



EMCON ASSOCIATES

FAX COVER PAGE

DATE: 4/21/1997 PROJECT NO. 20805 120 03

TO: Medula Logan FAX NO. _____

FROM: Ray Kaminsky

NUMBER OF PAGES: 4 (including cover page)

soil data for ARCO 276, supplied at your request.

COMMENTS: *I'm sorry for the delay - it took longer to find this summary of soil data than I thought it would. The sample ID's correspond to those on Figure 2.*

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1921 Ringwood Avenue, San Jose, California 95131

Table 1
ARCO Station 276 - Oakland, California
Summary of Soil Analyses
Hydrocarbon Results
(continued)

Units: mg/kg

Sample ID	Depth (ft)	TPHG	Benzene	Toluene	Ethyl- benzene	Xylenes	TPHD	Oil	Stoddard Solvent	Oil & Grease
<u>Existing Gasoline UST Zone</u>										
Tank Pit NE	—	<1.0	0.005	0.010	<0.005	<0.005	NA	NA	NA	NA
Tank Pit SE	—	<1.0	<0.005	0.022	<0.005	<0.005	NA	NA	NA	NA
Tank Pit NW	—	<1.0	0.029	0.014	<0.005	<0.005	NA	NA	NA	NA
Tank Pit SW	—	<1.0	0.035	0.013	<0.005	0.005	NA	NA	NA	NA
TPB1	9.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB1	15	290	0.19	0.47	3.3	6.6	NA	NA	NA	NA
TPB1	18.5	58	<0.050	0.069	0.14	0.22	NA	NA	NA	NA
TPB1	21	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB2	11	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB2	16	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB2	18.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB3	5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB3	10	<2.0	0.075	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB3	15	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
TPB3	20	2.1	0.46	<0.050	0.086	<0.050	NA	NA	NA	NA
<u>Onsite Borings</u>										
B1 / MW-1	26	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA
B1 / MW-1	31	<2	<0.05	<0.05	<0.05	0.078	NA	NA	NA	NA
B2 / MW-2	5.5	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA
B2 / MW-2	11	<2	<0.05	0.066	<0.05	0.079	NA	NA	NA	NA
B2 / MW-2	16	38	0.30	0.91	0.38	2.4	NA	NA	NA	NA
B2 / MW-2	20	690	7.4	36	10	62	NA	NA	NA	NA
B2 / MW-2	24.5	4.2	<0.05	0.10	<0.05	0.18	NA	NA	NA	NA
B2 / MW-2	28	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA
B3 / MW-3	30.5	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA
B4 / MW-4	21	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	ND
B4 / MW-4	31	<2	<0.05	<0.05	<0.05	<0.05	NA	NA	NA	NA

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<i>Onsite Borings (continued)</i>										
B5 / MW-5	11	<5.0	0.13	<0.05	<0.05	<0.05	NA	NA	NA	NA
B5 / MW-5	16	220	0.83	3.4	2.2	14	NA	NA	NA	NA
B5 / MW-5	18	<5.0	0.23	0.11	<0.05	0.21	NA	NA	NA	NA
B5 / MW-5	24	<5.0	0.086	<0.05	<0.05	<0.05	NA	NA	NA	NA
B5 / MW-5	31	<5.0	<0.050	<0.05	<0.05	<0.05	NA	NA	NA	NA
B6 / RW-1	15.5	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
B6 / RW-1	25.5	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
B6 / RW-1	35.5	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
B6 / RW-1	51	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
B12 / MW-8	9.5	<1.0	0.22	<0.0050	0.031	0.034	NA	NA	NA	NA
B12 / MW-8	15.5	8.6	0.90	0.78	0.17	0.78	NA	NA	NA	NA
B12 / MW-8	19	2.8	1.2	0.79	0.043	0.23	NA	NA	NA	NA
B12 / MW-8	24.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B12 / MW-8	29	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B12 / MW-8	50	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B13 / VW-1	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B13 / VW-1	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B13 / VW-1	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B13 / VW-1	18	<1.0	0.084	0.013	0.034	0.14	NA	NA	NA	NA
B14 / VW-2	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B14 / VW-2	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B14 / VW-2	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B14 / VW-2	17.5	83	0.14	0.40	1.0	5.0	NA	NA	NA	NA
B15 / VW-3	5	<1.0	0.21	<0.0050	0.014	0.027	NA	NA	NA	NA
B15 / VW-3	10	<1.0	0.16	<0.0050	0.065	0.11	NA	NA	NA	NA
B15 / VW-3	15	6.5	0.83	0.47	0.22	0.81	NA	NA	NA	NA
B15 / VW-3	18	<1.0	0.21	0.47	0.021	0.11	NA	NA	NA	NA
B16 / VW-4	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B16 / VW-4	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B16 / VW-4	15	94	0.16	0.18	2.1	11	NA	NA	NA	NA
B16 / VW-4	19	<1.0	0.28	0.018	0.048	0.082	NA	NA	NA	NA

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<u>Onsite Borings (continued)</u>										
B17 / VW-5	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B17 / VW-5	10	<1.0	0.0059	<0.0050	<0.0050	0.0090	NA	NA	NA	NA
B17 / VW-5	15	690	2.1	3.1	11	42	NA	NA	NA	NA
B17 / VW-5	18	3700	48	160	94	420	NA	NA	NA	NA
B18 / VW-6	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B18 / VW-6	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B18 / VW-6	15.5	470	0.50	9.6	6.7	81	NA	NA	NA	NA
B18 / VW-6	17.5	690	3.0	15	15	92	NA	NA	NA	NA
B19 / VW-7	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B19 / VW-7	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B19 / VW-7	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
B19 / VW-7	17.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA
<u>Offsite Borings</u>										
B1	16.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B1	21.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B1	24	<1	<0.005	<0.005	<0.005	<0.005	<10	NA	NA	NA
B1	29	2.3	0.27	0.087	0.054	0.15	NA	NA	NA	NA
B2	6.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B2	18.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B2	24	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B2	24/26	NA	NA	NA	NA	NA	<10	NA	NA	NA
B2	29	<1	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
B3	11.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B3	16.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B3	21.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B3	26.5	<2.0	<0.050	<0.050	<0.050	<0.050	NA	NA	NA	NA
B3	29	<1	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA

Barney,

We received a risk assessment, dated March 12, 1997. I reviewed it and has some questions on the soil concentrations used to come up with an average. So he sent us information on all the soil concentrations used. Again, soil to indoor pathway was not evaluated since the source area does not have any buildings on it based on the current scenario. However, I asked them to evaluate the soil to indoor pathway based on the future scenario and they calculated the risk for this pathway using the average concentration found on site. For every boring, they took the highest concentration (usually was found between 17 to 20 ft depth), and then averaged it for the risk evaluation. This came to be, according to the letter dated May 20, 1997, less than the RBSL's for the soil to indoor pathway.

So, based on the risk assessment, it looks like they have covered everything and it does not look like there should be a problem.

Madhulla L