Vee
9/21

RESNA
Working to Restore Nature

1500 So. Union Avenue
Bakersfield, California 93307
Phone: (805) 835-7700
FAX: (805) 835-7717

September 14, 1992

Eva Chu
Alameda County Department
of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: Scotsman Corp., Dublin CA
Groundwater Remediation
Soil Excavation Report

Dear Ms. Chu:

On August 19, 1992, approximately 125 cubic yards of soil were excavated at the Scotsman facility at 6055 Scarlett Ct. , Dublin, California. Approximately 75 cubic yards of clean soil and 50 yards of contaminated soil were removed. During the excavation, the clean soil was segregated from the contaminated. Three groundwater monitoring wells were abandoned during the excavation. MW-1 and MW-6 were completely removed while RW-2 was filled with bentonite and the well casing was removed from the bottom of the excavation to the surface.

Four sidewall samples were collected from the excavation pit as per your directions. These samples, designated S-EW-12, S-NW-14, S-SW-14, and S-WW-14, were analyzed for Benzene, Toluene, Xylenes and Ethylbenzene (BTX&E) and Total Petroleum Hydrocarbons (TPH) as gasoline (see Plate 1 and Laboratory Analyses). The sample identification for the sample S-EW-12, for example, indicates that it was a sidewall sample from the East wall, collected at 12 feet below grade. The hydrocarbon concentrations for these samples were all reported to be below detection levels.

Pursuant to your instructions, a four point composite sample was collected from the clean pile for every twenty cubic yards of soil. Since the clean pile was estimated to contain 75 cubic yards of soil, four composite samples were collected and analyzed for BTX&E and TPH gasoline constituents. These samples were designated S-COMP-B1 through B4. The hydrocarbon concentrations for these samples were also reported to be below detection levels (see Laboratory Analysis).

A four point composite sample was also collected from the contaminated soil pile. This sample, designated S-COMP-A1, was analyzed for BTX&E, TPH gasoline, Toxicity Characteristic Leaching Procedures (TCLP) for BTX&E, Soluble Threshold Limit Concentration (STLC) and Corrosivity, Ignitability and Reactivity. The reported concentration for TPH gasoline was 10 ppm, 0.018 ppm for Ethylbenzene, and 0.055 ppm for Total Xylenes. The results of the other analyses were reported to be below detection levels or action levels.

Since the concentration in the soil was only 10 ppm, it was decided that spread aeration of the soil would be the most economical method for remediation. On August 27, 1992, approval was sought from the Alameda County Department of Environmental Health for the aeration of the soil. Approval was received from Mr. Scott Seery for the aeration of the soil and the backfilling of the excavation. It was stipulated that the excavation should be backfilled with clean imported soil first. The clean soil previously excavated could then be used to fill the remainder of the excavation. The Bay Area Air Quality Management District (BAAQMD) was notified of the proposed soil aeration. A representative of the BAAQMD stated that it was not necessary to obtain a permit for any soil containing less than 50 ppm. On September 9, the excavation was backfilled and the contaminated soil was spread on the vacant land at the site. The soil was spread to an average thickness of six inches.

The wells at the site were surveyed for elevation and relative distance. The wells MW-1, RW-2 and MW-6 were surveyed before abandonment (survey enclosed).

MW-5, RW-1 and RW-3 will be sampled this month and monthly thereafter for six months. If the sample results remain below action levels at the end of that period, closure of the site will be recommended.

If you have further questions or require additional information, please give me a call at (805) 835-7700.

Sincerely,

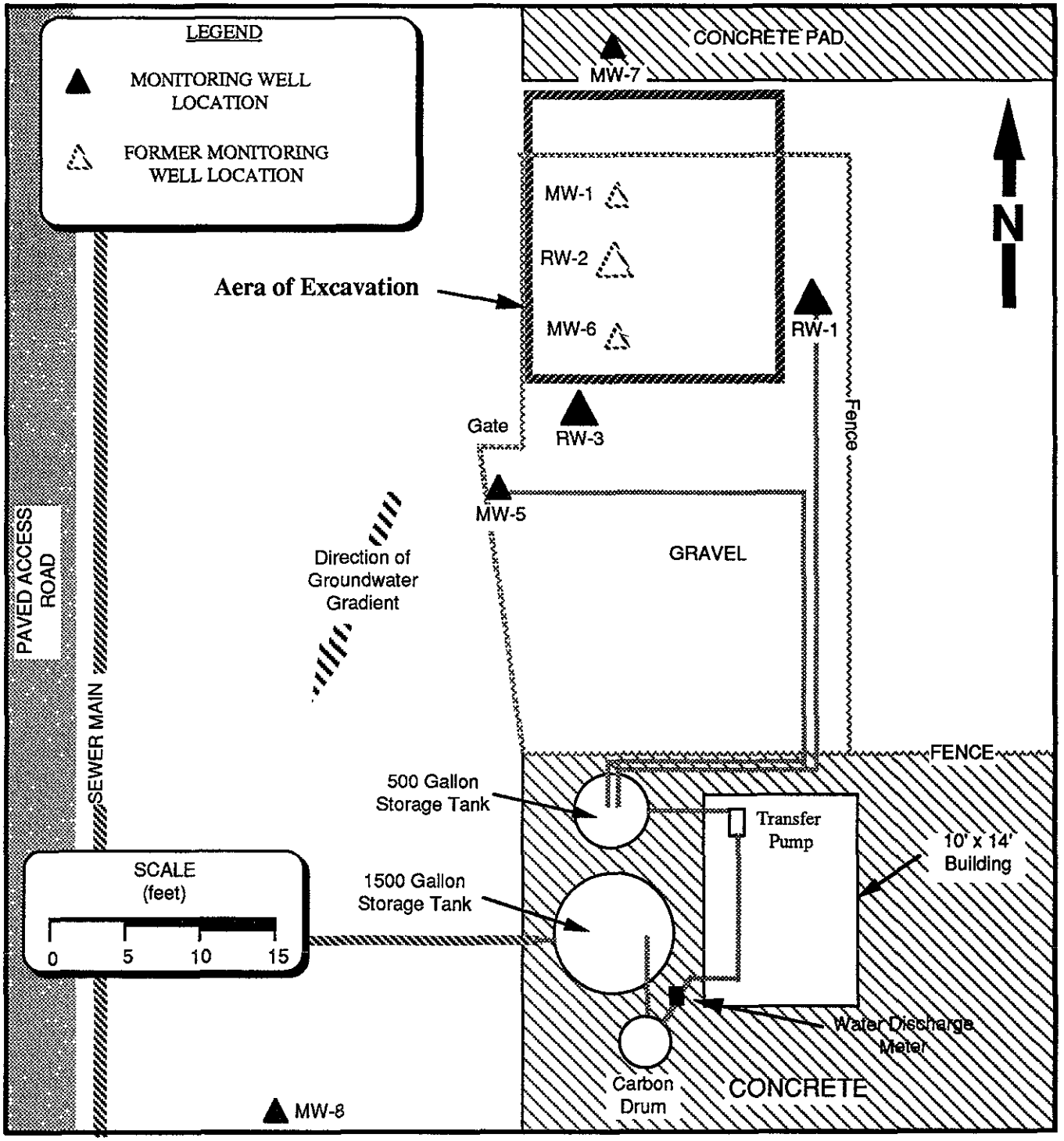
Timothy C. Reed
Project Geologist

Rex J. Young
State Registered Geologist

REGISTERED GEOLOGIST
REX J. YOUNG
No. 720
STATE OF CALIFORNIA

Encl. Plot Plan
Laboratory Analysis
Monitoring Well Survey

cc: Ms. Amanda Howard, First Interstate Bank
Mr. Marc Selover, RESNA



RESNA
Working to Restore Nature

Project Number: 6712-42

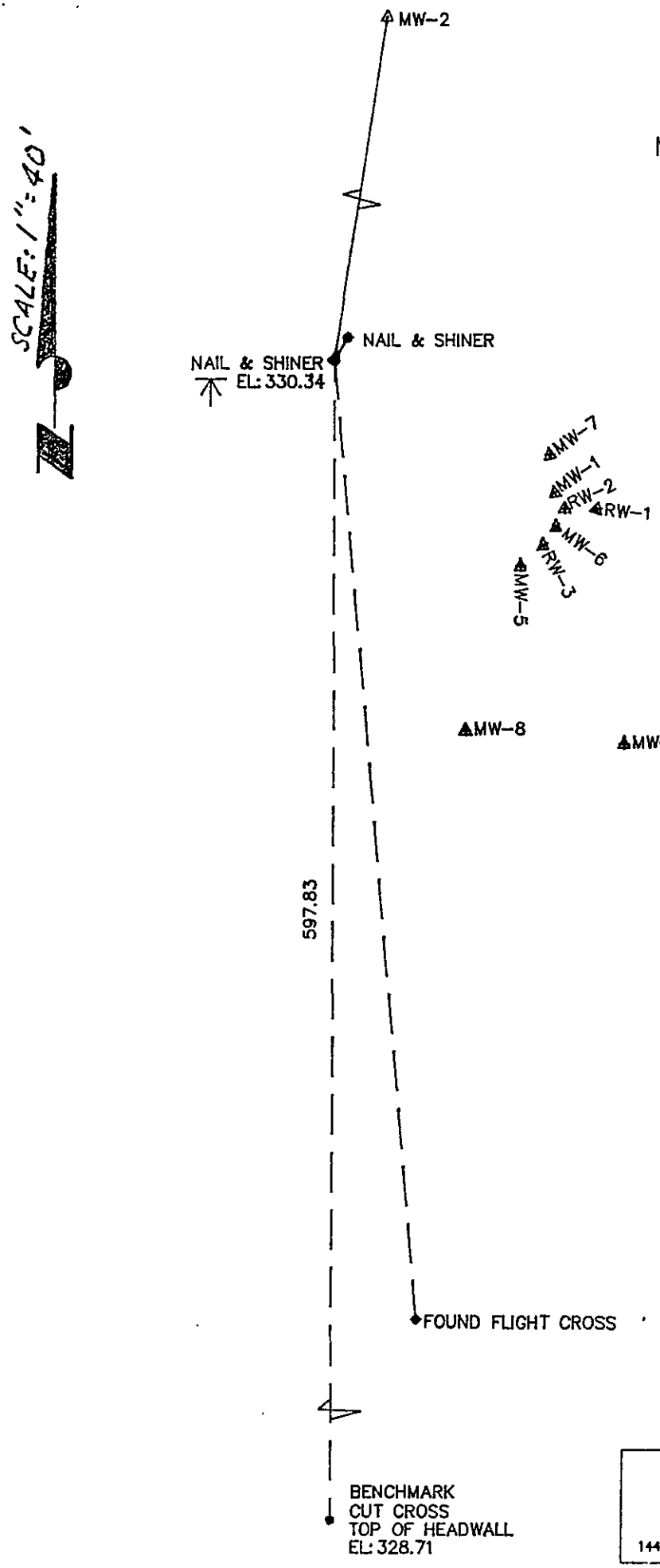
9-14-92

SCOTSMAN CORP.
DUBLIN, CA.

PLOT PLAN

PLATE
1

SCOTSMAN CORP.
DUBLIN, CA.
MONITORING WELL SURVEY
AUGUST 19, 1992



FIELD BOOK NO. 38, PG-55

ASSOCIATES
CIVIL ENGINEERING • PLANNING • SURVEYING
1440 MARIA LANE, SUITE 200, WALNUT CREEK, CA. 94596 (510) 932-6868

D.K. JOB NO. 89-1031 DRAWN BY: JM CHK'D BY: LHD

MONITORING WELLS SURVEY **8-19-92** **SCOTSMAN CORP.**

NORTHING	EASTING	ELEVATION	DESCRIPTION
571.0168	78.1693	328.78	MW-7
561.0586	79.1367	328.82	MW-1
552.0912	79.2039	328.02	MW-6
542.3188	69.5468	328.44	MW-5
556.4073	89.8400	328.94	RW-1
556.8764	81.5656	329.40	RW-2
547.3686	75.5664	329.36	RW-3
895.4921	78.9142	329.49	MW-2
495.2630	94.8149	329.19	MW-4
500.3618	53.6520	328.54	MW-8

NOTE: ALL WELLS EXCEPT MW-2 & MW-4 WERE LOCATED HORIZONTALLY AND VERTICALLY BY SURVEYING THE NORTH SIDE OF THE PLASTIC PIPE. WELLS MW-2 & MW-4 WERE HORIZONTALLY LOCATED BY SURVEYING THE CENTER OF THE CASTINGS, AND ELEVATIONS WERE TAKEN ON TOP OF THE CAST IRON RINGS.

FIELD BOOK NO. 38, PG-55

ASSOCIATES
CIVIL ENGINEERING·PLANNING·SURVEYING
1440 MARIA LANE, SUITE 200, WALNUT CREEK, CA. 94596 (415)932-6868

DK JOB NO. 89-1031 DR. BY: JM CHK'D BY: DD

RESNA

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

095409

PROJECT NO.	PROJECT NAME/SITE	P.O. #:
612-42	—	8460-G

SAMPLERS (SIGN) / (PRINT) Claus Engelhardt — Claus Engelhardt

SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES. USED	ICED	NO. CONTAINERS	SAMPLE TYPE	BTEX (602/8020)	TPHg (8015)	TPHd (8015)	TOG 418.1/5520	601/8010	624/8240	625/8270	TCLP for BTEX	STLC for Lead	RCT	REMARKS
S-EW-12	8-19-92	1510	—	—	—	✓	1	Soil	X	X									East wall, 12' depth
S-NW-14	8-19-92	1525	—	—	—	✓	1	Soil	X	X									Northwall 14' depth
S-SW-14	8-19-92	1600	—	—	—	✓	1	Soil	X	X									Southwall 14' depth
S-WW-14	8-19-92	1630				✓	1	Soil	X	X									Westwall 14' depth
S-Comp-A1	8-19-92	1700	✓			✓	4	Soil	X	X						X	X	X	Composite Sample - Impacted
S-Comp-B1	8-19-92	1720	✓			✓	4	Soil	X	X									Composite sample - "clean"
S-Comp-B2	8-19-92	1740	✓			✓	4	Soil	X	X									" " "
S-Comp-B3	8-19-92	1750	✓			✓	4	Soil	X	X									" " "
S-Comp-B4	8-19-92	1810	✓			✓	4	Soil	X	X									" " "

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Claus L. Engelhardt	8/20/92	9:40	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE 8/20/92	TIME 7:40	RECEIVED BY LABORATORY: Anthony Chavez

LABORATORY: Resna Laboratories Fremont, CA

REQUESTED TURNAROUND TIME:

RECEIPT CONDITION: good

PLEASE SEND RESULTS TO:
Tim Reed
Resna Industries Inc
1500 S. Union Ave
Bakersfield, CA 93307

PROJECT MANAGER: Tim Reed

ANALYSIS REPORT

1020lab.frm

Attention:	Mr. Tim Reed	Date Sampled:	08-19-92
	RESNA	Date Received:	08-20-92
	1500 South Union Ave.	BTEX Analyzed:	08-24-92
	Bakersfield, CA 93307	TPHg Analyzed:	08-24-92
Project:	19514-L, Project 6712-42	TPHd Analyzed:	NR
		Matrix:	Soil

	Benzene ppm	Toluene ppm	Ethyl-benzene ppm	Total Xylenes ppm	TPHg ppm	TPHd ppm
Detection Limit:	0.005	0.005	0.005	0.005	1.0	1.0
SAMPLE Laboratory Identification						
S-EW-12 S1208199	ND	ND	ND	ND	ND	NR
S-NW-14 S1208200	ND	ND	ND	ND	ND	NR
S-SW-14 S1208201	ND	ND	ND	ND	ND	NR
S-WW-14 S1208202	ND	ND	ND	ND	ND	NR
S-COMP-A1 S1208203	ND	ND	0.018	0.055	10	NR

ppm = parts per million = mg/kg = milligrams per kilogram.
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

August 26, 1992
Date Reported

ANALYSIS REPORT

1020lab.frm

Attention:	Mr. Tim Reed	Date Sampled:	08-19-92
	RESNA	Date Received:	08-20-92
	1500 South Union Ave.	BTEX Analyzed:	08-24-92
	Bakersfield, CA 93307	TPHg Analyzed:	08-24-92
Project:	19514-L, Project 6712-42	TPHd Analyzed:	NR
		Matrix:	Soil

	Benzene ppm	Toluene ppm	Ethyl-benzene ppm	Total Xylenes ppm	TPHg ppm	TPHd ppm
Detection Limit:	0.005	0.005	0.005	0.005	1.0	1.0
SAMPLE Laboratory Identification						
S-COMP-B1 S1208204	ND	ND	ND	ND	ND	NR
S-COMP-B2 S1208205	ND	ND	ND	ND	ND	NR
S-COMP-B3 S1208206	ND	ND	ND	ND	ND	NR
S-COMP-B4 S1208207	ND	ND	ND	ND	ND	NR

ppm = parts per million = mg/kg = milligrams per kilogram.
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX– Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg–Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd–Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

August 26, 1992
Date Reported

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA - Excaltech	Client Project ID:	6712-42	Sampled:	Aug 20, 1992
42501 Albrae Street, Suite 100	Sample Matrix:	TCLP Extract	Received:	Aug 20, 1992
Fremont, CA 94538	Analysis Method:	EPA 5030/8020	Reported:	Aug 25, 1992
Attention: Anthony Enerio	First Sample #:	208-3337		

BTEX DISTINCTION TCLP

Analyte	Reporting Limit µg/L	Sample I.D. 208-3337 S-Comp-A1	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
Benzene	0.050	N.D.					
Toluene	0.050	N.D.					
Ethyl Benzene	0.050	N.D.					
Total Xylenes	0.050	N.D.					

Quality Control Data

Report Limit Multiplication Factor:	20
Date Analyzed:	8/25/92
Instrument Identification:	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	99

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee

Maria Lee
Project Manager

2083337.ENS <1>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA - Exceltech	Client Project ID:	6712-42		Sampled:	Aug 19, 1992
42501 Albrae Street, Suite 100	Sample Descript:	Soil, S-Comp-A1		Received:	Aug 20, 1992
Fremont, CA 94538				Extracted:	Aug 21, 1992
Attention: Anthony Enerio	Lab Number:	208-3337	A - D	Reported:	Aug 25, 1992

INORGANIC PERSISTENT AND BIOACCUMULATIVE TOXIC SUBSTANCES

	Soluble Threshold Limit Concentration Waste Extraction Test			Total Threshold Limit Concentration		
Analyte	STLC Max. Limit (mg/L)	Detection Limit (mg/L)	Analysis Result (mg/L)	TTLC Max. Limit (mg/kg)	Detection Limit (mg/kg)	Analysis Result (mg/kg)
Antimony	15	0.10	-	500	5.0	-
Arsenic	5.0	0.10	-	500	5.0	-
Barium	100	0.10	-	10,000	5.0	-
Beryllium	0.75	0.010	-	75	0.50	-
Cadmium	1.0	0.010	-	100	0.50	-
Chromium (VI)	5.0	0.0050	-	500	0.050	-
Chromium (III)	560	0.010	-	2,500	0.50	-
Cobalt	80	0.050	-	8,000	2.5	-
Copper	25	0.010	-	2,500	0.50	-
Lead	5.0	0.10	0.21	1,000	5.0	-
Mercury	0.20	0.00020	-	20	0.010	-
Molybdenum	350	0.050	-	3,500	2.5	-
Nickel	20	0.050	-	2,000	2.5	-
Selenium	1.0	0.10	-	100	5.0	-
Silver	5.0	0.010	-	500	0.50	-
Thallium	7.0	0.10	-	700	5.0	-
Vanadium	24	0.050	-	2,400	2.5	-
Zinc	250	0.010	-	5,000	0.50	-
Asbestos	-	10	-	10,000	100	-
Fluoride	180	0.10	-	18,000	1.0	-

TTLC results are reported as mg/kg of wet weight. Asbestos results are reported as fibers/g.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

2083337.ENS <2>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA - Exceltech	Client Project ID:	6712-42	Sampled:	Aug 20, 1992
42501 Albrae Street, Suite 100	Sample Descript:	Soil, S-Comp-A1	Received:	Aug 20, 1992
Fremont, CA 94538				
Attention: Anthony Enerio	Lab Number:	208-3337 A-D	Reported:	Aug 25, 1992

CORROSIVITY, IGNITABILITY, AND REACTIVITY

Analyte	Detection Limit	Sample Results
Corrosivity:		
pH	N.A.	9.0
Ignitability:		
Flashpoint (Pensky-Martens), °C	N.A.	> 100 °C
Reactivity:		
Sulfide, mg/kg	10	N.D.
Cyanide, mg/kg	0.50	N.D.
Reaction with water	N.A.	Negative

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

2083337.ENS <3>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA - Excaltech
42501 Albrae Street, Suite 100
Fremont, CA 94538
Attention: Anthony Enerio

Client Project ID: 6712-42

QC Sample Group: 208-3337

Reported: Aug 25, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	STLC Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 239.2
Analyst:	M.Nipp	M.Nipp	M.Nipp	M.Nipp	S.Chin
Reporting Units:	µg/L	µg/L	µg/L	µg/L	mg/L
Date Analyzed:	Aug 25, 1992	Aug 25, 1992	Aug 25, 1992	Aug 25, 1992	Aug 24, 1992
QC Sample #:	GBLK082592 MS/MSD	GBLK082592 MS/MSD	GBLK082592 MS/MSD	GBLK082592 MS/MSD	208-3306
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	7.1
Spike Conc. Added:	10	10	10	30	10
Conc. Matrix Spike:	11	11	10	31	18
Matrix Spike % Recovery:	110	110	100	103	109
Conc. Matrix Spike Dup.:	11	11	10	32	18
Matrix Spike Duplicate % Recovery:	110	110	100	107	109
Relative % Difference:	0.0	0.0	0.0	3.2	0.0

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

2083337.ENS <4>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA - Excelchem
42501 Albrae Street, Suite 100
Fremont, CA 94538
Attention: Anthony Enerio

Client Project ID: 6712-42

QC Sample Group: 208-3337

Reported: Aug 25, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	pH	Flashpoint	Reactive Sulfide	Cyanide
Method:	EPA 9045	EPA 1010	EPA 9030	EPA 9010
Analyst:	Y.Arteaga	K.Follett	K.Follett	A.Savva
Reporting Units:	N.A.	N.A.	mg/L	mg/L
Date Analyzed:	Aug 21, 1992	Aug 24, 1992	Aug 26, 1992	Aug 20, 1992
QC Sample #:	208-2976	208-3839	Blank	208-3132
Sample Conc.:	7.5	> 100 °C	N.D.	N.D.
Spike Conc. Added:	N.A.	N.A.	10	5.8
Conc. Matrix Spike:	N.A.	N.A.	10	5.2
Matrix Spike % Recovery:	N.A.	N.A.	100	90
Conc. Matrix Spike Dup.:	7.4	> 100 °C	10	5.3
Matrix Spike Duplicate % Recovery:	N.A.	N.A.	100	91
Relative % Difference:	1.3	0.0	0.0	1.9

SEQUOIA ANALYTICAL

Maria Lee
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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