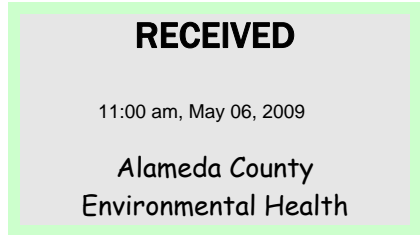


RM Associates

Environmental Consultants

May 4, 2009

Mr. Jerry Wickham
Hazard Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577



**Reference: Rotten Robbie No 64
(Formerly East Avenue Services)
4186 East Avenue, Livermore, California
Fuel Leak Case No. RO0002881**

**Subject: Groundwater Monitoring Report No. 4 - 2nd Quarter 2009
April 28, 2009**

Dear Mr. Wickham:

Enclosed is a copy of the subject report for the referenced site. The report was prepared and is submitted by RMA Associates, Inc, on behalf of Robinson Oil Corporation (ROC). Your attention is directed to Section 5.0 of the report (Summary, Conclusions, and Recommendation).

The report and this cover letter will be submitted electronically according to your requirements for electronic submission and has also been uploaded to GeoTracker.

RMA hereby certifies under the penalty of perjury, that to the best of our knowledge, all information and data presented in the report are true and correct. Mr. Robinson has reviewed the report and has authorized its transmittal. Mr. Robinson's transmittal letter is included in Appendix D of the report.

Should you have any questions regarding this report, please contact Thomas Robinson of Robinson Oil Corporation at (408) 257-2222, or the undersigned at (209) 295-6218.

Sincerely,

RM ASSOCIATES

A handwritten signature in black ink, appearing to read "Ronald W. Michelson", written over a horizontal line.

Ronald W. Michelson, RG (CA 3875)
Principal Geologist

Cc: Tom Robinson, Robinson Oil Corporation

Enclosures:

GROUNDWATER MONITORING REPORT NO. 4 – 2ND QUARTER 2009

**Rotten Robbie No. 64
4186 East Avenue
Livermore, California
Fuel Leak Case No. RO0002881**

**Prepared for:
Robinson Oil Corporation
4250 Williams Road
San Jose, California 95129**

**Prepared by:
RM Associates
16401 Meadow Vista Drive, Suite 102
Pioneer, California 95666**

Project No. 101-6404

April 28, 2009

RMAssociates

16401 Meadow Vista Drive, Suite 102
Pioneer, CA 95666
(209) 295-6218 FAX: (209) 295-3974

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GROUNDWATER MONITORING REPORT NO. 4 – 2ND QUARTER 2009

**Rotten Robbie No. 64 (Formerly East Avenue Services)
4186 East Avenue, Livermore, California**

April 28, 2009

1.0 INTRODUCTION

This “Groundwater Monitoring Report No. 4, 2nd Quarter 2009” has been prepared by RM Associates, Inc. (RMA) on behalf of Robinson Oil Corporation (ROC), San Jose, California. The report presents the results of field measurements and groundwater analytical results conducted during the 2nd quarter 2009. The results presented herein should be considered in context with the data and information presented in two previous reports:

“Report of Phase II Environmental Assessment,” by RMA, dated May 13, 2005

“Report of Preliminary Site Investigation Including UST Removal,” by RMA dated May 30, 2007

2.0 SITE DESCRIPTION AND BACKGROUND

Site Location

4186 East Avenue

Livermore, California

Contact: Mr. Thomas L. Robinson (408) 257-2222

Figure 1 is a generalized street map showing the general vicinity of the site. The site had been operated until July 2005 as East Avenue Services, a retail automotive fueling and service station facility that had five underground storage tanks (USTs) and two dispenser islands. The former USTs consisted of four 4,000-gallon tanks and one 6,000-gallon tank all containing gasoline.

2.1 Phase II Environmental Assessment

In April 2005, preliminary to a property transaction, RMA conducted a routine Phase II Environmental Assessment (P2EA) that involved the installation of seven shallow soil borings and the collection and analysis of eleven soil samples and five groundwater grab samples. The results of this assessment are presented in the May 13, 2005 report cited above.

Figure 2 is a site diagram showing the location of the former building structure on the property, the former USTs and fuel dispensing islands, the locations of the soil sample and groundwater grab sample collection, and the locations of the three monitoring wells that have been installed on the site. The description and results of this activity are presented in the May 30, 2007 report cited above.

2.2 UST Removal

During the week of March 26, 2007 the building structure and fuel dispensing facilities were demolished and removed from the site. On April 3, 2007 the five USTs, the product lines, and dispensers were removed from the site. During the removal activities, 10 soil samples were collected from the native soil beneath the USTs, and five samples were collected from the native soil beneath the product lines. All UST sampling was performed under the oversight of Ms. Danielle Stefani of the Livermore - Pleasanton Fire Department. There were no hydrocarbons detected in any of the 10 soil samples. The description and results of this activity are presented in the May 30, 2007 report cited above.

2.3 Monitoring Well Installations

On May 2, 2007, three monitoring wells MW-1, MW-2, and MW-3 were installed on the site at the locations illustrated on Figure 2. The well installation activity, soil boring logs, and soil analytical results are presented in the May 30, 2007 report cited above. The well construction details are presented herein as Table 1.

2.4 Prior Groundwater Sampling and Results

Groundwater monitoring wells MW-1, MW-2, and MW-3 were initially sampled on May 7, 2007. The wells were subsequently monitored three times during 2007 and 2008. The field measurements, observations and analytical results for all prior monitoring events, are included in Tables 2 through 6 of this groundwater monitoring report.

3.0 GROUNDWATER MONITORING

3.1 Groundwater Elevation Measurements and Sampling

On April 9, 2009 sampling subcontractor GeoRestoration, Inc. collected groundwater samples from the three on-site monitoring wells, MW-1, MW-2, and MW-3. Prior to sampling, the wells were developed by purging at least 3 well volumes from each well using a 12 volt submersible pump. The purge data for the monitoring event is presented in Table 2.

Prior to groundwater sampling, depths to groundwater were measured in each of the three wells. The depth to water measurements and groundwater elevation calculation for each well are presented in Table 3. The groundwater elevation contours, groundwater gradient, and groundwater flow direction are illustrated in Figure 3. The average groundwater elevation has subsided approximately 3.4 feet since the previous (May 2008) monitoring event. The flow direction is presently to the south southwest at a gradient of 0.018 ft./ft.

3.2 Field Measurements and Groundwater Analytical

Field measurements made during purging and sampling are presented in Table 4 and also on the purge and sampling worksheets provided in Appendix B.

Groundwater samples obtained from monitoring wells MW-1 and MW-3 were submitted to Accutest Laboratory, Inc. (Accutest), a California DHS certified, to perform the requisite chemical analyses. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether (MTBE), tert-butanol (TBA), diisopropyl ether (DIPE), ethyl-tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB), all by EPA method 8260B. They were also analyzed for total petroleum hydrocarbons as gasoline (TPHg) by a GC-MS variation of EPA method 8260.

4.0 DISCUSSION OF ANALYTICAL RESULTS

The analytical results for the groundwater samples are presented in Tables 5 and 6. Copies of the signed laboratory analytical reports and chain-of-custody forms are provided in Appendix C.

During this monitoring event, significant concentrations of petroleum hydrocarbon concentrations were again detected only in the groundwater sample from monitoring well MW-1 with TPHg, benzene, and MTBE concentrations remaining steady at 1930 µg/L, 66.5 µg/L, and 85.6 µg/L, respectively. A distribution of groundwater analytical results, showing the results for the last (or only) samples from each sampling point is presented in Figure 4. Based on the same information, iso-concentration contours for the distribution of TPHg, benzene, and MTBE concentrations are presented in Figures 5, 6, and 7, respectively.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATION

The results presented in this groundwater monitoring report and from previous investigations show a relatively small area of hydrocarbon impacted groundwater in an area in the general vicinity of former soil boring W-1 and monitoring well MW-1. The analytical results for the groundwater sampled from monitoring well MW-1, are likely far more representative of the shallow groundwater condition in this area, than are the results for the grab sample collected at the top of the water table from soil boring W1. The results also indicate that no appreciable amount of contaminant migration has occurred.

It is RMA's opinion, after five monitoring events over two years, that the petroleum hydrocarbon condition at this site does not pose any perceivable hazard to either public health or safety or to the underlying groundwater resources.

The former product lines believed to have been associated with a gasoline release were removed several years in the past, prior to the installation of the 1st generation of double-contained product piping.

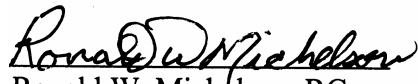
Currently all of the fuel USTs and associated product lines have been removed from the impacted area of the property. Analysis of soil samples collected in conjunction with the removals, from the native soil beneath the USTs and product lines, did not detect the presence of any petroleum hydrocarbons above their respective laboratory detection limits.

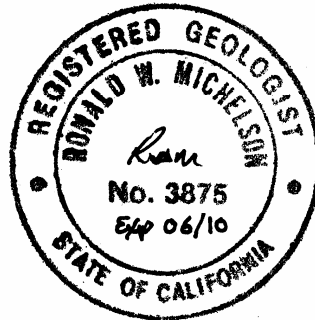
Based on the results of all investigative and monitoring activities that have been conducted to date, it is RMA's opinion that this site meets the criteria for fuel leak case closure as a low risk site. Within the next 30 days a formal recommendation for fuel leak case closure will be prepared and submitted.

6.0 CERTIFICATION

We certify that, to the best of our knowledge, all statements above and data provided herein are true and correct. This report has been reviewed and approved by ROC. A copy of their transmittal letter is presented as Appendix D.

RM Associates


Ronald W. Michelson, RG
Principal Geologist



7.0 DISTRIBUTION

Mr. Tom Robinson
Robinson Oil Corporation
4250 Williams Road
San Jose, CA 95129

Mr. Jerry Wickham
Hazard Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Mr. Wyman Hong
Zone 7 Water District
100 N. Canyon Parkway
Livermore, CA 94551

TABLES

RM Associates**TABLE 1- WELL CONSTRUCTION DETAILS
Rotten Robbie 64, 4186 East Avemie. Livermore, California**

Monitoring Well	Drilling Date	Borehole Diameter (inches)	Depth of Borehole (feet)	Casing Diameter (inches)	Screened Interval (feet)	Filter Pack Interval (feet)	Bentonite Seal Interval (feet)	Cement/Bentonite Seal Interval (feet)
MW-1	05/02/01	8	30	2	15-30	13-30	10-13	0-10
MW-2	05/02/01	8	29	2	14-29	5-22	9-12	0-9
MW-3	05/02/01	8	30	2	15-30	13-15	10-13	0-10

Notes: MW- denotes monitoring well

RM Associates**TABLE 2 - PURGE DATA
Rotten Robbie 64, 4186 East Avenue, Livermore, California**

Well ID	Reporting Period	Method of Purging	Casing-Volumes Purged
MW-1	05/07/07	12 V. PUMP	13
	11/30/07	SS Bailer	4
	02/29/08	12 V. PUMP	4
	05/21/08	12 V. PUMP	3
	04/09/09	12 V. PUMP	3
MW-2	05/07/07	12 V. PUMP	16
	11/30/07	Well Dry	3
	02/29/08	12 V. PUMP	3
	05/21/08	12 V. PUMP	3
	04/09/09	12 V. PUMP	3
MW-3	05/07/07	12 V. PUMP	13
	11/30/07	SS Bailer	3
	02/29/08	12 V. PUMP	3
	05/21/08	12 V. PUMP	3
	04/09/09	12 V. PUMP	3

RM Associates				
TABLE 3 - WATER LEVEL MEASUREMENTS AND ELEVATION				
Rotten Robbie 64, 4186 East Avenue, Livermore, California				
Well Number	Sample Date	Well Head Elevation (feet MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet MSL)
MW-1	05/07/07	NS	21.11	NC
	11/30/07	NS	28.95	NC
	01/15/08	539.50	23.03	516.47
	02/29/08	539.50	18.74	520.76
	05/21/08	539.50	19.12	520.38
	04/09/09	539.50	22.63	516.87
MW-2	05/07/07	NS	22.45	NC
	11/30/07	NS	>29.0	NC
	01/15/08	539.15	23.33	515.82
	02/29/08	539.15	18.86	520.29
	05/21/08	539.15	19.12	520.03
	04/09/09	539.15	22.92	516.23
MW-3	05/07/07	NS	21.00	NC
	11/30/07	NS	27.83	NC
	01/15/08	539.76	22.70	517.06
	02/29/08	539.76	18.67	521.09
	05/21/08	539.76	19.31	520.45
	04/09/09	539.76	22.26	517.50
Notes:	MSL = Mean Sea Level			-3.42
	MW = Monitoring Well			
	NYS = Not Yet Surveyed			
	NC = Not Calculated			
	Bold = Not Previously Reported			
Wellhead survey completed by Licensed Engineering Contractor, Mid Coast Engineers on 11/03/07				

RM Associates

TABLE 4 - FIELD MEASUREMENTS

Rotten Robbie 64, 4186 East Avenue, Livermore, California

Well No.	Sample Date	pH (Units)	Conductivity (umhos/cm)	Temp (C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxygen Reduction Potential (mV)
MW-1	05/07/07	7.7	986	21	NM(Clearing)	0.2	38
	11/30/07	7.5	825	20	NM(Clearing)	3.4	29
	02/29/08	7.5	1173	19.9	Clear	1.2	122
	05/21/08	7.7	803	19.5	Clearing	1.6	65
	04/09/09	7.5	666	18.8	Clearing	2.2	158
MW-2	05/07/07	7.7	979	21	NM(Clearing)	1.3	137
	11/30/07	NS	NS	NS	NS	NS	NS
	02/29/08	7.7	1031	19.9	Clear	0.9	118.0
	05/21/08	7.7	865	20.1	Clearing	2.2	68.0
	04/09/09	7.6	612	19.1	Clearing	1.8	154
MW-3	05/07/07	7.8	938	21	NM(Clearing)	1.60	121
	11/30/07	7.6	810	21	NM(Clearing)	3.50	-20
	02/29/08	7.7	1095	19.7	Clear	5.20	120
	05/21/08	7.9	854	19.1	Clearing	3.70	67
	04/09/09	7.3	530	18.4	Clearing	4.30	161

Notes:

- C = Degrees Centigrade
- mg/L = milligrams per liter
- mV = millivolts
- MW= Monitoring Well
- NM = Not Measured
- NTU = Nephelometric Turbidity Units
- umhos/cm Micromhos per centimeter
- NS = Not Sampled (Dry)
- Bold = Not Previously Reported**

RM Associates

TABLE 5 - GROUNDWATER ANALYTICAL RESULTS
Rotten Robbie 64, 4186 East Avenue, Livermore, California

Well No.	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	Total Xylenes (ug/L)	TPH as Gasoline (ug/L)	TPH as Diesel (ug/L)
Analytical Method		8260B	8260B	8260B	8260B	GC-MS	8015B M
MW-1	05/07/07	150	7.0	620	160	4,800	<50
	11/30/07	30	1.2	130	1.9	600	110
	02/29/08	190	<10	1,100	130	4,800	850
	05/21/08	55	<2.5	460	21	2,500	520
	04/09/09	66.5	<3.3	373	21.6	1,930	431
MW-2	05/07/07	<0.5	<0.5	<0.5	<0.5	<50	<52
	11/30/07	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)
	02/29/08	<0.5	<0.5	<0.5	<0.5	31	<48
	05/21/08	<0.5	<0.5	<0.5	<0.5	<25	<50
	04/09/09	0.39	<0.5	0.56	0.99	150	<47
MW-3	05/07/07	<0.5	<0.5	<0.5	<0.5	<50	<52
	11/30/07	<0.5	<0.5	<0.5	<0.5	<25	<52
	02/29/08	<0.5	<0.5	<0.5	<0.5	<25	<48
	05/21/08	<0.5	<0.5	<0.5	<0.5	<25	<50
	04/09/09	<0.30	<0.5	<0.30	<0.7	<25	<47

Notes:

MW = Monitoring Well
 TPH = Total Petroleum Hydrocarbons
 ug/L = Micrograms per liter (ppb)
 NS = Not Sampled or Analyzed
Bold = Not Previously Reported

RM Associates

**TABLE 6- GROUNDWATER ANALYTICAL RESULTS
Oxygenates and Chlorinated Hydrocarbons
Rotten Robbie 64, 4186 East Avenue, Livermore, California**

Well No.	Sample Date	TBA (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2 DCA (ug/L)	EDB (ug/L)
Analytical Method		8260B	8260B	8260B	8260B	8260B	8260B	8260B
MW-1	05/07/07	<100	310	<50	<50	<50	<5	<5
	11/30/07	<20	180	<10	<10	<10	<1	<1
	02/29/08	<200	330	<100	<100	<100	<10	<10
	05/21/08	<50	150	<25	<25	<25	<25	<25
	04/09/09	<33	85.6	<3.3	<3.3	<3.3	<2	<1.3
MW-2	05/07/07	<10	<1	<5	<5	<5	<0.5	<0.5
	11/30/07	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)	NS(DRY)
	02/29/08	<10	<1	<5	<5	<5	<0.5	<0.5
	05/21/08	<10	<1	<5	<5	<5	<0.5	<0.5
	04/09/09	<5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.2
MW-3	05/07/07	<10	<1	<5	<5	<5	<0.5	<0.5
	11/30/07	<10	<1	<5	<5	<5	<0.5	<0.5
	02/29/08	<10	<1	<5	<5	<5	<0.5	<0.5
	05/21/08	<10	<1	<5	<5	<5	<0.5	<0.5
	04/09/09	<5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.2

Notes:

- 1,2 DCA = 1, 2 Dichloroethane
- DIPE = Di-Isopropyl Ether
- EDB = Ethylene Dibromide
- ETBE = Ethyl tert-Butyl Ether
- MTBE = Methyl tert-Butyl Ether
- MW = Monitoring Well
- TAME = tert-Amyl Methyl Ether
- TBA = tert-Butyl Alcohol (tert-Butanol)
- ug/L = Micrograms per liter (ppb)
- NS= Not Sampled or Analyzed
- Bold = Not Previously Reported**

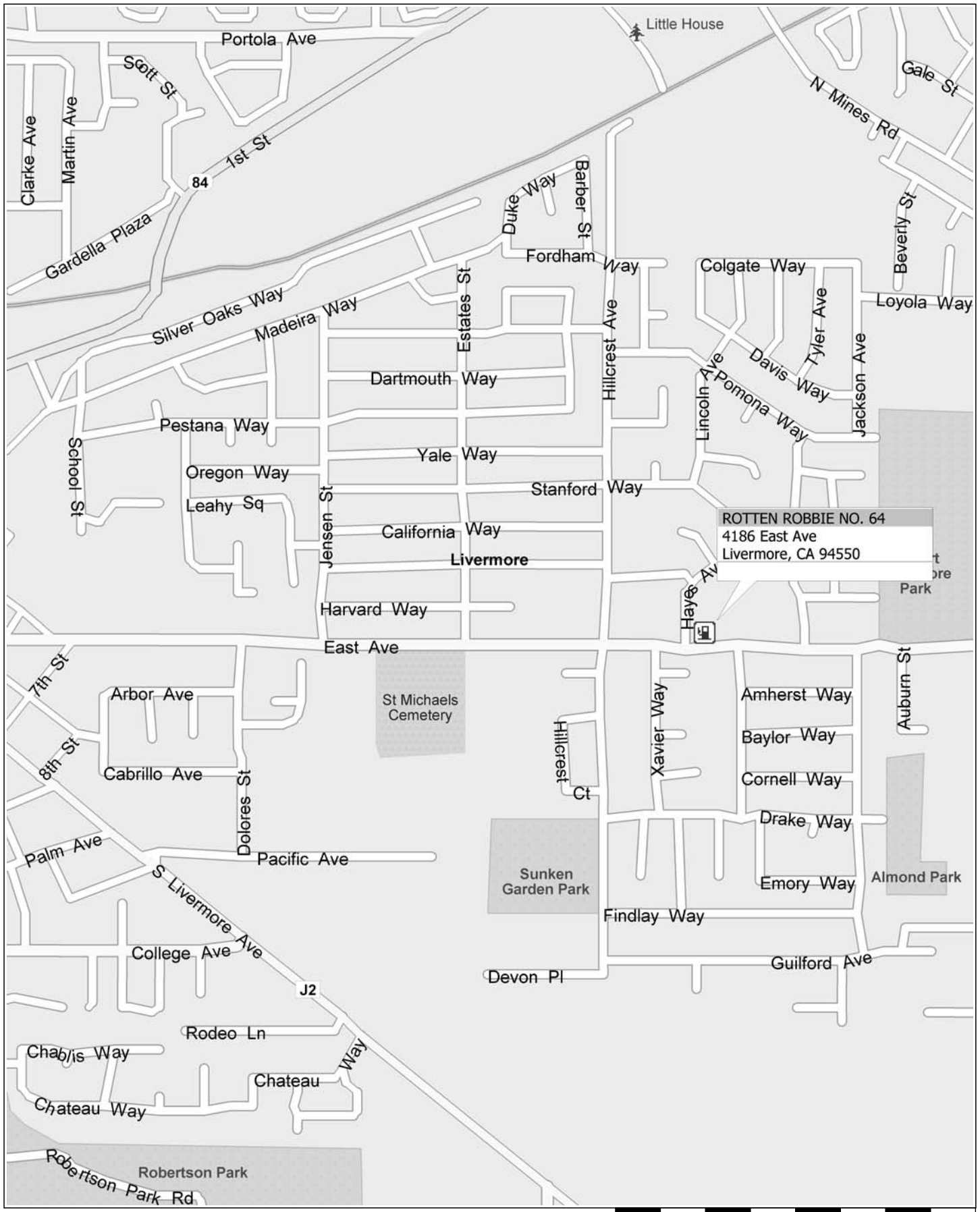
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TABLE 7 - GROUNDWATER MONITORING SCHEDULE
Rotten Robbie 64, 4186 East Avenue, Livermore, California

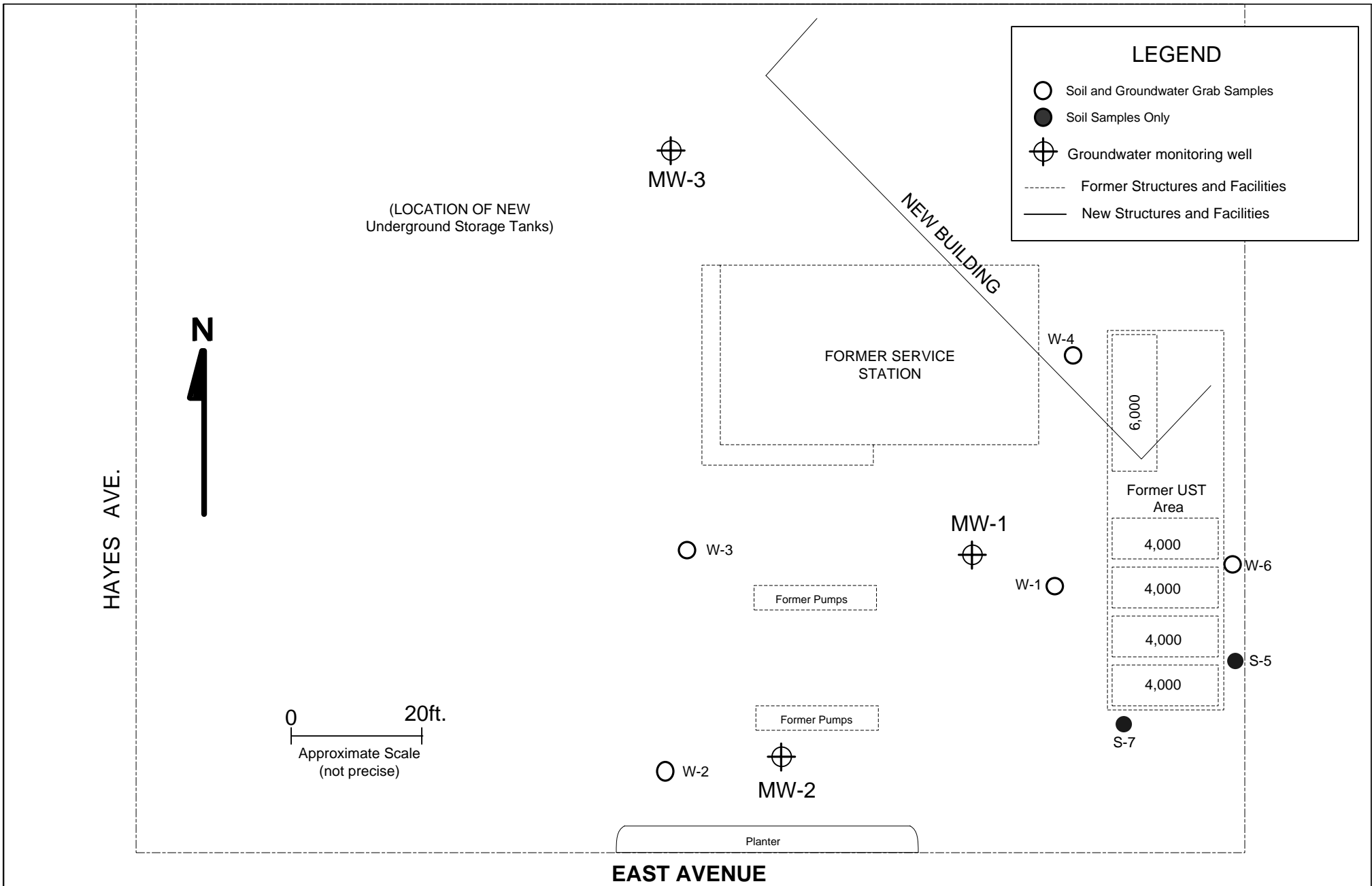
Activity	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Water Level Measurement	NO FURTHER MONITORING PROPOSED											
Water Sampling & Analysis												
Self-Monitoring Report												

FIGURES

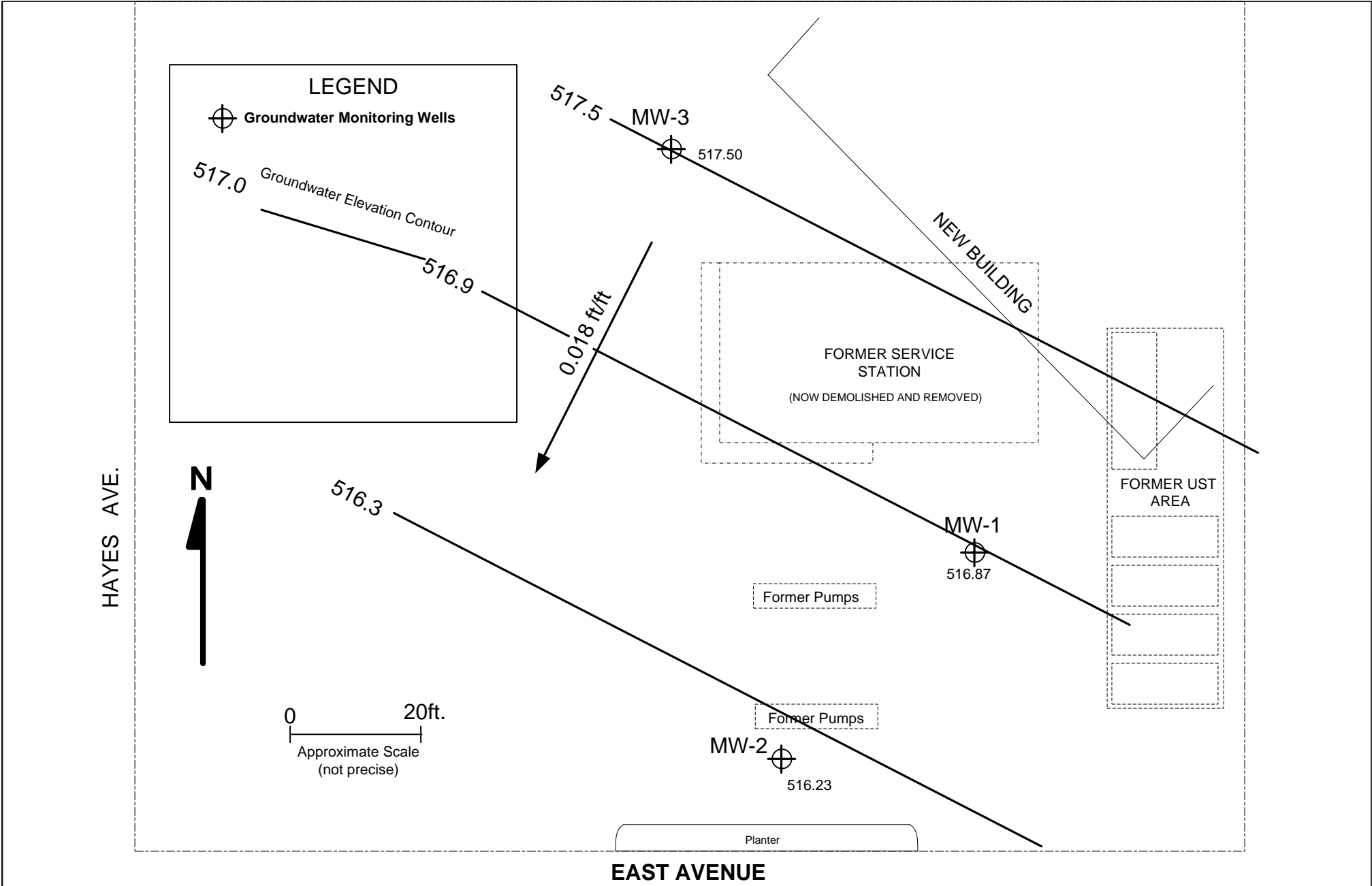
FIGURE 1 - VICINITY MAP



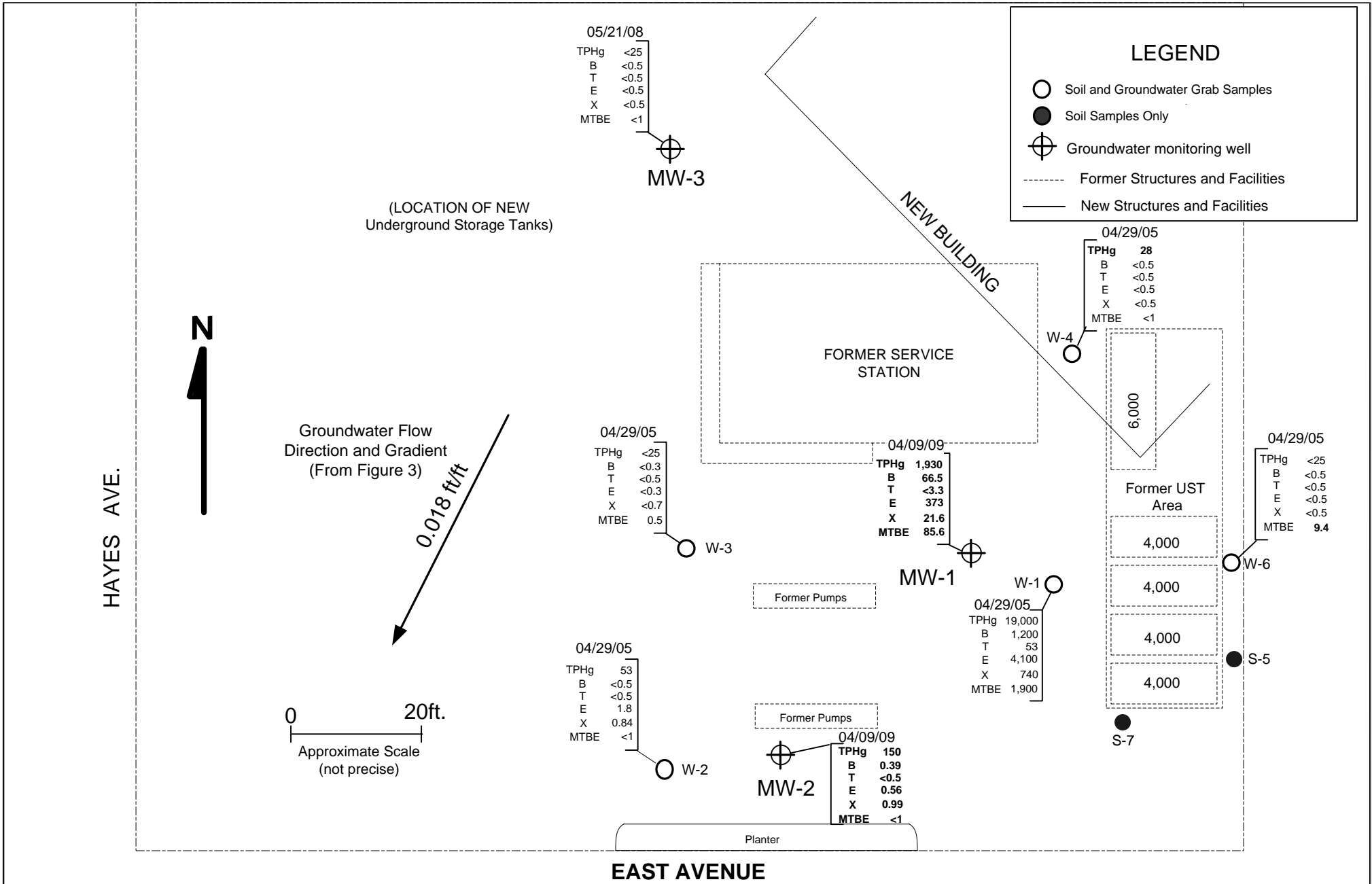
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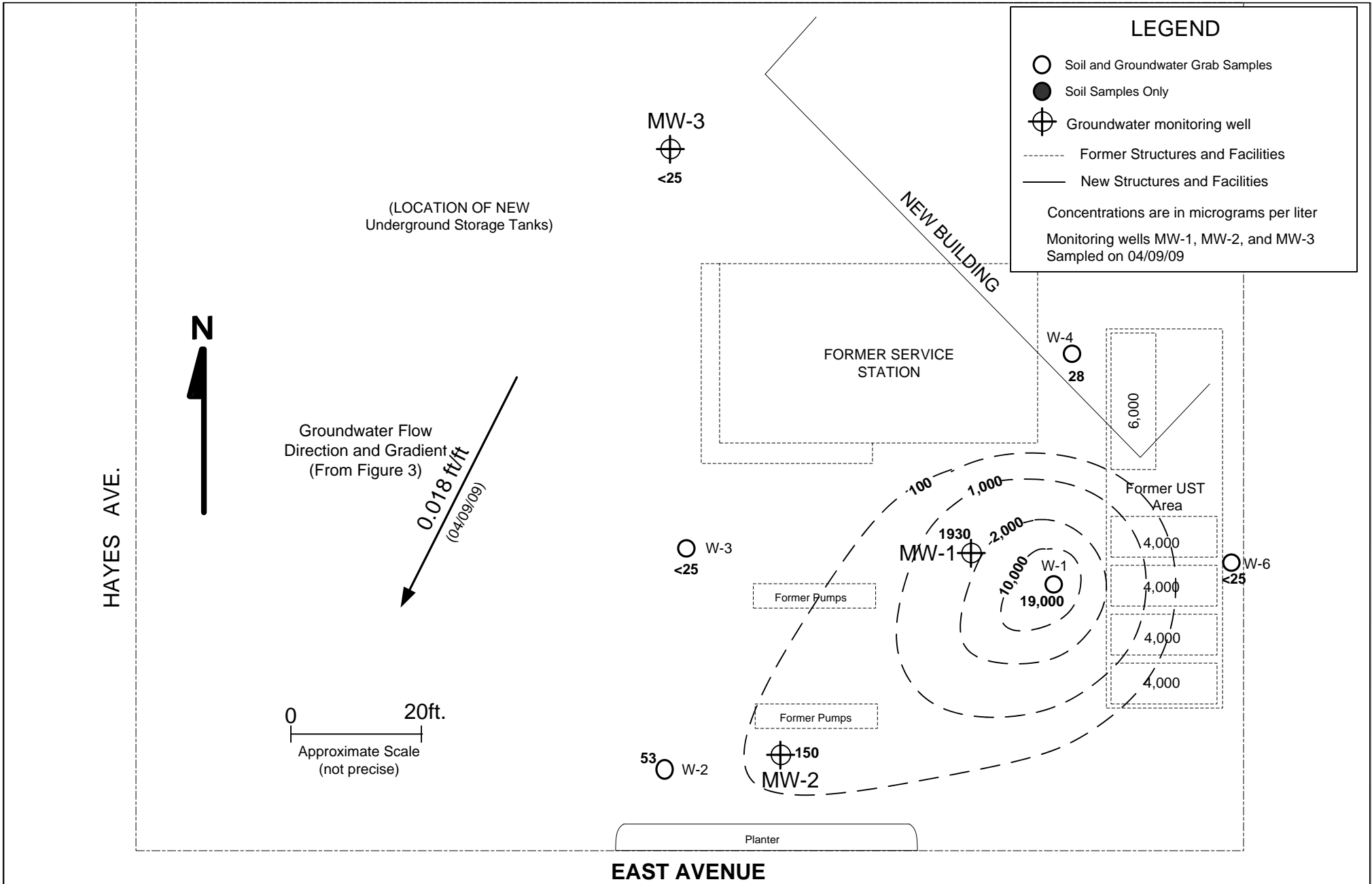


RM ASSOCIATES Environmental Consultants	REVISED	REVIEWED BY	SITE MAP (showing approximate locations of former and existing structures and former and existing sampling locations) 4186 EAST AVENUE, LIVERMORE, CALIFORNIA	FIGURE
	RM	05/18/07		2
	8.5 x 11	REVIEW DATE	PROJECT	101-6404

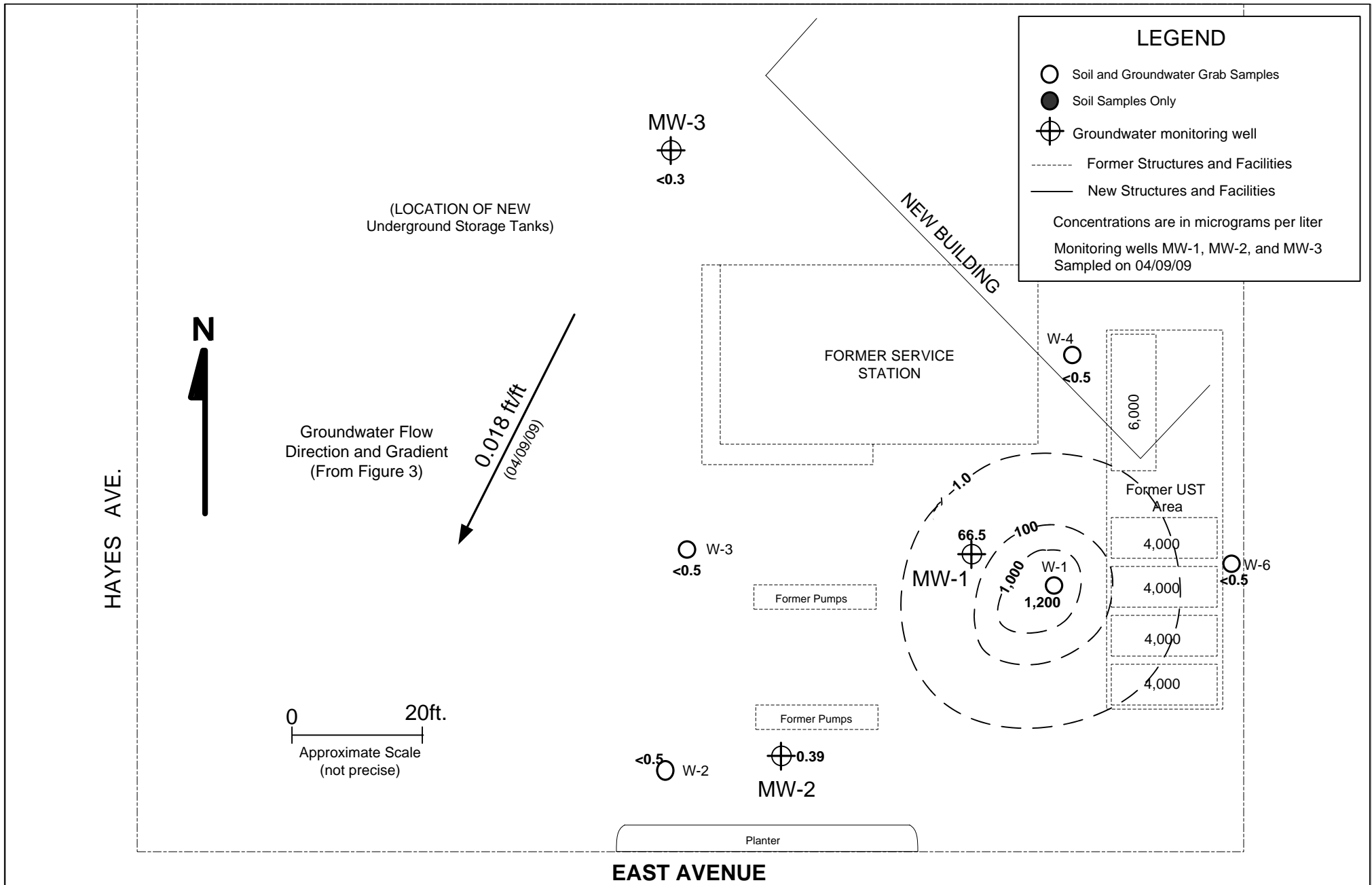


RM ASSOCIATES Environmental Consultants	REVISED RM 05/18/07	REVIEWED BY	GROUNDWATER ELEVATION CONTOURS (04/09/09) 4186 EAST AVENUE, LIVERMORE, CALIFORNIA	FIGURE 3
	8.5 x 11	REVIEW DATE		PROJECT 101-6404

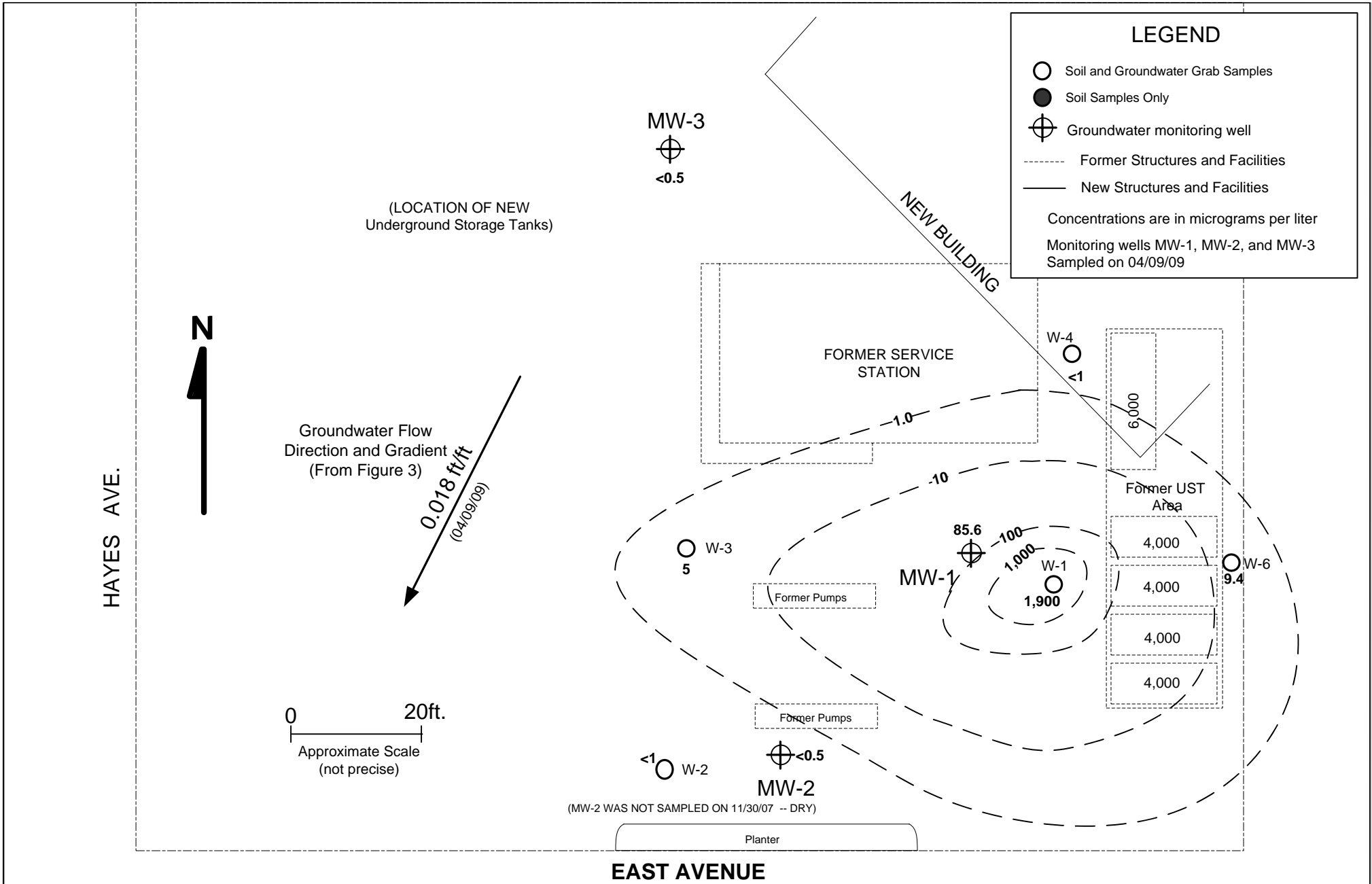




RM ASSOCIATES Environmental Consultants	REVISED	REVIEWED BY	ISO-CONCENTRATION CONTOURS FOR TPHg (Contours Based on Last Sampling Event at Each Sampling Location) 4186 EAST AVENUE, LIVERMORE, CALIFORNIA	FIGURE
	RM	05/18/07		5
	8.5 x 11	REVIEW DATE	PROJECT	101-6404



RM ASSOCIATES Environmental Consultants	REVISED	REVIEWED BY	ISO-CONCENTRATION CONTOURS FOR BENZENE (Contours Based on Last Sampling Event at Each Sampling Location) 4186 EAST AVENUE, LIVERMORE, CALIFORNIA	FIGURE
	RM	05/18/07		6
	8.5 x 11	REVIEW DATE		PROJECT
				101-6404



RM ASSOCIATES Environmental Consultants	REVISED	REVIEWED BY	ISO-CONCENTRATION CONTOURS FOR MTBE (Contours Based on Last Sampling Event at Each Sampling Location) 4186 EAST AVENUE, LIVERMORE, CALIFORNIA	FIGURE
	RM	05/18/07		7
	8.5 x 11	REVIEW DATE		PROJECT
				101-6404

APPENDICES

APPENDIX A
GROUNDWATER SAMPLING PROCEDURES

APPENDIX A

GROUNDWATER SAMPLING PROCEDURES

Field sampling procedures include a daily log of project activities, sample collection logs, and proper chain-of-custody records. Procedures for sample collection are described in the following sections.

The static water level in each well and the depth to the bottom of each well will be measured and a water sample collected. The water level will be measured using an electronic water level indicator. Prior to collection of the water sample, each well will be purged utilizing Teflon, disposable, or stainless steel bailer or an air diaphragm pump. If possible, three to four well volumes of standing water will be removed to draw a representative groundwater sample into the well from the surrounding soil. Temperature, pH, and specific conductance measurements will be obtained from each well after the removal of each well volume. When evacuation is completed, water samples will be collected.

If the recharge rate in the well is slower than the purging rate, the well will be purged dry. The well will be allowed to recharge and groundwater samples will be collected when the water has recharged to approximately 80 percent of its original level prior to purging. If the well is slow to recover, a water sample will be collected when enough water has collected to allow for sampling.

A disposable or clean Teflon bailer will be used to collect the water sample. Water samples will be placed in appropriate containers with appropriate preservative. Sample containers will be filled to the top, capped, and sealed.

The purged groundwater will be placed in sealed and labeled 55-gallon steel drums and stored on-site.

Equipment Decontamination Procedures

Rigorous cleaning procedures will be followed during sample collection to prevent cross-contamination. Sampling devices will be washed with a non-phosphate detergent, rinsed with distilled water, and rinsed again with distilled water before use and between sample collection points. Otherwise, disposable sampling bailers will be used. The sampling devices to be cleaned in this manner will include pumps and the bailers. Proper protective gloves will be worn while collecting samples.

Field Quality Control Samples

Quality control samples will be used to determine the integrity of the sampling activities, the impact of sample matrices and ambient field conditions, and to demonstrate that laboratories are operating within the prescribed requirements for precision and accuracy. The frequency and procedures for field-generated quality control samples to be utilized in this project are as follows:

Trip Blank - A trip blank, prepared by the laboratory, will be carried into the field and transported along with field samples. Quality control sampling will be documented in field log sheets by the sampler.

Sample Preservation, Identification, and Custody Control

Sample Preservation - All samples will be sealed in airtight plastic bags and placed in a refrigerated chest for preservation immediately after collection.

Sample Identification - The field geologist or sampling technician will identify all samples taken in the field by using a pre-printed sample label attached to the sample container. The sample label will include the following information:

- Project name and number;
- A unique sample identification number;
- The date, time, and location of sample collection;
- The initials of the sampler.

Chain-of-Custody Record and Shipment of Samples to the Laboratory

All samples will be documented using standard chain-of-custody procedure, packed in a refrigerated chest, and delivered to a state-certified laboratory for testing.

APPENDIX B

PURGE/SAMPLING WORKSHEETS

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

Project Name: Rotten Robbie 64
 Address: 4186 East Avenue
Livermore, CA
 Well Number: MW-1 Date: 4/9/09
 Sampler(s): Jim Pavick

Project Number: 101-6404
 Reg. Agency: _____
 Other Reg's: _____
 Well Lock Number: 2147

Stagnant Volume Calculation	Well Casing Diameter (inches) <u>2</u>	Total Well Depth (ft.) <u>30</u>	Initial Depth to Groundwater (ft.) <u>22.63</u>	Stagnant Volume (gal.) <u>1.25</u>
-----------------------------	---	-------------------------------------	--	---------------------------------------

Stagnant Volume Calculation

Well Casing Diameter (inches)	Linear Feet. of Groundwater	Gallons per Linear Foot of Ground-Water =	Stagnant Volume (gal.)
2	Total Well	*0.17 =	"
3	Depth (ft.)	*0.37 =	"
4	"	*0.66 =	"
6	"	*1.5 =	"

Groundwater Surface Inspection (bailer Check

0 Floating Product (ft.) (in.)
NO Sheen/Iridescence
NO Odor
 Remarks: _____
 DO:(mg/l) 2.2 ORP:(mV) 158 TDS:(PPM) 568
 Sample Date: 4/9/09 Time: 1315
 Turbidity: FTU 284

Groundwater Purging
 Purge Method Used
 Depth of Intake from TOC: 29.00
 Stainless Steel Bailer: Submersible Pump
 Other: _____

Purged Water Containment
5 gals stored in _____ 55 gal drum(s)
 Processed through GAC system
 Any previous drums? _____ Capacity _____

Stagnant Volumes Purged	Volume Purged (gal)	Time	Temp (°C)	pH	Conductivity umhos us	Color/Turbidity (other)
0	<u>-0-</u>	<u>1210</u>	<u>18.1</u>	<u>7.7</u>	<u>671</u>	<u>Brownish</u>
1	<u>1.25</u>	<u>1211</u>	<u>18.5</u>	<u>7.6</u>	<u>669</u>	<u>"</u>
2	<u>2.50</u>	<u>1212</u>	<u>18.7</u>	<u>7.5</u>	<u>667</u>	<u>"</u>
3	<u>3.75</u>	<u>1212</u>	<u>18.7</u>	<u>7.5</u>	<u>667</u>	<u>clearing</u>
4	<u>5.0</u>	<u>1213</u>	<u>18.8</u>	<u>7.5</u>	<u>666</u>	<u>"</u>
5	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____

Groundwater Sampling
 Water Level Recovery
 Depth to GW (ft.)
 (P) After purging 28.40
 (I) Initially 22.63
 (S) Before sampling 22.70
 (P-S) / (P-I) X 100 = 99 % Total Recovery

Sample Containers
 How Many
 Preservatives
 1 Liter, amber glass 1 NONE
 40 ml, VOA 4 HCL pH2
 500 ml, Poly _____ _____

80% Recovery: S = P - 0.8 X (P-I)

Other: _____
 Sample Device: Bailer X Submersible Pump _____

Field Measurement Devices:
 Temperature, Conductivity, pH, ORP: Hanna Water Test
 Turbidity: Hanna HI 731313 TDS: HM Digital DO: SM 600

Notes: _____

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

Project Name: Rotten Robbie 64
 Address: 4186 East Avenue
Livermore, CA
 Well Number: MW- 2 Date: 4/9/09
 Sampler(s): Jim Pavick

Project Number: 101-6404
 Reg. Agency: _____
 Other Reg's: _____
 Well Lock Number: 2147

Stagnant Volume Calculation	Well Casing Diameter (inches)	Total Well Depth (ft.)	Initial Depth to Groundwater (ft.)	Stagnant Volume (gal.)
	<u>2</u>	<u>29</u>	<u>22.92</u>	<u>1.03</u>

Stagnant Volume Calculation

Well Casing Diameter (inches)	Linear Feet. of Groundwater	Gallons per Linear Foot of Ground-Water =	Stagnant Volume (gal.)
<u>2</u>	<u>Total Well</u>	<u>*0.17 =</u>	<u>"</u>
<u>3</u>	<u>Depth (ft.)</u>	<u>*0.37 =</u>	<u>"</u>
<u>4</u>	<u>"</u>	<u>*0.66 =</u>	<u>"</u>
<u>6</u>	<u>"</u>	<u>*1.5 =</u>	<u>"</u>

Groundwater Surface Inspection (bailer Check)

0 Floating Product (ft.) (in.)
NO Sheen/Iridescence
NO Odor
 Remarks: _____
 DO:(mg/l) 1.8 ORP:(mV) 154 TDS:(PPM) 539
 Sample Date: 4/9/09 Time: 1300
 Turbidity: FTU 74

Groundwater Purging: Depth of Intake from TOC: 26.00
 Purge Method Used: Stainless Steel Bailer: Submersible Pump
 Other: _____

Purged Water Containment: 5 gals stored in _____ 55 gal drum(s)
 Processed through GAC system
 Any previous drums? _____ Capacity _____

Stagnant Volumes Purged	Volume Purged (gal)	Time	Temp (°C)	pH	Conductivity umhos us	Color/Turbidity (other)
<u>0</u>	<u>-0-</u>	<u>11:57</u>	<u>17.8</u>	<u>7.8</u>	<u>625</u>	<u>Brownish</u>
<u>1</u>	<u>1</u>	<u>11:58</u>	<u>18.9</u>	<u>7.7</u>	<u>615</u>	<u>"</u>
<u>2</u>	<u>2</u>	<u>11:59</u>	<u>19.0</u>	<u>7.6</u>	<u>613</u>	<u>"</u>
<u>3</u>	<u>3.5</u>	<u>12:00</u>	<u>19.1</u>	<u>7.6</u>	<u>612</u>	<u>Clearing</u>
<u>4</u>	_____	_____	_____	_____	_____	_____
<u>5</u>	_____	_____	_____	_____	_____	_____
<u>6</u>	_____	_____	_____	_____	_____	_____
<u>7</u>	_____	_____	_____	_____	_____	_____
<u>8</u>	_____	_____	_____	_____	_____	_____
<u>9</u>	_____	_____	_____	_____	_____	_____
<u>10</u>	_____	_____	_____	_____	_____	_____

Groundwater Sampling: Water Level Recovery
 Depth to GW (ft.)
 (P) After purging: 25.80
 (I) Initially: 22.92
 (S) Before sampling: 22.92
 (P-S) / (P-I) X 100 = 100 % Total Recovery

Sample Containers
 How Many: _____ Preservatives: _____
 1 Liter, amber glass: 1 None
 40 ml, VOA: 4 HCL pH2
 500 ml, Poly: _____ _____

80% Recovery: S = P - 0.8 X (P-I)

Other: _____
 Sample Device: Bailer X Submersible Pump _____

Field Measurement Devices:
 Temperature, Conductivity, pH, ORP: Hanna Water Test
 Turbidity: Hanna HI 731313 TDS: HM Digital DO: SM 600

Notes: _____

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

Project Name: Rotten Robbie 64
 Address: 4186 East Avenue
Livermore, CA
 Well Number: MW-3 Date: 4/9/09
 Sampler(s): Jim Pavick

Project Number: 101-6404
 Reg. Agency: _____
 Other Reg's: _____
 Well Lock Number: 2147

Stagnant Volume Calculation	Well Casing Diameter (inches) <u>2</u>	Total Well Depth (ft.) <u>30.00</u>	Initial Depth to Groundwater (ft.) <u>22.26</u>	Stagnant Volume (gal.) <u>1.31</u>
-----------------------------	---	--	--	---------------------------------------

Stagnant Volume Calculation

Well Casing Diameter (inches)	Linear Feet. of Groundwater	Gallons per Linear Foot of Ground-Water =	Stagnant Volume (gal.)
2	Total Well Depth (ft.)	*0.17 =	"
3	"	*0.37 =	"
4	"	*0.66 =	"
6	"	*1.5 =	"

Groundwater Surface Inspection (bailer Check)

0 Floating Product (ft.) (in.)
NO Sheen/Iridescence
NO Odor
 Remarks: _____
 DO:(mg/l) 4.3 ORP:(mV) 161 TDS:(PPM) 606
 Sample Date: 4/9/09 Time: 1330
 Turbidity: FTU 79

Groundwater Purging
 Purge Method Used
 Depth of Intake from TOC: 26.00
 Stainless Steel Bailer: Submersible Pump
 Other: _____

Purged Water Containment
5 gals stored in _____ 55 gal drum(s)
 Processed through GAC system
 Any previous drums? _____ Capacity _____

Stagnant Volumes Purged	Volume Purged (gal)	Time	Temp (°C)	pH	Conductivity umhos us	Color/Turbidity (other)
0	<u>0</u>	<u>1226</u>	<u>17.8</u>	<u>7.2</u>	<u>527</u>	FE <u>clear</u>
1	<u>1.5</u>	<u>1227</u>	<u>18.3</u>	<u>7.3</u>	<u>519</u>	<u>"</u>
2	<u>3.0</u>	<u>1228</u>	<u>18.4</u>	<u>7.3</u>	<u>532</u>	<u>"</u>
3	<u>4.5</u>	<u>1229</u>	<u>18.4</u>	<u>7.3</u>	<u>530</u>	<u>"</u>
4	_____	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____

Groundwater Sampling
 Water Level Recovery
 Depth to GW (ft.)
 (P) After purging 25.06
 (I) Initially 22.26
 (S) Before sampling 22.26

Sample Containers
 How Many
 Preservatives
 1 Liter, amber glass 1 NOTE
 40 ml, VOA 4 HCL pH2
 500 ml, Poly _____

(P-S) / (P-I) X 100 = 100 % Total Recovery
 80% Recovery: $S = P - 0.8 X (P-I)$

Other: _____
 Sample Device: Bailer X Submersible Pump _____

Field Measurement Devices:
 Temperature, Conductivity, pH, ORP: Hanna Water Test
 Turbidity: Hanna HI 731313 TDS: HM Digital DO: SM 600

Notes: _____

Rotten Robbie # 64 Water Levels 4/09/09

MW-1	22.63
MW-2	22.92
MW-3	22.26

APPENDIX C
CERTIFIED ANALYTICAL RESULTS



Technical Report for

RM Associates

T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

101-6404

Accutest Job Number: C5213

Sampling Date: 04/09/09

Report to:

RM Associates
16401 Meadow Vista Drive Suite 102
Pioneer, CA 95666
Rmichelson@volcano.net

ATTN: Ron Michelson

Total number of pages in report: **22**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.



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1

2

3

4

5



Sample Summary

RM Associates

Job No: C5213

T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA
 Project No: 101-6404

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C5213-1	04/09/09	13:15 JP	04/09/09	AQ	Water	MW-1
C5213-2	04/09/09	13:00 JP	04/09/09	AQ	Water	MW-2
C5213-3	04/09/09	13:30 JP	04/09/09	AQ	Water	MW-3



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: C5213-1		Date Sampled: 04/09/09
Matrix: AQ - Water		Date Received: 04/09/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M5752.D	6.67	04/16/09	XB	n/a	n/a	VM187
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

BTEX, Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	66.5	6.7	2.0	ug/l	
108-88-3	Toluene	ND	6.7	3.3	ug/l	
100-41-4	Ethylbenzene	373	6.7	2.0	ug/l	
1330-20-7	Xylene (total)	21.6	13	4.7	ug/l	
106-93-4	1,2-Dibromoethane	ND	6.7	1.3	ug/l	
107-06-2	1,2-Dichloroethane	ND	6.7	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	33	3.3	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	33	3.3	ug/l	
1634-04-4	Methyl Tert Butyl Ether	85.6	6.7	3.3	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	33	3.3	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	67	33	ug/l	
	TPH-GRO (C6-C10)	1930	330	170	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		60-130%
2037-26-5	Toluene-D8	94%		60-130%
460-00-4	4-Bromofluorobenzene	103%		60-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: C5213-1		Date Sampled: 04/09/09
Matrix: AQ - Water		Date Received: 04/09/09
Method: SW846 8015B M SW846 3510C		Percent Solids: n/a
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4896.D	1	04/14/09	JH	04/13/09	OP862	GGG186
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28) ^a	0.431	0.094	0.047	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	89%		45-140%

(a) Not a typical Diesel pattern. Higher boiling gasoline compounds in Diesel range (C10-C16).

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2		Date Sampled: 04/09/09
Lab Sample ID: C5213-2		Date Received: 04/09/09
Matrix: AQ - Water		Percent Solids: n/a
Method: SW846 8260B		
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M5742.D	1	04/16/09	XB	n/a	n/a	VM187
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

BTEX, Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.39	1.0	0.30	ug/l	J
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.56	1.0	0.30	ug/l	J
1330-20-7	Xylene (total)	0.99	2.0	0.70	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	5.0	ug/l	
	TPH-GRO (C6-C10)	150	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		60-130%
2037-26-5	Toluene-D8	96%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2		
Lab Sample ID: C5213-2		Date Sampled: 04/09/09
Matrix: AQ - Water		Date Received: 04/09/09
Method: SW846 8015B M SW846 3510C		Percent Solids: n/a
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4897.D	1	04/14/09	JH	04/13/09	OP862	GGG186
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	101%		45-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3		
Lab Sample ID: C5213-3		Date Sampled: 04/09/09
Matrix: AQ - Water		Date Received: 04/09/09
Method: SW846 8260B		Percent Solids: n/a
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M5744.D	1	04/16/09	XB	n/a	n/a	VM187
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

BTEX, Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	5.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		60-130%
2037-26-5	Toluene-D8	96%		60-130%
460-00-4	4-Bromofluorobenzene	102%		60-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3		
Lab Sample ID: C5213-3		Date Sampled: 04/09/09
Matrix: AQ - Water		Date Received: 04/09/09
Method: SW846 8015B M SW846 3510C		Percent Solids: n/a
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG4898.D	1	04/14/09	JH	04/13/09	OP862	GGG186
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	104%		45-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Northern California
STANDARD OPERATING PROCEDURE

Sample Receiving Checklist

Job # C5213
Sample Control Initial JM

Review Chain of Custody The Chain of Custody is to be completely and legibly filled out by Client.

- Are these regulatory (NPDES) samples? Yes No circle one
- Is pH requested? Yes No circle one Was Client informed that hold time is 15 min? Yes / No circle one
- If yes, did Client consent to continue? _____
- Are sample within hold time? Yes / No circle one Are sample in danger of exceeding its hold-time within 6-48 hours?
- Report to info is complete and legible, including;
 - Type of deliverable needed Name Address phone e-mail
- Bill to info is complete and legible, including; PO# Credit card Contact address phone e-mail
- Contact and/or Project Manager identified, including; phone e-mail
- Project name / number Special requirements? Yes / No circle one
- Sample IDs / date & time of collection provided? Yes / No circle one
- Is Matrix listed and correct? Yes / No circle one
- Analyses listed are those we do or client has authorized a subcontract? Yes / No circle one
- Chain is signed and dated by both client and sample custodian? Yes / No circle one
- TAT requested available? Approved by N/A

Review Coolers:

- Were Coolers temperatures measured at $\leq 6^{\circ}\text{C}$? Cooler # _____ Temp 15.1 $^{\circ}\text{C}$
 - If cooler is outside the $\leq 6^{\circ}\text{C}$; note down below the affected bottles in that cooler
 - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- Shipment Method WALK IN
- Custody Seals: Present : Yes / No circle one Unbroken: Yes / No circle one

Review of Sample Bottles: If you answer no, explain below

- Sample ID / bottle number / Date / Time of bottle labels match the COC? Yes / No circle one
- Sample bottle intact? Yes / No circle one
- Is there enough samples for requested analyses? If so, were samples placed in proper containers? Yes / No circle one
- Proper Preservatives? Check pH on preserved samples except 1664, 625, 8270 and VOAs and list below
- Are VOAs received without headspace? Size of bubble (not greater than 6mm in diameter) Yes / No circle one
List sample ID and affected container N/A

Lab #	Client Sample ID	pH Check	Other Comments/Issues

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Anc-srv-file1\Entech-Data\Laboratory\Sample_Control\Form_Sample Receipt Checklist_Rev0.doc



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C5213**Account:** RMACAP RM Associates**Project:** T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM187-MB	M5739.D	1	04/16/09	XB	n/a	n/a	VM187

The QC reported here applies to the following samples:**Method:** SW846 8260B

C5213-1, C5213-2, C5213-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	0.50	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	5.0	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 60-130%
2037-26-5	Toluene-D8	94% 60-130%
460-00-4	4-Bromofluorobenzene	102% 60-130%

Blank Spike Summary

Job Number: C5213

Account: RMACAP RM Associates

Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM187-BS	M5735.D	1	04/16/09	XB	n/a	n/a	VM187

The QC reported here applies to the following samples:

Method: SW846 8260B

C5213-1, C5213-2, C5213-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.3	97	60-130
106-93-4	1,2-Dibromoethane	20	19.3	97	60-130
107-06-2	1,2-Dichloroethane	20	23.6	118	60-130
108-20-3	Di-Isopropyl ether	20	22.0	110	60-130
100-41-4	Ethylbenzene	20	17.4	87	60-130
637-92-3	Ethyl Tert Butyl Ether	20	22.2	111	60-130
1634-04-4	Methyl Tert Butyl Ether	20	23.2	116	60-130
994-05-8	Tert-Amyl Methyl Ether	20	23.5	118	60-130
75-65-0	Tert-Butyl Alcohol	100	134	134* a	60-130
108-88-3	Toluene	20	15.9	80	60-130
1330-20-7	Xylene (total)	60	52.2	87	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	60-130%
2037-26-5	Toluene-D8	89%	60-130%
460-00-4	4-Bromofluorobenzene	101%	60-130%

(a) Outside control limits. Not detected in associated samples.

4.2
4

Blank Spike Summary

Job Number: C5213

Account: RMACAP RM Associates

Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM187-BS	M5738.D	1	04/16/09	XB	n/a	n/a	VM187

The QC reported here applies to the following samples:

Method: SW846 8260B

C5213-1, C5213-2, C5213-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	118	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	60-130%
2037-26-5	Toluene-D8	94%	60-130%
460-00-4	4-Bromofluorobenzene	103%	60-130%

4.2
4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C5213

Account: RMACAP RM Associates

Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C5213-3MS	M5755.D	1	04/16/09	XB	n/a	n/a	VM187
C5213-3MSD	M5756.D	1	04/16/09	XB	n/a	n/a	VM187
C5213-3	M5744.D	1	04/16/09	XB	n/a	n/a	VM187

The QC reported here applies to the following samples:

Method: SW846 8260B

C5213-1, C5213-2, C5213-3

CAS No.	Compound	C5213-3 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	19.8	99	18.9	95	5	60-130/25
106-93-4	1,2-Dibromoethane	ND	20	15.4	77	15.9	80	3	60-130/25
107-06-2	1,2-Dichloroethane	ND	20	20.5	103	20.4	102	0	60-130/25
108-20-3	Di-Isopropyl ether	ND	20	21.3	107	21.0	105	1	60-130/25
100-41-4	Ethylbenzene	ND	20	17.9	90	16.0	80	11	60-130/25
637-92-3	Ethyl Tert Butyl Ether	ND	20	20.9	105	20.4	102	2	60-130/25
1634-04-4	Methyl Tert Butyl Ether	ND	20	19.2	96	19.5	98	2	60-130/25
994-05-8	Tert-Amyl Methyl Ether	ND	20	20.7	104	20.2	101	2	60-130/25
75-65-0	Tert-Butyl Alcohol	ND	100	83.7	84	84.6	85	1	60-130/25
108-88-3	Toluene	ND	20	16.3	82	15.7	79	4	60-130/25
1330-20-7	Xylene (total)	ND	60	52.7	88	46.3	77	13	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C5213-3	Limits
1868-53-7	Dibromofluoromethane	106%	105%	104%	60-130%
2037-26-5	Toluene-D8	94%	94%	96%	60-130%
460-00-4	4-Bromofluorobenzene	99%	99%	102%	60-130%



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C5213

Account: RMACAP RM Associates

Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP862-MB	GG4872.D	1	04/13/09	JH	04/13/09	OP862	GGG186

The QC reported here applies to the following samples:

Method: SW846 8015B M

C5213-1, C5213-2, C5213-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	104% 45-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C5213

Account: RMACAP RM Associates

Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP862-BS	GG4873.D	1	04/13/09	JH	04/13/09	OP862	GGG186
OP862-BSD	GG4874.D	1	04/13/09	JH	04/13/09	OP862	GGG186

The QC reported here applies to the following samples:

Method: SW846 8015B M

C5213-1, C5213-2, C5213-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.916	92	0.893	89	3	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	100%	100%	45-140%

5.2
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C5213
Account: RMACAP RM Associates
Project: T0600152516-Rotten Robbie No.64,4186 East Avenue,Livermore,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP862-MS	GG4905.D	1	04/14/09	JH	04/13/09	OP862	GGG186
OP862-MSD	GG4906.D	1	04/14/09	JH	04/13/09	OP862	GGG186
C5210-3	GG4904.D	1	04/14/09	JH	04/13/09	OP862	GGG186

The QC reported here applies to the following samples:

Method: SW846 8015B M

C5213-1, C5213-2, C5213-3

CAS No.	Compound	C5210-3 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND	1	0.966	97	0.933	93	3	45-140/25

CAS No.	Surrogate Recoveries	MS	MSD	C5210-3	Limits
630-01-3	Hexacosane	101%	89%	97%	45-140%

5.3
5

APPENDIX D
TRANSMITTAL LETTER

ROBINSON OIL CORPORATION

4250 WILLIAMS ROAD • SAN JOSE, CA 95129-3344
(408) 257-2222 • FAX (408) 252-6591



**Rotten
Robbie**

May 2, 2009

Mr. Ronald W. Michelson
RM Associates
16401 Meadow Vista Drive, Suite 102
Pioneer, CA 95666
FAX (209) 295-3974

Site Location: Rotten Robbie #64
4186 East Avenue
Livermore, CA

Report Title: Groundwater Monitoring Report No. 4 – 2nd Quarter 2009

Report Date: April 28, 2009

Dear Mr. Michelson:

I have reviewed and approved the above referenced report. Please submit it to the regulatory agencies listed in the distribution section of the report. Should any of the listed regulatory agencies require it, I am prepared to declare, under penalty of perjury, that to the best of my knowledge the information in the above referenced report is true and correct.

Sincerely,



Thomas L. Robinson