



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-018
Client Sample ID: T2/DA-10-(0-6")

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.6	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	5.49	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	42.4	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	21.9	meq/l		0.1		SW6010B	10/30/03 01:36 / rp
Magnesium, Saturated Paste	13.0	meq/l		0.1		SW6010B	10/30/03 01:36 / rp
Sodium, Saturated Paste	30.2	meq/l		0.1		SW6010B	10/30/03 01:36 / rp
Sodium Adsorption Ratio (SAR)	7.2	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	5.4	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	0.2	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	63.1	meq/L		0.2		ASA10-3	10/31/03 07:49 / rp
PHYSICAL CHARACTERISTICS							
Sand	49	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	36	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	15	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Fluoride	ND	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
Potassium, NH4OAc Extractable	221	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
Organic Matter	2.20	wt%		0.02		ASA29-3	12/01/03 11:37 / jdh
Cation Exchange Capacity	15.3	meq/100g		0.1		SW6010B	11/11/03 06:01 / jdh
Exchangeable Sodium Percentage	9.1	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	7.5	wt%		0.1		USDA23c	10/31/03 00:00 / jms
Phosphorus	4.5	mg/kg		0.1		ASA24-5	11/18/03 08:30 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	2.7	meq/100g		0.1		SW6010B	11/17/03 02:19 / jdh
METALS, HOT WATER EXTRACTABLE							
Barium	ND	mg/kg		5		SW6010B	11/24/03 16:56 / rh
Boron	ND	mg/kg		1		SW6010B	11/24/03 16:56 / rh
Selenium	ND	mg/kg		0.05		SW6020	11/20/03 12:12 / car
METALS, DTPA EXTRACTABLE							
Zinc	0.57	mg/kg		0.02		SW6010B	11/14/03 05:54 / jdh

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

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



LABORATORY ANALYTICAL REPORT

Client: AMPP
 Project: Tongue River Monitoring
 Lab ID: H03100082-019
 Client Sample ID: T2/DA-10-(6-12")

Report Date: 02/03/04
 Collection Date: 10/11/03 17:00
 Date Received: 10/14/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.8	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	7.80	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	41.9	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	20.9	meq/l		0.1		SW6010B	10/30/03 01:39 / rp
Magnesium, Saturated Paste	18.7	meq/l		0.1		SW6010B	10/30/03 01:39 / rp
Sodium, Saturated Paste	48.5	meq/l		0.1		SW6010B	10/30/03 01:39 / rp
Sodium Adsorption Ratio (SAR)	11	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	4.8	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	0.4	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	86.1	meq/L		0.2		ASA10-3	10/31/03 07:51 / rp
PHYSICAL CHARACTERISTICS							
Sand	45	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	40	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	15	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	16.5	meq/100g		0.1		SW6010B	11/11/03 06:04 / jdh
Exchangeable Sodium Percentage	6.3	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	7.9	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	3.1	meq/100g		0.1		SW6010B	11/17/03 02:21 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-020
Client Sample ID: T2/DA-10-(12-24")

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	8.1	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	9.16	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	36.5	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	19.3	meq/l		0.1		SW6010B	10/30/03 01:47 / rp
Magnesium, Saturated Paste	24.8	meq/l		0.1		SW6010B	10/30/03 01:47 / rp
Sodium, Saturated Paste	79.5	meq/l		0.1		SW6010B	10/30/03 01:47 / rp
Sodium Adsorption Ratio (SAR)	17	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	3.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	0.5	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	126	meq/L		0.2		ASA10-3	10/31/03 08:00 / rp
PHYSICAL CHARACTERISTICS							
Sand	45	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	39	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	16	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	14.6	meq/100g		0.1		SW6010B	11/11/03 06:06 / jdh
Exchangeable Sodium Percentage	11	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	7.9	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	4.6	meq/100g		0.1		SW6010B	11/17/03 02:24 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-021
Client Sample ID: T2/DA-10-(24-36)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	8.3	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	6.86	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	35.6	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	7.8	meq/l		0.1		SW6010B	10/30/03 01:52 / rp
Magnesium, Saturated Paste	12.8	meq/l		0.1		SW6010B	10/30/03 01:52 / rp
Sodium, Saturated Paste	53.9	meq/l		0.1		SW6010B	10/30/03 01:52 / rp
Sodium Adsorption Ratio (SAR)	17	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	2.8	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	60	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	31	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	9.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	SL	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	10.4	meq/100g		0.1		SW6010B	11/11/03 06:12 / jdh
Exchangeable Sodium Percentage	13	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	8.2	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	3.3	meq/100g		0.1		SW6010B	11/17/03 02:29 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-022
Client Sample ID: T2/DA-10-(36-60)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	8.1	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	6.09	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	35.1	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	7.7	meq/l		0.1		SW6010B	10/30/03 01:55 / rp
Magnesium, Saturated Paste	11.9	meq/l		0.1		SW6010B	10/30/03 01:55 / rp
Sodium, Saturated Paste	51.1	meq/l		0.1		SW6010B	10/30/03 01:55 / rp
Sodium Adsorption Ratio (SAR)	16	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	2.8	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	69	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	21	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	10	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	SL	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Fluoride	ND	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
Cation Exchange Capacity	13.2	meq/100g		0.1		SW6010B	11/11/03 06:14 / jdh
Exchangeable Sodium Percentage	10	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	6.9	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	3.2	meq/100g		0.1		SW6010B	11/17/03 02:32 / jdh
METALS, HOT WATER EXTRACTABLE							
Barium	ND	mg/kg		5		SW6010B	11/24/03 17:00 / rth
Boron	ND	mg/kg		1		SW6010B	11/24/03 17:00 / rth
Selenium	ND	mg/kg		0.05		SW6020	11/20/03 12:17 / car

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

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



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-023
Client Sample ID: T2/DA-10-(60-96)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	8.0	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	3.54	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	25.6	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	5.2	meq/l		0.1		SW6010B	10/30/03 01:58 / rp
Magnesium, Saturated Paste	5.7	meq/l		0.1		SW6010B	10/30/03 01:58 / rp
Sodium, Saturated Paste	27.3	meq/l		0.1		SW6010B	10/30/03 01:58 / rp
Sodium Adsorption Ratio (SAR)	12	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	3.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	82	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	14	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	4.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	LS	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	8.8	meq/100g		0.1		SW6010B	11/11/03 06:17 / jdh
Exchangeable Sodium Percentage	20	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	6.3	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	2.4	meq/100g		0.1		SW6010B	11/24/03 12:31 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-024
Client Sample ID: T2/DA-10-(0-2")

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.4	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	1.33	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	39.6	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	6.1	meq/l		0.1		SW6010B	10/30/03 02:00 / rp
Magnesium, Saturated Paste	3.5	meq/l		0.1		SW6010B	10/30/03 02:00 / rp
Sodium, Saturated Paste	3.8	meq/l		0.1		SW6010B	10/30/03 02:00 / rp
Sodium Adsorption Ratio (SAR)	1.8	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	9.4	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	50	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	38	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	12	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	14.9	meq/100g		0.1		SW6010B	11/11/03 06:25 / jdh
Exchangeable Sodium Percentage	5.1	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	7.5	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	0.9	meq/100g		0.1		SW6010B	11/24/03 12:34 / jdh

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

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



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-026
Client Sample ID: T2/DA-1-(0-8")

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.7	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	0.69	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	34.7	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	3.4	meq/l		0.1		SW6010B	10/30/03 02:05 / rp
Magnesium, Saturated Paste	2.0	meq/l		0.1		SW6010B	10/30/03 02:05 / rp
Sodium, Saturated Paste	1.6	meq/l		0.1		SW6010B	10/30/03 02:05 / rp
Sodium Adsorption Ratio (SAR)	1.0	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	4.6	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	0.3	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	2.7	meq/L		0.1		ASA10-3	10/31/03 08:20 / rp
PHYSICAL CHARACTERISTICS							
Sand	51	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	39	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	10	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Potassium, NH4OAc Extractable	136	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
Organic Matter	1.40	wt%		0.02		ASA29-3	12/01/03 11:37 / jdh
Cation Exchange Capacity	13.6	meq/100g		0.1		SW6010B	11/11/03 06:30 / jdh
Exchangeable Sodium Percentage	4.8	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	7.7	wt%		0.1		USDA23c	10/31/03 00:00 / jms
Phosphorus	2.2	mg/kg		0.1		ASA24-5	11/18/03 08:33 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	0.7	meq/100g		0.1		SW6010B	11/24/03 12:39 / jdh
METALS, DTPA EXTRACTABLE							
Zinc	0.32	mg/kg		0.02		SW6010B	11/14/03 05:57 / jdh
CLAY MINEROLOGY							
Smectite	36	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	27	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	33	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	4	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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

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



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-027
Client Sample ID: T2/DA-1-(8-21)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	8.3	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	8.90	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	37.4	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	13.6	meq/l		0.1		SW6010B	10/30/03 02:08 / rp
Magnesium, Saturated Paste	24.0	meq/l		0.1		SW6010B	10/30/03 02:08 / rp
Sodium, Saturated Paste	82.5	meq/l		0.1		SW6010B	10/30/03 02:08 / rp
Sodium Adsorption Ratio (SAR)	19	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	2.6	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	1.3	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	124	meq/L		0.2		ASA10-3	10/31/03 08:23 / rp
PHYSICAL CHARACTERISTICS							
Sand	46	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	45	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	9.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	L	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	13.4	meq/100g		0.1		SW6010B	11/11/03 06:33 / jdh
Exchangeable Sodium Percentage	9.9	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	8.5	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	4.4	meq/100g		0.1		SW6010B	11/24/03 12:41 / jdh

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: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-028
Client Sample ID: T2/DA-1-(21-37)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH, Saturated Paste	7.9	s.u.		0.1		ASAM10-3.2	12/01/03 11:37 / jdh
Conductivity, Paste Extract	1.26	mmhos/cm		0.01		ASAM10-3	12/01/03 11:37 / jdh
Saturation	29.5	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	3.7	meq/l		0.1		SW6010B	10/30/03 02:11 / rp
Magnesium, Saturated Paste	3.2	meq/l		0.1		SW6010B	10/30/03 02:11 / rp
Sodium, Saturated Paste	5.4	meq/l		0.1		SW6010B	10/30/03 02:11 / rp
Sodium Adsorption Ratio (SAR)	2.9	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	2.4	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	1.3	mg/L		0.1		ASA10-3	10/30/03 08:00 / cwh
Sulfate, Saturated Paste	11.5	meq/L		0.1		ASA10-3	10/31/03 08:26 / rp
PHYSICAL CHARACTERISTICS							
Sand	95	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	4.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	1.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	S	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	6.6	meq/100g		0.1		SW6010B	11/11/03 06:35 / jdh
Exchangeable Sodium Percentage	10	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	3.5	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	0.8	meq/100g		0.1		SW6010B	11/24/03 12:44 / jdh
CLAY MINEROLOGY							
Smectite	30	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	20	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	39	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	11	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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

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



LABORATORY ANALYTICAL REPORT

Client: AMPP
Project: Tongue River Monitoring
Lab ID: H03100082-029
Client Sample ID: T2/DA-1-(37-60)

Report Date: 02/03/04
Collection Date: 10/11/03 17:00
Date Received: 10/14/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
Saturation	29.6	wt%		0.1		USDA27a	12/01/03 11:37 / jdh
Calcium, Saturated Paste	0.9	meq/l		0.1		SW6010B	10/30/03 02:13 / rp
Magnesium, Saturated Paste	1.1	meq/l		0.1		SW6010B	10/30/03 02:13 / rp
Sodium, Saturated Paste	9.4	meq/l		0.1		SW6010B	10/30/03 02:13 / rp
Sodium Adsorption Ratio (SAR)	9.3	unitless		0.1		Calculation	12/01/03 11:37 / jdh
Alkalinity, Saturated Paste	2.8	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	92	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Silt	8.0	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Clay	ND	wt%		1.0		ASA15-5	12/01/03 11:37 / jdh
Texture	S	unitless				ASA15-5	12/01/03 11:37 / jdh
CHEMICAL CHARACTERISTICS							
Cation Exchange Capacity	4.0	meq/100g		0.1		SW6010B	11/11/03 06:38 / jdh
Exchangeable Sodium Percentage	24	%		0.1		USDA20b	12/01/03 11:37 / jdh
Lime as CaCO3	4.3	wt%		0.1		USDA23c	10/31/03 00:00 / jms
METALS, AMMONIUM ACETATE EXTRACTABLE							
Sodium, Extractable	1.2	meq/100g				SW6010B	11/17/03 01:02 / jdh

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

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