

Transportation Terminals Company  
PO Box 882682  
San Francisco, CA 94188-2682

Date: 3/5/2014  
From: Bob Lawlor  
To; Haz. Materials Specialist, Alameda Co. Environmental Health  
Subject: 15651 Worthley Drive, San Lorenzo CA R02558

Perjury Statement

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.



Bob Lawlor  
General Partner

**RECEIVED**

By Alameda County Environmental Health at 4:15 pm, Mar 10, 2014

# Environmental Restoration Services

Site Investigations \* Fuel Tank Closures and Installations \* Site Remediation \* Regulatory Reporting

Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Second Floor  
Alameda, CA 94502

March 5, 2014

Attn: Mr. Keith Nowell, Haz Mat. Specialist for : 15651 Worthley Dr., San Lorenzo

Re: **REPORT OF MONITORING WELL SURVEY and  
GROUNDWATER GRADIENT DETERMINATION**

Dear Mr. Nowell,

Environmental Restoration Services (ERS) of Menlo Park, CA.. is pleased to submit to following monitoring well survey report. Monitoring well MW-4 was installed on March 11, 2013 at the above mentioned site.

On March 13, 2013, Samuel H. Halsted, CE #14019, surveyed an elevation to the top of monitoring well casing MW-4 by transferring the elevations of the previously surveyed, existing monitoring well top of casing elevations of MW-1 through MW-3. The well head elevations of monitoring wells MW-1 through MW-3 were GPS surveyed by Aaron Stessman PE of CSS Environmental Services (CSS) of Novato, CA, on October 1, 2008.

The new MW-4 top of casing elevation was used to calculate the groundwater gradient flow direction depicted in the Figure 2 of the ERS April 9, 2013 Investigative Report as well as the ERS June 5, 2014 Groundwater Monitoring Well Sampling Event report. The top of casing elevation established for monitoring well MW-4 in these reports was 11.46 feet.

On February 17, 2014, MW-4 was surveyed for GeoTracker X,Y and Z coordinates. The latitude, Longitude and coordinates are for top of casing and are based on the California State Coordinate System, Zone III (NAD83), Epoch 2010.00.

<u>Latitude</u>	<u>Longitude</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>	<u>Description</u>
37.6699439	-122.1534170	2070631.38	6083142.79	11.43	TOC MW-4

The error level of this survey is 95% which calculates to up to 0.019 feet for latitude coordinates, 0.026 for longitude coordinates and 0.045 feet for elevation.

PO Box 2006 \* Menlo Park California 94026 \* Phone 408/655-9434 \* [envirest@aol.com](mailto:envirest@aol.com)

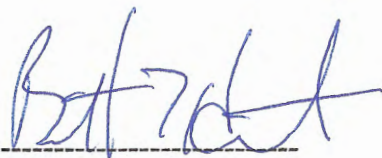
The discrepancy in elevation between the March 13, 2013 survey (the transfer of the elevations from the previously surveyed top of casing elevations of MW-1 through MW-3, to the top of casing elevation of MW-4) and the February 17, 2014 GPS survey is 0.03 feet, within the 95% GPS survey error level and therefore may possibly not be a discrepancy at all.

This discrepancy (if any) in elevation would very slightly affect the slope of the groundwater gradients depicted in the April 9, 2013 and June 5, 2013 reports, but would appear have no effect on the gradient direction.

The X,Y and Z coordinates for MW-4 have been uploaded to the GeoTracker data base.

On February 18, 2014, prior to the destruction of the monitoring wells, the water levels in monitor wells MW-1, MW-3 and MW-4 were measured within a fifteen minute period. The water surface elevations in the wells were calculated using survey data. The approximate horizontal hydraulic flow direction was south-southwest at an average 0.54% gradient. Groundwater gradient information is shown in Figure 2.

Respectfully submitted this 5<sup>h</sup> day of March, 2014.



Bennett T. Halsted  
Project Manager

  
Samuel H. Halsted PE  
C.E. 14095  


# FIGURES



<b>VICINITY MAP</b>	
15651 Worthley Dr., San Lorenzo, CA	
SCALE: 1" = 0.5 miles	BY:
Environmental Restoration Services	
PO Box 2006, Menlo Park, CA 94026	
<b>FIGURE 1</b>	

P/L



3/13/13

WELL	CASING ELEV.	DEPTH TO G-WTR.	G-WTR. ELEV.
MW1	12.07	3.51	8.56
MW2	11.70	2.21	9.49
MW3	12.05	3.54	8.51
MW4	11.43	3.23	8.20

5/3/13

WELL	CASING ELEV.	DEPTH TO G-WTR.	G-WTR. ELEV.
MW1	12.07	3.60	8.47
MW2	11.70	2.40	9.30
MW3	12.05	3.45	8.60
MW4	11.43	3.20	8.23

2/18/14

WELL	CASING ELEV.	DEPTH TO G-WTR.	G-WTR. ELEV.
MW1	12.07	4.48	7.59
MW2	11.70	2.96	8.74
MW3	12.05	4.65	7.40
MW4	11.43	4.15	7.28

P/L

P/L

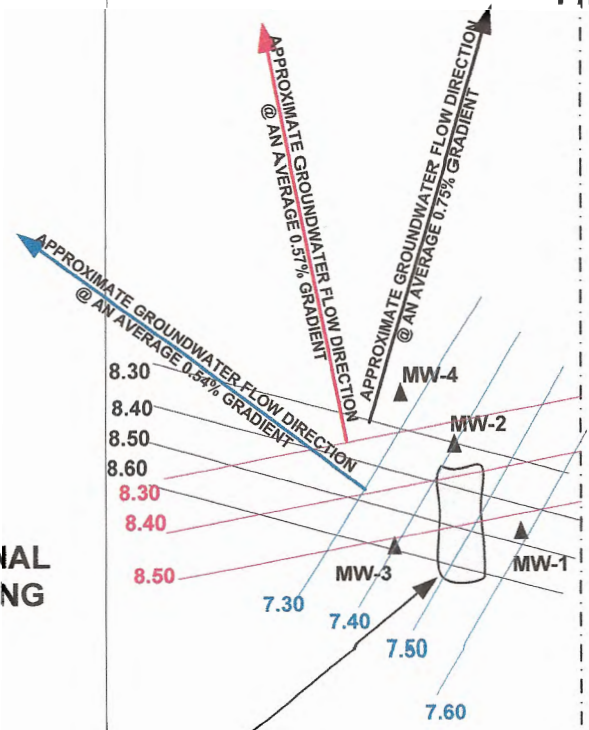
GATE

TERMINAL BUILDING

FORMER UST EXCAVATION

GATE

REPAIR SHOP



WORTHLEY DR.

# SITE PLAN

15651 Worthley Dr., San Lorenzo, CA

DATE 2/18/14 | SCALE: 1"=60' | **FIGURE 2**

Environmental Restoration Services  
PO Box 2006, Menlo Park, CA 94026