



LABORATORY ANALYTICAL REPORT

Client: AMPP
 Project: Tongue River Monitoring
 Lab ID: H03100135-017
 Client Sample ID: T2/BD-10-(0-2)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.1	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.88	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	77.2	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	3.8	meq/l		0.1		SW6010B	11/17/03 12:17 / jdh
Mg-SatPst	1.8	meq/l		0.1		SW6010B	11/17/03 12:17 / jdh
Na-SatPst	0.8	meq/l		0.1		SW6010B	11/17/03 12:17 / jdh
SAR	0.5	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	7.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	18	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	52	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	30	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	54.5	meq/100g		0.1		SW6010B	11/17/03 01:54 / jdh
ESP	1.1	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	4.4	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.7	meq/100g		0.1		SW6010B	11/24/03 04:24 / 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: H03100135-018
 Client Sample ID: T2/BD-10-(0-6)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.2	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.83	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	67.3	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	4.1	meq/l		0.1		SW6010B	11/17/03 12:22 / jdh
Mg-SatPst	2.1	meq/l		0.1		SW6010B	11/17/03 12:22 / jdh
Na-SatPst	1.1	meq/l		0.1		SW6010B	11/17/03 12:22 / jdh
SAR	0.6	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	7.0	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	< 0.1	mg/L		0.1		ASA10-3	12/08/03 16:18 / cwh
SO4-SatPst	0.6	meq/L		0.2		ASA10-3	11/18/03 01:24 / jdh
PHYSICAL CHARACTERISTICS							
Sand	17	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	54	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	29	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
F	< 1.0	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
K-EXT	427	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
OM-WB	4.40	wt%		0.02		ASA29-3	12/09/03 08:48 / jdh
CEC	40.7	meq/100g		0.1		SW6010B	11/17/03 01:56 / jdh
ESP	1.2	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	5.3	wt%		0.1		USDA23c	11/13/03 00:00 / nh
P-Olsen	80	mg/kg		0.1		ASA24-5	11/18/03 09:21 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.6	meq/100g		0.1		SW6010B	11/24/03 04:27 / jdh
METALS, HOT WATER EXTRACTABLE							
Ba-H2O	9	mg/kg		5		SW6010B	11/24/03 16:15 / rjh
B-H2O	< 1	mg/kg		1		SW6010B	11/24/03 16:15 / rjh
Se-H2O	< 0.05	mg/kg		0.05		SW6020	11/25/03 11:30 / car
METALS, DTPA EXTRACTABLE							
Zn-DTPA	1.17	mg/kg		0.02		SW6010B	11/25/03 12:40 / 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: H03100135-019
 Client Sample ID: T2/BD-10-(6-12)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.6	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.73	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	60.7	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	2.8	meq/l		0.1		SW6010B	11/17/03 12:25 / jdh
Mg-SatPst	1.6	meq/l		0.1		SW6010B	11/17/03 12:25 / jdh
Na-SatPst	1.3	meq/l		0.1		SW6010B	11/17/03 12:25 / jdh
SAR	0.8	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	5.5	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	0.1	mg/L		0.1		ASA10-3	12/08/03 16:20 / cwh
SO4-SatPst	0.7	meq/L		0.2		ASA10-3	11/18/03 01:27 / jdh
PHYSICAL CHARACTERISTICS							
Sand	5.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	62	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	33	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	35.9	meq/100g		0.1		SW6010B	11/17/03 01:59 / jdh
ESP	1.5	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	7.3	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.6	meq/100g		0.1		SW6010B	11/24/03 04:30 / 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: H03100135-020
 Client Sample ID: T2/BD-10-(12-24)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.7	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	2.86	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	60.4	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	7.5	meq/l		0.1		SW6010B	11/17/03 12:28 / jdh
Mg-SatPst	6.8	meq/l		0.1		SW6010B	11/17/03 12:28 / jdh
Na-SatPst	7.0	meq/l		0.1		SW6010B	11/17/03 12:28 / jdh
SAR	2.6	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	4.4	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	12/08/03 16:26 / cwh
SO4-SatPst	20.1	meq/L		0.2		ASA10-3	11/18/03 01:30 / jdh
PHYSICAL CHARACTERISTICS							
Sand	7.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	64	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	29	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	34.6	meq/100g		0.1		SW6010B	11/17/03 02:07 / jdh
ESP	2.9	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	8.0	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	1.4	meq/100g		0.1		SW6010B	11/24/03 04:38 / 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: H03100135-021
 Client Sample ID: T2/BD-10-(24-36)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.8	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	3.65	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	60.3	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	11.1	meq/l		0.1		SW6010B	11/17/03 12:33 / jdh
Mg-SatPst	11.5	meq/l		0.1		SW6010B	11/17/03 12:33 / jdh
Na-SatPst	14.3	meq/l		0.1		SW6010B	11/17/03 12:33 / jdh
SAR	4.3	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	3.6	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	12	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	63	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	25	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	31.9	meq/100g		0.1		SW6010B	11/17/03 02:12 / jdh
ESP	4.0	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	8.4	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.1	meq/100g		0.1		SW6010B	11/24/03 04:43 / 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: H03100135-022
Client Sample ID: T2/BD-10-(36-60)

Report Date: 01/20/04
Collection Date: 10/21/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	8.0	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	3.24	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	47.0	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	10	meq/l		0.1		SW6010B	11/17/03 12:35 / jdh
Mg-SatPst	10.6	meq/l		0.1		SW6010B	11/17/03 12:35 / jdh
Na-SatPst	16.0	meq/l		0.1		SW6010B	11/17/03 12:35 / jdh
SAR	5.0	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	2.9	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	20	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	58	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	22	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
F	< 1.0	mg/kg		1.0		A4500-F C	11/19/03 14:45 / ddb
CEC	27.2	meq/100g		0.1		SW6010B	11/17/03 02:15 / jdh
ESP	4.6	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	8.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	2.2	meq/100g		0.1		SW6010B	11/24/03 04:46 / jdh
METALS, HOT WATER EXTRACTABLE							
Ba-H2O	< 5	mg/kg		5		SW6010B	11/24/03 16:19 / rjh
B-H2O	< 1	mg/kg		1		SW6010B	11/24/03 16:19 / rjh
Se-H2O	< 0.05	mg/kg		0.05		SW6020	11/20/03 11:18 / car
METALS, DTPA EXTRACTABLE							
Zn-DTPA	0.50	mg/kg		0.02		SW6010B	11/25/03 12:43 / 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: H03100135-023
 Client Sample ID: T2/BD-10-(60-96)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	8.1	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	2.68	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	41.2	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	3.1	meq/l		0.1		SW6010B	11/17/03 12:38 / jdh
Mg-SatPst	5.7	meq/l		0.1		SW6010B	11/17/03 12:38 / jdh
Na-SatPst	14.4	meq/l		0.1		SW6010B	11/17/03 12:38 / jdh
SAR	6.9	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	3.2	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	51	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	36	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	13	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	L	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	18.7	meq/100g		0.1		SW6010B	11/17/03 02:17 / jdh
ESP	6.3	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	6.9	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	1.8	meq/100g		0.1		SW6010B	11/24/03 04:48 / 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: H03100135-025
 Client Sample ID: T2/BD-1-(0-8)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.3	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.88	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	75.1	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	4.2	meq/l		0.1		SW6010B	11/17/03 12:43 / jdh
Mg-SatPst	2.0	meq/l		0.1		SW6010B	11/17/03 12:43 / jdh
Na-SatPst	0.9	meq/l		0.1		SW6010B	11/17/03 12:43 / jdh
SAR	0.5	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	7.1	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	< 0.1	mg/L		0.1		ASA10-3	12/08/03 16:30 / cwh
SO4-SatPst	1.6	meq/L		0.2		ASA10-3	11/18/03 01:42 / jdh
PHYSICAL CHARACTERISTICS							
Sand	5.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	59	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	36	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
K-EXT	520	mg/kg		1		AAA13-3	01/15/04 00:00 / jdh
OM-WB	5.00	wt%		0.02		ASA29-3	12/09/03 08:48 / jdh
CEC	42.1	meq/100g		0.1		SW6010B	11/17/03 02:23 / jdh
ESP	1.0	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	4.4	wt%		0.1		USDA23c	11/13/03 00:00 / nh
P-Olsen	79	mg/kg		0.1		ASA24-5	11/18/03 09:24 / jdh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.5	meq/100g		0.1		SW6010B	11/24/03 04:53 / jdh
METALS, DTPA EXTRACTABLE							
Zn-DTPA	1.13	mg/kg		0.02		SW6010B	11/25/03 12:46 / jdh
CLAY MINEROLOGY							
Smectite	36	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	32	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Kaolinite	32	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Chlorite	<2	%		1		XrayDiffraction	11/07/03 00:00 / wjj

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: H03100135-026
Client Sample ID: T2/BD-1-(8-17)

Report Date: 01/20/04
Collection Date: 10/21/03 17:00
Date Received: 10/27/03
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.3	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	2.90	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	35.5	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	21.2	meq/l		0.1		SW6010B	11/17/03 12:46 / jdh
Mg-SatPst	9.4	meq/l		0.1		SW6010B	11/17/03 12:46 / jdh
Na-SatPst	3.2	meq/l		0.1		SW6010B	11/17/03 12:46 / jdh
SAR	0.8	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	3.7	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	12/08/03 16:32 / cwh
SO4-SatPst	32.2	meq/L		0.2		ASA10-3	11/18/03 01:45 / jdh
PHYSICAL CHARACTERISTICS							
Sand	12	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	65	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	23	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	31.9	meq/100g		0.1		SW6010B	11/17/03 02:30 / jdh
ESP	2.0	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	7.5	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.7	meq/100g		0.1		SW6010B	11/24/03 04:56 / 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: H03100135-027
 Client Sample ID: T2/BD-1-(17-24)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.7	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.70	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	40.1	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	2.1	meq/l		0.1		SW6010B	11/17/03 12:49 / jdh
Mg-SatPst	1.6	meq/l		0.1		SW6010B	11/17/03 12:49 / jdh
Na-SatPst	2.0	meq/l		0.1		SW6010B	11/17/03 12:49 / jdh
SAR	1.4	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	4.3	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
Nitrate as N, Saturated Paste	< 0.1	mg/L		0.1		ASA10-3	12/08/03 16:36 / cwh
SO4-SatPst	1.7	meq/L		0.2		ASA10-3	11/18/03 01:47 / jdh
PHYSICAL CHARACTERISTICS							
Sand	1.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	70	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	29	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiCL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	36.2	meq/100g		0.1		SW6010B	11/17/03 02:33 / jdh
ESP	1.9	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	8.1	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.8	meq/100g		0.1		SW6010B	11/24/03 04:59 / jdh
CLAY MINEROLOGY							
Smectite	43	%		1		XrayDiffraction	11/07/03 00:00 / wjj
Illite	19	%		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 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: H03100135-028
 Client Sample ID: T2/BD-1-(24-60)

Report Date: 01/20/04
 Collection Date: 10/21/03 17:00
 Date Received: 10/27/03
 Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SATURATED PASTE							
pH-SatPst	7.8	s.u.		0.1		ASAM10-3.2	12/09/03 08:48 / jdh
COND	0.64	mmhos/cm		0.01		ASAM10-3	12/09/03 08:48 / jdh
Percent Sat	36.4	wt%		0.1		USDA27a	12/09/03 08:48 / jdh
Ca-SatPst	1.3	meq/l		0.1		SW6010B	11/17/03 12:51 / jdh
Mg-SatPst	1.3	meq/l		0.1		SW6010B	11/17/03 12:51 / jdh
Na-SatPst	2.3	meq/l		0.1		SW6010B	11/17/03 12:51 / jdh
SAR	2.0	unitless		0.1		Calculation	12/09/03 08:48 / jdh
Alk-SatPst	4.3	meq/L		1.0		ASA10-3	11/25/03 00:00 / jdh
PHYSICAL CHARACTERISTICS							
Sand	7.0	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Silt	71	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Clay	22	wt%		1.0		ASA15-5	12/09/03 08:48 / jdh
Texture	SiL	unitless				ASA15-5	12/09/03 08:48 / jdh
CHEMICAL CHARACTERISTICS							
CEC	27.0	meq/100g		0.1		SW6010B	11/17/03 02:36 / jdh
ESP	2.9	%		0.1		USDA20b	12/09/03 08:48 / jdh
Lime as CaCO3	8.3	wt%		0.1		USDA23c	11/13/03 00:00 / nh
METALS, AMMONIUM ACETATE EXTRACTABLE							
Na-Av	0.9	meq/100g		0.1		SW6010B	11/24/03 05:04 / jdh

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

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