



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-001  
**Client Sample ID:** T2/BHA-10-(0-6") [0-6]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.3	s.u.		0.1		ASAM10-3.2	01/06/10 08:09 / wj
Conductivity, sat. paste	1.93	mmhos/cm		0.01		ASA10-3	01/07/10 09:42 / rrr
Saturation	59.1	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	9.12	meq/l		0.05		SW6010B	01/07/10 14:24 / sld
Magnesium, sat. paste	4.00	meq/l		0.08		SW6010B	01/07/10 14:24 / sld
Sodium, sat. paste	8.78	meq/l		0.04		SW6010B	01/07/10 14:24 / sld
Sodium Adsorption Ratio (SAR)	3.4	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	6.94	meq/L		0.02		ASA10-3	01/11/10 19:38 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	6	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	44	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	50	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	36.5	meq/100g		0.09		SW6010B	01/14/10 21:07 / sld
Organic Matter	1.85	%		0.02		ASA29-3	12/31/09 14:13 / sah
Lime as CaCO3	2.5	%		0.1		USDA23c	12/28/09 00:00 / rrr
Phosphorus	30	mg/kg		0.1		ASA24-5	02/05/10 15:52 / stp
Nitrate as N, KCL Extract	62	mg/kg	D	2.0		ASA38-3	02/01/10 15:47 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.4	meq/100g		0.0044		SW6010B	01/12/10 22:12 / sld
Potassium, available	354	mg/kg		1.0		SW6010B	01/15/10 10:49 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.9	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	2.4	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Fluoride	0.64	mg/kg		0.10		E300.0	01/20/10 17:13 / hm
Sulfate, sat. paste	6.7	meq/L		0.021		E300.0	01/20/10 17:13 / hm
Chloride, sat. paste	3.7	meq/L		0.028		E300.0	01/20/10 17:13 / hm
<b>METALS, DTPA EXTRACTABLE</b>							
Zinc	1.55	mg/kg		0.02		SW6010B	01/21/10 14:47 / sld
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	01/12/10 13:08 / rrr

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



### LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-001  
**Client Sample ID:** T2/BHA-10-(0-6") [0-6]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

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Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, CACL2 EXTRACTABLE</b>							
Barium	2.0	mg/kg		0.2		SW6010B	01/21/10 15:06 / sld
Boron	0.9	mg/kg		0.1		SW6010B	01/19/10 14:04 / sld

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**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-002  
**Client Sample ID:** T2/BHA-10-(6-12") [6-12]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.4	s.u.		0.1		ASAM10-3.2	01/06/10 08:10 / wj
Conductivity, sat. paste	0.79	mmhos/cm		0.01		ASA10-3	01/07/10 09:42 / rrr
Saturation	58.3	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	3.64	meq/l		0.05		SW6010B	01/07/10 14:27 / sld
Magnesium, sat. paste	1.59	meq/l		0.08		SW6010B	01/07/10 14:27 / sld
Sodium, sat. paste	3.67	meq/l		0.04		SW6010B	01/07/10 14:27 / sld
Sodium Adsorption Ratio (SAR)	2.3	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	4.87	meq/L		0.02		ASA10-3	01/11/10 19:45 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	2	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	48	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	50	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	36.9	meq/100g		0.09		SW6010B	01/14/10 21:09 / sld
Lime as CaCO3	3.1	%		0.1		USDA23c	12/28/09 00:00 / rrr
Nitrate as N, KCL Extract	7.6	mg/kg		1.0		ASA38-3	02/01/10 15:49 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.83	meq/100g		0.0044		SW6010B	01/12/10 22:14 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.6	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	1.7	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	3.4	meq/L		0.021		E300.0	01/20/10 17:29 / hm
Chloride, sat. paste	0.48	meq/L		0.028		E300.0	01/20/10 17:29 / hm

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-003  
**Client Sample ID:** T2/BHA-10-(12-24") [12-24]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.6	s.u.		0.1		ASAM10-3.2	01/06/10 08:10 / wj
Conductivity, sat. paste	0.89	mmhos/cm		0.01		ASA10-3	01/07/10 09:43 / rrr
Saturation	61.4	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	3.43	meq/l		0.05		SW6010B	01/07/10 14:29 / sld
Magnesium, sat. paste	1.85	meq/l		0.08		SW6010B	01/07/10 14:29 / sld
Sodium, sat. paste	3.83	meq/l		0.04		SW6010B	01/07/10 14:29 / sld
Sodium Adsorption Ratio (SAR)	2.4	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	2.97	meq/L		0.02		ASA10-3	01/11/10 19:51 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	2	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	44	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	54	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	29.4	meq/100g		0.09		SW6010B	01/14/10 21:12 / sld
Lime as CaCO3	5.0	%		0.1		USDA23c	12/28/09 00:00 / rrr
Nitrate as N, KCL Extract	4.7	mg/kg		1.0		ASA38-3	02/01/10 15:51 / stp
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.0	meq/100g		0.0044		SW6010B	01/12/10 22:17 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.8	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	2.6	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Sulfate, sat. paste	6.3	meq/L		0.021		E300.0	01/20/10 17:46 / hm
Chloride, sat. paste	0.22	meq/L		0.028		E300.0	01/20/10 17:46 / hm

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

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 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-004  
**Client Sample ID:** T2/BHA-10-(24-36") [24-36]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.4	s.u.		0.1		ASAM10-3.2	01/06/10 08:11 / wj
Conductivity, sat. paste	3.27	mmhos/cm		0.01		ASA10-3	01/07/10 09:43 / rrr
Saturation	51.9	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	27.8	meq/l		0.05		SW6010B	01/07/10 14:32 / sld
Magnesium, sat. paste	13.2	meq/l		0.08		SW6010B	01/07/10 14:32 / sld
Sodium, sat. paste	8.40	meq/l		0.04		SW6010B	01/07/10 14:32 / sld
Sodium Adsorption Ratio (SAR)	1.8	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	1.93	meq/L		0.02		ASA10-3	01/11/10 19:57 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	10	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	50	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	40	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	24.9	meq/100g		0.09		SW6010B	01/14/10 21:21 / sld
Lime as CaCO3	4.6	%		0.1		USDA23c	12/28/09 00:00 / rrr
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	0.96	meq/100g		0.0044		SW6010B	01/12/10 22:25 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.5	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	2.1	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.23	meq/L		0.028		E300.0	01/20/10 18:02 / hm

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-005  
**Client Sample ID:** T2/BHA-10-(36-60") [36-60]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.4	s.u.		0.1		ASAM10-3.2	01/06/10 08:12 / wj
Conductivity, sat. paste	3.38	mmhos/cm		0.01		ASA10-3	01/07/10 09:43 / rrr
Saturation	51.2	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	26.9	meq/l		0.05		SW6010B	01/07/10 14:34 / sld
Magnesium, sat. paste	10.4	meq/l		0.08		SW6010B	01/07/10 14:34 / sld
Sodium, sat. paste	8.16	meq/l		0.04		SW6010B	01/07/10 14:34 / sld
Sodium Adsorption Ratio (SAR)	1.9	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	1.84	meq/L		0.02		ASA10-3	01/11/10 20:04 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	8	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	50	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	42	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	24.0	meq/100g		0.09		SW6010B	01/14/10 21:29 / sld
Lime as CaCO3	3.8	%		0.1		USDA23c	12/28/09 00:00 / rrr
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.0	meq/100g		0.0044		SW6010B	01/12/10 22:27 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.6	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	2.5	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Fluoride	0.87	mg/kg		0.10		E300.0	01/20/10 18:35 / hm
Sulfate, sat. paste	46	meq/L		0.021		E300.0	01/20/10 18:35 / hm
Chloride, sat. paste	0.46	meq/L		0.028		E300.0	01/20/10 18:35 / hm
<b>METALS, WATER SOLUBLE</b>							
Selenium	ND	mg/kg		0.04		E270.3	01/12/10 13:13 / rrr
<b>METALS, CaCl2 EXTRACTABLE</b>							
Barium	ND	mg/kg		0.2		SW6010B	01/21/10 15:15 / sld
Boron	1.0	mg/kg		0.1		SW6010B	01/19/10 14:07 / sld

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MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-006  
**Client Sample ID:** T2/BHA-10-(60-96") [60-96]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.4	s.u.		0.1		ASAM10-3.2	01/06/10 08:13 / wj
Conductivity, sat. paste	3.94	mmhos/cm		0.01		ASA10-3	01/07/10 09:44 / rrr
Saturation	51.2	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	31.9	meq/l		0.05		SW6010B	01/07/10 14:37 / sld
Magnesium, sat. paste	17.4	meq/l		0.08		SW6010B	01/07/10 14:37 / sld
Sodium, sat. paste	10.6	meq/l		0.04		SW6010B	01/07/10 14:37 / sld
Sodium Adsorption Ratio (SAR)	2.1	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	1.95	meq/L		0.02		ASA10-3	01/11/10 20:11 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	18	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	38	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	44	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	C	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	28.0	meq/100g		0.09		SW6010B	01/14/10 21:31 / sld
Lime as CaCO3	4.8	%		0.1		USDA23c	12/28/09 00:00 / rrr
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.0	meq/100g		0.0044		SW6010B	01/12/10 22:35 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	0.5	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	1.8	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	0.44	meq/L		0.028		E300.0	01/20/10 18:51 / hm

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

**Client:** HydroSolutions Inc  
**Project:** TRIP - Tier II (formerly referred to as AMPP)  
**Lab ID:** H09110360-007  
**Client Sample ID:** T2/BHA-10-(0-2") [0-2]

**Report Date:** 02/08/10  
**Collection Date:** 11/19/09 17:00  
**Date Received:** 11/30/09  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>SATURATED PASTE</b>							
pH, sat. paste	7.4	s.u.		0.1		ASAM10-3.2	01/06/10 08:13 / wj
Conductivity, sat. paste	1.92	mmhos/cm		0.01		ASA10-3	01/07/10 09:45 / rrr
Saturation	59.4	%		0.1		USDA27a	01/06/10 07:43 / wj
Calcium, sat. paste	7.49	meq/l		0.05		SW6010B	01/07/10 14:40 / sld
Magnesium, sat. paste	3.32	meq/l		0.08		SW6010B	01/07/10 14:40 / sld
Sodium, sat. paste	10.2	meq/l		0.04		SW6010B	01/07/10 14:40 / sld
Sodium Adsorption Ratio (SAR)	4.4	unitless		0.01		Calculation	01/12/10 12:30 / wj
Bicarbonate, sat. paste	10.9	meq/L		0.02		ASA10-3	01/11/10 20:18 / wj
<b>PHYSICAL CHARACTERISTICS</b>							
Sand	6	%		1		ASA15-5	12/31/09 12:05 / sah
Silt	44	%		1		ASA15-5	12/31/09 12:05 / sah
Clay	50	%		1		ASA15-5	12/31/09 12:05 / sah
Texture	SiC	unitless				ASA15-5	12/31/09 12:05 / sah
<b>CHEMICAL CHARACTERISTICS</b>							
Cation Exchange Capacity	36.5	meq/100g		0.09		SW6010B	01/14/10 21:34 / sld
Lime as CaCO3	2.7	%		0.1		USDA23c	12/28/09 00:00 / rrr
<b>METALS, AMMONIUM ACETATE EXTRACTABLE</b>							
Sodium, Extractable	1.6	meq/100g		0.0044		SW6010B	01/12/10 22:38 / sld
<b>EXCHANGEABLES</b>							
Exchangeable Sodium	1.0	meq/100g		0.1		Calculation	01/12/10 12:30 / wj
Exchangeable Sodium Percentage	2.8	%		0.1		USDA20a	01/12/10 12:30 / wj
<b>INORGANICS</b>							
Chloride, sat. paste	6.6	meq/L		0.028		E300.0	01/20/10 19:08 / hm

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.