



APPENDIX B

Field Sampling Sheets

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HW01
COMPLETED BY: SV, TMH
WEATHER: clear, warm

JOB NO.: 087643011
DATE: 7/7/11

LOCATION: Bellevue
TIME: 9:30
TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 4.95 (7/7/11) (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☒ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: peristaltic pump
Flow Rate: 120 m L/min Volume _____ Start: 9:35 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:40		-91	17.3	6.77	1011.40	0.72ppm	DTW 5.11 mbtcl
9:45		-87	16.7	6.78	1549	0.69	DD set at 5.21 mbtcl
9:50		-80	18.0	6.76	1531	0.49	DD set at 5.31 mbtcl at 9:44
9:55		-75	17.9	6.78	1528	0.34	DD set at 5.41 mbtcl at 9:48
10:00		-70	17.1	6.75	1519	0.36	SS 10.05
10:05		-68	18.1	6.72	1454	0.37	DD set at 5.47 at 10:18
10:10		-65	18.5	6.62	1392	0.97	
10:15		-62	18.0	6.61	1378	1.31	
10:20	bubbles coming up - turned pump off to allow recharge took samples and allowed to recharge intermittently						

Comments:

Odour: ☐ no ☒ yes if yes strong HC chemical Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty black flecks
Turbidity End: Clear ☐ Very Silty _____
Other: Q8122-03 (COC No)

BOTTLE	Type	Size: 40mL 100mL 250mL 500mL 1L 2L 4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	<u>1</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>HA03</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	

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6/7/11 - pump could not be used due to well not being aligned
u ground level
sample using peristaltic pump



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HLW02

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 4/7/11

TIME: 9:02

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 3.33 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (inlets only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 95 mL/min Volume _____ Start: 9:27 Finish: 10:41

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:40		101	17.7	5.91	263.45	6.86	DTW 3385 mbtor
9:45		104	18.7	5.83	249	6.30	DD set at 4.85 mbtor
9:50		112	19.6	5.88	238	6.19	
9:55		107	20.1	5.99	237	6.03	
10:00		104	20.3	6.35	234	6.05	
10:05		102	20.5	6.39	236	6.00	
10:10		101	21.0	6.37	235	6.40	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty very brown
Turbidity End: Clear ☒ Very Silty _____
Other: COC No Q8119-01
ID 72 CPM3 70145

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HLW03</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW03

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV, THB

DATE: 5/7/11

TIME: 12 52

WEATHER: clear

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 6.55 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 40 mL/min Volume _____ Start: 13 02 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:15		162	22.5	5.99	1104	2.74	
13:20		159	22.4	5.94	1141	2.45	
13:25		156	22.3	5.89	1149	2.01	
13:30		153	22.2	5.89	1157	1.70	
13:35		150	22.0	5.83	1163	1.38	
13:40		147	21.6	5.81	1163	1.11	
13:45		146	21.4	5.79	1167	1.00	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty light brown with sediment
Turbidity End: Clear ☐ Very Silty
Other: COC No Q8120-04

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO3</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HW05

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SVTHB

DATE: 6/7/11

TIME: 8:20

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 4.41 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metal only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 160 m L/min Volume _____ Start: 8:24 Finish: 9:13

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
8:27		180	15.6	7.59	334.45	6.90ppm	DD set at 4.51 mbtce
8:32		162	16.4	5.61	290	5.44	water clearing
8:37		152	16.5	5.55	240	5.34	DD set at 4.51 mbtce at 8:36
8:42		148	16.5	5.63	268	5.23	DD set at 4.61 mbtce
8:47		144	16.4	5.76	287	5.23	
8:52		140	16.5	5.90	265	5.02	
8:57		137	16.6	5.99	264	5.10	
9:02		136	16.6	6.00	265	5.13	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty orange
Turbidity End: Clear ☒ Very Silty clear
Other: COC NO. QB121-01
CPM 2 PSI 25 ID 43

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HA03</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW21

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 6/7/11

TIME: 9:40

WEATHER: clear, warm

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.41 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Other: ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 50 mL/min Volume _____ Start: 9:49 Finish: 11:11

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:05		-51	18.3	6.10	1075	1.48	DD set at 11.32 mbtoc
10:10		-46	19.1	6.17	1131	1.15	DTW 11.22 mbtoc at 9:52
10:15		-45	19.3	6.18	1138	0.95	DTW 11.32 mbtoc at 9:56
10:20		-42	19.4	6.18	1134	0.78	DD set at 11.42 mbtoc
10:25		-42	19.5	6.18	1142	0.78	DTW 11.42 mbtoc at 10:01
10:30	Sample due to drawdown						DD set at 11.52 mbtoc
10:35							DTW 11.52 mbtoc at 10:05
							DD set at 11.62 mbtoc
							DTW 11.62 mbtoc 10:07 ↓ flow rate
							DD set at 11.72 mbtoc
							DTW 11.72 at 10:13
							DD set at 11.82 mbtoc
							DD set at 11.92 mbtoc at 10:19 ↓ flow rate
							DD set at 12.02 mbtoc

Comments:

Odour: ☐ no ☒ yes if yes strong HC Sheen: ☐ no ☒ yes if yes

Turbidity Start: Clear ☒ Very Silty black flakes

Turbidity End: Clear ☒ Very Silty

Other: COCAD Q8121-02
CPH 1 ID3 PSI 30

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>1</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HAC03</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW22i

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV, THB

DATE: 7/7/11

TIME: 7:50

WEATHER: cloudy, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.81 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
 L: ☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
 Flow Rate: 60 m L/min Volume _____ Start: 8:05 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
8:15		-45	12.9	6.36	2089.5	1.98 ppm	DTW 11.69 mbloc at 8:05
8:20		-49	13.3	6.40	2084	1.50	DD sed at 11.79 mbloc 8:10
8:25		-51	14.1	6.44	2091	1.24	DD sed at 11.89 mbloc at 8:15
8:30		-53	14.3	6.47	2087	0.92	DD sed at 11.99 mbloc at 8:14
8:35		-57	15.0	6.47	2075	0.75	DD sed at 12.09 mbloc at 8:23
8:40		-60	15.3	6.44	2055	0.59	
8:45		-61	15.6	6.50	2031	0.43	
8:50		-62	15.6	6.67	2019	0.36	
8:55		-63	15.9	6.79	2004	0.10	
9:00		-64	16.0	6.82	1803	0.35	

Comments:

Odour: ☐ no ☒ yes if yes strong HC/chemical Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ Very Silty grey
 Turbidity End: Clear ☒ Very Silty _____
 Other: COC 10 Q8122-01 Dup Q8122-02 Trip Q8123-01
CPM1 ID7 PSI30

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HA03</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HLW 231

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 4/7/11

TIME: 10:50

WEATHER: clear, warm

TEMPERATURE:

MONITORING WELL INFORMATION

One well volume:

Depth to Water Below Top of Casing: A 12.50 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 17 mL/min Volume _____ Start: 12:01 Finish: 13:50

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
12:20		-25	23.1	6.04	987 uS	1.95 ppm	DTW 12.47 mbtroc
	sample (500ml) taken						DD set at 12.57 mbtroc
							DTW 12.56 mbtroc @ 12:08
	sample (3x4ml) taken						DTW 12.57 mbtroc @ 12:15
	(125ml) taken						
13:06		-46	23.1	6.04	1024	2.07 ppm	cleaning
13:52		-55	20.8	5.97	1033	2.88 ppm	

Comments:

Odour: ☐ no ☒ yes if yes strong hydrocarbon/chemicals Sheen: ☒ no ☐ yes if yes _____
Turbidity Start: Clear _____ Very Silty dark grey
Turbidity End: Clear X _____ Very Silty _____
Other: ID 4 CPH1 PSI 30

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>01</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO3</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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pump clogged w/ silt
pulled out, cleaned and reinstalled



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MW25 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, TMB DATE: 6/1/11 TIME: 13:30
 WEATHER: clear, warm TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.08 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 210 L/min Volume _____ Start: 13:45 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
13:55		65	21.9	5.60	800 uS	1.89	DD xtal 11.18 mbloc
14:00		80	21.8	5.51	797	0.95	
14:05		86	21.7	5.47	797	0.53	
14:10		94	21.6	5.45	800	0.27	
14:15		97	21.6	5.45	807	0.20	
14:20		100	21.6	5.45	810	0.17	
14:25		102	21.6	5.46	812	0.16	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ ☒ Very Silty slightly milky
 Turbidity End: Clear ☒ ☒ Very Silty light brown
 Other: COC No. Q6121-05

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW27

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: Sy THB

DATE: 5/7/11

TIME: 10:45

WEATHER: clear

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.59 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90 FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submers
Flow Rate: 120 L/min Volume _____ Start: 11:29 Finish: 12:22

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
11:35		176	21.5	6.27	800 μ S	2.00 ppm	DD set at 11.05 mbtloc
11:40		158	21.6	6.00	892	1.53	DTW 11.66 mbtloc at 11:30
11:45		142	21.8	5.09	894	0.78	DD set at 11.76 mbtloc
11:50		128	21.9	5.03	950	0.43	DTW 11.67 mbtloc at 11:40
11:55		125	22.0	5.03	944	0.43	
12:00		121	22.0	5.04	978	0.31	
12:05		117	22.0	5.04	980	0.28	
12:10		114	22.0	5.05	992	0.29	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty slightly milky
Turbidity End: Clear ☒ Very Silty
Other: COC No. Q6120-02
CPH2 PSI 40 ID 45

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H₂O₂</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW28

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 4/7/11

TIME: 14:10

WEATHER: clear, warm

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 7.49 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: 100 Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 100 m L/min Volume _____ Start: 14:20 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
14:25		-5	21.2	5.89	800 _{us}	4.54 ppm	DD set at 7.56 m btoe
14:30		-2	21.4	5.88	872	3.41	DD set at 7.65 m btoe
14:35		3	21.6	5.92	910	2.98	DD set at 7.75 m btoe & flow rate
14:40		10	21.6	5.94	927	3.22	DD set at 8.00 m btoe
14:45		17	21.7	5.95	940	2.95	
14:50		25	21.8	5.92	956	2.53	DD set at 8.10 m btoe
14:55		31	21.8	5.89	964	2.34	
15:00		33	21.6	5.84	971	2.24	
15:05		33	21.5	5.83	957	2.23	

Comments:

Odour: ☒ no ☐ yes if yes strong chemical Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty _____
Turbidity End: Clear ☒ Very Silty _____
Other: COC No QB119-04
CPM 2 ID 43 PSI 25

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO3</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

EQUIPMENT

☒ PURGE/SAMPLE

WELL NO.: HWG 32

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB, TMB

DATE: 29/6/11

TIME: 14:42

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

One well volume:

Depth to Water Below Top of Casing: A 7.75 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 200 150 L/min Volume _____ Start: 14:45 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
<u>14:50</u>		<u>80</u>	<u>20.2</u>	<u>5.84</u>	<u>1061</u>	<u>2.54</u>	<u>DD set at 7.63 m below</u>
<u>14:55</u>		<u>85</u>	<u>20.4</u>	<u>5.84</u>	<u>1062</u>	<u>2.41</u>	<u>DD set at 8.00 m below</u>
<u>15:00</u>		<u>83</u>	<u>20.8</u>	<u>5.75</u>	<u>1070</u>	<u>1.71</u>	
<u>15:05</u>		<u>73</u>	<u>21.2</u>	<u>5.77</u>	<u>1067</u>	<u>1.26</u>	
<u>15:10</u>		<u>68</u>	<u>21.3</u>	<u>5.61</u>	<u>1117</u>	<u>1.04</u>	
<u>15:15</u>		<u>65</u>	<u>21.5</u>	<u>5.82</u>	<u>1153</u>	<u>0.75</u>	
<u>15:20</u>		<u>48</u>	<u>21.6</u>	<u>5.68</u>	<u>1168</u>	<u>0.67</u>	

Comments:

Odour: ☐ no ☒ yes if yes chemical Sheen: ☒ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ Very Silty slightly milky
 Turbidity End: Clear ☐ Very Silty _____
 Other: COC No QB117-04

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MW 36

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV, THB

DATE: 20/6/11

TIME: 12:44

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 3.03 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible

Flow Rate: 140 L/min Volume _____ Start: 12:55 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:00		82	20.0	5.77	1802.45	2.61ppm	DD sel cd 3.13 mbtoc
13:05		69	20.2	5.74	1833	1.82	
13:10		63	19.9	5.72	1859	1.12	
13:15		60	19.9	5.70	1875	0.72	
13:20		58	20.0	5.70	1884	0.53	
13:25		57	19.9	5.70	1884	0.46	
13:30		56	19.8	5.70	1885	0.42	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____

Turbidity Start: Clear ☒ Very Silty light brown

Turbidity End: Clear ☐ Very Silty

Other: COC No Q8111-04

10 103 CPM4 P0130

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☒ PURGE/SAMPLE

JOB NO.: 087643011

LOCATION: Bellevue

DATE: 20/6/11

TIME: 9:49

WEATHER: rain

TEMPERATURE:

One well volume:

Depth to Water Below Top of Casing: A 10.44 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10

Conductivity Meter: Model " Serial No. " Calibration Solutions: 2.76 and "

Dissolved Oxygen Meter: Model " Serial No. "

Eh Meter: Model " Serial No. " Type "

☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible

☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC

☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
Flow Rate: 150 mL/min Volume _____ Start: 10:15 Finish: _____

[illegible]

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear | | | | | | | | | | | | | | | | | | | | | | Very Silty slightly milky
Turbidity End: Clear | | | | | | | | | | | | | | | | | | | | | | Very Silty
Other: COC no: QB115-03 date QB115-04 trip QB115-04

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					4				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW44

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV, DMB

DATE: 6/7/11

TIME: 11:55

WEATHER: clear, warm

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 715 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 100 m L/min Volume _____ Start: 12:00 Finish: 13:25

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
	<u>pause at 12:15 to evaluate recharge - very slow</u>						<u>DTW 6.97 mbt oc at 12:06</u>
12:20		-33	22.3	5.97	1124 uS	1.73 ppm	<u>DD set at 7.07 mbt oc</u>
12:25		-37	22.3	5.94	1680	1.57	<u>DTW 7.07 mbt oc 12:11</u>
12:30		-39	22.4	5.90	1701	0.91	<u>DD set at 7.17 mbt oc flow rate ↓</u>
12:35		-40	22.4	5.88	1713	0.74	<u>DD set at 7.27 mbt oc 12:13</u>
12:40		-42	22.2	5.86	1721	0.65	<u>DD set at 7.37 mbt oc 12:23</u>
12:45		-44	21.5	5.83	1709	0.46	<u>DD set at 7.47 mbt oc 12:31</u>
12:50		-50	21.3	5.83	1705	0.34	<u>DD set at 7.57 mbt oc 12:39</u>

Comments:

Odour: ☐ no ☒ yes if yes strong HC Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty gray to black
Turbidity End: Clear ☒ Very Silty Heads
Other: COC No Q8121-04
CPMI ID 4 PSI 35

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HAC03</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

<http://golderportal/cws/corporateservices/management/managementaustralia/managementperth/local forms/perth all forms/pf067 water sample form.docx>

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW645

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB, TMB

DATE: 29/6/11

TIME: 10:23

WEATHER: rain off/on, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 7.88 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 200 m L/min Volume _____ Start: 10:32 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:45		33	21.0	6.42	146 uS	3.61 ppm	DD set at 0.00 mbtoc
10:50		-4	21.4	6.19	294 mS	2.22	
10:55		-13	21.9	6.05	3.31	0.60	
11:00		-20	21.9	6.04	3.33	0.31	
11:05		-18	21.9	6.04	3.30	0.15	
11:10		-16	21.9	6.05	3.27	0.10	
11:15		-11	21.9	6.06	3.23	0.07	

Comments:

Odour: ☐ no ☒ yes if yes Sulphur Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear _____ Very Silty light yellow/brown
Turbidity End: Clear _____ Very Silty _____
Other: COC no 98117-02

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MWG-46

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB, TMB

DATE: 29/6/11

TIME: 8:39

WEATHER: clear, rain (on/off)

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 7.95 (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
 Flow Rate: 150 mL/min Volume _____ Start: 9:15 am Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:20		149	17.5	5.73	437	3.15ppm	DD set at 8.00 metres
9:25		140	18.4	5.55	430	2.39	
9:30		131	18.9	5.52	428	1.36	
9:35		125	19.3	5.71	431	0.95	
9:40		110	19.6	5.97	474	0.47	
9:45		104	19.5	5.96	486	0.39	
9:50		96	19.5	6.00	508	0.33	
9:55		98	19.4	6.01	510	0.30	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear | | | | | X | | | | | | | | | | | | | | | | | | | | Very Silty
 Turbidity End: Clear | | | | | | | | | | | | | | | | | | | | Very Silty
 Other: COC no. Q8117-01

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HNO ₃
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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Version: RL1

March 2011

top of pump at 10.50 mbtoc - then stuck
 Sampled from this level



- well cleared of roots to 10.7mbtoc - pump originally stuck at 8.7mbtoc
 ↳ roots pushed down w metal rods

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW647

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CLW THB

DATE: 27/6/11

TIME: 9:11

WEATHER: cool, clear

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.68 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
Flow Rate: 170 L/min Volume _____ Start: 9:59 Finish: 10:39

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:05		25	19.3	5.74	1637 uS	3.40 ppm	DD set at 12.78 mbtcl
10:10		31	19.6	5.64	1696	1.92	DTW 12.74 mbtcl
10:15		35	20.1	5.66	1822	0.82	
10:20		36	20.3	5.70	1895	0.51	
10:25		37	20.4	5.74	1918	0.37	
10:30		38	20.4	5.76	1922	0.33	
10:35		39	20.5	5.77	1925	0.29	

Comments:

Odour: ☒ no ☒ yes if yes slight sulphur Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ||||| Very Silty light brown
Turbidity End: Clear ||||| Very Silty _____
Other: COC no. QB114-02
ID 106 PSI 53 CPM 4

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

☒ PURGE/SAMPLE

LOCATION: Bellevue

TIME: 11:01

TEMPERATURE:

One well volume:

Depth to Water Below Top of Casing: A 12.82 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C _____ (mm)

pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10

Conductivity Meter: Model " Serial No. " Calibration Solutions: 2.76 and

Dissolved Oxygen Meter: Model " Serial No. "

Eh Meter: Model " Serial No. " Type

☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible

☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC

☐ Yes ☒ No

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 260 L/min Volume _____ Start: 11:15 Finish: 12:20

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
11:20		55	20.3	5.82	1140 µS	2.60 ppm	TD set at 12.68 mg/l O ₂
11:25		72	20.5	5.75	1108	0.72	
11:30		84	20.8	5.72	1100	0.26	
11:35		88	20.6	5.78	1122	0.18	
11:40		92	20.8	5.73	1133	0.13	
11:45		94	20.8	5.73	1137	0.12	
11:50		96	20.9	5.73	1138	0.11	

[illegible]

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HLWG49

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV.TMB

DATE: 5/7/11

TIME: 8:20

WEATHER: clear, warm, cold

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.79 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. US431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (inadequate)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 15 m L/min Volume _____ Start: 8:32 Finish: 10:30

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:05		45	8.6	5.09	686uS	4.15 ppm	DDset at 1290 mbtoc
9:10		37	8.7	5.34	675	382	
9:15		34	8.8	5.41	724	346	
9:20		34	8.9	5.44	1066	321	
9:25		34	8.9	5.44	1064	316	
9:30		34	9.0	5.45	1063	311	
9:35		33	9.1	5.45	1062	310	

Comments:

Odour: ☒ no ☐ yes if yes organic Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty light brown
Turbidity End: Clear ☐ Very Silty _____
Other: COG NO. 087643011 Q 8120-01
1043 CAM2 PSL50

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>8</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>THOS</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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Version: RL1

March 2011

rocks pushed down 30/6/11
well allowed to settle
beaker used to take end core, rocks 5/7/11 - none found



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW 50

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB + TMB

DATE: 22/06/2011

TIME: 07:15

WEATHER: Overcast

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.125 (27.65) (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B (metres) (B-A)*2.0 = _____ litres
Diameter Standpipe: C (mm) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 05431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 200 m L/min Volume _____ Start: 8:07 Finish: 8:52

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
8:15		142	18.4	5.77	856.45	2.48	DD set at 12.20 mbt oc
8:20		140	20.0	5.60	856	1.19	
8:25		136	20.7	5.51	859	0.89	
8:30		132	21.1	5.41	901	0.57	
8:35		129	21.2	5.35	939	0.44	
8:40		126	21.3	5.31	960	0.35	
8:45		126	21.3	5.32	970	0.30	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty Slightly milky
Turbidity End: Clear ☐ Very Silty
Other: COC no. 08118-01
CPM2 1047 PSI 40

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HNO ₃
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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Version: RL1

March 2011

1/1

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: 51

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB, THB

DATE: 30/6/11

TIME: 9:00

WEATHER: cool, cloudy

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing:

A 12.5 (metres)

One well volume:

(B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing:

B _____ (metres)

(B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe:

C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter:

Model TPS 90FLMV

Serial No. 45431

Calibration Buffers: ☒ 4

☒ 7

☐ 10

Conductivity Meter:

Model _____

Serial No. _____

Calibration Solutions: 2.76

and _____

Dissolved Oxygen Meter:

Model _____

Serial No. _____

Eh Meter:

Model _____

Serial No. _____

Type _____

Pump:

☐ none

☐ Waterra

☐ Peristaltic

☒ Submersible

Filter:

☐ none

☐ Stainless Steel

☐ Teflon

☐ PVC

Filter: ☐ Yes

☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres

Method: submersible pump

Flow Rate: 35 m L/min

Volume _____

Start: 9:25

Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:40		-26	18.1	5.02	920	567 ppm	
9:45		-28	18.5	5.67	940	567 255	
	sampled due to pump not having water over top can not determine draw down - roots on tubing when pulled up - roots on dip metre						sample 1 amber jar
10:00		-51	18.9	5.77	946	2.35	
							sample 3-40ml vials
10:20		-59	18.8	5.81	945	2.30	
							sample for metals

Comments:

Odour: ☐ no

☒ yes

if yes hydrocarbon

Sheen: ☐ no

☐ yes

if yes _____

Turbidity Start:

Clear

|||||

Very Silty

orange/brown

Turbidity End:

Clear

|||||

Very Silty

Other:

COC No Q8116-03

CPH1 ID2 PSI60

BOTTLE

Type

Size:

40mL

100mL

250mL

500mL

1L

2L

4L

Filtered

Preservatives

1

☐ Plastic

☒ Glass

☐ Yes

☒ No

none

2

☐ Plastic

☒ Glass

3

☐ Yes

☒ No

none

3

☒ Plastic

☐ Glass

1

☒ Yes

☐ No

H2O2

4

☐ Plastic

☐ Glass

☐ Yes

☐ No

5

☐ Plastic

☐ Glass

☐ Yes

☐ No

6

☐ Plastic

☐ Glass

☐ Yes

☐ No

7

☐ Plastic

☐ Glass

☐ Yes

☐ No

8

☐ Plastic

☐ Glass

☐ Yes

☐ No

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MWG54

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CLW, TMB

DATE: 28/6/11

TIME: 7:45

WEATHER: rain

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.075 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 30 ml /min Volume _____ Start: 7:50 Finish: 9:20

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
1st		173	16.4	5.69	559	3.88	Drawdown at 30ml/min
2nd		153	16.3	5.98	564	3.18	Decided to take sample prior
3rd		138	15.5	6.08	537	4.02	to well going dry.
							3 readings taken
							1st - Prior to samples
							2nd - After VOC vials
							3rd - After 500ml amber

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear _____ Very Silty milky
Turbidity End: Clear _____ Very Silty _____
Other: COL No 00115-01
to 3, CPM 1, PSI 35

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: HW656

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB, THB

DATE: 30/6/11

TIME: 11:45

WEATHER: rain (heavy)

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: _____

A 11.635 (metres)

One well volume:

(B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: _____

B _____ (metres)

(B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: _____

C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter:

Model TPS 90ELMV

Serial No. US431

Calibration Buffers: ☒ 4

☒ 7

☐ 10

Conductivity Meter:

Model _____

Serial No. _____

Calibration Solutions: 2.76 and _____

Dissolved Oxygen Meter:

Model _____

Serial No. _____

Eh Meter:

Model _____

Serial No. _____

Type _____

Pump:

☐ none

☐ Waterra

☐ Peristaltic

☒ Submersible

☐ none

☐ Stainless Steel

☐ Teflon

☐ PVC

Filter:

☐ Yes

☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres

Method: _____

Flow Rate: 100 L/min

Volume _____

Start: _____

Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:15		-41	15.8	6.26	490	3.77ppm	DD set at 11.92 mbspc
13:20		-39	16.0	6.43	568	4.64	
13:25		-36	16.2	6.49	542	4.64	
13:30		-37	16.4	6.57	537	4.86	
13:35		-53	16.1	6.80	526	4.71	
13:40		-47	15.8	7.21	500	4.71	
13:45		-30	15.6	7.63	483	4.87	
13:50		-27	15.4	7.70	4.81	4.85	

Comments:

Odour: ☒ no

☐ yes

if yes _____

Sheen: ☐ no

☐ yes

if yes _____

Turbidity Start: Clear

||||| X ||||||

Very Silty

Turbidity End: Clear

||||| ||||||

Very Silty

Other:

COC No QB116-05

ID-4 CPM-2 PSI-55

BOTTLE

Type

Size:

40mL

100mL

250mL

500mL

1L

2L

4L

Filtered

Preservatives

1 ☐ Plastic ☒ Glass

1

☐ Yes ☒ No

none

2 ☐ Plastic ☒ Glass

3

☐ Yes ☒ No

none

3 ☒ Plastic ☐ Glass

1

☒ Yes ☐ No

HNO3

4 ☐ Plastic ☐ Glass

☐ Yes ☐ No

5 ☐ Plastic ☐ Glass

☐ Yes ☐ No

6 ☐ Plastic ☐ Glass

☐ Yes ☐ No

7 ☐ Plastic ☐ Glass

☐ Yes ☐ No

8 ☐ Plastic ☐ Glass

☐ Yes ☐ No

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cur tubing dropped down pipe
when pulled out a section snapped off
pump would only go down such that top of pump 12.61 mbspc



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MWG57

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CW, THB

DATE: 27/6/11

TIME: 8:10

WEATHER: cool, clear

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.185 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
 Flow Rate: 130 L/min Volume _____ Start: 8:21 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
8:35		163	18.0	5.30	565 uS	4.43 ppm	TD started 12.25 mbtcc
8:40		157	18.4	5.19	596	3.67	
8:45		153	18.9	5.07	594	3.42	
8:50		151	19.1	5.01	594	3.29	
8:55		148	19.4	4.90	590	3.13	
9:00		147	19.4	4.84	589	2.91	
9:05		146	19.5	4.86	588	2.90	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ Very Silty
 Turbidity End: Clear _____ Very Silty
 Other: QB114-01
ID 44 PSI 45 CPM 2

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

☒ PURGE/SAMPLE

LOCATION: Bellevue

TIME: 12:56

TEMPERATURE:

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10

Conductivity Meter: Model " Serial No. " Calibration Solutions: 2:76 and

Dissolved Oxygen Meter: Model " Serial No. "

Eh Meter: Model " Serial No. "

☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible

☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC

☐ Yes ☒ No

Note: roots in well - pump submerged w/ 0.4 m water above (1 CPM)

Purge volume: Well vol X _____ = _____ litres
Flow Rate: 35 mL/min Volume _____
Method: Submersible pump
Start: 13:44 Finish: _____

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear | | | | | | | | | | | | | | | | | | | | | | ☒ | ☒ | | | | |
Turbidity End: Clear | | | | | | | | | | | | | | | | | | | | | | Very Silty *brown*
Other: *COC No. C814-05*
IP-3 CM-1 *PSI-40*

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>1</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW650

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV TMB

DATE: 19/6/11

TIME: 9:22

WEATHER: clear

TEMPERATURE:

MONITORING WELL INFORMATION

One well volume:

Depth to Water Below Top of Casing: A 2.9 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model 45431 TPS90FLMV Serial No. E1

Calibration Buffers: ☒ 4 ☒ 7 ☐ 10

Conductivity Meter: Model _____ Serial No. _____

Calibration Solutions: 2.76 and _____

Dissolved Oxygen Meter: Model _____ Serial No. _____

Eh Meter: Model _____ Serial No. _____

Type _____

☐ none

☐ Waterra

☒ Peristaltic

☐ Submersible

☐ none

☐ Stainless Steel

☐ Teflon

☐ PVC

Filter: ☐ Yes

☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____

Flow Rate: 180 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:35		-26	17.8	5.78	1951 uS	1.33	DTW 2.20 mbtoc
9:40		-8	18.3	5.69	1928	1.07	DTW 2.20 mbtoc
9:45		20	18.5	5.64	1918	0.76	
9:50		46	18.7	5.66	1910	0.55	DTW 2.195 mbtoc
9:55		54	18.8	5.69	1907	0.38	
10:00		50	18.8	5.72	1906	0.31	DTW 2.20 mbtoc
10:05		46	18.9	5.72	1903	0.34	DTW 2.20 mbtoc

Comments:

Odour: ☐ no ☒ yes if yes swampy Sheen: ☒ no ☐ yes if yes _____

Turbidity Start: Clear ☒ Very Silty black flecks

Turbidity End: Clear ☐ Very Silty

Other: COC No: QB109-01 (Leeder)

COC No: QB110-01 (SGS)

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125mL)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125mL)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125mL)</u>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125mL)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW662

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV TMB

DATE: 20/6/11

TIME: 10:22

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 835 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible
Flow Rate: 160 mL 2/min Volume _____ Start: 1100 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
1107		178	19.4	4.76	851	3.49	
1107		183	19.7	4.74	849	3.261	
1112		187	19.9	4.71	836	2.37	
1117		188	19.9	4.71	801	2.11	
1122		189	19.9	4.72	758	1.92	
1127		189	19.9	4.71	748	1.91	
1132		189	20.1	4.72	738	1.82	DTW 839 mbial

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty lt. brown
Turbidity End: Clear ☐ Very Silty _____
Other: COX No. 08111-02
ID 101 CPM4 PSI 30

BOTTLE	Type	Size: 40mL 100mL 250mL 500mL 1L 2L 4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	1	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	1	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>H2O2</u>
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	2	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	3	<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MWG63

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 20/6/11

TIME: 8:18

WEATHER: cloudy, rain, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 8.78 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume:

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Filter: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible
Flow Rate: 150 L/min Volume _____ Start: 9:05 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:05			17.5	4.90	580		
9:08		161	17.5	4.90	580	6.47ppm	DTW 9.02 mbtoc
9:13		164	18.1	4.85	581	5.51	1 draw down indicator used
9:18		167	18.9	4.75	583	5.02	
9:23		169	19.3	4.73	583	4.62	
9:28		169	19.4	4.72	582	4.42	water clearing
9:33		170	19.5	4.72	581	4.24	
9:38		170	19.5	4.73	581	4.10	DTW 9.01 mbtoc

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear _____ Very Silty light brown
Turbidity End: Clear _____ Very Silty _____
Other: COC No. QB111-01

10 sec. reflow, 10 sec. flow PSI=25

BOTTLE	Type	Size	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: MW666

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV TMB

DATE: 19/6/11

TIME: 10:26

WEATHER: clear

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 2.77 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. _____ Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
☐ none ☐ Waterra ☒ Peristaltic ☐ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____

Flow Rate: 180 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:35		-69	19.1	5.65	795 uS	1.19	
10:40		-71	19.2	5.59	756	0.76	DTW 2.78 mbtoc
10:45		-72	19.5	5.53	730	0.46	
10:50		-70	19.5	5.51	724	0.35	DTW 2.78 mbtoc
10:55		-67	19.7	5.51	718	0.27	
11:00		-66	19.7	5.51	717	0.25	
11:05		-67	19.7	5.51	717	0.22	DTW 2.78 mbtoc

Comments:

Odour: ☐ no ☒ yes if yes sulphur Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ Very Silty
 Turbidity End: Clear _____ Very Silty
 Other: COC No Q8109-02 (leeder)
Q8110-02 (SGS)

BOTTLE	Type	Size	40mL	125mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>11</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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Version: RL1

March 2011

1/1

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MWG68
COMPLETED BY: SV, THB
WEATHER: clear

JOB NO.: 087643011
DATE: 19/6/11

LOCATION: Bellevue
TIME: 11:22
TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 2.64 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. _____ Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
☐ none ☐ Waterra ☒ Peristaltic ☐ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
Flow Rate: 240 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
11:35		-51	19.6	5.60	540uS	1.21	DTW 2.65 mbtoc
11:40		-22	19.6	5.44	577	0.71	
11:45		-10	19.7	5.36	574	0.36	DTW 2.65 mbtoc
11:50		-11	19.7	5.33	574	0.33	
11:55		-15	19.7	5.32	576	0.22	
12:00		-21	19.7	5.31	576	0.19	
12:05		-28	19.8	5.30	577	0.19	DTW 2.65 mbtoc

Comments:

Odour: ☐ no ☒ yes if yes slight sulphur Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty
Turbidity End: Clear _____ Very Silty
Other: COCAL Q8109-03
Q8110-03

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H₂O₂</u>
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>3</u>	<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MW669

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 23/6/11

TIME: 9:18

WEATHER: clear, cool

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.825 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

One well volume: _____

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump

Flow Rate: 180 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:35		137	19.5	5.61	373	2.54	DD set at 12.925
9:40		138	20.0	5.60	601	1.83	
9:45		138	20.7	5.64	614	0.64	
9:50		138	20.8	5.65	616	6.59	
9:55		138	20.9	5.66	624	0.44	
10:00		137	21.0	5.68	632	0.39	
10:05		136	21.0	5.68	635	0.36	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____

Turbidity Start: Clear ☒ Very Silty

Turbidity End: Clear ☒ Very Silty

Other: Q8113-02

CPM4 1D104 PSI 38

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	13								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: ~~MW670~~ MW670

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 23/6/11

TIME: 7:57

WEATHER: clear, cool

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.895 (metres) (B-A)*2.0 = litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B (metres) (B-A)*1.1 = litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model Serial No. Calibration Solutions: 2.76 and
Dissolved Oxygen Meter: Model Serial No.
Eh Meter: Model Serial No. Type
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
Liner: ☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X = litres Method: Submersible
Flow Rate: 210 L/min Volume Start: Finish:

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
8:25		191	17.5	5.31	561 uS	6.42	DD set at 13.0 m/min
8:30		160	19.2	5.17	549	3.46	
8:35		159	19.9	4.91	553	2.73	
8:40		154	20.1	4.84	554	2.54	
8:45		151	20.2	4.76	558	2.38	
8:50		150	20.3	4.67	560	2.33	
8:55		148	20.4	4.98	560	2.21	
9:00		124	20.6	5.59	775	1.33	

Comments:

Odour: ☒ no ☐ yes if yes Sheen: ☐ no ☐ yes if yes
Turbidity Start: Clear ☒ Very Silty slightly milky
Turbidity End: Clear ☐ Very Silty
Other: Q8113-01
10 76 PSI 40

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	93								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MWG91A

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 23/6/11

TIME: 11:08

WEATHER: clear, cool

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.44 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
Liner: ☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 105 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
11:55		125	22.3	5.91	900.45	5.35 ppm	
12:00		128	22.4	5.81	911	4.04	
12:05		133	22.3	5.78	912	2.95	
12:10		135	22.2	5.75	913	2.56	
12:15		136	22.3	5.75	914	2.54	
12:20		138	22.2	5.73	916	2.12	
12:25		138	22.2	5.72	915	2.00	DTW 12.44 mbtcc

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty slightly milky
Turbidity End: Clear ☐ Very Silty _____
Other: Q8113-04
1074 PSI 35

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>4</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MW691B
COMPLETED BY: SV, THB
WEATHER: clear, cool

JOB NO.: 087643011
DATE: 23/6/11

LOCATION: Bellevue
TIME: 12:45

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.48 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
L A: ☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
Flow Rate: 125 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:15		120	22.1	5.73	760.45	3.40 ppm	
13:20		120	21.8	5.60	771	2.28	
13:25		130	21.7	5.62	773	1.61	DTW 12.44 mbtoc
13:30		132	21.7	5.60	773	1.45	DD 5.14 2.54 mbtoc
13:35		134	21.9	5.60	775	1.36	
13:40		135	21.8	5.60	776	1.36	
13:45		136	21.6	5.58	775	1.36	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
Turbidity Start: Clear ☒ Very Silty slightly milky
Turbidity End: Clear ☐ Very Silty
Other: Q6113-05
ID 72 PSI 38

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>4</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT ☒ PURGE/SAMPLE

WELL NO.: MW691C JOB NO.: 087643011 LOCATION: Bellevue
COMPLETED BY: SV, THB DATE: 23/6/11 TIME: 14:14
WEATHER: cloudy, cool TEMPERATURE: _____

MONITORING WELL INFORMATION
Depth to Water Below Top of Casing: A 12.35 (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
Dissolved Oxygen Meter: Model _____ Serial No. _____
Eh Meter: Model _____ Serial No. _____ Type _____
Pump: ☐ none ☐ Waterra ☐ Peristaltic ☒ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
Filter: ☐ Yes ☒ No

WELL DEVELOPMENT/PURGING
Purge volume: Well vol X _____ = _____ litres Method: Submersible Pump
Flow Rate: 150 240 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
14:23		120	21.2	5.30	770	2.63	DD 12.45 mptoc (x1)
14:28		130	21.2	5.26	782	1.02	
14:33		132	21.2	5.24	784	0.68	
14:38		134	21.2	5.25	785	0.52	
14:43		136	21.2	5.25	789	0.45	
14:48		130	21.2	5.25	791	0.42	
14:53		138	21.2	5.26	795	0.40	

Comments:

Odour: ☒ no ☐ yes If yes _____ Sheen: ☐ no ☐ yes If yes _____
Turbidity Start: Clear |||| ☒ ||||| Very Silty
Turbidity End: Clear ||||| Very Silty
Other: QB113-06
ID 80 P21 30 CPM3

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		4							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	none
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

<http://golddportal/cws/corporateservices/management/managementaustralia/managementperth/local forms/perth all forms/pf067 water sample form.docx>

Version: RL1

March 2011

1/1



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: SG05

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV, TMB

DATE: 7/7/11

TIME: 12:02

WEATHER: clear, warm

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 5.78 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☒ Peristaltic ☐ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: peristaltic pump
 Flow Rate: 245 mL/min Volume _____ Start: 11:55 Finish: 12:41

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
12:00		-10	12.5	8.52	641.45	6.13 ppm	
12:05		-11	11.6	7.92	620	5.89	
12:10		0	11.1	7.50	613	5.66	
12:15		10	10.7	7.16	608	5.65	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ||||| X ||||| Very Silty
 Turbidity End: Clear ||||| Very Silty
 Other: COC No. Q8122-05 Dup Q8122-06

BOTTLE	Type	Size: 40mL 100mL 250mL 500mL 1L 2L 4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>36</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	<u>42</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H₂O₂</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	<u>42</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: 2606

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: SV THB

DATE: 7/7/11

TIME: 1301

WEATHER: clear warm

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 0.46 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: ☒ 4 ☒ 7 ☐ 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: ☐ none ☐ Waterra ☒ Peristaltic ☐ Submersible
☐ none ☐ Stainless Steel ☐ Teflon ☐ PVC
 Filter: ☐ Yes ☒ No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
 Flow Rate: 180 L/min Volume _____ Start: 13:00 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:05		33	11.8	6.30	605.45	6.05ppm	
13:10		34	11.5	6.27	604	5.73	
13:15		33	11.2	6.25	603	5.50	
13:20		34	11.1	6.25	603	5.52	

Comments:

Odour: ☒ no ☐ yes if yes _____ Sheen: ☐ no ☐ yes if yes _____
 Turbidity Start: Clear ☒ Very Silty
 Turbidity End: Clear ☐ Very Silty
 Other: COC NO Q0122-07

BOTTLE	Type	Size: 40mL 100mL 250mL 500mL 1L 2L 4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	<u>1</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HAC03</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass	<u>1</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass		<input type="checkbox"/> Yes <input type="checkbox"/> No	

☒ PURGE/SAMPLE

LOCATION: Bellevue

TIME: 14:16

TEMPERATURE:

One well volume:

Diameter Standpipe: C (mm)

Eh Meter: Model _____ Serial No. _____ Type _____

Filter: ☐ Yes ☒ No (metals only)

Purge volume: Well vol X _____ = _____ litres Method: _____

Flow Rate: 180 L/min Volume _____ Start: 13:45 Finish: 14:10

Comments:

Other: COC No. QB122-00

[http://golderportal/cws/corporateservices/management/managementaustralia/managementperth/local forms/perth all forms/pf067 water sample form.docx](http://golderportal/cws/corporateservices/management/managementaustralia/managementperth/local%20forms/perth%20all%20forms/pf067%20water%20sample%20form.docx)

☐ DEVELOPMENT

☒ PURGE/SAMPLE

WELL NO.: nw 04

JOB NO.: 087643011

LOCATION: Bellevue

COMPLETED BY: CB

DATE: 02/08/2011

TIME: 0900

WEATHER: RAIN

TEMPERATURE: 22°C

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 4.675 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) $(B-A)*1.1 =$ _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90 FLMV Serial No. _____ Calibration Buffers: ☒ 4 ☒ 7 ☐ 10

Conductivity Meter: Model 11 Serial No. Calibration Solutions: 2.76 and

Dissolved Oxygen Meter: Model Serial No.

Eh Meter: Model _____ Serial No. _____ Type _____

Pump: ☐ none ☐ Waterra ☐ Peristaltic ☐ Submersible

☐ none ☐ Stainless Steel ☐ Teflon ☐ PVCFilter: ☐ Yes ☐ No

WELL DEVELOPMENT\PURGING

Purge volume: Well vol X _____ = _____ litres Method: *Pzi Pump*

Flow Rate: 140 m L/min Volume _____ Start: _____ Finish: _____

[illegible]

Comments:

Odour: ☐ no ☒ yes if yes V₂HC Sheen: ☐ no ☐ yes if yes _____

Turbidity Start: Clear  Very Silty *light brown.*

Turbidity End: Clear Very Silty

Other:

Q6653-01

BOTTLE	Type	Size:	40mL	125mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	site 2.
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	IND-3.
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	-.
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	



APPENDIX C

Calibration Certificates



Gas Detection Air Sampling & Monitoring Environmental & Water Quality Monitoring

Air-Met Scientific Pty Ltd

ABN 73 006 849 949

Ph 1300 137 067

MP30 Drawdown Meter

Instrument **MP30 Drawdown Meter**

Serial No. **1505**

Item	Test	Pass	
Battery	Compartment	✓	
	Cap above 7.9v	✓	9v
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
Tape check	Cleaned	✓	
	Checked for cuts	✓	
Instrument Test	At surface level	✓	

This is to certify that the above instrument has been cleaned and tested

Tested By

Gaurav Kanwar

Test Date

13-Jun-11

Next Test

13-Dec-11



Gas Detection Air Sampling & Monitoring Environmental & Water Quality Monitoring

Air-Met Scientific Pty Ltd

ABN 73 006 849 949

Ph 1300 137 067

Multi Parameter Water Meter

Instrument 90 FLMV

Serial No. U5431

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. Salinity	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Standards					
ph 7.00	✓	7. DO Air	✓		
2. pH 4.00	✓				
3. EC 0.00ms/cm	✓				
4. EC 2.76ms/cm	✓				
Temp C	✓				
6. 240 Redox (mV)					
7. DO 0.00 ppm	✓				

Calibrated by:

Gaurav Kanwar

Calibration date:

13-Jun-11

Next calibration due:

10-Dec-11



Gas Detection Air Sampling & Monitoring Environmental & Water Quality Monitoring

Air-Met Scientific Pty Ltd

ABN 73 006 849 949

Ph 1300 137 067

Multi Parameter Water Meter

Instrument 90 FLMV

Serial No. U5435

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. Salinity	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Standards					
ph 7.00	✓	7. DO Air	✓		
2. pH 4.00	✓				
3. EC 0.00ms/cm	✓				
4. EC 2.76ms/cm	✓				
Temp C	✓				
6. 240 Redox (mV)					
7. DO 0.00 ppm	✓				

Calibrated by:

Gaurav Kanwar

Calibration date:

8-Jun-11

Next calibration due:

05-Dec-11



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 02/08/2011

Field Person: CB.

Instrument Supplier and Instrument ID : 90FLMV Serial No. T8778

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.79	2.60
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.03 7.04	6.14 7.08
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 14/6/11

Field Person: BL/SV

Instrument Supplier and Instrument ID : 90FLMV Serial No: US435
TPSEI

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

US435 | TPSEI US435 | TPSEI

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.96	2.74
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		2.78
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		2.70
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.07	4.00
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm	7.00	6.94
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

J
J



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 19/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLM^{TPS} Serial No: E1

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.76	2.60
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4</u> pH 6.7 – 7.3 <u>7.</u>	3.96 7.02	4.01 7.02
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 16/6/11

Field Person: JMB SV

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field **and** when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.83	2.66
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4.0</u> pH 6.7 – 7.3 <u>7.0</u>	4.02 6.98	4.05 6.98
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 16/6/11

Field Person: SV TMB

Instrument Supplier and Instrument ID : 90FLM^{TPS} Serial No: E1

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S/cm}$, mS/cm)	7,000 $\mu\text{S/cm}$ KCl	6,300 – 7,700 $\mu\text{S/cm}$ or 6.3 – 7.7 mS/cm		
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm	<u>2.76</u> <u>2.75</u>	<u>2.84</u>
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S/cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4</u> pH 6.7 – 7.3 <u>7</u>	<u>3.95</u> <u>6.99</u>	<u>4.04</u> <u>7.01</u>
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 19/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: US431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.76	2.70
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.05 7.00	4.01 6.96
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 20/6/11

Field Person: SV, JMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field **and** when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S/cm}$, mS/cm)	7,000 $\mu\text{S/cm}$ KCl	6,300 – 7,700 $\mu\text{S/cm}$ or 6.3 – 7.7 mS/cm		
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm	2.76	2.84
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S/cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.08 7.03	3.94 6.94
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 0871643011

Date: 21/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm		
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm	2.79	2.78
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.97 6.95	4.09 6.99
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 23/6/11

Field Person: SV, MVB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field **and** when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S/cm}$, mS/cm)	7,000 $\mu\text{S/cm}$ KCl	6,300 – 7,700 $\mu\text{S/cm}$ or 6.3 – 7.7 mS/cm	2.76	2.73
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S/cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4</u> pH 6.7 – 7.3 <u>7</u>	4.08 6.95	4.06 6.96
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 27/6/11

Field Person: CW/TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.73	2.76
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.96 6.94	3.95 6.89
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 28/6/11

Field Person: CW/TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.70	2.71
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.85 6.83	3.98 6.82
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 29/6/11

Field Person: CB + TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.76	2.73
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		2.69
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.13 7.22	4.11 7.12
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 20/06/2011

Field Person: CB + TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.81m	2.64
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.95 6.83	4.37 7.34
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

} slightly
high



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 4/7/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: US431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.76	2.74
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.0 7.05	3.98 6.8
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 5/7/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 115431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.76	2.77
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		2.76
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.9 6.8	4.03 6.8
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 6/7/11

Field Person: SV THB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	276	273
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.83 6.80	3.91 6.70
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



ENVIRONMENTAL FIELD EQUIPMENT CHECK (Prior and After Use)

Job Number: 087643011

Date: 7/7/11

Field Person: SV THB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S/cm}$, mS/cm) Temp: _____	7,000 $\mu\text{S/cm}$ KCl 12.88 mS/cm KCl	6,300 – 7,700 $\mu\text{S/cm}$ or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.74
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S/cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.8 6.7	4.1 7.3
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

calibrated 90FLMV-U5431 at 7.45 (pH)



APPENDIX D

Limitations



LIMITATIONS

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