

(*)

Project: 3Q 2008 GWM Date: 9/7/08

Water Quality Parameter Meter

Unit Name/ID: YSI # 3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check		
		Time:		Time:		Time:		
		Cal	Read	Cal	Read	Read	Acceptable Performance	
pH (3-point)							±5%	
Buffer 2.0								
Buffer 4.0	6/2010	✓	3.94			3.98	✓	
Buffer 7.0	5/2010	✓	7.06			7.78	X	▲10.5%
Buffer 10.0	6/2010	✓	9.95			9.76	✓	
Conductivity							±5%	
447 uS/cm	4/2009		525			517	X	14.5%
1413 uS/cm	5/2009	✓	1403			1399	✓	
8974 uS/cm	6/2009		8832			8910	✓	
15,000 uS/cm								
ORP							±5%	
220 mv	4/2009	✓	219.6			213.8	✓	
Dissolved Oxygen							±5%	
Open Air mg/L		✓	6.84				✓	
Zero Oxy Std mg/L			0.09			0.06	✓	
Barometer (mm Hg)			648.8			649.2	✓	

Turbidity Meter

Unit Name/ID: Micro # 2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time:	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	4/2009	✓	0.03			0.07	✓
10.0 Standard	3/2009	✓	10.0			10.33	✓
1,000 Standard	4/2009	✓	1000			1010	✓

P Bassett

QC Review:
P Bassett
9/22/08

(*) pH 7.0 + Cond 447 out of tolerance

Water Quality Equipment Calibration Form

Project: 3Q 2008 GWM Date: 9/8/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 600		Time:		Time: 1710	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0	June 09	✓	3.98			4.07	✓
Buffer 7.0	May 09	✓	7.08			7.08	✓
Buffer 10.0	June 09	✓	9.97			9.99	✓
Conductivity							± 5%
447 uS/cm	Apr 09		510			493	X 9.8%
1413 uS/cm	Jul 09	✓	1413			1414	✓
8974 uS/cm	Jun 09		8982			8978	✓
15,000 uS/cm							
ORP							± 5%
220 mv	Apr 09	✓	220.0			214.3 @ 24.61 °C	
Dissolved Oxygen							± 5%
Open Air mg/L		✓	7.41				✓
Zero Oxy Std mg/L			0.07			0.08	✓
Barometer (mm Hg)			649.7			647.1	

Turbidity Meter

Unit Name/ID: TM #2 (Micro) Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 600		Time:		Time: 1710	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard	Mar 09	✓	0.02			0.02	✓
10.0 Standard	Mar 09	✓	9.92			9.92	✓
1,000 Standard	Mar 09	✓	1001			1002	✓

P Bassett

QC Review:
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 Date: 9-8-08

Water Quality Parameter Meter

Unit Name/ID: YSI Unit 1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0610		Time:		Time: 1645	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	6/10	X	3.97			4.01	✓
Buffer 7.0	5/10	X	7.03			7.05	✓
Buffer 10.0	6/10	X	10.00			9.99	✓
Conductivity							±5%
447 uS/cm	4/09		511			516	X 143%
1413 uS/cm	7/09	X	1414			1416	✓
8974 uS/cm	6/09		8969			8985	✓
15,000 uS/cm							
ORP							±5%
220 mv	4/09	X	220.0 @ 22.02			214.3 @ 24.99	✓
Dissolved Oxygen							±5%
Open Air mg/L		X	7.47				
Zero Oxy Std mg/L			0.06			0.08	✓
Barometer (mm Hg)			649.4			646.8	

Turbidity Meter

Unit Name/ID: MicroTPW #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0655		Time:		Time: 1650	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard		X	0.02			0.03	✓
10.0 Standard		X	9.97			10.02	✓
1,000 Standard		X	995.1			998.8	✓

P Barrett

QC Review: P Barrett 9/22/08

Water Quality Equipment Calibration Form

Project: Yerington Groundwater Date: 9/8/08

Water Quality Parameter Meter

Unit Name/ID: Oakton Unit #1 Serial Number:

Calibrated By: BB Assigned User: Roxanne Bowman

Temp 20.9 °C

	Cal Std. Expiration Date	Initial Calibration Time: 750		Re-Calibration Time:		Drift Check Time: 1500	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0		X	4.04		4.06		✓
Buffer 7.0		X	7.07		7.05		✓
Buffer 10.0		X	10.07		10.04		✓
Conductivity							± 5%
447 uS/cm			487		484		X 7.9%
1413 uS/cm		X	1413		1410		✓
8974 uS/cm			8890		8886		✓
15,000 uS/cm							
ORP							± 5%
220 mv							
Dissolved Oxygen							± 5%
Open Air mg/L							
Zero Oxy Std mg/L							
Barometer (mm Hg)							

Turbidity Meter

Unit Name/ID: Micro Unit #3 Serial Number:

Calibrated By: RB Assigned User: Roxanne Barrington

	Cal Std. Expiration Date	Initial Calibration Time: 750		Re-Calibration Time:		Drift Check Time: 1500	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		Y	0.02		0.04		✓
10.0 Standard		Y	9.85		9.86		✓
1,000 Standard		Y	995.5		999.4		✓

100 standard (fresh) reads 450

PBassett

QC Review: PBassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q 2008 GWM Date: 9/9/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:00		Time:		Time: 17:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	Jun 10	✓	3.93			4.02	✓
Buffer 7.0	May 10	✓	7.04			7.05	✓
Buffer 10.0	Jun 10	✓	9.98			9.93	✓
Conductivity							±5%
447 uS/cm	Jul 09		466			467	✓
1413 uS/cm	Jul 09	✓	1414			1414	✓
8974 uS/cm	Jun 09		8995			8996	✓
15,000 uS/cm							
ORP							±5%
220 mv	Apr 09	✓	219.9 @ 21.62°C			211.0 @ 26.24°C	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.44				
Zero Oxy Std mg/L	Mar 09		0.07			0.06	✓
Barometer (mm Hg)			647.0			645.1	

Turbidity Meter

Unit Name/ID: Micro #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:00		Time:		Time: 17:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity			~~0.~~				±5%
0.02 Standard	Mar 09		0.02			0.01	✓
10.0 Standard	Mar 09		PB ~~9.96~~ 10.04			10.27	✓
1,000 Standard	Mar 09		1006			1016	✓

QC Review:
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 Date: 9-9-08

Water Quality Parameter Meter

Unit Name/ID: YSI #1 Unit 1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0630		Time:		Time: 1550	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0	7/10	X	3.95			3.99	✓
Buffer 7.0	5/10	X	7.02			7.01	✓
Buffer 10.0	6/10	X	9.98			9.95	✓
Conductivity							± 5%
447 uS/cm	7/09		467			478	✓
1413 uS/cm	"	X	1416			1430	✓
8974 uS/cm	6/09		8966			9016	✓
15,000 uS/cm							
ORP							± 5%
220 mv		X	220.0 @ 21.4			212.0 @ 25.12	✓
Dissolved Oxygen							± 5%
Open Air mg/L		X	7.75				
Zero Oxy Std mg/L			0.08			0.07	✓
Barometer (mm Hg)			646.9			644.6	

Turbidity Meter

Unit Name/ID: Micro TPW #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0700		Time:		Time: 1655	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		X	0.02			0.05	✓
10.0 Standard		X	10.01			10.12	✓
1,000 Standard	4/09	X	997.8			1010	✓

QC Review:
P Barrett 9/22/08

Water Quality Equipment Calibration Form

Project: _____ Date: 9/9/08

Water Quality Parameter Meter

Unit Name/ID: Oakton #1 Serial Number: _____

Calibrated By: Royanne Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 600		Time:		Time: 1636	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0		Y	4.04		4.09		✓
Buffer 7.0		Y	7.01		7.08		✓
Buffer 10.0		Y	10.07		10.11		✓
Conductivity							±5%
447 uS/cm			507		507		X 12.5%
1413 uS/cm		Y	1413		1405		✓
8974 uS/cm			8850		9040		✓
15,000 uS/cm							
ORP							±5%
220 mv							
Dissolved Oxygen							±5%
Open Air mg/L							
Zero Oxy Std mg/L							
Barometer (mm Hg)							

Turbidity Meter

Unit Name/ID: Micro #3 Unit Serial Number: _____

Calibrated By: Royanne Barringer Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 600		Time:		Time: 1630	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard		Y	0.02			0.02	✓
10.0 Standard		Y	9.91			9.96	✓
1,000 Standard		Y	10.05			999.4	✓

QC Review:
P Barrett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 Date: 9-10-08

Water Quality Parameter Meter

Unit Name/ID: YSI #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0615		Time:		Time: 1750	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0	7/10	X	3.95			3.99	✓
Buffer 7.0	5/10	X	~~7.04~~ 7.03			7.05	✓
Buffer 10.0	6/10	X	9.98			10.00	✓
Conductivity							± 5%
447 uS/cm			461			467	✓
1413 uS/cm		X	1413			1419	✓
8974 uS/cm			8973			8962	✓
15,000 uS/cm							
ORP							± 5%
220 mv		X	220.0 @ 19.48		21.2 @ 24.22		✓
Dissolved Oxygen							± 5%
Open Air mg/L		X	7.95				
Zero Oxy Std mg/L			0.08			~~0.10~~	0.09 ✓
Barometer (mm Hg)			647.6			648.7	

Turbidity Meter

Unit Name/ID: Micro #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1800	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		X	0.02			0.04	✓
10.0 Standard		X	9.86			9.85	✓
1,000 Standard		X	999.3			1003	✓

P Barnett

QC Review:
P Barnett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q 2008 GWM Date: 9/10/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:30		Time:		Time:	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	Jul 10	✓	3.94			3.99	✓
Buffer 7.0	May 10	✓	7.04			7.02	✓
Buffer 10.0	Jun 10	✓	9.98			9.92	✓
Conductivity							±5%
447 uS/cm	Jul 09		458			463	✓
1413 uS/cm	Jul 09	✓	1413			1404	✓
8974 uS/cm	Jun 09		8922			8943	✓
15,000 uS/cm							
ORP							±5%
220 mv	Apr 09	✓	220.0 @ 19.96°C			210.4 @ 24.48°C	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.66				
Zero Oxy Std mg/L			0.09			0.07	✓
Barometer (mm Hg)			647.7			~~451~~ 649.3	

Turbidity Meter

Unit Name/ID: Micro #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:30		Time:		Time:	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	Mar 09	✓	0.02			0.04	✓
10.0 Standard	Mar 09	✓	9.94			10.10	✓
1,000 Standard	Mar 09	✓	997.7			1006	✓

P Bassett

QC Review
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: Terington Groundwater Date: 9/10/08

Water Quality Parameter Meter

Unit Name/ID: Unit 1 Oakton Serial Number:

Calibrated By: Royanne Assigned User: Royanne Barringer

Temp 19.9 °C

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 1000		Time:		Time: 1630	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0		Y	4.02		3.99		✓
Buffer 7.0		Y	7.04		6.98		✓
Buffer 10.0		Y	10.07		10.03		✓
Conductivity							± 5%
447 uS/cm			514		515		X 14.1%
1413 uS/cm			1429		1418		✓
8974 uS/cm		Y	8970		8968		✓
15,000 uS/cm							
ORP							± 5%
220 mv							
Dissolved Oxygen							± 5%
Open Air mg/L							
Zero Oxy Std mg/L							
Barometer (mm Hg)							

Turbidity Meter

Unit Name/ID: Unit 3 Micro Tpw Serial Number:

Calibrated By: Royanne Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 10		Time:		Time: 1630	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		Y	0.02		0.01		✓
10.0 Standard		Y	10.01		9.95		✓
1,000 Standard		Y	1001		1001		✓

P Bassett

Water Quality Equipment Calibration Form

Project: Yerington Ground Water 3 Q 2008 Date: 9/11/08

Water Quality Parameter Meter

Unit Name/ID: YSI #2 Unit 2 Serial Number:

Calibrated By: R Barringer Assigned User: Royanne Barring.

	Cal Std. Expiration Date	Initial Calibration Time: 600		Re-Calibration Time:		Drift Check Time: 1630		
		Cal	Read	Cal	Read	Read	Acceptable Performance	
pH (3-point)							±5%	
Buffer 2.0								
Buffer 4.0	7-10	X	3.94		~~3.76~~ →	3.76	X	6.2%
Buffer 7.0	5-10	X	7.04		6.84 →	6.84	✓	
Buffer 10.0	7-10	X	9.99		9.77 →	9.77	✓	
Conductivity							±5%	
447 uS/cm	6-09		476			480	X	7.1%
1413 uS/cm	7-09		1408			1413	✓	
8974 uS/cm	6-09	X	8974			8978	✓	
15,000 uS/cm								
ORP							±5%	
220 mv	220 @	19.58°c				213.1	@ 22.87°	
Dissolved Oxygen							±5%	
Open Air mg/L		X	~~766~~ ←	789				
Zero Oxy Std mg/L			0.25			0.21	✓	
Barometer (mm Hg)			652.1			650.3		

Turbidity Meter

Unit Name/ID: Micro TM #3 Serial Number:

Calibrated By: Royanne Barringer Assigned User: Royanne Barr..

	Cal Std. Expiration Date	Initial Calibration Time: 600		Re-Calibration Time:		Drift Check Time: 1630	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard		X	0.02			0.01	✓
10.0 Standard	6-09	X	10.07		~~10.06~~	10.06	✓
1,000 Standard	6-09	X	996.7			997.3	✓

P Bassett

QC Review: P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q2008 GWM Date: 9/11/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 16:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)			06:00				±5%
Buffer 2.0							
Buffer 4.0	Jul 10	✓	3.97			4.11	✓
Buffer 7.0	May 10	✓	7.04			7.05	✓
Buffer 10.0	Jun 10	✓	9.98			9.97	✓
Conductivity							±5%
447 uS/cm	Jul 09		462			476	X 6.2%
1413 uS/cm	Jul 09	✓	1413			1414	✓
8974 uS/cm	Jun 09		8980			8984	✓
15,000 uS/cm							
ORP							±5%
220 mv	Apr 09	✓	220.1			210.9	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.94			7.89	✓
Zero Oxy Std mg/L			0.06			0.05	✓
Barometer (mm Hg)			651.4			650.4	

Turbidity Meter

Unit Name/ID: Micro TM #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 16:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity			06:00				±5%
0.02 Standard	Mar 09	✓	0.02			0.01	✓
10.0 Standard	Mar 09	✓	9.91			10.09	✓
1,000 Standard	Mar 09	✓	998.6			1010	✓

QC Review:
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 Date: 9-11-08

Water Quality Parameter Meter

Unit Name/ID: YSI Unit #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0610		Time:		Time: 1545	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0	7/10	X	3.96			4.03	✓
Buffer 7.0	5/10	X	7.03			7.06	✓
Buffer 10.0	9/10	X	9.99			9.97	✓
Conductivity							± 5%
447 uS/cm			464			469	✓
1413 uS/cm		X	1414			1412	✓
8974 uS/cm			8967			8942	✓
15,000 uS/cm							
ORP							± 5%
220 mv		X	220.2 @ 18.30			213.2 @ 21.36	✓
Dissolved Oxygen							± 5%
Open Air mg/L		X	8.12				
Zero Oxy Std mg/L			0.08			0.09	✓
Barometer (mm Hg)			651.5			650.4	

Turbidity Meter

Unit Name/ID: Micro Unit #1 Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1545	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard	3/09	X	0.02			0.05	✓
10.0 Standard		X	9.93			9.92	✓
1,000 Standard		X	1001			1007	✓

Penny Barnett

QC Review: P Barnett 9/22/08

Water Quality Equipment Calibration Form

Project: Q3 2008 Date: 9/14/08

Water Quality Parameter Meter

Unit Name/ID: Unit 2 YSI Serial Number:

Calibrated By: Royanne Barr Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration Time: 0915		Re-Calibration Time: 1359		Drift Check Time: 1753		
		Cal	Read	Cal	Read	Read	Acceptable Performance	
pH (3-point)							±5%	
Buffer 2.0								
Buffer 4.0	7-10	Y	3.97			4.03	✓	
Buffer 7.0	7-10	X	7.04			7.02	✓	
Buffer 10.0	7-10	Y	9.96			9.95	✓	
Conductivity							±5%	
447 uS/cm	6-09		484			483	X	7.7%
1413 uS/cm	7-09	X	1413			1409	✓	
8974 uS/cm	6-09		9020	Y	8974	8970	✓	
15,000 uS/cm								
ORP							±5%	
220 mv	(219.9) ->	Y	219.9 @ 20.60°			200.4 @ 23.49°		
Dissolved Oxygen							±5%	
Open Air mg/L		Y	7.73					
Zero Oxy Std mg/L			0.26			0.36	X	
Barometer (mm Hg)			654.5			653.0		

Turbidity Meter

Unit Name/ID: Unit #3 MicroPTW Serial Number:

Calibrated By: Royanne Barringer Assigned User: Royanne Barr

	Cal Std. Expiration Date	Initial Calibration Time: 0915		Re-Calibration Time:		Drift Check Time: 1753	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	6-09	Y	0.02			0.00	✓
10.0 Standard		Y	9.95			9.89	✓
1,000 Standard		Y	1001			1002	✓

QC Review:
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 Date: 9/14/08

Water Quality Parameter Meter

Unit Name/ID: #1 YSI Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 1010		Time:		Time: 1745	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	6/10	X	3.95			4.01	✓
Buffer 7.0	5/10	X	7.03			7.02	✓
Buffer 10.0	7/10	X	9.99			9.97	✓
Conductivity							±5%
447 uS/cm			462			466	✓
1413 uS/cm	7/09	X	1415			1415	✓
8974 uS/cm			8946			8945	✓
15,000 uS/cm							
ORP							±5%
220 mv	4/09	X	220.0 @ 21.01			200.1 @ 23.71	X 9.5%
Dissolved Oxygen							±5%
Open Air mg/L		X	7.73				
Zero Oxy Std mg/L			0.09			0.10	✓
Barometer (mm Hg)			654.2			652.9	

Turbidity Meter

Unit Name/ID: Unit #1 Micro PTN Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time:	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	4/09	X	0.02				
10.0 Standard		X	10.32				
1,000 Standard		X	1000				

QC Review:
P Barrett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q 2008 Date: 9/14/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 09:45		Time:		Time: 17:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	Jul 10	✓	3.96			4.05	✓
Buffer 7.0	May 10	✓	7.05			7.00	✓
Buffer 10.0	Jul 10	✓	9.98			9.93	✓
Conductivity							±5%
447 uS/cm	Jul 09		462			466	✓
1413 uS/cm	Jul 09	✓	1412			1411	✓
8974 uS/cm	Jun 09		8981			8976	✓
15,000 uS/cm							
ORP							±5%
220 mv	Apr 09	✓	220.0			210.2	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.64			6.16	
Zero Oxy Std mg/L			0.16			0.07	
Barometer (mm Hg)			654.0			653.4	

(*) Wash pH/ORP electrodes in Electrode cleaner before calibration

Turbidity Meter

Unit Name/ID: Micro #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 09:45		Time:		Time: 17:30	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	Mar 09	✓	0.02			0.01	✓
10.0 Standard	Mar 09	✓	10.11			10.01	✓
1,000 Standard	Mar 09	✓	999.1			1011	✓

QC Review:
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q 2008 GWM Date: 9/15/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0615		Time:		Time: 16 00	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0	4						
Buffer 4.0	Jun 10	✓	3.94			4.00	✓
Buffer 7.0	May 10	✓	7.04			7.01	✓
Buffer 10.0	Jul 10	✓	9.98			9.94	✓
Conductivity							±5%
447 uS/cm	Jul 09		460			465	✓
1413 uS/cm	May 09	✓	1413			1404	✓
8974 uS/cm	Jun 09		8834			8855	✓
15,000 uS/cm							
ORP							±5%
220 mv	Jan 09	✓	220.0 @ 20.25°C			210.8 @ 24.46°C	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.79			2.92	X
Zero Oxy Std mg/L			0.08			0.07	✓
Barometer (mm Hg)			654.4			652.5	

Turbidity Meter

Unit Name/ID: Micro #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:15		Time:		Time: 16:00	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	Mar 09	✓	0.02			0.03	✓
10.0 Standard	Mar 09	✓	9.95			10.13	✓
1,000 Standard	Mar 09	✓	990.5			1004	✓

QC Review
P Bassett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q08 GWM Date: 9/15/08

Water Quality Parameter Meter

Unit Name/ID: #1 YSI Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 0610		Time:		Time: 1230	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							± 5%
Buffer 2.0							
Buffer 4.0	6/10	X	3.95			3.98	✓
Buffer 7.0	5/10	X	7.01			7.02	✓
Buffer 10.0	7/10	X	9.99			9.98	✓
Conductivity							± 5%
447 uS/cm	7/09		4604			470	✓
1413 uS/cm	5/09	X	1412			1418	✓
8974 uS/cm	6/09		8889			8869	✓
15,000 uS/cm							
ORP							± 5%
220 mv	1/09	X	220.1 @ 20.02			209.5 @ 21.46	✓
Dissolved Oxygen							± 5%
Open Air mg/L		X	7.89				
Zero Oxy Std mg/L	3/09		0.10			0.10	✓
Barometer (mm Hg)			654.1			654.4	

Turbidity Meter

Unit Name/ID: Unit #1 MicroPTW Serial Number:

Calibrated By: TMR Assigned User: TMR

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1245	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							± 5%
0.02 Standard		X	0.02			0.03	✓
10.0 Standard		X	10.13			9.79	✓
1,000 Standard		X	1002			983.6	✓

P Barrett

QC Review:
P Barrett 9/22/08

Water Quality Equipment Calibration Form

Project: 3Q2008 Date: 9/16/08

Water Quality Parameter Meter

Unit Name/ID: YSI #3 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:00		Time:		Time: 11:00	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0	Jun 10	✓	3.93			4.12	✓
Buffer 7.0	May 10	✓	7.03			6.99	✓
Buffer 10.0	Jul 10	✓	9.98			9.90	✓
Conductivity							±5%
447 uS/cm	Jul 09		463			473	X 5.6%
1413 uS/cm	May 09	✓	1414			1415	✓
8974 uS/cm	Jun 09		8916			8905	✓
15,000 uS/cm							
ORP							±5%
220 mv	Jan 09	✓	219.8			219.5	✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.72			7.92	✓
Zero Oxy Std mg/L			0.08			0.08	✓
Barometer (mm Hg)			652.7			653.7	

Turbidity Meter

Unit Name/ID: Micro #2 Serial Number:

Calibrated By: P Bassett Assigned User: P Bassett

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 06:00		Time:		Time: 11:00	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard	Mar 09	✓	0.02			0.03	✓
10.0 Standard	Mar 09	✓	10.05			10.13	✓
1,000 Standard	Mar 09	✓	1000			1004	✓

QC Review: P Bassett 9/22/08

P Bassett

Water Quality Equipment Calibration Form

Project: Q3 Yerington Groundwater Date: 9/16/08

Water Quality Parameter Meter

Unit Name/ID: YSI #2 Serial Number:

Calibrated By: Royanne Barringer Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time: 600		Time:		Time: 1035	
		Cal	Read	Cal	Read	Read	Acceptable Performance
pH (3-point)							±5%
Buffer 2.0							
Buffer 4.0		✓	3.94			3.96	✓
Buffer 7.0		✓	7.01			7.02	✓
Buffer 10.0		✓	10.00			9.99	✓
Conductivity							±5%
447 uS/cm			488		485 →		x 8.2%
1413 uS/cm		✓	1413		1413 →		✓
8974 uS/cm			8950		8980 →		✓
15,000 uS/cm							
ORP							±5%
220 mv		✓	220 @	20.81°		220.1 @	20.25° ✓
Dissolved Oxygen							±5%
Open Air mg/L		✓	7.68				
Zero Oxy Std mg/L			0.38		~~0.~~	0.41	✓
Barometer (mm Hg)			653.1				

Turbidity Meter

Unit Name/ID: Micro TPW #3 Serial Number:

Calibrated By: Royanne Barringer Assigned User: Royanne Barringer

	Cal Std. Expiration Date	Initial Calibration		Re-Calibration		Drift Check	
		Time:		Time:		Time: 1035	
		Cal	Read	Cal	Read	Read	Acceptable Performance
Turbidity							±5%
0.02 Standard		✓	0.02			~~0.02~~	✓
10.0 Standard		✓	10.01			10.05	✓
1,000 Standard		✓	992.7		~~1000~~	1000	✓

P Barrett

QC Review:
P Barrett 9/22/08