DURHAM
TRANSPORTATION

2713 NORTH RIVER AVENUE
POST OFFICE BOX 948
ROSEMEAD, CALIFORNIA 91770-0948
818 571-7020

AUGUST 20, 1990

MS. PAMELA EVANS
ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY SUITE 200
OAKLAND, CA 94621

SUBJECT: TRANSMITTAL OF PROGRESS REPORT AND WORK PLAN AMENDMENT
19984 MEEKLAND AVENUE, HAYWARD

DEAR MS. EVANS:

ENCLOSED IS ONE COPY OF PROGRESS REPORT # 2 FOR THE DURHAM TRANSPORTATION SITE LOCATED AT 19984 MEEKLAND AVENUE, IN THE UNINCORPORATED AREA OF ALAMEDA COUNTY, NEAR HAYWARD.

PLEASE REVIEW THIS INFORMATION AND IF YOU HAVE ANY QUESTIONS PLEASE CALL LISA POLOS OF TOXIC TECHNOLOGY SERVICES AT (415)799-1140, OR ME AT (818) 571-7020.

WE LOOK FORWARD TO YOUR PROMPT RESPONSE SO THAT WE MAY PROCEED TO COMPLETE THIS PHASE OF THE PROJECT BEFORE THE FALL AND WINTER WEATHERS SET UPON US. THANK YOU.

SINCERELY,

JACK E. WORTHINGTON
REGIONAL VICE PRESIDENT
OPERATIONS

c.c.
C. STONE
L. POLOS

CTTS.001

toxic technology services inc.

August 6, 1990
File No. 90-4

Mr. Jack Worthington
Durham Transportation
P.O. Box 948
Rosemead, California 91770

Subject: Amendment to the Work Plan for
19984 Meekland Avenue, Hayward, California

Dear Mr. Worthington:

CTTS, Inc. (Toxic Technology Services) is pleased to submit this amendment to the April 1990 work plan for the investigation of the extent of contamination at the subject site.

After you review of this document, please forward a copy, along with your letter of transmittal, to Ms. Pam Evans of the Alameda Heath Care Services Department, Hazardous Materials Division. An extra copy of this amendment has been enclosed for this purpose.

Thank you for this opportunity to provide Durham Transportation with these environmental services.

Sincerely,

Lisa A. Polos, REA, CHMM
Senior Scientist
Toxic Technology Services
CTTS, Inc.

John N. Alt, CEG (#1136)
Consulting Geologist
Toxic Technology Services
CTTS, Inc.

INTRODUCTION

The following is an amendment to the Work Plan and Health and Safety Plan for the subsurface investigation and characterization of 19984 Meekland Avenue in the Hayward area of Alameda County, California. These documents are dated April 6, 1990. This amendment is based on new data collected since the submittal of the April documents. The current property owner is Durham Transportation located at 27577 (A) Industrial Blvd., Hayward, California.

This document contains four sections:

- Amendments To The Work Plan
- Amendments To The Health and Safety Plan
- Point By Point Answers To The County Letter of April 20, 1990
- Schedule

AMENDMENTS TO THE WORK PLAN

Soil Investigation

Page 10, Item 2 of the original work plan describes trenching activities intended to be conducted after the soil gas survey. Plate 1 of this amendment presents revised trenching locations.

The purpose of these test pits is to investigate potential shallow contamination sources.

Proposed trenches 1, 2 and 3 represent the locations of the three on-site automotive hoists. The purpose of these trenches is to expose the hoists and as much of the existing piping as possible. The hoists and piping will be left in place to minimize the possibility of contaminating the surrounding area with lubricating oil. At a later date, these will be removed, cleaned and disposed.

Proposed trench 4 is through the center of the waste oil line/sump that leads to the waste oil tank excavation. The line leading to the tank excavation is corroded and it is suspected that this sump/trap could be a source of contamination. Soil gas data indicates a hot spot on the south side of this sump, marked as number 13 on Plate 2. Trench 4 will be directed to this hot spot.

Proposed trench 5 is located on the northeast side of the sump located on the north side of the property (Plate 1). This is the area where the sump piping appears to be located. The purpose of this trench is to locate the sump piping and if possible, locate

the system into the which the sump was exiting. This piping will be exposed and left in place, if possible, pending proper cleaning and disposal at a later date.

Proposed trench 6 is located through the center of the waste oil tank excavation and proposed trench 7 is located on the east side of this pit. Data from the tank removal in 1989 indicates that the bottom of the pit is not contaminated, however, soil gas data indicates hot spots on the western and eastern sides of this excavation. The purpose of these trenches is to investigate the possibility of shallow contamination. Proposed trench 4 will cover the hot spot on the west side of the pit.

lateral contamination

Proposed trench 8 is located approximately 10' to the east of MW-3. Soil gas data indicated this area as being particularly high in gasoline hydrocarbons. The purpose of the trench is to investigate the possibility of a source of contamination in this area.

For all trenches, excavated soil will be qualitatively screened with an organic vapor analyzer and a minimum of one soil sample/trench will be collected for contamination verification. Collected samples will be analyzed for light and heavy petroleum hydrocarbons, BTEX and halogenated volatile hydrocarbons. Excavated soil that appears to be contaminated will be separated from soil that appears to be clean. All soil piles will be put on plastic sheeting, sampled and analyzed for the list of constituents listed above.

The maximum depth of any trench will be 15 feet.

The investigation to date indicates that there is contamination on the north and west sides and at the pit bottom of the gasoline tank excavation. The side walls of this excavation are weak and it is likely that excavating in and around this pit will present a safety hazard. Therefore, the area mentioned above is to be considered contaminated to groundwater. Contaminated soil will be excavated and treated and/or disposed in the remediation phase of this project.

Plate 1 shows the southeast corner of the property as the cold zone. Data thus far indicates that this area is not contaminated. It is anticipated that a trailer will be located in this area as a work and storage area.

Groundwater Investigation

Proposed groundwater monitoring well locations have changed since the April 6, 1990 Work Plan. Plate 1 presents the revised locations of proposed monitoring wells 5, 6 and 7 and proposed boring B-1.

All new wells will be 4" in diameter in anticipation of using them as extraction wells. The maximum depth of each well will be 50' and installation will be in the same manner as described in the section of the April 6, 1990 work plan entitled "Groundwater Monitoring Well Installation and Sampling".

MW-5 is located approximately 15' northwest of MW-1. The reasons for this are as follows:

- to verify the soil profile in this area
- to use as an extraction well
- to ultimately replace MW-1 which is structurally weak from the nearby excavation

MW-6 is located approximately 20' from MW-3 and is located near proposed trench 8. The boring from this well will show a vertical profile of this hot spot. MW-6 will also be used for extraction, while MW-3 will be used to calculate draw down in this section of the subject site.

MW-7 is located west of the waste oil pit excavation and the sump/trap. State regulations require a monitoring well downgradient of a tank excavation. It is also important to characterize the water in this section of the subject site because the water in the abandoned well was contaminated at the time of abandonment.

After well development, water samples will be collected from each well and analyzed for gasoline, diesel, BTEX and halogenated volatile hydrocarbons.

B-1 is a boring located approximately 30' north of MW-4. This is the area where the gasoline tanks from 1946 were located. Shallow trenching indicated that the tanks have been removed and the pit filled with construction rubble. No shallow contamination was noticed, however a vertical profile would help to establish if this pit is or was a source of contamination. The boring will be to an approximate depth of 28', just above groundwater. Soil samples will be collected every 5'. Chosen samples will be analyzed for gasoline, diesel, BTEX and halogenated volatile hydrocarbons. After sample collection, this boring will be grouted up in a manner consistent with the regulations of Zone 7.

AMENDMENTS TO HEALTH AND SAFETY PLAN

Petroleum hydrocarbons as diesel has been added to the list of analytes. For this reason, a chemical data sheet for diesel is attached to this amendment for submittal to Appendix A of the April 6, 1990 Health and Safety Plan.

POINT BY POINT ANSWERS TO COUNTY LETTER OF APRIL 20, 1990

A letter was sent to Lisa Polos of Toxic Technology Services from Pam Evans of Alameda County Health Care Services Agency, Hazardous Materials Division, dated April 20, 1990 (Attached). The letter includes five items to address. Items 2 and 4 were answered in a letter from Lisa Polos to Pam Evans dated April 27, 1990 (Attached). The other items are addressed below.

Item 1

No trenching will be conducted around the gasoline tank excavation during this phase of work. This pit presented the greatest safety hazard.

The waste oil tank excavation is approximately 7' deep and 10' wide. There is ample room to cut a 3' wide trench in this pit without presenting a safety concern. All other trenches are starting at grade and will be 3' wide. No one will be allowed in any of the trenches. At the end of the work day, all trenches will be taped off and filled, if possible. If any trench can not be backfilled with the dirt that was removed, plywood will be placed over the hole and "open trench" signs will be posted.

Item 2

As in the letter of April 27, respirators with organic vapor cartridges, solvent-resistent suits and appropriate gloves and goggles will be available to the crew. An OVM-580 organic vapor analyzer will be used to monitor the ambient air.

It seems reasonable to use 5 ppm as a trigger level for higher personal protection. 5 ppm is the STEL for Benzene, which is the most restrictive compound known to be present at the subject site.

Item 3

The trenching activities are designed to assess if there is shallow contamination or sources of contamination at chosen areas on the subject site. By means of soil gas testing, trenching, soil borings and well installations, the site should be sufficiently characterized in order to prepare a remediation plan.

Item 4

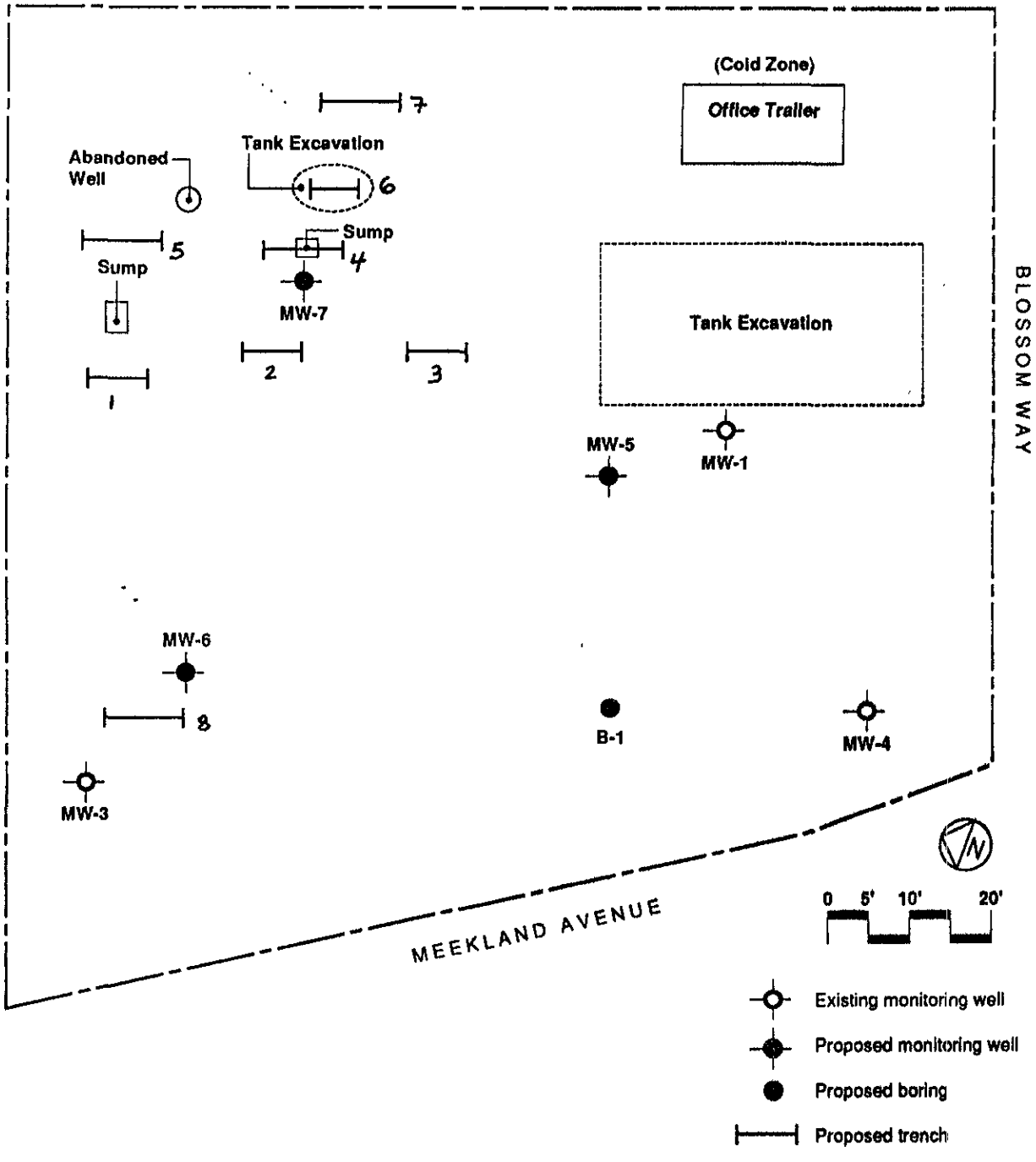
Addressed in the letter of April 27, 1990.

Item 5

Plate 1 presents a revised location for a monitoring well in this area. The well is located approximately 10' from the tank excavation in the downgradient direction. However, information to date indicates the possibility of a source of contamination in this area other than the pit excavation. This source is possibly the sump/line that leads to the pit excavation. The monitoring well location is placed as to be downgradient from the sump/line as well.

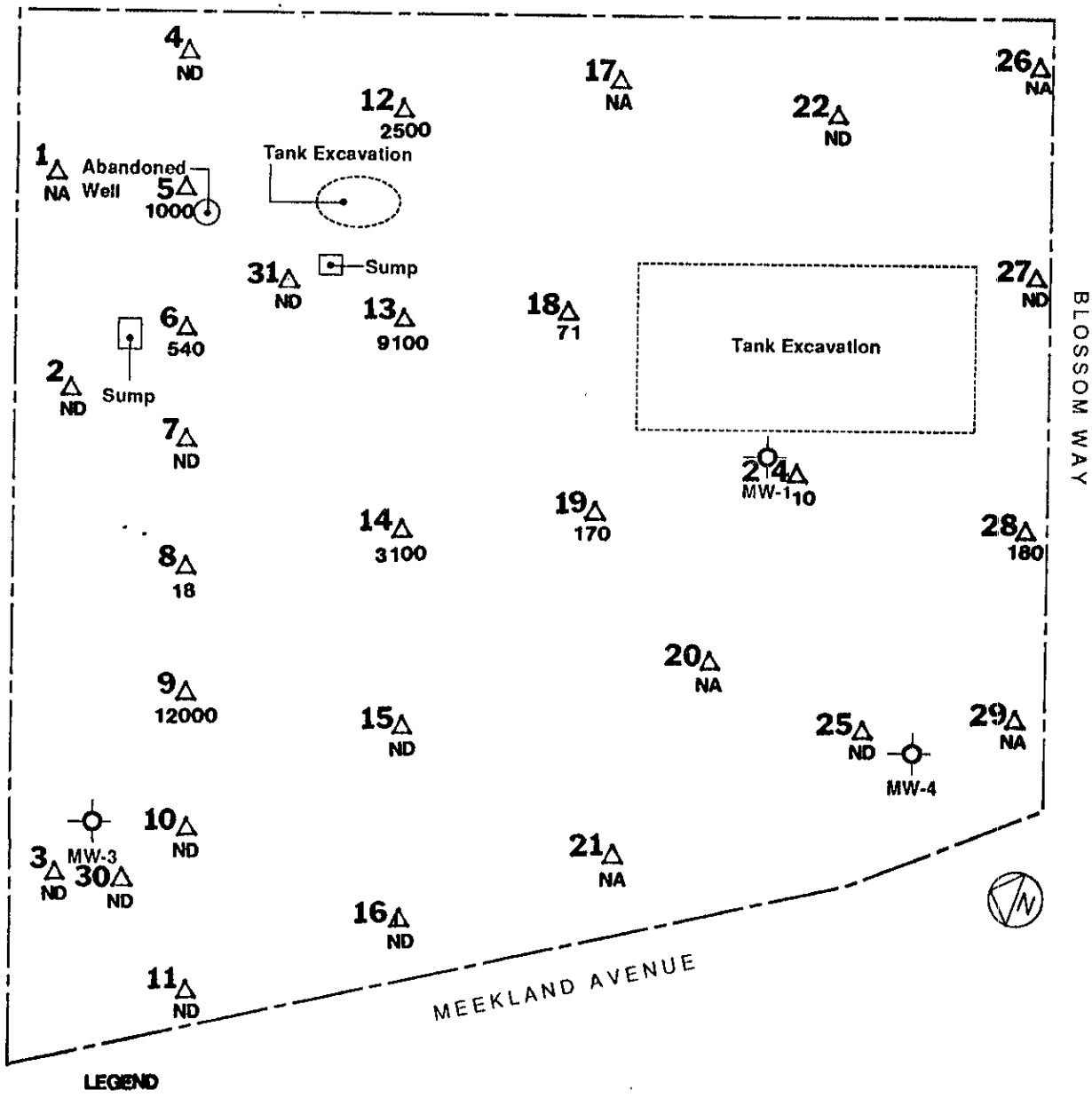
SCHEDULE

It is anticipated that the work detailed in this amendment will commence the week of August 27, 1990. If there are questions or comments, please contact Lisa Polos of Toxic Technology Services at (415) 799-1140 before this date.



Durham Transportation - Work Plan Amendment

Plate No.: 1
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services



1△ Location and number of soil survey point

△ 540 Petroleum Hydrocarbons in ppm

ND Not detected

NA Not analyzed

Durham Transportation - Site Plan 1990

Plate No.: 2
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services

OILS: DIESEL

ODS

Common Synonyms	City liquid	Yellow-brown	Lube or fuel oil odor
Fuel oil 1-D Fuel oil 2-D	Floats on water.		

Stop discharge if possible
Call fire department.
Avoid contact with liquid
Isolate and remove discharged material
Notify local health and pollution control agencies

Fire

Combustible.
Extinguish with dry chemical, foam, or carbon dioxide
Water may be ineffective on fire
Cool exposed containers with water

Exposure

CALL FOR MEDICAL AID.

LIQUID
Irritating to skin and eyes.
Harmful if swallowed.
Remove contaminated clothing and shoes.
Flush affected areas with plenty of water.
IF IN EYES, hold eyelids open and flush with plenty of water.
IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.
DO NOT INDUCE VOMITING

Water Pollution

Dangerous to aquatic life in high concentrations.
Fouling to shoreline.
May be dangerous if it enters water intakes.

Notify local health and wildlife officials
Notify operators of nearby water intakes

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)

Mechanical containment
Should be removed
Chemical and physical treatment

2. LABEL

2.1 Category: None
2.2 Class: Not pertinent

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility Class: Miscellaneous Hydrocarbon Mixtures
3.2 Formula: Not applicable
3.3 IMO/US Designation: 3.1/1270
3.4 DOT ID No.: 1270
3.5 CAS Registry No.: Data not available

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State (as shipped): Liquid
4.2 Color: Light brown
4.3 Odor: Like fuel oil

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Goggles or face shield.
5.2 Symptoms Following Exposure: If liquid is ingested, an increased frequency of bowel movements will occur.
5.3 Treatment of Exposure: INGESTION: do NOT induce vomiting. SKIN: wipe off, wash with soap and water. EYES: wash with copious amounts of water for at least 15 min.
5.4 Threshold Limit Value: No single TLV applicable.
5.5 Short Term Inhalation Limits: Data not available
5.6 Toxicity by Ingestion: Grade 1: LD_{50} = 5 to 15 g/kg
5.7 Late Toxicity: Data not available
5.8 Vapor (Gas) Irritant Characteristics: Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
5.9 Liquid or Solid Irritant Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin.
5.10 Odor Threshold: Data not available
5.11 IDLH Value: Data not available

6. FIRE HAZARDS

6.1 Flash Point: (1-D) 100°F C.O., (2-D) 125°F C.C.
6.2 Flammable Limits in Air: 1.3-6.0 vol.%
6.3 Fire Extinguishing Agents: Dry chemical, foam, or carbon dioxide
6.4 Fire Extinguishing Agents Not to be Used: Water may be ineffective
6.5 Special Hazards of Combustion Products: Not pertinent
6.6 Behavior in Fire: Not pertinent
6.7 Ignition Temperature: (1-D) 380-630°F (2-D) 490-545°F
6.8 Electrical Hazard: Not pertinent
6.9 Burning Rate: 4 mm/min.
6.10 Adiabatic Flame Temperature: Data not available
6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

7. CHEMICAL REACTIVITY

7.1 Reactivity With Water: No reaction
7.2 Reactivity with Common Materials: No reaction
7.3 Stability During Transport: Stable
7.4 Neutralizing Agents for Acids and Caustics: Not pertinent
7.5 Polymerization: Not pertinent
7.6 Inhibitor of Polymerization: Not pertinent
7.7 Molar Ratio (Reactant to Product): Data not available
7.8 Reactivity Groups: 33

8. WATER POLLUTION

8.1 Aquatic Toxicity: 204 mg/l/24 hr/juvenile American eels/TL_m/salt water
8.2 Waterfowl Toxicity: > 20 ml/kg /LD_{50}/mallards
8.3 Biological Oxygen Demand (BOD): Data not available
8.4 Food Chain Concentration Potential: None

9. SHIPPING INFORMATION

9.1 Grades of Purity: Diesel Fuel 1-D (ASTM); Diesel Fuel 2-D (ASTM)
9.2 Storage Temperature: Ambient
9.3 Inert Atmosphere: No requirement
9.4 Venting: Open (flame arrester)

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)

A-T-U

11. HAZARD CLASSIFICATIONS

11.1 Code of Federal Regulations: Combustible liquid
11.2 NAS Hazard Rating for Bulk Water Transportation: Not listed
11.3 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue)	0
Flammability (Red)	2
Reactivity (Yellow)	0

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Liquid
12.2 Molecular Weight: Not pertinent
12.3 Boiling Point at 1 atm: 550—640°F = 288—338°C = 561—612°K
12.4 Freezing Point: 0 to −30°F = −18 to −34°C = 255 to 239°K
12.5 Critical Temperature: Not pertinent
12.6 Critical Pressure: Not pertinent
12.7 Specific Gravity: 0.841 at 15°C (liquid)
12.8 Liquid-Surface Tension: (est.) 25 dynes/cm = 0.025 N/m at 20°C
12.9 Liquid-Water Interfacial Tension: (est.) 50 dynes/cm = 0.05 N/m at 20°C
12.10 Vapor (Gas) Specific Gravity: Not pertinent
12.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
12.12 Latent Heat of Vaporization: Not pertinent
12.13 Heat of Combustion: −18,400 Btu/lb = −10,200 cal/g = −429 X 10^3 J/kg
12.14 Heat of Decomposition: Not pertinent
12.15 Heat of Solution: Not pertinent
12.16 Heat of Polymerization: Not pertinent
12.17 Heat of Fusion: Data not available
12.18 Limiting Value: Data not available
12.19 Reid Vapor Pressure: Varies

NOTES

OILS: DIESEL

12.17 SATURATED LIQUID DENSITY		12.18 LIQUID HEAT CAPACITY		12.19 LIQUID THERMAL CONDUCTIVITY		12.20 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot (estimate)	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit-inch per hour-square foot-F	Temperature (degrees F)	Centipoise
50	52.430	10	.429	30	.968	100.42	11.950
52	52.430	15	.431	35	966		
54	52.430	20	.434	40	.965		
56	52.430	25	.436	45	963		
58	52.430	30	439	50	.962		
60	52.430	35	.441	55	.961		
62	52.430	40	.444	60	.959		
64	52.430	45	.446	65	958		
66	52.430	50	.448	70	.957		
68	52.430	55	.451	75	.955		
70	52.430	60	.453	80	.954		
72	52.430	65	.456	85	.952		
74	52.430	70	.458	90	.951		
76	52.430	75	.461	95	.950		
78	52.430	80	463	100	.948		
80	52.430	85	.466	105	.947		
82	52.430	90	.468	110	.946		
84	52.430	95	471	115	.944		
		100	.473	120	.943		
		105	.476	125	.941		
				130	.940		

12.21 SOLUBILITY IN WATER		12.22 SATURATED VAPOR PRESSURE		12.23 SATURATED VAPOR DENSITY		12.24 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch (estimate)	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	I	70	.042		N		N
	N	75	.049		O		O
	S	80	.057		T		T
	O	85	.065				
	L	90	.076		P		P
	U	95	.087		E		E
	B	100	.100		R		R
	L	105	.114		T		T
	E	110	.131		I		I
		115	.149		N		N
		120	.170		E		E
		125	193		N		N
		130	.218		T		T
		135	.247				
		140	.279				
		145	.314				
		150	.352				
		155	.395				
		160	.443				
		165	.495				
		170	552				
		175	.615				
		180	683				
		185	.756				
		190	.841				
		195	930				

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

April 20, 1990

Lisa Polos
Toxic Technologies Services, Inc.
P.O. Box 515
Rodeo CA 94572

Dear Ms. Polos:

My staff has reviewed the Work Plan for the Durham Transportation site. Before any trenching or re-excavation of the tank pits takes place, this office requires additional information concerning the items listed below. These points were discussed in a telephone conversation between you and Hazardous Materials Specialist Pamela Evans on April 20, 1990:

1. Specify measures to be taken onsite to mitigate possible excavation collapse hazard. Address both trenching and tank pit excavation situations. OSHA shoring and sloping requirements must be adhered to.

2. Appropriate EPA Level C protection for workers should be available onsite. Special areas of concern include eye, hand, foot, and respiratory protection. Indicate the specific type of safety gear that will be available to workers who may be exposed to contaminated groundwater and soil. Also specify for which tasks and under which circumstances workers will be required to use safety equipment and clothing. Safety gear must be adequate to protect workers against the types of hazardous wastes you anticipate encountering onsite, including fuel constituents and chlorinated solvents.

3. Your work plan indicates that trenching and excavation will cease at 17 feet below existing ground level. If sampling indicates significant soil contamination below this level, further excavation would be necessary. The investigation should explore the full lateral and vertical extent of contamination.

4. Your examination and analysis of water from the abandoned well revealed the presence of 1,2-dichloroethane. Specify how your soil gas survey and other excavation and sampling will help you investigate the source of this contamination. Indicate which type of sampling procedures and equipment you plan to use in order to test further for this and other chlorinated solvents that might be encountered.

Regarding Figure 4 in your Work Plan, water regulatory guidelines specify that a monitoring well be within 10 feet of a tank removal in the down gradient direction. The figure indicates that the proposed well would be at least 15 feet from the waste oil tank excavation and not in the suspected down gradient direction. Our recommendation is that the well be placed closer to and more to the west of the waste oil tank excavation.

You may supply the required information as addenda to your Work Plan and Site Safety Plan. Site safety information specific to the Soil Gas Survey work must be submitted **before** that activity is begun. Please contact Pamela Evans, Hazardous Materials Specialist, at 271-4320 with any questions.

Sincerely,

Edgar B. Howell III, Chief
Hazardous Materials Division

EBH:PJE

c: Lester Feldman, Regional Water Quality Control Board
Gil Jensen, Alameda County District Attorney
Howard Hatayama, Department of Health Services
James Ferdinand, Eden Consolidated Fire District

toxic technology services inc.

April 27, 1990
File No. 90-2

Ms. Pam Evans
Alameda County Health Care Services Agency
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Subject: Durham Transportation
19984 Meekland Road
Hayward, California

Dear Ms. Evans:

Toxic Technology Services is in receipt of your letter of April 20, 1990 regarding particular aspects of the Durham Transportation Work Plan and Health and Safety Plan. I want to thank you for your quick attention to the Durham project.

This letter addresses only the items concerning the soil gas testing at the subject site. A letter addressing the other items will be forthcoming, well before trenching and excavation activities will take place.

Item 2 of the letter concerns worker health and safety. Respirators with organic vapor cartridges, solvent-resistant suits and appropriate gloves and goggles will be available to the sampling crew.

Exposure will be minimal due to the fact that soil contamination is anticipated at a depth of 20', no spoils will be generated and the sampling crew should not come into direct contact with the contamination. Exposure by inhalation of toxic vapors is possible, but low because soil gas will be extracted at a depth of 20' through a tube connected to an evacuated glass bomb. The diameter of the boring is 3/4".

To assure that the sampling crew will not be exposed to toxic vapors, a ThermoElectron OVM - 580 organic vapor analyzer will be on-site and used to monitor the ambient air at each sampling location.

This instrument will be calibrated against isobutylene and will be able to detect part per million levels of the compounds of interest. These are:

Benzene
Toluene
Xylenes
Ethylbenzene
Gasoline
Ethylene Dichloride
Trichloroethylene

Of these compounds, Benzene is the most restrictive having a Federal OSHA PEL of 1ppm (8-hr TWA) and a STEL of 5ppm with a maximum of a 15 min. exposure. One part per million will be used as the trigger level to prompt the use of respirators and any other Level C equipment, as appropriate, by the sampling crew.

Item 4 of your letter requested more information on our plans to track chlorinated hydrocarbon contamination. During soil gas testing, samples on the northeast side of the property will be tested for specifically 1,2 - Dichloroethane and Trichloroethylene, both of which have been found on-site, as well as gas and BTEX. This is detailed in the work plan on page 10.

Then based on the data from the soil gas survey, trenching will take place in the appropriate spots and samples will be collected and analyzed for the entire 8010 series.

I hope this addresses the matter at hand. On April 27, 1990, I spoke to Mr. Edgar Howell and discussed the above items with him.

We intend to proceed with the soil gas testing on Monday, April 30, 1990 at 8:00 am. Please contact me if you have further questions. We invite you to visit the site at your convenience. Testing is scheduled for Monday through Thursday.

Thank you again for your attention to this matter. I look forward to working with you on this project.

Sincerely,

Lisa A. Polos

Lisa A. Polos, REA, CHMM
Senior Scientist
Toxic Technology Services
CTTS, Inc.