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July 27, 1995

Ms. Susan Hugo, Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Monitoring Well Installation and Sampling at Sutta Recycling

Dear Ms. Hugo:

Enclosed for your review is a draft copy of the subsurface investigation report on the former Sutta Recycling site (3401 Wood Street, Oakland). The field work at the site was completed in early May, and a draft Preliminary Endangerment Assessment, as required by the Department of Toxic Substances Control, was submitted to that regulating agency in late June.

Also completed during the field work was the installation of three monitoring wells around the site's former underground diesel storage tank location. The data resulting from the installation and sampling of the monitoring wells is the subject of the enclosed report and the ensuing quarterly groundwater sampling reports, as required by your office.

Please notify me of any corrections or additions you would like made to the report. You can call me at 286-5647 or mail them to the address below.

Sincerely,

Christopher R. Wilson

Christopher R. Wilson, P.E.
Office of Environmental Engineering
111 Grand Ave., 14'th Floor
Oakland, CA 94612

Enclosure

cc: file

DRAFT

SUBJECT TO REVISION

SOIL AND GROUNDWATER INVESTIGATION REPORT
SUTTA RECYCLING
3401 WOOD STREET
OAKLAND, CALIFORNIA 94607

Submitted By:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 4
ENVIRONMENTAL ENGINEERING BRANCH
OAKLAND, CALIFORNIA

July 21, 1995

Prepared By:

DRAFT

SUBJECT TO REVISION

Christopher R. Wilson, P.E.

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I Introduction

The property located at 3401 Wood Street in Oakland, formerly known as Sutta Recycling, was purchased by the California State Department of Transportation (Caltrans) in 1994 as part of the right of way take for the realignment of the Cypress freeway. The original Cypress structure collapsed during the October 1989 Loma Prieta earthquake, and its replacement will be constructed on an alignment approximately half a mile west of the original. The proposed Cypress alignment will be an elevated structure where it crosses the Sutta site, and footings for the freeway columns will be located on the property (see Figure 2 for the footing locations).

In August 1991 a 1000-gallon underground diesel tank was excavated and removed from the Sutta property. Groundwater samples collected from the excavation pit and soil samples from excavation sidewalls indicated that petroleum hydrocarbons had leaked from the tank into the site's subsurface. Subsequent to the tank removal and Caltrans' acquisition of the site, the Alameda County Health Care Services Agency requested Caltrans to install groundwater monitoring wells around the former tank location, and submit quarterly reports on the findings of the groundwater sampling and analysis. The following is the first such report after the installation of monitoring wells at the site in May 1995.

II Site History

The Sutta Recycling site is located at 3401 Wood Street in Oakland, California. A site location map is shown in Figure 1. Previous to the late nineteenth century, the site was a wetland on the margin of the San Francisco Bay. From 1866 to 1890 the wetlands were filled in by Bay dredgings. The site remained undeveloped until the 1940's, when the State Division of Highways' (now Caltrans) Bay Bridge paint maintenance yard was located there. It was during this time period that the diesel underground storage tank (UST) was installed.

The paint maintenance yard operated from the site until 1979, when a building supply company (Downs Building Supply) occupied the site. Ten years later, Sutta Recycling began running a paper waste recycling operation at the site. In August 1991, the property owner (Wells Fargo Bank, trustee of the Wayne Downs Trust) had the UST removed by Crosby and Overton, Inc. A groundwater sample taken from the tank excavation pit and analyzed for total petroleum hydrocarbons as diesel (TPH-d) revealed a concentration of 88 000 ppm. Two soil samples taken from the excavation sidewalls had TPH-d levels of 49 ppm and 130 ppm.

One month later the tank pit was over-excavated, and a soil sample was taken from each sidewall. The samples revealed TPH-d levels ranging from non-detect (ND) to 86 ppm. Further over-excavation followed the next month, with two more sidewall samples taken. When both these samples were ND for TPH-d, the tank removal work was reported to be complete. In 1994, Caltrans purchased the Sutta Recycling site, and began demolishing the various structures on the site in preparation for freeway construction work.

III Site Investigation

The subsurface investigation of the Sutta Recycling site took place on May 3 and May 4, 1995. In addition to the three monitoring wells installed around the former UST location as required by Alameda County, 8 other borings were drilled on the site in order to collect soil and groundwater data for a Preliminary Endangerment Assessment (PEA) of the site as required by the Department of Toxic Substances Control (DTSC). The locations of the borings and the monitoring wells are shown in Figure 2.

The eight borings not scheduled to be converted into monitoring wells (B1 through B8) were drilled to depths of approximately 5.5 feet or 9.5 feet, with soil samples collected at 1 foot and 4 feet below ground surface (bgs); an additional soil sample from 8 feet bgs was collected from the deeper borings. Four of these eight borings provided sufficient-enough groundwater accumulation to collect samples for analysis in addition to the groundwater samples to be collected from the monitoring wells.

The drilling was performed by West Hazmat Drilling of Newark, using a truck-mounted hollow stem auger rig under the direction of a geologist from Environmental Solutions, Inc. of Petaluma and a registered civil engineer from the Department of Transportation. Soil samples were collected using an 18-inch long split spoon sampler lined with stainless steel sampling tubes. Upon collection, the sample tubes were covered with non-adhesive teflon tape, capped with plastic lids, and placed in coolers with blue ice. The boring logs from this investigation are included in Appendix A.

The water samples from the undeveloped borings were collected by placing temporary, slotted PVC casings in the boreholes and using disposable plastic bailers to retrieve the groundwater samples. The water samples were released into sterile, laboratory-supplied containers and placed in the cooler.

Borings MW1, MW2, and MW3 were located around the former tank location, and were converted into 2-inch diameter monitoring wells. Well construction diagrams are included with the boring logs in Appendix A. These three borings were advanced to a depth of 10 feet bgs, and soil samples were collected from each at 1 foot, 4 feet, and 8 feet bgs. After the borings had been advanced and the soil sampled, Schedule 40 PVC casings were dropped through the hollow-stem augers into the boreholes. In each well, the PVC interval from 10 feet to 2 feet bgs consisted of 0.010-inch slotted casing. The well casing from 2 feet bgs to the surface was blank PVC. The depths of the wells at the Sutta Recycling site were limited to 10 feet because of the presence of a shallow clay formation throughout the area. The clay formation is Bay mud and is found at depths of less than 5 feet. If the wells had been advanced deep into the mud, well recovery when purging and sampling would have been very restricted.

The filter pack placed around the well screen, from 10 feet bgs to just above the screened interval, was Lonestar #2/12 sand. An approximately 6-inch thick layer of bentonite pellets

was placed in each well on top of the sand filter pack and was saturated with deionized water. The well borings were then finished to the surface with a cement and 5% bentonite slurry. The surface was finished with a well box set in concrete that sloped away from the bolt-on well cover.

The wells were developed on May 10, 1995, six days after final installation. During development, the wells were purged of multiple wet well casing volumes, which left the wells dry, and were allowed to recover before sampling two days later on May 12. Before samples were collected, the depth to water measurements were taken by an electric water level meter and at least three wet well casing volumes were purged from each well. During purging, the water conductivity, temperature, and pH were measured and recorded (see Table 2). The groundwater samples from the monitoring wells were collected using dedicated, disposable bailers. The samples were released into sterile, laboratory-supplied containers, and were placed in a cooler with blue ice for shipment to the laboratory.

The laboratory conducting the groundwater and soil analyses was Chromalab, Inc. of San Ramon. The soil samples collected at the site were submitted for some or all of the following analyses:

EPA Method 8015-m, Total Petroleum Hydrocarbons as Diesel (TPH-d)
EPA Method 8015-m, Total Petroleum Hydrocarbons as Gasoline (TPH-g)
EPA Method 418.1, Total Recoverable Petroleum Hydrocarbons (TRPH)
EPA Method 6010, Title 22 Metals Scan
22CCR667000, Waste Extraction Test (WET)
EPA Method 7195, Hexavalent Chromium
EPA Method 8240, Volatile Organic Compounds (VOCs)
EPA Method 8270, Semi-Volatile Organic Compounds (SVOCs)

The groundwater samples collected at the site were submitted for some or all of the following analyses:

EPA Method 8015-m, Total Petroleum Hydrocarbons as Diesel (TPH-d)
EPA Method 8015-m, Total Petroleum Hydrocarbons as Gasoline (TPH-g)
EPA Method 418.1, Total Recoverable Petroleum Hydrocarbons (TRPH)
EPA Method 6010, Title 22 Metals Scan
EPA Method 8240, Volatile Organic Compounds (VOCs)
EPA Method 8270, Semi-Volatile Organic Compounds (SVOCs)

All drilling and soil sampling tools used during the site investigation were decontaminated by either a high pressure, hot water wash or an alconox wash with deionized water rinse before and between each use. Decontamination water was drummed and stored on-site in labeled Department of Transportation 55-gallon drums, as was groundwater purged from the monitoring wells. The water has since been recycled with Evergreen Recyclers. The soil cuttings generated during the site investigation were put in labeled Department of

Transportation 55-gallon drums and stored on-site pending disposal.

IV Analytical Results

The soils beneath the site were found to generally consist of a 2- to 3-foot thick layer of fill material comprised of sands, gravels, and some clayey sands on top of the Bay mud clay formation that has been reported by the United States Geological Survey to be as thick as 85 feet. The results of the laboratory analyses of the site soils and groundwater are summarized in Table 1 and are discussed below.

Laboratory analyses of the soil samples revealed very limited petroleum hydrocarbon contamination: all 19 soil samples tested for TPH-d and all 9 samples tested for TPH-g were non-detect (ND), and only 3 of the 28 samples tested for TRPH had concentrations above the detection limit. Of those 3 samples, only 2 had elevated levels of TRPH (defined as >100 ppm). These two were the one-foot samples from borings B2 and MW3, which had concentrations of 310 and 370 ppm respectively.

The metals analyses of the soil samples showed that only one sample (the one-foot sample from B2) had an elevated level of a metal. Sample B2-1 had a lead concentration of 490 ppm, which is greater than 10 times the STLC value for lead of 5 mg/L. A solubility test (Waste Extraction Test or WET) done on sample B2-1 showed a solubility of 12.0 mg/L, well above the STLC value for lead.

The VOC analyses of the soil samples were all ND except for eight samples having detectable levels of acetone and 4 samples having detectable levels of methyl ethyl ketone. However, a trip blank analyzed for VOCs as part of the laboratory QA/QC showed similar results for the two ketones in the trip blank. As a result, the detection of the ketones in the soil samples is, in all probability, the result of laboratory contamination.

The SVOC analyses of the soil samples showed very low levels of twelve analytes from borings B3, MW1, and MW2. All of the compounds detected had concentrations below 0.55 ppb.

The groundwater table at the site was found to be about 2 feet bgs. Before the depth to water measurements were taken on May 12, 1995, the monitoring wells' top of casing elevations were surveyed by a Kister, Savio & Rei, Inc. The results of these measurements are tabulated in Table 3. The groundwater gradient calculated from the water elevation measurements is 0.0049, and shows a flow direction to the east northeast. Figure 3 shows the groundwater table contour map derived from the investigation data.

The laboratory analytical results for the Sutta groundwater samples show no detectable concentrations of petroleum hydrocarbons in the four samples collected from undeveloped borings or in the three monitoring well samples. The metals analysis revealed concentrations of seven metals (As, Ba, Cd, Cr, Pb, Hg, and Ni) exceeding their maximum contaminant

levels (MCLs) or Federal Action Levels (FALs) in the groundwater samples from undeveloped borings. In the samples from the monitoring wells, only Pb in all three wells and Ni in MW1 exceeded their respective FALs/MCLs. These concentrations of metals are most likely not the result of past practices at the site, but are indicative of concentrations naturally found in the shallow groundwater of the west Oakland area. Several investigations in the general area have found consistently similar results for groundwater metals analyses at sites not affected by contamination.

Very limited VOC contamination was detected by laboratory analysis of the groundwater samples. Two chlorinated solvents, tetrachloroethene (PCE) and trichloroethene (TCE), were detected at 10 ug/L and 11 ug/L, respectively, in the water sample from boring B1, which was drilled at the site's northern limit. These concentrations both exceed the solvents' MCLs, which are both 5 ug/L. The samples from the monitoring wells were all ND for every VOC analyte. The concentration of acetone found in the water sample from boring B6 was determined to be a laboratory contaminant because its presence was detected in the trip blank analyzed for VOCs.

The SVOC analyses of groundwater samples from the undeveloped borings were all ND. All analyses of the groundwater from MW1 and MW3 were ND, and only one analyte had detectable levels in the MW2 sample. The analyte was Bis(2-Ethylhexyl)Phthalate, which was detected in the MW2 sample at a concentration of 4 ug/L. This was the only semi-volatile compound detected in the site's groundwater.

V Conclusions

Based on the groundwater depth measurements taken on May 12, 1995, the groundwater at Sutta Recycling flows to the east north-east at a gradient of 0.0049. This direction contradicts the usual assumption that the groundwater in this area would be flowing in a westerly direction towards the Bay. The difference between the theoretical and experimental directions could possibly be due to local variations in soil composition; the close proximity of the wells to each other yielding a nonrepresentative groundwater flow direction for the area; or with the site less than half a mile from the Bay, there possibly being tidal influence on the water table under the site.

The low metals concentrations found in the soils indicate that past business practices and facilities at the site have not adversely exposed the site soils to metals contamination. The metals concentrations found in the groundwater that exceed the MCLs or FALs are not uncharacteristic of the concentrations found naturally in the shallow groundwater of west Oakland. There are no domestic or industrial wells utilizing the shallow groundwater in the west Oakland area because of its poor quality.

The two chlorinated solvents found in the water sample from the northern-most boring (B1) might be the result of the Bay Bridge paint maintenance yard having operated from the building that formerly occupied the northern portion of the site. The building is where paints

and paint removers were probably stored, and these compounds could be the source of the solvents detected in the groundwater. The solvent concentrations were relatively low and their areal extent appears to be limited, and thus, they pose no real threat to the area.

Considering that the laboratory analytical results show no detectable levels of TPH-diesel, TPH-gasoline, straight-chain aliphatic hydrocarbons, or BTEX in the soil and groundwater samples, it appears that the soil excavation at the time of the diesel UST removal successfully obviated all diesel fuel sources from the site subsurface. However, this conclusion needs to be corroborated by at least one more monitoring well sampling period.

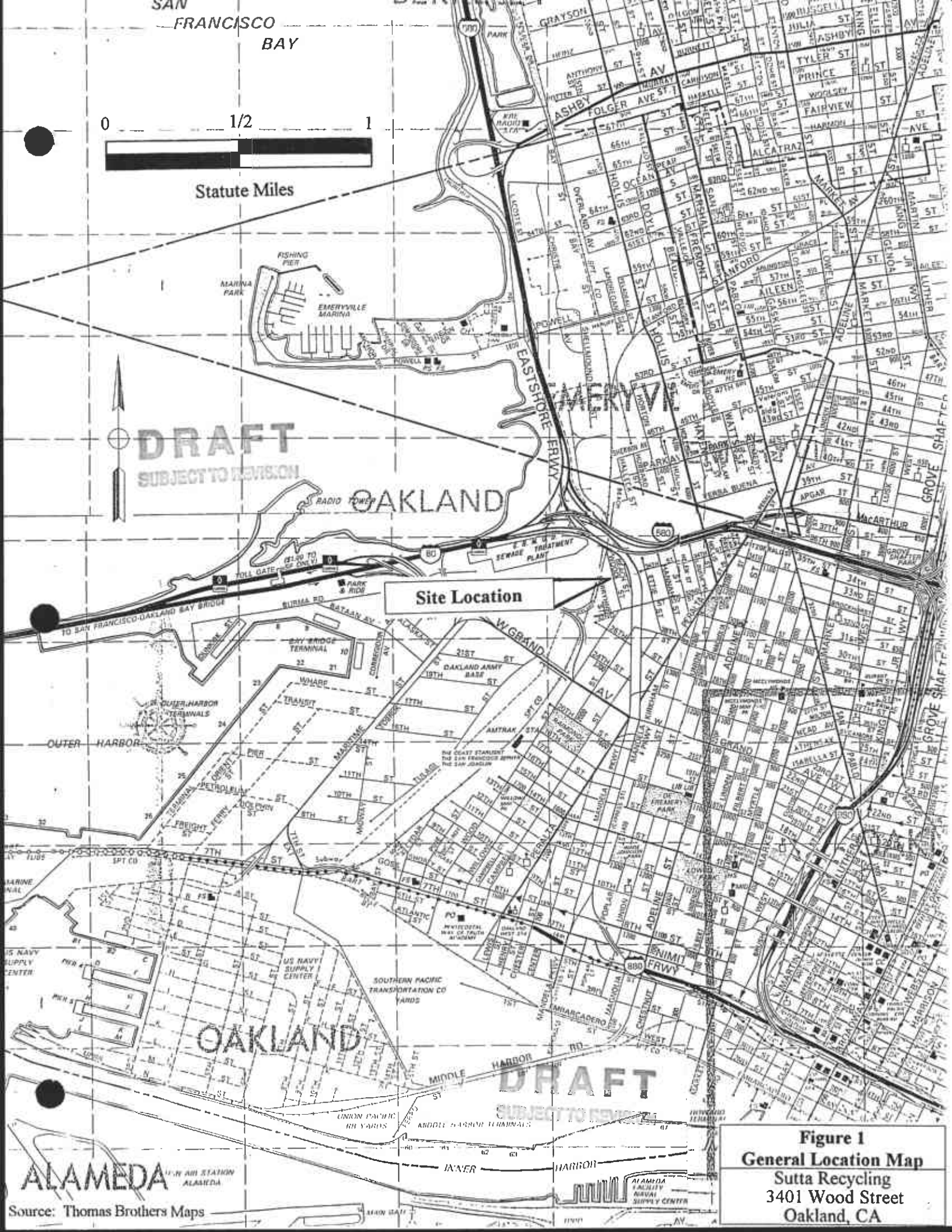

Figure 1
General Location Map
Sutta Recycling
3401 Wood Street
Oakland, CA

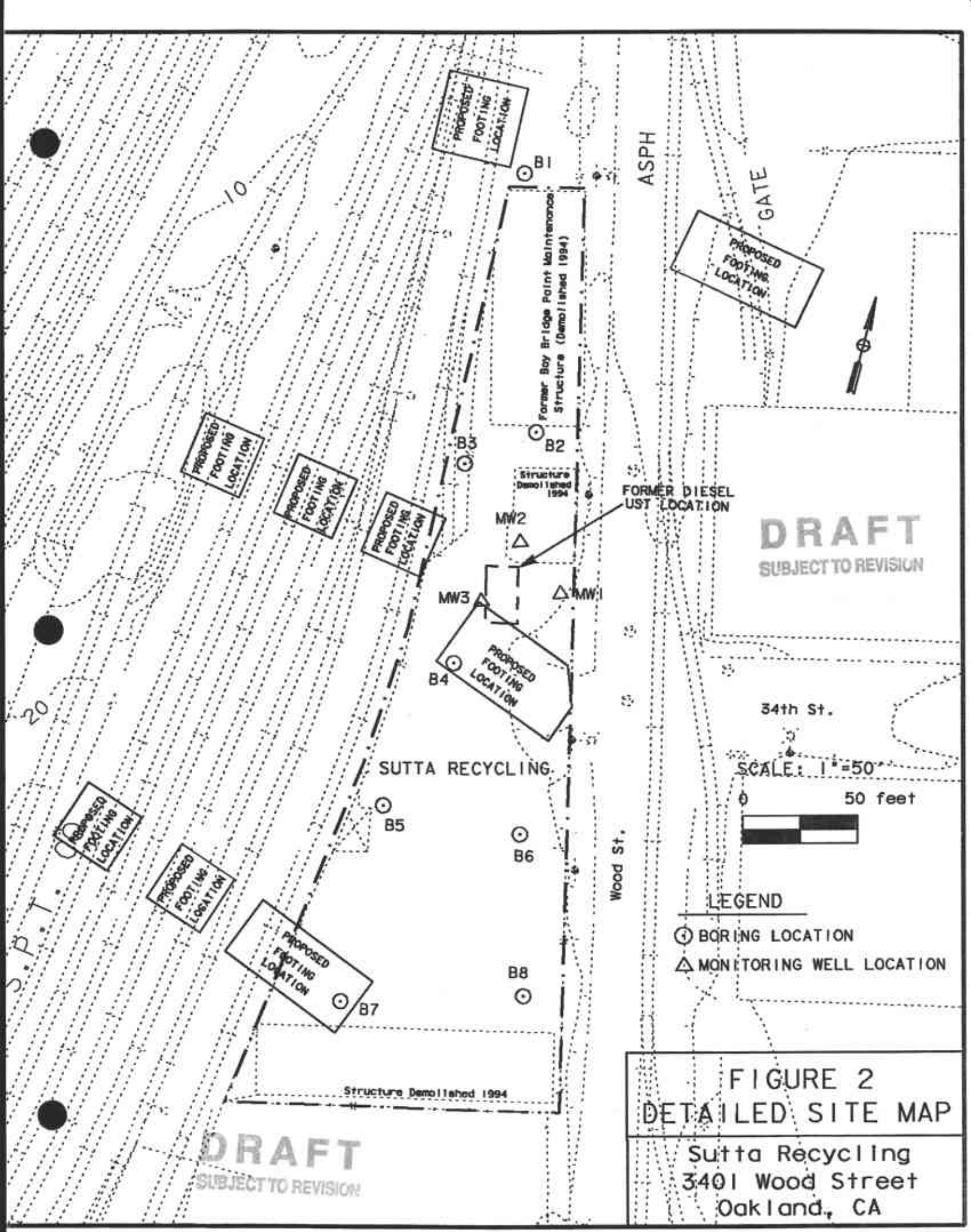

FIGURE 2
DETAILED SITE MAP

Sutta Recycling
3401 Wood Street
Oakland, CA

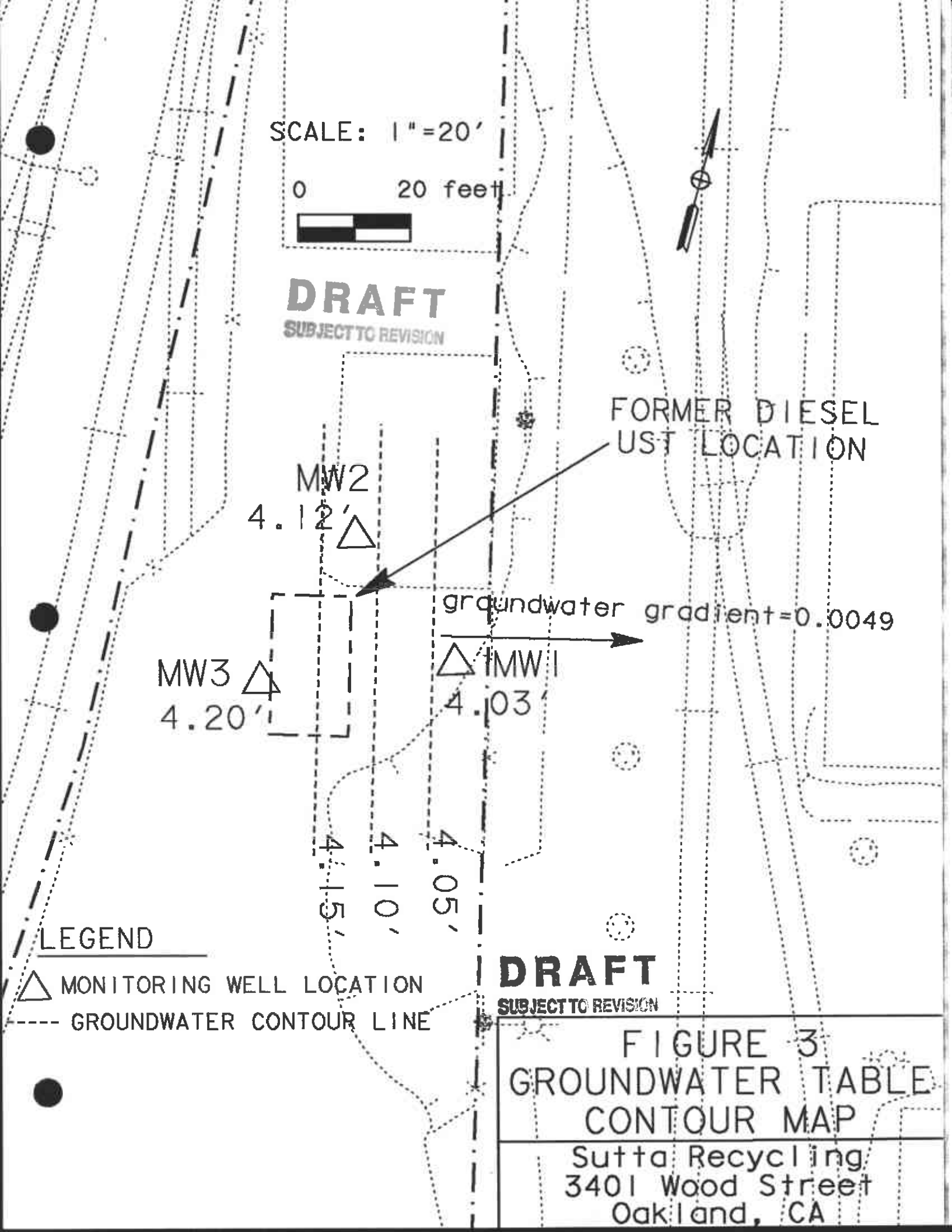

FIGURE 3
GROUNDWATER TABLE CONTOUR MAP

Sutta Recycling
3401 Wood Street
Oakland, CA

Table 1: Sutta Recycling Analytical Results

Sample No.	Depth (ft. bgs)	Hydrocarbons (mg/kg) 8015-m Diesel	8015-m Gasoline	418.1 TRPH	6010 Metals (mg/kg) Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	7195 Chromium VI	Soluble Metals (mg/L)	Soluble Lead (WET)
TTLC		500			500	10,000	75	100	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000	500			
STLC		15			5	100	0.75	1	560	80	25	5	0.2	350	20	1	5	7	24	250	5			
B1	1	ND	--	ND	ND	3.4	22.0	ND	ND	11.0	2.7	2.2	2.1	ND	ND	13.0	ND	ND	ND	6.9	7.8	--		--
B1	4	ND	--	ND	ND	11.0	25.0	ND	0.8	21.0	2.5	9.7	9.5	0.09	ND	18.0	ND	ND	ND	25.0	34.0	--		--
B1	8	ND	--	ND	ND	19.0	24.0	ND	1.4	18.0	5.2	10.0	8.7	ND	ND	27.0	ND	ND	ND	19.0	32.0	--		--
B1 Water		--	--	ND	--	0.06	2.40	--	0.005	0.35	--	--	0.22	ND	--	0.44	ND	ND	--	--	--	--		--
B2	1	--	ND	310.0	ND	1.9	54.0	ND	0.90	12.0	2.9	15.0	490.0	0.11	ND	12.0	ND	ND	ND	9.9	92.0	ND		12.0
B2	4	--	ND	ND	ND	12	24.0	ND	1.00	12.0	5.8	7.4	7.2	ND	ND	20.0	ND	ND	ND	15.0	22.0	ND		--
B3	1	--	ND	ND	--	7.5	37.0	--	ND	13.0	--	--	5.9	ND	--	12.0	ND	ND	--	--	--	ND		--
B3	4	--	ND	ND	--	6.2	30.0	--	ND	11.0	--	--	5.7	ND	--	16.0	ND	ND	--	--	--	ND		--
B3 Water		--	--	ND	--	0.25	8.10	--	0.038	1.00	--	-	4.90	0.006	--	1.90	ND	ND	--	--	--	--		--
B4	1	ND	--	ND	--	ND	23.0	--	ND	2.6	--	--	16.0	ND	--	ND	ND	ND	--	--	--	--		--
B4	4	ND	--	11	--	11.0	120.0	--	ND	17.0	--	--	7.0	ND	--	28.0	ND	ND	--	--	--	--		--
B4	8	ND	--	ND	--	3.8	19.0	--	ND	23.0	--	--	7.1	0.08	--	25.0	ND	ND	--	--	--	--		--
B5	1	--	ND	ND	--	15.0	160.0	--	0.9	12.0	--	--	8.4	0.08	--	16.0	ND	ND	--	--	--	--		--
B5	4	--	ND	ND	--	4.4	62.0	--	ND	12.0	--	--	5.5	ND	--	11.0	ND	ND	--	--	--	--		--
B6	1	ND	--	ND	ND	8.0	150.0	ND	1.0	13.0	4.4	9.2	6.3	0.06	ND	16.0	ND	ND	ND	17.0	32.0	ND		--
B6	4	ND	--	ND	ND	10.0	40.0	ND	0.5	19.0	2.9	6.8	7.1	0.06	ND	15.0	ND	ND	ND	20.0	23.0	ND		--
B6 Water		--	--	ND	--	0.24	3.80	--	0.024	0.37	--	--	1.30	0.01	--	1.30	ND	ND	--	--	--	--		--
B7	1	--	ND	ND	ND	9.0	79.0	ND	0.6	ND	1.4	1.5	6.4	0.24	ND	ND	ND	ND	ND	7.2	33.0	ND		--
B7	4	--	ND	ND	ND	13.0	25.0	ND	0.7	23.0	6.0	15.0	9.9	0.11	ND	27.0	ND	ND	ND	29.0	33.0	ND		--
B7	8	--	ND	ND	ND	19.0	20.0	ND	0.7	18.0	4.6	7.5	5.7	ND	ND	32.0	ND	ND	ND	16.0	34.0	ND		--
B7 Water		--	--	ND	--	0.10	1.50	--	0.013	0.18	--	--	0.10	0.001	--	0.20	ND	ND	--	--	--	--		--
B8	1	ND	--	ND	--	6.8	95.0	--	ND	9.6	--	--	3.7	0.22	--	19.0	ND	ND	--	--	--	ND		--
B8	4	ND	--	ND	--	11.0	24.0	--	ND	19.0	--	--	7.0	0.06	--	24.0	ND	ND	--	--	--	ND		--
MW1	1	ND	--	ND	--	3.7	16.0	--	ND	13.0	--	--	8.1	ND	--	15.0	ND	ND	--	--	--	--		--
MW1	4	ND	--	14	--	4.5	20.0	--	ND	21.0	--	--	13.0	0.14	--	27.0	ND	ND	--	--	--	--		--
MW1	8	ND	--	ND	--	17.0	12.0	--	ND	19.0	--	--	5.3	ND	--	20.0	ND	ND	--	--	--	--		--
MW2	1	ND	--	ND	ND	2.0	22.0	ND	ND	5.5	ND	1.1	2.8	ND	ND	28.0	ND	ND	ND	5.2	5.3	ND		--
MW2	4	ND	--	ND	ND	9.1	38.0	ND	0.8	14.0	4.7	5.5	4.1	ND	ND	23.0	ND	ND	ND	13.0	16.0	ND		--
MW2	8	ND	--	ND	ND	15.0	14.0	ND	1.5	17.0	4.7	7.6	5.9	ND	ND	24.0	ND	ND	ND	20.0	30.0	ND		--
MW3	1	ND	--	370	--	8.3	73.0	--	0.5	13.0	--	--	32.0	0.11	--	21.0	ND	ND	--	--	--	--		--
MW3	4	ND	--	ND	--	18.0	19.0	--	ND	22.0	--	--	12.0	0.13	--	30.0	ND	ND	--	--	--	--		--
MW3	8	ND	--	ND	--	6.6	14.0	--	ND	23.0	--	--	6.0	ND	--	25.0	ND	ND	--	--	--	--		--
MW1 Water		ND	ND	ND	--	ND	0.12	--	ND	0.14	--	--	0.05	ND	--	0.12	ND	ND	--	--	--	--		--
MW2 Water		ND	ND	ND	--	ND	0.11	--	ND	0.09	--	--	0.07	ND	--	0.09	ND	ND	--	--	--	--		--
MW3 Water		ND	ND	ND	--	ND	0.05	--	ND	0.04	--	--	0.02	ND	--	0.04	ND	ND	--	--	--	--		--
Trip Blank		--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--

ND=Not Detected
--=Not Analyzed
Groundwater sample results are in mg/L

Table 1: Sutta Recycling Analytical Results

Sample No.	Depth (ft. bgs)	8240 VOCs (ug/kg)	Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Methyl Ethyl Ketone	Carbon Tetrachloride	Chlorobenzene	Chloroethane	2-Chloroethylvinyl Ether	Chloroform	Chloromethane	Dibromochloromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	1,2-Dichloropropane	Cis-1,3-Dichloropropene	Trans-1,3-Dichloropropene	Ethylbenzene	2-Hexanone	Methylene Chloride	Methyl Isobutyl Ketone	Styrene	1,1,2,2-Tetrachloroethane	Tetrachloroethene
B1	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1	4		65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1	8		69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
B2	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B2	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B3	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B3	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	1		60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	4		220	ND	ND	ND	ND	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	8		140	ND	ND	ND	ND	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B5	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B6	1		81	ND	ND	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6	4		160	ND	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6 Water			13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B7	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B7	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B7 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	8		23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blank			35	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND=Not Detected
--=Not Analyzed
Groundwater sample results are in ug/L

Table 1: Sutta Recycling Analytical Results

Sample No.	Depth (ft. bgs)	8240 VOCs (ug/kg) cont.	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride	Total Xylenes	8270 Semi VOCs (ug/kg)	Phenol	Bis(2-Chloroethyl)Ether	2-Chlorophenol	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Benzyl Alcohol	1,2-Dichlorobenzene	2-Methylphenol	Bis(2-Chloroisopropyl)Ether	4-Methylphenol	N-Nitrosodi-N-Propylamine	Hexachloroethane	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Benzoic Acid	Bis(2-Chloroethoxy)Methane
B1	1		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	4		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	8		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1 Water			ND	ND	ND	11	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	1		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	4		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	1		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	4		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	1		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B4	4		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B4	8		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B5	1		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	4		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6	1		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B6	4		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B6 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	1		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	4		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	8		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8	1		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B8	4		ND	ND	ND	ND	ND	ND	ND	ND		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MW1	1		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	4		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	8		–	–	–	–	–	–	–	–		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	1		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	4		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	8		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	1		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	4		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	8		ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3 Water			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blank			ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND=Not Detected
--=Not Analyzed
Groundwater sample results are in ug/L

Table 4: Sutta Recycling Analytical Results

DRAFT

Sample No.	Depth (ft. bgs)	8270 Semi VOCs (ug/kg) cont.	2,4 Dichlorophenol	1,2,4-Trichlorobenzene	Naphthalene	4-Chloroanaline	Hexachlorobutadiene	4-Chloro-3-Methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene	2-Nitroanaline	Dimethyl Phthalate	Acenaphthylene	3-Nitroanaline	Acenaphthene	2,4-Dinitrophenol	4-Nitrophenol	Dibenzofuran	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Diethyl Phthalate	4-Chlorophenyl-Phenyl Ether	Fluorene	4-Nitroanaline	2-Methyl-4,6-Dinitrophenol	N-Nitrosodiphenylamine	4-Bromophenyl-Phenyl Ether
B1	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B4	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B4	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B5	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B6	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B6 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B8	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blank			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND=Not Detected
--=Not Analyzed
Groundwater sample results are in ug/L

Table 1: Sutta Recycling Analytical Results

Sample No.	Depth (ft. bgs)	8270 Semi VOCs (ug/kg) cont.	Hexachlorobenzene	Pentachlorophenol	Phenanthrene	Anthracene	Di-N-Butyl Phthalate	Fluoranthene	Pyrene	Butyl Benzyl Phthalate	3,3-Dichlorobenzidine	Benzo(A)Anthracene	Bis(2-Ethylhexyl)Phthalate	Chrysene	Di-N-Octyl Phthalate	Benzo(B)Fluoranthene	Benzo(K)Fluoranthene	Benzo(A)Pyrene	Indeno(1,2,3-C,D)Pyrene	Dibenzo(A,H)Anthracene	Benzo(G,H,I)Perylene
B1	1		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	4		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	8		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B2	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3	4		ND	ND	0.07	ND	0.10	0.16	0.24	ND	ND	ND	ND	0.09	ND	0.05	ND	0.12	0.08	0.13	ND
B3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4	1		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B4	4		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B4	8		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B5	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6	1		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B6	4		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B6 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8	1		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B8	4		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MW1	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	8		ND	ND	ND	ND	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	1		ND	ND	0.17	ND	0.47	0.14	0.18	ND	ND	0.08	ND	0.10	ND	ND	ND	0.07	ND	ND	ND
MW2	4		ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2	8		ND	ND	ND	ND	ND	0.16	0.21	ND	ND	ND	ND	0.08	ND	ND	ND	0.08	0.06	ND	0.09
MW3	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	4		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW3	8		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW2 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND
MW3 Water			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blank			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND=Not Detected

–=Not Analyzed

Groundwater sample results are ug/L

Table 3
Sutta Recycling Groundwater Investigation
Water Level Data

Well Number	Top of Casing Elevation*	Measuring Date	Depth To Water**	Water Level Elevation*
MW1	5.38	05/12/95	1.35	4.03
MW2	6.16	05/12/95	2.04	4.12
MW3	6.12	05/12/95	1.92	4.20

*=Measurement in feet above USGS Mean Sea Level

**=Measurement in feet from top of casing

Table 2
Groundwater Conductivity, pH, and Temperature Measurements

Well Number	Measuring Date	Conductivity (umhos)	pH	Temperature (degrees fahrenheit)
MW1	05/12/95	1190	7.96	64.7
MW2	05/12/95	880	7.28	63.9
MW3	05/12/95	1540	7.02	67.0

Project Name: Sutta Recycling		Date: 5-3-1995	Boring Number: B1
Project No: 95-903	Borehole Depth: 9.5 Feet		Surface Completion: Neat Cement
Drilling Co: West Haz Mat	Well Depth: N/A		Surface Elevation: N/A
Drilling Equip: 8" HSA	Water Elev.: N/A		Logged By: RLN
Sampler Type: 2" Split Barrel	Casing Elevation: N/A		Checked By: CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Fill: Greenish gray clayey Sand (SC)								Constituent percentages are visual field estimates only.
Olive (5Y 4/3) poorly graded Sand (SP), (0% clay, 0% silt, 100% sand, 0% gravel), fine to medium grained sand, moist to wet, loose to medium dense		1 2 3	B1-1			7 7 7	0	
Dark greenish gray (5GY 4/1) sandy Clay (CL), (60, 0, 40, 0), very fine grained sand, soft, saturated		4 5 6	B1-4			1 2 4	0	
Dark greenish gray (5GY 4/1) to very dark gray (5GY N/3) sandy fat Clay (CH), (80, 0, 20, 0), soft, saturated, trace of roots and organic matter, strong hydrogen sulfide odor, 1" thick interbeds of clayey sand		7 8 9	B1-8			1 1 1	0	
Boring terminated at 9.5 feet		10 11 12 13 14 15						

ENVIRONMENTAL SOLUTIONS, INC.

Figure No. 12.2-1

Project Name: Sutta Recycling		Date: 5-3-1995		Boring Number: B2	
Project No:	95-903	Borehole Depth:	9.5 feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	N/A	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	N/A	Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Fill: Very dark grayish brown (10YR 3/2) clayey Sand (SC), (60% clay, 0% silt, 35% sand, 5% gravel), trace brick fragments, dense, moist to wet		1	B2-1			7 9 14	0	Constituent percentages are visual field estimates only.
Dark greenish gray (5GY 4/1) clayey Sand (SC), (30, 0, 70, 0), very fine grained sand, loose, wet		2 3						
Dark greenish gray (5GY 4/1) sandy fat Clay (CH), (80, 0, 20, 0), very fine grained sand, soft, wet, faint hydrogen sulfide odor		4 5 6 7 8	B2-4 B2-8			2 1 2 2 3 6	0 0	
Boring terminated at 9.5 feet		9 10 11 12 13 14 15						

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Figure No. 12.2-2

Project Name:	Sutta Recycling	**Date:**	5-3-1995	**Boring Number:**	B3
Project No:	95-903	Borehole Depth:	5.5 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	N/A	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	N/A	Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Olive brown (2.5 Y 4/4) silty Sand (SM), (0% clay, 15% silt, 85% sand, 0% gravel), very fine grained sand, loose to medium dense, moist to wet		1	B3-1			6 6 7	0	Constituent percentages are visual field estimates only.
		2						
		3						
Dark greenish gray (5GY 4/1) sandy fat Clay (CH), (80, 0, 20, 0), very fine grained sand, soft, saturated, trace of roots and oraganic matter, faint hydrogen sulfide odor		4	B3-4			2 2 2	0	
		5						
Boring terminated at 5.5 feet		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

Project Name: Sutta Recycling		Date: 5-3-1995		Boring Number: B4	
Project No:	95-903	Borehole Depth:	9.5 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	N/A	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	N/A	Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Fill: Brown (10YR 4/3) sandy silty Gravel (GM), (0% clay, 15% silt, 30% sand, 55% gravel), fine grained sand, fine subangular sandstone gravel, very dense, dry to moist		1	B4-1			33 22 30	0	Constituent percentages are visual field estimates only.
Black (10YR /21) sandy fat Clay (CH), (90, 0, 10, 0), vey fine grained sand, soft, wet to saturated		2 3 4 5 6 7 8 9	B4-4 B4-8			3 4 5 1 2 1	0 0	
Boring terminated at 9.5 feet		10 11 12 13 14 15						

ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-4

Project Name: Sutta Recycling		**Date:** 5-4-1995	**Boring Number:** B5
Project No: 95-903	Borehole Depth: 5.5 Feet		Surface Completion: Neat Cement
Drilling Co: West Haz Mat	Well Depth: N/A		Surface Elevation: N/A
Drilling Equip: 8" HSA	Water Elev.: N/A		Logged By: RLN
Sampler Type: 2" Split Barrel	Casing Elevation: N/A		Checked By: CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Fill: Very dark gray (N3) / greenish gray (5GY 4/1) sandy fat Clay (CH), (70% clay, 0% silt, 30% sand, 0% gravel), medium stiff, dry to moist		1	B5-1	▽		6	0	Constituent percentages are visual field estimates only.
Dark greenish gray (5GY 4/1) sandy fat Clay (CH), (85, 0, 15, 0), very fine to fine grained sand, soft, saturated		2				6		
		3				8		
		4						
		5	B5-4			2	0	
Boring terminated at 5.5 feet		6				2		
		7				2		
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-5

Project Name: Sutta Recycling		**Date:** 5-4-1995		**Boring Number:**	B6
Project No:	95-903	Borehole Depth: 5.5 Feet		Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth: N/A		Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.: N/A		Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation: N/A		Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Fill: Black sandy fat Clay (CH), stiff, dry								Constituent percentages are visual field estimates only.
Black (N2.5) sandy fat Clay (CH), (90% clay, 0% silt, 10% sand, 0% gravel), very fine grained sand, soft, wet		1	B6-1			7 7 6	0	
		2						
		3						
		4						
Saturated		5	B6-4			4 3 2	0	
Boring terminated at 5.5 feet		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-6

Project Name: Sutta Recycling		**Date:** 5-4-1995		**Boring Number:** B7	
Project No:	95-903	Borehole Depth:	9.5 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	N/A	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	N/A	Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Light olive brown (2.5Y 5/6) sandy clayey Gravel (GC), (40% clay, 0% silt, 10% sand, 50% gravel), fine grained sand, fine subangular gravel, medium dense, dry to moist		1	B7-1			11 7 13	0	Constituent percentages are visual field estimates only.
		2						
		3						
Dark greenish gray (5GY 4/1) fat Clay (CH), (100, 0, 0, 0), soft, saturated		4						
		5	B7-4			3 2 1	0	
		6						
		7						
		8						
Abundant shell fragments from 8.0 feet		9	B7-8			2 1 1	0	
Boring terminated at 9.5 feet		10						
		11						
		12						
		13						
		14						
		15						

ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-7

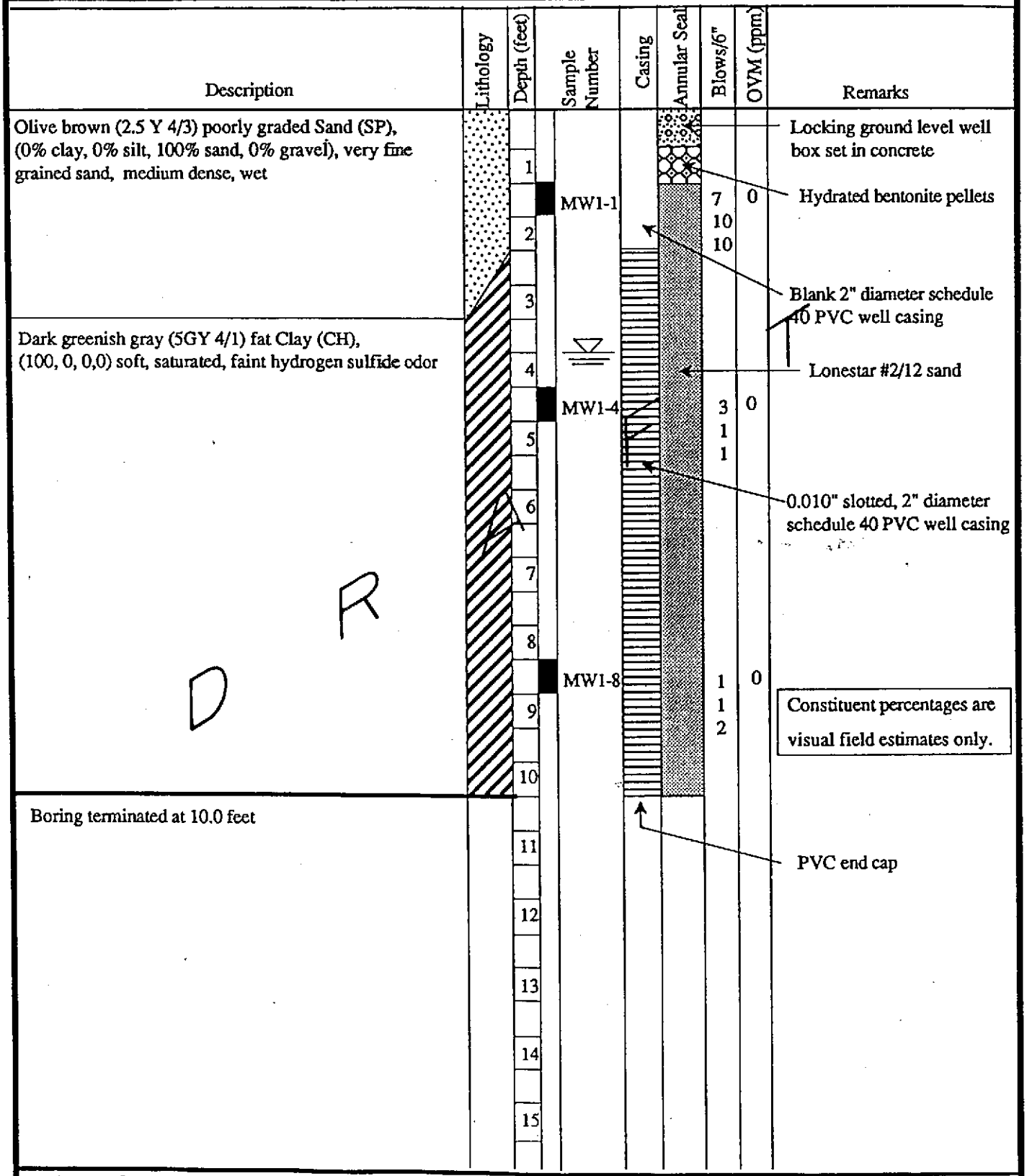
Project Name: Sutta Recycling		Date: 5-4-1995		Boring Number: B8	
Project No:	95-903	Borehole Depth:	5.5 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	N/A	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	N/A	Checked By:	CMM

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Asphalt and baserock								Constituent percentages are visual field estimates only.
Yellowish brown (10YR 5/6) clayey Gravel (GC), (40% clay, 0% silt, 0% sand, 60% gravel), fine subangular gravel, loose to medium dense, dry to moist		1	B8-1			1 4 7	0	
		2						
Dark greenish gray (5GY 4/1) sandy fat Clay (CH), (80, 0, 20, 0), very fine grained sand, soft, saturated		3	▽					
		4						
			B8-4			2 1 1	0	
		5						
Boring terminated at 5.5 feet		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

ENVIRONMENTAL SOLUTIONS, INC.

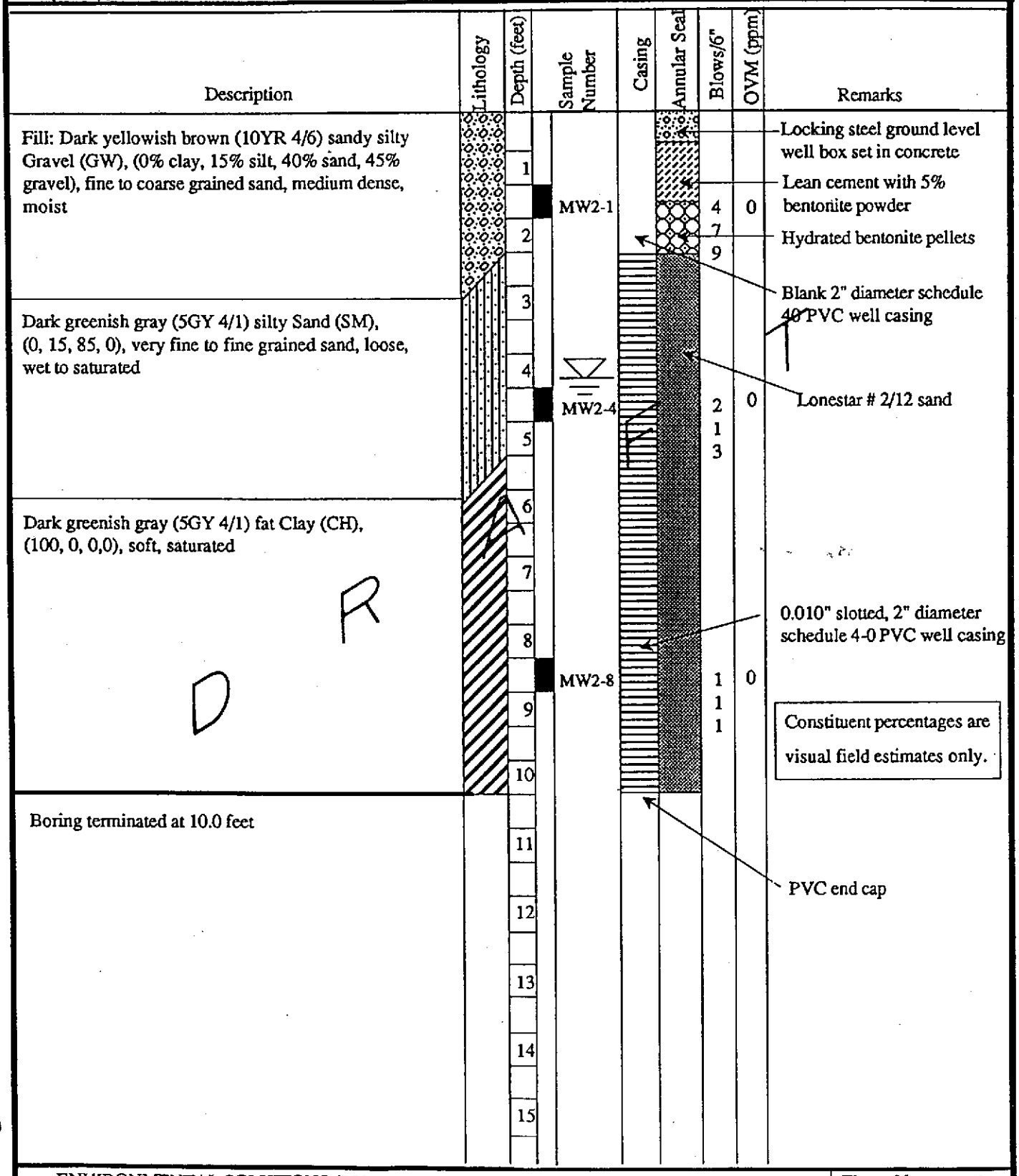
Figure No. 12.2-8

Project Name: Sutta Recycling		Date: 5/3/1995		Boring Number: MW-1	
Project No:	95-903	Borehole Depth:	10.0 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	10.0 Feet	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	5.38 Feet	Checked By:	CMM



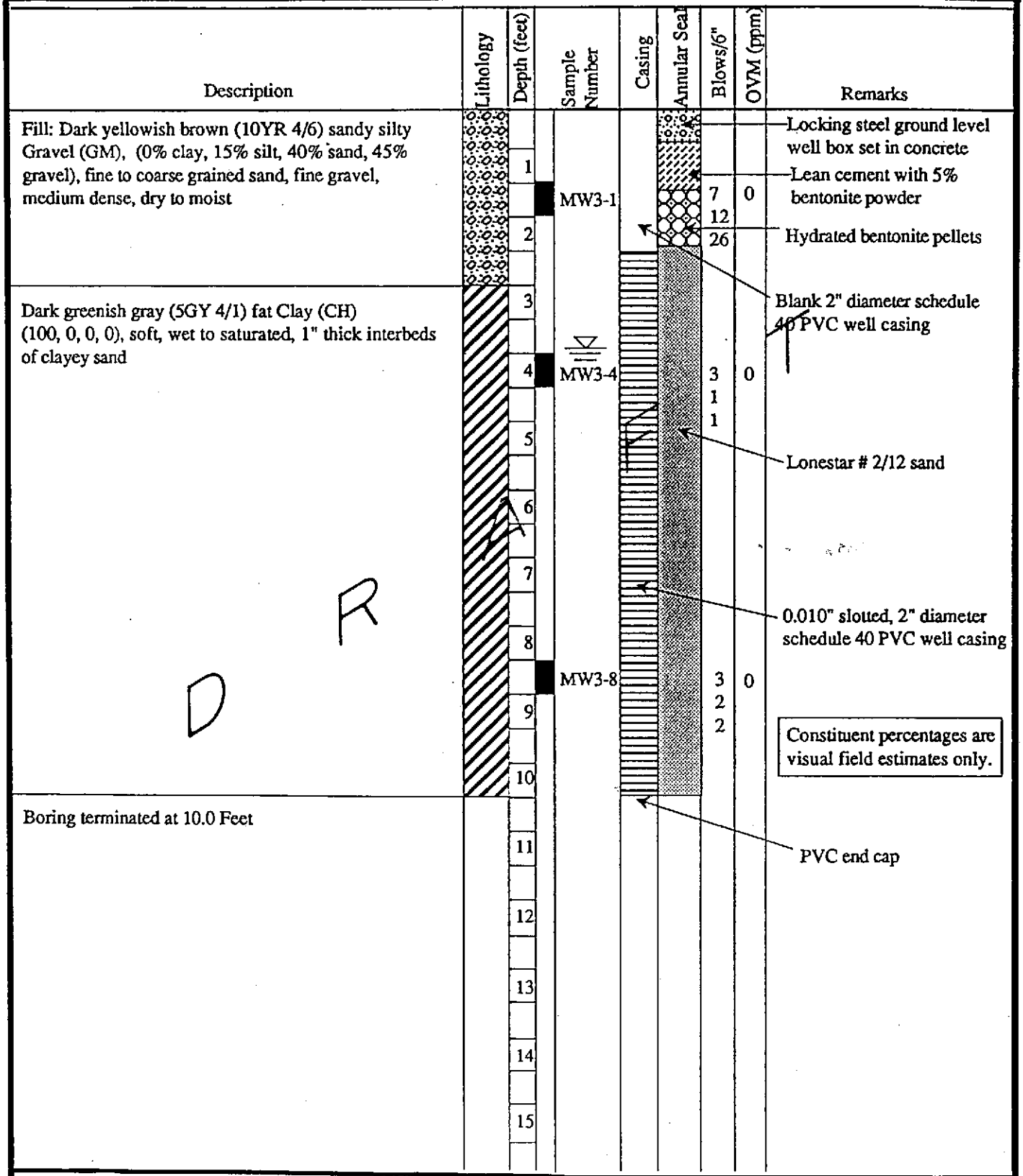
ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-9

Project Name:	Sutta Recycling	**Date:**	5-3-1995	**Boring Number:**	MW-2
Project No:	95-903	Borehole Depth:	10.0 Feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	10.0 Feet	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" Split Barrel	Casing Elevation:	6.15 Feet	Checked By:	CMM



ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-10

Project Name:	Sutta Recycling	**Date:**	5-3-1995	**Boring Number:**	MW-3
Project No:	95-903	Borehole Depth:	10.0 feet	Surface Completion:	Neat Cement
Drilling Co:	West Haz Mat	Well Depth:	10.0 Feet	Surface Elevation:	N/A
Drilling Equip:	8" HSA	Water Elev.:	N/A	Logged By:	RLN
Sampler Type:	2" split Barrel	Casing Elevation:	6.12 Feet	Checked By:	CMM



ENVIRONMENTAL SOLUTIONS, INC. | Figure No. 12.2-11