

RECEIVED

SEP 26 1996

PLEASANTON FIRE DEPARTMENT

W. A. CRAIG, INC.
Environmental Consulting and Contracting
P. O. Box 448
Napa, California 94559-0448
Contractor and Hazardous Substances License #455752
Cal/OSHA Statewide Annual Excavation Permit #559351
(800) 522-7244

Berkeley (510) 525-2780
Napa (707) 252-3353
Fax: (707) 252-3385

September 20, 1996

Mr. Roger Kennedy
Fire Chief
City of Pleasanton
P.O. Box 520
Pleasanton, California 94566

**Subject: Analytical Results - UST Removal Soil Samples
Fire Station No. 3
Pleasanton, California**

Dear Mr. Kennedy,

W.A. Craig, Inc., (WAC) has reviewed the laboratory analytical results for soil samples collected following the removal of two underground storage tanks (USTs) at Fire Station 3, Santa Rita Road and West Las Positas Boulevard, in Pleasanton, California. One diesel UST and one gasoline UST were removed from the site by WAC on September 12, 1996. The soil samples were collected by WAC personnel on September 12, 1996.

Soil samples were collected from the tank excavation area following the removal of the USTs. One sample was collected below the gasoline tank at a depth of approximately 9.5-feet below grade(fbg). The other sample was collected from the south wall of the excavation sidewall at an approximate depth of 4-fbg. Two soil samples were collected from approximately 20 cubic yards of soil that was removed during the UST removal. The soil sample locations are indicated on the attached site sketch.

Soil Sample Analytical Results

The soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and as diesel (TPH-d) using EPA method 8015 (modified), and benzene, toluene, ethylbenzene, xylenes (BTEX) using EPA Method 8020. The stockpile samples were composited by the laboratory. The results of the analyses are attached.

Sample PB-G was collected from beneath the gasoline tank at an approximate depth of 9.5-fbg. The sample was reported to contain diesel (29 milligrams per kilogram [mg/kg]), gasoline (1.8 mg/kg), and xylenes (0.025 mg/kg). Benzene, toluene, and ethylbenzene were not detected in soil sample PB-G.

Sample SW-S was collected from the UST excavation from an approximate depth of 4-fbg. The sample was reported to contain diesel (2,800 milligrams per kilogram [mg/kg]), gasoline (150 mg/kg), ethylbenzene (0.88 mg/kg), and xylenes (1.8 mg/kg). Benzene and toluene were not detected in soil sample PB-G, although the detection limit was raised due to the high concentration of petroleum hydrocarbons that were present.

Stockpile samples SP-C and SP-S were reported to contain TPH-g (11 - 190 mg/kg) and TPH-d (84 - 1,900 mg/kg). Benzene was not detected in either of the stockpile samples. Sample SP-C did not contain detectable concentrations of toluene or ethylbenzene. Xylenes were detected in sample SP-C at a concentration of 0.042 mg/kg. Toluene (0.035 mg/kg), ethylbenzene (0.37 mg/kg), and xylenes (2.5 mg/kg) were detected in sample SP-S.

Conclusions and Recommendations

The concentrations of the constituents identified in the UST excavation sidewall sample (SW-S from 4-fbg) are at relatively high concentrations. These constituents were identified in a bottom sample from a depth of 9.5-fbg, although at much lower concentrations.

The results indicate that a release has occurred at the site and further investigation is recommended to assess soil and groundwater quality. The sample results presented herein suggests that the impacted soil may be relatively shallow, however, further investigation should be performed to assess the soil conditions. It is WAC's opinion that additional excavation of the south sidewall area should be performed to remove the diesel and gasoline impacted soil. If soil concentrations are found to decrease with depth (as suggested by the results of sample PB-G) or are limited in lateral extent, then the excavation should be backfilled with clean, compacted, fill material. The stockpiled soil at the site should be transported to an appropriate treatment or disposal facility.

Professional Certification

This report has been prepared by the staff of W.A. Craig, Inc., under the professional supervision of the persons whose seals and signatures appear hereon. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions and recommendations contained in this report are based upon site use and conditions as they existed at the time, location, and depth of sampling. Therefore WAC may change our recommendations or conclusions based on any undisclosed or new information, or changes in the site use or conditions.

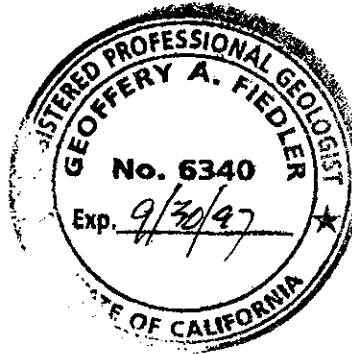
The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. W.A. Craig, Inc., recognizes that the limited scope of services performed in execution of this scope of work may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user. There is no other warranty, either expressed or implied.

Closing Statement

We appreciate this opportunity to be of service to you on this project. Should you have any questions regarding this letter or the findings presented herein, please give me a call at (707) 252-3353.

Sincerely,

W.A. Craig, Inc.,



G.A. Fiedler
Geoffery A. Fiedler, R.G.
Principal Geologist

Attachments: Figure 1 - Site Sketch
Laboratory Analytical Report

cc: Chris Boykin, City of Pleasanton, Hazardous Materials Division

GAF:gf

USTSOIL.WPD

| | | |
|---|---|-------------------------------|
| W.A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448 | Client Project ID: City of Pleasanton; # 3620 | Date Sampled: 09/12/96 |
| | | Date Received: 09/12/96 |
| | Client Contact: Bill Craig | Date Extracted: 09/12/96 |
| | Client P.O: | Date Analyzed: 09/12-09/13/96 |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

FPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GC/FID(3550) or GC/FID(3510)

| Lab ID | Client ID | Matrix | TPH(d) + | % Recovery Surrogate |
|--|-----------|--------|-----------|----------------------|
| 68944 | PB-D-7' | S | ND | 100 |
| 68945 | PB-G-7.5' | S | ND | 100 |
| 68946 | SP | S | 150,a | 102 |
| 68947 | SW-S-4' | S | 2800,a | 102 |
| 68948 | SP-C | S | 84,a | 101 |
| 68949 | SP-S | S | 1900,a | 104 |
| 68950 | PB-G-9.5' | S | 29,a | 101 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | | W | 50 ug/L | |
| | | S | 1.0 mg/kg | |

FS # 1
FS # 3

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol % sediment.

MCCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
 Tele: 510-798-1620 Fax: 510-798-1622

| | | |
|---|---|-------------------------------|
| W.A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448 | Client Project ID: City of Pleasanton; # 3620 | Date Sampled: 09/12/96 |
| | Client Contact: Bill Craig | Date Received: 09/12/96 |
| | Client P.O.: | Date Extracted: 09/12/96 |
| | | Date Analyzed: 09/12-09/13/96 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline^{*}, with Methyl tert-Butyl Ether^{*} & BTEX^{*}
 EPA methods 5030, modified 8015, and 8020 or 602; California RWOCB (SF Bay Region) method GCFID(5030)

FS # 3

| Lab ID | Client ID | Matrix | TPH(g) ⁺ | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | % Rec. Surrogate |
|--|-----------|--------|---------------------|------|-----------|-----------|--------------|---------|------------------|
| 68944 | PB-D-7' | S | ND | --- | ND | ND | ND | ND | 105 |
| 68945 | PB-G-7.5' | S | ND | --- | ND | ND | ND | ND | 102 |
| 68946 | SP | S | ND | --- | ND | ND | ND | 0.008 | 106 |
| 68947 | SW-S-4' | S | 150,g | --- | ND < 0.02 | ND < 0.02 | 0.88 | 1.8 | 97 |
| 68948 | SP-C | S | 11,g | --- | ND | ND | ND | 0.042 | 100 |
| 68949 | SP-S | S | 190,g | --- | ND | 0.035 | 0.37 | 2.5 | 100 |
| 68950 | PB-G-9.5' | S | 1.8,g | --- | ND | ND | ND | 0.025 | 95 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | | W | 50 ug/L | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | |
| | | S | 1.0 mg/kg | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | |

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L
 # cluttered chromatogram; sample peak coelutes with surrogate peak
 + The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible phase is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

| PROJECT NO. 3620 | | PROJECT NAME Pleasanton, City at Sta. 1 Sta. 3 | | MATRIX: Soil, Water, Air, Sludge, Other | ANALYSIS | | | | | | REMARKS | LABORATORY I. D. NUMBER |
|-----------------------|------|--|--|--|--------------------|-----------------|------------------|-------------|------------|--|---------|----------------------------|
| PURCHASE ORDER NO. | | SIGNATURE OF SAMPLER Russell Galt | | | TPHgasoline (8015) | BTEX (502/8020) | TPHdiesel (8015) | TPHg & BTEX | Preserved? | | | |
| DATE 1986 | TIME | W. A. CRAIG, INC.'S SAMPLE IDENTIFICATION | | | | | | | | | | |
| 9/12 | 2:00 | PB-D-7' | | S | | ✓ | ✓ | | FCE | | 68944 | |
| | 2:07 | PB-G-7.5' | | | | | | | | | 68945 | |
| | 2:12 | SP | | | | | | | | | 68946 | |
| | 3:15 | PB-D-7' SW-S-4' | | | | | | | | | 68947 | |
| | 3:22 | SP-C | | | | | | | | | 68948 | |
| ✓ | 3:26 | SP-S | | ↓ | ↓ | ↓ | | ↓ | | | 68949 | |
| | 3:10 | PB-G-9 1/2' | | | | | | | | | 68950 | |

PRESERVATIVE
 CONTAINERS
 APPROPRIATE
 SPACE ABSENT

PRESERVATIVE
 CONTAINERS
 APPROPRIATE
 SPACE ABSENT

| | | |
|--|----------------------------|--|
| SHIPPED BY (Signature): <i>Russell Galt</i> | DATE/TIME: 9/14/86 4:50 | RECEIVED BY (Signature): <i>[Signature]</i> |
| SHIPPED BY (Signature): | DATE/TIME: | RECEIVED BY (Signature): |
| SHIPPED BY (Signature): | DATE/TIME: | RECEIVED BY (Signature): |

LABORATORY:
 McCampbell
 Analytical
 TURNAROUND
 TIME:
 5-day

PLEASE SEND RESULTS TO:
 W. A. CRAIG, INC.
 P.O. BOX 448
 NAPA, CA 94559-0448
 (707) 252-3353

ATTN: paid ckt # 9348