00415

GROUNDWATER MONITORING
VALIDATED ANALYTICAL RESULTS FOR THE FOURTH QUARTER 1995
OB/OD GROUND, SENECA ARMY DEPOT

PREPARED FOR:
U.S. Army Corps of Engineers
Hunstville, Alabama

PREPARED BY:

Parsons Engineering Science, Inc.
Boston, Massachusetts

March 1996
D#14

TABLES

TABLE 1

SENECA ARMY DEPOT ACTIVITY
1995 GROUNDWATER MONITORING PROGRAM
GROUNDWATER ELEVATION DATA

Monitoring Well	Elevation at Top of Riser (MSL)	First Quarter 1995			Second Quarter 1995			Third Quarter 1995			Fourth Quarter 1995		
		Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation o Water Level
Grounds													
V-12	624.5	03/15/95	Not Measured		06/08/95	4.36	620.14	09/13/95	5.65	618.85	1/15/96	ice	NA
V-13	627.09	03/15/95	2.3	624.79	06/08/95	4.95	622.14	09/13/95	6.47	620.62	1/16/96	2.38	624.71
V-14	624.51	03/15/95	Not Measured		06/08/95	6.4	618.11	09/13/95	7.69	616.82	1/15/96	ice	NA
V-27	625.94	03/15/95	Not Measured		06/08/95	6.7	619.24	09/13/95	7.15	618.79	1/15/96	3.68	622.26
Grounds													
V45-1	625.08	03/15/95	Not Measured		06/08/95	Dry	NA	09/13/95	Dry	NA	1/15/96	8.00	617.08
V45-2	626.76	03/15/95	Not Measured		06/08/95	Dry	NA	09/13/95	Dry	NA	1/15/96	11.98	614.78
V45-3	626.45	03/15/95	Not Measured		06/08/95	9.4	617.05	09/13/95	11.3	615.15	1/15/96	9.24	617.21
V45-4	633.04	03/15/95	Not Measured	633.04	06/08/95	8.36	624.68	09/13/95	Dry	NA	1/15/96	7.28	625.76

TABLE 2

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS FOURTH QUARTER 1995 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER
	SITE	OB		OB		OB		OB		OB		OB		OB		OB
	DATE SAMPLED	01/16/96		01/16/96		01/16/96		01/16/96		01/16/96		01/16/96		01/16/96		01/16/96
	ES ID	MW12A		MW12B		MW12C		MW12D		MW13A		MW13B		MW13C		MW13D
	LAB ID	286534		286535		286536		286537		286538		286539		286540		286541
RAMETER	**UNITS**															
	standard units	7.03		7.2		7.21		7.23		7.15		7.15		7.11		7.11
nductivity	umhos/cm	877		862		865		873		902		890		900		883
tal Organic Carbon	mg/L	1.0		1.2		0.98		1.13		1.3		1.3		1.3		0.9
tal Organic Halides	mg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02

TABLE 2

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS FOURTH QUARTER 1995 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		W
	SITE	OB		OB		OB		OB		OB		OB		OB		OB		
	DATE SAMPLED	01/15/96		01/15/96		01/15/96		01/15/96		01/15/96		01/15/96		01/15/96		01/15/96		01
	ES ID	MW14A		MW14B		MW14C		MW14D		MW14R		MW27A		MW27B		MW27C		M
	LAB ID	286220		286221		286222		286223		286224		286543		286544		286545		28
TER	**UNITS**									Rinsate								
	standard units	6.78		6.69		6.75		6.78		7.6		7.17		7.26		7.3		
ity	umhos/cm	1020		1040		1020		1020		4.5		945		952		938		
anic Carbon	mg/L	1.1		1.1		1		0.8		0.5U		0.8		0.83		0.73		
anic Halides	mg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	

TABLE 3

SENECA ARMY DEPOT ACTIVITY
OD GROUNDS FOURTH QUARTER 1995 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER		WATER		WATER		WATER		WATER		WATER		WATER		W
	SITE	OD		OD		OD		OD		OD		OD		OD		
	DATE SAMPLED	01/16/96		01/17/96		01/16/96		01/16/96		01/16/96		01/16/96		01/16/96		01/
	ES ID	MW45-3A		MW45-3B		MW45-3C		MW45-3D		MW45-4A		MW45-4B		MW45-4C		MW
	LAB ID	286548		286549		286550		286551		286553		286554		286555		28
TER	**UNITS**															
	standard units	7.23		7.24		7.25		7.25		7.27		7.25		7.22		7
vity	umhos/cm	1400		1340		1380		1290		NA		1000		978		9
anic Carbon	mg/L	0.7		0.6		0.6		0.6		0.6		0.7		1		
anic Halides	mg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0

Table 4

OB/OD 1995 Fourth Quarter Groundwater Monitoring
Validated TAL Metals Analytical Results

ES ID		MW12	MW13A	MW14	MW27	MW114	MW14R	MW45-3	MW4
SITE		OB	OB	OB	OB	OB	OB	OD	
MATRIX		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WAT
ATA SAMPLED		01/18/96	01/18/96	01/16/96	01/18/96	01/16/96	01/16/96	01/18/96	01/1
LAB ID		56277	56277	56202	56277	56202	56202	56277	56
POUND	UNITS								
inimum	ug/l	350	1210	56.5	11.3 U	138	11.3 U	26.4	
nony	ug/l	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
nic	ug/l	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	3.7	
m	ug/l	92.3	75.7	46.1	79.1	47.7	5.4 U	16.8	
lium	ug/l	0.27	0.36	0.17	0.29	0.23	0.16	0.34	
nium	ug/l	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
um	ug/l	82500	140000	159000	87600	160000	143 U	184000	156
mium	ug/l	0.64	1.9	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	
lt	ug/l	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
er	ug/l	1.7	3.8	1 U	1.2	1.6	1.4	1 U	
	ug/l	380	1850	92.4	18.8	206	10.6 U	69.2	
	ug/l	1.6 U	2.9	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	
nesium	ug/l	64300	27400	32800	65800	33100	137 U	69900	35
ganese	ug/l	5.4	49.3	1.2	32.4	5.1	0.5 U	31.7	
ury	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
el	ug/l	2.1	3	1.4 U	3.3	2.8	1.4 U	5	
ssium	ug/l	8650 U	2190	1430	9600	1470	136 U	8970	3
nium	ug/l	3.2	2.2 U	2.2 U	2.8	2.2 U	2.2 U	2.2 U	
r	ug/l	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	
um	ug/l	16200	26400	30200	19600	30300	187 U	16500	13
um	ug/l	7.5	3.7	2.3 U	2.3 U	6.3	2.3 U	2.3 U	
dium	ug/l	1.6 U	2	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	
	ug/l	17.6	50.1	3.8	2.7	4.3	0.99	6.1	
ide	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	

TABLE 5

SENECA ARMY DEPOT ACTIVITY
FOURTH QUARTER 1995 GROUNDWATER MONITORING PROGRAM
HISTORICAL SUMMARY OF OB GROUNDS INDICATOR PARAMETER DATA

Monitoring Well		June 1994	Dec 1994	June 1995	January 1996
pH					
Upgradient Well:	MW-13	6.97	7.04	7.14	7.13
Downgradient Wells:	MW-12	7.3	7.37	7.4	7.18
	MW-14	7.07	7.11	7.18	6.75
	MW-27	7.28	7.34	7.4	7.26
Conductivity					
Upgradient Well:	MW-13	936	886	838	894
Downgradient Wells:	MW-12	897	911	892	869
	MW-14	1100	1082	1090	1025
	MW-27	875	953	912	944
Total Organic Carbon					
Upgradient Well:	MW-13	1.2	1.2	1.2	1.2
Downgradient Wells:	MW-12	1.1	1.2	1.3	1.1
	MW-14	1	1	1.1	1.0
	MW-27	0.6	1	1.1	0.8
Total Organic Halides					
Upgradient Well:	MW-13	0.02U	0.03	0.02U	0.02U
Downgradient Wells:	MW-12	0.02U	0.04	0.02U	0.02U
	MW-14	0.02U	0.02U	0.02U	0.02U
	MW-27	0.02U	0.03	0.02U	0.02U

TABLE 6

SENECA ARMY DEPOT ACTIVITY
FOURTH QUARTER 1995 GROUNDWATER MONITORING PROGRAM
HISTORICAL SUMMARY OF OD GROUNDS INDICATOR PARAMETER DATA

Monitoring Well		June 1994	Dec 1994	June 1995	January 1996
pH					
Upgradient Well:	MW45-4	7.19	7.1	7.24	7.16
Downgradient Wells:	MW45-1	-	-	-	-
	MW45-2	7.05	-	-	-
	MW45-3	7.32	7.19	7.38	7.18
Conductivity					
Upgradient Well:	MW45-4	772	1030	829	891
Downgradient Wells:	MW45-1	-	-	-	-
	MW45-2	1488	-	-	-
	MW45-3	1788	1430	1335	1325
Total Organic Carbon					
Upgradient Well:	MW45-4	0.6	1	0.9	1.1
Downgradient Wells:	MW45-1	-	-	-	-
	MW45-2	0.9	-	-	-
	MW45-3	0.8	0.8	0.9	0.65
Total Organic Halides					
Upgradient Well:	MW45-4	0.02U	0.02U	0.02U	0.02U
Downgradient Wells:	MW45-1	-	-	-	-
	MW45-2	0.02U	-	-	-
	MW45-3	0.02	0.02U	0.02U	0.02U

Table 7

OB Grounds Fourth Quarter 1995 Monitoring Program
Students t-Test Statistical Analysis Results

ground Well MW-13				
	TOC	pH	Specific Cond.	TOX
Mean =	1.2	7.019375	909.5	0.0090625
Variance =	0.1	0.00425958	704.5	0.00026406
ple Size =	16	16	16	16

AL ORGANIC CARBON (TOC)

pliance Well MW -12		Background Well MW -13		Compliance Well MW -14		Compliance Well MW -
-1.03	t*=	0.09	t*=	-1.61	t*=	
3.08	tc=	3.65	tc=	3.32	tc=	
No Change		**No Change**		**No Change**		**No Char**

pliance Well MW -12		Background Well MW -13		Compliance Well MW -14		Compliance Well MW -
3.02	t*=	5.53	t*=	-10.07	t*=	
5.52	tc=	3.01	tc=	4.77	tc=	
No Change		**Increase**		**No Change**		**Increase**

CIFIC CONDUCTANCE

pliance Well MW -12		Background Well MW -13		Compliance Well MW -14		Compliance Well MW -
-5.37	t*=	-1.97	t*=	13.90	t*=	
3.02	tc=	3.20	tc=	3.30	tc=	
No Change		**No Change**		**Increase**		**Increase**

AL ORGANIC HALIDES (TOX)

pliance Well MW -12		Background Well MW -13		Compliance Well MW -14		Compliance Well MW -
-1.00	t*=	-1.00	t*=	-1.00	t*=	
2.60	tc=	2.60	tc=	2.60	tc=	
No Change		**No Change**		**No Change**		**No Char**

tc Indicates a statistically significant increase in the indicator parameter
Indicates no statistically significant change in the indicator parameter

\quartsmp\obod\4q95\STAT495.WK4

Table 7

OD Grounds Fourth Quarter 1995 Monitoring Program
Students t-Test Statistical Analysis Results

ground Well MW45-4

	TOC	pH	Spec Cond.	TOX
Mean =	0.85	7.17583333	875.1	0.005
Variance =	0.0	0.00462652	14375.9	1.957E-43
le Size =	12	12	12	12

L ORGANIC CARBON (TOC)

	liance Well MW 45-1		Compliance Well MW 45-2		Compliance Well MW 45-3		Background Well MW 4
t*=	0.00	t*=	0.00	t*=	-3.46	t*=	
tc=	0.00	tc=	0.00	tc=	3.17	tc=	
	Dry		Dry		No Change		No Char

	liance Well MW 45-1		Compliance Well MW 45-2		Compliance Well MW 45-3		Background Well MW 4
t*=	0.00	t*=	0.00	t*=	0.12	t*=	
tc=	0.00	tc=	0.00	tc=	5.50	tc=	
	Dry		Dry		No Change		No Char

CIFIC CONDUCTANCE

	liance Well MW 45-1		Compliance Well MW 45-2		Compliance Well MW 45-3		Background Well MW 4
t*=	0.00	t*=	0.00	t*=	11.29	t*=	
tc=	0.00	tc=	0.00	tc=	3.32	tc=	
	Dry		Dry		Increase		No Char

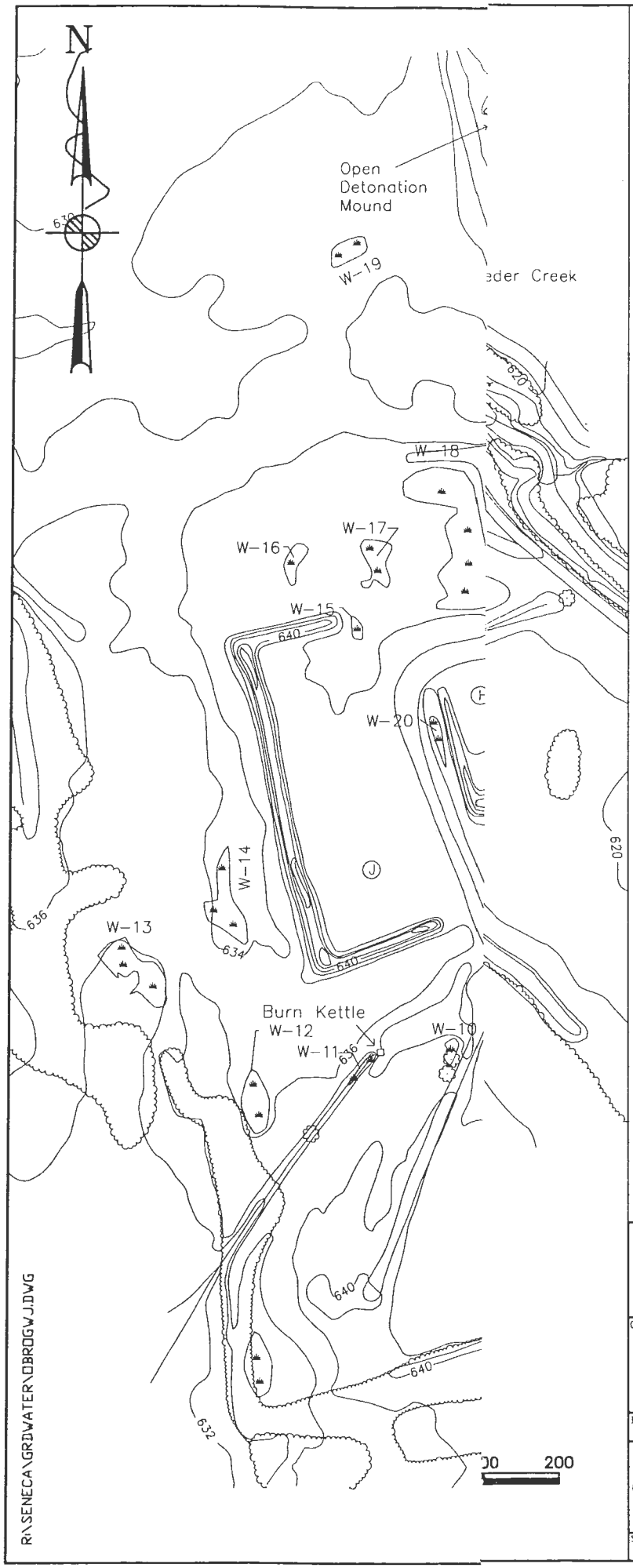
L ORGANIC HALIDES (TOX)

	liance Well MW 45-1		Compliance Well MW 45-2		Compliance Well MW 45-3		Background Well MW 4
t*=	0.00	t*=	0.00	t*=	3.32	t*=	
tc=	0.00	tc=	0.00	tc=	2.72	tc=	
	Dry		Dry		Increase		Increase

tc Indicates a statistically significant increase in the indicator parameter
Indicates no statistically significant change in the indicator parameter

quartsmp\obod\4q95\STAT495.WK4

FIGURES



LEGEND:

- BURNING PAD DESIGNATION
- PAD OR GRID BORING
- GROUND CONTOUR AND ELEVATION
- W-1 WETLAND & DESIGNATION
- UTILITY POLE
- TREE
- BRUSH
- MW-27 622.26 MONITORING WELL & DESIGNATION AND MSL ELEVATION DATUM
- 622 GROUNDWATER CONTOUR LINE (INFERRED) MSL DATUM
- ARROW INDICATES PREDOMINANT GROUNDWATER FLOW DIRECTION

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

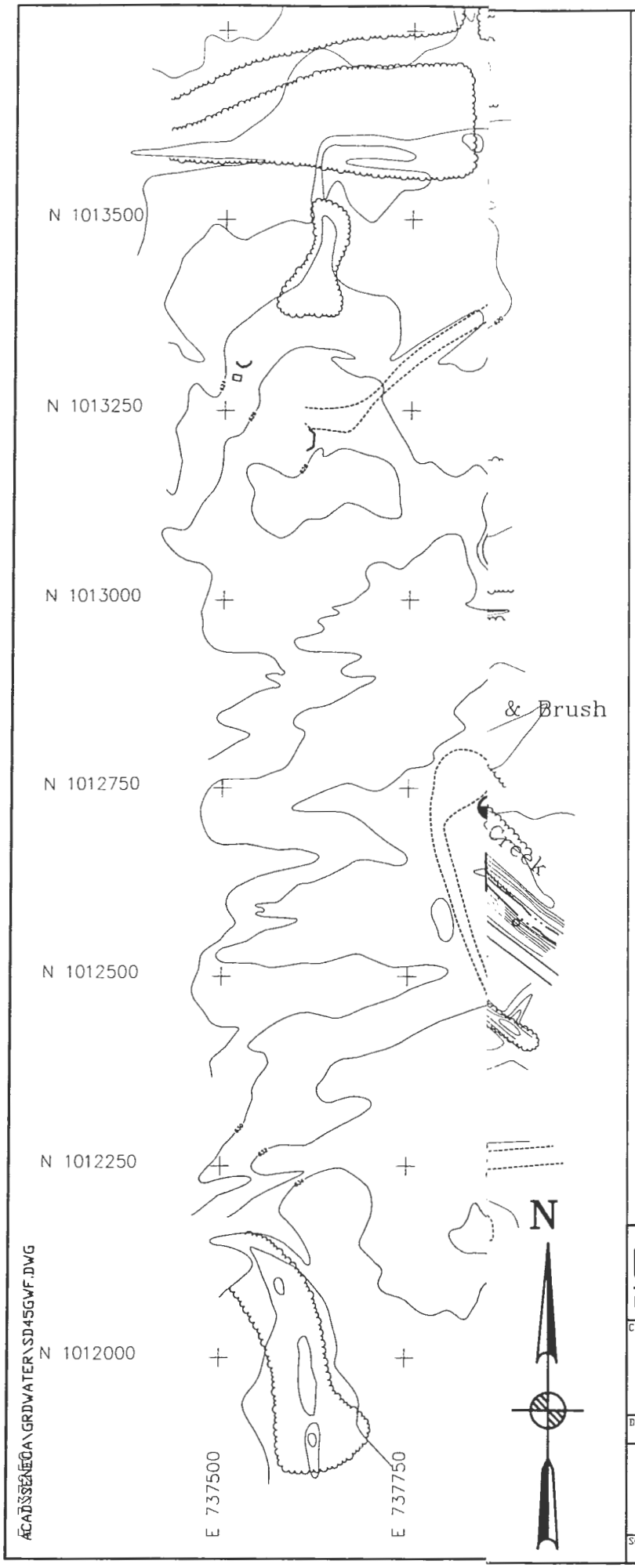
CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS
GROUNDWATER MONITORING PROGRAM

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	725980-01008

FIGURE 1
GROUNDWATER ELEVATION CONTOUR PLAN
JANUARY 15, 1996

SCALE	DATE	REV
1" = 200'	FEBRUARY 1996	A



LEGEND

- MINOR WATERWAY
- MAJOR WATERWAY
- FENCE
- UNPAVED ROAD
- BRUSH LINE
- LANDFILL EXTENTS
- RAILROAD
- 760 — GROUND SURFACE ELEVATION CONTOUR
- ROAD SIGN
- DECIDUOUS TREE
- GUIDE POST
- FIRE HYDRANT
- MANHOLE
- COORDINATE GRID (250' GRID)
- POLE
- UTILITY BOX
- MAILBOX/RR SIGNAL
- OVERHEAD UTILITY POLE
- SURVEY MONUMENT
- LOCATION OF DETONATION MOUND IN 1968
- MW45-1 617.08 — MONITORING WELL & DESIGNATION AND MSL ELEVATION DATUM
- 625 — GROUNDWATER CONTOUR LINE (DASHED WHERE INFERRED)
- ARROW INDICATES PREDOMINANT GROUNDWATER FLOW DIRECTION

100 0 100 200
(feet)

PARSONS
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
OD GROUNDS
GROUNDWATER MONITORING PROGRAM

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	725980-01008

FIGURE 2
GROUNDWATER ELEVATION PLAN
JANUARY 15, 1996

SCALE	DATE	REV
1" = 200'	FEBRUARY 1996	A

APPENDIX A

FIELD DATA

OB/OD Fourth Quarter 1995 Groundwater Monitoring Program

1. Groundwater Sampling Forms

2. Chain-of-Custody Forms

1. Groundwater Sampling Forms

GROUNDWATER ELEVATION REPORT

NS ENGINEERING-SCIENCE, INC. | CLIENT: ACOE | DATE: January 15, 1990

Seneca - Quarterly monitoring | PROJECT NO: 725980-01008

OB/OD Grounds | INSPECTOR: Bowman Harvey, Annika

NG EQUIPMENT: NA

DECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS: Weather: 5°F, 5-10mph wind Cloudy, flurries

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casi
0945	9.24			14.09			
1042	11.98			12.42			
1053	8.00			8.63			
1335	7.28			9.75			
1528	4.04			NA			
1531	NA			NA			Well casing cover frozen.
1538	NA			~~NA~~ 9.11			Ice (at depth of 2.30')
1540	3.68			15.46			
1544	4.94			NA			Concrete pad has heaved a lot
1651	NA			NA			Ice @ depth of 3.64'
1-16-96 1033	NA			NA			4" dia. well. PVC is heaved up inside well casin
1035	4.66			NA			
1037	4.40			NA			
1356	3.91			NA			

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

GROUNDWATER ELEVATION REPORT

NS ENGINEERING-SCIENCE, INC. | CLIENT: | DATE: 1-16-96

PROJECT NO:

: 68100 | INSPECTOR:

NG EQUIPMENT:

DECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS:

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casin
1424	2.38						Removed ~ 1.5' of ice to get wa
1540	5.40						
1543	5.59						
1555	3.91						Lock rusted badly (Well located mound across
1559	—						Can't open well; Well casing heave
1602	—						Lock frozen, rusted
1605	4.30						
1610	—						Pad heaved; Frozen; ice at 2.5'
1612	2.31						~~Frozen; ice at 2.5'~~
1618	3.26						Lock rusted
1624	—						Frozen; ice at 2.68'.
1626	3.38			needs lock	—		Well located next to MW-9. Maybe
1634	8.30						
1640	3.62						No lock.

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

1644 — Well frozen. Ice at 3.06'.

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-16-96
PROJECT: QUARTERLY MONITORING	INSPECTOR: A. Willis, B. Harvey	
LOCATION: OB GROUNDS	LABORATORY: Aquatec	
	CHAIN OF CUSTODY #:	
WELL NUMBER: MW-12	MONITORING: NA	
	INSTRUMENT: OVM 580S	DETECTOR: PID
SCREENED INTERVAL (TOC):		

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 2.38

WELL DEPTH (TOC): 9.11

FEET OF WATER IN WELL: 6.73

STANDING WATER VOLUME IN WELL (gallons): 1.10

THREE WELL VOLUMES (gallons):

ONE: 1.10 TWO: 2.20 THREE: 3.30

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

Historic

TIME BEGIN PURGING: ~~1105~~ 1119 TIME END PURGING: 1134

TIME:	1124	1129	1135			
DEPTH TO WATER (ft)	3.04	3.04	3.07			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.11	8.10	8.10			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1L/min	1L/min	1L/min			
VOLUME OF WATER REMOVED (gals)	~~1.10~~ 1.30	1.25	1.10			
TEMPERATURE (deg. C)	4.5	4.8	5.0			
SPEC. COND (umhos)	500	560	500			
PH	7.31	7.35	7.34			

5.65

1L-870ml/min

3 vol - 18

800

7.30

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	1-16-96					
TIME	1140					
DEPTH TO WATER (ft)	2.50					
"AFTER PURGE" WATER COLUMN (ft)	6.61					
"STATIC" WATER COLUMN (ft)	6.73					
% RECOVERY	98%					

7 min.

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: bailer MW-12 1-16-96

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
Metals	1150	1L plastic HNO_3	clear	4.36
CN	↓	1L plastic NaOH	↓	
TOX		1x 250ml H_2SO_4 septa		
TOC		2x40ml septa H_2SO_4		
Spec. Cond & pH	↓	1L plastic	↓	

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: (YES) or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4
MW-12a	MW-12b	MW-12c	MW-12d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or (NO)

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: (YES) or ~~NO~~ MW-12MS, MW-12MSD

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Replicates for TOX, TOC, Sp. Cond & pH analyses.

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-16-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: A. Willis, B. Harvey
LABORATORY: AQUATEC
CHAIN OF CUSTODY #:

WELL NUMBER: MW-13

SCREENED INTERVAL (TOC):

MONITORING: NA

INSTRUMENT	DETECTOR
OVM 580S	PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 2.38
WELL DEPTH (TOC): 10.14
FEET OF WATER IN WELL: 7.76

STANDING WATER VOLUME IN WELL (gallons): 1.26
THREE WELL VOLUMES (gallons):
ONE: TWO: 2.52 THREE: 3.8

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

Historic

TIME BEGIN PURGING: 1428 TIME END PURGING: 1451

	TIME:	1433	1442	1450			
6.47	DEPTH TO WATER (ft)	3.26	3.26	3.24			
	DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.14	~~7.64~~ 7.64	7.64			
660ml - 870ml/min	FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	870ml/min	870ml/min	870 ml/min			
2vol.	VOLUME OF WATER REMOVED (gals)	1.3	1.3	1.3			
18	TEMPERATURE (deg. C)	5	4.5	4.5			
750	SPEC. COND (umhos)	600	550	560			
7.03	PH	7.10	7.03	7.02			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

	DATE	1-16-96				
5min.	TIME	1455				
	DEPTH TO WATER (ft)	2.53				
	"AFTER PURGE" WATER COLUMN (ft)	7.61				
	"STATIC" WATER COLUMN (ft)	7.76				
	% RECOVERY	98%				

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: bailer MW-13 1-16-96

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
Metals	1500	HNO_3	clear	7.42
CN		NaOH		
TOX		H_2SO_4		
TOC		H_2SO_4		
Spec. Cond & pH		—		

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:	Rep. 1	Rep. 2	Rep. 3	Rep. 4
	MW-13a	MW-13b	MW-13c	MW-13d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: B. Harvey, A. Willis
LABORATORY: AQUATEC
CHAIN OF CUSTODY #:

WELL NUMBER: MW-14

SCREENED INTERVAL (TOC):

MONITORING: NA

INSTRUMENT	DETECTOR
OVM 5805	PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 3.68
WELL DEPTH (TOC): 10.58
FEET OF WATER IN WELL: 6.90

STANDING WATER VOLUME IN WELL (gallons): 1.12
THREE WELL VOLUMES (gallons):
ONE: 1.12 TWO: 2.25 THREE: 3.37

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1657 TIME END PURGING: 1722

TIME:	1704	1713	1721			
DEPTH TO WATER (ft)	5.22	5.52	5.59			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.58	8.58	7.58			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	660	660	660			
VOLUME OF WATER REMOVED (gals)	1.4	1.4	1.4			
TEMPERATURE (deg. C)	7	8	5			
SPEC. COND (umhos)	600	600	600			
PH	7.22	7.16	7.16			

870

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	1-15-96 ~~1730~~ am					
TIME	1730					
DEPTH TO WATER (ft)	4.02					
"AFTER PURGE" WATER COLUMN (ft)	6.56					
"STATIC" WATER COLUMN (ft)	6.90					
% RECOVERY	95%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: MW-14 1-15-96

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
Metals	1740	1L plastic HNO3	clear	NA
CN	↓	1L plastic NaOH	↓	
* TOX		250mL H2SO4		
* TOC		2x 40 mL H2SO4		
* Specific Cond & pH	↓	1L plastic	↓	

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4
MW-14a	MW-14b	MW-14c	MW-14d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO dup MW-114 (Met, CN)

MRD SAMPLE NAME: MW-14MRD

QA\QC RINSATE SAMPLE NAME: MW-14R, MW-14MRD-R

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

* Replicates of these analyses only.
Metals, CN have SAMP ID of MW-14

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

WELL NUMBER: MW-27

SCREENED INTERVAL (TOC):

INSPECTOR: B. Harvey, A. Willis
LABORATORY: AQUATEC
CHAIN OF CUSTODY #:
MONITORING: ~~OVM~~ NA
INSTRUMENT: OVM 580S
DETECTOR: PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.20	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 3.68
WELL DEPTH (TOC): 15.46
FEET OF WATER IN WELL: 11.78

STANDING WATER VOLUME IN WELL (gallons): 1.92
THREE WELL VOLUMES (gallons):
ONE: 1.92 TWO: 3.84 THREE: 5.76

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1600 TIME END PURGING: 1628

TIME:	1612	1620	1627			
DEPTH TO WATER (ft)	4.60	5.22	5.20			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	15.46	11.46	11.46			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	660 ml/min	1 L/M	1L/min			
VOLUME OF WATER REMOVED (gals)	1.92	2.0	2.0			
TEMPERATURE (deg. C)	7	7	7.5			
SPEC. COND (umhos)	600	600	600			
PH	7.26	7.22	7.25			
Turbidity			6.32			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	1-15-96					
TIME	1646					
DEPTH TO WATER (ft)	4.16					
"AFTER PURGE" WATER COLUMN (ft)	11.36					
"STATIC" WATER COLUMN (ft)	11.75					
% RECOVERY	96%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: bailer MW-27 1-15-96

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
MW-27 Metals	1645	1L plastic HNO_3	clear	NA
CN		1L plastic NaOH		
Replicates TOX		250mL H_2SO_4		
TOC		2x40mL H_2SO_4		
Spec. Cond., PH		1L plastic		

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4
MW-27a	MW-27b	MW-27c	MW-27d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: B. Harvey, A. Willis
LABORATORY: NA
CHAIN OF CUSTODY #:

WELL NUMBER: MW45-1

MONITORING: NA

INSTRUMENT	DETECTOR

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 8.00
WELL DEPTH (TOC): 8.63
FEET OF WATER IN WELL: 0.63'

STANDING WATER VOLUME IN WELL (gallons):
THREE WELL VOLUMES (gallons):
ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: Dry well. TIME END PURGING:

TIME:						
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)						
VOLUME OF WATER REMOVED (gals)						
TEMPERATURE (deg. C)						
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	NA					
TIME						
DEPTH TO WATER (ft)						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: NA

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Well is dry.

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: B. Harvey, A. Willis
LABORATORY: NA
CHAIN OF CUSTODY #: NA

WELL NUMBER: MW45-2

MONITORING NA

INSTRUMENT	DETECTOR

SCREENED INTERVAL (TOC):

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 11.98
WELL DEPTH (TOC): 12.42
FEET OF WATER IN WELL: 0.44

STANDING WATER VOLUME IN WELL (gallons): NA
THREE WELL VOLUMES (gallons):
ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: Dry Well TIME END PURGING:

TIME:						
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)						
VOLUME OF WATER REMOVED (gals)						
TEMPERATURE (deg. C)						
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	NA					
TIME						
DEPTH TO WATER (ft)						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: NA

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Well is dry.

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: B. Harvey, A. Willis
LABORATORY: AQUATEC
CHAIN OF CUSTODY #:

WELL NUMBER: MW45-3

SCREENED INTERVAL (TOC):

MONITORING
INSTRUMENT: CVM 5505
DETECTOR: PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 9.24
WELL DEPTH (TOC): 14.09
FEET OF WATER IN WELL: 4.85

STANDING WATER VOLUME IN WELL (gallons): 0.79
THREE WELL VOLUMES (gallons):
ONE: TWO: 1.58 THREE: 2.37

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1003 TIME END PURGING: 1057

	TIME:					
	1015	1025	1036			
DEPTH TO WATER (ft)	10.12	11.00	11.97			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	14.09	12.09	12.09			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	418	418	418			
VOLUME OF WATER REMOVED (gals)	0.8	0.8	0.8			
TEMPERATURE (deg. C)	5	5	6			
SPEC. COND (umhos)	750	~~850~~ 800 (aw)	850			
PH	~~7.03~~	7.19	7.15			

Historic
11.30
380-100 ml/min
2 1/4 vol.
16
1200
6.47

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	1-15-96	1-15-96	1-16-96	1-17-96		
TIME	1059	1320	0943	0720		
DEPTH TO WATER (ft)	11.72	11.52	11.08	12.46		
"AFTER PURGE" WATER COLUMN (ft)	2.37	2.487	3.01			
"STATIC" WATER COLUMN (ft)	4.85	4.86	4.85	4.85		
% RECOVERY	49%	51%	62%			

Notes:
(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.
(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: bailer MW45-3 ~~1-15-96~~ (aw) 1-16-96

	SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
1-16-96	Metals	1000	1L plastic HNO3	clear	10.2
1-16-96	CN		1L plastic NaOH, ascorbic		
1-16-96	TOX		250ml septa H2SO4		
1-17-96	TOC	0740	40ml septa H2SO4		(Replicate Samples)
1-16-96	Specific Cond & pH	~~X~~1000	1L plastic		

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or ~~NO~~

Replicate Sample Names:

Rep. 1	~~Rep. 2~~	Rep. 3	Rep. 4
MW45-3a	MW45-3b	MW45-3c	MW45-3d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD FOR REPLICATES - GROUNDWATER

PARSONS ENGINEERING-SCI.,INC.	CLIENT: USACOE	DATE: 1-15-96

PROJECT: QUARTERLY MONITORING

LOCATION: OB GROUNDS

INSPECTOR: B. Harvey, A. Willis
LABORATORY: AQUATEC
CHAIN OF CUSTODY #:

WELL NUMBER: MW45-4

SCREENED INTERVAL (TOC):

MONITORING INSTRUMENT: OVM 585
DETECTOR: PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 7.28
WELL DEPTH (TOC): 9.75
FEET OF WATER IN WELL: 2.47

STANDING WATER VOLUME IN WELL (gallons): 0.40
THREE WELL VOLUMES (gallons): 1.20
ONE: 0.40 TWO: 0.80 THREE: 1.20

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1402 TIME END PURGING: ~~1414~~ 1418

TIME:	1406	1410	1413	1417		
DEPTH TO WATER (ft)	7.62	7.60	7.67	7.60		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.75	8.75	8.75	8.75		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1L/min	1L/min	1L/min	1L/min		
VOLUME OF WATER REMOVED (gals)	0.40	~~0.40~~ 0.40	0.50	0.5		
TEMPERATURE (deg. C)	4½	5	5.5	5		
SPEC. COND (umhos)	600	600	600	600		
PH	7.26	7.16	7.13	7.13		

Turbid = 9.63

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	1-15-96					
TIME	1425					
DEPTH TO WATER (ft)	7.78					
"AFTER PURGE" WATER COLUMN (ft)	2.47					
"STATIC" WATER COLUMN (ft)	2.47					
% RECOVERY	100%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

Historic: dry well.

SAMPLING INFORMATION

SAMPLING DEVICE: bailer MW 45-4 1-15-96

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
Metals	1435	1L plastic HNO3	clear	9.50
CN	↓	1L plastic NaOH	↓	
* TOX		250 mL H2SO4		
* TOC		2x40 mL H2SO4		
* Spec. Cond & pH		1L plastic		

REPLICATE SAMPLES:

REPLICATE SAMPLE COLLECTED: YES or NO

Replicate Sample Names:

Rep. 1	Rep. 2	Rep. 3	Rep. 4
MW45-4a	MW45-4b	MW45-4c	MW45-4d

QA\QC:

QA/QC SAMPLE COLLECTED: YES or NO

MRD SAMPLE NAME:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:	NA			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

* Replicates taken of these analyses only. Sample ID for Met., CN., is MW45-4.

2. Chain-of-Custody Forms

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 2

ARSONS
ERING-SCIENCE, INC.
nter Phone: 617-859-2000
02199 Fax: 617-859-2043

JOB NO. 725980-01008
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY AQUATEC
ADDRESS 55 So. Park Pl. Co
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH, Cond.	NO. OF CONTAINERS	COMMENT (Special instructions, ca
27		1-15-96	1645	—	Water			1		1						2	
27a		1-15-96	1645	—									2	1	1	4	
27b		1-15-96	1645	—									2	1	1	4	
27c		1-15-96	1645	—									2	1	1	4	
27d		1-15-96	1645	—									2	1	1	4	
5-3		1-16-96	1000	—				1		1						2	
5-3a		1-16-96	1000	—									2	1	1	2	
5-3b		1-16-96	1000	—									2	1	1	2	
5-3c		1-16-96	1000	—										1	1	2	
5-3d		1-16-96	1000	—										1	1	2	
5-3a		1-17-96	0740	—									2			2	
5-3b		1-17-96	0740	—									2			2	
					VOA Vial								X				
					Glass Bottle												
					Plastic Bottle			X		X							
					Preservative			A D		A F			A E	A E	A		
					Container Volume			1 L		1 L			40 mL	250 mL	1 L		

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17-96 Time 1200

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Samples tampered with? ☐ No ☐ Yes
xplain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sampl
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Cooler #: 752

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 2 OF

RSONS
ERING-SCIENCE, INC.
ter
02199
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. 725980-01008
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY AQUATEC
ADDRESS 55 So. Park Dr. Colche
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOX	TOC	pH, Cond.	NO. OF CONTAINERS	COMMENT (Special instructions, ca
4a		1-15-96	1740	—	Water								1	2	1	4	
4b		1-15-96	1740	—	Water								1	2	1	4	
14c		1-15-96	1740	—	Water								1	2	1	4	
14d		1-15-96	1740	—	water								1	2	1	4	
114		1-15-96	1740	—	water			1		1						2	
-14		1-15-96	1740	—	water			1		1						2	
4R		1-15-96	0830	—	Water			1		1			1	2	1	6	Rinsate

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOX	TOC	pH, Cond.
VOA Vial									X	
Glass Bottle								X		
Plastic Bottle			X		X					X
Preservative			A D		A F			A E	A E	A
Container Volume			1 L		1 L			250 mL	40 mL	1 L

d Relinquished by
nika Willis
nika Willis
sons Eng. Sci.
5-96 Time 2100

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Date Time

Samples tampered with? ☐ No ☐ Yes
plain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample nonstandard sample
OB/OD Gro

Cooler #: NA

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF

RSONS
ERING-SCIENCE, INC.
ter Phone: 617-859-2000
02199 Fax: 617-859-2043

JOB NO. 725980-01008
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY Aquatec
ADDRESS 55 So. Park Dr. Colch
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH, Cond	NO. OF CONTAINERS	COMMENTS (Special instructions, ca
-4		1-15-96	1435	—	Water			1		1						2	
-4a		1-15-96	1435	—	Water								2	1	1	4	
-4b		1-15-96	1435	—	Water								2	1	1	4	
-4c		1-15-96	1435	—	Water								2	1	1	4	
-4d		1-15-96	1435	—	Water								2	1	1	4	

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH, Cond
VOA Vial								X		
Glass Bottle									X	
Plastic Bottle			X		X					X
Preservative			A D		A F			A E	A E	A
Container Volume			1 L		1 L			40 mL	250 mL	1 L

d Relinquished by
nika Willis
nika Willis
rsons Eng. Sci.
7-96 Time 1200

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Date Time

Samples tampered with? ☐ No ☐ Yes
plain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample nonstandard sample
OB/OD

Cooler #: 42

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

ARSONS
ERING-SCIENCE, INC.
nter Phone: 617-859-2000
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JOB NO. 725980-01008
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY AQUATEC
ADDRESS 55 So. Park Dr. CO
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH, Cond.	NO. OF CONTAINERS	COMMENTS (Special instructions, ca
-12		1-16-96	1150	—	water			1		1						2	
12a		1-16-96	1150	—	↓								2	1	1	4	
12b		1-16-96	1150	—									2	1	1	4	
17c		1-16-96	1150	—									2	1	1	4	
12d		1-16-96	11-50	—									2	1	1	4	
2MS		1-16-96	1150	—				1		1						2	Matrix Sp
2MSD		1-16-96	1150	—	↓			1		1						2	Matrix Spik

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH, Cond.
VOA Vial								X		
Glass Bottle									X	
Plastic Bottle			X		X					X
Preservative			A C		A F			A E	A E	A
Container Volume			1 L		1 L			40 ml	250 ml	1 L

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nnis Willis
nika Willis
sonsEng. Sci.
17-96 Time 1200

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Samples tampered with? ☐ No ☐ Yes
plain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample nonstandard sample
OB/OD

Cooler #: 2

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

ARSONS
ERING-SCIENCE, INC.
nter Phone: 617-859-2000
02199 Fax: 617-859-2043

JOB NO. 125980-01008
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY AQUATEC
ADDRESS 55 So. Park Dr. Colc
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH Cond.	NO. OF CONTAINERS	COMMENT (Special instructions, ca
-13		1-16-96	1500	—	Water			1		1						2	
13a		1-16-96	1500	—	↓								2	1	1	4	
-13b		1-16-96	1500	—	↓								2	1	1	4	
-13c		1-16-96	1500	—	↓								2	1	1	4	
-13d		1-16-96	1500	—	↓								2	1	1	4	

nd Relinquished by Annika Willis
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asons Eng. Sci.
7-96 Time 1200

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Samples tampered with? ☐ No ☐ Yes
xplain in remarks.

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC	TOX	pH Cond.
VOA Vial								X		
Glass Bottle									X	
Plastic Bottle			X		X					X
Preservative			A C		A F		A E	A E	A E	A
Container Volume			1 L		1 L			40 ml	250 ml	1 L

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sampl
nonstandard sample

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Cooler #: ES-

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 2 OF 3

ARSONS
ERING-SCIENCE, INC.
nter Phone: 617-859-2000
02199 Fax: 617-859-2043

JOB NO. 725980-0100
PROJECT SEDA - Quarterly
CONTACT M. Duchesneau

LABORATORY Aquatec
ADDRESS 55 So. Park Dr. Cokhe
CONTACT Polly Malik

E NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC			NO. OF CONTAINERS	COMMENT (Special instructions, ca
-3c		1-17-96	0740	—	water								2			2	
-3d		1-17-96	0740	—	water								2			2	

ANALYSES

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	TOC		
VOA Vial								X		
Glass Bottle										
Plastic Bottle										
Preservative								A E		
Container Volume								40 mL		

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nika Willis
nika Willis.
rsons Env. Sci
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Date Time

Samples tampered with? ☐ No ☐ Yes
plain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample nonstandard sample
OB/OD

Cooler #: 752

COC1 White - return with data Yellow - lab copy Pink - Sampler copy

APPENDIX B

Laboratory Analytical Packages with QA/QC Data

1. Sample Delivery Group No. 56277

   A. TAL Metals Analysis
   B. Indicator Analysis Results

2. Sample Delivery Group No. 56202

   A. Indicator Analysis Results

1. Sample Delivery Group No. 56277

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
286534	MW12a:01/16/96 (Water)		
	9050	Conductivity (umhos/cm)	877
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.03 o
	9060	Total Organic Carbon	1.1
286534R1	MW12a:01/16/96 (Water)		
	9060	Total Organic Carbon	1.1
286534R2	MW12a:01/16/96 (Water)		
	9060	Total Organic Carbon	0.9
286534R3	MW12a:01/16/96 (Water)		
	9060	Total Organic Carbon	0.9
286535	MW12b:01/16/96 (Water)		
	9050	Conductivity (umhos/cm)	862
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.2 o
	9060	Total Organic Carbon	1.0
286535R1	MW12b:01/16/96 (Water)		
	9060	Total Organic Carbon	1.0

Comments/Notes

o = pH units

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Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

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Lab No./ Method No.	Sample Description/ Parameter	Result
286535R2 MW12b:01/16/96 (Water)		
9060	Total Organic Carbon	1.3
286535R3 MW12b:01/16/96 (Water)		
9060	Total Organic Carbon	1.3
286536 MW12c:01/16/96 (Water)		
9050	Conductivity (umhos/cm)	865
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.21 o
9060	Total Organic Carbon	1.1
286536R1 MW12c:01/16/96 (Water)		
9060	Total Organic Carbon	1.0
286536R2 MW12c:01/16/96 (Water)		
9060	Total Organic Carbon	0.9
286536R3 MW12c:01/16/96 (Water)		
9060	Total Organic Carbon	0.9
286537 MW12d:01/16/96 (Water)		
9050	Conductivity (umhos/cm)	873
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.23 o
9060	Total Organic Carbon	0.9

Comments/Notes

o = pH units

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Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
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Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

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ETR Number : 56277
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No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

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Lab No./ Method No.	Sample Description/ Parameter	Result
286537R1	MW12d:01/16/96 (Water)	
9060	Total Organic Carbon	1.0
286537R2	MW12d:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286537R3	MW12d:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286538	MW13a:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	902
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.15 o
9060	Total Organic Carbon	1.3
286538R1	MW13a:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286538R2	MW13a:01/16/96 (Water)	
9060	Total Organic Carbon	1.5
286538R3	MW13a:01/16/96 (Water)	
9060	Total Organic Carbon	1.4

Comments/Notes

o = pH units

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Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
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Analytical Report

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Boston, MA 02199

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Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

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Lab No./ Method No.	Sample Description/ Parameter	Result
286539	MW13b:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	890
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.15 o
9060	Total Organic Carbon	1.3
286539R1	MW13b:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286539R2	MW13b:01/16/96 (Water)	
9060	Total Organic Carbon	1.4
286539R3	MW13b:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286540	MW13c:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	900
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.11 o
9060	Total Organic Carbon	1.6
286540R1	MW13c:01/16/96 (Water)	
9060	Total Organic Carbon	1.6

Comments/Notes

o = pH units

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Lab No./ Method No.	Sample Description/ Parameter	Result
286540R2	MW13c:01/16/96 (Water)	
9060	Total Organic Carbon	1.4
286540R3	MW13c:01/16/96 (Water)	
9060	Total Organic Carbon	1.3
286541	MW13d:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	883
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.11 o
9060	Total Organic Carbon	1.1
286541R1	MW13d:01/16/96 (Water)	
9060	Total Organic Carbon	1.2
286541R2	MW13d:01/16/96 (Water)	
9060	Total Organic Carbon	1.2
286541R3	MW13d:01/16/96 (Water)	
9060	Total Organic Carbon	1.2
286543	MW27a:01/15/96 (Water)	
9050	Conductivity (umhos/cm)	945
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.17 o
9060	Total Organic Carbon	0.8

Comments/Notes

o = pH units

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Environmental Laboratories

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Analytical Report

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Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
286543R1	MW27a:01/15/96 (Water)	
9060	Total Organic Carbon	0.8
286543R2	MW27a:01/15/96 (Water)	
9060	Total Organic Carbon	0.8
286543R3	MW27a:01/15/96 (Water)	
9060	Total Organic Carbon	0.8
286544	MW27b:01/15/96 (Water)	
9050	Conductivity (umhos/cm)	952
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.26 o
9060	Total Organic Carbon	0.7
286544R1	MW27b:01/15/96 (Water)	
9060	Total Organic Carbon	0.8
286544R2	MW27b:01/15/96 (Water)	
9060	Total Organic Carbon	0.9
286544R3	MW27b:01/15/96 (Water)	
9060	Total Organic Carbon	0.9

Comments/Notes

o = pH units

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Environmental Laboratories

55 South Park Drive
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South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
286545	MW27c:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	938
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.30 o
	9060	Total Organic Carbon	0.8
286545R1	MW27c:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286545R2	MW27c:01/15/96 (Water)		
	9060	Total Organic Carbon	0.7
286545R3	MW27c:01/15/96 (Water)		
	9060	Total Organic Carbon	0.6
286546	MW27d:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	940
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.32 o
	9060	Total Organic Carbon	0.8
286546R1	MW27d:01/15/96 (Water)		
	9060	Total Organic Carbon	0.6

Comments/Notes

o = pH units

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Environmental Laboratories

55 South Park Drive
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75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
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P.O. Number: *

Case:OBASH SDG:56277

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Lab No./ Method No.	Sample Description/ Parameter	Result
286546R2	MW27d:01/15/96 (Water)	
9060	Total Organic Carbon	1.1
286546R3	MW27d:01/15/96 (Water)	
9060	Total Organic Carbon	1.1
286548	MW453a:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	1400
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.23 o
286558	MW453a:01/17/96 (Water)	
9060	Total Organic Carbon	0.7
286558R1	MW453a:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286558R2	MW453a:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286558R3	MW453a:01/17/96 (Water)	
9060	Total Organic Carbon	0.7
286549	MW453b:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	1340
9020	Total Organic Halides	<0.02

Comments/Notes

o = pH units

< Cont. Next Page >

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Environmental Laboratories

55 South Park Drive
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75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
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Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
286549	MW453b:01/16/96 (Water)		
	9040	pH (std. units)	7.24 o
286559	MW453b:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6
286559R1	MW453b:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6
286559R2	MW453b:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6
286559R3	MW453b:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6
286550	MW453c:01/16/96 (Water)		
	9050	Conductivity (umhos/cm)	1380
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.25 o
286560	MW453c:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6
286560R1	MW453c:01/17/96 (Water)		
	9060	Total Organic Carbon	0.6

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
286560R2	MW453c:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286560R3	MW453c:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286551	MW453d:01/16/96 (Water)	
9050	Conductivity (umhos/cm)	1290
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.25 o
286561	MW453d:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286561R1	MW453d:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286561R2	MW453d:01/17/96 (Water)	
9060	Total Organic Carbon	0.7
286561R3	MW453d:01/17/96 (Water)	
9060	Total Organic Carbon	0.6
286553	MW454a:01/15/96 (Water)	
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.27 o

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

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Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

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Lab No./ Method No.	Sample Description/	Parameter	Result
286553	MW454a:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286553R1	MW454a:01/15/96 (Water)		
	9060	Total Organic Carbon	0.7
286553R2	MW454a:01/15/96 (Water)		
	9060	Total Organic Carbon	0.7
286553R3	MW454a:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286554	MW454b:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	1000
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.25 o
	9060	Total Organic Carbon	0.7
286554R1	MW454b:01/15/96 (Water)		
	9060	Total Organic Carbon	0.7
286554R2	MW454b:01/15/96 (Water)		
	9060	Total Organic Carbon	0.9

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
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Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
286554R3 MW454b:01/15/96 (Water)		
9060	Total Organic Carbon	0.7
286555 MW454c:01/15/96 (Water)		
9050	Conductivity (umhos/cm)	978
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.22 o
9060	Total Organic Carbon	0.7
286555R1 MW454c:01/15/96 (Water)		
9060	Total Organic Carbon	0.7
286555R2 MW454c:01/15/96 (Water)		
9060	Total Organic Carbon	1.2
286555R3 MW454c:01/15/96 (Water)		
9060	Total Organic Carbon	1.2
286556 MW454d:01/15/96 (Water)		
9050	Conductivity (umhos/cm)	993
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.15 o
9060	Total Organic Carbon	0.8

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
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South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/21/96
ETR Number : 56277
Project No.: 93206
No. Samples: 91
Arrived : 01/18/96
P.O. Number: *

Case:OBASH SDG:56277

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
286556R1 MW454d:01/15/96 (Water)		
9060	Total Organic Carbon	0.7
286556R2 MW454d:01/15/96 (Water)		
9060	Total Organic Carbon	0.7
286556R3 MW454d:01/15/96 (Water)		
9060	Total Organic Carbon	0.7

< Last Page > Submitted By : Aquatec Inc.

Quality Control Summary

Project No: 93206
ETR No: 56277
SDG No: 56277
Units: mg/L

Parameter	Method Preparation Blank	Laboratory Control Sample Reported Value	Laboratory Control Sample True Value	Laboratory Control Sample Percent Recovery
Conductivity (umhos/cm)	NA	1343	1413	95.0
pH (Std Units)	NA	5.97	6.00	99.5
Total Organic Carbon	< 0.5	67.6	72.9	92.7
Total Organic Halides	< 0.02	5.11	5.00	102.2

Quality Control Summary

Project No: 93206
ETR No: 56277
SDG No: 56277
Units: mg/L

Parameter	Method Preparation Blank	Laboratory Control Sample Reported Value	Laboratory Control Sample True Value	Laboratory Control Sample Percent Recovery
Conductivity (umhos/cm)	NA	1343	1413	95.0
pH (Std Units)	NA	5.97	6.00	99.5
Total Organic Carbon	< 0.5	67.6	72.9	92.7
Total Organic Halides	< 0.02	5.11	5.00	102.2

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH SAS No.: _____ SDG No.:56277_

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID
_MW12_____	_286533_____
_MW13A_____	_286557_____
_MW27_____	_286542_____
_MW453_____	_286547_____
_MW454_____	_286552_____
_MW12S_____	_286533MS_____
_MW12D_____	_286533DP_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Lab Sample ID: 286533

Level (low/med): LOW__ Date Received: 01/18/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	350			P
7440-36-0	Antimony_	2.5	U		P
7440-38-2	Arsenic__	2.8	U		P
7440-39-3	Barium___	92.3	B		P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium__	0.30	U		P
7440-70-2	Calcium__	82500			P
7440-47-3	Chromium_	0.64	B		P
7440-48-4	Cobalt___	1.4	U		P
7440-50-8	Copper___	1.7	B		P
7439-89-6	Iron_____	380			P
7439-92-1	Lead_____	1.6	U		P
7439-95-4	Magnesium	64300			P
7439-96-5	Manganese	5.4	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.1	B		P
7440-09-7	Potassium	8650			P
7782-49-2	Selenium_	3.2	B		P
7440-22-4	Silver___	0.70	U		P
7440-23-5	Sodium___	16200			P
7440-28-0	Thallium_	7.5	B		P
7440-62-2	Vanadium_	1.6	U		P
7440-66-6	Zinc_____	17.6	B		P
	Cyanide__	5.0	U		AS

Color Before: WHITE____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW13A

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Lab Sample ID: 286557

Level (low/med): LOW__ Date Received: 01/18/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1210			P
7440-36-0	Antimony_	2.5	U		P
7440-38-2	Arsenic__	2.8	U		P
7440-39-3	Barium___	75.7	B		P
7440-41-7	Beryllium	0.36	B		P
7440-43-9	Cadmium__	0.30	U		P
7440-70-2	Calcium__	140000			P
7440-47-3	Chromium_	1.9	B		P
7440-48-4	Cobalt___	1.4	U		P
7440-50-8	Copper___	3.8	B		P
7439-89-6	Iron_____	1850			P
7439-92-1	Lead_____	2.9	B		P
7439-95-4	Magnesium	27400			P
7439-96-5	Manganese	49.3			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	3.0	B		P
7440-09-7	Potassium	2190	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.70	U		P
7440-23-5	Sodium___	26400			P
7440-28-0	Thallium_	3.7	B		P
7440-62-2	Vanadium_	2.0	B		P
7440-66-6	Zinc_____	50.1			P
	Cyanide__	5.0	U		AS

Color Before: WHITE____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW27

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Lab Sample ID: 286542

Level (low/med): LOW__ Date Received: 01/18/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	11.3	U		P_
7440-36-0	Antimony_	2.5	U		P_
7440-38-2	Arsenic__	2.8	U		P_
7440-39-3	Barium___	79.1	B		P_
7440-41-7	Beryllium	0.29	B		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	87600			P_
7440-47-3	Chromium_	0.60	U		P_
7440-48-4	Cobalt___	1.4	U		P_
7440-50-8	Copper___	1.2	B		P_
7439-89-6	Iron_____	18.8	B		P_
7439-92-1	Lead_____	1.6	U		P_
7439-95-4	Magnesium	65800			P_
7439-96-5	Manganese	32.4			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	3.3	B		P_
7440-09-7	Potassium	9600			P_
7782-49-2	Selenium_	2.8	B		P_
7440-22-4	Silver___	0.70	U		P_
7440-23-5	Sodium___	19600			P_
7440-28-0	Thallium_	2.3	U		P_
7440-62-2	Vanadium_	1.6	U		P_
7440-66-6	Zinc_____	2.7	B		P_
_____	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW453

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Lab Sample ID: 286547

Level (low/med): LOW__ Date Received: 01/18/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	26.4	B		P
7440-36-0	Antimony_	2.5	U		P
7440-38-2	Arsenic__	3.7	B		P
7440-39-3	Barium___	16.8	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium__	0.30	U		P
7440-70-2	Calcium__	184000			P
7440-47-3	Chromium_	0.60	U		P
7440-48-4	Cobalt___	1.4	U		P
7440-50-8	Copper___	1.0	U		P
7439-89-6	Iron_____	69.2	B		P
7439-92-1	Lead_____	1.6	U		P
7439-95-4	Magnesium	69900			P
7439-96-5	Manganese	31.7			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	5.0	B		P
7440-09-7	Potassium	8970			P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.70	U		P
7440-23-5	Sodium___	16500			P
7440-28-0	Thallium_	2.3	U		P
7440-62-2	Vanadium_	1.6	U		P
7440-66-6	Zinc_____	6.1	B		P
	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW454

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Lab Sample ID: 286552

Level (low/med): LOW__ Date Received: 01/18/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	71.2	B		P_
7440-36-0	Antimony_	2.5	U		P_
7440-38-2	Arsenic__	2.8	U		P_
7440-39-3	Barium___	30.8	B		P_
7440-41-7	Beryllium	0.34	B		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	156000			P_
7440-47-3	Chromium_	0.60	U		P_
7440-48-4	Cobalt___	1.4	U		P_
7440-50-8	Copper___	1.6	B		P_
7439-89-6	Iron_____	81.9	B		P_
7439-92-1	Lead_____	1.6	U		P_
7439-95-4	Magnesium	35000			P_
7439-96-5	Manganese	4.8	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.5	B		P_
7440-09-7	Potassium	3470	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.70	U		P_
7440-23-5	Sodium___	13800			P_
7440-28-0	Thallium_	4.5	B		P_
7440-62-2	Vanadium_	1.6	U		P_
7440-66-6	Zinc_____	5.3	B		P_
	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	26000.0	25630.00	98.6	30200.0	30190.00	100.0	30330.00	100.4	P
Antimony	250.0	243.20	97.3	300.0	306.40	102.1	311.20	103.7	P
Arsenic	250.0	255.60	102.2	100.0	100.40	100.4	101.40	101.4	P
Barium	500.0	488.80	97.8	200.0	202.70	101.4	204.20	102.1	P
Beryllium	500.0	503.60	100.7	100.0	100.70	100.7	100.80	100.8	P
Cadmium	500.0	495.20	99.0	100.0	99.61	99.6	99.42	99.4	P
Calcium	25000.0	25360.00	101.4	30200.0	30450.00	100.8	30450.00	100.8	P
Chromium	500.0	495.30	99.1	200.0	202.70	101.4	203.30	101.6	P
Cobalt	500.0	494.90	99.0	200.0	199.60	99.8	199.80	99.9	P
Copper	500.0	496.70	99.3	200.0	204.50	102.2	206.90	103.4	P
Iron	25500.0	26380.00	103.5	30200.0	30480.00	100.9	30460.00	100.9	P
Lead	1000.0	1008.00	100.8	400.0	406.90	101.7	404.80	101.2	P
Magnesium	25000.0	24980.00	99.9	30200.0	30300.00	100.3	30530.00	101.1	P
Manganese	500.0	498.60	99.7	200.0	200.60	100.3	200.80	100.4	P
Mercury	1.8	1.88	104.4	3.0	3.04	101.3	3.04	101.3	CV
Nickel	500.0	492.70	98.5	200.0	201.40	100.7	204.20	102.1	P
Potassium	25000.0	26810.00	107.2	30200.0	31540.00	104.4	31850.00	105.5	P
Selenium	250.0	251.50	100.6	100.0	99.25	99.2	104.00	104.0	P
Silver	500.0	503.90	100.8	100.0	102.20	102.2	102.70	102.7	P
Sodium	25000.0	24440.00	97.8	30200.0	29580.00	97.9	29930.00	99.1	P
Thallium	250.0	234.40	93.8	100.0	104.70	104.7	102.50	102.5	P
Vanadium	500.0	499.90	100.0	200.0	200.30	100.2	201.00	100.5	P
Zinc	500.0	499.80	100.0	200.0	207.20	103.6	209.00	104.5	P
Cyanide	120.0	109.00	90.8	150.0	141.00	94.0	142.00	94.7	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	30530.00	101.1	30800.00	102.0	P
Antimony				300.0	311.70	103.9	312.00	104.0	P
Arsenic				100.0	98.36	98.4	104.40	104.4	P
Barium				200.0	204.80	102.4	205.30	102.6	P
Beryllium				100.0	100.90	100.9	101.60	101.6	P
Cadmium				100.0	98.64	98.6	99.68	99.7	P
Calcium				30200.0	30580.00	101.3	30820.00	102.1	P
Chromium				200.0	204.20	102.1	205.50	102.8	P
Cobalt				200.0	199.70	99.8	201.10	100.6	P
Copper				200.0	208.40	104.2	209.70	104.8	P
Iron				30200.0	30540.00	101.1	30690.00	101.6	P
Lead				400.0	405.20	101.3	411.30	102.8	P
Magnesium				30200.0	30650.00	101.5	30830.00	102.1	P
Manganese				200.0	200.50	100.2	201.70	100.8	P
Mercury				3.0	3.00	100.0	2.90	96.7	CV
Nickel				200.0	205.10	102.6	204.50	102.2	P
Potassium				30200.0	32060.00	106.2	32160.00	106.5	P
Selenium				100.0	99.53	99.5	100.80	100.8	P
Silver				100.0	103.20	103.2	103.90	103.9	P
Sodium				30200.0	30050.00	99.5	30130.00	99.8	P
Thallium				100.0	101.80	101.8	104.10	104.1	P
Vanadium				200.0	200.00	100.0	201.00	100.5	P
Zinc				200.0	210.90	105.4	212.30	106.2	P
Cyanide				150.0	140.00	93.3			AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				3.0	2.84	94.7			CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide	120.0	116.00	96.7	150.0	140.00	93.3	142.00	94.7	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

AA CRDL Standard Source: VENTURES____

ICP CRDL Standard Source: VENTURES____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	128.80	107.3	129.70	108.1
Arsenic				20.0	20.25	101.2	20.11	100.6
Barium								
Beryllium				10.0	10.44	104.4	10.83	108.3
Cadmium				10.0	10.55	105.5	10.14	101.4
Calcium								
Chromium				20.0	21.04	105.2	20.79	104.0
Cobalt				100.0	102.30	102.3	102.70	102.7
Copper				50.0	51.40	102.8	53.16	106.3
Iron								
Lead				6.0	6.21	103.5	5.42	90.3
Magnesium								
Manganese				30.0	31.07	103.6	31.10	103.7
Mercury	0.2	0.20	100.0					
Nickel				80.0	82.69	103.4	83.02	103.8
Potassium								
Selenium				10.0	12.25	122.5	9.29	92.9
Silver				20.0	21.25	106.2	21.07	105.4
Sodium								
Thallium				20.0	21.95	109.8	21.21	106.0
Vanadium				100.0	104.50	104.5	104.90	104.9
Zinc				40.0	42.53	106.3	43.13	107.8

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3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	11.3	U	11.3	U	11.3	U	11.3	U	11.300	U	P
Antimony	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	2.800	U	P
Barium	5.4	U	5.4	U	5.4	U	5.4	U	5.400	U	P
Beryllium	0.1	B	0.1	B	0.2	B	0.4	B	0.284	B	P
Cadmium	0.3	U	0.3	B	0.3	U	0.3	U	0.300	U	P
Calcium	142.8	U	142.8	U	142.8	U	142.8	U	142.800	U	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.600	U	P
Cobalt	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	P
Copper	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	10.6	U	11.0	B	10.6	U	10.6	U	17.480	B	P
Lead	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Magnesium	136.8	U	136.8	U	136.8	U	136.8	U	136.800	U	P
Manganese	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	P
Potassium	136.4	U	136.4	U	136.4	U	136.4	U	136.400	U	P
Selenium	-2.9	B	2.2	U	2.2	U	2.2	U	2.200	U	P
Silver	0.7	U	0.7	B	-0.9	B	0.7	U	0.700	U	P
Sodium	186.9	U	186.9	U	186.9	U	186.9	U	186.900	U	P
Thallium	2.3	U	2.3	U	2.3	U	2.3	U	2.300	U	P
Vanadium	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Zinc	0.7	U	0.7	U	0.7	U	0.7	U	0.929	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	5.000	U	AS

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3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			11.3	U							P
Antimony			2.5	U							P
Arsenic			2.8	U							P
Barium			5.4	U							P
Beryllium			0.5	B							P
Cadmium			0.3	U							P
Calcium			142.8	U							P
Chromium			0.6	U							P
Cobalt			1.4	U							P
Copper			1.0	U							P
Iron			10.6	U							P
Lead			1.6	U							P
Magnesium			136.8	U							P
Manganese			0.5	U							P
Mercury			0.1	U	0.1	U					CV
Nickel			1.4	U							P
Potassium			136.4	U							P
Selenium			2.2	U							P
Silver			0.7	U							P
Sodium			186.9	U							P
Thallium			2.3	U							P
Vanadium			1.6	U							P
Zinc			0.7	U							P
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	AS

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No: _____ SDG No.: 56277_

ICP ID Number: ICP TJA 61E_ ICS Source: VENTURES____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	478686	466500	469900.0	98.2	472200	476500.0	99.5
Antimony	0	594	1	611.2	102.9	-3	620.1	104.4
Arsenic	0	99	5	102.6	103.6	5	102.6	103.6
Barium	0	494	1	494.2	100.0	1	500.4	101.3
Beryllium	0	478	0	483.1	101.1	0	483.8	101.2
Cadmium	0	907	6	919.5	101.4	7	917.3	101.1
Calcium	500000	478186	468200	472300.0	98.8	472100	476900.0	99.7
Chromium	0	472	4	474.1	100.4	3	480.7	101.8
Cobalt	0	463	0	468.7	101.2	0	471.0	101.7
Copper	0	530	3	526.7	99.4	4	538.4	101.6
Iron	200000	192186	188500	192500.0	100.2	189100	194400.0	101.2
Lead	0	53	7	53.7	101.3	6	56.9	107.4
Magnesium	500000	507629	507500	502500.0	99.0	513800	511600.0	100.8
Manganese	0	478	2	482.1	100.9	2	482.8	101.0
Mercury								
Nickel	0	904	3	910.8	100.8	3	931.2	103.0
Potassium	0	0	19	25.1		34	43.9	
Selenium	0	49	5	53.2	108.6	0	51.1	104.3
Silver	0	205	1	208.2	101.6	1	212.5	103.7
Sodium	0	0	54	231.1		2	200.3	
Thallium	0	96	0	101.3	105.5	3	105.5	109.9
Vanadium	0	479	2	479.7	100.1	2	484.7	101.2
Zinc	0	986	23	986.0	100.0	24	1009.0	102.3

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW12S

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2368.0000		349.8000		2000.00	100.9		P
Antimony	75-125	520.2000		2.5000	U	500.00	104.0		P
Arsenic	75-125	41.9100		2.8000	U	40.00	104.8		P
Barium	75-125	2057.0000		92.3000	B	2000.00	98.2		P
Beryllium	75-125	52.1700		0.2730	B	50.00	103.8		P
Cadmium	75-125	50.0900		0.3000	U	50.00	100.2		P
Calcium									NR
Chromium	75-125	203.9000		0.6380	B	200.00	101.6		P
Cobalt	75-125	493.0000		1.4000	U	500.00	98.6		P
Copper	75-125	256.1000		1.6730	B	250.00	101.8		P
Iron	75-125	1451.0000		379.8000		1000.00	107.1		P
Lead	75-125	20.0400		1.6000	U	20.00	100.2		P
Magnesium									NR
Manganese	75-125	502.5000		5.3900	B	500.00	99.4		P
Mercury	75-125	0.9450		0.1000	U	1.00	94.5		CV
Nickel	75-125	494.4000		2.1430	B	500.00	98.5		P
Potassium									NR
Selenium	75-125	15.2600		3.2240	B	10.00	120.4		P
Silver	75-125	53.2000		0.7000	U	50.00	106.4		P
Sodium									NR
Thallium	75-125	56.7300		7.4980	B	50.00	98.5		P
Vanadium	75-125	504.2000		1.6000	U	500.00	100.8		P
Zinc	75-125	518.8000		17.6300	B	500.00	100.2		P
Cyanide	75-125	81.5000		5.0000	U	100.00	81.5		AS

Comments:

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW12A

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water) : WATER_ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum		2441.00		349.80		2000.0	104.6		P
Antimony		539.50		2.50	U	500.0	107.9		P
Arsenic		45.60		2.80	U	40.0	114.0		P
Barium		2098.00		92.30	B	2000.0	100.3		P
Beryllium		53.31		0.27	B	50.0	106.1		P
Cadmium		51.05		0.30	U	50.0	102.1		P
Calcium									NR
Chromium		207.30		0.64	B	200.0	103.3		P
Cobalt		509.50		1.40	U	500.0	101.9		P
Copper		261.90		1.67	B	250.0	104.1		P
Iron		1472.00		379.80		1000.0	109.2		P
Lead		19.67		1.60	U	20.0	98.4		P
Magnesium									NR
Manganese		516.10		5.39	B	500.0	102.1		P
Mercury									NR
Nickel		505.60		2.14	B	500.0	100.7		P
Potassium									NR
Selenium		15.34		3.22	B	10.0	121.2		P
Silver									NR
Sodium									NR
Thallium		56.32		7.50	B	50.0	97.6		P
Vanadium		514.60		1.60	U	500.0	102.9		P
Zinc		536.00		17.63	B	500.0	103.7		P
Cyanide									NR

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

MW12D

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Level (low/med): _LOW__

% Solids for Sample: __0.0 % Solids for Duplicate: ___0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	200.0	349.8000		329.1000		6.1		P
Antimony		2.5000	U	2.5000	U			P
Arsenic		2.8000	U	2.8000	U			P
Barium		92.3000	B	92.7100	B	0.4		P
Beryllium		0.2730	B	0.3200	B	15.9		P
Cadmium		0.3000	U	0.3000	U			P
Calcium		82460.0000		82840.0000		0.5		P
Chromium		0.6380	B	0.7460	B	15.6		P
Cobalt		1.4000	U	1.4000	U			P
Copper		1.6730	B	1.6760	B	0.2		P
Iron	100.0	379.8000		380.5000		0.2		P
Lead		1.6000	U	1.6000	U			P
Magnesium		64320.0000		64680.0000		0.6		P
Manganese		5.3900	B	5.2910	B	1.9		P
Mercury		0.1000	U	0.1000	U			CV
Nickel		2.1430	B	2.7880	B	26.2		P
Potassium	5000.0	8652.0000		8687.0000		0.4		P
Selenium		3.2240	B	2.3250	B	32.4		P
Silver		0.7000	U	0.7000	U			P
Sodium	5000.0	16240.0000		16280.0000		0.2		P
Thallium		7.4980	B	2.3000	U	200.0		P
Vanadium		1.6000	U	1.6000	U			P
Zinc		17.6300	B	18.5500	B	5.1		P
Cyanide		5.0000	U	5.0000	U			AS

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7

LABORATORY CONTROL SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Solid LCS Source: _____

Aqueous LCS Source: VENTURES____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	51000.0	50800.00	99.6						
Antimony	2000.0	2151.00	107.6						
Arsenic	1050.0	1127.00	107.3						
Barium	500.0	494.90	99.0						
Beryllium	500.0	511.00	102.2						
Cadmium	525.0	516.20	98.3						
Calcium	50000.0	51170.00	102.3						
Chromium	500.0	505.40	101.1						
Cobalt	500.0	496.50	99.3						
Copper	500.0	508.90	101.8						
Iron	50500.0	52050.00	103.1						
Lead	1015.0	1032.00	101.7						
Magnesium	50000.0	50640.00	101.3						
Manganese	500.0	501.10	100.2						
Mercury	1.0	0.95	95.2						
Nickel	500.0	497.70	99.5						
Potassium	50000.0	50060.00	100.1						
Selenium	25.0	27.13	108.5						
Silver	500.0	513.80	102.8						
Sodium	50000.0	50890.00	101.8						
Thallium	50.0	51.38	102.8						
Vanadium	500.0	501.20	100.2						
Zinc	500.0	523.70	104.7						
Cyanide									

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8
STANDARD ADDITION RESULTS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract:93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.:_____ SDG No.:56277_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

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9

ICP SERIAL DILUTION

EPA SAMPLE NO.

MW12L

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

Matrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	349.80		335.70	B	4.0		P
Antimony	2.50	U	12.50	U			P
Arsenic	2.80	U	14.00	U			P
Barium	92.30	B	91.60	B	0.8		P
Beryllium	0.27	B	1.40	B	418.5		P
Cadmium	0.30	U	1.50	U			P
Calcium	82460.00		82440.00		0.0		P
Chromium	0.64	B	3.00	U	100.0		P
Cobalt	1.40	U	7.00	U			P
Copper	1.67	B	5.00	U	100.0		P
Iron	379.80		430.30	B	13.3		P
Lead	1.60	U	8.00	U			P
Magnesium	64320.00		63090.00		1.9		P
Manganese	5.39	B	5.58	B	3.5		P
Mercury							NR
Nickel	2.14	B	7.00	U	100.0		P
Potassium	8652.00		8675.00	B	0.3		P
Selenium	3.22	B	11.00	U	100.0		P
Silver	0.70	U	3.50	U			P
Sodium	16240.00		15720.00	B	3.2		P
Thallium	7.50	B	11.50	U	100.0		P
Vanadium	1.60	U	8.00	U			P
Zinc	17.63	B	19.88	B	12.8		P

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: ICP_TJA_61E_ Date: 01/01/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	11.3	P
Antimony	206.84		60	2.5	P
Arsenic	189.04		10	2.8	P
Barium	493.41		200	5.4	P
Beryllium	313.04		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	142.8	P
Chromium	267.72		10	0.6	P
Cobalt	228.62		50	1.4	P
Copper	324.75		25	1.0	P
Iron	271.44		100	10.6	P
Lead	220.35		3	1.6	P
Magnesium	279.08		5000	136.8	P
Manganese	257.61		15	0.5	P
Mercury			0.2		NR
Nickel	231.60		40	1.4	P
Potassium	766.49		5000	136.4	P
Selenium	196.03		5	2.2	P
Silver	328.07		10	0.7	P
Sodium	330.23		5000	186.9	P
Thallium	190.86		10	2.3	P
Vanadium	292.40		50	1.6	P
Zinc	213.86		20	0.7	P

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: _____ Date: 01/01/96

Flame AA ID Number : PS200_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: _____ Date: 01/01/96

Flame AA ID Number : PS1214_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	CO_
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000390	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000400	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0001035	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.0000596	-0.0000184	0.0000823	0.0000111	-0.0048710
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011240
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	-0.0001999	0.0000000	-0.0000465
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000100	0.0000000	-0.0000800	0.0000000	0.0049700
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CR_	MN_	NI_	V__	___
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0264000	
Antimony_	206.84	0.0055040	0.0000000	-0.0002668	-0.0036670	
Arsenic__	189.04	-0.0029900	0.0000000	0.0000000	0.0000000	
Barium___	493.41	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0011400	
Cadmium__	226.50	0.0000000	0.0000000	-0.0000329	0.0000000	
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium_	267.72	0.0000000	0.0000704	0.0000000	-0.0000540	
Cobalt___	228.62	0.0000000	0.0000000	0.0000000	0.0000000	
Copper___	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	
Lead____	220.35	-0.0001864	0.0000279	0.0002131	-0.0006255	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury__						
Nickel___	231.60	0.0000000	-0.0001310	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium_	196.03	0.0000000	0.0002108	0.0000000	0.0000188	
Silver___	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium_	190.86	0.0003750	-0.0005820	0.0000000	0.0036030	
Vanadium_	292.40	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

U.S. EPA - CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56277_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum_	10.00	500000.0	P
Antimony_	10.00	50000.0	P
Arsenic__	10.00	10000.0	P
Barium___	10.00	10000.0	P
Beryllium	10.00	50000.0	P
Cadmium__	10.00	10000.0	P
Calcium__	10.00	1000000.0	P
Chromium_	10.00	50000.0	P
Cobalt___	10.00	50000.0	P
Copper___	10.00	50000.0	P
Iron_____	10.00	500000.0	P
Lead_____	10.00	100000.0	P
Magnesium	10.00	1000000.0	P
Manganese	10.00	20000.0	P
Mercury__			NR
Nickel___	10.00	100000.0	P
Potassium	10.00	100000.0	P
Selenium_	10.00	5000.0	P
Silver___	10.00	2000.0	P
Sodium___	10.00	100000.0	P
Thallium_	10.00	5000.0	P
Vanadium_	10.00	50000.0	P
Zinc_____	10.00	5000.0	P

Comments:

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56277_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	01/25/96		100
MW12	01/25/96		100
MW12D	01/25/96		100
MW12S	01/25/96		100
MW13A	01/25/96		100
MW27	01/25/96		100
MW453	01/25/96		100
MW454	01/25/96		100
PBW1	01/25/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56277_

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	01/25/96		100
MW12	01/25/96		100
MW12D	01/25/96		100
MW12S	01/25/96		100
MW13A	01/25/96		100
MW27	01/25/96		100
MW453	01/25/96		100
MW454	01/25/96		100
PBW1	01/25/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56277_

Method: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	01/24/96		250
MW13A	01/24/96		250
MW27	01/24/96		250
MW453	01/24/96		250
MW454	01/24/96		250
PBW1	01/24/96		250

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56277_

Method: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	01/29/96		250
MW12	01/29/96		250
MW12D	01/29/96		250
MW12S	01/29/96		250
PBW2	01/29/96		250

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: ICP TJA 61E__ Method: P_

Start Date: 02/05/96 End Date: 02/05/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1106		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.00	1110					X	X	X		X	X	X		_		X	_	X		_	X		_	X	X	_
S	1.00	1114		X	_	_				X				X	_	X		_		X	_		X	_			_
S	1.00	1119			X	X	_	_	_		_	_	_		X		_	_	_		X	_		X	_	_	_
ICV	1.00	1125		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.00	1130		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	1135		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	1139		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	1144			X	X		X	X		X	X	X		X		X	_	X		X	X		X	X	X	_
CCV	1.00	1149		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1154		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	100.00	1159		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1204		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1209		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1213		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	1218		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1223		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1228																									
PBW1	1.00	1233		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCSW1	1.00	1237		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW12	1.00	1242		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	1247		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1252		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW12L	5.00	1257		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW12A	1.00	1301		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW12S	1.00	1306		X	X	X	X	X	X		X	X	X	X	X		X	_	X		X	X		X	X	X	_
MW12D	1.00	1311		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW27	1.00	1316		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW453	1.00	1321		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW454	1.00	1325		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MW13A	1.00	1330		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	1335		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: ICP TJA 61E__ Method: P_

Start Date: 02/05/96 End Date: 02/05/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	1345		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	1350		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	1355			X	X		X	X		X	X	X		X		X	_	X		X	X		X	X	X	_
CCV	1.00	1359		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1404		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: PS200_____ Method: CV

Start Date: 01/26/96 End Date: 01/26/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1542																X									
S0	1.00	1545																X									
S0.2	1.00	1549																X									
S0.5	1.00	1552																X									
S1	1.00	1555																X									
S3	1.00	1558																X									
S5	1.00	1602																X									
ICV	1.00	1605																X									
ICB	1.00	1608																X									
CRA	1.00	1611																X									
CCV	1.00	1614																X									
CCB	1.00	1617																X									
ZZZZZZ	1.00	1620																									
ZZZZZZ	1.00	1623																									
ZZZZZZ	1.00	1627																									
ZZZZZZ	1.00	1630																									
ZZZZZZ	1.00	1633																									
ZZZZZZ	1.00	1636																									
ZZZZZZ	1.00	1639																									
ZZZZZZ	1.00	1642																									
ZZZZZZ	1.00	1645																									
CCV	1.00	1648																X									
CCB	1.00	1651																X									
ZZZZZZ	1.00	1655																									
ZZZZZZ	1.00	1658																									
ZZZZZZ	1.00	1701																									
ZZZZZZ	1.00	1704																									
ZZZZZZ	1.00	1707																									
ZZZZZZ	1.00	1710																									
ZZZZZZ	1.00	1713																									
ZZZZZZ	1.00	1716																									
ZZZZZZ	1.00	1720																									

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: PS200_____ Method: CV

Start Date: 01/26/96 End Date: 01/26/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1723																X									
CCB	1.00	1726																X									
ZZZZZZ	1.00	1729																									
ZZZZZZ	1.00	1732																									
ZZZZZZ	1.00	1735																									
ZZZZZZ	1.00	1738																									
PBW1	1.00	1741																X									
LCSW1	1.00	1744																X									
ZZZZZZ	1.00	1747																									
ZZZZZZ	1.00	1750																									
ZZZZZZ	1.00	1753																									
CCV	1.00	1756																X									
CCB	1.00	1800																X									
ZZZZZZ	1.00	1803																									
MW12	1.00	1806																X									
MW12S	1.00	1809																X									
MW12D	1.00	1812																X									
MW13A	1.00	1815																X									
MW27	1.00	1818																X									
MW453	1.00	1821																X									
MW454	1.00	1824																X									
ZZZZZZ	1.00	1827																									
CCV	1.00	1830																X									
CCB	1.00	1833																X									

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 01/26/96 End Date: 01/26/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1805																									X
S10	1.00	1807																									X
S50	1.00	1809																									X
S100	1.00	1811																									X
S200	1.00	1813																									X
S300	1.00	1816																									X
ICV	1.00	1818																									X
ICB	1.00	1820																									X
ZZZZZZ	1.00	1822																									
CCV	1.00	1824																									X
CCB	1.00	1826																									X
PBW1	1.00	1829																									X
ZZZZZZ	1.00	1831																									
ZZZZZZ	5.00	1833																									
ZZZZZZ	1.00	1835																									
ZZZZZZ	1.00	1837																									
ZZZZZZ	1.00	1839																									
ZZZZZZ	1.00	1841																									
ZZZZZZ	1.00	1843																									
ZZZZZZ	1.00	1845																									
ZZZZZZ	1.00	1847																									
CCV	1.00	1849																									X
CCB	1.00	1851																									X
MW13A	1.00	1854																									X
MW27	1.00	1856																									X
MW453	1.00	1858																									X
MW454	1.00	1900																									X
ZZZZZZ	1.00	1902																									
ZZZZZZ	1.00	1904																									
CCV	1.00	1906																									X
CCB	1.00	1908																									X

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56277_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 01/31/96 End Date: 01/31/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1249																									X
S10	1.00	1251																									X
S50	1.00	1253																									X
S100	1.00	1256																									X
S200	1.00	1258																									X
S300	1.00	1300																									X
ICV	1.00	1302																									X
ICB	1.00	1305																									X
CCV	1.00	1307																									X
CCB	1.00	1309																									X
ZZZZZZ	1.00	1311																									
PBW2	1.00	1313																									X
ZZZZZZ	5.00	1315																									
MW12	1.00	1317																									X
MW12D	1.00	1319																									X
MW12S	5.00	1321																									X
ZZZZZZ	1.00	1323																									
ZZZZZZ	1.00	1326																									
ZZZZZZ	1.00	1328																									
CCV	1.00	1330																									X
CCB	1.00	1332																									X

2. Sample Delivery Group No. 56202

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/14/96
ETR Number : 56240
Project No.: 93206
No. Samples: 31
Arrived : 01/16/96
P.O. Number: *

Case:OBASH SDG:56202

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
286220	MW14a:01/15/96 (Water)	
9050	Conductivity (umhos/cm)	1020
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.78 o
9060	Total Organic Carbon	1.1
286220R1	MW14a:01/15/96 (Water)	
9060	Total Organic Carbon	1.0
286220R2	MW14a:01/15/96 (Water)	
9060	Total Organic Carbon	1.0
286220R3	MW14a:01/15/96 (Water)	
9060	Total Organic Carbon	1.0
286221	MW14b:01/15/96 (Water)	
9050	Conductivity (umhos/cm)	1040
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.69 o
9060	Total Organic Carbon	1.1
286221R1	MW14b:01/15/96 (Water)	
9060	Total Organic Carbon	1.2

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

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Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/14/96
ETR Number : 56240
Project No.: 93206
No. Samples: 31
Arrived : 01/16/96
P.O. Number: *

Case:OBASH SDG:56202

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All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
286221R2	MW14b:01/15/96 (Water)		
	9060	Total Organic Carbon	1.0
286221R3	MW14b:01/15/96 (Water)		
	9060	Total Organic Carbon	1.1
286222	MW14c:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	1020
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	6.75 o
	9060	Total Organic Carbon	1.0
286222R1	MW14c:01/15/96 (Water)		
	9060	Total Organic Carbon	1.0
286222R2	MW14c:01/15/96 (Water)		
	9060	Total Organic Carbon	1.0
286222R3	MW14c:01/15/96 (Water)		
	9060	Total Organic Carbon	0.9
286223	MW14d:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	1020
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	6.78 o
	9060	Total Organic Carbon	0.8

Comments/Notes

o = pH units

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

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Colchester, VT 05446

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South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 02/14/96
ETR Number : 56240
Project No.: 93206
No. Samples: 31
Arrived : 01/16/96
P.O. Number: *

Case:OBASH SDG:56202

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/	Parameter	Result
286223R1	MW14d:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286223R2	MW14d:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286223R3	MW14d:01/15/96 (Water)		
	9060	Total Organic Carbon	0.8
286224	MW14R:01/15/96 (Water)		
	9050	Conductivity (umhos/cm)	4.5
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.60 o
	9060	Total Organic Carbon	<0.5
286224R1	MW14R:01/15/96 (Water)		
	9060	Total Organic Carbon	<0.5
286224R2	MW14R:01/15/96 (Water)		
	9060	Total Organic Carbon	<0.5
286224R3	MW14R:01/15/96 (Water)		
	9060	Total Organic Carbon	<0.5

Comments/Notes

o = pH units

< Last Page > Submitted By : Aquatec Inc.

Quality Control Summary

Project No: 93206
ETR No: 56240
SDG No: 56202
Units: mg/L

Parameter	Method Preparation Blank	Laboratory Control Sample Reported Value	Laboratory Control Sample True Value	Laboratory Control Sample Percent Recovery
Conductivity (umhos/cm)	NA	1425	1413	100.8
pH (Std Units)	NA	5.97	6.00	99.5
Total Organic Carbon	< 0.5	69.2	72.9	94.9
Total Organic Halides	< 0.02	4.81	5.00	96.2

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH SAS No.: _____ SDG No.:56202_

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID
_MW114_____	_286231_____
_MW14_____	_286219_____
_MW14R_____	_286224_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW114

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Matrix (soil/water): WATER Lab Sample ID: 286231

Level (low/med): LOW__ Date Received: 01/16/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	138	B		P
7440-36-0	Antimony_	2.5	U		P
7440-38-2	Arsenic__	2.8	U		P
7440-39-3	Barium___	47.7	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium__	0.30	U		P
7440-70-2	Calcium__	160000			P
7440-47-3	Chromium_	0.60	U		P
7440-48-4	Cobalt___	1.4	U		P
7440-50-8	Copper___	1.6	B		P
7439-89-6	Iron_____	206			P
7439-92-1	Lead_____	1.6	U		P
7439-95-4	Magnesium	33100			P
7439-96-5	Manganese	5.1	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.8	B		P
7440-09-7	Potassium	1470	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.70	U		P
7440-23-5	Sodium___	30300			P
7440-28-0	Thallium_	6.3	B		P
7440-62-2	Vanadium_	1.6	U		P
7440-66-6	Zinc_____	4.3	B		P
	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Matrix (soil/water): WATER Lab Sample ID: 286219

Level (low/med): LOW__ Date Received: 01/16/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	56.5	B		P_
7440-36-0	Antimony_	2.5	U		P_
7440-38-2	Arsenic__	2.8	U		P_
7440-39-3	Barium___	46.1	B		P_
7440-41-7	Beryllium	0.17	B		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	159000			P_
7440-47-3	Chromium_	0.60	U		P_
7440-48-4	Cobalt___	1.4	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	92.4	B		P_
7439-92-1	Lead____	1.6	U		P_
7439-95-4	Magnesium	32800			P_
7439-96-5	Manganese	1.2	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.4	U		P_
7440-09-7	Potassium	1430	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.70	U		P_
7440-23-5	Sodium___	30200			P_
7440-28-0	Thallium_	2.3	U		P_
7440-62-2	Vanadium_	1.6	U		P_
7440-66-6	Zinc____	3.8	B		P_
	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW14R

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Matrix (soil/water): WATER Lab Sample ID: 286224

Level (low/med): LOW__ Date Received: 01/16/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	11.3	U		P_
7440-36-0	Antimony_	2.5	U		P_
7440-38-2	Arsenic__	2.8	U		P_
7440-39-3	Barium___	5.4	U		P_
7440-41-7	Beryllium	0.16	B		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	143	U		P_
7440-47-3	Chromium_	0.60	U		P_
7440-48-4	Cobalt___	1.4	U		P_
7440-50-8	Copper___	1.4	B		P_
7439-89-6	Iron_____	10.6	U		P_
7439-92-1	Lead_____	1.6	U		P_
7439-95-4	Magnesium	137	U		P_
7439-96-5	Manganese	0.50	U		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.4	U		P_
7440-09-7	Potassium	136	U		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.70	U		P_
7440-23-5	Sodium___	187	U		P_
7440-28-0	Thallium_	2.3	U		P_
7440-62-2	Vanadium_	1.6	U		P_
7440-66-6	Zinc_____	0.99	B		P_
_____	Cyanide__	5.0	U		AS
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	26000.0	25630.00	98.6	30200.0	30190.00	100.0	30330.00	100.4	P
Antimony	250.0	243.20	97.3	300.0	306.40	102.1	311.20	103.7	P
Arsenic	250.0	255.60	102.2	100.0	100.40	100.4	101.40	101.4	P
Barium	500.0	488.80	97.8	200.0	202.70	101.4	204.20	102.1	P
Beryllium	500.0	503.60	100.7	100.0	100.70	100.7	100.80	100.8	P
Cadmium	500.0	495.20	99.0	100.0	99.61	99.6	99.42	99.4	P
Calcium	25000.0	25360.00	101.4	30200.0	30450.00	100.8	30450.00	100.8	P
Chromium	500.0	495.30	99.1	200.0	202.70	101.4	203.30	101.6	P
Cobalt	500.0	494.90	99.0	200.0	199.60	99.8	199.80	99.9	P
Copper	500.0	496.70	99.3	200.0	204.50	102.2	206.90	103.4	P
Iron	25500.0	26380.00	103.5	30200.0	30480.00	100.9	30460.00	100.9	P
Lead	1000.0	1008.00	100.8	400.0	406.90	101.7	404.80	101.2	P
Magnesium	25000.0	24980.00	99.9	30200.0	30300.00	100.3	30530.00	101.1	P
Manganese	500.0	498.60	99.7	200.0	200.60	100.3	200.80	100.4	P
Mercury	1.8	1.89	105.0	3.0	3.06	102.0	3.05	101.7	CV
Nickel	500.0	492.70	98.5	200.0	201.40	100.7	204.20	102.1	P
Potassium	25000.0	26810.00	107.2	30200.0	31540.00	104.4	31850.00	105.5	P
Selenium	250.0	251.50	100.6	100.0	99.25	99.2	104.00	104.0	P
Silver	500.0	503.90	100.8	100.0	102.20	102.2	102.70	102.7	P
Sodium	25000.0	24440.00	97.8	30200.0	29580.00	97.9	29930.00	99.1	P
Thallium	250.0	234.40	93.8	100.0	104.70	104.7	102.50	102.5	P
Vanadium	500.0	499.90	100.0	200.0	200.30	100.2	201.00	100.5	P
Zinc	500.0	499.80	100.0	200.0	207.20	103.6	209.00	104.5	P
Cyanide	120.0	109.00	90.8	150.0	141.00	94.0	142.00	94.7	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	30530.00	101.1	30800.00	102.0	P
Antimony				300.0	311.70	103.9	312.00	104.0	P
Arsenic				100.0	98.36	98.4	104.40	104.4	P
Barium				200.0	204.80	102.4	205.30	102.6	P
Beryllium				100.0	100.90	100.9	101.60	101.6	P
Cadmium				100.0	98.64	98.6	99.68	99.7	P
Calcium				30200.0	30580.00	101.3	30820.00	102.1	P
Chromium				200.0	204.20	102.1	205.50	102.8	P
Cobalt				200.0	199.70	99.8	201.10	100.6	P
Copper				200.0	208.40	104.2	209.70	104.8	P
Iron				30200.0	30540.00	101.1	30690.00	101.6	P
Lead				400.0	405.20	101.3	411.30	102.8	P
Magnesium				30200.0	30650.00	101.5	30830.00	102.1	P
Manganese				200.0	200.50	100.2	201.70	100.8	P
Mercury				3.0	2.99	99.7	3.05	101.7	CV
Nickel				200.0	205.10	102.6	204.50	102.2	P
Potassium				30200.0	32060.00	106.2	32160.00	106.5	P
Selenium				100.0	99.53	99.5	100.80	100.8	P
Silver				100.0	103.20	103.2	103.90	103.9	P
Sodium				30200.0	30050.00	99.5	30130.00	99.8	P
Thallium				100.0	101.80	101.8	104.10	104.1	P
Vanadium				200.0	200.00	100.0	201.00	100.5	P
Zinc				200.0	210.90	105.4	212.30	106.2	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

AA CRDL Standard Source: VENTURES____

ICP CRDL Standard Source: VENTURES____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony				120.0	128.80	107.3	129.70	108.1
Arsenic				20.0	20.25	101.2	20.11	100.6
Barium								
Beryllium				10.0	10.44	104.4	10.83	108.3
Cadmium				10.0	10.55	105.5	10.14	101.4
Calcium								
Chromium				20.0	21.04	105.2	20.79	104.0
Cobalt				100.0	102.30	102.3	102.70	102.7
Copper				50.0	51.40	102.8	53.16	106.3
Iron								
Lead				6.0	6.21	103.5	5.42	90.3
Magnesium								
Manganese				30.0	31.07	103.6	31.10	103.7
Mercury	0.2	0.12	60.0					
Nickel				80.0	82.69	103.4	83.02	103.8
Potassium								
Selenium				10.0	12.25	122.5	9.29	92.9
Silver				20.0	21.25	106.2	21.07	105.4
Sodium								
Thallium				20.0	21.95	109.8	21.21	106.0
Vanadium				100.0	104.50	104.5	104.90	104.9
Zinc				40.0	42.53	106.3	43.13	107.8

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3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	11.3	U	11.3	U	11.3	U	11.3	U	11.300	U	P
Antimony	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	3.648	B	P
Barium	5.4	U	5.4	U	5.4	U	5.4	U	5.400	U	P
Beryllium	0.1	B	0.1	B	0.2	B	0.4	B	0.102	B	P
Cadmium	0.3	U	0.3	B	0.3	U	0.3	U	0.300	U	P
Calcium	142.8	U	142.8	U	142.8	U	142.8	U	142.800	U	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.600	U	P
Cobalt	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	P
Copper	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	10.6	U	11.0	B	10.6	U	10.6	U	10.600	U	P
Lead	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Magnesium	136.8	U	136.8	U	136.8	U	136.8	U	136.800	U	P
Manganese	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Mercury	0.1	U	0.1	U	0.1	U	-0.1	B	0.100	U	CV
Nickel	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	P
Potassium	136.4	U	136.4	U	136.4	U	136.4	U	136.400	U	P
Selenium	-2.9	B	2.2	U	2.2	U	2.2	U	2.200	U	P
Silver	0.7	U	0.7	B	-0.9	B	0.7	U	0.700	U	P
Sodium	186.9	U	186.9	U	186.9	U	186.9	U	186.900	U	P
Thallium	2.3	U	2.3	U	2.3	U	2.3	U	2.718	B	P
Vanadium	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Zinc	0.7	U	0.7	U	0.7	U	0.7	U	0.700	U	P
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	AS

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3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			11.3	U							P
Antimony			2.5	U							P
Arsenic			2.8	U							P
Barium			5.4	U							P
Beryllium			0.5	B							P
Cadmium			0.3	U							P
Calcium			142.8	U							P
Chromium			0.6	U							P
Cobalt			1.4	U							P
Copper			1.0	U							P
Iron			10.6	U							P
Lead			1.6	U							P
Magnesium			136.8	U							P
Manganese			0.5	U							P
Mercury			0.1	U							CV
Nickel			1.4	U							P
Potassium			136.4	U							P
Selenium			2.2	U							P
Silver			0.7	U							P
Sodium			186.9	U							P
Thallium			2.3	U							P
Vanadium			1.6	U							P
Zinc			0.7	U							P
Cyanide											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No: _____ SDG No.: 56202_

ICP ID Number: ICP TJA 61E_ ICS Source: VENTURES____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	478686	466500	469900.0	98.2	472200	476500.0	99.5
Antimony	0	594	1	611.2	102.9	-3	620.1	104.4
Arsenic	0	99	5	102.6	103.6	5	102.6	103.6
Barium	0	494	1	494.2	100.0	1	500.4	101.3
Beryllium	0	478	0	483.1	101.1	0	483.8	101.2
Cadmium	0	907	6	919.5	101.4	7	917.3	101.1
Calcium	500000	478186	468200	472300.0	98.8	472100	476900.0	99.7
Chromium	0	472	4	474.1	100.4	3	480.7	101.8
Cobalt	0	463	0	468.7	101.2	0	471.0	101.7
Copper	0	530	3	526.7	99.4	4	538.4	101.6
Iron	200000	192186	188500	192500.0	100.2	189100	194400.0	101.2
Lead	0	53	7	53.7	101.3	6	56.9	107.4
Magnesium	500000	507629	507500	502500.0	99.0	513800	511600.0	100.8
Manganese	0	478	2	482.1	100.9	2	482.8	101.0
Mercury								
Nickel	0	904	3	910.8	100.8	3	931.2	103.0
Potassium	0	0	19	25.1		34	43.9	
Selenium	0	49	5	53.2	108.6	0	51.1	104.3
Silver	0	205	1	208.2	101.6	1	212.5	103.7
Sodium	0	0	54	231.1		2	200.3	
Thallium	0	96	0	101.3	105.5	3	105.5	109.9
Vanadium	0	479	2	479.7	100.1	2	484.7	101.2
Zinc	0	986	23	986.0	100.0	24	1009.0	102.3

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7

LABORATORY CONTROL SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Solid LCS Source: _____

Aqueous LCS Source: VENTURES____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	51000.0	50550.00	99.1						
Antimony	2000.0	2113.00	105.6						
Arsenic	1050.0	1105.00	105.2						
Barium	500.0	487.90	97.6						
Beryllium	500.0	503.40	100.7						
Cadmium	525.0	509.80	97.1						
Calcium	50000.0	50310.00	100.6						
Chromium	500.0	493.80	98.8						
Cobalt	500.0	487.10	97.4						
Copper	500.0	501.20	100.2						
Iron	50500.0	51410.00	101.8						
Lead	1015.0	1013.00	99.8						
Magnesium	50000.0	49860.00	99.7						
Manganese	500.0	493.40	98.7						
Mercury	1.0	0.92	92.2						
Nickel	500.0	488.90	97.8						
Potassium	50000.0	49740.00	99.5						
Selenium	25.0	25.52	102.1						
Silver	500.0	497.20	99.4						
Sodium	50000.0	50450.00	100.9						
Thallium	50.0	50.40	100.8						
Vanadium	500.0	491.40	98.3						
Zinc	500.0	501.60	100.3						
Cyanide									

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8
STANDARD ADDITION RESULTS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract:93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.:_____ SDG No.:56202_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

FORM VIII - IN ILM02.1

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9

ICP SERIAL DILUTION

EPA SAMPLE NO.

MW14L

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

Matrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	56.50	B	66.06	B	16.9		P
Antimony	2.50	U	12.50	U			P
Arsenic	2.80	U	14.00	U			P
Barium	46.06	B	45.43	B	1.4		P
Beryllium	0.17	B	0.93	B	447.1		P
Cadmium	0.30	U	1.50	U			P
Calcium	158600.00		159700.00		0.7		P
Chromium	0.60	U	3.00	U			P
Cobalt	1.40	U	7.00	U			P
Copper	1.00	U	5.00	U			P
Iron	92.44	B	131.60	B	42.4		P
Lead	1.60	U	8.00	U			P
Magnesium	32770.00		32380.00		1.2		P
Manganese	1.20	B	2.50	U	100.0		P
Mercury							NR
Nickel	1.40	U	7.86	B			P
Potassium	1427.00	B	1540.00	B	7.9		P
Selenium	2.20	U	11.00	U			P
Silver	0.70	U	3.50	U			P
Sodium	30170.00		28900.00		4.2		P
Thallium	2.30	U	11.50	U			P
Vanadium	1.60	U	8.00	U			P
Zinc	3.84	B	8.64	B	125.0		P

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: ICP_TJA_61E_ Date: 01/01/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	11.3	P
Antimony	206.84		60	2.5	P
Arsenic	189.04		10	2.8	P
Barium	493.41		200	5.4	P
Beryllium	313.04		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	142.8	P
Chromium	267.72		10	0.6	P
Cobalt	228.62		3	1.4	P
Copper	324.75		25	1.0	P
Iron	271.44		100	10.6	P
Lead	220.35		3	1.6	P
Magnesium	279.08		5000	136.8	P
Manganese	257.61		15	0.5	P
Mercury			0.2		NR
Nickel	231.60		40	1.4	P
Potassium	766.49		5000	136.4	P
Selenium	196.03		5	2.2	P
Silver	328.07		10	0.7	P
Sodium	330.23		5000	186.9	P
Thallium	190.86		10	2.3	P
Vanadium	292.40		50	1.6	P
Zinc	213.86		20	0.7	P

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: _____ Date: 01/01/96

Flame AA ID Number : PS200_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			3		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: _____ Date: 01/01/96

Flame AA ID Number : PS1214_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			3		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	CO_
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000390	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000400	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0001035	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.0000596	-0.0000184	0.0000823	0.0000111	-0.0048710
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011240
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	-0.0001999	0.0000000	-0.0000465
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000100	0.0000000	-0.0000800	0.0000000	0.0049700
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CR_	MN_	NI_	V__	___
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0264000	
Antimony_	206.84	0.0050400	0.0000000	-0.0002668	-0.0036670	
Arsenic__	189.04	-0.0029900	0.0000000	0.0000000	0.0000000	
Barium___	493.41	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0011400	
Cadmium__	226.50	0.0000000	0.0000000	-0.0000329	0.0000000	
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium_	267.72	0.0000000	0.0000704	0.0000000	-0.0000540	
Cobalt___	228.62	0.0000000	0.0000000	0.0000000	0.0000000	
Copper___	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron_____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	
Lead_____	220.35	-0.0001864	0.0000279	0.0002131	-0.0006255	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury__						
Nickel___	231.60	0.0000000	-0.0001310	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium_	196.03	0.0000000	0.0002108	0.0000000	0.0000188	
Silver___	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium_	190.86	0.0003750	-0.0005820	0.0000000	0.0036030	
Vanadium_	292.40	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc_____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

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12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 56202_

ICP ID Number: ICP TJA 61E_ Date: 01/01/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	10.00	500000.0	P
Antimony	10.00	50000.0	P
Arsenic	10.00	10000.0	P
Barium	10.00	10000.0	P
Beryllium	10.00	50000.0	P
Cadmium	10.00	10000.0	P
Calcium	10.00	1000000.0	P
Chromium	10.00	50000.0	P
Cobalt	10.00	50000.0	P
Copper	10.00	50000.0	P
Iron	10.00	500000.0	P
Lead	10.00	100000.0	P
Magnesium	10.00	1000000.0	P
Manganese	10.00	20000.0	P
Mercury			NR
Nickel	10.00	100000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	5000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	50000.0	P
Zinc	10.00	5000.0	P

Comments:

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56202_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	01/31/96		100
MW114	01/31/96		100
MW14	01/31/96		100
MW14R	01/31/96		100
PBW1	01/31/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56202_

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	02/08/96		100
MW114	02/08/96		100
MW14	02/08/96		100
MW14R	02/08/96		100
PBW1	02/08/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:56202_

Method: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	01/24/96		250
MW114	01/24/96		250
MW14	01/24/96		250
MW14R	01/24/96		250
PBW1	01/24/96		250

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56202_

Instrument ID Number: ICP TJA 61E__ Method: P_

Start Date: 02/05/96 End Date: 02/05/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1106		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	1.00	1110					X	X	X		X	X	X				X		X			X			X	X	
S	1.00	1114		X						X				X		X				X			X				
S	1.00	1119			X	X									X						X			X			
ICV	1.00	1125		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICB	1.00	1130		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSA	1.00	1135		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1139		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1144			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
CCV	1.00	1149		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1154		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	100.00	1159																									
PBW1	1.00	1204		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCSW1	1.00	1209		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MW14	1.00	1213		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MW14L	5.00	1218		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MW14R	1.00	1223		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MW114	1.00	1228		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1233																									
ZZZZZZ	1.00	1237																									
ZZZZZZ	1.00	1242																									
CCV	1.00	1247		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1252		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	5.00	1257																									
ZZZZZZ	1.00	1301																									
ZZZZZZ	1.00	1306																									
ZZZZZZ	1.00	1311																									
ZZZZZZ	1.00	1316																									
ZZZZZZ	1.00	1321																									
ZZZZZZ	1.00	1325																									
ZZZZZZ	1.00	1330																									
CCV	1.00	1335		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56202_

Instrument ID Number: ICP TJA 61E__ Method: P_

Start Date: 02/05/96 End Date: 02/05/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSA	1.00	1345		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1350		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1355			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
CCV	1.00	1359		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1404		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56202_

Instrument ID Number: PS200_____ Method: CV

Start Date: 02/10/96 End Date: 02/10/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
S0	1.00	1406		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S0	1.00	1409		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S0.2	1.00	1412		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S0.5	1.00	1416		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S1	1.00	1419		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S3	1.00	1422		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
S5	1.00	1425		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ICV	1.00	1428		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ICB	1.00	1432		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CRA	1.00	1435		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCV	1.00	1438		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCB	1.00	1441		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1444		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1447		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1450		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1453		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1457		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1500		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1503		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1506		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1509		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCV	1.00	1512		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
CCB	1.00	1515		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1518		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1521		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1524		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1528		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1531		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1534		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ZZZZZZ	1.00	1537		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PBW1	1.00	1540		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
LCSW1	1.00	1543		–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–
				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56202_

Instrument ID Number: PS200_____ Method: CV

Start Date: 02/10/96 End Date: 02/10/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1546																X									
CCB	1.00	1549																X									
ZZZZZZ	1.00	1552																									
ZZZZZZ	1.00	1555																									
ZZZZZZ	1.00	1558																									
ZZZZZZ	1.00	1602																									
ZZZZZZ	1.00	1605																									
ZZZZZZ	1.00	1608																									
MW14	1.00	1611																X									
MW14R	1.00	1614																X									
MW114	1.00	1617																X									
CCV	1.00	1620																X									
CCB	1.00	1623																X									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:56202_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 01/26/96 End Date: 01/26/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1805																									X
S10	1.00	1807																									X
S50	1.00	1809																									X
S100	1.00	1811																									X
S200	1.00	1813																									X
S300	1.00	1816																									X
ICV	1.00	1818																									X
ICB	1.00	1820																									X
ZZZZZZ	1.00	1822																									
CCV	1.00	1824																									X
CCB	1.00	1826																									X
PBW1	1.00	1829																									X
ZZZZZZ	1.00	1831																									
ZZZZZZ	5.00	1833																									
ZZZZZZ	1.00	1835																									
MW14	1.00	1837																									X
MW14R	1.00	1839																									X
MW114	1.00	1841																									X
ZZZZZZ	1.00	1843																									
ZZZZZZ	1.00	1845																									
ZZZZZZ	1.00	1847																									
CCV	1.00	1849																									X
CCB	1.00	1851																									X