PRELIMINARY PHASE II INVESTIGATION OF THE OLD SURPLUS YARD

Preliminary Phase II sampling was performed in the Old Surplus Yard at Panama Machinery and Equipment, Inc. (Panama), 3126 Hill Avenue in Everett, Washington on July 11, 1995 to address the observation of three metals in a groundwater sample collected in 1993 from a monitoring well at 2720 - 34th Street. The three metals, arsenic, chromium, and lead, were present in this single sample at concentrations that exceed Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels (WAC 173-340-720(2)). ATEC performed a Phase I audit of Quantum Wood Window's property at 2720 - 34th Street and speculated that the metals originated from the Old Surplus Yard (ATEC 1993).

The purpose of this report is to:

- describe the preliminary Phase II sampling field activities;
- describe the laboratory soil analysis results;
- evaluate the analytical results by comparison to regulatory standards and guidelines;
- evaluate the possibility that metals in the soil at the Old Surplus Yard could impact the groundwater at Quantum Wood Window's property; and
- make recommendations for a thorough evaluation (Phase II sampling) of the impact of the Old Surplus Yard on area groundwater.

This report incorporates advice given to Panama by the Washington State Department of Ecology (Ecology) at a meeting on September 5, 1995. The meeting included a discussion of the sampling results reported here and the approach for managing the discarded equipment and wastes stored in the Old Surplus Yard.

FIELD ACTIVITIES

Field activities are reported chronologically in Appendix A and summarized in this section. Four subsurface soil samples were collected from two boreholes in the southern portion of the Old Surplus Yard at the Panama Equipment and Machinery, Inc. facility using a hydraulic pressure technique called a Strataprobe (which is similar to a cone penetrometer). The Strataprobe makes small diameter boreholes and generates no cuttings. Two samples, BH1-3.5 and BH1-14, were collected from borehole BH1 at depths of 3.5 and 14 feet, respectively. Two other samples were collected at BH2, approximately 40 feet due west of the south gate post. BH1 is approximately 80 feet (not measured) due west of the monitoring well located on Quantum Wood Window's property, and 43 feet south of BH2. No noticeable odor was detected from any of the samples collected. Numerous attempts were made to collect ground water samples at depths of 10 to 14 feet in both boreholes, and at depths of up to 25 feet in BH1. Although the soil at these depths was fairly moist, the water was either bound up by the associated clay or impeded by the smearing of clay along the wall of the borehole and therefore could not be collected using the sampling equipment on hand.

The soil samples were collected from a split spoon sampler attached to the Strataprobe's sampling system. All boring and sampling equipment was decontaminated between samples with "Alconox" solution and rinsed with deionized water. All soil samples were placed into

clean 125 ml wide-mouthed glass jars that were provided by Sound Analytical and packaged in an iced cooler. The laboratory analysis included total RCRA metals and copper, nickel and zinc. Sound Analytical collected the samples on the following day.

SOIL SAMPLING RESULTS

The results of the laboratory analysis are summarized in Table 1.

TABLE 1. SUMMARY OF ANALYTICAL RESULTS FROM PRELIMINARY PHASE II SAMPLING

Metal	Detection Frequency	Min Conc (mg/kg)	Max Conc (mg/kg)	Average Conc (mg/kg)
Arsenic	4/4	1.70	4.00	3.15
Barium	4/4	36.00	110.00	76.75
Cadmium	4/4	1.90	6.40	4.35
Chromium	4/4	32.00	85.00	54.00
Copper	4/4	5.60	51.00	27.35
Lead	2/4	0.00	8.80	2.93
Mercury	0/4	ND	ND	ND
Nickel	4/4	36.00	36.00	36.00
Zinc	4/4	49.00	87.00	68.00

ND Not detected.

DISCUSSION OF ANALYTICAL RESULTS

The three metals identified at Quantum Wood Window's property as exceeding State of Washington groundwater cleanup levels are arsenic, chromium and lead. These metals were detected in the four soil samples analyzed for this report (Table 1). To evaluate the concentrations measured for each metal, the data in Table 1 were compared to:

- Common soil concentrations (Lindsay 1979) (Table 2);
- MTCA Method A Soil Cleanup Levels for Residential and Industrial Soil (WAC 173-340) (Table 3); and
- EPA Soil Screening Levels (SSLs) (EPA 1994) (Table 4).

Common Soil Concentrations. Lindsay (1979) reports the content of various elements in the lithosphere, the common range of element concentrations in soils, and presents a "selected average" concentration for each element. The content in the lithosphere is a measure of the relative abundance of an element on the planet earth. The common range is based on soil concentrations of the elements reported in the soil science literature. The selected average concentration is an estimate made for explanation purposes in the Lindsay monograph and is used here as a reasonable estimate of the average natural background concentration that may be found at the Old Surplus Yard. Comparison of the concentrations of the metals in the four soil samples to common soil concentrations indicate that none of the metals is present at a concentration that exceeds the expected range of concentrations (Table 2).

TABLE 2. COMPARISON OF OLD SURPLUS YARD SOIL METAL CONCENTRATIONS TO COMMON SOIL CONCENTRATIONS

Chemical	Old Surplus Yard Average Concentration (mg/kg)	Content in Lithosphere (mg/kg)	Common Range for Soils (mg/kg)	Selected Average Concentration (mg/kg)
Arsenic	3.15	5	1-50	5
Chromium	54.0	200	1-1,000	100
Lead	2.93	16	2-200	10

MTCA Method A Soil Cleanup Levels. Metal concentrations observed in the four soil samples were also compared to the MTCA Method A soil cleanup levels for residential and industrial properties (Table 3). MTCA Method A defines cleanup levels for 25 of the most common hazardous substances. Ecology developed the Method A levels using acceptable risk levels outlined in the MTCA regulation and health-based concentrations included in other applicable state and federal laws. Method A is for cleanups that are relatively straight-forward or involve only a few hazardous substances, all of which must be listed in the Method A tables of WAC 173-340 (Appendix B). This approach is primarily for small sites that do not warrant the costs of extensive site investigations and conducting human health and ecological risk assessments.

TABLE 3. COMPARISON OF OLD SURPLUS YARD SOIL METAL CONCENTRATIONS TO MTCA METHOD A SOIL CLEANUP LEVELS

Chemical	Old Surplus Yard Average Concentration (mg/kg)	Maximum Concentrations (mg/kg)	Method A Residential Soil Cleanup Level (mg/kg)	Method A Industrial Soil Cleanup Level (mg/kg)
Arsenic	3.15	4	20	200
Chromium	54.0	85	100	500
Lead	2.93	8.8	250	1,000

Comparison of the average and maximum (Table 1) concentrations of the three metals indicate that none of these metals is present at a concentration that exceeds a MTCA Method A soil cleanup level under residential or industrial conditions (Table 3).

EPA Soil Screening Levels. The Soil Screening framework (EPA 1994) represents a new tool from the EPA to standardize the evaluation and cleanup of contaminated soils. An SSL is a risk-based chemical concentration in soil that represents a level of contamination below which there is no concern under CERCLA (the Superfund legislation). Generally, if contaminant concentrations in soil fall below the SSL and there are no ecological receptors of concern, then no further study or action is warranted for residential use of that area. In general, residential use is considered the highest beneficial use of property.

Table 4 presents the SSLs for arsenic, chromium (hexavalent), and lead based on ingestion of soil and on the potential for migration of the metal to groundwater. The SSLs for migration to

groundwater are the most important values for the evaluation of the Old Surplus Yard and the likelihood that it contributes to the groundwater concentrations of metals at Quantum Wood Window's property.

TABLE 4. COMPARISON OF OLD SURPLUS YARD SOIL METAL CONCENTRATIONS TO EPA SOIL SCREENING LEVELS

Chemical	Old Surplus Yard Average Concentration (mg/kg)	Soil Screening Level (ingestion) (mg/kg)	Migration to Groundwater + 10 DAF (mg/kg)	Migration to Groundwater + 1 DAF (mg/kg)
Arsenic	3.15	0.4	15	1
Chromium	54.0	390	19	2
Lead	2.93	400	---	---

The Dilution Attenuation Factor (DAF) accounts for the physical, chemical, and biological processes in soil that reduce the concentration of a contaminant. The DAF is the ratio of the soil leachate concentration to the receptor exposure point concentration. For example, a DAF of 10 indicates that a given soil concentration will be reduced by a factor of 10 by the time it reaches a location where contact with a receptor could occur. EPA (1994) recommends a DAF of 10 for small source areas (less than 30 acres) which would include the Old Surplus Yard.

The soil concentration of arsenic is below the SSL for migration to groundwater based on a DAF of 10. Chromium is present at a concentration approximately three-fold greater than the SSL for migration to groundwater (10 DAF). An SSL for lead based on migration to groundwater is not available (EPA 1994), however, the concentration of lead in the Old Surplus Yard falls well below the SSL based on soil ingestion which, coupled with the minimal solubility of lead, would indicate that lead is not a health concern.

The fact that chromium exceeds the SSL for migration to groundwater is probably not of concern at the Old Surplus Yard. The SSL is based on the health risk associated with hexavalent chromium which generally is not stable in the environment and is readily reduced to trivalent chromium which is more stable and much less toxic. Moreover, Panama has not generated hexavalent chromium in any of its operations past or present. Chromium-containing wastes in the Old Surplus Yard are exclusively paint wastes stored in containers. The metallic debris is largely sludge from the plasma arc cutting table (burning table). Negligible amounts of chromium are expected to be generated from the oxidation of the debris because Panama works almost exclusively with mild steel which contains a minute percentage of chromium.

EVALUATION OF POTENTIAL IMPACT OF OLD SURPLUS YARD CONTAMINATION ON GROUNDWATER OF PROPERTY IMMEDIATELY SOUTH OF THE OLD SURPLUS YARD

Groundwater was not observed in the four soil borings although each borehole was re-developed as a monitoring well and two attempts were made to collect water from each well. Therefore, it was not possible to evaluate groundwater at the Old Surplus Yard for contamination by metals observed in the soil. The lack of groundwater, however, indicates that a continuous flow to Quantum Wood Window's properties is not occurring and, in fact, there may be no groundwater communication between the Old Surplus Yard and Quantum Wood Window's property.

Data from previous investigations of wastes generated by operations at Panama indicate that contamination of the groundwater at Quantum Wood Window's property is not likely to have originated at the Old Surplus Yard. TCLP analysis indicates that the metals found in Old Surplus Yard soil samples are not leachable at a level that could account for the contamination at Quantum Wood Window's property (Appendix C). The results of TCLP analysis indicate that essentially no arsenic and only exceedingly low levels of chromium or lead may leach to groundwater. It is important to note that the TCLP method should result in a significant overestimate of the amount of leaching that may occur under natural soil conditions because its acidic leaching agent is more aggressive than water. A complete summary of previous site investigation results for the Old Surplus Yard are presented in Appendix C.

Based on the lack of groundwater observed during the preliminary Phase II sampling and on results of the TCLP analysis, it is not likely that metals detected in the soil at the Old Surplus Yard are appearing in the groundwater at Quantum Wood Window's property. A more thorough Phase II investigation is necessary to substantiate this conclusion.

RECOMMENDATIONS

During our meeting with Ecology, we learned that it may be possible to establish that Panama has had no impact on the groundwater beneath Quantum Wood Window's property at 2720 34th Street, and that groundwater cleanup is not necessary if Panama can establish the following:

- groundwater quality in the southern portion of the Old Surplus Yard is below MTCA Cleanup Standards;
- groundwater flow direction indicates that Quantum Wood Window's well is not downgradient of the Old Surplus Yard;
- groundwater quality in the southern portion of the Old Surplus Yard varies significantly from that in the neighbor's well;
- groundwater yield is less than limits established for an aquifer; or
- groundwater quality, specifically total dissolved solids (TDS) makes it unfit for use.

ICF Kaiser recommends that Panama install three monitoring wells in the southern portion of the Old Surplus Yard to establish hydraulic gradient, yield and groundwater quality, and obtain permission to sample Quantum Wood Window's well concurrently as recommended by Ecology. Groundwater should be sampled for the regulated metals and other water quality parameters that may help to establish, together with hydrogeological information, that the source of contamination in the neighbor's well is not the Old Surplus Yard, and that groundwater remediation is not necessary beneath the Old Surplus Yard. We recommend that the wells be sampled twice, once in the fall dry season and once during the spring wet season.

REFERENCES

ATEC. 1993. Phase II Environmental Site Assessment - Quantum Wood Windows. Prepared for Frontier Bank; prepared by ATEC Environmental Consultants, Bellevue, Washington.

Lindsay WL. 1979. Chemical Equilibria in Soils. John Wiley & Sons, Inc., New York.

EPA. 1994. Soil Screening Guidance (OSWER Directive 9355.4-14FS). Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington DC.

WAC. 1993. Washington Administrative Code Chapter 173-340, The Model Toxics Control Act Cleanup Regulation.

APPENDIX A

FIELD SAMPLING NOTES

FIELD SAMPLING NOTES

Field notes from sampling activities conducted at Everett Steel on 11 July, 1995:

10:00 Arrived at site. Conditions are sunny and dry, approximately 75°F. Prepared sampling equipment. A cooler, sampling containers, COC, and sample labels were delivered to the site via Federal Express.

10:20 Three potential locations were identified in the southern end of the Old Surplus Yard. All three areas were upgradient from the N-S fence to the east of the property. A monitoring well lies approximately 40 feet east of the property line. A large pile of burning table waste and metal shavings are 5 to 50 feet upgradient of the potential sampling locations.

10:40 Ted Seaborn (Locating Inc.) arrived and cleared three potential boreholes in the southern end of the Old Surplus Yard. A "Metrotech 810" radiotransmitter was used to clear the boring locations. This device clears all conductible utilities for a 4-foot diameter around each marked spot and to a depth of 8 to 9 feet. Mr. Seaborn indicated that he did not detect any conductible utilities in this area and marked the three potential sampling locations with spray paint.

11:00 Kares Vandehey from TEG arrived with the Strataprobe.

11:30 After a short trip across the street to get additional supplies at Eagle Hardware, Kares returned and reviewed and signed the HASP. The truck and equipment were set up at the first borehole (BH1) to begin boring.

12:00 The Strataprobe pulled up a core sample from two to four feet under the surface. The surface soil is rust-colored sand and gravel with various metallic debris. From six inches to about 2.5 feet deep the soil is hard and brown and contains small rocks. The soil is moist and brown from about 2.5 to 3.5 feet and turns to a grey clay-like material at depths greater than 3.5 feet. A sample was taken from the split spoon sampler at approximately 3.5 feet. There was no noticeable odor detected in the sample. The sample was designated as BH1-3.5, sealed in the wide-mouthed glass sample jar (provided by Sound Analytical), and placed in an iced cooler.

12:15 A second sample was taken (BH1-14) at a depth of approximately 14 feet in BH1. The soil is grey, dense and clay-like. The probe was noticeably moist and coated with wet clay. The TEG representative stated that the ground softened at about 6 feet and that the water table appeared to be approximately 10 to 12 feet.

12:30 An attempt was made to extract a water sample at 15 to 17 feet in BH1. Using a polyethylene tube with one end attached to the screen sampler and a manual syringe at the other end, the TEG employee was not able to conduct any liquid into the tubing. There was a complete lack of suction/pressure in the tubing when the plunger was drawn back on the syringe, indicating that water was not entering the sampling unit. The borehole was extended to a depth of 25 feet in an attempt to locate the water table. Additional attempts to bring up a water sample failed.

14:15 The truck and equipment were moved to BH2, approximately 43 feet north of BH1. Sample BH2-3 was retrieved from a depth of 3 feet. The dry, sandy gravel-type soil gave way to grey clay at about 3.5 feet.

14:45 Sample BH2-14 was retrieved from a depth of 14 feet at BH2. The soil was dense, moist, grey clay with no noticeable odor.

15:00 Returned to BH1 to check for the presence of water. No suction occurred with the sampling unit inserted to a depth of 25 feet.

15:30 Rechecked BH2 for water at a depth of 12 to 14 feet. The probe was retrieved streaked with wet clay, however no water could be extracted.

15:50 Rechecked BH1. No water.

16:00 Begin demobilization.

16:30 Attempted, and consequently failed, to extract a clay/water sample from BH1 after removing the screen from the sampling tube.

17:00 Capped BH1 and BH2 with "Enviroplug" (bentonite).

17:30 Left the site.

APPENDIX B

APPLICATION OF MTCA METHOD A

APPLICATION OF MTCA METHOD A

The applicability of Method A to a given site is determined in part by the nature of the proposed cleanup action. Method A is intended for sites that should undergo a "routine" cleanup. MTCA describes routine cleanup actions in WAC 173-340-130(7):

WAC 173-340-130(7) Routine Cleanup Actions. Flexibility in the scope of investigations and in combining steps may be particularly appropriate for routine cleanup actions. For example, the department may decide to approve a routine cleanup action based upon a single investigation that includes a site hazard assessment and a simplified state remedial investigation/feasibility study and engineering design plan.

(a) A cleanup action may be considered routine if the following criteria are met:

(i) It involves an obvious and limited choice among cleanup methods;

(ii) It uses a cleanup method that is reliable and have proven capable of accomplishing cleanup standards;

(iii) Cleanup standards for each hazardous substance addressed by the cleanup are obvious and undisputed, and allow an adequate margin of safety for protection of human health and the environment;

(iv) The department has experience with similar actions; and

(v) The action does not require an environmental impact statement.

(b) Routine cleanup actions consist of or are comparable to one or more of the following remedial actions:

(i) Cleanup of above-ground structures;

(ii) Cleanup of below-ground structures;

(iii) Cleanup of contaminated soils where the action would restore the site to cleanup levels; or

(iv) Cleanup of solid wastes, including containers.

APPENDIX C

CUMULATIVE RESULTS OF SOIL SAMPLING AT THE OLD SURPLUS YARD

Analytical Results for Total Arsenic from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Baghouse Pile Sampling	Total Metals	ICP Metals 6010	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	130.00	mg/kg	
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.00	mg/kg	4.600
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	1.70	mg/kg	0.110
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	3.20	mg/kg	0.130
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	3.70	mg/kg	0.120
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	4.00	mg/kg	0.130
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	7.70	mg/kg	2.800
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	8.70	mg/kg	2.400
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	9.40	mg/kg	2.600
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	22.00	mg/kg	2.400
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	25.00	mg/kg	2.600
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	26.00	mg/kg	2.800
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	41.00	mg/kg	2.500
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	41.00	mg/kg	2.000
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	48.00	mg/kg	2.300

Analytical Results for TCLP Arsenic from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.00	mg/L	0.100
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	0.22	mg/L	

Analytical Results for Total Barium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	2.90	mg/kg	0.220
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	8.10	mg/kg	0.230
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	36.00	mg/kg	0.580
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	52.00	mg/kg	0.110
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	60.00	mg/kg	0.130
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	61.00	mg/kg	0.650
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	73.00	mg/kg	0.120
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	82.00	mg/kg	0.140
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	100.00	mg/kg	0.620
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	110.00	mg/kg	0.570
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	120.00	mg/kg	0.130
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	140.00	mg/kg	0.120
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	160.00	mg/kg	0.140
Scrapyard Baghouse Pile Sampling	Characterization for disposal	ICP Metals 6010	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	190.00	mg/kg	
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	290.00	mg/kg	0.130
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	1500.00	mg/kg	0.100

Analytical Results for TCLP Barium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.37	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	0.46	mg/L	0.005
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.63	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.72	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	0.87	mg/L	0.005
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	1.50	mg/L	0.005
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	1.70	mg/L	
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	1.70	mg/L	0.005
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	2.00	mg/L	0.005
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	3.60	mg/L	0.005
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	24.00	mg/L	0.005
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.12	mg/L	0.005

Analytical Results for Total Cadmium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	1.90	mg/kg	1.200
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	3.10	mg/kg	1.300
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	5.70	mg/kg	0.110
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	6.00	mg/kg	1.200
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	6.40	mg/kg	1.100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	6.60	mg/kg	0.130
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	11.00	mg/kg	0.120
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	16.00	mg/kg	0.130
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	17.00	mg/kg	0.120
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	17.00	mg/kg	0.140
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	21.00	mg/kg	0.130
Scrapyard Baghouse Pile Sampling	Characterization for disposal	ICP Metals 6010	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	22.00	mg/kg	
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	24.00	mg/kg	0.100
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	27.00	mg/kg	0.220
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	28.00	mg/kg	0.230
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	28.00	mg/kg	0.140

Analytical Results for TCLP Cadmium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.03	mg/L	0.005
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.03	mg/L	0.005
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.03	mg/L	0.005
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.04	mg/L	0.005
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	0.06	mg/l	
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.06	mg/L	0.005
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.06	mg/L	0.005
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	0.07	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.10	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	0.12	mg/L	0.005
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	0.28	mg/L	0.005
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	1.40	mg/L	0.005

Analytical Results for Total Chromium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	32.00	mg/kg	1.300
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	39.00	mg/kg	1.200
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	58.00	mg/kg	0.260
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	60.00	mg/kg	1.200
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	80.00	mg/kg	0.230
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	85.00	mg/kg	1.100
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	140.00	mg/kg	0.280
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	180.00	mg/kg	0.240
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	210.00	mg/kg	0.280
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	270.00	mg/kg	0.240
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	320.00	mg/kg	0.250
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	390.00	mg/kg	0.430
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	480.00	mg/kg	0.460
Scrapyard Baghouse Pile Sampling	Characterization for disposal	ICP Metals 6010	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	580.00	mg/kg	
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	660.00	mg/kg	0.200
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	770.00	mg/kg	0.260

Analytical Results for TCLP Chromium from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	0.00	mg/L	
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	0.00	mg/L	0.010
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.01	mg/L	0.010
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.01	mg/L	0.010
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.01	mg/L	0.010
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	0.02	mg/L	0.010
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.03	mg/L	0.010
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	0.03	mg/L	0.010
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.04	mg/L	0.010
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.09	mg/L	0.010
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.11	mg/L	0.010
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.19	mg/L	0.010

Analytical Results for Total Copper from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	5.60	mg/kg	3.200
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	5.80	mg/kg	2.900
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	47.00	mg/kg	2.800
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	51.00	mg/kg	3.100
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	190.00	mg/kg	0.570
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	230.00	mg/kg	0.650
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	320.00	mg/kg	0.600
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	320.00	mg/kg	0.690
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	500.00	mg/kg	1.100
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	690.00	mg/kg	0.200
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	760.00	mg/kg	0.630
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	1100.00	mg/kg	0.700
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	1300.00	mg/kg	1.200
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	1300.00	mg/kg	0.590
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	1400.00	mg/kg	0.640

Analytical Results for TCLP Copper from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.04	mg/L	0.025
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.04	mg/L	0.025
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.05	mg/L	0.025
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.05	mg/L	0.025
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.15	mg/L	0.025
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.39	mg/L	0.025
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.42	mg/L	0.025
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	1.80	mg/L	0.025
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	2.00	mg/L	0.025
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	3.10	mg/L	0.025

Analytical Results for Total Lead from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	0.00	mg/kg	5,800
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	0.00	mg/kg	6,200
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	8.80	mg/kg	5,700
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3,5	50055-1	Sound Analytical Services	15.00	mg/kg	6,500
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	37.00	mg/kg	2,200
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	78.00	mg/kg	2,300
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	160.00	mg/kg	1,100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	230.00	mg/kg	1,300
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	350.00	mg/kg	1,300
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	420.00	mg/kg	1,300
Scrapyard Baghouse Pile Sampling	Characterization for disposal	ICP Metals 6010	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	500.00	mg/kg	
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	640.00	mg/kg	1,200
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	640.00	mg/kg	1,400
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	900.00	mg/kg	1,200
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	1100.00	mg/kg	1,000
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	1200.00	mg/kg	1,400

Analytical Results for TCLP Lead from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.07	mg/L	0.050
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.11	mg/L	0.050
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.12	mg/L	0.050
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	0.15	mg/L	
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.15	mg/L	0.050
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.17	mg/L	0.050
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.17	mg/L	0.050
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.63	mg/L	0.050
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	0.75	mg/L	0.050
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	1.30	mg/L	0.050
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	1.90	mg/L	0.050
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	3.50	mg/L	0.050

Analytical Results for Total Mercury from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	Method 7470	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	0.16	mg/kg	0.090
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	Method 7471	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.23	mg/kg	0.070
Scrapyard Baghouse Pile Sampling	Characterization for disposal	Method 7471	9/16/92	ESBD-001	27186-1	Sound Analytical Services, Inc.	0.34	mg/kg	
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	Method 7471	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.54	mg/kg	0.080
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	Method 7471	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	2.70	mg/kg	0.090
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	Method 7470	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	7.30	mg/kg	0.080
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	Method 7470	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	7.90	mg/kg	0.080
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	Method 7470	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	8.10	mg/kg	0.810
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	Method 7471	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	9.80	mg/kg	0.780

Analytical Results for TCLP Mercury from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Baghouse Pile Sampling	Characterization for disposal	TCLP EPA 1311 and Method 7470	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.00	mg/L	0.002
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and Method 7470	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.00	mg/L	0.002
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and Method 7470	9/16/92	ESBD-002	27186-2	Sound Analytical Services, Inc.	0.00	mg/L	
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and Method 7470	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	0.00	mg/L	0.002
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and Method 7470	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.01	mg/L	0.002

Analytical Results for Total Nickel from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	36.00	mg/kg	5.200
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	54.00	mg/kg	4.700
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	60.00	mg/kg	0.910
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	73.00	mg/kg	1.000
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	84.00	mg/kg	5.000
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	87.00	mg/kg	4.600
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	160.00	mg/kg	0.960
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	200.00	mg/kg	0.960
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	210.00	mg/kg	1.100
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	210.00	mg/kg	1.000
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	260.00	mg/kg	1.700
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	310.00	mg/kg	0.790
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	330.00	mg/kg	0.040
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	440.00	mg/kg	1.800
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	870.00	mg/kg	1.000

Analytical Results for TCLP Mercury from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	0.09	mg/L	0.040
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.19	mg/L	0.100
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	0.19	mg/L	0.040
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.21	mg/L	0.040
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	0.22	mg/L	0.040
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	0.23	mg/L	0.040
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	0.28	mg/L	0.040
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	0.32	mg/L	0.040
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	0.44	mg/L	0.040
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	0.53	mg/L	0.040
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	1.40	mg/L	0.040
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	1.40	mg/L	0.040

Analytical Results for Total Zinc from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-3	50055-3	Sound Analytical Services	49.00	mg/kg	2.300
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-3.5	50055-1	Sound Analytical Services	67.00	mg/kg	2.600
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH2-14	50055-4	Sound Analytical Services	89.00	mg/kg	2.300
Scrapyard Pre Phase II	Strataprobe samples of soil & gw (Hanata)	ICP Metals 6010	7/12/95	BH1-14	50055-2	Sound Analytical Services	90.00	mg/kg	2.500
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	100.00	mg/kg	0.870
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	100.00	mg/kg	0.870
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	340.00	mg/kg	0.920
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	520.00	mg/kg	0.520
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	1100.00	mg/kg	0.450
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	1900.00	mg/kg	2.400
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	2500.00	mg/kg	0.560
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	3000.00	mg/kg	0.500
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	3200.00	mg/kg	0.480
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	5000.00	mg/kg	0.510
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	ICP Metals 6010	6/4/93	GCA-1	32524-5	Sound Analytical/On-Site Analytical	5300.00	mg/kg	0.560
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	19000.00	mg/kg	0.390

Analytical Results for TCLP Zinc from Scrapyard Soil Samples

PROJECT	DESCRIPTION	METHOD	DATE	ICF_ID	LAB_NO	LAB	CONC	UNITS	PQL
Scrapyard 6/93 Burning Table Waste	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BTW-1	32524-1	Sound Analytical/On-Site Analytical	0.68	mg/L	0.020
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-2	32524-9	Sound Analytical/On-Site Analytical	2.60	mg/L	0.020
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-3	32524-10	Sound Analytical/On-Site Analytical	6.90	mg/L	0.020
Scrapyard 6/93 Crane Boom Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	BS-1	32524-11	Sound Analytical/On-Site Analytical	8.40	mg/L	0.020
Scrapyard 6/93 Petroleum Spill	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	PS-1	32524-8	Sound Analytical/On-Site Analytical	16.00	mg/L	0.020
Scrapyard 6/93 Storage Bin 1	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-1	32524-2	Sound Analytical/On-Site Analytical	16.00	mg/L	0.020
Scrapyard 6/93 Storage Bin 3	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-3	32524-4	Sound Analytical/On-Site Analytical	16.00	mg/L	0.020
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-2	32524-6	Sound Analytical/On-Site Analytical	28.00	mg/L	0.020
Scrapyard 6/93 Guillotine Cutter	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	GCA-3	32524-7	Sound Analytical/On-Site Analytical	37.00	mg/L	0.020
Scrapyard 6/93 Storage Bin 2	Characterization for disposal	TCLP EPA 1311 and ICP Metals 6010	6/4/93	SB-2	32524-3	Sound Analytical/On-Site Analytical	550.00	mg/L	0.020