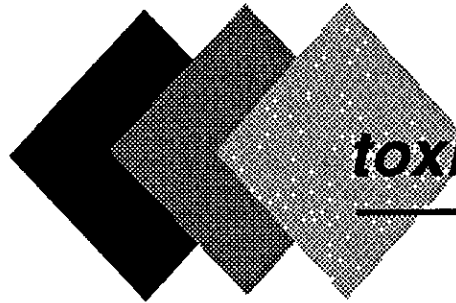


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CTTS , Inc.
toxic technology services

PROGRESS REPORT # 20
March 1 - March 31, 1993

Durham Transportation
19984 Meekland Avenue
Hayward, California

Project # 93-1



April 1, 1993
Project Number 93-1

Mr. David Delamotte
Durham Transportation
9171 Capitol of Texas Highway North
Travis Bldg., Suite 200
Austin, Texas 78759

Subject: Progress Report #20
Period Covering
March 1, 1993 - March 31, 1993
19984 Meekland Avenue, Hayward, CA

Dear Mr. Delamotte:

Enclosed is the twentieth progress report for the Phase II investigation to evaluate the extent of soil and groundwater contamination at 19984 Meekland Avenue in the unincorporated area of Alameda County, near Hayward, California.

This report covers the following topics:

Introduction
Monthly Monitoring of Groundwater Elevations

After you review this document, it is recommended that copies be sent to Ms. Juliete Shin of the Alameda County Health Care Services Department, Hazardous Materials Division and Mr. Eddy So of the Regional Water Quality Control Board. Extra copies of this report have been provided to you for this purpose.

Thank you for this opportunity to provide Durham Transportation with these environmental services. If you have any questions, please call the undersigned at (510) 799-1140.

Sincerely,

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

Enclosure
LAP/JNA/lap

INTRODUCTION

The following is the twentieth progress report of activities in the evaluation of the extent of soil and groundwater contamination at 19984 Meekland Avenue, in the unincorporated area of Alameda County, near Hayward, California (Plate 1). This report covers the period of March 1, 1993 through March 31, 1993.

The purpose of this on-going investigation is two fold; to assess the extent of soil and groundwater contamination and to characterize the contamination with regards to constituents and concentration.

MONTHLY MONITORING OF GROUNDWATER ELEVATIONS

As stated in previous reports, the groundwater gradient at the site is essentially flat. The elevation of the groundwater has been measured in the monitoring wells on site by surveying the elevation of the top of the casing and measuring the depth to groundwater using an electronic probe. The elevations are based on Alameda County benchmark BLO-MEEK located in the middle of the intersection of Blossom Way and Meekland Avenue. The depth to groundwater was measured in December of 1989, January of 1990, and then monthly since March of 1990.

Tables 1 and 1a and Figure 1 represent data for the previous twenty four month period. The groundwater elevation data are presented on Table 1. Figure 1 is a graph showing monthly variations in the elevation of groundwater at the site. In any given month, the groundwater elevation across the site generally varies within 0.1 feet. This variation is roughly within the range of error in the measuring techniques. The data indicate that the water table fluctuates in response to the various seasons of the year. Table 1a presents the monthly odor and sheen observations recorded concurrently with the elevations of groundwater.

Figure 2 is a gradient map depicting the interpolated groundwater gradient for the site over the reporting period. The data indicate that the site is essentially flat with a very low westward to northwestward gradient. This is consistent with the regional gradient.

TABLE 1

**GROUNDWATER ELEVATIONS (feet above MSL)
DURHAM TRANSPORTATION--MEEKLAND PROJECT**

DATE	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10	MW11	MW12
Apr-91	28.09	27.99	28.04	28.00	28.02	28.06	27.99	.	.	.
May-91	27.12	27.16	27.17	27.11	27.19	27.19	27.13	.	.	.
Jun-91	26.45	26.56	26.77	26.46	26.53	26.57	26.58	.	.	.
Jul-91	26.04	26.05	26.13	26.04	26.10	26.13	26.04	.	.	.
Aug-91	25.49	25.62	25.37	25.50	25.59	25.60	25.52	.	.	.
Sep-91	25.18	25.18	25.49	25.06	25.16	25.18	25.15	.	.	.
Oct-91	24.86	24.92	25.00	24.82	24.97	24.94	24.84	.	.	.
Nov-91	24.90	24.97	24.94	24.87	24.94	24.96	24.89	.	.	.
Dec-91	24.69	24.78	24.89	24.67	24.76	24.79	24.70	.	.	.
Jan-92	25.31	25.28	25.48	25.31	25.37	25.37	25.32	25.16	25.90	.
Feb-92	28.23	28.22	28.24	28.15	28.24	28.26	28.19	28.37	28.18	.
Mar-92	28.54	28.46	28.49	28.40	28.46	28.59	28.42	28.32	28.41	.
Apr-92	28.43	28.48	28.39	28.43	28.49	28.51	28.44	28.32	28.44	.
May-92	27.76	27.75	27.79	27.56	27.75	27.79	27.70	27.67	27.68	.
Jun-92	26.92	26.87	26.88	26.81	26.87	26.92	26.81	26.64	26.76	.
Jul-92	26.40	26.47	26.49	26.41	28.16	26.53	26.41	26.23	26.37	.
Aug-92	25.88	25.85	25.81	25.76	25.83	25.88	25.79	25.26	26.07	.
Sep-92	25.68	25.64	25.60	25.56	25.61	25.67	25.56	25.39	25.54	.
Oct-92	25.30	25.27	25.29	25.17	25.23	25.32	25.19	25.00	25.14	.
Nov-92	25.17	25.25	25.25	25.17	25.25	25.29	25.19	25.01	25.13	.
Dec-92	26.10	26.06	26.03	26.02	26.05	26.10	26.02	25.92	26.08	26.35
Jan-93	30.74	30.76	30.72	30.73	30.82	30.82	30.74	30.65	30.74	30.82
Feb-93	30.32	30.32	30.22	30.29	30.39	30.37	30.29	30.17	30.28	30.32
Mar-93	30.80	30.80	30.80	30.89	30.84	30.85	30.81	30.60	30.74	30.82

MW-1 abandoned December 14, 1992. Consult previous reports for MW-1 data.

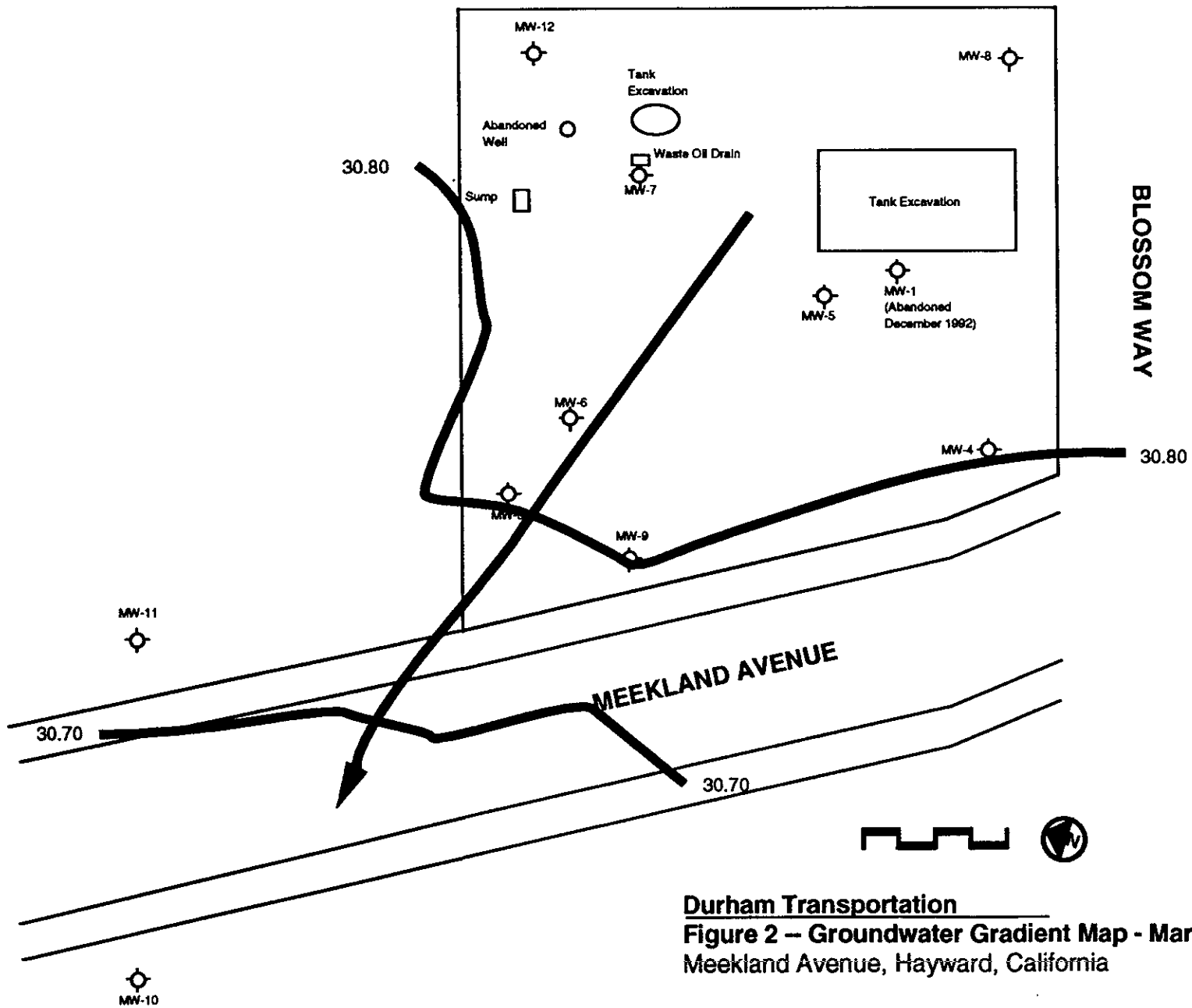
TABLE 1a

**GROUNDWATER ODOR AND SHEEN OBSERVATIONS
DURHAM TRANSPORTATION--MEEKLAND PROJECT**

	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10	MW11	MW12
Apr-91	- -	- S	- -	- -	- -	- -	- -	. .	. .	. .
May-91	- -	- -	o -	- -	- -	- -	- -	. .	. .	. .
Jun-91	- -	- -	o -	- -	- -	- -	- -	. .	. .	. .
Jul-91	- -	- -	- -	o -	- -	- -	- -	. .	. .	. .
Aug-91	- -	o -	o -	o -	o -	- -	- -	. .	. .	. .
Sep-91	- -	- -	o -	o -	- -	- -	- -	. .	. .	. .
Oct-91	- -	- -	- -	- -	- -	- -	- -	. .	. .	. .
Nov-91	- -	- -	o -	o -	- -	- -	- -	. .	. .	. .
Dec-91	o -	- -	o -	o -	- -	- -	- -	. .	. .	. .
Jan-92	o -	- -	o -	o -	- -	- -	o -	o -	o -	. .
Feb-92	- -	- -	o -	- -	- -	- -	- -	O -	- -	. .
Mar-92	- -	- -	o S	- -	- -	- -	o -	o -	- -	. .
Apr-92	o -	- -	o -	o -	- -	- -	- -	o -	- -	. .
May-92	o -	- -	o -	- -	o -	- -	- -	o -	o -	. .
Jun-92	- -	- -	- -	- -	- -	- -	- -	O -	- -	. .
Jul-92	- -	- -	o -	- -	- -	- -	- -	- -	- -	. .
Aug-92	- -	- -	o -	- -	- -	- -	- -	- -	- -	. .
Sep-92	- -	- -	o -	- -	- -	- -	- -	o -	- -	. .
Oct-92	- -	- -	o -	o -	- -	- -	- -	O -	- -	. .
Nov-92	- -	- -	o -	o -	- -	- -	o -	o -	o -	. .
Dec-92	- -	- -	- -	- -	- -	- -	- -	- -	- -	o -
Jan-93	o -	- -	O -	- -	- -	- -	o -	- -	- -	- -
Feb-93	- -	- -	o -	- -	- -	- -	- -	- -	- -	- -
Mar-93	- -	- -	o -	- -	- -	- -	- -	o -	o -	- -

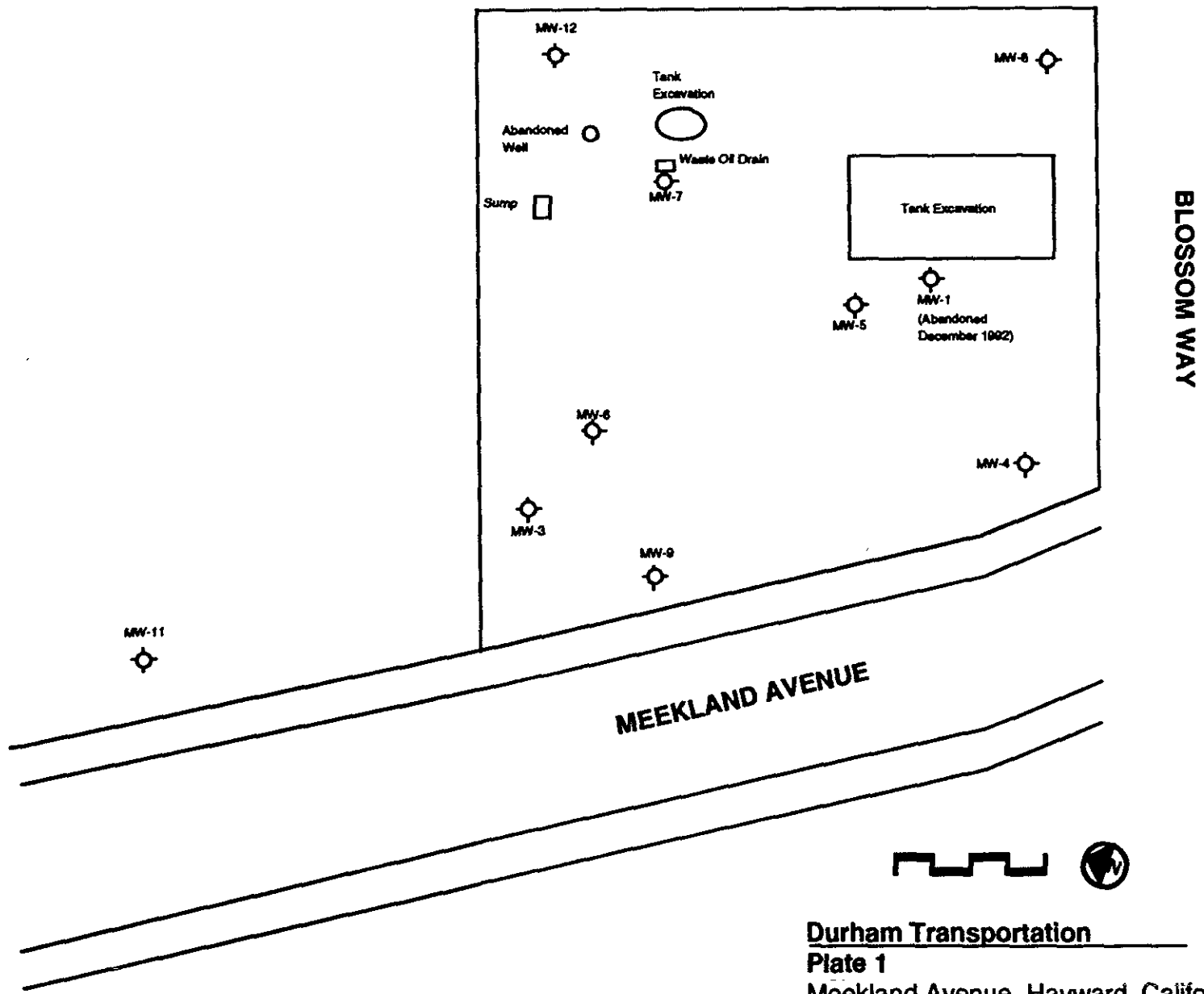
O=Strong Odor o=Slight Odor S=Sheen -=None Present X= No Observation Made

MW-1 abandoned December 14, 1992. Consult previous reports for MW-1 data.



Durham Transportation
Figure 2 – Groundwater Gradient Map - March 1993
Meekland Avenue, Hayward, California

Scale: 1 inch = 30 feet
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Durham Transportation
Plate 1
 Meekland Avenue, Hayward, California
 Date: January 1993
 Scale: 1 inch = 30 feet
 CTTS, Inc. - Toxic Technology Services