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August 13, 1990

Mr. Larry Seto
Alameda County Health Agency
80 Swan Way, Room 200
Oakland, CA. 94621

SUBJECT: Firestone Tire and Rubber Company
Albany, CA. - Workplan

Dear Mr. Seto:

On behalf of Firestone Tire and Rubber Company and Ryan Murphy, Inc. ,
we are enclosing a workplan for the above subject project. After your
review and approval, we will schedule and mobilize the drilling
subcontractor to begin the site assessment tasks.

Please call if you have any questions or require further information.

Sincerely,

ERM-WEST



Dennis Miller
Principal Engineer

Enclosure

DGM/1099

cc: Pat Ryan, Ryan Murphy, Inc.

**FIRESTONE TIRE AND RUBBER COMPANY
ALBANY, CALIFORNIA**

SITE ASSESSMENT AND REMEDIATION WORKPLAN

On May 1, 1990 a 280 gallon waste oil tank was removed from the Firestone facility located at 969 San Pablo Blvd, Albany, California. A tank closure permit was issued by the Alameda County Department of Environmental Health, Hazardous Materials Division, to Ryan Murphy, Inc. prior to the tank removal.

Laboratory analysis of soils taken from the bottom of the tank excavation (from 5 to 7 feet below grade) at the time of removal are summarized in Table 1.

No water was reported in the excavation during the tank removal. However, conversations with an Alameda County inspector noted that groundwater is reported to be about 10 feet below grade. This information was confirmed by Alameda County Flood Control. Monitoring wells at a Shell gas station (Marin and San Pablo Ave) just south and across San Pablo Blvd. from the site are reported with groundwater ranging from 7.5-8.0 and 6.0-6.5 feet below grade in February and April, 1990, respectively.

ASSESSMENT

The purpose of the site assessment work will be to determine the vertical and horizontal extent of contaminants, if any, in soil and groundwater. It is proposed to drill four borings to a minimum of 15 feet and convert the borings to groundwater monitoring wells. During the drilling work, soil samples will be retrieved at the following depths: 3, 7, 10, and 15 feet. The 10 foot depth sample is assumed to be at the soil/water interface.

Normal site assessment protocol will be used at the site. Health and safety considerations will follow Ryan Murphy's plan used during the tank removal work. The augers and equipment used for each boring will be decontaminated between borings. Each boring will be logged and soil cuttings will be retained for disposal with future excavated soils. Soil and groundwater samples will be preserved and transported to a California certified laboratory under chain-of-custody protocol. Monitoring wells will be appropriately screened and packed, and completed at the surface with a bentonite concrete surface seal and a well cover.

After installation of the monitoring wells, the wells will be developed and groundwater samples retrieved for analysis. After groundwater sampling, the wells will be allowed to stabilize and then levels in each well will be surveyed to establish, if possible, a site specific groundwater gradient.

Both soils and groundwater samples will be analyzed for the following constituents: TPH, BTX&E, and chlorinated hydrocarbons. This listing is based on the initial soil results reported in Table 1.

REMEDIATION

Because of the clayey fill in the area, it is assumed that the constituents detected in the soils have not spread laterally nor vertically to any great extent. Therefore, the proposed remediation alternative for this site is excavation of soils, once the site assessment work confirms the above assumptions.

Additionally, the monitoring wells will remain until Alameda County determines that the site is clean and the monitoring wells are no longer necessary.

For the excavation work, Firestone is proposing to perform the work as follows:

- EPA Generator Number: CAD 982005928
- Contractor: Ryan Murphy Inc., Corona, CA
Contractors License: 516337(A, B, C61, D40, Hazardous)
- Site Sampling/Environmental overview: ERM-West, Walnut Creek, CA 94596
- Hazardous Waste Hauler: Dillard Trucking, Byron, CA 94514
- Disposal Site:
 - Hazardous: GSX, 7004 Gas Company Rd., Taft, CA 93268
 - Non-Haz: Gibson Oil, 3121 Standard St., Bakersfield, CA
- Certified Laboratory: Curtis and Thompkins, Berkeley, CA

After excavation of the soils, the side walls will be sampled and analyzed for the above noted constituents. Groundwater in the excavation, if present, will be pumped into a Baker tank for temporary storage and analysis. If hazardous, the water will be transferred and hauled off-site under a California hazardous waste manifest. If non-hazardous, consideration will be given to discharging the water into a local EBMUD sanitary sewer; but, only after permission is granted by the regulatory agencies.

SCHEDULE

The following schedule is based on time after approval of the workplan by Alameda County.

Task 1: Site Assessment: 7 weeks

- 3 week mobilization (depends on availability of driller)
- 1 week on-site
- 2 week sample analysis
- 1 week reporting

Task 2: Soil Excavation: 3 weeks

- 1 week mobilization
- 1 week excavation - assume 24-48 turnaround on soil/water analysis
- 1 week site finish

CLEAN-UP GOALS

Alameda County's clean-up goals are to have all laboratory analysis reported with non-detectable constituents. However, each site is handled on a case-by-case basis. It is expected that once the water and soil analysis have been reported, that future discussions will determine the site specific clean-up goals for this site.

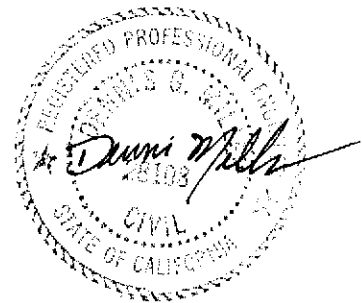


TABLE 1
SOIL SAMPLING RESULTS

FIRESTONE TIRE AND RUBBER COMPANY
ALBANY, CA

CONSTITUENT (1)	CONCENTRATION, mg/kg		
	Sample Location		
	N. End of Tank, 7' deep	S. End of Tank, 7' deep	N. Wall 5' deep
<u>Hydrocarbons</u>			
TPH (Diesel)	< 10	86	1070
Benzene	0.0161	0.150	2.3
Toluene	<0.005	0.770	4.46
Xylene	0.0051	8.59	16.9
Ethylbenzene	<0.005	0.820	3.25
Oil & Grease	40	2436	6548
<u>Chlorinated Compounds</u>			
1,1 Dichloroethane	0.0156	0.0038	<0.0005
1,2 Dichloroethane	0.0007	<0.0005	<0.0005
Tetrachloroethylene	0.0012	1.83	7.23
1,1,1, Trichloroethane	<0.0005	0.9	4.3
<u>Metals</u>			
Cadium	<0.5	<0.5	<0.5
Chromium (Total)	<50	52	60
Molybdenum	<100	<100	<100
Zinc	<100	<100	<100
Lead	11	266	135
Nickel	42	40	52

STLC 5.0
20
TTL 1,000
2,000

(1) Summarized on this Table are only the detected constituents. See laboratory data sheets for complete listing of analysis.



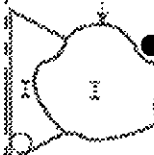
1" = Approx. 20'
0 20'

Assumed Groundwater Gradient

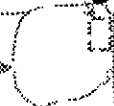


San Pablo Blvd.

Planter



Former Tank Location



Assumed Excavation

Concrete

Building

Concrete

Signal

Driveway

LEGEND

- Boring/Monitoring Well
- ⊗ Storm Sewer Inlet
- Lights

Figure 1
Site Plan
Firestone
Albany, CA

ERM-West, Inc. 8'90
1099/AMR/7.25.90