AGI
TECHNOLOGIES

Quarterly Groundwater Monitoring
Fourth Event, April 1996
Eandi Metal Works
Oakland, California

February 18, 1997

Prepared For :

Eandi Metal Works
976 23rd Avenue
Oakland, California 94606

AGI Project No. 15,876.001

AGI TECHNOLOGIES

Prepared for:

Eandi Metal Works
976 23rd Avenue
Oakland, California 94606

QUARTERLY GROUNDWATER MONITORING
FOURTH EVENT, APRIL 1996
EANDI METAL WORKS
OAKLAND, CALIFORNIA

February 18, 1997

by:

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AGI Project No. 15,876.001.04

AGI TECHNOLOGIES

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INTRODUCTION

This report presents the results of the fourth quarterly groundwater monitoring event at the Eandi Metal Works (EMW) in Oakland, California (see **Figure 1**). The EMW site includes property at 1023 and 976 23rd Avenue, and 1440 East 11th Street; quarterly groundwater monitoring is being performed on three monitoring wells near the East 11th Street property as part of a subsurface investigation initiated in June 1995 (see **Figure 2**).

The fourth round of groundwater monitoring was conducted by Klinfelder Inc. of San Jose, California and AGI Technologies (AGI) in April 1996 and was performed in accordance with AGI's work plan dated June 9, 1995, which was approved by Alameda County Health Care Services Agency (ACHCSA) on June 29, 1995. A site health and safety plan (HASP) was included in the work plan and adhered to during groundwater monitoring. A copy of the work plan is included as **Appendix A.**

PURPOSE AND SCOPE OF SERVICES

The purpose of our services is to evaluate subsurface conditions near the East 11th Street portion of the site. The subsurface evaluation will be based on data collected during soil boring and quarterly groundwater monitoring. Our scope of services for this project included:

- Preparing and implementing a site-specific HASP to guide field personnel in proper safety procedures to be followed during investigation and monitoring activities.
- Obtaining a permit for the installation of three groundwater monitoring wells.
- Conducting a utility survey of the proposed drilling area using Underground Service Alert. (Private utility locating services were not included in the scope of this project because the proposed borings were located in the public right-of-way.)
- Drilling and sampling five soil borings to approximately 12 to 15 feet below ground surface (bgs). [The original boring depths were based on an expected depth to groundwater of 5 to 10 feet bgs. During drilling operations on July 10, 1995, the above scope was modified on your verbal approval due to conditions encountered (i.e., depth to groundwater was significantly greater than 10 feet and boring depths were extended to 21 feet).]
- Installing and developing three groundwater monitoring wells within the soil borings.

- Performing four quarterly groundwater monitoring events after installation.
- Collecting and submitting six soil samples (two per monitoring well boring) and 12 groundwater samples (four events for three monitoring wells) for chemical analyses. Samples were analyzed for the following constituents:
  - Total petroleum hydrocarbons quantified as gasoline (TPH-G) using a modified EPA Method 8015.
  - Benzene, ethylbenzene, toluene, and total xylenes (BETX) using EPA Method 8020.
  - Total lead using EPA Method 6010/7000 Series.
- Collecting and analyzing three soil samples from the location of a former underground storage tank (UST). Two samples were collected from below the excavation base. One sample was collected from the backfill material.
- Evaluating the hydrological and chemical data generated during the field activities.
- Preparing four quarterly reports presenting our findings and calculations.

BACKGROUND

The EMW site contained three USTs, all of which have been removed. One 550-gallon UST containing gasoline was located near the main EMW facility at 976 23rd Avenue; one 1,000-gallon UST containing diesel was located near the building at 1023 23rd Avenue; and one 1,000-gallon UST containing gasoline was located near 2440 East 11th Street. Groundwater was not encountered during UST removal.

Following removal of the 550-gallon UST, the portion of the site near 976 23rd Avenue was deemed clean because only trace amounts of lead [14 parts per million (ppm) and 4.8 ppm in two samples] and total xylenes (14 ppm in one sample) were detected in the soil. No further action has been required by ACHCSA at this portion of the site.

Low levels of diesel-range petroleum hydrocarbons were detected in samples collected from soil removed near the 1,000-gallon diesel UST; however, no diesel-range petroleum hydrocarbons were detected in the soil following UST removal.

Gasoline-range petroleum hydrocarbons, BETX, and lead were detected in soil samples collected near the 1,000-gallon gasoline UST removed near the East 11th Street building (see **Figure 2**); however, no holes were reported in the UST during its removal. The UST was reported to be 25 to 30 years old.

During removal of the UST near the East 11th Street building, an effort was made to remove the majority of soil containing gasoline-range petroleum hydrocarbons. The excavated soil was allowed to aerate onsite for approximately 9 months. Following aeration, the soil was sampled by EMW to verify that aeration was complete, and the aerated soil was placed back into the excavation. The UST excavation remains open pending authorization for closure. The soil surface in the excavation is approximately 1 foot (average) below the adjacent sidewalk surface, because no imported fill has been used to replace the UST volume.

Because petroleum hydrocarbon contamination was detected in soil near the former East 11th Street UST, a subsurface investigation was initiated in June 1995. Only the area near the East 11th Street UST was addressed in the investigation because no petroleum hydrocarbon contamination was detected near the other two former UST locations.

In July 1995, five soil borings (E-1 through E-5) were advanced and three monitoring wells (MW1 through MW3) were installed, developed, and sampled near the former UST on East 11th Street (see **Figure 2**). The groundwater sampling and analysis constituted the first quarterly groundwater monitoring event. A report was prepared describing well installation activities, findings regarding subsurface conditions encountered during drilling, and the results of the first quarterly monitoring event. Results of the investigation indicated the majority of the soil containing gasoline-range petroleum hydrocarbons has been removed and only minor amounts of petroleum hydrocarbons remain in the soil underlying and adjacent to the former UST excavation. Gasoline-range petroleum hydrocarbons were detected in the groundwater samples collected from each of the three wells installed at the site. Lead was detected in groundwater samples collected from two of the wells, but was not attributed to the former UST.

This report presents the results of the fourth quarterly groundwater monitoring event, which was performed in April 1996.

GROUNDWATER MONITORING FIELD PROCEDURES AND RESULTS

This section presents information regarding activities performed during groundwater monitoring at the site. A detailed description of groundwater monitoring procedures is presented in the work plan (see **Appendix A**). During the monitoring event, depth to groundwater was measured from the top of casing using an electronic water level meter. Depth to water and groundwater elevation data are presented in **Table 1**.

Following water level measurements, the wells were purged until the pH, temperature, and specific conductance of the purged water stabilized. Approximately three to four well casing volumes of water were removed prior to collecting groundwater samples using a clean disposable bailer. Well purge water was stored onsite in DOT-approved 55-gallon drums, pending disposal by the owner. Copies of field data sheets are presented in **Appendix B**.

Water samples collected from the wells were placed in the appropriate containers supplied by the laboratory. All samples were placed in an ice chest and kept cool until delivery to the analytical laboratory. Sample handling was documented using Chain-of-Custody records. A copy of the Chain-of-Custody record is presented in **Appendix C**.

LABORATORY PROCEDURES AND RESULTS

The groundwater samples collected from the monitoring wells were submitted to Anametrix Laboratories of San Jose, California. The samples were analyzed for TPH-G using a modified EPA Method 8015, BETX using EPA Method 8020, and total lead using EPA Method 6010.

Results of groundwater sample analyses indicate the presence of TPH-G at concentrations ranging from 4.6 mg/L at MW1 to 13 mg/L at MW2 (see **Table 2**). BETX compounds were present in each sample at concentrations ranging from 0.14 mg/L toluene at MW3 to 2.9 mg/L total xylenes at MW2. Copies of the analytical reports are presented in **Appendix C**.

CONCLUSIONS AND RECOMMENDATIONS

Results of groundwater monitoring indicate groundwater at the site occurs at approximately 8 to 12 feet bgs and flows in a westerly direction. Based on typical regional groundwater conditions and preliminary qualitative depth to groundwater measurement data, variations in groundwater flow may vary between west and southwest, depending on seasonal conditions. Conditions encountered at the site indicate MW1 is immediately downgradient from the former UST location, MW2 is further downgradient and slightly cross-gradient, and MW3 (farthest from the former UST location) is directly downgradient. Groundwater levels at the site have decreased (between 1.46 feet at MW3 to 1.96 feet at MW1) since the previous monitoring event.

Hydrocarbons were detected in groundwater samples collected from each well. Hydrocarbon concentrations in site groundwater have decreased since the previous monitoring event, except for an increase in ethylbenzene (from 0.87 mg/L to 1.0 mg/L) at MW3 and total xylenes (from 2.6 mg/L to 2.9 mg/L) at MW2. The decreased hydrocarbon concentrations may be associated with the decrease in groundwater levels at the site or other unknown factors.

During the first monitoring event in July 1995, lead was detected in groundwater samples collected from MW-2 and MW-3 but not in groundwater samples collected from MW-1. Based on this condition, lead detected in groundwater at the site does not appear to be associated with the former UST. The lead in groundwater may be an area-wide condition, associated with roadbed construction materials used beneath 25th Avenue and East 11th Street or may be due to other unknown factors. The lack of detectable lead concentrations in samples collected during the second, third, and fourth quarterly monitoring events may indicate that lead concentrations detected during the previous event resulted from soil disturbance during drilling and well installation.

Water from well purging and decontamination operations may be stored up to 90 days at the site. A licensed hazardous liquid hauling company should be contacted to remove the water. A hazardous waste generator number will be required for disposal of the water. We understand EMW already has a generator number and does not require AGI's assistance in scheduling disposal.

CLOSURE

LOW RISK SITE CRITERIA

On December 8, 1995 and January 5, 1996, the San Francisco Bay Regional Water Quality Control Board (RWQCB) presented interim guidance information regarding revisions to RWQCB policy on cleanup actions required for sites with leaking underground storage tanks. The guidance presents remediation management strategies for "low risk, soil only" and "low risk, groundwater" sites that may not require active remediation. The revisions were based on information presented in a report entitled *Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks (LUFTs)* [Lawrence Livermore National Laboratory (LLNL), 1995], which presented the results of a study regarding the effectiveness of active remediation at sites with soil and/or groundwater impacted by LUFTs. Results of the study indicated that many sites may not gain significant benefits from the performance of active remediation and that such sites may require only passive remediation through natural biodegradation.

The RWQCB guidance presents a general set of criteria that a site must meet to qualify as a "low risk" site. The criteria for "low risk, groundwater" sites (with impacted groundwater) include:

1. The leak has been stopped, source material has been removed, and no free product is present.
2. The extent of impact has been adequately characterized.
3. The impacted plume is not migrating.
4. No water wells, deep drinking water aquifers, surface water or other sensitive receptors are likely to be impacted (exist within 250 feet of the source).
5. No significant risk to human health is posed by the impacted area.
6. No significant risk to the environment is posed by the impacted area.

MEETING THE LOW RISK CRITERIA

If conditions at a LUFT site meets the above criteria, the RWQCB guidance indicates the site would be eligible for cleanup using passive natural bioremediation. Based on the data collected during quarterly monitoring during the past year, the Eandi Metal Works site meets much of the criteria listed above. Because the tank has been removed, source material appropriately remediated, and free product has not been detected in the groundwater, the site meets criteria 1.

The RWQCB guidance states that identifying the "nondetect" limits of the plume is not necessarily required for proper characterization of the site. Based on this guidance and the data collected during our monitoring at the site (which indicates the hydrocarbon concentrations in groundwater at the site are relatively stable or decreasing) the site appears to be adequately characterized (criteria 2) for the purpose of determining if the site is a "low risk" site. Further delineation of the plume would likely require at least partial closure of East 11th Street to allow for installation of monitoring wells farther downgradient from the existing monitoring wells. Because East 11th Street is relatively

narrow and large trucks require the full existing street width to access the distribution warehouse located at the corner of East 11th Street and 25th Avenue, further delineation in this area would severely impact operations for the warehouse facility, as well as operations by Eandi Metal Works personnel and equipment. Moving such an investigation to 23rd Avenue would likely have severe impacts on traffic on 23rd Avenue and the connected off-ramp for Interstate 880 and would likely not provide significant data regarding the plume due to the relatively large distance from the source.

The concentrations detected in samples collected from the site monitoring wells indicate that variations in hydrocarbon concentrations appear to occur due to seasonal effects or other unknown factors, that concentrations are generally stable or decreasing, and that no migration is apparent. Due to the proximity of the plume to subsurface utilities, a potential may exist for preferential migration along utility trenches. However, based on the regional groundwater flow direction in the area of the site (westerly), the site-specific groundwater flow directions detected (westerly), and the apparent direct connection between the source (near MW1) and the downgradient monitoring wells (between which several utility trenches appear to exist) the effect, if any, on the extent of impact appears to be minimal. Based on these conditions, the site meets criteria 3.

Criteria 4 requires information of existing well locations in the area surrounding the site. Our scope of services for this project did not include a well survey. However, in the process of preparing the work plan for the site, we observed a map at the ACHCSA office that appeared to indicate that no wells exist within 500 feet of the tank (source) location at the site. The ACHCSA maintains information regarding the locations of wells in the area and may be able to provide a determination of whether wells are located within the criteria distance (250 feet).

Criteria 5 and 6 require the performance of a health risk evaluation of site-specific conditions with regard to potential exposure routes and receptors for the hydrocarbons in the groundwater. Such a risk evaluation is a detailed health risk study involving the use of procedures and formulae presented in additional guidance provided by several regulatory agencies. Based on known site conditions, it is likely that conditions at the site would not pose a significant risk to human health or the environment. AGI therefore recommends that a health risk evaluation be performed to assess the level of risk posed by subsurface conditions at the site.

Upon completion of the health risk evaluation and findings of no significant risk, closure should be requested for the ACHCSA and/or the RWQCB.

USE OF THIS REPORT

This report has been prepared for the exclusive use of Eandi Metals Works and its consultants for this project only. The analyses, conclusions, and recommendations presented in this report are based on conditions encountered at the time of our study and our experience and engineering judgement. AGI cannot be held responsible for the interpretation by others of the data contained herein.

Our services have been performed in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the area. No other warranty, express or implied, is made.

REFERENCES

LLNL. 1995. Cleanup Process for California's Leaking Underground Fuel Tanks. Lawrence Livermore National Laboratory, Environmental Protection Department. October 16.

AGI TECHNOLOGIES

DISTRIBUTION

2 Copies	Eandi Metal Works 976 23rd Avenue Oakland, California 94606 Attention: Mr. Jeffrey M. Eandi
2 Copies	Alameda County Health Care Services Agency Division of Environmental Protection Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor Alameda, California 94502 Attention: Mr. Thomas Peacock (delivered by EMW)

Quality Assurance/Technical Review by:

Daniel T. Henninger
Senior Scientist

JBA/DWA/tag

AGI TECHNOLOGIES

Table 1
Groundwater Elevation Monitoring Data
Eandi Metal Works
Oakland, California

Groundwater Elevation Monitoring Data						
		Field Measurement Data				
Monitoring Well ID	Date Monitored	Depth to Water* (feet below TOC)	Reference	Reference Elevation** (feet above MSL)	Groundwater Elevation (feet above MSL)	Groundwater Elevation Change
MW-1	07/14/95	9.72	TOC	99.90	90.18	
	07/17/95	11.11	"	"	88.79	-1.39
	10/20/95	11.96	"	"	87.94	-0.85
	01/25/96	8.14	"	"	91.76	3.82
	04/25/96	10.10	"	"	89.80	-1.96
MW-2	07/14/95	10.74	TOC	99.57	88.83	
	07/17/95	10.93	"	"	88.64	-0.19
	10/20/95	11.92	"	"	87.65	-0.99
	01/25/96	8.23	"	"	91.34	3.69
	04/25/96	10.08	"	"	89.49	-1.85
MW-3	07/14/95	10.95	TOC	98.45	87.50	
	07/17/95	11.04	"	"	87.41	-0.09
	10/20/95	12.11	"	"	86.34	-1.07
	01/25/96	8.83	"	"	89.62	3.28
	04/25/96	10.29	"	"	88.16	-1.46

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Notes:

* Last stable reading prior to monitoring well purging on specified date.
** Relative elevation for gradient calculation only.
Depth to water measurements on 07/14/95 were taken prior to well development.
MSL - Mean Sea Level.
TOC - Top of monitoring well casing.

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Table 2
Summary of Chemical Analyses - Groundwater
Eandi Metal Works
Oakland, California

Well ID	Date Sampled	EPA Test Method: BTEX (8020/8020) Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	MTBE mg/L	8015M TPH-G mg/L	6010 Total Lead mg/L
MW1	07/17/95	0.39	2.0	0.8	5.3	<0.125	22	<0.04
	10/20/95	0.27	0.54	0.36	1.8	NA	14	<0.04
	01/25/96	0.74	1.3	0.49	2.7	<0.5	16.0	<0.04
	04/25/96	0.18	0.45	0.19	1.0	<0.25	4.6	<0.04
MW2	07/17/95	0.37	1.7	0.93	5.1	<0.125	21	0.0564
	10/20/95	0.018	0.027	0.026	0.079	NA	0.73	<0.04
	01/25/96	0.74	0.66	1.0	2.6	0.67	14.0	<0.04
	04/25/96	0.37	0.44	1.0	2.9	<0.5	13.0	<0.04
MW3	07/17/95	1.2	0.15	1.0	1.7	<0.025	8.4	0.153
	10/20/95	0.6	0.59	0.043	0.34	NA	5.8	<0.04
	01/25/96	1.2	0.29	0.87	1.3	<0.25	10.0	<0.04
	04/25/96	0.83	0.14	1.0	1.0	0.4	8.9	<0.04
Laboratory Reporting Limit*		0.0005	0.0005	0.0005	0.0005	0.005	0.05	0.04

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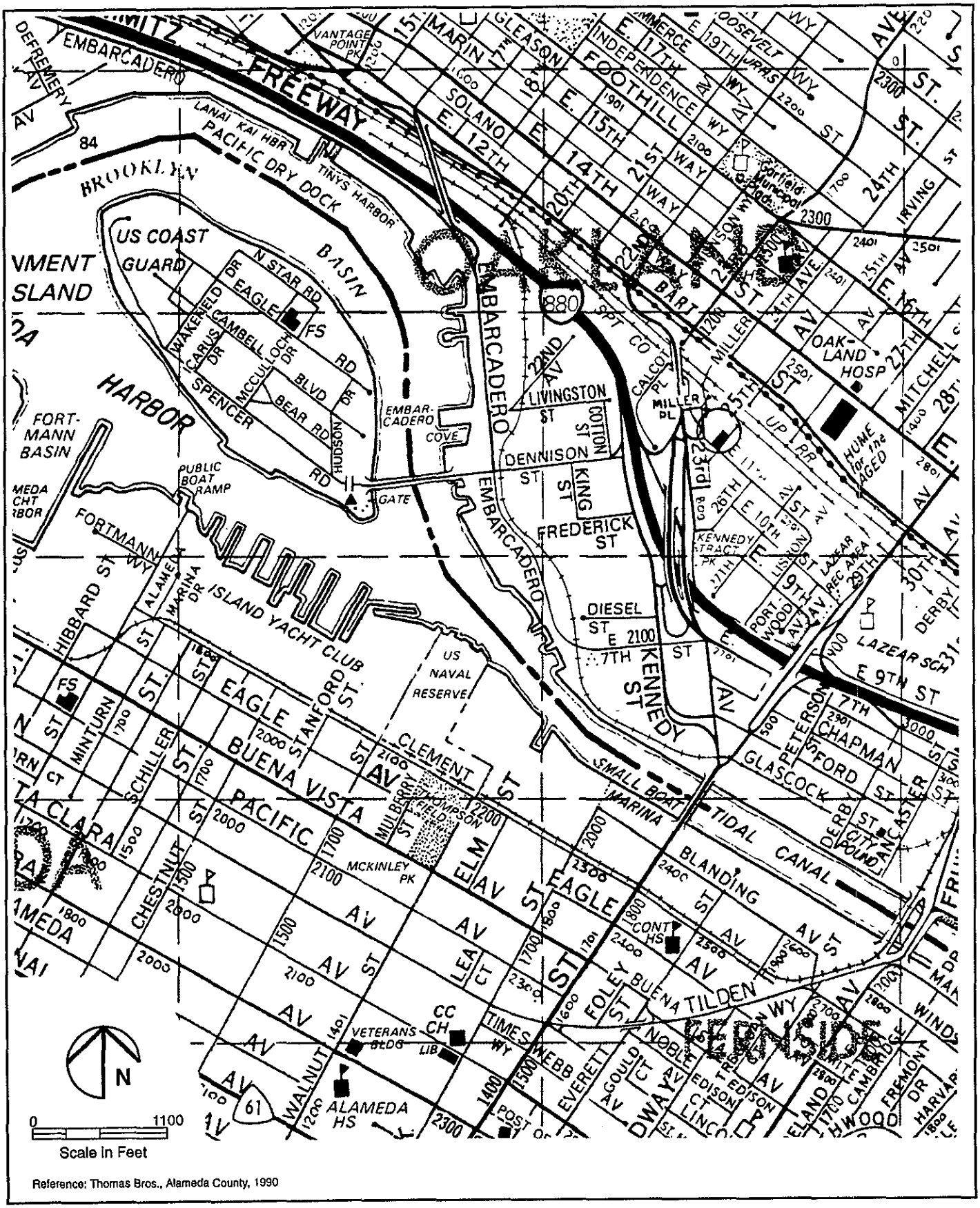
Notes:

*Reporting limit may be higher where dilution of sample is required.
TPH-G - Total petroleum hydrocarbons quantified as gasoline.
mg/L - Milligrams per liter is equivalent to parts per million (ppm).
NA - Not analyzed.

MW-3 most downgradient well
highest benzene, 2nd highest TPHg
MW-1 closest to UST
lowest benzene, lowest TPHg



Reference: Thomas Bros., Alameda County, 1990

AGI TECHNOLOGIES

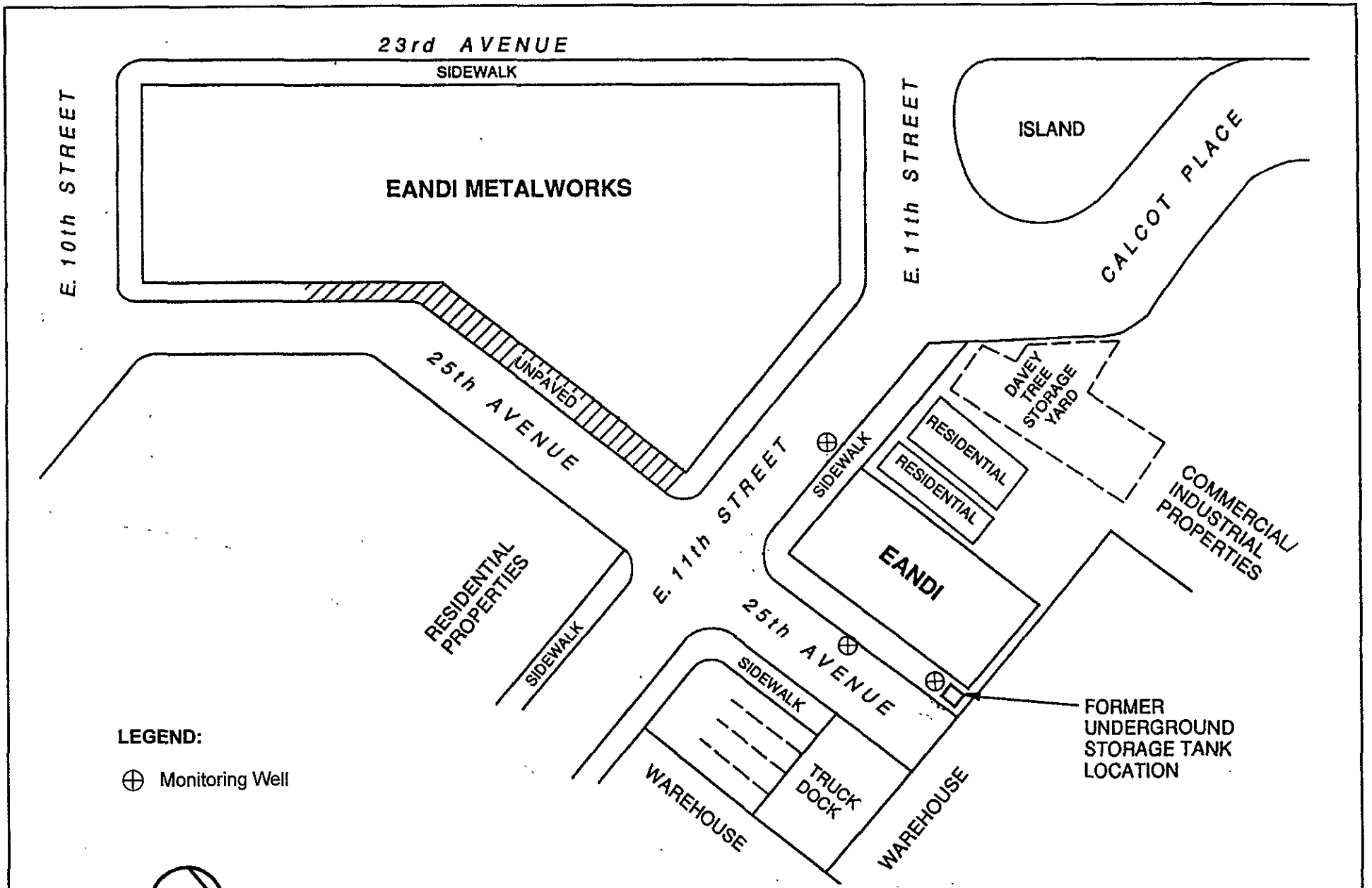
Vicinity Map

EANDI Metalworks/Phase II

Oakland, California

FIGURE **1**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
876001vm.cdr	15,876.001	BJA	6 Mar 96		



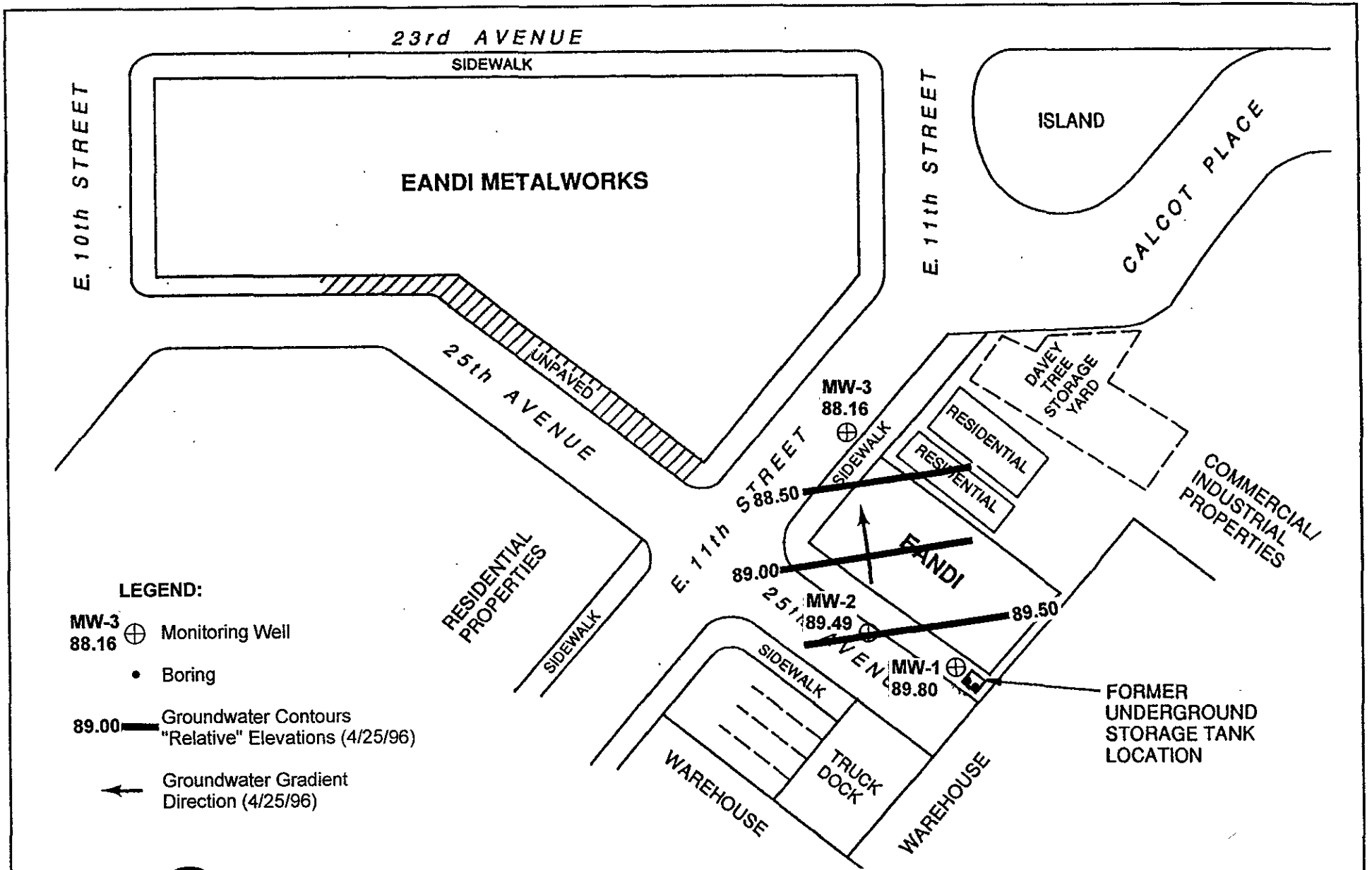
AGI TECHNOLOGIES

Site Plan

EANDI Metal Works/Phase II
Oakland, California

FIGURE 2

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
15,876.001	BD	Jun 95			



AGI TECHNOLOGIES

Groundwater Contour Map

EANDI Metal Works/Phase II
Oakland, California

FIGURE 3

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
15,876.001	JBA	Dec 95	DTH		

APPENDIX A

APPENDIX A

Work Plan

AGI TECHNOLOGIES

A Plan Prepared For

Eandi Metal Works
976 23rd Avenue
Oakland, California 94606

APPENDIX A
PROJECT HEALTH AND SAFETY PLAN
MONITORING WELL INSTALLATIONS AND QUARTERLY GROUNDWATER MONITORING
EANDI METAL WORKS
OAKLAND, CALIFORNIA

AGI Project No. 15,876.001.04

Prepared by:

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June 9, 1995

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LIST OF ILLUSTRATIONS

PURPOSE

The purpose of this project Health and Safety Plan (HASP) is to provide guidance and procedures to AGI Technologies (AGI) personnel involved in field activities at Eandi Metal Works, located at 976 23rd Avenue in Oakland, California. This HASP applies to AGI personnel working within the scope outlined in Section 2.0.

If, during the course of work, information is obtained indicating additional hazards or a change in scope, field work will be temporarily halted, information regarding potential hazards reevaluated, and this HASP updated or modified as necessary. Project work will resume after field personnel are notified of modifications to the HASP.

1.0 GENERAL SITE INFORMATION

1.1 CONTACT PERSONNEL

AGI Project Manager	John B. Adams	(510)238-4593
AGI Health and Safety Manager	Monica P. Beckman	(206)453-8383
AGI Site Safety Officer	Paul R. Lohman	(510)238-4590
East Bay Occupational Medicine Associates		(510)351-3553

1.2 PROJECT RESPONSIBILITIES

The AGI Health and Safety Manager (HSM) and AGI Project Manager (PM) are responsible for ensuring this HASP is implemented during project operations. The AGI Site Safety Officer (SSO) is responsible for the day-to-day safety requirements while field work is progressing. AGI personnel are responsible for following the procedures set forth in this HASP. Project-related safety responsibilities include the following:

- Project Manager:
  - Write and amend the project HASP.
  - Ensure that subcontractors have submitted a completed Subcontractor Safety Agreement Form, included as Attachment 1.
  - Ensure that site personnel and visitors comply with the requirements of the project HASP.
  - Ensure that site personnel meet the required qualifications.
- Health and Safety Manager:
  - Ensure that site personnel comply with the requirements of the HASP and have submitted a completed Field Team Review Form, included as Attachment 2.
  - Conduct specialized and site-specific training as required.
  - Address questions raised by the PM or site personnel.
- Site Safety Officer:
  - Ensure that site personnel comply with the requirements of the HASP and have submitted a completed Field Team Review Form to the HSM.
  - Monitor the site and work areas for health and safety hazards and address any unusual situations that are encountered; consult the HSM if necessary.
  - Investigate accidents, injuries, and illnesses; contact the HSM.

- Oversee the proper use, maintenance, and care of safety equipment and ensure proper decontamination procedures are followed.
- Conduct daily site safety meetings.
- Stop work if necessary (i.e., an imminent danger or health hazard exists) and contact the HSM.

- Site Personnel:
  - Read and follow the HASP.
  - Report accidents, illnesses, or unsafe conditions to the SSO or HSM.
  - Properly clean and maintain safety equipment.

Prior to working at the site, each employee will receive a copy of this HASP from the PM or HSM. Employees are required to read the HASP and forward a completed copy of the Field Team Review Form (Attachment 2) to the HSM. Employees are expected to conduct site work in a safe manner and comply with this HASP and federal, state, and local regulations.

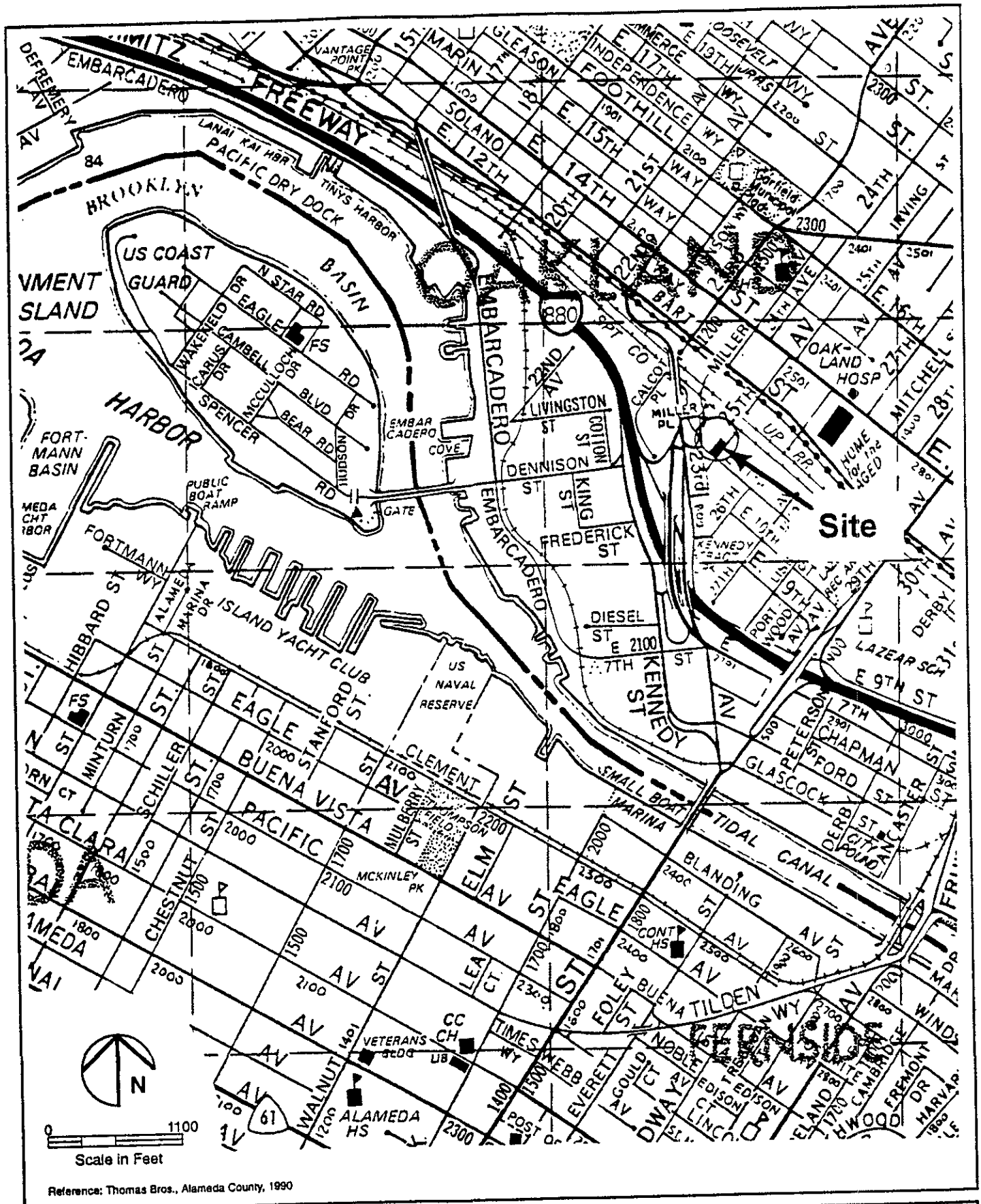
If AGI hires subcontractors to perform field operations in support of the elevation survey, well sampling, or groundwater level monitoring, an individual authorized to commit the subcontractor's company will read the HASP and forward a completed copy of the Subcontractor Safety Agreement Form to the PM. Work performed on the site by subcontractors may include elevation surveying.

1.3 SITE INFORMATION

Eandi Metal Works is located at 976 23rd Avenue, and 2440 East 11th Street, in Oakland, California (Figure 1). The portion of the site to be investigated is located at the northeast end of 25th Avenue, adjacent to the 2240 East 11th Street facility, near the intersection of East 11th Street. The facility property is bounded by residential property to the northwest, East 11th Street to the southwest, 25th Avenue to the southeast, and commercial property to the northeast (Figure 2).

Based upon information provided during our discussion of site conditions, we understand the following:

- The site previously contained three USTs, all of which have been removed. The RFP indicates only one former UST location, described above, will be addressed for this investigation.
- Gasoline-range hydrocarbons (TPH-G), benzene, ethylbenzene, toluene, xylenes (BETX), and lead were detected in samples collected from around a 1,000-gallon gasoline UST removed from near the south side of the 2440 East 11th Street building, at the north side of 26th Avenue.
- No TPH-G, benzene, ethylbenzene, or toluene were detected in samples collected from around a 550-gallon gasoline UST removed from the main site facility at 976 23rd Avenue. Xylenes (1 sample, 14 ppb) and lead (2 samples, 14 ppm and 4.8 ppm) were detected.



Reference: Thomas Bros., Alameda County, 1990

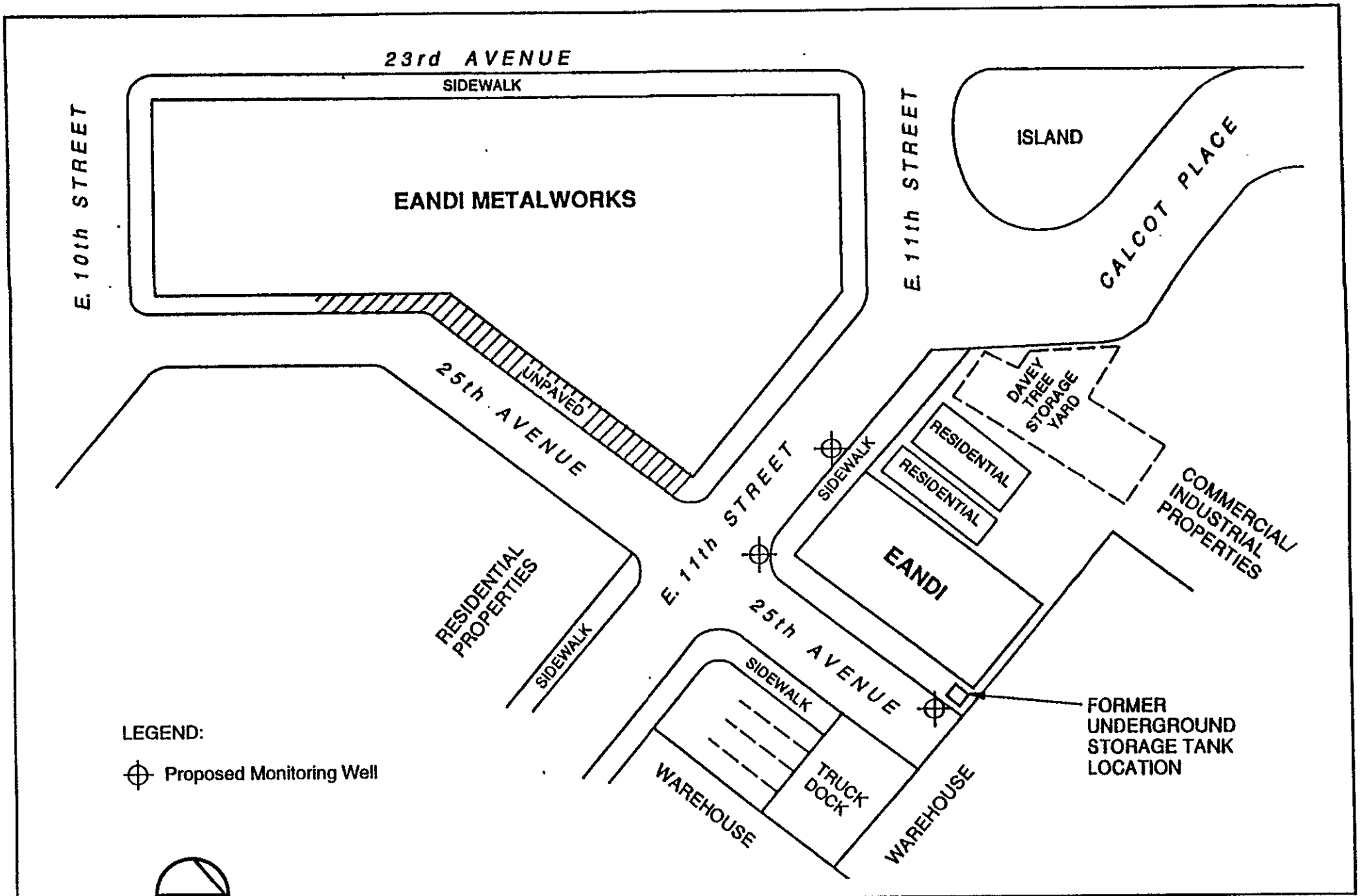
AGI TECHNOLOGIES

Vicinity Map

EANDI Metalworks/Phase II
Oakland, California

FIGURE 1

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
876001vm.cdr	15,876.001	BJA	6 Mar 96		



AGI TECHNOLOGIES

Site Plan

EANDI Metal Works/Phase II
Oakland, California

FIGURE 2

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
15,876.001	BD	Jun 95	JTH		

- Low levels of diesel-range hydrocarbons (TPH-D) were detected in samples collected from stockpiled soil removed from around a 1,000-gallon diesel UST located at 123 23rd Avenue, but not in samples collected from the surrounding soil following UST removal.
- Groundwater was not encountered at the site during UST removal operations. According to representatives of the Alameda County Health Care Services Agency (ACHCSA), groundwater may flow in a northerly direction at the site.
- Access to the area north of the 1,000-gallon gasoline UST is limited.
- The preparation of a Work Plan for site investigation was requested by the ACHCSA on October 14, 1992.

2.0 SCOPE OF SERVICES

AGI will drill three borings, install groundwater monitoring wells, and perform quarterly groundwater monitoring at the site. This HASP describes procedures to be followed and personal protective equipment (PPE) to be used by AGI personnel while performing the following field tasks:

- Conduct a utility survey of proposed drilling locations.
- Drill and sample three borings to approximately 12 to 15 feet below ground surface.
- Install and develop three groundwater monitoring wells within the borings.
- Perform an elevation survey of site monitoring wells.
- Collect groundwater level data from site monitoring wells.
- Collect and submit 6 soil (during drilling) and 12 groundwater (during quarterly monitoring) samples for chemical analysis.

3.0 CHEMICAL HAZARD ASSESSMENT

3.1 GENERAL

AGI employees may be exposed to hazardous chemicals during field operations at the site. Exposure could be the result of physical contact, inhalation of dust and/or vapors, or inadvertent ingestion. The anticipated hazardous chemicals at the site include gasoline BETX, and lead.

In general, acute short-term exposure to potential site contaminants may result in eye, nose, skin, and upper respiratory tract irritation. Mild narcosis, chest pain, difficulty breathing, nausea, vomiting, and diarrhea are indications of severe exposure. Some potential site contaminants are considered carcinogenic; therefore, exposure should be minimized. Observable symptoms in site personnel may indicate a chemical's permissible exposure level (PEL) is being exceeded. If such symptoms are observed, AGI personnel should leave the site and inform the AGI HSM, who will reevaluate conditions at the site and implement engineering controls before allowing AGI personnel to reenter.

3.2 LEAD

Exposure to metals may result from inadvertent inhalation, ingestion, and skin contact, although inhalation should not pose a hazard unless total dust in air concentrations exceed 10 milligrams per cubic meter (mg/m^3). Acute short-term exposure to metals may result in pulmonary edema, headache, coughing, chest pains, muscle aches, nausea, vomiting, and abdominal pain. Prolonged dermal contact to metals may result in skin irritation. Arsenic, beryllium, cadmium, chromium, lead, nickel, and some zinc compounds are considered carcinogens.

Acute exposure to lead may result in fatigue, disturbance of sleep, constipation followed by colic, anemia, and neuritis; however, acute toxicity is unusual because lead is a relatively insoluble, cumulative poison. Occasionally, acute exposure to lead may result in vomiting, apathy, drowsiness, stupor, ataxia, hyperactivity, seizures, and other neurological signs. Chronic exposure to lead may result in loss of appetite, metallic taste, constipation, anemia, pallor, malaise, weakness, insomnia, headache, nervous irritability, muscle and joint pains, fine tremors, and colic. Prolonged exposure to lead may have effects upon the gastrointestinal tract, central nervous system, kidneys, blood, and gingival tissue. The American Council of Governmental Industrial Hygienists (ACGIH) recommends an 8-hour time weighted average-threshold limit value (TWA-TLV) of 0.15 mg/m^3 for occupational exposure to lead.

3.3 GASOLINE, BENZENE, ETHYLBENZENE, TOLUENE AND XYLENES

The most common exposure routes for gasoline, benzene, ethylbenzene, toluene, and xylenes (BETX) include inhalation and skin contact or absorption. Acute short-term inhalation of petroleum hydrocarbon concentrations up to 1,000 parts per million (ppm) may result in headache, dizziness, loss of appetite, weakness, loss of coordination, and upper respiratory tract irritation. Inhalation of vapor concentrations in excess of 5,000 ppm may result in loss of consciousness, coma, and death. Dermal contact may result in eye and skin irritation. Benzene is considered carcinogenic; therefore, exposure should be minimized.

Symptoms indicating acute exposure to benzene compounds include irritated eyes, nose, and respiratory system; giddiness; headache; nausea; staggered gait; fatigue; and dermatitis. Chronic exposure to benzene may result in damage to the blood, central nervous system, skin, bone marrow, eyes, and respiratory system. ACGIH recommends an 8-hour TWA-TLV of 10.0 ppm for occupational exposure to benzene.

4.0 PHYSICAL HAZARD ASSESSMENT

4.1 TEMPERATURE-RELATED HAZARDS

The development of temperature-related illnesses is considered the most common hazard. Ambient work site temperatures and the amount of physical activity may contribute to temperature-related illnesses ranging from heat stress to hypothermia in employees. Personnel performing physical labor while wearing protective clothing at temperatures above 70°F are subject to developing heat-related disorders. Monitoring employee temperatures and radial pulse rates should be performed to ensure an adequate work/rest regimen is followed to prevent heat-related illnesses. Appropriate clothing should be worn if outside temperatures fall below 40°F for more than 2 hours.

4.2 FIRE AND EXPLOSION HAZARDS

The risk of fire or explosion is moderate during field activities. A combustible gas meter (CGM) should be utilized during purging operations. If the CGM indicates combustible gas levels in the general work area at 20 percent of the lower explosive level (LEL), work shall cease and the tasks will be reevaluated. Work involving welding or cutting shall not be performed if the CGM indicates concentrations have reached 10 percent of the LEL in the general work area. Engineering controls, such as ventilation, will be implemented to control combustible gas levels. If combustible gas levels reach 50 percent of the LEL at the wellhead, a packing device and water will be utilized prior to conducting hot work near the wellhead. As a precautionary measure, smoking will not be permitted on site at any time.

4.3 OXYGEN DEFICIENCY HAZARDS

Site personnel are not expected to encounter an oxygen-depleted atmosphere during site activities. Confined space entries are considered a last resort and require an addendum to this HASP. Confined spaces are defined as any space having a limited means of egress, and which is subject to the accumulation of toxic or flammable contaminants or an oxygen-deficient atmosphere. This definition includes but is not limited to tanks, silos, utility vaults, trenches over 4 feet deep, and open-topped vessels with walls greater than 4 feet high.

4.4 CONSTRUCTION HAZARDS

The principal construction safety hazards will be associated with sampling activities. When equipment is being loaded and unloaded, AGI personnel should stand clear to prevent injuries in case the load falls. AGI personnel should be aware of vehicle traffic at sites and stay out of its way; particular attention should be paid when working near the traffic lane because driver visibility in the direction of travel may be decreased. Cones, flagging, bright-orange vests, and flashing lights should be used to identify work areas and limit traffic hazards to working personnel. Traffic control personnel should be on-site when encroachment into the traffic lanes is necessary to complete work.

4.5 NOISE HAZARDS

Drilling equipment and purging pumps may be sources of high levels of noise. Since noise levels vary for each piece of equipment, hearing protection will be provided. It is recommended that personnel utilize hearing protection while working within 15 feet of operating equipment.

5.0 SITE WORK ZONES

Three work zones, described in the following paragraphs, will be established during site activities as a contamination control measure.

5.1 EXCLUSION ZONE

The exclusion zone is the area that contains or is suspected of containing contamination. Because the site work is limited to sampling and monitoring at well locations, the exclusion zone will include only the space necessary to perform work at the site. An area having an approximate 5-foot radius should be established around each sampling location to serve as the exclusion zone during work activities. These areas will cease being exclusion zones when the well caps are replaced and the purge water is contained and sealed. No one should be allowed to enter an exclusion zone unless they have been given permission by the SSO and otherwise follow all portions of this HASP.

5.2 CONTAMINATION REDUCTION ZONE

A contamination reduction zone will be established adjacent to each exclusion zone to act as a transition area for decontamination of personnel and equipment. The contamination reduction zone is also considered a restricted area; therefore, personnel must meet training and medical surveillance qualifications.

5.3 SUPPORT ZONE

The support zone is the area considered to be uncontaminated. This area is used to stage clean equipment and other support facilities. Visitors must stay in the support zone unless proof of training and medical clearance is shown to the SSO.

6.0 PERSONNEL PROTECTION

6.1 EXCLUSION ZONES AND CONTAMINATION REDUCTION ZONES

This section describes the personal protective equipment (PPE) to be worn by personnel performing field operations within site exclusion zones and contamination reduction zones. Appropriate PPE was determined using information in Sections 3.0 and 4.0. The following PPE should be worn by personnel working in a site exclusion zone or contamination reduction zone:

- Head protection - American National Standards Institute (ANSI) hard hats should be worn around heavy equipment and drill rigs, and when there is an overhead hazard.

- Eye and face protection - Safety glasses should be worn during sampling activities. When there is a high splash potential (i.e., sampling of groundwater monitoring wells), face shields should also be worn.

- Foot protection - Steel-toe and shank work boots should be worn. Work boots should be made of rubber or covers may be worn over leather workboots.

- Skin protection - Coveralls should be worn. If direct contact with contaminated material is expected, Tyvek coveralls should also be worn. If the probability of being splashed or coming in contact with wet contaminants is high, personnel should wear PVC rainsuits or Saranax-coated Tyvek coveralls.

- Hand protection - Personnel should wear two pair of chemically protective gloves during sampling activities. An inner, surgical-type glove should be worn to lessen the chance of cross contamination during decontamination activities. Outer gloves should be made of Nitrile. If necessary, heavy duty work gloves may also be worn. If work gloves are worn over chemically protective gloves, they should be considered disposable. An alternative is to wear the work gloves under the chemically protective gloves.

- Respiratory protection - If organic vapor concentrations (measured in the breathing zone) exceed sustained readings (i.e., 5 minutes) of 5 parts per million (ppm), personnel should wear National Institute of Occupational Safety and Health (NIOSH) approved, properly fitted half-face respirators. Respirators should be equipped with combination organic vapor/high efficiency particulate and aerosol (OV/HEPA) cartridges. Cartridges should be changed a minimum of once per day or more often if breakthrough is suspected. At organic vapor levels between 10 and 50 ppm measured in the breathing zone, personnel should wear full-face respirators equipped with OV/HEPA cartridge. At sustained concentrations above 50 ppm, work shall cease. Additional information concerning air monitoring is included in Section 10.0.

6.2 SUPPORT ZONES

Personnel working in the support zone, or in an exclusion zone or contamination reduction zone before or after contaminated material is present, are not required to wear protective clothing or respirators. Regular work clothing should provide adequate protection during operations in these areas. Hard hats, safety glasses, and steel-toe boots must be worn while working in the traffic lane.

6.3 SUMMARY

Levels of protective clothing have been assigned to each field task. Level D is considered general work clothing; Level C is considered general work clothing with the addition of chemically protective clothing and respirators. In some cases, personnel may wear respirators and no chemically protective clothing; this is referred to as Modified Level C protection. The levels of protection listed below may be altered based on additional information and field conditions. Final determinations concerning levels of protection will be made by the SSO and are subject to approval of the HSM. The following is a list of field tasks, and the levels of protective clothing assigned to them:

- Utility survey - Level C or D (as determined on site).
- Drilling and well installation - Level C or D (as determined on site).
- Soil and groundwater sample collection, well development, elevation survey, and water level data collection - Level C or D (as determined on site).
- Contain purge and decontamination water - Level C or D (as determined on site).

7.0 DECONTAMINATION PROCEDURES

To ensure contamination is controlled and not spread from the site, decontamination procedures should be employed for equipment and personnel. In addition, contact to contaminated material should be limited. Methods to achieve minimization of contamination include using plastic covers over field equipment, and limiting personnel contact rates and areas.

7.1 PERSONNEL

Personnel should don protective equipment before entering an exclusion zone and decontaminate before reentering the support zone. Decontamination should consist of the following steps:

- Wash and rinse outer clothing, boots, and gloves. A soap and water solution should be used for the wash.
- Remove outer gloves and protective clothing (if worn).
- Remove respirator and cartridge assembly; clean respirator (if worn).
- Remove inner gloves.
- Wash hands and face.
- Shower as soon as possible after leaving the site.

7.2 SAMPLING EQUIPMENT

Sampling equipment should be brought through the decontamination line with personnel and cleaned before returning it to AGI. Samples and sample coolers should be wiped down to prevent contaminating laboratory personnel. Used disposable protective equipment and decontamination water will be packaged for off-site disposal.

8.0 GENERAL SAFE WORK PRACTICES

If respiratory protection is required, a buddy system should be used. No person will be allowed to work out of sight of other personnel. This precaution will be followed to readily detect when emergency aid is required.

A first aid kit and fire extinguisher will be available when work is performed. Fire extinguishers should be within 50 feet of the work operation.

Personnel shall not eat, drink, chew gum or tobacco, smoke, or perform any other practice that increases the probability of hand-to-mouth contact in site exclusion zones or contamination reduction zones.

The use of controlled substances or alcohol is forbidden at the site. In addition, personnel shall not work at the site while under the influence of such substances.

9.0 EMERGENCY PROCEDURES

Emergency response procedures have been developed for extraordinary events that could occur during field operations. These events include injuries, chemical exposures, fires, and spills.

In general, the following actions should be implemented in the event of an emergency:

- First aid or other appropriate initial action should be administered by those closest to the accident or emergency situation. This assistance should be conducted so those giving aid are not placed in a situation of unacceptable risk.
- The AGI PM and HSM should be contacted immediately.
- A Supplementary Record of Occupational Injuries and Illnesses Form (Attachment 3) should be completed by the injured individual or witness and forwarded to the PM. The PM will review the form prior to forwarding it to the HSM. Changes to the operation should be made to prevent the same event from occurring in the future.

9.1 PHYSICAL INJURIES

If a person is physically injured or suffers a medical emergency, Red Cross first aid procedures should be followed. Depending on the severity of the injury or medical condition, emergency medical response may be sought. Contaminated clothing may need to be decontaminated and removed prior to transport to an emergency medical facility.

9.2 CHEMICAL EXPOSURES

If the injury to the worker is chemical in nature, the following first aid procedures should be followed:

9.2.1 Eye Exposures

If contaminated solid or liquid enters the eyes, they should be flushed immediately with large amounts of clean water while lifting the upper and lower eye lids occasionally. Medical attention should be obtained immediately.

9.2.2 Skin Exposures

If contaminated material contacts the skin, the affected area should be washed promptly with soap and water. If contaminated materials penetrate clothing or protective equipment, the items should be removed and affected skin areas washed. Medical attention should be obtained if symptoms warrant.

9.2.3 Inhalation

If a person breathes a large volume of potentially toxic vapors, the individual should be moved to fresh air at once. If breathing has stopped, artificial respiration should be performed. Medical attention should be obtained immediately.

9.2.4 Ingestion

If contaminated material is swallowed, medical attention should be obtained immediately and the poison control center contacted for further directions.

9.3 FIRES

Fire extinguishers should be available on site and in vehicle cabs. In case of fire at the site, the following actions should be taken:

- Evacuate personnel from the site to an upwind location.
- Notify the fire department and emergency response agencies.
- Attempt to extinguish the fire using portable fire extinguishers or by smothering (only if the fire is small).

9.4 UNCONTROLLED RELEASE OF HAZARDOUS MATERIALS

The primary considerations during a hazardous materials spill are to prevent additional personnel from entering the area, contain existing spillage, and prevent further spillage. In the event of a hazardous materials spill at the site, the following actions should be taken:

- Evacuate personnel from the area.
- Summon emergency medical or fire services if the spill involves extremely toxic or flammable materials.
- Drains, sewers, etc. should be blocked to prevent material from migrating.
- Attempt to stop the flow of material from its point of origin.

9.5 EMERGENCY SERVICES

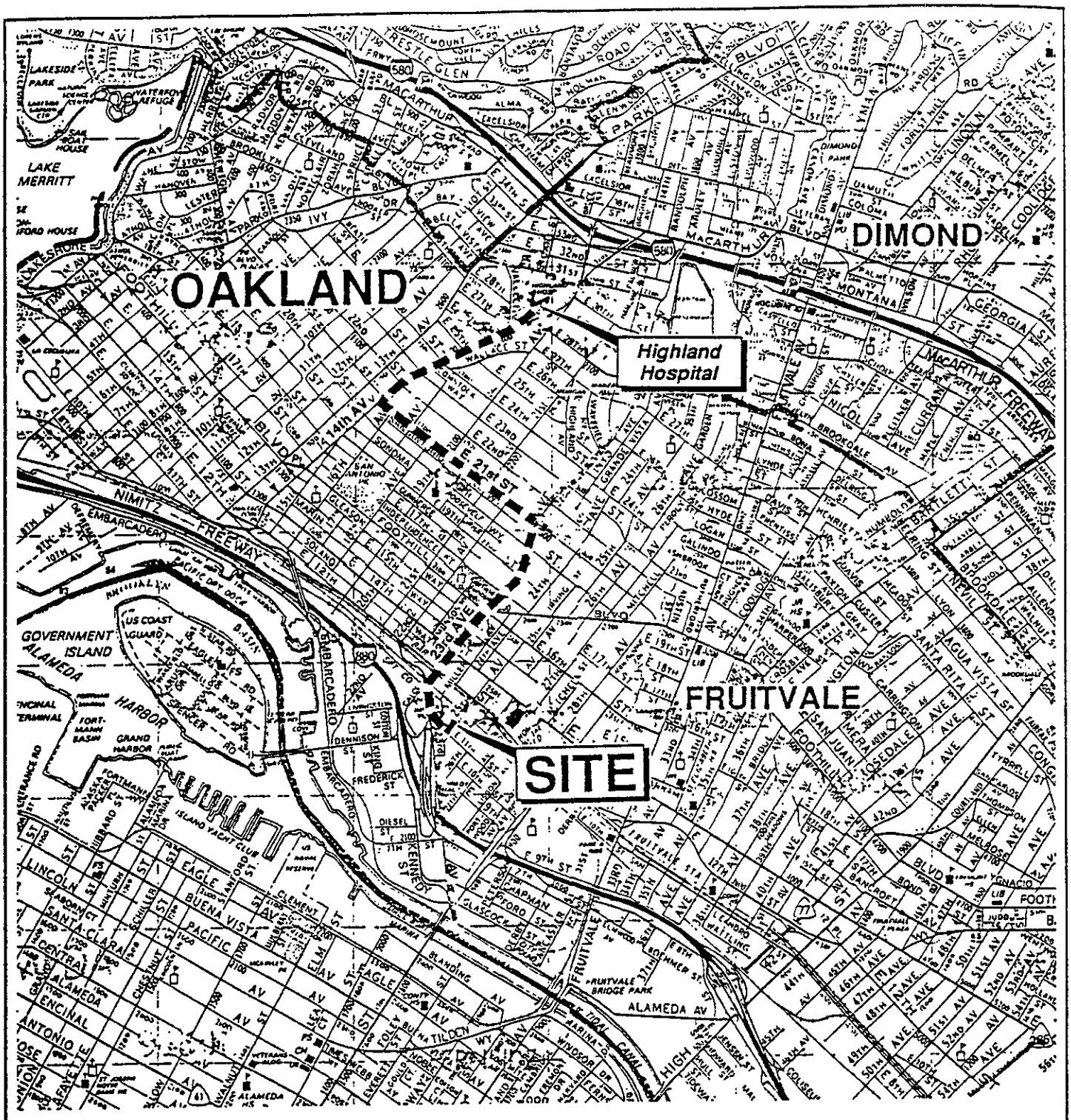
The telephone closest to the site should be located by the SSO prior to starting site work. If outside services (i.e., ambulance, fire, etc.) are required, field personnel should immediately telephone the local emergency number (911). The SSO should notify AGI at (510)238-4590 after the emergency situation has been stabilized. If medical attention is needed but the situation is not an emergency, the injured employee may be transported to the hospital by other field personnel.

9.5.1 Hospital Route

Figure 3, Hospital Route Map, shows the location of Highland Hospital with respect to the site. Driving directions are as follows:

> Exit the site and drive north on 23rd Avenue (the road will go under BART and veer to the northeast), then turn left (northwest) onto East 21st Street. Proceed approximately 6 blocks to 14th Avenue and turn right (northeast). Follow 14th Avenue to the northeast for about 7 blocks to Highland Hospital. Highland Hospital is on the left (north) side, opposite the intersection with East 29th Street.

In cases involving severe emergencies, personnel should await emergency medical transport.



Reference: Thomas Bros., Alameda County, 1995

AGI TECHNOLOGIES

Hospital Route Map

EANDI Metalworks / Phase II
Oakland, California

FIGURE 3

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
15,876.001	BD	Jun 95			

9.5.2 Emergency Telephone Numbers

The following emergency telephone numbers should be available at the site:

Fire	911
Ambulance	911
Paramedics	911
Police	911
Poison Control Center	911
Highland Hospital	(510)437-4800
East Bay Occupational Medicine Associates	(510)351-3553
AGI Health and Safety Manager (Monica Beckman, Home)	(206)760-1013

10.0 AIR MONITORING AND SAMPLING

Air monitoring will be conducted during site operations having a high potential to release contaminants. Monitoring will be used to document exposure levels and confirm necessary precautions are taken to protect on-site personnel and the general public. In addition, air sampling may be performed if personnel exposures to organic vapors are suspected of exceeding established exposure limits.

Monitoring and sampling equipment will be calibrated daily in accordance with the manufacturers' requirements. Calibration data, background readings, predominant wind direction, air monitoring readings, and air sampling information will be recorded as part of the daily field logs. If instrument readings are questionable or abnormal, the HSM should be notified.

10.1 AIR MONITORING

Action levels for various instruments have been established for work at the site. The organic vapor action level is based on readings obtained with an organic vapor monitor equipped with a photoionization detector (OVM-PID). Measurements are taken in the breathing zone, which is considered to include a 1-foot radius circle from a worker's nose during normal work operations.

Since the OVM-PID measures total organic vapors and cannot readily distinguish between compounds, a conservative organic vapor action level has been established. The organic vapor action level will be a sustained (5 minutes) reading on the PID of 5 ppm above background, measured in the breathing zone. If organic vapor levels exceed 5 ppm above background, half-face respirators should be worn. If levels exceed 10 ppm above background, full-face respirators should be worn. If organic vapor concentrations exceed 50 ppm above background, work should cease and personnel will evacuate the site.

The action levels discussed above were determined to be sufficient based on a comparison of air sampling analytical results to air monitoring readings obtained using an OVM-PID or OVM equipped with a flame ionization detector (OVM-FID) during sampling. Action levels may be adjusted as additional information is obtained. AGI employees are instructed to stay outside or upwind of the exclusion zone as much as possible. Such work practices will minimize the potential for exposures above established PELs.

10.2 AIR SAMPLING

Air samples have been collected for AGI employees observing, directing, and documenting operations at hazardous waste sites to document exposure of AGI personnel to benzene and TPH. These air samples have been collected at various project locations during different phases of site operations. Analytical results received from these samples indicate no exposures to benzene above the PEL of 1 ppm measured as an 8-hour TWA at any site.

Additional air sampling may be conducted at the discretion of the AGI HSM, PM, or SSO. Air sampling should be conducted at sites potentially contaminated with substances for which air sampling has not previously been conducted. In addition, air sampling will be conducted if an overexposure situation is suspected.

Personnel air sampling of organic vapors may be conducted using 3M brand organic vapor diffusion (OVD) badges or a charcoal tube and pump assembly. For personnel sampling, the OVD badge or charcoal tube should be placed within the breathing zone of the individual with the greatest potential exposure for 8 to 10 hours. OVD badges and charcoal tubes may be exposed for shorter durations if personnel leave the exclusion zone. Upon sampling

completion, the OVD badges or charcoal tubes are collected and sealed, exposure times recorded, and the badges are sent to an independent laboratory accredited by the American Board of Industrial Hygiene (ABIH) to perform industrial hygiene analysis. Personnel air samples are analyzed for benzene by NIOSH Reference Method 1501 and for TPH by NIOSH Reference Method 1500.

11.0 TRAINING

Personnel working at the site will have received the required 40-hour training for work at hazardous waste sites in accordance with Occupational Safety and Health Administration (OSHA) regulations. Site personnel will also be up to date with respect to 8-hour annual refresher training requirements. At least one individual working at the site will be currently certified in American Red Cross First Aid and Cardiopulmonary Resuscitation (CPR) procedures. The PM will have completed 8 hours of specialized training for supervising workers at hazardous waste sites in accordance with OSHA requirements. Training records are maintained at the AGI Bellevue office by the HSM.

12.0 MEDICAL SURVEILLANCE

Employees working at the site will participate in a Medical Surveillance Program. Medical surveillance documentation is maintained at the AGI Bellevue office by the HSM; actual medical examination results are maintained by the examining physician.

Employees are given a baseline physical and annual examinations thereafter. The examining physician verifies in writing whether each individual is fit to work at hazardous waste sites and utilize protective equipment, including respirators. Additional medical examinations may be required during the course of a project if overexposure to site contaminants or an injury occurs.

The content of the medical examinations has been determined by the AGI Corporate Occupational Medical Consultant, Dr. Susan Forrest of Virginia Mason Occupational Medicine Clinic. The following are the minimum requirements of the medical surveillance examinations:

- Baseline head-to-toe examination.
- Medical history including work history, past exposures, hobbies, and family history.
- Complete blood count and blood chemistries (including liver function, kidney function, heart function, and thyroid function screening).
- Urinalysis.
- Spirometry.
- EKG (every 2 years).
- Chest X-ray (every 2 years).
- Audiogram.
- Vision acuity test.

Additional tests may be conducted at the discretion of the examining physician.

13.0 HASP MODIFICATIONS

This project HASP should be reviewed and amended when:

- Applicable regulations are revised.
- Additional information concerning site contaminants, operations, personnel, emergency services, etc. is obtained.
- Site operations are revised.

When the HASP is revised or an addenda prepared, personnel shall review the changes or addenda and file a new Field Team Review Form with the HASP.

AGI TECHNOLOGIES

ATTACHMENT 1

AGI TECHNOLOGIES

SUBCONTRACTOR SAFETY AGREEMENT FORM

_____ (hereafter called Subcontractor) has been retained by AGI Technologies (AGI) to assist AGI with field work at Eandi Metal Works in Oakland, California. Subcontractor has read and understands the project Health and Safety Plan (HASP). Subcontractor is aware that its employees may be exposed to potentially hazardous materials and physical hazards during the performance of work at the above-referenced site.

Subcontractor shall ensure its employees, agents, subcontractors, and other invitees to the project site comply with all applicable health and safety laws and regulations, and the most recent version their project HASP. Subcontractor is responsible for examining regulatory requirements and determining whether additional or more stringent health and safety provisions are required for their portion of work.

_____
Authorized Signature

_____
Printed Name

_____
Title

_____
Date

Completed copies of this form should be forwarded to the AGI Project Manager.

AGI
TECHNOLOGIES

ATTACHMENT 2

AGI TECHNOLOGIES

FIELD TEAM REVIEW FORM

I have read and reviewed the most recent revision dated June 9, 1995 of the Project Health and Safety Plan (HASP) for Monitoring Well Installations and Groundwater Monitoring at Eandi Metal Works in Oakland, California. I have been given a chance to ask questions regarding the Project HASP and understand the information contained therein. I agree to comply with all aspects of the Project HASP.

Name: _____

Signature: _____

Date: _____

Completed copies of this form should be forwarded to the AGI Health and Safety Manager.

AGI TECHNOLOGIES

ATTACHMENT 3

AGI TECHNOLOGIES

SUPPLEMENTARY RECORD OF OCCUPATIONAL INJURIES AND ILLNESSES FORM

CASE NO: ___

THIS IS AN OFFICIAL DOCUMENT, BE THOROUGH AND ACCURATE.

This section to be completed by injured employee or witness:

Employer Name: AGI Technologies

Employer Address: 827 Broadway, Suite 210, Oakland, California 94607

Project Name/Location: _____

Date of Accident/Incident: _____ Time: _____

Was place of accident/incident on employer's premises? Yes( ), No( )

Employee Name: _____

Employee Home Address: _____

Social Security Number: _____ Age: _____ Sex: M( ), F( )

Occupation/Department: _____

What was being done at time of accident/incident? _____
_____

How did the accident/incident occur? _____
_____

Employee Signature: _____ Date: _____

This section to be completed by the Project Manager/ Supervisor:

Time reported: ____ Did employee leave work? ___ When: _____

Date & time returned: _____

Nature of injury: _____ Exact body part affected: _____

Check one: Near Miss( ), First Aid( ), Doctor( ), Hospitalized( )

Doctor/Hospital Name: _____ Address: _____

Why did accident/incident occur? _____

What corrective action has been initiated to prevent recurrence? ___
_____

Project Manager/Supervisor Signature: _____ Date: ___

AGI TECHNOLOGIES

SUPPLEMENTARY RECORD OF OCCUPATIONAL INJURIES AND ILLNESSES FORM (CONTINUED)

CASE NO: ____

THIS IS AN OFFICIAL DOCUMENT, BE THOROUGH AND ACCURATE.

This section to be completed by Health and Safety Manager:

Concur with action taken? Yes( ), No( );Remarks: _____

_____

_____

_____

Health and Safety Manager Signature: _____ Date:____

APPENDIX B

AGI TECHNOLOGIES

APPENDIX B

Field Data Sheets

WATER LEVEL MEASUREMENTS

Applied Geotechnology Inc.

Date 4-25-96

Page 1 of 1

Project Eandi Metal works

Job No. 12-3014-50

Weather Conditions Clear · warm

Measured By KeithPowers

Site Conditions

Caluculations By

Measurement Device Conductivity - Based water level Indicator

Elevation Datum ~~TOC~~ KP

Well	Time	Depth to Water	Reference	Reference Elevation	Water Elevation	Comments
MW-1	11:05	10.10	TOC			
MW-2	10:30	10.08	TOC			
MW-3	9:40	10:29	TOC			

Additional Comments

GROUNDWATER SAMPLING RECORD

Applied Geotechnology Inc.

WELL NO. MW-1

SAMPLE NO. 3114

Project: Eandi Metal Works — Date: 4-25-96
Project No.: 12-3011-50 — Sampled By: Kent Powers
Location: Oakland — Reviewed By: JBA

PURGING

Depth to Water: 10.10 — Time: 11:05
Water Volume in Casing: 1.7 — Water Volume in Sand Pack:
Volume Purged: 6.8 — Purged Time (from/to): 11:09 - 11:26
Purging Method: Disposable Bailer — Purge Volume Measurement Method: 5gal Bucket

Parameter Monitoring (pH, Conductivity, Temperature):

TIME	CUMULATIVE VOLUME (gal)	READING pH	TIME	CUMULATIVE VOLUME (gal)	READING cond	TIME	CUMULATIVE VOLUME (gal)	READING Temp
11:09	Start							KP
11:13	1.7	7.02			420		1.7	16.40
11:18	3.4	6.93			410			16.9
11:22	5.1	6.92			400			16.7
11:26	6.8	6.92			400			16.7

SAMPLING

Sampling Method: Disposable Bailer — Time Sampled: 11:40

SAMPLE CONTAINER	PRESERVED BY	AT WHAT pH	FILTER TYPE	COOLED BY
~~BHA KP~~				
VOA	HCl	<2	—	Ice

SAMPLE DATA

Appearance/Odor: clear → cloudy / odor — Temperature (°C): 16.7
pH (last stabilized) 6.92 — Conductivity (micromhos/cm): 400
Eh (millivolts) —
Other:

DISPOSITION

Chain of Custody (yes / no): — Chain of Custody No.:
Duplicate Sample No.: — Replicate Sample Nos.:
ANALYTIC LAB — Lab Name: Inchcape — Date Sent to Lab: 4-25-96
ANALYTIC LAB — Shipment Method:
SPLIT WITH — Name(s):
SPLIT WITH — Organization(s):
Other:

Comments:

GROUNDWATER SAMPLING RECORD

Applied Geotechnology Inc.

WELL NO. MW-2

SAMPLE NO. 3115

Project: Eandi Metal Works — Date: 4-25-96
Project No.: 12-3011-5.0 — Sampled By: Keith Powers
Location: Oakland. — Reviewed By: JBB

PURGING

Depth to Water: 10.08 — Time: 10:30
Water Volume in Casing: 1.7 — Water Volume in Sand Pack:
Volume Purged: 5.1 gal — Purged Time (from/to): 10:34 - 10:47
Purging Method: Disposable Bailer — Purge Volume Measurement Method: 5gal Bucket

Parameter Monitoring (pH, Conductivity, Temperature):

TIME	CUMULATIVE VOLUME (gal)	READING pH	TIME	CUMULATIVE VOLUME (gal)	READING cond	TIME	CUMULATIVE VOLUME (gal)	READING temp
10:34	start							
10:38	1.7	7.06			490			17.8
10:43	3.4	7.00			485			17.2
10:47	5.1	6.99			485			17.2

SAMPLING

Sampling Method: Disposable Bailer — Time Sampled: 10:55

SAMPLE CONTAINER	PRESERVED BY	AT WHAT pH	FILTER TYPE	COOLED BY
3115 VOA	HCl	<2	—	Ice

SAMPLE DATA

Appearance/Odor: cloudy / odor
pH (last stabilized) 6.99 — Temperature (°C): 17.2
Eh (millivolts) — Conductivity (micromhos/cm): 485
Other:

DISPOSITION

Chain of Custody (yes / no): — Chain of Custody No.:
Duplicate Sample No.: — Replicate Sample Nos.:
ANALYTIC LAB — Lab Name: Inchcape — Date Sent to Lab: 4-25-96
ANALYTIC LAB — Shipment Method:
SPLIT WITH — Name(s):
SPLIT WITH — Organization(s):
Other:

Comments:

GROUNDWATER SAMPLING RECORD

Applied Geotechnology Inc.

WELL NO. MW-3

SAMPLE NO. 3116

Project: Eandi Metal Works — Date: 4-25-96
Project No.: 12-3011-50 — Sampled By: Keith Powers
Location: Oakland CA. — Reviewed By:

PURGING

Depth to Water: 10.29 — Time: 9:40
Water Volume in Casing: 1.7 — Water Volume in Sand Pack:
Volume Purged: 5.1 — Purged Time (from/to): 9:46 - 10:00
Purging Method: Disposable Bailer — Purge Volume Measurement Method: 5 gal bucket

Parameter Monitoring (pH, Conductivity, Temperature):

TIME	CUMULATIVE VOLUME (gal)	READING pH	TIME	CUMULATIVE VOLUME (gal)	READING cond	TIME	CUMULATIVE VOLUME (gal)	READING Temp
9:46	Start							
9:50	1.7	6.79			500			17.6
9:55	3.4	6.80			500			17.5
10:00	5.1	6.81			500			17.5

SAMPLING

Sampling Method: Disposable Bailer — Time Sampled: 10:10

SAMPLE CONTAINER	PRESERVED BY	AT WHAT pH	FILTER TYPE	COOLED BY
VOA	HCl	<2	None	ICE

SAMPLE DATA

Appearance/Odor: Slight odor, Slightly Cloudy
pH (last stabilized): 6.81 — Temperature (°C): 17.5
Eh (millivolts): — Conductivity (micromhos/cm): 500
Other:

DISPOSITION

Chain of Custody (yes / no): — Chain of Custody No.:
Duplicate Sample No.: — Replicate Sample Nos.:

ANALYTIC LAB — Lab Name: Inchcape — Date Sent to Lab: 4-25-96
Shipment Method:

SPLIT WITH — Name(s):
Organization(s):

Other:

Comments:

APPENDIX C

AGI TECHNOLOGIES

APPENDIX C

Analytical Chemistry Data

Inchcape Testing Services
Environmental Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. JOHN ADAMS
AGI TECHNOLOGIES
827 BROADWAY, SUITE 210
OAKLAND, CA 94607

Workorder # : 9604285
Date Received : 04/25/96
Project ID : 12-3011-50
Purchase Order: R3570

The following samples were received at Inchcape for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9604285- 1	3116
9604285- 2	3115
9604285- 3	3114

This report is organized in sections according to the specific Inchcape laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Inchcape cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Inchcape is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Project Manager

5/13/96
Date

This report consists of 28 pages.

REPORT SUMMARY
INCHCAPE, INC. (408)432-8192

MR. JOHN ADAMS
AGI TECHNOLOGIES
827 BROADWAY, SUITE 210
OAKLAND, CA 94607

Workorder # : 9604285
Date Received : 04/25/96
Project ID : 12-3011-50
Purchase Order: R3570
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9604285- 1	3116	WATER	04/25/96	TPHgBTEX
9604285- 2	3115	WATER	04/25/96	TPHgBTEX
9604285- 3	3114	WATER	04/25/96	TPHgBTEX

REPORT SUMMARY
INCHCAPE, INC. (408)432-8192

MR. JOHN ADAMS
AGI TECHNOLOGIES
827 BROADWAY, SUITE 210
OAKLAND, CA 94607

Workorder # : 9604285
Date Received : 04/25/96
Project ID : 12-3011-50
Purchase Order: R3570
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Cheryl Brimer 5/3/96
Department Supervisor Date

Douglas Schumacher 5-3-96
Chemist Date

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604285-01	Client Project ID:	12-3011-50
Matrix:	WATER	Client Sample ID:	3116
Date Sampled:	4/25/96	Instrument ID:	HP12
Date Analyzed:	4/29/96	Surrogate Recovery:	104%
Date Released:	5/3/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	50	250	400
Benzene	50	25	830
Toluene	50	25	140
Ethylbenzene	50	25	1000
Total Xylenes	50	25	1000
Gasoline	50	2500	8900

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

Issued on 5/3/96 at 4:02 pm

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604285-02	Client Project ID:	12-3011-50
Matrix:	WATER	Client Sample ID:	3115
Date Sampled:	4/25/96	Instrument ID:	HP12
Date Analyzed:	4/29/96	Surrogate Recovery:	108%
Date Released:	5/3/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	100	500	ND
Benzene	100	50	370
Toluene	100	50	440
Ethylbenzene	100	50	1000
Total Xylenes	100	50	2900
Gasoline	100	5000	13000

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	9604285-03	Client Project ID:	12-3011-50
Matrix:	WATER	Client Sample ID:	3114
Date Sampled:	4/25/96	Instrument ID:	HP12
Date Analyzed:	4/29/96	Surrogate Recovery:	113%
Date Released:	5/3/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	50	250	ND
Benzene	50	25	180
Toluene	50	25	450
Ethylbenzene	50	25	190
Total Xylenes	50	25	1000
Gasoline	50	2500	4600

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix ID:	BA2901E1	Client Project ID:	12-3011-50
Matrix:	WATER	Client Sample ID:	Method Blank
Date Sampled:	N/A	Instrument ID:	HP12
Date Analyzed:	4/29/96	Surrogate Recovery:	104%
Date Released:	5/3/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	12-3011-50	Anametrix ID:	MA2901E1
Matrix:	WATER	Date Released:	5/3/96
Date Analyzed:	4/29/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	500	430	86%
p-Bromofluorobenzene			119%

Quality control limits for LCS recovery are 67-127%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	12-3011-50	Anametrix ID:	NA2902E3
Matrix:	WATER	Date Released:	5/3/96
Date Analyzed:	4/29/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	10.0	12.1	121%
Benzene	10.0	11.8	118%
Toluene	10.0	13.0	130%
Ethylbenzene	10.0	12.6	126%
Total Xylenes	10.0	13.3	133%
p-Bromofluorobenzene			111%

Quality control limits for LCS recovery are 50-150% for MTBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

ANAMETRIX REPORT DESCRIPTION
INORGANICS

Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anametrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anametrix control limit for LCSR is 80-120%.

Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anametrix control limit for PDSR is 75-125%.

Qualifiers (Q)

Anametrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anametrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

Reporting Conventions

Analytical values reported are gross values, i.e., <u>not</u> corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY
INCHCAPE, INC. (408)432-8192

MR. JOHN ADAMS
AGI TECHNOLOGIES
827 BROADWAY, SUITE 210
OAKLAND, CA 94607

Workorder # : 9604285
Date Received : 04/25/96
Project ID : 12-3011-50
Purchase Order: R3570
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9604285- 1	3116	WATER	04/25/96	200.7
9604285- 2	3115	WATER	04/25/96	200.7
9604285- 3	3114	WATER	04/25/96	200.7

REPORT SUMMARY
INCHCAPE, INC. (408)432-8192

MR. JOHN ADAMS
AGI TECHNOLOGIES
827 BROADWAY, SUITE 210
OAKLAND, CA 94607

Workorder # : 9604285
Date Received : 04/25/96
Project ID : 12-3011-50
Purchase Order: R3570
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Department Supervisor 5/1/96 Date

Chemist 4/30/96 Date

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: **Lead-200.7**
Client Project Number: **12-3011-50**
Matrix - Units: **WATER - ug/L**

Analyst: 9~
Supervisor: MC

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9604285-01	3116	200.7	ICP1	04/25/96	04/29/96	04/30/96	1	40.0	ND	
9604285-01	3115	200.7	ICP1	04/25/96	04/29/96	04/30/96	1	40.0	ND	
9604285-01	3114	200.7	ICP1	04/25/96	04/29/96	04/30/96	1	40.0	ND	
BA296WA	METHOD BLANK	200.7	ICP1	N/A	04/29/96	04/30/96	1	40.0	ND	

COMMENTS:

INCHCAPE TESTING SERVICES
SAN JOSE LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Lab. Control Sample ID: **LA296WA**
Anametrix WO #: **9604285**
Client Project Number: **12-3011-50**
Matrix: **WATER**

Analyst:
Supervisor:

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Lead	200.7	200.7	ICP1	04/29/96	04/30/96	1	ug/L	500	502	100	

COMMENTS:

AGI TECHNOLOGIES

CHAIN-OF-CUSTODY

Date 4-25-96 Page 1 of 1

PROJECT INFORMATION

Project Manager: John Adams
Project Name: Eandi Metal
Project Number: 12-3011-50
Site Location: Eandi Metalworks Sampled By: Keith Powers

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
① 3116	4-25-96	10:10	H_2O	
② 3115	4-25-96	10:55	H_2O	
③ 3114	4-25-96	11:40	H_2O	

SAMPLE ID	PETROLEUM HYDROCARBONS: TPH-ID State:	TPH-G State:	TPH-D State:	TPH Special Instructions	418.1 State:	8015M	ORGANIC COMPOUNDS: 8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only MTBE	8240 GCMS Volatiles	8270 GCMS Semivol.	8310 HPLC PAHs	8040 Phenols	DWS - Volatiles and Semivol.	PESTS/PCB's: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/pest	METALS: Selected metals: list	Total Lead (Wa)	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
① 3116		X							X												X										
② 3115		X							X												X										
③ 3114		X							X												X										

LAB INFORMATION

Lab Name: Inchcape
Lab Address: 1961 Concourse Drive Suite E
San Jose, CA 95131
Via:

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: This is an AGI Job
P.O. # R357C

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 15:55	Signature: Time: 1625	Signature: Time:
Printed Name: Keith B Powers Date: 4-25-96	Printed Name: Laura Olson Date: 4-25-96	Printed Name: Date
Company: Kleinfelder	Company: I.T.S.	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 1555	Signature: Time:	Signature: Time: 1625
Printed Name: Date: 4-25-96	Printed Name: Date:	Printed Name: Date:
Company: I.T.S	Company:	Company: ITS

AGI OFFICES: Bellevue: (206) 453-8383 Gig Harbor: (206) 851-5562
Portland: (503) 232-1600 Oakland: (510) 238-4590

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Rev. 4/94