

## Jurek, Anne, Env. Health

---

**From:** Mark Drollinger <mdrollinger@CitadelEnvironmental.com>  
**Sent:** Tuesday, April 12, 2016 8:44 AM  
**To:** Jurek, Anne, Env. Health  
**Cc:** Michael Boettger (mboettger@themichaelsorg.com)  
**Subject:** Red Star  
**Attachments:** Alameda County Package.pdf

Anne,

I hope you are doing well. Please accept this brief package as requested in our meeting on March 30<sup>th</sup>. I would like to know when we can meet to discuss our progress and define the scope of work. Please provide me with several dates and we look forward to meeting with you and Dilan. Thank you.

Mark

### **Mark Drollinger, M.Eng, CSP, CHMM, EiT**

Director, Environmental Geology & Engineering



1725 Victory Boulevard

Glendale, CA 91201

O: 818.246.2707 | C: 408.645.9457 | F: 818.246.3145

[www.citadelenvironmental.com](http://www.citadelenvironmental.com)

Glendale | Orange County | Valencia | San Jose | Torrance | Chicago

The information in this email message may be privileged, confidential, and protected from disclosure or use, dissemination, distribution, or copying of the message or any attachment is strictly prohibited. If you think that you have received this email in error, please notify the sender.

**Table 1: Summary of Confirmation Soil Sampling Results (mg/Kg)**

Sample ID	Cadmium	Lead	Mercury	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
<i>Cleanup Goal</i>	<i>12</i>	<i>80</i>	<i>18</i>	<i>100</i>	<i>100</i>	<i>100</i>
West Side Confirmation Samples, Excavation of CB9 - Sampled August 17, 2011						
E-SW-6	<1	70	<0.05	<0.1	<1	<5
W-SW-6	<1	92	<0.05	<0.1	<1	<5
N-SW-6	<1	280	<0.05	<0.1	<1	<5
S-SW-6	<1	6.1	<0.05	<0.1	<1	<5
BOT-6	<1	<1	<1	<0.1	<1	<5
West Side Confirmation Samples - Sampled August 18, 2011						
S1-5	<1	43	<0.05	<0.1	<1	39
S2-5	<1	8.3	<0.05	<0.1	<1	18
S3-5	<1	1.8	<0.05	<0.1	<1	<5
S4-5	<1	190	0.081	<0.1	<1	32
S5-5	<1	12	<0.05	<0.1	<1	19
S6-5	<1	570	0.094	<0.1	<1	40
S7-5	<1	180	0.055	<0.1	<1	<5
S8-5	<1	340	0.072	<0.1	<1	<5
S9-5	<1	160	0.068	<0.1	<1	<5
S10-5	<1	110	<0.05	<0.1	<1	33
West Side Confirmation Samples - Sampled August 21, 2011						
S4-6	<1	320	0.081	<0.1	<1	<5
S5-6	1.5	630	0.29	<0.1	<1	33
S7-6	<1	380	0.11	<0.1	<1	<5
S8-6	<1	230	0.064	<0.1	<1	<5
S9-6	<1	82	<0.05	<0.1	<1	<5
S10-6	<1	160	<0.05	<0.1	<1	<5
S11-6	<1	19	<0.05	<0.1	<1	<5
S12-6	<1	58	<0.05	<0.1	<1	<5
S13-6	<1	87	<0.05	<0.1	<1	<5
S14-6	<1	220	<0.05	<0.1	<1	20
S15-6	<1	250	0.069	<0.1	<1	18
S16-6	<1	81	<0.05	<0.1	<1	<5
S17-6*	<1	270	<0.05	<0.1	<1	220
S18-6	<1	48	<0.05	<0.1	<1	<5
S19-6	<1	160	<0.05	<0.1	<1	<5
S20-6	<1	31	<0.05	<0.1	<1	<5
S21-6	<1	300	0.059	<0.1	<1	<5
S22-6	<1	300	0.083	<0.1	<1	<5
S23-6	<1	390	0.14	<0.1	<1	<5
S24-6	<1	67	<0.05	<0.1	<1	<5
S25-6	<1	17	<0.05	<0.1	<1	<5
S26-6	<1	470	0.12	<0.1	<1	<5
S27-6	<1	140	<0.05	<0.1	<1	<5
S28-6	<1	160	<0.05	<0.1	<1	<5
S29-6	<1	43	<0.05	<0.1	<1	<5

Sample ID	Cadmium	Lead	Mercury	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
<i>Cleanup Goal</i>	<i>12</i>	<i>80</i>	<i>18</i>	<i>100</i>	<i>100</i>	<i>100</i>
S30-6	<1	17	<0.05	<0.1	<1	<5
N-SW1-3	2.5	490	0.16	<0.1	<1	21
N-SW2-3	<1	270	<0.05	<0.1	<1	40
N-SW3-3	<1	390	0.072	<0.1	<1	51
S-SW1-2	<1	180	0.059	<0.1	<1	18
S-SW2-3	2.2	720	0.11	<0.1	<1	110
S-SW3-3	<1	790	0.26	<0.1	<1	<5
W-SW1-2	<1	110	0.067	<0.1	<1	39
W-SW2-3	<1	330	0.097	<0.1	<1	<5
W-SW3-3	<1	120	<0.05	<0.1	<1	90
West Side Confirmation Samples - Sampled August 25, 2011						
S4-7	<1	19	<0.05	<0.1	<1	<5
S5-7	<1	110	<0.05	<0.1	<1	17
S6-7	<1	18	<0.05	<0.1	<1	<5
S8-7	<1	24	<0.05	<0.1	<1	<5
S9-7	<1	8.3	<0.05	<0.1	<1	<5
S10-7	<1	510	<0.05	<0.1	<1	<5
S13-7	<1	20	<0.05	<0.1	<1	<5
S14-7	<1	16	<0.05	<0.1	<1	<5
S15-7	<1	39	<0.05	<0.1	<1	22
West Side Confirmation Samples - Sampled August 29, 2011						
S5-7.5	<1	15	<0.05	<0.1	<1	<5
S10-7.5	<1	26	<0.05	<0.1	<1	<5
S16-7	<1	6.1	<0.05	<0.1	<1	<5
S17-7	<1	<1	<0.05	<0.1	<1	<5
S18-7	<1	<1	<0.05	<0.1	<1	<5
S19-7	<1	8.7	<0.05	<0.1	<1	<5
S20-7	<1	<1	<0.05	<0.1	<1	<5
S21-7	<1	13	<0.05	<0.1	<1	<5
S22-7	<1	18	<0.05	<0.1	<1	<5
S23-7	<1	24	<0.05	<0.1	<1	<5
S24-7	<1	33	<0.05	<0.1	<1	<5
S25-7	<1	29	<0.05	<0.1	<1	<5
S26-7	<1	41	<0.05	<0.1	<1	<5
S27-7	<1	26	<0.05	<0.1	<1	<5
S28-7	<1	6.2	<0.05	<0.1	<1	<5
S29-7	<1	9.3	<0.05	<0.1	<1	<5
S30-7	<1	31	<0.05	<0.1	<1	<5
East Side Confirmation Samples, Excavation of CB1-CB3 - Sampled August 18, 2011						
N-SW-3	<1	140	---	<0.1	<1	<5
S-SW-3	<1	48	---	<0.1	<1	<5
W-SW-N-3	<1	<1	---	<0.1	<1	<5
E-SW-N-3	<1	460	---	<0.1	<1	<5
W-SW-S-3	<1	47	---	<0.1	<1	<5
E-SW-S-3	<1	55	---	<0.1	<1	<5

Sample ID	Cadmium	Lead	Mercury	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
<i>Cleanup Goal</i>	<i>12</i>	<i>80</i>	<i>18</i>	<i>100</i>	<i>100</i>	<i>100</i>
N-BOT-4	<1	<1	---	<0.1	<1	<5
C-BOT-4	<1	<1	---	<0.1	<1	<5
S-BOT-4	<1	<1	---	<0.1	<1	<5
East Side Confirmation Samples - Sampled August 29, 2011						
S31-3	<1	93	<0.05	<0.1	<1	<5
S32-3	<1	23	<0.05	<0.1	<1	<5
S33-3	<1	58	<0.05	<0.1	<1	<5
S34-3	<1	14	<0.05	<0.1	<1	<5
S35-3	<1	23	<0.05	<0.1	<1	<5
S36-3	<1	17	<0.05	<0.1	<1	<5
S37-3	<1	6.6	<0.05	<0.1	<1	<5
S38-3	<1	8.1	<0.05	<0.1	<1	<5
S39-3	<1	34	<0.05	<0.1	<1	<5

Notes – \*- Sample S17 had the highest oil-range hydrocarbon concentration and was analyzed for PCBs; none was detected. Cleanup goals for lead and mercury are Soil Screening Levels (SSLs) developed by OEHHA as health risk based guideline values based on total exposure to contaminated soil including inhalation, ingestion and dermal absorption in both residential and Industrial settings. The cleanup goals for cadmium and hydrocarbons are the Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B - Residential Use. Please refer to lab report for complete results.

**Table 1A: Summary of Other Heavy Metal Results (mg/Kg)**

Sample ID	Barium	Chromium	Cobalt	Copper	Nickel	Vanadium	Zinc
West Side Confirmation Samples, Excavation of CB9 - Sampled August 17, 2011							
E-SW-6	170	44	3.7	29	16	46	71
W-SW-6	150	38	2.3	29	12	41	57
N-SW-6	280	40	2.7	41	13	48	120
S-SW-6	140	38	2.5	26	19	51	42
BOT-6	45	37	7.1	22	25	55	32
West Side Confirmation Samples - Sampled August 18, 2011							
S1-5	140	38	1.7	27	12	28	41
S2-5	92	39	1.9	21	11	35	33
S3-5	71	46	5.8	22	19	43	34
S4-5	340	42	6.7	58	28	61	180
S5-5	120	45	2.7	25	5.9	43	37
S6-5	250	32	3.6	59	24	38	160
S7-5	150	26	3.6	34	22	35	67
S8-5	150	27	1.6	37	18	32	76
S9-5	220	86	8.9	41	71	49	70
S10-5	190	41	4.4	43	34	47	120
<b>Cleanup Goal</b>	<b>5,200</b>	<b>100,000</b>	<b>660</b>	<b>3,000</b>	<b>1,600</b>	<b>530</b>	<b>23,000</b>

Notes – Cleanup goals for heavy metals are Soil Screening Levels (SSLs) developed by OEHHA as health risk based guideline values based on total exposure to contaminated soil including inhalation, ingestion and dermal absorption in both residential and Industrial settings. The cleanup goals for hydrocarbons are the Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B1 - Residential Use. Please refer to lab report for complete results.

**Table 2: Summary of Final Confirmation Soil Sampling Results (mg/Kg)**

Sample ID	Cadmium	Lead	Mercury	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
West Side Confirmation Samples - Sampled August 29, 2011						
S1-5	<1	43	<0.05	<0.1	<1	39
S2-5	<1	8.3	<0.05	<0.1	<1	18
S3-5	<1	1.8	<0.05	<0.1	<1	<5
S4-7	<1	19	<0.05	<0.1	<1	<5
S5-7.5	<1	15	<0.05	<0.1	<1	<5
S6-7	<1	18	<0.05	<0.1	<1	<5
S8-7	<1	24	<0.05	<0.1	<1	<5
S9-7	<1	8.3	<0.05	<0.1	<1	<5
S10-7.5	<1	26	<0.05	<0.1	<1	<5
S11-6	<1	19	<0.05	<0.1	<1	<5
S12-6	<1	58	<0.05	<0.1	<1	<5
S13-7	<1	20	<0.05	<0.1	<1	<5
S14-7	<1	16	<0.05	<0.1	<1	<5
S15-7	<1	39	<0.05	<0.1	<1	22
S16-7	<1	6.1	<0.05	<0.1	<1	<5
S17-7	<1	<1	<0.05	<0.1	<1	<5
S18-7	<1	<1	<0.05	<0.1	<1	<5
S19-7	<1	8.7	<0.05	<0.1	<1	<5
S20-7	<1	ND	<0.05	<0.1	<1	<5
S21-7	<1	13	<0.05	<0.1	<1	<5
S22-7	<1	18	<0.05	<0.1	<1	<5
S23-7	<1	24	<0.05	<0.1	<1	<5
S24-7	<1	33	<0.05	<0.1	<1	<5
S25-7	<1	29	<0.05	<0.1	<1	<5
S26-7	<1	41	<0.05	<0.1	<1	<5
S27-7	<1	26	<0.05	<0.1	<1	<5
S28-7	<1	6.2	<0.05	<0.1	<1	<5
S29-7	<1	9.3	<0.05	<0.1	<1	<5
S30-7	<1	31	<0.05	<0.1	<1	<5
<b>Cleanup Goal</b>	<b>1.7</b>	<b>80</b>	<b>18</b>	<b>100</b>	<b>100</b>	<b>370</b>

Notes – No final sample collected from node S7, excavated to 7 feet below grade. Cleanup goals for heavy metals are Soil Screening Levels (SSLs) developed by OEHHA as health risk based guideline values based on total exposure to contaminated soil including inhalation, ingestion and dermal absorption in both residential and Industrial settings. The cleanup goals for hydrocarbons are the Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B1 - Residential Use. Please refer to lab report for complete results.

**Table 2-Contd.: Summary of Final Confirmation Soil Sampling Results (mg/Kg)**

Sample ID	Cadmium	Lead	Mercury	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
East Side Confirmation Samples - Sampled August 29, 2011						
S31-3	<1	93	<0.05	<0.1	<1	<5
S32-3	<1	23	<0.05	<0.1	<1	<5
S33-3	<1	58	<0.05	<0.1	<1	<5
S34-3	<1	14	<0.05	<0.1	<1	<5
S35-3	<1	23	<0.05	<0.1	<1	<5
S36-3	<1	17	<0.05	<0.1	<1	<5
S37-3	<1	6.6	<0.05	<0.1	<1	<5
S38-3	<1	8.1	<0.05	<0.1	<1	<5
S39-3	<1	34	<0.05	<0.1	<1	<5
N-BOT-4	<1	<1	---	<0.1	<1	<5
C-BOT-4	<1	<1	---	<0.1	<1	<5
S-BOT-4	<1	<1	---	<0.1	<1	<5
<b>Cleanup Goal</b>	<b>1.7</b>	<b>80</b>	<b>18</b>	<b>100</b>	<b>100</b>	<b>370</b>

Notes – Cleanup goals for heavy metals are Soil Screening Levels (SSLs) developed by OEHHA as health risk based guideline values based on total exposure to contaminated soil including inhalation, ingestion and dermal absorption in both residential and Industrial settings. The cleanup goals for hydrocarbons are the Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B1 - Residential Use. Please refer to lab report for complete results.

**Table 1: Summary of Soil Sampling Results (mg/Kg)  
Sampled March 4 and 5, 2011**

Sample ID	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
CB1-1	<0.1	<1	47
CB1-2	<0.1	<1	<5
CB1-3	<0.1	<1	44
CB1-4	<0.1	<1	52
CB2-1	<0.1	<1	<5
CB2-2	<0.1	<1	<5
CB2-3	<0.1	<1	<5
CB2-4	<0.1	<1	<5
CB3-1	<0.1	<1	<5
CB3-2	<0.1	<1	33
CB3-3	<0.1	<1	<5
CB3-4	<0.1	<1	37
CB4-1	<0.1	<1	<5
CB4-2	<0.1	<1	38
CB4-3	<0.1	<1	<5
CB4-4	<0.1	<1	<5
CB5-1	<0.1	<1	<5
CB5-2	<0.1	<1	<5
CB5-3	<0.1	<1	<5
CB5-4	<0.1	<1	<5
CB6-1	<0.1	<1	<5
CB6-2	<0.1	<1	51
CB6-3	<0.1	<1	<5
CB6-4	<0.1	<1	<5
CB7-1	<0.1	<1	<5
CB7-2	<0.1	<1	<5
CB7-3	<0.1	<1	<5
CB7-4	<0.1	<1	<5
CB8-1	<0.1	<1	<5
CB8-2	<0.1	<1	<5
CB8-3	<0.1	<1	<5
CB8-4	<0.1	<1	<5
CB8-6	<0.1	<1	<5
<i>ESL</i>	<i>100</i>	<i>100</i>	<i>100</i>



**Table 1 – continued: Summary of Soil Sampling Results (mg/Kg)  
Sampled March 4 and 5, 2011**

Sample ID	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
CB9-1	<0.1	<1	>5
CB9-2	<0.1	<1	>5
CB9-3	<0.1	<1	>5
CB9-4	<0.1	82	190
CB9-6	<0.1	37	96
CB10-1	<0.1	17	58
CB10-2	<0.1	<1	>5
CB10-3	<0.1	200	470
CB10-4	<0.1	12	54
CB10-6	<0.1	<1	>5
CB11-1	<0.1	<1	57
CB11-2	<0.1	62	140
CB11-3	<0.1	<1	69
CB11-4	<0.1	<1	>5
CB11-6	<0.1	<1	>5
CB12-1	<0.1	<1	58
CB12-2	<0.1	48	290
CB12-3	<0.1	96	460
CB12-4	<0.1	160	740
CB12-6	<0.1	<1	88
CB13-1	<0.1	<1	68
CB13-2	<0.1	<1	>5
CB13-3	<0.1	<1	>5
CB13-4	<0.1	<1	>5
CB14-1	<0.1	17	>5
CB14-2	<0.1	<1	>5
CB14-3	<0.1	<1	>5
CB14-4	<0.1	<1	>5
CB15-1	<0.1	<1	>5
CB15-2	<0.1	<1	66
CB15-3	<0.1	<1	87
CB15-4	<0.1	<1	>5
<i>ESL</i>	<i>100</i>	<i>100</i>	<i>100</i>

**Table 1 – continued: Summary of Soil Sampling Results (mg/Kg)  
Sampled March 5 and 6, 2011**

Sample ID	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
MW1-6	<0.1	<1	<5
MW2-6	<0.1	<1	<5
MW3-6	<0.1	<1	<b>130</b>
MW4-6	<0.1	<1	<5
MW5-6	<0.1	<1	<5
Pit 1-6	<0.1	<1	<5
Pit 2-6	<0.1	<b>140</b>	<b>440</b>
Pit 3-6	<0.1	<1	73
Pit 4-6	<0.1	<1	<5
<i>ESL</i>	<i>100</i>	<i>100</i>	<i>100</i>

Notes: VOC - volatile organic compounds analyzed by EPA Method 8260B. SVOC -semi volatile organic compounds analyzed by EPA Method 8270C. Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B - Residential Use. Please refer to lab report for complete results.

**Table 1A: Summary of Heavy Metal Results (mg/Kg)  
Sampled March 4 and 5, 2011**

Sample ID	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Vanadium	Zinc
CB1-1	150	1.2	42	13	51	28	0.081	49	43	78
CB1-2	180	1.2	53	18	61	33	0.095	58	68	100
CB1-3	330	1.5	68	20	80	94	0.19	69	66	150
CB1-4	310	1.3	50	64	120	47	0.083	60	47	120
CB2-1	120	1.2	50	15	48	740	0.75	97	40	54
CB2-2	190	1.4	78	23	62	19	0.091	79	60	84
CB2-3	120	<1	40	11	48	<1	<0.05	50	37	57
CB2-4	180	1.3	41	9.8	56	110	0.074	50	74	120
CB3-1	320	1.4	52	16	76	49	0.052	61	62	140
CB3-2	340	3.3	42	15	58	39	0.061	96	47	87
CB3-3	160	<1	43	10	45	41	0.063	45	44	66
CB3-4	160	<1	80	11	44	8.7	0.059	76	75	65
CB4-1	170	1.9	41	14	55	11	0.077	50	44	70
CB4-2	230	<1	62	17	58	56	0.11	130	100	75
CB4-3	140	<1	48	12	52	12	0.053	45	50	67
CB4-4	160	<1	46	11	53	40	0.064	46	56	84
CB5-1	260	<1	22	15	64	23	0.066	35	60	100
CB5-2	180	1.5	38	12	54	3.6	<0.05	46	42	57
CB5-3	120	<1	50	10	45	<1	<0.05	40	44	30
CB5-4	120	<1	37	9.7	45	<1	<0.05	37	43	44
CB6-1	300	1.5	30	20	77	56	0.078	44	74	120
CB6-2	170	1.5	41	15	65	13	0.058	63	42	75
CB6-3	160	<1	43	10	44	<1	<0.05	36	47	38
CB6-4	140	<1	52	10	47	<1	<0.05	48	47	32
CB7-1	140	1.4	41	16	65	<1	0.064	69	33	59
CB7-2	180	1.6	37	13	60	2.4	0.089	54	39	60
CB7-3	89	<1	47	10	41	<1	<0.05	36	47	20
CB7-4	190	<1	54	16	62	<1	<0.05	62	50	59
CB8-1	170	1.7	54	16	66	35	0.12	63	53	91
CB8-2	550	1.4	20	8.4	87	98	0.36	32	44	82
CB8-3	460	<1	25	11	81	830	0.87	32	41	380
CB8-4	810	<1	16	7.4	96	170	0.34	20	45	110
CB8-6	400	1.7	43	7.6	120	530	0.62	33	51	150
<i>ESL</i>	<i>750</i>	<i>12</i>	<i>1,000</i>	<i>23</i>	<i>230</i>	<i>80</i>	<i>6.7</i>	<i>150</i>	<i>200</i>	<i>600</i>

**Table 1A - continued: Summary of Heavy Metal Results (mg/Kg)  
Sampled March 4 and 5, 2011**

Sample ID	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Vanadium	Zinc
CB9-1	180	1.6	41	15	70	46	0.093	55	45	98
CB9-2	290	1.4	66	18	120	180	0.29	110	120	160
CB9-3	320	1.5	51	20	300	590	1.1	180	240	270
CB9-4	1,100	1.4	20	15	96	160	0.49	32	110	68
CB9-6	430	ND	42	10	63	2,400	0.80	31	72	98
CB10-1	360	<1	35	17	73	25	0.064	48	84	100
CB10-2	290	<1	31	16	90	110	0.084	43	69	160
CB10-3	860	1.8	27	15	98	95	0.24	40	110	83
CB10-4	350	<1	50	18	55	20	0.21	44	77	26
CB10-6	120	<1	36	8.0	42	12	0.074	25	39	38
CB11-1	320	2.0	47	16	140	300	1.3	57	68	300
CB11-2	500	2.6	51	13	360	710	2.8	59	74	530
CB11-3	180	<1	46	8.8	51	120	0.75	31	48	82
CB11-4	100	<1	42	8.0	39	110	0.37	29	42	27
CB11-6	200	<1	46	8.4	81	150	0.52	33	47	76
CB12-1	280	1.5	28	17	75	54	0.074	39	70	140
CB12-2	200	<1	49	10	120	120	0.44	41	50	110
CB12-3	170	<1	42	11	81	96	0.17	54	59	99
CB12-4	520	<1	33	12	110	180	0.29	54	67	210
CB12-6	890	1.4	81	12	79	25	0.097	17	98	31
CB13-1	220	<1	57	14	77	34	0.083	55	51	99
CB13-2	190	<1	41	13	67	42	0.066	51	48	96
CB13-3	220	<1	31	15	68	40	0.079	42	57	99
CB13-4	110	<1	48	7.3	43	53	0.057	28	43	120
CB14-1	200	1.7	49	11	69	340	0.39	40	50	140
CB14-2	280	<1	49	12	75	190	0.16	40	53	120
CB14-3	300	<1	24	9.2	83	270	0.23	26	72	86
CB14-4	100	<1	34	7.1	44	84	0.073	25	39	37
CB15-1	220	<1	40	12	86	830	1.7	47	55	230
CB15-2	170	<1	49	14	87	140	0.12	49	58	170
CB15-3	130	<1	44	11	140	28	0.089	38	81	62
CB15-4	600	<1	39	9.7	60	61	0.082	35	59	100
<b>ESL</b>	<b>750</b>	<b>12</b>	<b>1,000</b>	<b>23</b>	<b>230</b>	<b>200</b>	<b>6.7</b>	<b>150</b>	<b>200</b>	<b>600</b>

**Table 1A - continued: Summary of Heavy Metal Results (mg/Kg)  
Sampled March 5 and 6, 2011**

Sample ID	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Vanadium	Zinc
MW1-6	84	<1	55	11	40	<1	0.053	51	52	34
MW2-6	90	<1	39	8.5	41	<1	<0.05	30	39	24
MW3-6	120	<1	36	7.0	41	53	0.066	25	36	41
MW4-6	140	<1	22	7.7	52	260	0.25	24	34	78
MW5-6	25	<1	<1	<1	13	<1	<0.05	<1	<1	12
Pit 1-6	77	<1	40	6.6	37	<1	0.069	24	39	21
Pit 2-6	710	<1	18	18	100	130	0.13	34	110	44
Pit 3-6	280	<1	36	9.9	130	300	0.22	37	47	160
Pit 4-6	190	<1	54	7.3	53	650	0.38	28	44	130
<i>ESL</i>	<i>750</i>	<i>12</i>	<i>1,000</i>	<i>23</i>	<i>230</i>	<i>80</i>	<i>6.7</i>	<i>150</i>	<i>200</i>	<i>600</i>

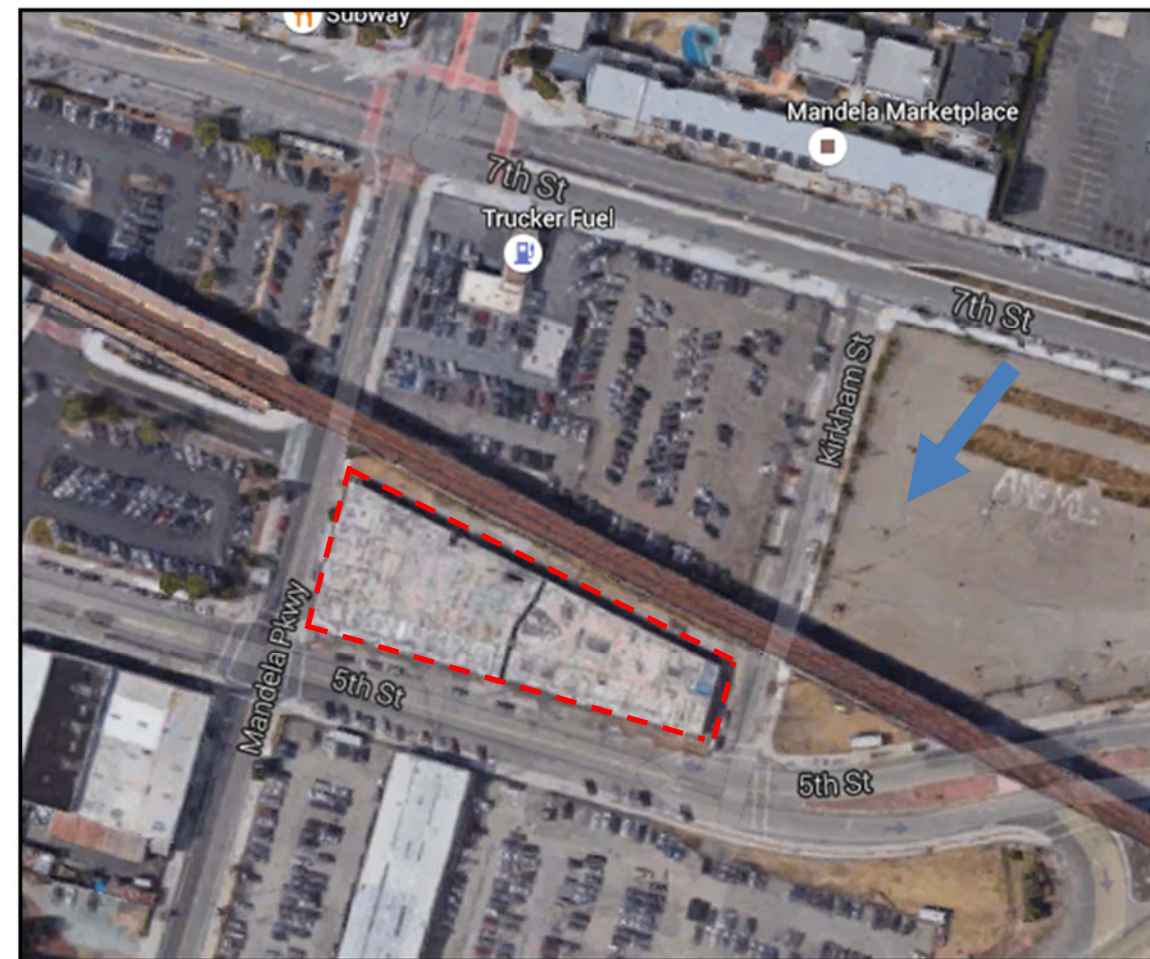
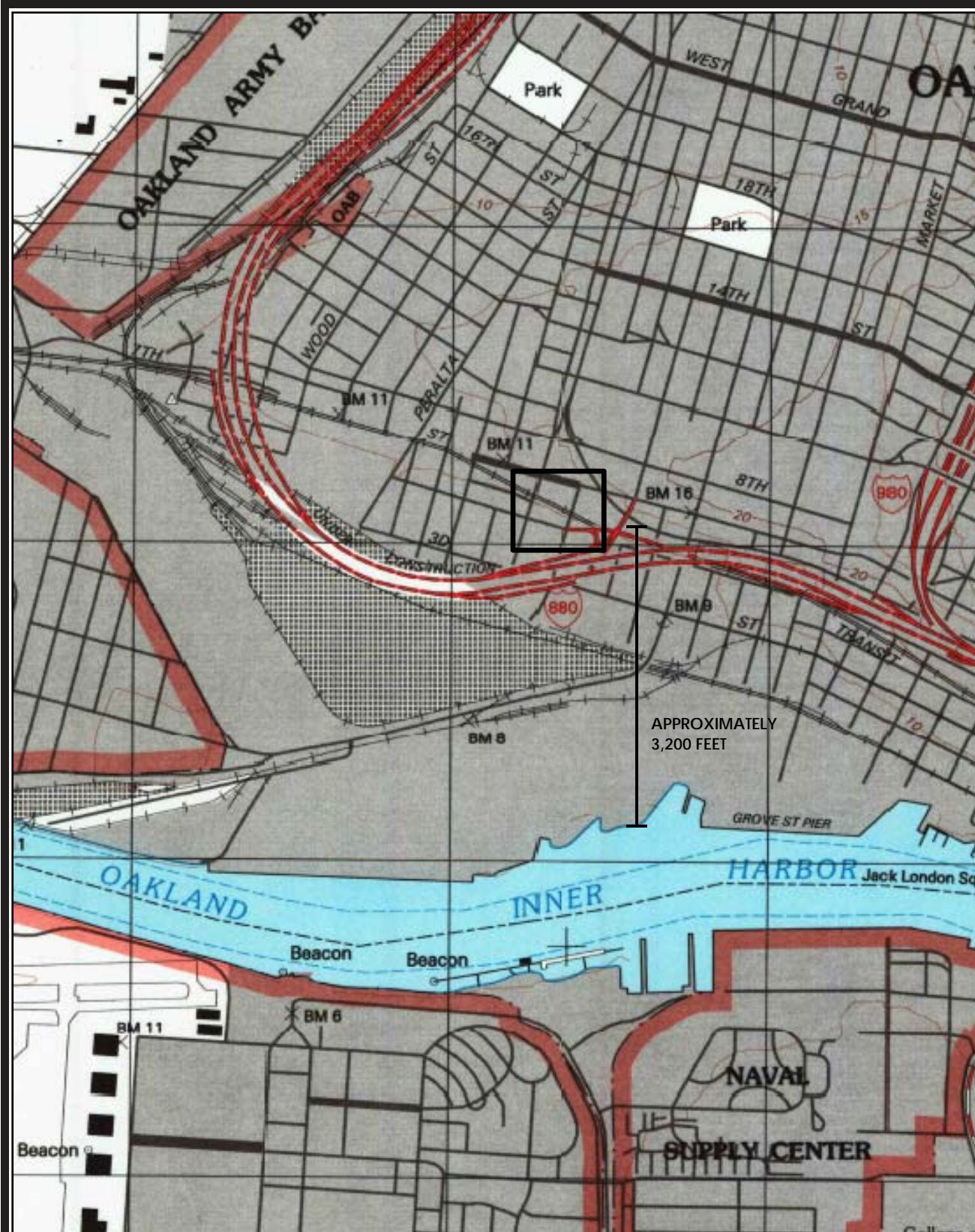
Notes: Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values for shallow soil (<10 feet and groundwater is not usable for drinking supply). Taken from Table B - Residential Use. Please refer to lab report for complete results.

**TABLE 2: Summary of Groundwater Sampling Results (µg/L)**

Sample ID	VOC	SVOC	C5-C12 Hc	C13-C24 Hc	C25-C40 Hc
<i>Sampled March 5, 2011</i>					
MW1	ND	---	<50	<1,000	<1,000
MW2	ND	---	<50	<1,000	<1,000
MW3	ND	---	<50	<1,000	<1,000
MW4	ND	ND	<50	<1,000	<1,000
MW5	ND	ND	<50	<1,000	2,400
<i>ESL</i>	--	--	<i>100</i>	<i>100</i>	<i>100</i>

Notes: Environmental Screening Levels (ESLs) developed by SFRWQCB as health risk and protective based guideline values when groundwater is not a potential drinking water source (Table B). Please refer to lab report for complete results.





- - - SITE BOUNDARY
- ← GROUNDWATER FLOW DIRECTION



Source: USGS, Oakland West Quadrangle, 1993, 7.5 Minute Series, Google Maps

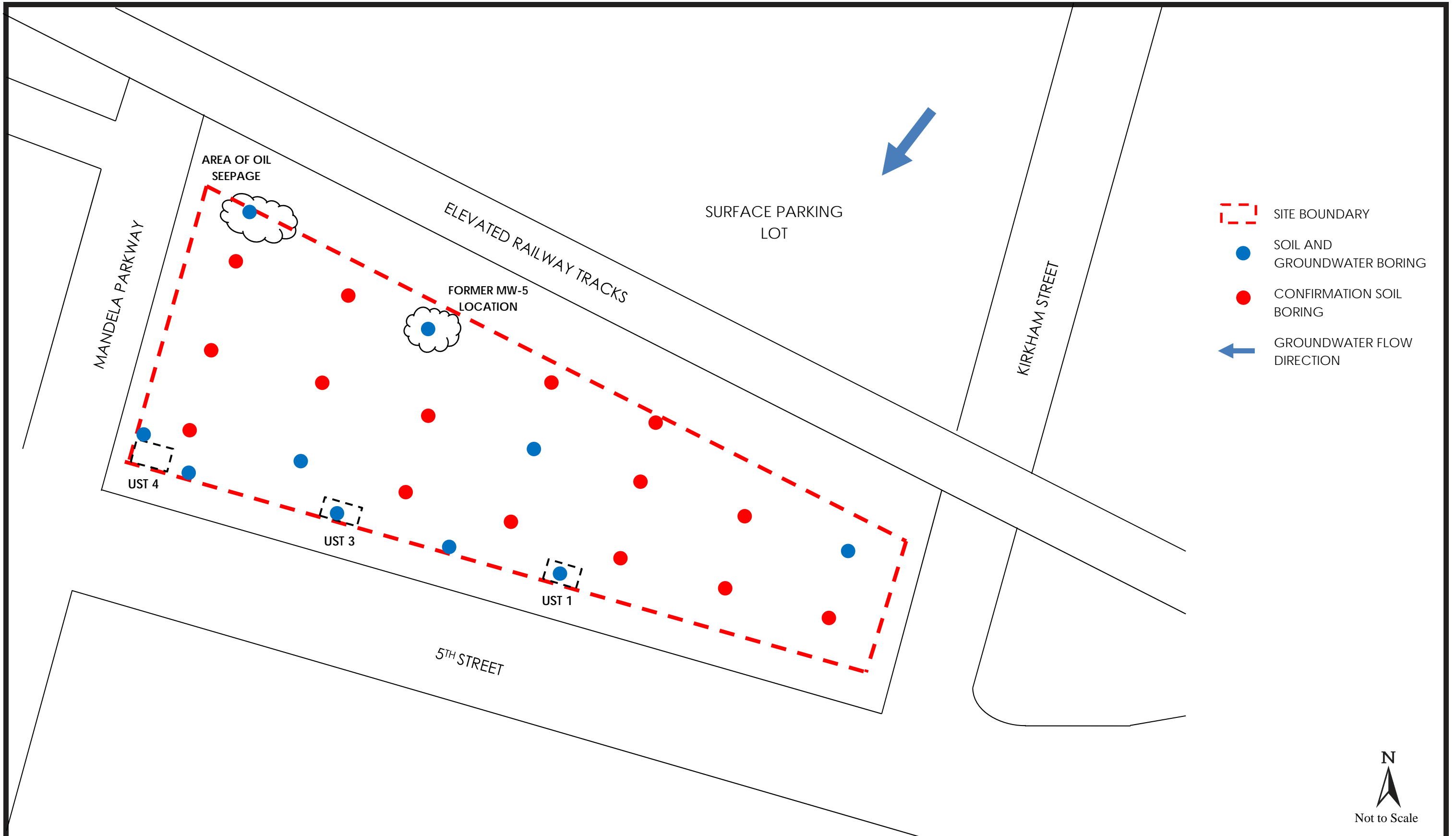


**MICHAELS DEVELOPMENT**  
 Former Red Star Senior Living Apartments Development  
 1396 5<sup>th</sup> Street, Oakland, California 94601

Figure 1  
 Site Location





PROJECT NO.: 0849.1001.0  
 DATE: APRIL 2016



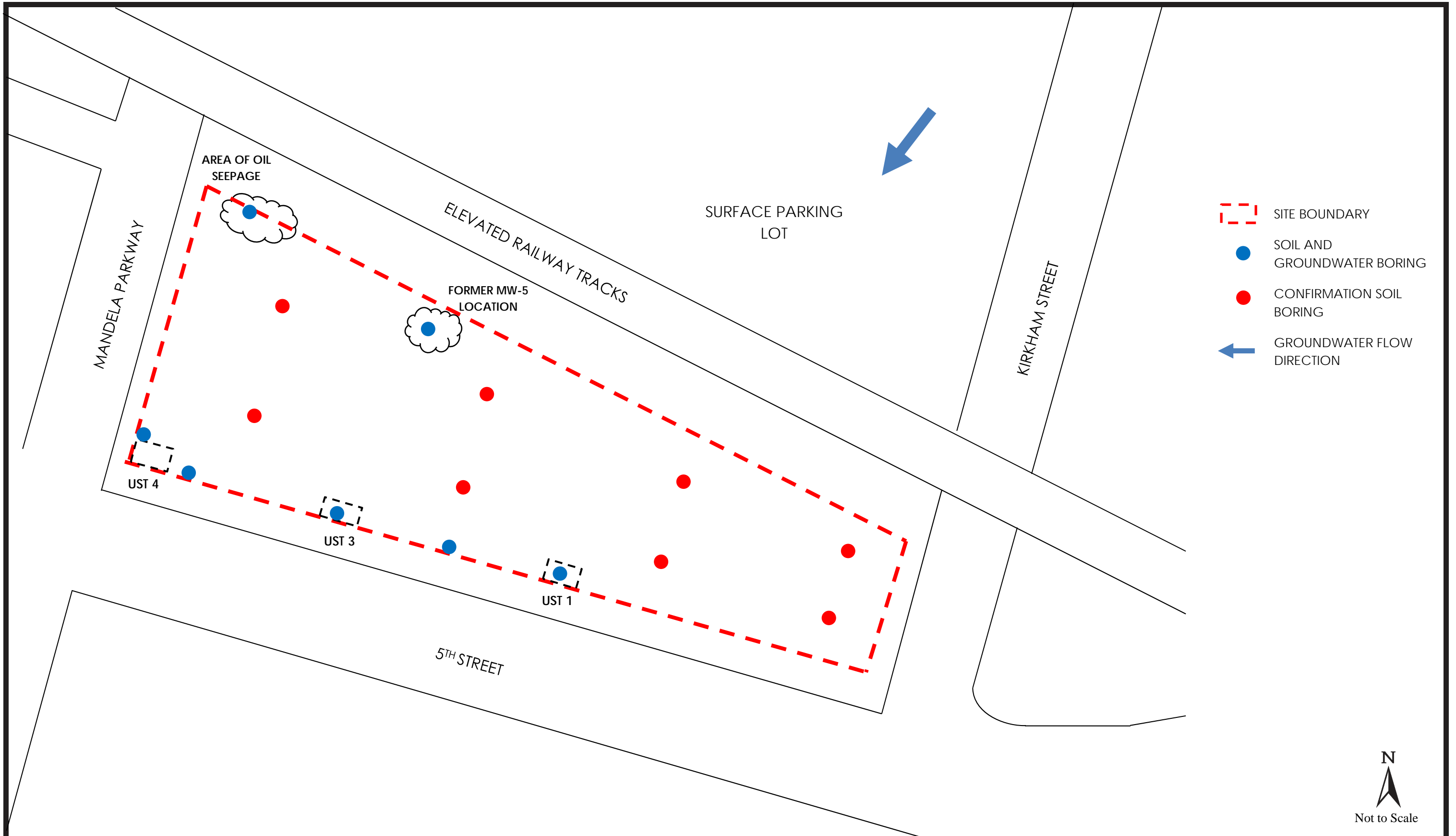










-  SITE BOUNDARY
-  SOIL AND GROUNDWATER BORING
-  CONFIRMATION SOIL BORING
-  GROUNDWATER FLOW DIRECTION





-  SITE BOUNDARY
-  SOIL AND GROUNDWATER BORING
-  CONFIRMATION SOIL BORING
-  GROUNDWATER FLOW DIRECTION



**MICHAELS DEVELOPMENT**  
Former Red Star Senior Living Apartments Development  
1396 5th Street, Oakland, California 94601

Figure 4  
Soil Confirmation Sample Locations,  
Alternative 3 – One Hundred Foot Centers

PROJECT NO.: 0849.1001.0  
DATE: APRIL 2016